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**ABSTRACT**

This document is intended to inform NCHEMS constituents and other interested persons about the results of the Higher Education Outcome Measures Identification Study (ONIS) conducted by the National Center for Higher Education Management Systems at WICHE in spring 1974. The purpose of the study was to help practitioners and researchers gain a better understanding of the outcome information important to different decision makers and accessible to them. It was intended also to assist in identifying a set of outcome measures for which data acquisition procedures need to be developed. The basic methodology used in the study was a self-reported questionnaire administered through the mail. The sample of persons surveyed included top-level college administrators and state-level decision makers. Their responses to the questionnaire were analyzed using descriptive statistical techniques and are shown in descriptive tables in this paper. It should be noted that while the descriptive summaries of the data represent the input of a large number of decision makers, in no way should they be viewed as standards. The document covers: the design of the study; administration of the questionnaire; response rates to the questionnaire; results of the study; concluding comments and references. Appendices include copies of the introductory letters, institutions involved in the study, and additional tabular displays of the survey responses. (Author/PG)

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**THE HIGHER EDUCATION OUTCOME  
MEASURES IDENTIFICATION STUDY**

**A Descriptive Summary**

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MEASURES IDENTIFICATION STUDY**

**A Descriptive Summary**

**Sidney S. Micek  
William Ray Arney**

**November 1974**

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**NATIONAL CENTER FOR HIGHER EDUCATION MANAGEMENT SYSTEMS AT WICHE  
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## PREFACE

This document is intended to inform NCHEMS constituents and other interested persons about the results of the Higher Education Outcome Measures Identification Study (OMIS) conducted by the National Center for Higher Education Management Systems at WICHE in Spring 1974. The purpose of the study was to help practitioners and researchers gain a better understanding of the outcome information important to different decision makers and accessible to them. It was intended also to assist in identifying a set of outcome measures for which data acquisition procedures need to be developed.

The basic methodology used in the study was a self-report questionnaire administered through the mail. The sample of persons surveyed included top-level college administrators and state-level decision makers. Their responses to the questionnaire were analyzed using descriptive statistical techniques and are shown in descriptive tables in this paper. It should be noted that while the descriptive summaries of the data represent the input of a large number of decision makers, in no way should they be viewed as standards.

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## **THE HIGHER EDUCATION OUTCOME MEASURES IDENTIFICATION STUDY**

### **INTRODUCTION**

**Most decision makers concerned with higher education today have recognized that for the planning and management process to be effective, it must be based not only on information about inputs, activities, and costs, but also must take into consideration information about the outcomes or results of educational programs. While these decision makers have acquired this awareness, they are equally aware of the complexity of the problems associated with identifying and measuring the outcomes of higher education and then using this information for planning, management, and accountability purposes.**

**In response to the need for outcome information and to the problems encountered in obtaining and using such information, the National Center for Higher Education Management Systems (NCHEMS) established the Outcomes of Postsecondary Education Project. The Outcomes Project rests on the premise that three needs must be met if outcomes information is to be effectively incorporated in postsecondary education planning and management:**

- 1. The need to provide a comprehensive picture of the outcomes of postsecondary education and to develop the capability to measure them.**
- 2. The need to provide a structure for organizing outcomes information as a prerequisite for analysis and communication.**

**3. The need to develop analytic procedures for applying this information to particular planning and management problems.**

One of the major activities of the Project designed to meet these needs has been the development of the "Inventory of Higher Education Outcome Variables and Measures" (Micek and Wailhaus, 1973). This inventory lists and describes a wide array of higher education outcomes and suggests potential measures or proxy measures for them. As the Project staff have worked on the problem of obtaining and using higher education outcome information, a primary concern has been identifying the particular outcomes and associated measures that are most important to different types and levels of decision makers. Obviously, this concern is a valid one, given the different planning and management responsibilities of the various decision makers.

The Higher Education Outcome Measures Identification Study was initiated to address this concern. The objectives of the study were:

- 1. To learn what outcome information different decision makers need for their decision-making responsibilities.**
- 2. To learn what outcome information currently is available to them.**
- 3. To identify a high priority list of outcome measures for which data acquisition procedures need to be developed.**

The purpose of this paper is to summarize the procedures used in the study and highlight some results of the study. A brief discussion of how the results of the study will be used in the Outcomes project also is presented.

## Design of the Study

The Higher Education Outcome Measures Identification Study (OMIS) was conducted in two phases: a pilot test and a full-scale survey. The purpose of the pilot-test phase was threefold. First, it was designed to gain an initial perspective, prior to the full-scale study, of the outcome measures different decision makers need. Second, it was carried out to help identify additional outcome measures that might have been overlooked in developing the list of measures included in the pilot test survey questionnaire. Finally, it was initiated to improve the OMIS survey procedures so the full-scale survey could be implemented smoothly.

In the pilot test, questionnaires were sent to a small sample of college administrators (including college presidents and top-level administrators for academic affairs, student affairs, and budget and finance), and a small sample of state-level decision makers (including statewide planners and state legislators). The results of the pilot survey are contained in a Preliminary Summary of the Higher Education Outcome Measures Identification Study Pilot Test (Micek, 1973).

As a result of the pilot test, two changes were made in the full-scale OMIS. First, in the earlier questionnaire, legislators were asked to decide the extent to which they needed each outcome measure relative to their decision-making responsibilities concerning: community colleges, four-year colleges, and universities.\* Thus, each question or item was essentially three items for

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\*This kind of inquiry was based on the belief that state legislators make separate decisions relative to the different kinds of institutions. As a result, it was felt that they also might need different outcome measures for the different kinds of institutions.

the legislators. It was found, however, that there were few differences in their responses for the various types of institutions. For that reason, the three-part approach in the legislators' pilot test questionnaire was not maintained in the full-scale study. The other major change in the survey questionnaire used in the full-scale study was the addition of a second question for each outcome measure. This question was designed to determine whether a respondent felt he or she had access to a particular outcome measure. Thus, questionnaires used in the full-scale OMIS asked respondents to indicate whether they needed a particular outcome measure and whether they had access to it. A copy of the complete questionnaire used in the full-scale OMIS appears in Appendix A of this paper.

In the OMIS, survey questionnaires were sent to members of the following decision-making groups:

1. College Administrators (N = 388)
  - a. Presidents (n = 97)
  - b. Top administrators for academic affairs (n = 97)
  - c. Top administrators for student affairs (n = 97)
  - d. Top administrators for budget and finance (n = 97)
  
2. State-Level Decision Makers (N = 125)
  - a. Statewide Planners\* (n = 75)
  - b. State Legislators (n = 50)

---

\* This group included state directors of higher education and community/junior college governing boards and coordinating councils.

Different strategies were used in selecting the sample for each of these groups. The college administrators sample was drawn from the institutions that participate in the advisory structure of NCHEMS. Institutions were divided initially into ten groups on the basis of three variables: type of institution (community/junior college, four-year college, and university); control of institution (private versus public); and level of institutional participation in NCHEMS (Levels I-II and Levels III-IV).<sup>\*</sup> This normally would result in twelve groups, but there were no community/junior colleges that were privately controlled. To obtain the sample for the study, ten institutions were drawn at random from each of the ten groups.<sup>\*\*</sup> The president and top administrators for academic affairs, student affairs, and budget and finance in each of these institutions were sent questionnaires. The method used to distribute the questionnaires to the various administrators is described below.

The statewide planners group included state directors of higher education boards and coordinating councils and their counterparts associated with state community/junior college boards and coordinating councils. Persons sent questionnaires in these groups included all members of SHEEO (State Higher Education Executive Officers) and all directors of state community/junior college planning agencies who were not included in the pilot test survey pool.

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<sup>\*</sup>At the time this study was conducted, institutional participation in NCHEMS consisted of four levels. Appendix B describes the four levels of participation and lists the institutions selected for the study.

<sup>\*\*</sup>Three institutions could not be contacted, so were deleted from the study. Thus, as indicated on page 4, questionnaires were distributed to administrators in 97 institutions rather than 100 as was planned initially.



The fifty state legislators were selected randomly from the list of state legislative standing committees and chairmen compiled by The Council of State Governments (1973). The only criterion for their selection was that they be a chairperson of a committee on education, finance or budget, ways and means, or some committee dealing specifically with higher education. State legislators surveyed in the pilot-test version of the OMIS were selected after the sample had been selected for the full-scale OMIS.

### Administration of the Questionnaires

The following procedure was used to distribute questionnaires to the institutional administrators:

1. Once the institutions to be surveyed had been identified, the designated NCHEMS liaison officer in each institution was contacted by telephone and asked if he would be willing to assist in the study. In each case, the liaison officer agreed to participate. Two public four-year institutions and one public university could not be contacted and were not replaced in the pool of institutions.
2. Following the telephone contact, each liaison officer was sent four questionnaire packets and guidelines for distributing the packets to the president (or executive vice-president) and top-level administrators for academic affairs, student affairs, and budget and finance. Each questionnaire packet contained a questionnaire, an introductory cover letter, and a postage-paid return envelope.

3. Approximately two weeks after the questionnaire packets were mailed to the liaison officers, follow-up letters were sent. These letters informed the liaison officers of the administrators in their institution who had not returned questionnaires. The letters also asked them to encourage those administrators to complete and return their questionnaires.

The procedure for administering the questionnaires to the statewide planners and state legislators was somewhat different from the one used to obtain responses from the college administrators:

1. Once the statewide planners and state legislators to be included in the survey were identified, questionnaires were mailed. Enclosed with each questionnaire were a personal introductory letter and a postage-paid envelope.
2. Two weeks after the initial mailing of the questionnaires to these groups, follow-up letters and questionnaires were sent to those persons who had not yet responded.

Copies of the introductory and follow-up letters used in the study are presented in Appendix A.

#### Response Rates to the Questionnaires

The overall response rate for this study was 58%. Responses were received from at least one administrator in 95 of the 97 institutions included in the pool. The following shows various breakdowns of the response rate (the number of respondents from each group is in parentheses):

College administrators	61% (235)
State-level respondents	51% (64)

**By type and control of institution:**

	Public	Private	
Community and two-year colleges	77% (62)	---	77% (62)
Four-year colleges	60% (43)	61% (49)	61% (92)
Universities	58% (44)	46% (37)	52% (81)
	65% (149)	54% (86)	61% (235)

**By type of institutional administrator:**

	<u>Pres.</u>	<u>Acad. Aff.</u>	<u>Stud. Aff.</u>	<u>Business</u>
Community and two-year colleges	65% (13)	80% (16)	95% (19)	70% (14)
Four-year colleges	58% (22)	55% (21)	71% (27)	58% (22)
Universities	44% (17)	62% (24)	49% (19)	54% (21)
	54% (52)	53% (61)	67% (65)	59% (57)

**By type of state-level respondents**

Statewide Planners	68% (51)	} 51% (64)
Legislators	26% (13)	

There were few differences in the response rates of institutions by NCHEMS level of participation. Also, there were few differences among response rates of administrators with the possible exception of the overall rate for community and two-year colleges compared to the response rates for other types of institutions. For the state-level respondents, however,

the response rate of the statewide planning group was much better than the response rate of the state legislators. One reason for this difference could be that statewide planners are more familiar with NCHEMS and its work. Another reason might be that the addresses used in sending the questionnaires to state legislators may not have been specific enough. For example:

The Honorable Joseph Smith  
State Capitol Building  
Phoenix, Arizona 85007

Because of this, many state legislators may not have received the questionnaires or received them so close to the designated return date that they chose not to respond. An additional problem was that most state legislators were in the midst of their legislative sessions at the time of the mailing, and, therefore, may have been just too busy. Obviously, other reasons could be conjectured.

### Results of the Study\*

The participants in the study were asked three major questions. The first question concerned the extent to which they felt they needed information about each of the ten outcome information categories delineated in Section I of the questionnaire. The second major question dealt with the extent to which each respondent felt the need for each of the specific outcome measures listed in Section II of the questionnaire. The final question each respondent was asked pertained to his/her access to or ability to obtain each of the outcome measures presented in Section II. The descriptive tables in this section highlight the responses of the different types of decision groups involved in the study to these questions.

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\* In this part of the paper only a limited number of tables are presented and discussed. A more extensive presentation of the results without any discussion is in Appendix C.

**Table 1 summarizes the responses of the college administrator and state-level decision maker groups to the question regarding the importance of each of the ten outcome information areas in Section I of the questionnaire. As is apparent from Table 1, these outcome information areas are defined in very general terms. The mean scores in Table 1 are based on a five-point scale with a score of 5 being equivalent to "Of Extremely High Importance" and a score of 1 corresponding to "Of No Importance."**

**As Table 1 shows, the most important outcome information area for the college administrators' group was Outcome Area C (Student Educational Satisfaction), whereas, the most frequently selected area for the state-level group was Outcome Area I (Community Impact). Comparisons of the mean importance scores of the two groups for each of the areas, however, suggest that both groups were in relatively close agreement with the exception of the Student Social/Cultural Development and the Student Personal Development areas. College administrators indicated that they needed information about these areas more so than did the state-level respondents.**

TABLE 1

THE MEAN IMPORTANCE SCORES OF THE COLLEGE ADMINISTRATOR AND STATE-LEVEL DECISION-MAKER GROUPS FOR EACH OF THE TEN OUTCOME AREAS IN THE QUESTIONNAIRE\*

OUTCOME AREAS	COLLEGE		STATE LEVEL	
	MEAN	(SD)	MEAN	(SD)
<b>A</b> <u>STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT</u> Information about student understanding, competencies, and attitudes relative to bodies of facts and principles and use of their intellectual and physical abilities.	3.78	(1.22)	3.74	(1.12)
<b>B</b> <u>STUDENT EDUCATIONAL CAREER DEVELOPMENT</u> Information about student attitudes and success concerning certain academic pursuits (e.g., student educational degree aspirations and attainments).	3.92	(1.09)	3.81	(.82)
<b>C</b> <u>STUDENT EDUCATIONAL SATISFACTION</u> Information that indicates the satisfaction of students about the knowledge and skills they have acquired and their progress toward their educational and occupational career objectives.	4.05	(1.04)	3.73	(.99)
<b>D</b> <u>STUDENT OCCUPATIONAL CAREER DEVELOPMENT</u> Information about student attitudes and success concerning certain occupational goals and their job performance.	3.80	(1.09)	3.84	(.95)
<b>E</b> <u>STUDENT PERSONAL DEVELOPMENT</u> Information about changes in students concerning the growth and maintenance of their personal life (e.g., their ability to adapt to new situations, their self-concept, etc.).	3.55	(1.18)	2.91	(1.04)
<b>F</b> <u>STUDENT SOCIAL/CULTURAL DEVELOPMENT</u> Information about student abilities and attitudes in dealing with people and their interest in cultural activities.	3.39	(1.11)	2.81	(.97)
<b>G</b> <u>COMMUNITY EDUCATIONAL DEVELOPMENT</u> Information about the attitudes and success of nonmatriculating participants concerning their acquisition of knowledge and skills, personal and social development, and occupational career goals and performance.	3.18	(1.13)	3.48	(.95)
<b>H</b> <u>COMMUNITY SERVICE</u> Information about the impact of the opportunities and services provided by the institution and received by the community (e.g., agricultural extension services, cultural and recreational opportunities, etc.).	3.50	(1.07)	3.83	(.77)
<b>I</b> <u>COMMUNITY IMPACT</u> Information about the impact of an institution's programs and its faculty, staff, and students (current and former) on the financial health, manpower supply, and attitudes of the community (local, state, or national).	3.84	(.98)	4.16	(.79)
<b>J</b> <u>DEVELOPMENT OF NEW KNOWLEDGE AND ART</u> Information about new knowledge and art forms created, applied, and reorganized as a result of an institution's programs and its faculty, staff, and students (current and former).	3.38	(1.12)	3.32	(1.06)

[N = 235]

[N = 64]

\* Mean scores are based on a five point scale with a score of 5 being equal to "Of Extremely High Importance" and a score of 1 equating "Of No Importance." Standard deviations are in parentheses.

From the pilot test results of the Outcome Measures Identification Study and from the literature about decision making, it is recognized that the special planning and management responsibilities of different decision-making groups give rise to unique information needs. Table 2 illustrates the differing views of the college administrator and state-level respondents decision-making groups concerning the ten outcome information areas in Section I of the questionnaire.

Possibly the most interesting aspect of Table 2 is the alignment of the different decision-making groups with respect to the most important outcome areas. On the one hand, presidents and top-level administrators for academic affairs and student affairs endorsed Outcome Area C (Student Educational Satisfaction) as the most important. On the other hand, the institutional budget and finance administrators lined up with the statewide planners and state legislators in endorsing the Community Impact information area (Outcome Area I) as the most important outcome information area. It should be noted, however, that presidents also had a high mean importance score regarding the Community Impact information area.

The presidents, the academic affairs administrators, and the student affairs administrators groups also agreed about the importance of information in Outcome Areas A, B, and D. The other three decision-making groups shown in Table 2 appear to agree that information in the Community Service area is important (this area was the second most important area for budget and finance administrators and state legislators groups and was the third most important area for the statewide planners group).

TABLE 2  
THE MEAN IMPORTANCE SCORES OF THE DIFFERENT TYPES OF  
COLLEGE ADMINISTRATOR AND STATE-LEVEL DECISION-MAKER  
GROUPS FOR EACH OF THE TEN OUTCOME AREAS IN THE QUESTIONNAIRE\*

OUTCOME AREAS	Presidents (N=52)	Academic Affairs Adm. (N=67)	Student Affairs Adm. (N=65)	Budget & Finance Adm. (N=57)	State-Level Planners (N=51)	State Legislators (N=13)
	MEAN (SD)	MEAN (SD)	MEAN (SD)	MEAN (SD)	MEAN (SD)	MEAN (SD)
<b>A</b> <u>STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT</u> Information about student understanding, competencies, and attitudes relative to bodies of facts and principles and use of their intellectual and physical abilities.	4.16 (.99)	4.05 (1.02)	4.28 (.76)	2.55 (1.25)	3.78 (1.13)	3.58 (1.00)
<b>B</b> <u>STUDENT EDUCATIONAL CAREER DEVELOPMENT</u> Information about student attitudes and success concerning certain academic pursuits (e.g., student educational degree aspirations and attainments).	4.14 (.75)	4.15 (1.03)	4.40 (.68)	2.90 (1.17)	3.82 (.82)	3.75 (.87)
<b>C</b> <u>STUDENT EDUCATIONAL SATISFACTION</u> Information that indicates the satisfaction of students about the knowledge and skills they have acquired and their progress toward their educational and occupational career objectives.	4.35 (.71)	4.20 (.98)	4.52 (.59)	3.07 (1.17)	3.71 (1.04)	3.83 (.72)
<b>D</b> <u>STUDENT OCCUPATIONAL CAREER DEVELOPMENT</u> Information about student attitudes and success concerning certain occupational goals and their job performance.	3.94 (.83)	3.95 (1.08)	4.29 (.77)	2.93 (1.17)	3.88 (.95)	3.67 (.98)
<b>E</b> <u>STUDENT PERSONAL DEVELOPMENT</u> Information about changes in students concerning the growth and maintenance of their personal life (e.g., their ability to adapt to new situations, their self-concept, etc.).	3.59 (1.00)	3.33 (1.01)	4.46 (.75)	2.67 (1.17)	2.86 (1.06)	3.08 (1.06)
<b>F</b> <u>STUDENT SOCIAL/CULTURAL DEVELOPMENT</u> Information about student abilities and attitudes in dealing with people and their interest in cultural activities.	3.53 (.90)	3.20 (1.00)	4.19 (.86)	2.55 (.98)	2.78 (.90)	2.92 (1.24)
<b>G</b> <u>COMMUNITY EDUCATIONAL DEVELOPMENT</u> Information about the attitudes and success of nonmatriculating participants concerning their acquisition of knowledge and skills, personal and social development, and occupational career goals and performance.	3.41 (.96)	3.12 (1.14)	3.42 (1.14)	2.76 (1.14)	3.53 (.83)	3.25 (1.36)
<b>H</b> <u>COMMUNITY SERVICE</u> Information about the impact of the opportunities and services, provided by the institution and received by the community (e.g., agricultural extension services, cultural and recreational opportunities, etc.).	3.68 (1.04)	3.52 (1.05)	3.46 (1.02)	3.19 (1.08)	3.82 (.74)	3.83 (.94)
<b>I</b> <u>COMMUNITY IMPACT</u> Information about the impact of an institution's programs and its faculty, staff, and students (current and former) on the financial health, manpower supply, and attitudes of the community (local, state, or national).	4.10 (.85)	3.67 (1.09)	3.72 (.98)	3.91 (.91)	4.20 (.78)	4.09 (.85)
<b>J</b> <u>DEVELOPMENT OF NEW KNOWLEDGE AND ART</u> Information about new knowledge and art forms created, applied, and reorganized as a result of an institution's programs and its faculty, staff and students (current and former).	3.50 (1.08)	3.71 (1.02)	3.29 (1.09)	3.00 (1.20)	3.31 (1.09)	3.33 (.98)

\*Mean scores are based on a five point scale with a score of 5 being equal to "Of Extremely High Importance" and a score of 1 equating "Of No Importance." Standard deviations are in parentheses.



Several other interesting observations can be made from the results shown in Table 2. First, student affairs administrators consistently endorsed Outcome Areas A through F as highly important. Of course, this could be expected, given the student affairs group's concern with student growth and development. A second interesting observation is the relatively low level of interest shown in Outcome Areas E and F by budget and finance administrators, statewide planners, and state legislators. A final interesting aspect of the results shown in Table 2 is that while Outcome Area D was not the top area for any one group, it appears to rank fairly high in terms of importance for all six groups.

Table 3 (pages 15-26) summarizes the responses of the six decision-making groups regarding the second major question of interest in the study--"To what extent do the respondents in these groups feel they need to know a particular outcome measure for their decision-making responsibilities?" While each respondent had three options for indicating the need for a particular outcome measure ("Need To Know," "Would Like To Have, But Not Crucial," and "Do Not Need"), Table 3 shows only the percentage of respondents in each of the six groups endorsing each measure as "Need To Know." It shows also the rank order of each measure based on the percentage of respondents in each group endorsing the measure as "Need To Know." For purposes of rank ordering, all measures with the same percentage endorsement were assigned the same rank number.

TABLE 3  
THE PERCENTAGE OF THE DIFFERENT TYPES OF  
COLLEGE ADMINISTRATOR AND STATE-LEVEL DECISION  
MAKER GROUPS ENDORSING EACH OUTCOME MEASURE  
IN THE QUESTIONNAIRE AS "NEED TO KNOW"

Measure #	OUTCOME MEASURES	Presidents (N = 52)	Academic Affairs Adm. (N = 61)	Student Affairs Adm. (N = 65)	Budget & Finance Adm. (N = 57)	State-Level Planners (N = 51)	State Legislators (N = 13)
A-1	Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	2N 36.5 (39)	2N 47.5 (17)	2N 41.5 (24)	2N 5.4 (87)	2N 32.0 (44)	2N 30.8 (11)
A-2	Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.	2N 38.5 (32)	2N 49.2 (13)	2N 32.3 (35)	2N 7.1 (77)	2N 44.9 (25)	2N 38.5 (14)
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	2N 40.0 (31)	2N 44.3 (20)	2N 27.7 (50)	2N 7.1 (77)	2N 60.8 (13)	2N 46.2 (11)
A-4	Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.	2N 30.8 (49)	2N 43.3 (21)	2N 26.2 (54)	2N 8.9 (70)	2N 30.0 (48)	2N 25.0 (40)
A-5	Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech).	2N 30.8 (49)	2N 43.3 (21)	2N 21.9 (64)	2N 9.1 (69)	2N 22.0 (52)	2N 15.4 (59)
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	2N 3.8 (104)	2N 3.3 (108)	2N 1.5 (112)	2N 7.1 (77)	2N 10.0 (82)	2N 7.7 (85)
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	2N 59.6 (7)	2N 65.0 (3)	2N 72.3 (2)	2N 10.7 (66)	2N 43.1 (27)	2N 61.5 (3)
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, en-counter groups, etc.).	2N 19.2 (72)	2N 13.3 (87)	2N 31.2 (39)	2N 1.8 (104)	2N 5.9 (92)	2N 61.5 (3)
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	2N 0 (109)	2N 6.7 (99)	2N 9.2 (97)	2N 3.6 (96)	2N 7.8 (88)	2N 15.4 (59)

\* 2N = Percentage of respondents endorsing a measure as "Need to Know."  
(R) = Rank of each measure based on the percentage of respondents endorsing it as "Need to Know." (Ranks range from 1 to 112.)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	9.8	(88)	6.7	(99)	16.9	(76)	3.6	(96)	0	(108)	0	(98)
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	52.9	(13)	48.3	(15)	50.8	(13)	25.0	(28)	74.5	(3)	30.8	(31)
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	37.3	(37)	48.3	(15)	40.0	(28)	19.6	(34)	47.1	(19)	77.0	(15)
B-3	Number and percentage of students surveyed who are taking non-credit, independent study, or special courses.	54.9	(12)	53.3	(9)	40.6	(27)	44.6	(10)	64.7	(10)	50.0	(10)
B-4	Number of awards and citations received per student and/or former student for their academic performance.	19.6	(70)	16.9	(74)	26.2	(54)	7.1	(77)	11.8	(77)	0	(88)
B-5	Number of students receiving a degree, diploma, or certificate within a certain time period.	85.0	(1)	78.3	(1)	70.3	(3)	53.6	(6)	86.3	(1)	33.3	(22)
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	56.9	(10)	55.9	(7)	55.4	(10)	42.9	(11)	66.7	(9)	30.8	(31)
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	72.5	(2)	61.7	(4)	60.0	(8)	53.6	(6)	76.0	(2)	61.5	(3)
B-8	Number and percentage of graduates for the year who transferred from another school.	62.7	(6)	56.7	(6)	63.1	(4)	41.1	(13)	62.7	(12)	38.5	(14)
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma, or certificate during a particular academic term or year.	70.6	(3)	68.3	(2)	86.2	(1)	58.9	(3)	72.5	(4)	69.2	(1)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 67)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 57)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma, or certificate as a percentage of those applying.	49.0	(18)	43.3	(21)	44.6	(20)	21.8	(33)	54.0	(15)	53.8	(8)
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	27.5	(57)	28.3	(49)	29.2	(47)	12.7	(58)	55.0	(14)	23.1	(4)
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	31.4	(48)	36.7	(36)	35.4	(32)	7.1	(77)	42.0	(30)	38.5	(14)
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	30.0	(53)	25.0	(56)	49.2	(14)	5.4	(87)	25.0	(48)	25.0	(48)
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	34.0	(43)	28.3	(48)	30.8	(47)	7.1	(77)	25.5	(49)	23.1	(47)
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	30.0	(49)	26.7	(53)	30.8	(47)	17.9	(37)	15.7	(67)	15.4	(59)
C-2	Average amount of alumni gifts within a certain time period after graduation.	28.8	(55)	18.3	(70)	10.9	(98)	50.0	(9)	5.9	(92)	16.7	(57)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	46.3	(26)	53.3	(9)	53.8	(12)	23.2	(31)	45.1	(23)	30.8	(31)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	48.1	(20)	41.7	(25)	41.5	(24)	19.6	(34)	35.3	(38)	38.5	(14)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	36.5	(39)	31.7	(46)	47.7	(17)	12.5	(59)	19.6	(58)	23.1	(41)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, change in their appreciation of cultural activities and artifacts).	36.5	(39)	26.7	(53)	49.2	(14)	8.9	(70)	13.7	(74)	0	(93)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	48.1	(20)	40.0	(27)	63.1	(4)	17.9	(37)	43.1	(27)	30.8	(31)
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	48.1	(20)	45.0	(19)	61.5	(6)	16.1	(40)	51.0	(16)	53.8	(8)
D-1	Number and percentage of former students (graduates and non-graduates) surveyed who were employed within a certain time period after leaving the institution.	51.9	(14)	46.7	(18)	54.7	(11)	14.3	(51)	68.6	(7)	69.2	(7)
D-2	Number and percentage of former students (graduates and non-graduates) surveyed who received the job of their first choice.	28.8	(55)	25.0	(55)	46.9	(18)	14.3	(51)	47.1	(19)	46.2	(11)
D-3	Average first salary of former students.	17.3	(79)	31.7	(45)	42.2	(23)	10.7	(66)	47.1	(19)	38.5	(14)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	17.3	(79)	22.0	(63)	28.1	(46)	14.3	(51)	49.0	(18)	23.1	(41)
D-5	Former student (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	21.2	(66)	23.3	(58)	34.9	(33)	7.1	(77)	21.6	(54)	16.7	(57)
D-6	Number of professional occupation awards and citations received per former student surveyed.	11.5	(65)	5.0	(105)	12.5	(90)	8.9	(70)	9.8	(64)	8.3	(66)
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	17.3	(79)	16.9	(74)	21.9	(64)	14.3	(51)	16.0	(65)	8.3	(66)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
D-8	Number of voluntary/involuntary changes in employment within a given time period per former student surveyed.	5.8	(100)	15.0	(79)	21.9	(64)	8.9	(70)	17.5	(61)	8.3	(68)
D-9	Number of voluntary/involuntary changes in career field within a given time period per former student surveyed.	9.6	(90)	16.7	(76)	25.0	(57)	8.9	(70)	31.4	(46)	30.8	(31)
D-10	Average first salary expectations of students.	7.7	(92)	16.7	(76)	31.2	(9)	12.5	(59)	17.5	(61)	16.7	(57)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	55.8	(11)	58.3	(5)	61.5	(6)	33.9	(21)	68.6	(7)	61.5	(3)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	26.0	(58)	35.0	(38)	43.1	(22)	17.9	(37)	37.3	(37)	33.3	(22)
D-13	Number and percentage of former students (graduates and non-graduates) surveyed accepting employment in their major field of study.	41.2	(30)	40.0	(27)	49.2	(14)	19.6	(34)	72.5	(4)	53.8	(8)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	5.9	(96)	6.8	(98)	33.8	(34)	5.4	(87)	9.8	(84)	7.7	(85)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	5.9	(96)	10.2	(92)	36.9	(31)	5.4	(87)	7.8	(88)	8.3	(88)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	5.9	(96)	5.1	(102)	7.7	(101)	1.8	(104)	2.0	(104)	8.3	(88)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	5.9	(96)	11.9	(88)	7.7	(101)	1.8	(104)	2.0	(104)	8.3	(88)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	7.8	(91)	5.1	(102)	6.2	(104)	0	(110)	2.0	(104)	7.7	(85)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	19.6	(70)	11.9	(89)	21.5	(69)	3.6	(96)	13.7	(74)	0	(93)
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	9.8	(88)	18.6	(69)	41.5	(24)	5.4	(87)	13.7	(74)	0	(93)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	1.9	(107)	5.0	(105)	16.9	(76)	3.6	(96)	2.0	(104)	0	(93)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	0	(109)	3.3	(108)	13.8	(86)	3.6	(96)	3.9	(92)	0	(93)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	15.4	(83)	15.0	(79)	32.3	(35)	3.6	(96)	11.8	(77)	0	(93)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	5.8	(100)	8.3	(96)	12.3	(91)	3.6	(96)	5.9	(92)	0	(93)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	1.9	(107)	8.3	(96)	15.4	(80)	5.4	(87)	3.9	(90)	0	(93)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	7.7	(92)	8.5	(96)	13.8	(86)	1.8	(104)	4.0	(97)	0	(93)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	0	(109)	0	(112)	4.6	(107)	0	(110)	0	(108)	7.7	(85)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 55)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		Mean	(N)	Mean	(N)	Mean	(N)	Mean	(N)	Mean	(N)	Mean	(N)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	5.8	(100)	1.7	(111)	3.1	(111)	5.4	(87)	0	(108)	0	(93)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	5.8	(100)	5.0	(105)	6.2	(105)	1.8	(104)	0	(108)	0	(93)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	3.8	(104)	5.1	(102)	10.8	(94)	0	(110)	3.9	(98)	0	(93)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	3.8	(104)	3.3	(108)	4.5	(107)	1.8	(104)	0	(108)	7.7	(85)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	19.2	(72)	15.0	(79)	24.6	(60)	5.4	(87)	7.8	(88)	23.1	(41)
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	19.2	(72)	18.3	(70)	21.5	(69)	3.6	(96)	7.8	(88)	30.8	(31)
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	7.7	(92)	13.3	(87)	20.3	(73)	8.9	(70)	15.7	(67)	7.7	(85)
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	17.3	(79)	20.0	(66)	18.7	(74)	7.1	(77)	5.9	(93)	7.7	(85)
F-16	Number of students and/or former students having a personal library of well-known literary works, or pieces of art, as a percentage of all students and/or former students surveyed.	7.7	(92)	6.7	(99)	7.8	(100)	1.8	(104)	2.0	(104)	0	(93)
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	49.0	(18)	39.0	(31)	39.1	(30)	41.1	(13)	68.6	(7)	30.8	(31)



(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		2N	(R)	2N	(R)	2N	(R)	2N	(R)	2N	(R)	2N	(R)
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	29.4	(54)	33.9	(42)	28.1	(48)	17.9	(37)	37.3	(37)	18.2	(54)
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	21.6	(65)	22.0	(63)	23.4	(61)	12.5	(59)	45.1	(23)	30.8	(31)
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	16.0	(82)	25.4	(55)	25.0	(57)	7.1	(77)	39.2	(34)	23.1	(41)
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	49.0	(18)	39.0	(31)	21.9	(64)	25.8	(26)	39.2	(34)	8.3	(68)
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	33.3	(44)	35.6	(37)	25.0	(57)	16.1	(48)	19.6	(58)	8.3	(68)
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	32.7	(45)	32.8	(44)	21.9	(64)	16.4	(45)	39.2	(34)	7.7	(65)
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	19.6	(70)	18.0	(72)	14.1	(85)	16.4	(45)	22.0	(54)	0	(93)
H-3	Ratio of total income for community services to total budget for community services.	46.2	(27)	33.3	(43)	14.5	(84)	29.1	(25)	32.0	(44)	15.4	(59)
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management, or technical role.	59.6	(7)	49.2	(13)	32.3	(35)	56.4	(4)	35.3	(39)	30.8	(31)
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	50.0	(15)	34.4	(39)	27.7	(50)	41.8	(12)	37.3	(37)	30.8	(31)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(R)	M	(R)	M	(R)	M	(R)	M	(R)	M	(R)
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	47.1	(25)	19.7	(67)	26.6	(53)	35.4	(20)	32.0	(44)	18.2	(54)
H-7	Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	32.7	(45)	16.4	(78)	30.8	(41)	16.4	(45)	21.6	(54)	8.3	(68)
I-1	Number and percentage of students who are employed in businesses, agencies, and organizations in the community.	38.5	(32)	34.4	(39)	44.6	(20)	23.2	(31)	33.3	(41)	30.8	(31)
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	36.5	(39)	23.0	(59)	32.3	(35)	17.9	(37)	64.7	(10)	38.5	(14)
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	38.5	(32)	14.8	(82)	16.9	(76)	41.1	(13)	17.6	(61)	23.1	(41)
I-4	Faculty/staff and student expenditures in the community within a certain time period.	32.7	(45)	14.8	(82)	15.4	(80)	41.1	(13)	11.8	(77)	15.4	(58)
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	50.0	(15)	23.0	(59)	23.1	(62)	37.5	(18)	23.5	(50)	8.3	(68)
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	42.3	(28)	14.8	(82)	27.7	(50)	55.4	(5)	17.6	(61)	30.8	(31)
I-7	Employers' scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	48.0	(24)	37.7	(33)	46.2	(19)	12.5	(59)	41.2	(31)	23.1	(41)
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	38.5	(32)	9.8	(93)	29.7	(46)	17.9	(37)	13.7	(74)	23.1	(41)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)	Academic Affairs Adm. (N = 61)	Student Affairs Adm. (N = 65)	Budget Finance Adm. (N = 57)	State-Level Planners (N = 51)	State Legislators (N = 13)
		M	(R)	(R)	(R)	(R)	(R)
I-9	Value of community business properties attributable to institution-related expenditures.	20.8 (68)	9.8 (93)	18.5 (75)	16.1 (48)	12.0 (77)	15.4 (59)
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	22.0 (64)	11.5 (91)	10.8 (94)	25.0 (28)	5.9 (93)	7.7 (86)
I-11	Extent to which the presence of the institution influences business locating in the community.	38.5 (32)	23.0 (59)	23.1 (62)	37.5 (18)	33.3 (41)	38.5 (14)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	30.8 (49)	19.7 (67)	21.5 (69)	33.9 (21)	23.5 (50)	30.8 (31)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	23.1 (59)	18.0 (72)	15.4 (80)	32.1 (23)	7.8 (86)	7.7 (86)
I-14	Geographic distribution of alumni.	48.1 (20)	21.3 (65)	30.8 (41)	25.0 (26)	41.2 (31)	15.4 (59)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	66.7 (4)	41.0 (25)	60.0 (8)	39.3 (17)	47.1 (19)	30.8 (31)
I-16	Number of persons from the community employed by the institution.	57.7 (9)	32.8 (44)	40.0 (26)	66.1 (2)	31.4 (46)	23.1 (41)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	13.7 (84)	29.5 (48)	9.2 (97)	7.1 (77)	15.7 (67)	7.7 (86)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	0 (109)	14.8 (82)	4.6 (107)	5.4 (87)	3.9 (98)	7.7 (86)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M	(N)	M	(N)	M	(N)	M	(N)	M	(N)	M	(N)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	23.1	(59)	42.6	(24)	10.8	(94)	14.3	(51)	19.6	(53)	7.7	(85)
J-4	Number of papers presented at professional meetings per student, former student, and/or faculty/staff member within a certain time period.	17.3	(79)	39.3	(29)	7.7	(101)	10.7	(66)	13.7	(74)	0	(93)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	11.5	(65)	37.7	(33)	13.8	(86)	14.3	(51)	15.7	(68)	7.7	(86)
J-6	Average amount of faculty time spent in selected research and art producing activities.	37.3	(37)	39.3	(29)	11.1	(92)	30.4	(24)	43.1	(27)	23.1	(41)
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	42.3	(28)	55.7	(8)	21.5	(69)	53.6	(6)	41.2	(29)	38.5	(14)
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	63.5	(5)	49.2	(13)	30.8	(41)	76.8	(1)	51.0	(16)	33.3	(22)
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	21.2	(66)	37.7	(33)	16.9	(76)	17.9	(37)	15.7	(69)	0	(93)
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	11.5	(65)	27.9	(51)	4.6	(107)	14.3	(51)	11.8	(77)	0	(93)
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	23.1	(59)	52.5	(11)	15.4	(80)	12.5	(59)	19.6	(58)	15.4	(88)
J-12	Judgments of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	23.1	(59)	27.9	(51)	26.2	(54)	17.9	(37)	19.6	(58)	23.1	(41)

(Table 3 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		SN	(R)	SN	(R)	SN	(R)	SN	(R)	SN	(R)	SN	(R)
J-13	Number and percentage of graduates engaged in research activities.	19.2	(72)	14.6	(82)	7.7	(101)	12.5	(59)	15.7	(67)	15.4	(56)
J-14	Number and percentage of faculty/staff and students invited to participate in professional meetings and conferences.	23.1	(59)	34.4	(39)	13.6	(85)	12.5	(59)	9.6	(96)	0	(93)
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	19.2	(72)	23.0	(59)	9.2	(97)	8.9	(70)	3.3	(86)	0	(93)

Discussion of the results shown in Table 3 is somewhat cumbersome, since Table 3 summarizes the extent to which each of the 112 measures in Section II of the questionnaire was endorsed as "Need To Know" by the respondents in the different decision-making groups. As a result, Table 4 (pages 28-32) has been developed to present the twenty outcome measures that were given the highest "Need To Know" rank by each group. Based on this criterion, forty-nine measures are listed in Table 4. In addition to presenting the percentage of respondents in each group who endorsed a measure as "Need To Know" (% N) and the rank of the measure (R), Table 4 shows also the percentage of respondents who indicated that they "Have Access" to the measure (% A). Possibly the most significant aspect of Table 4 is that it identifies those measures to which NCHEMS should assign high priority for the identification and development of acquisition procedures.

One interesting aspect of Table 4 is that it shows for each outcome measure the number of groups that indicated high need for the measure. For example, three measures in Table 4 were given a high "Need To Know" endorsement by all six groups. They were:

- B-7: Number of students graduating from the institution after a certain period of time as a percentage of their entering class.
- B-8: Number and percentage of graduates for the year who transferred from another school.
- B-9: Number and percentage of students leaving the institution prior to receiving a degree, diploma, or certificate during a particular academic term or year.

TABLE 4  
 THE TOP TWENTY OUTCOME MEASURES ENDORSED AS  
 "NEED TO KNOW" BY THE DIFFERENT TYPES OF COLLEGE  
 ADMINISTRATORS AND STATE-LEVEL DECISION MAKERS\*

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		SN	ZA	SN	ZA	SN	ZA	SN	ZA	SN	ZA	SN	ZA
A-1	Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).			47.5	(17) 29.5								
A-2	Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.			49.2	(13) 32.8							38.5	(14) 7.7
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPM) on first attempt as a percentage of all students taking the exam.			44.3	(20) 36.1					60.8	(13) 50.0	46.2	(11) 46.2
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	59.6	(7) 41.2	65.0	(3) 41.7	72.3	(2) 58.5					67.5	(3) 7.7
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).											61.5	(3) 23.1
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	52.9	(13) 52.0	48.3	(15) 51.7	50.8	(13) 52.3			74.5	(3) 36.0		
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.			48.3	(15) 36.7					47.1	(19) 25.5		
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	54.9	(12) 64.0	53.3	(9) 54.2			44.6	(10) 65.5	64.7	(10) 51.0	50.0	(10) 50.0
B-5	Number of students receiving a degree, diploma, or certificate within a certain time period.	85.0	(1) 72.0	78.3	(1) 67.8	70.3	(3) 34.4	53.6	(6) 78.2	54.3	(1) 70.6		

\*SN = Percentage of respondents endorsing a measure as "Need to Know."  
 ZA = Percentage of respondents indicating they "Have Access" to a particular measure.

(Table 4 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		M (R)	SA	M (R)	%	M (R)	SA	M (R)	SA	M (R)	SA	M (R)	SA
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	56.9 (10)	52.0	55.9 (7)	37.9	55.4 (10)	63.1	42.9 (11)	54.5	66.7 (9)	38.0		
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	72.5 (2)	60.0	61.7 (4)	40.0	60.0 (8)	67.7	53.6 (6)	61.8	76.0 (2)	40.0	61.5 (3)	61.5
B-8	Number and percentage of graduates for the year who transferred from another school.	62.7 (6)	76.5	56.7 (6)	60.0	63.1 (4)	70.8	41.1 (13)	63.6	62.7 (12)	47.1	38.5 (14)	38.5
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma, or certificate during a particular academic term or year.	70.6 (3)	78.4	68.3 (2)	63.3	66.2 (1)	83.1	58.9 (3)	70.9	72.5 (4)	43.1	59.2 (1)	61.5
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma, or certificate as a percentage of those applying.	49.0 (18)	27.1			44.6 (20)	33.8			54.0 (15)	24.5	53.8 (8)	38.5
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.									56.0 (14)	14.0		
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.											38.5 (14)	30.8
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal education.					49.2 (15)	4.6						
C-2	Average amount of alumni gifts within a certain time period after graduation.							50.0 (9)	36.4				
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.			53.3 (9)	11.7	53.8 (12)	16.8						



(Table 4 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		ZN	(R) ZA	ZN	(R) ZA	ZN	(R) ZA	ZN	(R) ZA	ZN	(R) ZA	ZN	(R) ZA
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	48.1	(20) 7.8									39.5	(14) 7.7
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).					47.7	(17) 6.3						
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).					49.2	(15) 3.1						
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	48.1	(20) 11.8			63.1	(4) 9.2						
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	48.1	(20) 9.8	45.0	(19) 3.3	61.5	(6) 6.2			57.0	(16) 12.0	53.8	(8) 0
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	51.9	(14) 41.2	46.7	(18) 30.0	54.7	(11) 39.7			68.6	(7) 28.0	69.2	(1) 32.1
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.					46.9	(18) 23.4			47.1	(19) 19.6	46.2	(11) 7.7
D-3	Average first salary of former students.									47.1	(19) 24.0	38.5	(14) 15.4
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.									49.0	(18) 20.0		
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	55.8	(11) 21.6	58.3	(5) 28.8					68.6	(7) 20.0		

(Table 4 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)			
		ZN	ZA	ZN	ZA	ZN	ZA	ZN	ZA	ZN	ZA	ZN	ZA		
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.					49.2	(15)	10.8		72.5	(4)	21.6	53.8	(8)	15.4
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	49.0	(18)	70.0					41.1	(13)	56.4				
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	49.0	(18)	10.2											
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management, or technical role.	59.6	(7)	72.0	49.2	(13)	73.3		56.4	(4)	70.4				
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	50.0	(15)	34.0				41.8	(12)	35.2					
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.							36.4	(20)	18.5					
I-1	Number and percentage of students who are employed in business, agencies, and organizations in the community.					44.6	(20)	18.5							
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.												64.7	(10)	15.7
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.							41.1	(13)	26.6					
I-4	Faculty/staff and student expenditures in the community within a certain time period.							41.1	(13)	7.7					

(Table 4 continued)

Measure #	OUTCOME MEASURES	Presidents (N = 52)		Academic Affairs Adm. (N = 61)		Student Affairs Adm. (N = 65)		Budget & Finance Adm. (N = 57)		State-Level Planners (N = 51)		State Legislators (N = 13)	
		2N	(R) 2A	2N	(R) 2A	2N	(R) 2A	2N	(R) 2A	2N	(R) 2A	2N	(R) 2A
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	50.5	(15) 51.0					37.5	(18) 32.7				
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.							55.4	(5) 80.0				
I-7	Employers' scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.					46.2	(19) 13.8						
I-11	Extent to which the presence of the institution influences businesses locating in the community.							37.5	(18) 3.6			38.5	(14) 15.4
I-14	Geographic distribution of alumni.	48.1	(20) 55.8										
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community.)	56.7	(4) 24.0			60.0	(8) 21.9	39.3	(17) 18.2	47.1	(19) 6.0		
I-16	Number of persons from the community employed by the institution.	57.7	(9) 84.6					66.1	(2) 83.6				
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.			55.7	(8) 56.7			53.6	(6) 63.6			38.5	(14) 30.8
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget with- in a certain time period.	53.5	(5) 73.1	49.2	(13) 60.0			76.8	(1) 83.6	51.0	(16) 48.0		
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.			52.5	(11) 57.4								

Five measures were given a high "Need To Know" endorsement by at least five of the six groups:

- B-3: Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.
- B-5: Number of students receiving a degree, diploma, or certificate within a certain time period.
- B-6: Average amount of time it takes a student to earn a degree, diploma, or certificate.
- C-8: Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.
- D-1: Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.

The results in Table 4 reveal also interesting similarities and differences among the six decision-making groups regarding the types of outcome measures they highly endorsed. As one might expect, many measures in Outcome Area B (Student Educational Career Development) were highly endorsed by many of the groups. In fact, with the exception of the budget and finance administrators group, the top ranked measure for each of the groups was in this outcome area. The following identifies some highlights with respect to each of the groups separately:

1. Presidents--This group endorsed the widest range of outcome measures. Possibly this is a result of the wide range of decision-making responsibilities encountered by people in this group. Two measures were unique to this group (measures that were endorsed only by the group): G-5 and I-14.
2. Academic Affairs Administrators--This group appears to have the greatest need for measures relating to Student Knowledge and Skills Development, Student Educational Career Development, and the Development of New Knowledge and Art. To some extent, this was to be expected, given the planning and management responsibilities of respondents in this group. Two measures were unique to this group: A-1 and J-11.

3. Student Affairs Administrators--Respondents in this group appear to have concentrated on measures in Outcome Area B, C, and D (measures concerning Student Educational Career Development, Student Educational Satisfaction, and Student Occupational Career Development respectively). Of all the groups, this group indicated the greatest need for Educational Satisfaction measures. It is interesting to note that of the five measures unique to this group (B-13, C-5, C-6, I-1, and I-7), four involve student perceptions about their educational progress. This may suggest that Student Affairs Administrators are more receptive to this kind of information.
4. Budget and Finance Administrators--As expected, respondents in this group favored those measures that directly link to financial data. This is evidenced by the fact that the top ranked measure for this group was J-8. Further, each of the five measures that were endorsed only by this group concerned the acquisition of financial data: C-2, H-6, I-3, I-4, and I-6.
5. State-Level Planners--This group of respondents endorsed many of the same measures that the respondents in the four institutional decision-maker groups endorsed concerning Student Educational Career development. Of all the groups, this group favored the greatest number of measures in Outcome Area D (Student Occupational Career Development). Measures unique to this group included B-11 and D-4.
6. State Legislators--This group seemed to concentrate its major attention on measures in Outcome Areas A, B, and D. It should be noted that two measures tied for number one ranking in this group: B-9 and D-1. Also, this group only had one unique measure: B-12.

The percentage of respondents in each group who indicated "access" to each of the top-ranking outcome measures (see % A) also is shown in Table 4. From these results of the "Have Access" question, several interesting observations can be made. First, a majority of respondents in all six groups reported having access to the three outcome measures that were highly endorsed by all the groups as "Need To Know" (measures B-7, B-8, and B-9). Second, a high percentage of the respondents in the four college administrator groups indicated having access to most of the outcome measures related to Outcome Area B (Student Educational Career Development) as well as to outcome measures G-1, H-4, I-14,

**I-16, J-7, and J-8. Finally, a low percentage of the respondents in groups who endorsed measures in Outcome Areas C and D (Student Education Satisfaction and Student Occupational Career Development), reported having access to those measures. This was true also for most of the measures that were highly endorsed by one or more groups in Outcome Areas A and I (Student Knowledge and Skills Development and Community Impact).**

### **Some Concluding Comments**

**As a result of the Higher Education Outcome Measures Identification Study, an array of outcome measures have been identified as having potential utility for the decision-making responsibilities of college administrators and state-level decision makers. It is anticipated that the results of the study should help the members of the different decision-making groups involved in the study:**

- 1. Become more aware of those outcome measures endorsed by multiple groups as well as those measures of unique interest to a particular group.**
- 2. Identify those outcome measures that appear to be available to a particular group.**

**Further, the results of the study should aid NCHEMS by:**

- 1. Identifying those outcome areas where new measures need to be identified and developed.**
- 2. Suggesting a set of outcome measures for which appropriate data acquisition procedures need to be identified and developed.**
- 3. Providing a set of outcome measures that can serve as a benchmark for determining the hypotheses and analytic questions that are of interest to different decision makers and the uses of such outcome information in the planning and management context.**

## REFERENCES

**Micek, Sidney S. Preliminary Summary of the Higher Education Outcome Measures Identification Study Pilot Test. Boulder, Colorado: Western Interstate Commission for Higher Education, 1973.**

**Micek, Sidney S. and Wallhaus, Robert A. An Introduction to the Identification and Uses of Higher Education Outcome Information. (Technical Report No. 40). Boulder, Colorado: Western Interstate Commission for Higher Education, 1973.**

**Roster of Legislative Standing Committees and Chairmen. The Council of State Governments, Lexington, Kentucky, 1973.**

**APPENDIX A**

**Copies of the Introductory Letters,  
the Institutional Liaison Guidelines,  
and the Questionnaire Used in the Study**



**Appendix A presents in the following order:**

- #1 The letter of introduction sent to the designated NCHEMS liaison officer in each institution that participated in the study.**
- #2 The guidelines sent to the designated NCHEMS liaison officer distributing the survey questionnaire to the key decision makers in the institution.**
- #3 The letter of introduction that accompanied each questionnaire given to the college administrators in the study.**
- #4 The questionnaire used in the study to solicit college administrators' responses. (Questionnaires sent to state-level planners and state legislators were identical to the administrators' questionnaires except for certain word changes due to the different job responsibilities of the state-level respondents.)**
- #5 The letter of introduction sent to the state-level planners who were asked to participate in the study.**
- #6 The letter of introduction sent to the state legislators who were asked to participate in the study.**

# National Center for Higher Education Management Systems

WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION  
 P.O. Drawer P Boulder, Colorado 80302 (303) 449-3333  
 an equal opportunity employer

April 11, 1974

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Dear (name of liaison):

The purpose of this letter is to follow up our recent conversation. We appreciate your willingness to help us carry out our Higher Education Outcomes Measures Identification Study.

In your role as the designated NCHEMS liaison officer in your institution, we would like you to distribute the enclosed questionnaire packets to each of the following persons in your institution:

1. The president (or executive vice-president),
2. A top-level administrator for academic planning,
3. A top-level administrator for student affairs, and
4. A top-level administrator for budget and finance.

Each questionnaire packet contains an introductory letter that explains the purpose of the survey and a survey questionnaire, which contains a list of potential higher education outcome measures. Also, an envelope for returning the questionnaire has been enclosed in each packet.

The completed questionnaires will help us: (1) gain a perspective of the higher education outcome measures different decision makers need in their positions and (2) establish priorities for identifying and developing procedures for obtaining the outcome measures.

I have enclosed a brief description of the survey, the guidelines that will be followed, and a sample copy of the survey questionnaire. I should mention that the results of the survey will be sent to you and each of the persons in your institution who participate in the survey.

Thank you in advance for your help.

Sincerely,

Sidney S. Micek  
 Director  
 Outcomes of Postsecondary  
 Education Project

SSM:bb

Enclosure

**GUIDELINES FOR NCHEMS'  
HIGHER EDUCATION OUTCOME  
MEASURES IDENTIFICATION STUDY**

The major purpose of the survey is twofold. First, the survey is an attempt to begin identifying the higher education outcome measures valued by different decision makers involved in and concerned with colleges and universities. Second, the survey is intended to provide us with a better understanding of how best to implement the full-scale survey.

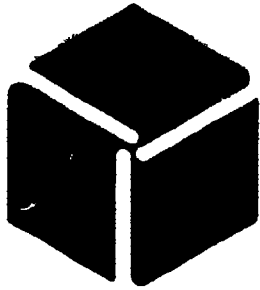
The following components are required if the survey is to be successful in obtaining the responses of the institutionally-based decision makers.

1. The designated NCHEMS liaison officer at each institution selected for the study must be willing to assist us in distributing questionnaires to the persons to be surveyed in his institution.
2. The responses to the questionnaire should be prompt. Our schedule assumes that:
  - a. The NCHEMS liaison officer, once he receives the packet of questionnaires, will distribute the questionnaires to the appropriate persons within a 2-day period.
  - b. The respondent will return his questionnaire directly to NCHEMS (a return envelope will be provided with each questionnaire) within one week after he has received it.
  - c. If any of the questionnaires are not returned to NCHEMS within two weeks after they have been sent to the NCHEMS liaison officer, follow-up questionnaires will be mailed to the liaison officer for those persons who did not return the initial questionnaire.

3. **The anonymity of the respondents and the institutions will be maintained. Data will be reported only in summary form by type of decision maker and type of institution.**
4. **The questionnaires will require about 30 minutes to complete. This amount of time is necessary because the questionnaire contains a relatively long list of outcome measures that are potentially needed.**

**Our intention is to distribute the results of the survey in the form of a research report. The designated NCHEMS liaison officer and each of the survey participants will receive a copy of the report. Also, we feel the survey results will not only help us in identifying the outcome measures that are needed, but will have a much wider use and interest.**

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*University of Nebraska*

**MARVIN WACHMAN**  
*Temple University*

**FRED WELLMAN**  
*Illinois Junior College Board*

**MARTIN ZEKLER**  
*University of Illinois*

April 11, 1974

Dear Respondent:

The National Center for Higher Education Management Systems (NCHEMS) is making progress in helping higher education decision makers better understand and use information about the outcomes as well as the costs of higher education institutions and their programs. However, one of our major concerns is identifying the specific outcome information higher education decision makers need for carrying out their planning and management responsibilities. We recognize that while there is likely to be a body of outcome information useful to all decision makers, quite often special and unique information needs will exist because of differences in the responsibilities of individual decision makers.

As an initial step in dealing with this problem NCHEMS is conducting a broad survey of higher education decision makers to identify the specific outcome measures or indicators they feel they need to better carry out their decision-making responsibilities concerning higher education institutions and programs. Participants in the survey include institutionally-based decision makers from community colleges, private and public four-year colleges, and private and public universities. In particular, college presidents, and top-level administrators for academic planning, student affairs, and budget and finance will be surveyed. Also included in the survey will be non-institutionally based decision makers such as state legislators, and directors of state higher education boards and coordinating councils. The results of this survey will help us identify the important outcome measures and thereby begin developing procedures that will help you and other decision makers obtain the outcome information you need.

The purpose of this letter is to ask you for your help in our Higher Education Outcome Measures Identification Study. By completing the enclosed questionnaire you will help us: (1) gain a perspective of the higher education outcome measures that you need in your position, and (2) establish priorities for identifying and developing procedures for obtaining the outcome measures. A summary of the survey will be sent to each respondent.

**April 11, 1974**  
**Page Two**

**Instructions for filling out the enclosed questionnaire are attached to the questionnaire. Please return your completed questionnaire by April 30, 1974.**

**Thank you in advance for your help.**

**Sincerely,**



**Sidney S. Micek**  
**Director**  
**Outcomes of Postsecondary**  
**Education Project**

**SSM:cg**

**enclosure**

# HIGHER EDUCATION OUTCOME MEASURES IDENTIFICATION STUDY



National Center for Higher Education  
Management Systems at WICHE

**April, 1974**

## INTRODUCTORY COMMENTS

The purpose of this questionnaire is to obtain your opinion about the outcome measures (or indicators) that you feel would provide the information you need for carrying out your decision-making responsibilities concerning your institution and its programs. For clarification purposes, outcome measures quantitatively express the results achieved or the products generated by the institution or its programs during a given time period. You are asked to keep this definition in mind as you register your responses to the questionnaire.

We would appreciate receiving your completed questionnaire in the enclosed envelope as soon as possible.

You should note that your responses will be kept strictly confidential. Results will be reported only in summary form. We are asking you to write in your name below so we can identify those persons who have returned the questionnaires.

Your name: \_\_\_\_\_

Your present position: \_\_\_\_\_

Your institution: \_\_\_\_\_



**SECTION I**

The potential measures or indicators of the outcomes of higher education institutions and their programs that are listed in this questionnaire have been organized into ten outcome areas or categories. However, before identifying the extent to which you need each outcome measure for carrying out your decision-making responsibilities, we would like you to indicate the extent to which you feel it is important for you to have information relative to the ten areas into which the outcome measures have been organized.

**Example Response:**

<p>In terms of your decision-making responsibilities concerning higher education institutions and their programs, how important is it for you to have information regarding each of the following outcome areas? Please check (✓) your answer.</p>	Of No Importance	Of Low Importance	Of Medium Importance	Of High Importance	Of Extremely High Importance
<p><b><u>OUTCOME AREA A: STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT</u></b> - Information about student understanding, competencies, and attitudes relative to bodies of facts and principles and use of their intellectual and physical abilities.</p>	—	—	—	—	✓

BEGIN ON THE BACK SIDE OF THIS PAGE

<p>In terms of your decision-making responsibilities concerning higher education institutions and their programs, how important is it for you to have information regarding each of the following outcome areas? Please check (✓) your answer.</p>	Of No Importance	Of Low Importance	Of Medium Importance	Of High Importance	Of Extremely High Importance
<p><b>OUTCOME AREA A: STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT</b>            - Information about student understanding, competencies, and attitudes relative to bodies of facts and principles and use of their intellectual and physical abilities.</p>					
<p><b>OUTCOME AREA B: STUDENT EDUCATIONAL CAREER DEVELOPMENT</b>            - Information about student attitudes and success concerning certain academic pursuits (e.g., student educational degree aspirations and attainments).</p>					
<p><b>OUTCOME AREA C: STUDENT EDUCATION SATISFACTION</b>            - Information that indicates the satisfaction of students about the knowledge and skills they have acquired and their progress toward their education and occupation career objectives.</p>					
<p><b>OUTCOME AREA D: STUDENT OCCUPATIONAL CAREER DEVELOPMENT</b>            - Information about student attitudes and success concerning certain occupational goals and their job performance.</p>					
<p><b>OUTCOME AREA E: STUDENT PERSONAL DEVELOPMENT</b>            - Information about changes in students concerning the growth and maintenance of their personal life (e.g., their ability to adapt to new situations, their self-concept, etc.).</p>					
<p><b>OUTCOME AREA F: STUDENT SOCIAL/CULTURAL DEVELOPMENT</b>            - Information about student abilities and attitudes in dealing with people and their interest in cultural activities.</p>					
<p><b>OUTCOME AREA G: COMMUNITY EDUCATIONAL DEVELOPMENT</b>            - Information about the attitudes and success of nonmatriculating participants* concerning their acquisition of knowledge and skills, personal and social development, and occupational career goals and performance.</p>					
<p><b>OUTCOME AREA H: COMMUNITY SERVICE</b>            - Information about the impact of the opportunities and services provided by the institution and received by the community (e.g., agricultural extension services, cultural and recreational opportunities, etc.).</p>					
<p><b>OUTCOME AREA I: COMMUNITY IMPACT</b>            - Information about the impact of an institution's programs and its faculty, staff and students (current and former) on the financial health, manpower supply, and attitudes of the community (local, state, or national).</p>					
<p><b>OUTCOME AREA J: DEVELOPMENT OF NEW KNOWLEDGE AND ART</b>            - Information about new knowledge and art forms created, applied, and reorganized as a result of an institution's programs and its faculty, staff and students (current and former).</p>					

\*Nonmatriculating participants are those persons participating in the instructional programs of the institution (credit and non-credit) but who are not seeking a degree, diploma, or certificate. This includes the faculty/staff in the institution.

**SECTION II**

This section presents a list of potential outcome measures of a variety of higher education outcomes that have been organized into the ten outcome areas listed in the previous section.

For each outcome measure listed, you are to answer two questions: (A) To what extent do you feel that measure would help provide the information you need for making decisions concerning your institution and its programs? and (B) Do you currently have access to that measure?

While the list of outcome measures in this section has been developed through the input of a wide range of higher education practitioners and researchers, it is not claimed to be exhaustive. As a result, space has been provided following each area of outcome measures for you to write in any additional outcome measures you feel would provide useful information.

**Example Response:**

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Question A: To what extent do you need this outcome measure? (check one)			Question B: Do you have access to this outcome measure? (check one)		
	Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure
1. Number and percentage of the graduates surveyed securing a job within a certain time period.	—	—	✓	—	—	✓
2. Number of research publications per faculty member within a certain time period.	—	✓	—	✓	—	—

BEGIN ON THE NEXT PAGE

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Do not need to know	Would not be crucial	Need to know	Yes	No	Not sure
<b>OUTCOME AREA A:</b> STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT OUTCOME MEASURES						
1. Student scores on tests that indicate development in their <u>breadth</u> of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	—	—	—	—	—	—
2. Student scores on tests that indicate development in their <u>depth</u> of knowledge concerning facts and principles in the particular fields in which a student elects to study.	—	—	—	—	—	—
3. Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	—	—	—	—	—	—
4. Student scores on tests that indicate their ability to <u>apply</u> general or specialized knowledge to a problem and to implement a solution.	—	—	—	—	—	—
5. Student scores on tests that indicate their ability to <u>analyze</u> problems (e.g., the recognition of biased points in an article or speech).	—	—	—	—	—	—
6. Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	—	—	—	—	—	—
7. Student scores on tests that indicate their ability to read, write, speak, and/or listen.	—	—	—	—	—	—
8. Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	—	—	—	—	—	—
9. Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	—	—	—	—	—	—
10. Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	—	—	—	—	—	—

In the spaces below, please write in any additional outcome measures concerning STUDENT KNOWLEDGE AND SKILLS DEVELOPMENT that you feel would provide you with the information you need.

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Question A: To what extent do you need this outcome measure? (check one)		Question B: Do you have access to this outcome measure? (check one)			
Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure
<b>OUTCOME AREA B:</b>					
<b>STUDENT EDUCATIONAL CAREER DEVELOPMENT OUTCOME MEASURES</b>					
1. Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	---	---	---	---	---
2. Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	---	---	---	---	---
3. Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	---	---	---	---	---
4. Number of awards and citations received per student and/or former student for their academic performance.	---	---	---	---	---
5. Number of students receiving a degree, diploma, and certificate within a certain time period.	---	---	---	---	---
6. Average amount of time it takes a student to earn a degree, diploma, or certificate.	---	---	---	---	---
7. Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	---	---	---	---	---
8. Number and percentage of graduates for the year who transferred from another school.	---	---	---	---	---
9. Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	---	---	---	---	---
10. Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	---	---	---	---	---

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

11. Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.

12. Student and/or former student scores on a scale measuring their perceptions of their educational achievement.

13. Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.

14. Student scores on a scale measuring their interest in continued self-initiated study and inquiry.

In the spaces below, please write in any additional outcome measures concerning STUDENT EDUCATIONAL CAREER DEVELOPMENT that you feel would provide you with the information you need.

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure
<b>OUTCOME AREA C:</b> <b>STUDENT EDUCATIONAL SATISFACTION OUTCOME MEASURES</b>						
1. Number and percentage of former students surveyed who indicate that they would send their children to the same school.	—	—	—	—	—	—
2. Average amount of alumni gifts within a certain time period after graduation.	—	—	—	—	—	—
3. Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	—	—	—	—	—	—
4. Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	—	—	—	—	—	—
5. Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	—	—	—	—	—	—
6. Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	—	—	—	—	—	—
7. Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	—	—	—	—	—	—
8. Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	—	—	—	—	—	—





In the spaces below, please write in any additional outcome measures concerning STUDENT EDUCATIONAL SATISFACTION that you feel would provide you with the information you need.

11


**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Do not need to know  
Would like to know but not crucial  
Need to know  
Yes  
No  
Not sure

**OUTCOME AREA D:**  
**STUDENT OCCUPATIONAL CAREER DEVELOPMENT OUTCOME MEASURES**

1. Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	—	—	—	—	—	—
2. Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	—	—	—	—	—	—
3. Average first salary of former students.	—	—	—	—	—	—
4. Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	—	—	—	—	—	—
5. Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	—	—	—	—	—	—
6. Number of professional occupation awards and citations received per former student surveyed.	—	—	—	—	—	—
7. Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	—	—	—	—	—	—
8. Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	—	—	—	—	—	—
9. Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	—	—	—	—	—	—
10. Average first salary expectations of students.	—	—	—	—	—	—

**Question A:**  
To what extent  
do you need this  
outcome measure?  
(check one)

**Question B:**  
Do you have  
access to this  
outcome measure?  
(check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure
11. Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	—	—	—	—	—	—
12. Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	—	—	—	—	—	—
13. Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	—	—	—	—	—	—

In the spaces below, please write in any additional outcome measures concerning STUDENT OCCUPATIONAL CAREER DEVELOPMENT that you feel would provide you with the information you need.

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Question A: To what extent do you need this outcome measure? (check one)			Question B: Do you have access to this outcome measure? (check one)		
Do not need to know	Would like to know but not crucial	Need to know	Yes	No	Not sure

**OUTCOME AREA E:  
STUDENT PERSONAL DEVELOPMENT OUTCOME MEASURES**

1. Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	—	—	—	—	—	—
2. Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	—	—	—	—	—	—
3. Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	—	—	—	—	—	—
4. Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	—	—	—	—	—	—
5. Number and percentage of students and/or former students surveyed who regularly attend religious services.	—	—	—	—	—	—
6. Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	—	—	—	—	—	—
7. Student and/or former student scores on a scale measuring their perceptions about their self-image.	—	—	—	—	—	—

In the spaces below, please write in any additional outcome measures concerning STUDENT PERSONAL DEVELOPMENT that you feel would provide you with the information you need.



**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Do not need to know  
 But not crucial  
 Would like to know  
 Need to know  
 Yes  
 No  
 Not sure

**OUTCOME AREA F:**  
**STUDENT SOCIAL/CULTURAL DEVELOPMENT OUTCOME MEASURES**

1. Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	---	---	---	---	---	---
2. Number of awards and citations earned per student and/or former student for social contributions.	---	---	---	---	---	---
3. Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	---	---	---	---	---	---
4. Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	---	---	---	---	---	---
5. Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	---	---	---	---	---	---
6. Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	---	---	---	---	---	---
7. Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	---	---	---	---	---	---
8. Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	---	---	---	---	---	---
9. Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	---	---	---	---	---	---
10. Student and/or former student scores on a scale measuring their political attitudes and beliefs.	---	---	---	---	---	---



**Question A:**  
To what extent  
do you need this  
outcome measure?  
(check one)

**Question B:**  
Do you have  
access to this  
outcome measure?  
(check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Do not need to know	Need to know but not crucial	Need to know	Yes	No	Not sure
11. Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	—	—	—	—	—	—
12. Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	—	—	—	—	—	—
13. Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	—	—	—	—	—	—
14. Student and/or former student scores on a scale measuring their current and desired social and economic level.	—	—	—	—	—	—
15. Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	—	—	—	—	—	—
16. Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	—	—	—	—	—	—

In the spaces below, please write in any additional outcome measures concerning STUDENT SOCIAL/CULTURAL DEVELOPMENT that you feel would provide you with the information you need.

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Question A: To what extent do you need this outcome measure? (check one)			Question B: Do you have access to this outcome measure? (check one)		
Do not need to know	Would not be crucial to know	Need to know	Yes	No	Not sure

**OUTCOME AREA G:  
COMMUNITY EDUCATIONAL DEVELOPMENT OUTCOME MEASURES**

1. Number of nonmatriculating participants* enrolled in instructional programs as a percentage of the total number of persons in those programs.	---	---	---	---	---
2. Nonmatriculating participant* scores on a scale measuring their degree of satisfaction with their educational experience.	---	---	---	---	---
3. Number and percentage of nonmatriculating participants* surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	---	---	---	---	---
4. Scores of nonmatriculating participants*, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	---	---	---	---	---
5. Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	---	---	---	---	---
6. Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	---	---	---	---	---

In the spaces below, please write in any additional outcome measures concerning COMMUNITY EDUCATIONAL DEVELOPMENT that you feel would provide you with the outcome information you need.

\* Nonmatriculating participants are those persons participating in the instructional programs of the institution (credit and noncredit) but who are not seeking a degree, diploma, or certificate. This includes the faculty/staff in the institution.

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Do not need to know	Should like to know but not crucial	Need to know	yes	no	Not sure
---------------------	-------------------------------------	--------------	-----	----	----------

**OUTCOME AREA H:**  
**COMMUNITY SERVICE OUTCOME MEASURES**

1. Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.

2. Estimated replacement value of specific community services received by individuals or organizations that receive the services.

3. Ratio of total income for community services to total budget for community services.

4. Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management, or technical role.

5. Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.

6. Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.

7. Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.

In the spaces below, please write in any additional outcome measures concerning **COMMUNITY SERVICE** that you feel would provide you with the information you need.



For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

Do not need to know    Should like to know    Need to know    Yes    No    Not sure

**OUTCOME AREA I:**  
**COMMUNITY IMPACT OUTCOME MEASURES**

1. Number and percentage of students who are employed in businesses, agencies and organizations in the community.	---	---	---	---	---	---
2. Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	---	---	---	---	---	---
3. Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	---	---	---	---	---	---
4. Faculty/staff and student expenditures in the community within a certain time period.	---	---	---	---	---	---
5. Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	---	---	---	---	---	---
6. Amount of land removed from the community tax base as a result of the existence of the institution.	---	---	---	---	---	---
7. Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	---	---	---	---	---	---
8. Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	---	---	---	---	---	---
9. Value of community business properties attributable to institution-related expenditures.	---	---	---	---	---	---
10. Amount and percentage of the local credit base due to institution-related deposits in community banks.	---	---	---	---	---	---



**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

	Do not need to know	Should like to know but not crucial	Need to know	Yes	No	Not sure
11. Extent to which the presence of the institution influences businesses locating in the community.	___	___	___	___	___	___
12. Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	___	___	___	___	___	___
13. Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	___	___	___	___	___	___
14. Geographic distribution of alumni.	___	___	___	___	___	___
15. Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	___	___	___	___	___	___
16. Number of persons from the community employed by the institution.	___	___	___	___	___	___

In the spaces below, please write in any additional outcome measures concerning **COMMUNITY IMPACT** that you feel would provide you with the information you need.

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Do not need to know  
Must not crucial  
Would like to know  
Need to know  
Yes  
No  
Not sure

**OUTCOME AREA J:**

**DEVELOPMENT OF NEW KNOWLEDGE AND ART OUTCOME MEASURES**

	Do not need to know	Must not crucial	Would like to know	Need to know	Yes	No	Not sure
<b>1. Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.</b>	—	—	—	—	—	—	—
<b>2. Number of times a given publication is cited in bibliographies of other authors within a certain time period.</b>	—	—	—	—	—	—	—
<b>3. Number of articles published per faculty/staff member in prestigious journals within a certain time period.</b>	—	—	—	—	—	—	—
<b>4. Number of papers presented at professional meetings per student, former student, and/or faculty/staff member within a certain time period.</b>	—	—	—	—	—	—	—
<b>5. Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.</b>	—	—	—	—	—	—	—
<b>6. Average amount of faculty time spent in selected research and art producing activities.</b>	—	—	—	—	—	—	—
<b>7. Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.</b>	—	—	—	—	—	—	—
<b>8. Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.</b>	—	—	—	—	—	—	—
<b>9. Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.</b>	—	—	—	—	—	—	—
<b>10. Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.</b>	—	—	—	—	—	—	—

**Question A:**  
To what extent do you need this outcome measure? (check one)

**Question B:**  
Do you have access to this outcome measure? (check one)

For each outcome measure listed below, please answer questions A and B in terms of your decision-making responsibilities relative to your institution and its programs.

Do not need to know  
Would not be critical  
Need to know  
Yes  
No  
Not sure

<p>11. Number of books or monographs written by faculty/staff that are published commercially within a certain time period.</p>	---	---	---	---	---	---
<p>12. Judgments of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.</p>	---	---	---	---	---	---
<p>13. Number and percentage of graduates engaged in research activities.</p>	---	---	---	---	---	---
<p>14. Number and percentage of faculty/staff and students <u>invited</u> to participate in professional meetings and conferences.</p>	---	---	---	---	---	---
<p>15. Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).</p>	---	---	---	---	---	---

In the spaces below, please write in any additional outcome measures concerning DEVELOPMENT OF NEW KNOWLEDGE AND ART that you feel would provide you with the information you need.



# National Center for Higher Education Management Systems

WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION  
 P.O. Drawer P Boulder, Colorado 80302 (303) 449-3333  
 an equal opportunity employer

April 11, 1974

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**FRED WILLMAN**  
 Illinois Community College Board

Dear (name of state-level planner):

The National Center for Higher Education Management Systems (NCHEMS) is making progress in helping higher education decision makers better understand and use information about the outcomes as well as the costs of higher education institutions and their programs. However, one of our major concerns is identifying the specific outcome information higher education decision makers need for carrying out their planning and management responsibilities. We recognize that while there is likely to be a body of outcome information useful to all decision makers, quite often special and unique information needs will exist because of differences in the responsibilities of individual decision makers.

As an initial step in dealing with this problem, NCHEMS is conducting a broad survey of higher education decision makers to identify the specific outcome measures or indicators they feel they need to better carry out their decision-making responsibilities concerning higher education institutions and programs. Participants in the survey include institutionally-based decision makers from community colleges, private and public four-year colleges, and private and public universities. In particular, college presidents, and top-level administrators for academic planning, student affairs, and budget and finance will be surveyed. Also included in the survey are noninstitutionally-based decision makers such as state legislators and directors of state higher education boards and coordinating councils. The results of this survey will help us identify the important outcome measures and thereby begin developing procedures that will help you and other decision makers obtain the outcome information you need.

The purpose of this letter is to ask you for your help in the Higher Education Outcome Measures Identification Study. We would like you or a member of your professional staff to complete the enclosed questionnaire. The responses to the completed questionnaire will help us: (1) gain a perspective of the higher education outcome measures that state-level planners and decision makers need in discharging their responsibilities and (2) establish priorities for identifying and developing procedures for obtaining needed outcome measures. For your information, a copy of the summary report of the survey will be sent to you.

**April 11, 1974  
Page Two**

**Instructions for filling out the enclosed questionnaire are attached to the questionnaire. Please return your completed questionnaire in the enclosed envelope by April 26, 1974.**

**Thank you in advance for your help.**

**Sincerely,**

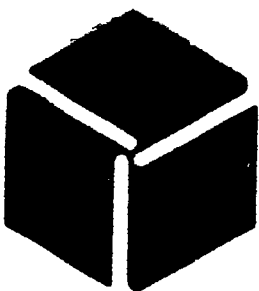
**Sidney S. Micek  
Director  
Outcomes of Postsecondary  
Education Project**

**Enclosure**

**SSM:bb**

# National Center for Higher Education Management Systems

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*The Bryman-Media School*

**MARVIN WACHMAN**  
*Temple University*

**FRED WELLMAN**  
*Illinois Community College Board*

April 11, 1974

Dear (name of state legislator):

The National Center for Higher Education Management Systems (NCHEMS) is making progress in helping higher education decision makers better understand and use information about the outcomes as well as the costs of higher education institutions and their programs. However, one of our major concerns is identifying the specific outcome information higher education decision makers need for carrying out their planning and management responsibilities. We recognize that while there is likely to be a body of outcome information useful to all decision makers, quite often special and unique information needs will exist because of differences in the responsibilities of individual decision makers.

As an initial step in dealing with this problem, NCHEMS is conducting a broad survey of higher education decision makers to identify the specific outcome measures or indicators they feel they need to better carry out their decision-making responsibilities concerning higher education institutions and programs. Participants in the survey include institutionally-based decision makers from community colleges, private and public four-year colleges, and private and public universities. In particular, college presidents, and top-level administrators for academic planning, student affairs, and budget and finance will be surveyed. Also included in the survey are noninstitutionally-based decision makers such as state legislators and directors of state higher education boards and coordinating councils. The results of this survey will help us identify the important outcome measures and thereby begin developing procedures that will help you and other decision makers obtain the outcome information you need.

The purpose of this letter is to ask you for your help in the Higher Education Outcome Measures Identification Study. By completing the enclosed questionnaire you will help us: (1) gain a perspective of the higher education outcome measures that you need in your state level position and (2) establish priorities for identifying and developing procedures for obtaining needed outcome measures. The results of the survey will be sent to you.

**April 11, 1974**  
**Page Two**

**Instructions for filling out the enclosed questionnaire are attached to the questionnaire. Please return your completed questionnaire in the enclosed envelope by April 26, 1974.**

**Thank you in advance for your help.**

**Sincerely,**

**Sidney S. Micek**  
**Director**  
**Outcomes of Postsecondary**  
**Education Project**

**Enclosure**

**SSM:bb**



**APPENDIX B**

**Institutions Involved  
in the Study**

The institutions, from which the college administrators' groups were obtained in the study, were selected from the group of institutions that participate in the National Center for Higher Education Management Systems' cooperative program. At the time the study was initiated, institutions participated in the Center at one of four levels.\* The four were:

#### Level I: Observers

Participation at Level I involves a minimum commitment. Participants at this level will be considered interested observers.

#### Level II

This level marks the beginning of active participation in the Center. Participants at this level are considered potential users of, but not contributors to, the development of the products of the Center.

#### Level III

This level of participation implies active participation as both user of and contributor to the development of the products of the program.

#### Level IV

This level of participation is the same as for Level III with an additional commitment to the general study of cost benefit analysis in higher education, and specifically to the identification and measurement of the outputs of higher education.

It should be mentioned that these levels were designed to provide a rough rule of thumb for facilitating discussion and understanding of the role of institutions and agencies in the Center's cooperative program.

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\*According to NCHEMS' new policies and procedures, those institutions or agencies that wish to become actively involved in the Center through use of its products and through contributions to the program may become participants in the program. No longer are institutions or agencies categorized by level of participation.

The following institutions participated in the study:

Community Colleges Levels I and II

Central YMCA Community College  
County College of Morris  
Essex County College  
Genessee Community College  
Illinois Eastern Junior College  
Indian River Junior College  
Milwaukee Area Technical College  
Northeastern Junior College  
Parkland College  
St. Johns River Junior College

Community Colleges Levels III and IV

Anoka-Ramsey Community College  
Community College of Philadelphia  
El Paso Community College  
Manatee Junior College  
Normandale Community College  
North Dakota State School of Science  
Northampton County Area Community College  
Schoolcraft College  
Tallahassee Junior College  
Worthington Community College

Private Four-Year Colleges Levels I and II

Augustana College  
Berry College  
Colorado Women's College  
College of Saint Elizabeth  
Chapman College  
College of the Holy Name  
Menlo College  
New England College  
Ricks College  
Stevens Institute of Technology

Private Four-Year Colleges Levels III and IV

Ambassador College  
Emerson College  
Hiram College  
Hendrix College  
Mercy College of Detroit  
Macalester College  
Rider College  
St. Joseph's College (Indiana)  
Tuckeegee Institute  
Union College (New York)

Public Four-Year Colleges Levels I and II

Concord College  
California State College at San Bernardino  
Dakota State College  
Kansas State College of Pittsburg  
Norfolk State College  
Stockton State College  
Saginaw Valley College  
Winona State College

Public Four-Year Colleges Levels III and IV

Central Washington State College  
California State College (Pennsylvania)  
Cheyney State College  
East Stroudsburg State College  
Kutztown State College  
Oregon Institute of Technology  
Slippery Rock State College  
Southern Oregon College  
Worcester State College

Private Universities Levels I and II

University of Dubuque  
Illinois Institute of Technology  
Ottawa University  
Pacific University  
St. John's University  
University of Santa Clara  
Samford University  
Villanova University  
Xavier University of Louisiana  
Yale University

Private Universities Levels III and IV

Bradley University  
Cornell University  
DePaul University  
Duke University  
Emory University  
Furman University  
Oral Roberts University  
University of Pennsylvania  
University of Rochester  
Stanford University

**Public Universities Levels I and II**

University of Alabama  
University of California at Santa Barbara  
California State University at Fullerton  
University of Massachusetts at Boston  
Northeastern Illinois State University  
University of North Dakota  
Northern Illinois University  
Northern Michigan University  
Utah State University  
University of Wyoming

**Public Universities Levels III and IV**

University of Alaska  
East Carolina University  
Illinois State University  
Iowa State University  
University of Massachusetts at Amherst  
University of Mississippi  
Purdue University  
University of Vermont  
Washington State University

**APPENDIX C**

**Additional Tabular Displays  
of the Survey Responses**

**Appendix C consists of descriptive tables showing the responses of various groups to the Higher Education Outcome Measures Identification Study survey instrument. Included in these tables are the distribution of responses of the survey participants to all of the measures investigated in the study. By providing data in this form it is hoped that the interest and creative talents of others might be stimulated and that further discussion of the results of the study might evolve.**

**While it is felt that the tables presented here contain a wealth of data it is possible that they will be insufficient for some research interests. Therefore, the National Center for Higher Education Management Systems will make the original data available to interested parties for the cost of reproducing the data deck and postage. Inquiries should be addressed to Dr. Sidney S. Micek, NCHEMS at WICHE, P.O. Drawer P, Boulder, Colorado 80302.**

**TABLE C.1**

**The Percentage and Number of  
Responses to the "Needs" Question by  
Type of College Administrator\***

---

\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED	
		(\$)	(n)	(\$)	(n)	(\$)	(n)
A-1	Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	36.8 (19) 47.8 (29) 41.8 (27) 8.4 (3)	44.2 (24) 34.4 (21) 83.8 (38) 26.8 (15)	17.3 (9) 18.0 (11) 4.6 (3) 67.9 (36)		
A-2	Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	36.8 (20) 49.2 (30) 32.3 (21) 7.1 (4)	44.2 (23) 34.4 (21) 61.8 (40) 26.8 (15)	17.3 (9) 16.4 (10) 6.2 (4) 66.1 (37)		
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	40.0 (20) 44.3 (27) 27.7 (18) 7.1 (4)	46.0 (23) 41.0 (26) 56.4 (36) 46.4 (26)	14.0 (7) 14.8 (9) 16.9 (11) 45.4 (26)		
A-4	Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	30.8 (16) 43.3 (26) 26.2 (17) 8.9 (5)	50.0 (26) 40.0 (24) 61.8 (40) 26.8 (15)	19.2 (10) 16.7 (10) 12.3 (8) 64.3 (36)		
A-5	Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	30.8 (16) 43.3 (26) 21.9 (14) 9.1 (5)	51.9 (27) 43.3 (26) 60.9 (39) 21.8 (12)	17.3 (9) 13.3 (8) 17.2 (11) 69.1 (39)		
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	3.6 (2) 3.3 (2) 1.6 (1) 7.1 (4)	34.6 (18) 33.3 (20) 50.8 (33) 33.9 (19)	61.5 (32) 63.3 (36) 47.7 (31) 58.9 (33)		
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	59.6 (31) 68.0 (39) 72.3 (47) 10.7 (6)	26.8 (15) 18.3 (11) 23.1 (15) 37.5 (21)	11.5 (6) 16.7 (10) 4.6 (3) 61.8 (29)		
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	19.2 (10) 13.3 (8) 31.2 (20) 1.8 (1)	48.1 (25) 43.3 (26) 53.1 (34) 33.9 (19)	32.7 (17) 43.3 (26) 15.6 (10) 64.3 (36)		
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0.0 (0) 6.7 (4) 9.2 (6) 3.6 (2)	32.7 (17) 30.0 (18) 47.7 (31) 12.5 (7)	67.3 (35) 63.3 (36) 43.1 (28) 63.9 (47)		
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	9.8 (5) 6.7 (4) 16.9 (11) 3.6 (2)	39.2 (20) 38.3 (23) 56.9 (37) 41.1 (23)	51.0 (26) 55.0 (33) 26.2 (17) 55.4 (31)		
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	52.9 (27) 46.3 (29) 50.8 (33) 25.0 (14)	39.2 (20) 46.0 (27) 43.1 (28) 41.1 (28)	7.8 (4) 6.7 (4) 6.2 (4) 33.9 (19)		
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	37.3 (19) 48.3 (29) 40.0 (26) 19.6 (11)	51.0 (26) 41.7 (25) 49.2 (32) 35.7 (20)	11.8 (6) 10.0 (6) 10.8 (7) 44.6 (25)		



	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED	
		(%)	(n)	(%)	(n)	(%)	(n)
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	24.9 (28) 53.3 (28) 40.6 (25) 44.6 (25)	31.4 (18) 36.0 (21) 40.6 (25) 28.6 (16)	12.7 (7) 11.7 (7) 18.7 (12) 25.0 (15)		
B-4	Number of awards and citations received per student and/or former student for their academic performance.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	19.6 (10) 16.9 (10) 26.2 (17) 7.1 (4)	64.9 (28) 55.9 (33) 56.9 (37) 33.9 (19)	29.5 (13) 27.1 (16) 16.9 (11) 58.9 (35)		
B-5	Number of students receiving a degree, diploma, or certificate within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	84.0 (42) 78.3 (47) 70.3 (48) 53.6 (30)	14.0 (7) 20.0 (12) 29.0 (16) 25.0 (14)	2.0 (1) 1.7 (1) 4.7 (3) 21.4 (12)		
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	56.9 (29) 55.9 (33) 59.4 (36) 42.9 (24)	41.2 (21) 39.0 (23) 36.9 (24) 32.1 (18)	2.0 (1) 5.1 (3) 7.7 (5) 25.0 (14)		
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	72.5 (37) 61.7 (37) 60.0 (39) 53.6 (30)	23.5 (12) 36.0 (21) 34.9 (24) 21.4 (12)	3.9 (2) 3.3 (2) 3.1 (2) 25.0 (14)		
B-8	Number and percentage of graduates for the year who transferred from another school.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	52.7 (32) 56.7 (34) 63.1 (31) 41.1 (23)	3.7 (7) 40.0 (24) 29.2 (19) 33.9 (19)	3.9 (2) 3.3 (2) 7.7 (5) 25.0 (14)		
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma, or certificate during a particular academic term or year.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	70.6 (36) 68.3 (41) 66.2 (54) 58.9 (33)	29.4 (15) 30.0 (18) 10.8 (7) 25.0 (14)	0.0 (0) 1.7 (1) 31.2 (2) 16.1 (9)		
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	49.0 (24) 43.3 (26) 44.6 (29) 21.8 (12)	42.9 (21) 45.0 (27) 41.5 (27) 47.3 (26)	8.2 (4) 11.7 (7) 13.8 (9) 30.9 (17)		
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	27.5 (14) 28.3 (17) 29.2 (19) 12.7 (7)	60.8 (31) 63.3 (36) 52.3 (34) 50.9 (28)	11.8 (6) 8.3 (5) 16.5 (12) 36.4 (20)		
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	31.4 (16) 36.7 (22) 35.4 (23) 7.1 (4)	49.0 (25) 60.0 (30) 53.8 (35) 37.5 (21)	19.6 (10) 13.3 (8) 10.8 (7) 55.4 (31)		
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	30.0 (15) 25.0 (15) 49.2 (32) 5.4 (3)	52.0 (26) 55.0 (33) 44.6 (29) 39.3 (22)	18.0 (9) 20.0 (12) 6.2 (4) 55.4 (31)		
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	34.0 (17) 28.3 (17) 30.8 (20) 7.1 (4)	48.0 (24) 60.0 (36) 56.9 (37) 25.6 (16)	15.0 (9) 11.7 (7) 12.3 (8) 64.3 (36)		
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	30.8 (16) 26.7 (16) 30.8 (20) 17.9 (10)	63.8 (28) 60.0 (36) 58.5 (38) 62.5 (35)	15.4 (8) 13.3 (8) 10.8 (7) 19.6 (11)		

OUTCOME MEASURE		NEED		WORLD LEAD		DON'T NEED	
		(S)	(N)	(S)	(N)	(S)	(N)
C-2	Average amount of alumni gifts within a certain time period after graduation.	PRESIDENT 29.8 (18) ACAD AFF 18.3 (11) STUDENT AFF 10.9 (7) BUDGET-FIN 50.0 (28)	48.8 (31) 48.8 (34) 57.8 (37) 35.7 (20)	11.8 (6) 41.7 (25) 31.2 (20) 14.3 (8)			
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	PRESIDENT 48.2 (24) ACAD AFF 53.3 (32) STUDENT AFF 53.8 (39) BUDGET-FIN 23.2 (13)	48.2 (24) 40.0 (24) 44.6 (29) 48.2 (27)	7.7 (4) 6.7 (4) 1.8 (1) 28.6 (16)			
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	PRESIDENT 48.1 (25) ACAD AFF 41.7 (25) STUDENT AFF 41.8 (27) BUDGET-FIN 19.6 (11)	42.3 (22) 48.3 (29) 49.2 (32) 37.8 (21)	9.6 (6) 10.0 (6) 9.2 (6) 42.9 (24)			
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	PRESIDENT 38.8 (19) ACAD AFF 31.7 (19) STUDENT AFF 47.7 (31) BUDGET-FIN 12.8 (7)	50.0 (28) 50.0 (30) 49.2 (32) 37.8 (21)	13.8 (7) 18.3 (11) 3.1 (2) 50.0 (28)			
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	PRESIDENT 38.8 (19) ACAD AFF 28.7 (16) STUDENT AFF 49.2 (32) BUDGET-FIN 8.9 (5)	50.0 (28) 51.7 (31) 48.2 (30) 39.3 (22)	13.8 (7) 21.7 (13) 4.8 (3) 51.8 (29)			
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	PRESIDENT 48.1 (25) ACAD AFF 40.0 (24) STUDENT AFF 53.1 (41) BUDGET-FIN 17.9 (10)	42.3 (22) 48.3 (29) 35.4 (23) 48.2 (27)	9.6 (6) 11.7 (7) 1.8 (1) 33.9 (19)			
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	PRESIDENT 48.1 (25) ACAD AFF 48.0 (27) STUDENT AFF 61.8 (40) BUDGET-FIN 16.1 (9)	42.3 (22) 48.0 (27) 36.9 (24) 51.8 (29)	9.6 (6) 10.0 (6) 1.8 (1) 32.1 (18)			
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	PRESIDENT 51.9 (27) ACAD AFF 48.7 (28) STUDENT AFF 54.7 (35) BUDGET-FIN 14.3 (8)	44.2 (23) 48.0 (27) 37.8 (24) 60.7 (34)	3.8 (2) 8.3 (5) 7.8 (5) 28.0 (14)			
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	PRESIDENT 28.8 (15) ACAD AFF 28.0 (15) STUDENT AFF 48.9 (30) BUDGET-FIN 14.3 (8)	57.7 (30) 55.0 (33) 39.1 (25) 48.2 (27)	13.8 (7) 20.0 (12) 14.1 (9) 37.8 (21)			
D-3	Average first salary of former students.	PRESIDENT 17.3 (9) ACAD AFF 31.7 (19) STUDENT AFF 42.2 (27) BUDGET-FIN 10.7 (6)	75.0 (39) 48.3 (29) 46.9 (30) 57.1 (32)	7.7 (4) 20.0 (12) 10.9 (7) 32.1 (18)			
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	PRESIDENT 17.3 (9) ACAD AFF 22.0 (13) STUDENT AFF 28.1 (18) BUDGET-FIN 14.3 (8)	73.1 (38) 55.9 (33) 57.8 (37) 50.0 (28)	9.6 (5) 22.0 (13) 1.1 (1) 15.7 (20)			
D-5	Former student (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	PRESIDENT 21.2 (11) ACAD AFF 23.3 (14) STUDENT AFF 34.9 (22) BUDGET-FIN 7.1 (4)	57.7 (30) 53.3 (32) 50.8 (32) 39.3 (22)	21.2 (11) 23.3 (14) 14.3 (9) 53.6 (30)			
D-6	Number of professional occupation awards and citations received per former student surveyed.	PRESIDENT 11.8 (6) ACAD AFF 5.0 (3) STUDENT AFF 12.8 (8) BUDGET-FIN 8.9 (5)	48.1 (25) 63.3 (36) 57.8 (37) 42.9 (24)	40.4 (21) 31.7 (19) 29.7 (19) 48.2 (27)			

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED							
		(%)	(n)	(%)	(n)	(%)	(n)						
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	PRESIDENT 17.3 (9)	67.3 (38)	18.4 (8)	ACAD AFF 16.9 (10)	64.8 (32)	20.8 (17)	STUDENT AFF 21.9 (14)	67.8 (37)	20.3 (13)	BUDGET-FIN 14.3 (8)	60.0 (28)	35.7 (20)
D-8	Number of voluntary/involuntary changes in employment within a given time period per former student surveyed.	PRESIDENT 8.8 (3)	63.8 (28)	40.4 (21)	ACAD AFF 15.0 (9)	43.3 (25)	41.7 (25)	STUDENT AFF 21.9 (14)	64.7 (35)	23.4 (15)	BUDGET-FIN 8.9 (5)	33.9 (19)	67.1 (32)
D-9	Number of voluntary/involuntary changes in career field within a given time period per former student surveyed.	PRESIDENT 9.6 (5)	65.8 (29)	34.6 (18)	ACAD AFF 16.7 (10)	43.3 (25)	40.0 (24)	STUDENT AFF 25.0 (16)	66.2 (36)	18.7 (12)	BUDGET-FIN 8.9 (5)	35.7 (20)	55.4 (31)
D-10	Average first salary expectations of students.	PRESIDENT 7.7 (4)	63.8 (33)	28.8 (15)	ACAD AFF 16.7 (10)	46.7 (28)	36.7 (22)	STUDENT AFF 31.2 (20)	46.9 (30)	21.9 (14)	BUDGET-FIN 12.5 (7)	63.6 (30)	33.9 (19)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	PRESIDENT 55.8 (29)	40.4 (21)	3.8 (2)	ACAD AFF 56.3 (35)	35.0 (21)	6.7 (4)	STUDENT AFF 61.5 (40)	32.3 (21)	6.2 (4)	BUDGET-FIN 33.9 (19)	35.7 (20)	30.4 (17)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	PRESIDENT 28.0 (18)	60.0 (28)	24.0 (12)	ACAD AFF 35.0 (21)	35.0 (21)	30.0 (18)	STUDENT AFF 43.1 (28)	43.1 (28)	13.8 (9)	BUDGET-FIN 17.9 (10)	42.9 (24)	39.3 (22)
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	PRESIDENT 41.2 (21)	49.0 (25)	9.8 (5)	ACAD AFF 40.0 (24)	46.7 (28)	13.3 (8)	STUDENT AFF 49.2 (32)	43.1 (28)	7.7 (5)	BUDGET-FIN 19.6 (11)	39.3 (22)	41.1 (23)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	PRESIDENT 5.9 (3)	39.2 (20)	64.9 (28)	ACAD AFF 6.8 (4)	32.2 (19)	61.0 (36)	STUDENT AFF 33.8 (22)	41.5 (27)	24.6 (16)	BUDGET-FIN 5.4 (3)	21.4 (12)	73.2 (41)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	PRESIDENT 5.9 (3)	31.4 (16)	62.7 (32)	ACAD AFF 10.2 (6)	27.1 (16)	62.7 (37)	STUDENT AFF 36.9 (24)	46.2 (30)	16.9 (11)	BUDGET-FIN 5.4 (3)	19.6 (11)	75.0 (42)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	PRESIDENT 5.9 (3)	31.4 (16)	62.7 (32)	ACAD AFF 5.1 (3)	25.4 (15)	65.5 (41)	STUDENT AFF 7.7 (5)	46.2 (30)	46.2 (30)	BUDGET-FIN 1.8 (1)	16.1 (9)	82.1 (46)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	PRESIDENT 9.8 (5)	27.5 (14)	62.7 (32)	ACAD AFF 11.9 (7)	22.0 (13)	66.1 (39)	STUDENT AFF 7.7 (5)	41.5 (27)	50.8 (33)	BUDGET-FIN 1.8 (1)	23.2 (13)	75.0 (42)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	PRESIDENT 7.8 (4)	23.5 (12)	68.6 (35)	ACAD AFF 5.1 (3)	25.4 (15)	69.5 (41)	STUDENT AFF 6.2 (4)	33.8 (22)	60.0 (39)	BUDGET-FIN 0.0 (0)	19.6 (11)	80.4 (45)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	PRESIDENT 19.6 (10)	41.2 (21)	39.2 (20)	ACAD AFF 11.9 (7)	54.2 (32)	33.9 (20)	STUDENT AFF 21.5 (14)	60.0 (39)	18.5 (12)	BUDGET-FIN 3.6 (2)	33.9 (19)	62.5 (35)

OUTCOME MEASURE **BEST COPY AVAILABLE**

(S) (n) WOULD LIKE (S) (n) DON'T NEED (S) (n)

- F-7 Student and/or former student scores on a scale measuring their perceptions about their self-image.
- F-1 Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.
- F-2 Number of awards and citations earned per student and/or former student for social contributions.
- F-3 Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.
- F-4 Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.
- F-5 Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.
- F-6 Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).
- F-7 Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.
- F-8 Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.
- F-9 Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.
- F-10 Student and/or former student scores on a scale measuring their political attitudes and beliefs.
- F-11 Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).
- F-12 Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.

PRESIDENT	23.8 (12)	38.3 (18)	41.2 (21)
ACAD AFF	18.6 (11)	47.5 (28)	33.9 (20)
STUDENT AFF	41.5 (27)	41.5 (27)	16.9 (11)
BUDGET-FIN	5.4 (3)	21.4 (12)	73.2 (41)
PRESIDENT	1.9 (1)	46.2 (24)	51.9 (27)
ACAD AFF	5.0 (3)	50.0 (30)	45.0 (27)
STUDENT AFF	16.9 (11)	53.8 (35)	29.2 (19)
BUDGET-FIN	3.6 (2)	33.9 (19)	62.5 (35)
PRESIDENT	0.0 (0)	44.2 (23)	55.8 (29)
ACAD AFF	3.3 (2)	53.3 (32)	43.3 (26)
STUDENT AFF	13.8 (9)	63.1 (41)	23.1 (15)
BUDGET-FIN	3.6 (2)	39.3 (22)	57.1 (32)
PRESIDENT	15.4 (8)	48.1 (28)	36.5 (19)
ACAD AFF	15.0 (9)	51.7 (31)	33.3 (20)
STUDENT AFF	32.3 (21)	46.2 (30)	21.5 (14)
BUDGET-FIN	3.6 (2)	19.6 (11)	76.8 (43)
PRESIDENT	5.8 (3)	55.8 (29)	38.5 (20)
ACAD AFF	8.3 (5)	50.0 (30)	41.7 (25)
STUDENT AFF	12.3 (8)	61.5 (40)	26.2 (17)
BUDGET-FIN	3.6 (2)	41.1 (23)	55.4 (31)
PRESIDENT	1.9 (1)	57.7 (30)	40.4 (21)
ACAD AFF	8.3 (5)	50.0 (30)	41.7 (25)
STUDENT AFF	15.4 (10)	58.5 (36)	26.2 (17)
BUDGET-FIN	5.4 (3)	35.7 (20)	55.9 (33)
PRESIDENT	7.7 (4)	44.2 (23)	48.1 (25)
ACAD AFF	8.5 (5)	47.5 (28)	44.1 (26)
STUDENT AFF	13.8 (9)	66.2 (43)	20.0 (13)
BUDGET-FIN	1.8 (1)	37.5 (21)	60.7 (34)
PRESIDENT	0.0 (0)	25.5 (13)	74.5 (36)
ACAD AFF	0.0 (0)	15.0 (9)	85.0 (51)
STUDENT AFF	4.6 (3)	27.7 (18)	67.7 (44)
BUDGET-FIN	0.0 (0)	12.5 (7)	87.5 (49)
PRESIDENT	5.8 (3)	25.0 (13)	69.2 (36)
ACAD AFF	1.7 (1)	25.0 (15)	73.3 (44)
STUDENT AFF	3.1 (2)	21.5 (14)	75.4 (49)
BUDGET-FIN	5.4 (3)	26.8 (15)	67.9 (38)
PRESIDENT	5.8 (3)	28.8 (15)	65.4 (34)
ACAD AFF	5.0 (3)	31.7 (19)	63.3 (38)
STUDENT AFF	6.2 (4)	46.2 (30)	47.7 (31)
BUDGET-FIN	1.8 (1)	23.2 (13)	75.0 (42)
PRESIDENT	3.6 (2)	28.8 (15)	67.3 (35)
ACAD AFF	5.1 (3)	33.9 (20)	61.0 (36)
STUDENT AFF	10.8 (7)	44.6 (29)	44.6 (29)
BUDGET-FIN	0.0 (0)	17.9 (10)	82.1 (46)
PRESIDENT	3.8 (2)	38.5 (20)	57.7 (30)
ACAD AFF	3.3 (2)	35.0 (21)	61.7 (37)
STUDENT AFF	4.6 (3)	43.1 (28)	52.3 (34)
BUDGET-FIN	1.8 (1)	16.1 (9)	82.1 (46)
PRESIDENT	19.2 (10)	38.5 (20)	42.3 (22)
ACAD AFF	15.0 (9)	40.0 (24)	45.0 (27)
STUDENT AFF	24.6 (16)	50.8 (33)	24.6 (16)
BUDGET-FIN	5.4 (3)	19.6 (11)	75.0 (42)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED	
		( $\bar{x}$ )	(n)	( $\bar{x}$ )	(n)	( $\bar{x}$ )	(n)
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	19.2 (10) 18.3 (11) 21.5 (14) 3.6 (2)	44.2 (23) 45.7 (28) 58.5 (38) 28.6 (16)	36.5 (19) 36.0 (21) 20.0 (13) 27.9 (38)		
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	7.7 (4) 13.3 (8) 20.3 (13) 8.9 (5)	55.5 (29) 43.3 (28) 65.6 (42) 37.5 (21)	36.5 (19) 43.3 (28) 14.1 (9) 53.6 (30)		
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	17.3 (9) 20.0 (12) 18.7 (12) 7.1 (4)	51.9 (27) 45.0 (27) 60.9 (39) 33.9 (16)	30.5 (16) 35.0 (21) 20.3 (13) 58.9 (33)		
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	7.7 (4) 6.7 (4) 7.8 (5) 1.8 (1)	34.6 (18) 35.0 (21) 45.3 (29) 21.4 (12)	57.7 (30) 58.3 (35) 46.9 (30) 76.8 (43)		
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	49.0 (25) 39.0 (23) 39.1 (25) 41.1 (23)	43.1 (22) 47.5 (28) 37.5 (24) 35.7 (20)	7.8 (4) 13.6 (8) 23.4 (15) 23.2 (13)		
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	29.4 (15) 33.9 (20) 28.1 (18) 17.9 (10)	54.9 (28) 45.8 (27) 40.6 (26) 44.6 (25)	15.7 (8) 20.3 (12) 3.12 (20) 37.5 (21)		
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	21.6 (11) 22.0 (13) 23.4 (15) 12.5 (7)	55.5 (30) 49.2 (29) 43.7 (28) 51.8 (29)	19.5 (10) 28.8 (17) 32.8 (21) 35.7 (20)		
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	16.0 (8) 25.4 (15) 25.0 (16) 7.1 (4)	60.0 (30) 45.8 (27) 42.2 (27) 41.1 (23)	24.0 (12) 28.8 (17) 32.8 (21) 51.8 (29)		
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	49.0 (25) 39.0 (23) 21.9 (14) 26.8 (15)	43.1 (22) 42.4 (25) 46.9 (30) 44.6 (25)	7.8 (4) 18.6 (11) 31.2 (20) 28.6 (16)		
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	33.3 (17) 35.5 (21) 25.0 (16) 16.1 (9)	56.9 (29) 49.2 (29) 42.2 (27) 42.9 (24)	9.8 (5) 15.3 (9) 32.8 (21) 41.1 (23)		
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	32.7 (17) 32.8 (20) 21.9 (14) 16.4 (9)	53.8 (28) 45.9 (28) 57.8 (37) 58.2 (32)	13.5 (7) 21.3 (13) 20.3 (13) 25.5 (14)		
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	19.6 (10) 18.0 (11) 14.1 (9) 16.4 (9)	49.0 (25) 41.0 (25) 46.9 (30) 54.5 (30)	31.4 (16) 41.0 (25) 39.1 (25) 29.1 (16)		
H-3	Ratio of total income for community services to total budget for community services.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	46.2 (24) 33.3 (20) 14.5 (9) 29.1 (16)	30.8 (16) 31.7 (19) 48.4 (30) 49.1 (27)	23.1 (12) 35.0 (21) 37.1 (23) 21.8 (12)		

OUTCOME MEASURE

BEST COPY AVAILABLE

NEED (x) (n) WOULD LIKE (x) (n) DON'T NEED (x) (n)

H-4 Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.

PRESIDENT	59.6 (31)	17.3 (9)	23.1 (12)
ACAD AFF	49.2 (30)	31.1 (19)	19.7 (12)
STUDENT AFF	32.3 (21)	27.7 (18)	40.0 (26)
BUDGET-FIN	56.4 (31)	34.5 (19)	9.1 (5)

H-5 Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.

PRESIDENT	50.0 (28)	36.5 (19)	13.5 (7)
ACAD AFF	34.4 (21)	47.5 (29)	18.0 (11)
STUDENT AFF	27.7 (18)	40.0 (26)	32.3 (21)
BUDGET-FIN	41.8 (23)	49.1 (27)	9.1 (5)

H-6 Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.

PRESIDENT	47.1 (24)	39.2 (20)	13.7 (7)
ACAD AFF	19.7 (12)	44.3 (27)	36.1 (22)
STUDENT AFF	26.6 (17)	37.5 (24)	35.9 (23)
BUDGET-FIN	36.4 (20)	50.9 (28)	12.7 (7)

H-7 Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.

PRESIDENT	32.7 (17)	44.2 (23)	23.1 (12)
ACAD AFF	16.4 (10)	50.8 (31)	32.8 (20)
STUDENT AFF	30.8 (20)	46.2 (30)	23.1 (15)
BUDGET-FIN	16.4 (9)	49.1 (27)	34.5 (19)

I-1 Number and percentage of students who are employed in businesses, agencies and organizations in the community.

PRESIDENT	38.5 (20)	57.7 (30)	3.8 (2)
ACAD AFF	34.4 (21)	49.2 (30)	16.4 (10)
STUDENT AFF	44.6 (29)	44.6 (29)	10.8 (7)
BUDGET-FIN	23.2 (13)	57.1 (32)	19.6 (11)

I-2 Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.

PRESIDENT	36.5 (19)	48.1 (25)	15.4 (8)
ACAD AFF	23.0 (14)	47.5 (29)	21.5 (18)
STUDENT AFF	32.3 (21)	47.7 (31)	20.0 (13)
BUDGET-FIN	17.9 (10)	44.6 (26)	37.5 (21)

I-3 Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.

PRESIDENT	38.5 (20)	48.1 (26)	13.5 (7)
ACAD AFF	14.8 (9)	42.6 (26)	42.6 (26)
STUDENT AFF	16.9 (11)	43.1 (28)	40.0 (26)
BUDGET-FIN	41.1 (23)	46.4 (26)	12.5 (7)

I-4 Faculty/staff and student expenditures in the community within a certain time period.

PRESIDENT	32.7 (17)	53.8 (28)	13.5 (7)
ACAD AFF	14.8 (9)	45.9 (28)	39.3 (24)
STUDENT AFF	15.4 (10)	50.8 (33)	33.8 (22)
BUDGET-FIN	41.1 (23)	42.9 (24)	16.1 (9)

I-5 Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.

PRESIDENT	50.0 (26)	38.5 (20)	11.5 (6)
ACAD AFF	23.0 (14)	42.6 (26)	34.4 (21)
STUDENT AFF	23.1 (15)	40.0 (26)	36.9 (24)
BUDGET-FIN	37.5 (21)	42.9 (24)	19.6 (11)

I-6 Amount of land removed from the community tax base as a result of the existence of the institution.

PRESIDENT	42.3 (22)	40.4 (21)	17.3 (9)
ACAD AFF	14.8 (9)	47.5 (29)	37.7 (23)
STUDENT AFF	27.7 (18)	30.8 (20)	41.5 (27)
BUDGET-FIN	55.4 (31)	30.4 (17)	14.3 (8)

I-7 Employers' scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.

PRESIDENT	48.0 (24)	38.0 (19)	14.0 (7)
ACAD AFF	37.7 (23)	41.0 (25)	21.3 (13)
STUDENT AFF	46.2 (30)	40.0 (26)	13.8 (9)
BUDGET-FIN	12.5 (7)	44.6 (25)	42.9 (24)

I-8 Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.

PRESIDENT	38.5 (20)	30.8 (16)	30.8 (16)
ACAD AFF	9.8 (6)	37.7 (23)	52.5 (32)
STUDENT AFF	29.7 (19)	42.2 (27)	28.1 (18)
BUDGET-FIN	17.9 (10)	53.6 (30)	28.6 (16)

I-9 Value of community business properties attributable to institution-related expenditures.

PRESIDENT	20.8 (10)	47.9 (23)	31.2 (15)
ACAD AFF	9.8 (6)	32.8 (20)	57.4 (35)
STUDENT AFF	18.5 (12)	32.3 (21)	49.2 (32)
BUDGET-FIN	16.1 (9)	50.0 (28)	33.9 (19)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED		
		(%)	(n)	(%)	(n)	(%)	(n)	
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	PRESIDENT	22.0	(11)	50.0	(23)	28.0	(14)
		ACAD AFF	11.5	(7)	27.9	(17)	60.7	(37)
		STUDENT AFF	10.8	(7)	38.5	(25)	50.8	(33)
		BUDGET-FIN	25.0	(14)	55.4	(31)	19.6	(11)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	PRESIDENT	38.5	(20)	46.2	(24)	15.4	(8)
		ACAD AFF	23.0	(14)	49.2	(30)	27.9	(17)
		STUDENT AFF	23.1	(15)	47.7	(31)	29.2	(19)
		BUDGET-FIN	37.5	(21)	55.4	(31)	7.1	(4)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	PRESIDENT	30.8	(16)	44.2	(23)	25.0	(13)
		ACAD AFF	19.7	(12)	39.3	(24)	41.0	(25)
		STUDENT AFF	21.5	(14)	40.0	(26)	38.5	(25)
		BUDGET-FIN	33.9	(19)	51.8	(29)	14.3	(8)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	PRESIDENT	23.1	(12)	50.0	(26)	26.9	(14)
		ACAD AFF	18.0	(11)	37.7	(23)	44.3	(27)
		STUDENT AFF	15.4	(10)	47.7	(31)	35.9	(24)
		BUDGET-FIN	32.1	(18)	41.1	(23)	26.8	(15)
I-14	Geographic distribution of alumni.	PRESIDENT	48.1	(25)	44.2	(23)	7.7	(4)
		ACAD AFF	21.3	(13)	60.7	(37)	18.0	(11)
		STUDENT AFF	30.8	(20)	52.3	(34)	16.9	(11)
		BUDGET-FIN	25.0	(14)	48.2	(27)	26.8	(15)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	PRESIDENT	66.7	(34)	29.4	(15)	3.9	(2)
		ACAD AFF	41.0	(25)	49.2	(30)	9.8	(6)
		STUDENT AFF	60.0	(39)	27.7	(18)	12.3	(8)
		BUDGET-FIN	39.3	(22)	44.6	(25)	16.1	(9)
I-16	Number of persons from the community employed by the institution.	PRESIDENT	57.7	(30)	28.8	(15)	13.5	(7)
		ACAD AFF	32.8	(20)	36.1	(22)	31.1	(19)
		STUDENT AFF	40.0	(26)	32.3	(21)	27.7	(18)
		BUDGET-FIN	66.1	(37)	19.6	(11)	14.3	(8)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	PRESIDENT	13.7	(7)	52.9	(27)	33.3	(17)
		ACAD AFF	29.5	(18)	45.9	(28)	24.6	(15)
		STUDENT AFF	9.2	(6)	47.7	(31)	43.1	(28)
		BUDGET-FIN	7.1	(4)	33.9	(19)	58.9	(33)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	PRESIDENT	0.0	(0)	34.6	(18)	65.4	(34)
		ACAD AFF	14.8	(9)	32.8	(20)	52.5	(32)
		STUDENT AFF	4.6	(3)	26.2	(17)	69.2	(45)
		BUDGET-FIN	5.4	(3)	16.1	(9)	78.6	(44)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	PRESIDENT	23.1	(12)	46.2	(24)	30.8	(16)
		ACAD AFF	42.6	(26)	39.3	(24)	18.0	(11)
		STUDENT AFF	10.8	(7)	53.8	(35)	35.4	(23)
		BUDGET-FIN	14.3	(8)	39.3	(22)	46.4	(26)
J-4	Number of papers presented at professional meetings per student, former student, and/or faculty/staff member within a certain time period.	PRESIDENT	17.3	(9)	53.8	(28)	28.8	(15)
		ACAD AFF	39.3	(24)	42.6	(26)	18.0	(11)
		STUDENT AFF	7.7	(5)	63.1	(41)	29.2	(19)
		BUDGET-FIN	10.7	(6)	42.9	(24)	46.4	(26)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	PRESIDENT	11.5	(6)	65.4	(34)	23.1	(12)
		ACAD AFF	37.7	(23)	45.9	(28)	16.4	(10)
		STUDENT AFF	13.8	(9)	66.2	(43)	20.0	(13)
		BUDGET-FIN	14.3	(8)	46.4	(26)	39.3	(22)
J-6	Average amount of faculty time spent in selected research and art producing activities.	PRESIDENT	37.3	(19)	35.3	(18)	27.5	(14)
		ACAD AFF	39.3	(24)	42.6	(26)	18.0	(11)
		STUDENT AFF	11.1	(7)	42.9	(27)	46.0	(29)
		BUDGET-FIN	30.4	(17)	48.2	(27)	21.4	(12)

**OUTCOME MEASURE**

**NEED**      **WOULD LIKE**      **DON'T NEED**  
 (\$) (n)      (\$) (n)      (\$) (n)

- J-7** Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.
- J-8** Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.
- J-9** Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.
- J-10** Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.
- J-11** Number of books or monographs written by faculty/staff that are published commercially within a certain time period.
- J-12** Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.
- J-13** Number and percentage of graduates engaged in research activities.
- J-14** Number and percentage of faculty/staff and students invited to participate in professional meetings and conferences.
- J-15** Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).

PRESIDENT	42.3	(22)	38.6	(20)	19.8	(10)
ACAD AFF	55.7	(34)	23.0	(14)	21.3	(13)
STUDENT AFF	21.5	(14)	47.7	(31)	30.8	(20)
BUDGET-FIN	53.6	(30)	30.4	(17)	16.1	(9)
PRESIDENT	63.5	(33)	23.1	(12)	13.5	(7)
ACAD AFF	49.2	(30)	27.9	(17)	23.0	(14)
STUDENT AFF	30.8	(20)	38.5	(25)	30.8	(20)
BUDGET-FIN	76.8	(43)	16.1	(9)	7.1	(4)
PRESIDENT	21.2	(11)	53.8	(28)	25.0	(13)
ACAD AFF	37.7	(23)	39.3	(24)	23.0	(14)
STUDENT AFF	16.9	(11)	47.7	(31)	35.4	(23)
BUDGET-FIN	17.9	(10)	42.9	(24)	39.3	(22)
PRESIDENT	11.5	(6)	46.2	(24)	42.3	(22)
ACAD AFF	27.9	(17)	31.1	(19)	41.0	(25)
STUDENT AFF	4.6	(3)	53.8	(35)	41.5	(27)
BUDGET-FIN	14.3	(8)	39.3	(22)	46.4	(26)
PRESIDENT	23.1	(12)	50.0	(26)	26.9	(14)
ACAD AFF	52.6	(32)	32.8	(20)	14.8	(9)
STUDENT AFF	15.4	(10)	52.3	(34)	32.3	(21)
BUDGET-FIN	12.5	(7)	46.4	(26)	41.1	(23)
PRESIDENT	23.1	(12)	42.3	(22)	34.6	(18)
ACAD AFF	27.9	(17)	47.5	(29)	24.6	(15)
STUDENT AFF	26.2	(17)	33.8	(22)	40.0	(26)
BUDGET-FIN	17.9	(10)	42.9	(24)	39.3	(22)
PRESIDENT	19.2	(10)	53.8	(28)	26.9	(14)
ACAD AFF	14.8	(9)	54.1	(33)	31.1	(19)
STUDENT AFF	7.7	(5)	61.5	(40)	30.8	(20)
BUDGET-FIN	12.5	(7)	30.4	(17)	57.1	(32)
PRESIDENT	23.1	(12)	57.7	(30)	19.2	(10)
ACAD AFF	34.4	(21)	44.3	(27)	21.3	(13)
STUDENT AFF	13.8	(9)	55.4	(36)	30.8	(20)
BUDGET-FIN	12.5	(7)	37.5	(21)	50.0	(28)
PRESIDENT	19.2	(10)	59.6	(31)	21.2	(11)
ACAD AFF	23.0	(14)	55.7	(34)	21.3	(13)
STUDENT AFF	9.2	(6)	60.0	(39)	30.8	(20)
BUDGET-FIN	8.9	(5)	32.1	(18)	58.9	(33)



**TABLE C.2**

**The Percentage and Number of  
Responses to the "Access" Question, by  
Type of College Administrator\***

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\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

OUTCOME MEASURE		BEST COPY AVAILABLE		HAVE ACCESS	DON'T HAVE	NOT SURE
				(%) (n)	(%) ACCESS (n)	(%) (n)
A-1	Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	PRESIDENT	26.9 (14)	69.2 (36)	3.8 (2)	
		ACAO AFF	29.5 (18)	62.3 (38)	8.2 (5)	
		STUDENT AFF	47.7 (31)	43.1 (28)	9.7 (6)	
		BUDGET-FIN	23.2 (13)	41.1 (23)	35.7 (20)	
A-2	Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.	PRESIDENT	31.4 (16)	62.7 (32)	5.9 (3)	
		ACAO AFF	32.8 (20)	54.1 (33)	13.1 (8)	
		STUDENT AFF	41.5 (27)	49.2 (32)	9.2 (6)	
		BUDGET-FIN	34.5 (19)	36.4 (20)	29.1 (16)	
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	PRESIDENT	44.9 (22)	44.9 (22)	10.2 (5)	
		ACAO AFF	36.1 (22)	47.5 (29)	16.4 (10)	
		STUDENT AFF	34.4 (22)	43.7 (28)	21.9 (14)	
		BUDGET-FIN	32.7 (18)	40.0 (22)	17.3 (15)	
A-4	Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.	PRESIDENT	12.0 (6)	80.0 (40)	8.0 (4)	
		ACAO AFF	5.0 (3)	81.7 (49)	13.3 (8)	
		STUDENT AFF	20.3 (13)	64.1 (41)	15.6 (10)	
		BUDGET-FIN	14.5 (8)	45.5 (25)	40.0 (22)	
A-5	Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech).	PRESIDENT	12.0 (6)	80.0 (40)	8.0 (4)	
		ACAO AFF	1.7 (1)	85.0 (51)	13.3 (8)	
		STUDENT AFF	9.5 (6)	68.3 (43)	22.2 (14)	
		BUDGET-FIN	9.1 (5)	52.7 (29)	38.2 (21)	
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	PRESIDENT	4.2 (2)	93.7 (45)	2.1 (1)	
		ACAO AFF	0. (0)	100.0 (58)	0. (0)	
		STUDENT AFF	0. (0)	82.8 (53)	17.2 (11)	
		BUDGET-FIN	3.6 (2)	74.5 (41)	21.8 (12)	
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	PRESIDENT	41.2 (21)	47.1 (24)	11.8 (6)	
		ACAO AFF	41.7 (25)	48.3 (29)	10.0 (6)	
		STUDENT AFF	58.5 (38)	29.2 (19)	12.3 (8)	
		BUDGET-FIN	30.9 (17)	36.4 (20)	32.7 (18)	
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	PRESIDENT	30.6 (15)	55.1 (27)	14.3 (7)	
		ACAO AFF	15.0 (9)	73.3 (44)	11.7 (7)	
		STUDENT AFF	32.3 (21)	50.8 (33)	16.9 (11)	
		BUDGET-FIN	12.7 (7)	49.1 (27)	38.2 (21)	
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	PRESIDENT	14.9 (7)	76.6 (36)	8.5 (4)	
		ACAO AFF	8.6 (5)	82.8 (48)	8.6 (5)	
		STUDENT AFF	10.8 (7)	75.8 (48)	15.4 (10)	
		BUDGET-FIN	10.9 (6)	54.5 (30)	34.5 (19)	
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	PRESIDENT	33.3 (16)	56.2 (27)	10.4 (5)	
		ACAO AFF	30.5 (18)	62.7 (37)	6.8 (4)	
		STUDENT AFF	44.6 (29)	44.6 (29)	10.8 (7)	
		BUDGET-FIN	43.6 (24)	30.9 (17)	25.5 (14)	
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	PRESIDENT	52.0 (26)	30.0 (15)	18.0 (9)	
		ACAO AFF	51.7 (31)	35.0 (21)	13.3 (8)	
		STUDENT AFF	52.3 (34)	19. (19)	18.5 (12)	
		BUDGET-FIN	42.6 (23)	11.8 (15)	29.6 (16)	
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	PRESIDENT	54.0 (27)	34.0 (17)	12.0 (6)	
		ACAO AFF	36.7 (22)	46.7 (28)	16.7 (10)	
		STUDENT AFF	53.8 (35)	32.3 (21)	13.8 (9)	
		BUDGET-FIN	50.0 (27)	33.3 (18)	16.7 (9)	

OUTCOME MEASURE		BEST COPY AVAILABLE		HAVE ACCESS (%) (n)	DON'T HAVE ACCESS (%) (n)	NOT SURE (%) (n)
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	PRESIDENT	64.0 (32)	18.0 (9)	18.0 (9)	
		ACAD AFF	54.2 (32)	39.0 (23)	6.8 (4)	
		STUDENT AFF	59.4 (38)	29.7 (19)	10.9 (7)	
		BUDGET-FIN	65.5 (36)	20.0 (11)	14.5 (8)	
B-4	Number of awards and citations received per student and/or former student for their academic performance.	PRESIDENT	30.0 (15)	64.0 (32)	6.0 (3)	
		ACAD AFF	20.3 (12)	66.1 (39)	13.6 (8)	
		STUDENT AFF	36.9 (24)	41.5 (27)	21.5 (14)	
		BUDGET-FIN	37.0 (20)	35.2 (19)	27.8 (15)	
B-5	Number of students receiving a degree, diploma, and certificate within a certain time period.	PRESIDENT	72.0 (36)	20.0 (10)	8.0 (4)	
		ACAD AFF	67.8 (40)	23.7 (14)	8.5 (5)	
		STUDENT AFF	84.4 (54)	14.1 (9)	1.6 (1)	
		BUDGET-FIN	78.2 (43)	12.7 (7)	9.1 (5)	
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	PRESIDENT	52.0 (26)	32.0 (16)	16.0 (8)	
		ACAD AFF	37.9 (22)	43.1 (25)	19.0 (11)	
		STUDENT AFF	63.1 (41)	29.2 (19)	7.7 (5)	
		BUDGET-FIN	54.5 (30)	23.6 (13)	21.8 (12)	
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	PRESIDENT	60.0 (30)	28.0 (14)	12.0 (6)	
		ACAD AFF	40.0 (24)	35.0 (21)	25.0 (15)	
		STUDENT AFF	67.7 (44)	18.5 (12)	13.8 (9)	
		BUDGET-FIN	61.8 (34)	16.4 (9)	21.8 (12)	
B-8	Number and percentage of graduates for the year who transferred from another school.	PRESIDENT	76.5 (39)	15.7 (8)	7.8 (4)	
		ACAD AFF	60.0 (36)	23.3 (14)	16.7 (10)	
		STUDENT AFF	70.8 (46)	16.9 (11)	12.3 (8)	
		BUDGET-FIN	63.6 (35)	16.4 (9)	20.0 (11)	
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	PRESIDENT	78.4 (40)	11.8 (6)	9.8 (5)	
		ACAD AFF	63.3 (38)	23.3 (14)	13.3 (8)	
		STUDENT AFF	83.1 (54)	9.2 (6)	7.7 (5)	
		BUDGET-FIN	70.9 (39)	9.1 (5)	20.0 (11)	
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	PRESIDENT	27.1 (13)	52.1 (25)	20.8 (10)	
		ACAD AFF	11.7 (7)	66.7 (40)	21.7 (13)	
		STUDENT AFF	33.8 (22)	47.7 (31)	18.5 (12)	
		BUDGET-FIN	33.3 (18)	29.6 (16)	37.0 (20)	
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	PRESIDENT	18.7 (9)	70.8 (34)	10.4 (5)	
		ACAD AFF	10.0 (6)	76.7 (46)	13.3 (8)	
		STUDENT AFF	20.0 (13)	58.5 (38)	21.5 (14)	
		BUDGET-FIN	20.4 (11)	51.9 (28)	27.8 (15)	
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	PRESIDENT	8.2 (4)	81.6 (40)	10.2 (5)	
		ACAD AFF	6.7 (4)	85.0 (51)	8.3 (5)	
		STUDENT AFF	9.2 (6)	73.8 (48)	16.9 (11)	
		BUDGET-FIN	3.6 (2)	58.2 (32)	38.2 (21)	
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	PRESIDENT	2.0 (1)	93.9 (46)	4.1 (2)	
		ACAD AFF	5.1 (3)	86.4 (51)	8.5 (5)	
		STUDENT AFF	4.6 (3)	75.4 (49)	20.0 (13)	
		BUDGET-FIN	1.8 (1)	63.6 (35)	34.5 (19)	
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	PRESIDENT	2.1 (1)	91.7 (44)	6.2 (3)	
		ACAD AFF	5.0 (3)	91.7 (55)	3.3 (2)	
		STUDENT AFF	3.1 (2)	84.6 (55)	12.3 (8)	
		BUDGET-FIN	3.6 (2)	61.8 (34)	34.5 (19)	
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	PRESIDENT	0. (0)	96.1 (49)	3.9 (2)	
		ACAD AFF	6.7 (4)	86.7 (52)	6.7 (4)	
		STUDENT AFF	6.2 (4)	86.2 (56)	7.7 (5)	
		BUDGET-FIN	1.8 (1)	67.3 (37)	30.9 (17)	

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)	
C-2	Average amount of alumni gifts within a certain time period after graduation.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	55.8 (29) 26.7 (16) 39.1 (25) 36.4 (20)	42.3 (22) 56.7 (34) 43.7 (28) 41.8 (23)	1.9 (1) 16.7 (10) 17.2 (11) 21.8 (12)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	9.8 (5) 11.7 (7) 10.8 (7) 3.6 (2)	80.4 (41) 83.3 (50) 75.4 (49) 61.8 (34)	9.8 (5) 5.0 (3) 13.8 (9) 34.5 (19)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	7.0 (4) 6.7 (4) 3.1 (2) 3.6 (2)	82.4 (42) 85.0 (51) 83.1 (54) 65.5 (36)	9.8 (5) 8.3 (5) 13.8 (9) 30.9 (17)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	5.9 (3) 5.0 (3) 6.3 (4) 1.8 (1)	86.3 (44) 86.7 (52) 84.4 (54) 65.5 (36)	7.8 (4) 8.3 (5) 9.4 (6) 32.7 (18)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	3.9 (2) 5.0 (3) 3.1 (2) 1.8 (1)	86.3 (44) 85.0 (51) 87.7 (57) 67.3 (37)	9.8 (5) 10.0 (6) 9.2 (6) 30.9 (17)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	11.8 (6) 6.7 (4) 9.2 (6) 1.8 (1)	84.3 (43) 86.7 (52) 83.1 (54) 65.5 (36)	3.9 (2) 6.7 (4) 7.7 (5) 32.7 (18)
C-8	Student scores on a scale measuring the degree of satisfaction with their progress in achieving their occupational career goals.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	9.8 (5) 3.3 (2) 6.2 (4) 3.6 (2)	86.3 (44) 86.7 (52) 81.5 (53) 63.6 (35)	5.9 (2) 10.0 (6) 12.3 (8) 32.7 (18)
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	41.2 (21) 30.0 (18) 39.7 (25) 27.3 (15)	52.9 (27) 56.7 (34) 42.9 (27) 41.8 (23)	5.9 (3) 13.3 (8) 17.5 (11) 30.9 (17)
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	19.6 (10) 10.0 (6) 23.4 (15) 9.1 (5)	72.5 (37) 83.3 (50) 59.4 (38) 54.5 (30)	7.8 (4) 6.7 (4) 17.2 (11) 36.4 (20)
D-3	Average first salary of former students.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	27.5 (14) 16.9 (10) 37.5 (24) 21.8 (12)	62.7 (32) 71.2 (42) 51.6 (33) 47.3 (26)	9.8 (5) 11.9 (7) 10.9 (7) 30.9 (17)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	5.9 (3) 3.4 (2) 18.7 (12) 9.1 (5)	86.3 (44) 86.4 (51) 65.6 (42) 54.5 (30)	7.8 (4) 10.2 (6) 15.6 (10) 36.4 (20)
D-5	Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.0 (1) 3.3 (2) 7.9 (5) 3.6 (2)	88.0 (44) 88.3 (53) 82.5 (52) 65.5 (36)	10.0 (5) 8.3 (5) 9.5 (6) 30.9 (17)
D-6	Number of professional occupation awards and citations received per former student surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.1 (1) 0 (0) 4.7 (3) 5.5 (3)	91.7 (44) 91.5 (54) 89.1 (57) 61.8 (34)	6.2 (3) 8.5 (5) 6.3 (4) 32.7 (18)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)	
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	5.9 (3) 1.7 (1) 6.3 (4) 7.3 (4)	92.2 (47) 91.4 (53) 79.7 (51) 58.2 (32)	2.0 (1) 6.9 (4) 14.1 (9) 34.5 (19)
D-8	Number of voluntary/involuntary changes in employment within a given time period per former student surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	4.2 (2) 1.7 (1) 3.1 (2) 3.6 (2)	89.6 (43) 91.4 (53) 87.5 (56) 69.1 (38)	6.2 (3) 6.9 (4) 9.4 (6) 27.3 (15)
D-9	Number of voluntary/involuntary changes in career field within a given time period per former student surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	4.1 (2) 1.7 (1) 3.1 (2) 3.6 (2)	89.8 (44) 91.4 (53) 87.5 (56) 69.1 (38)	6.1 (3) 6.9 (4) 9.4 (6) 27.3 (15)
D-10	Average first salary expectations of students.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	6.0 (3) 6.9 (4) 20.6 (13) 10.9 (6)	82.0 (41) 86.2 (50) 68.3 (43) 63.6 (35)	17.7 (6) 8.9 (4) 11.1 (7) 25.5 (14)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	21.6 (11) 20.9 (17) 30.8 (20) 23.6 (13)	68.6 (35) 54.2 (32) 50.8 (33) 54.5 (30)	9.8 (5) 16.9 (10) 18.5 (12) 21.8 (12)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	10.2 (5) 12.3 (7) 10.8 (7) 10.9 (6)	81.6 (40) 75.4 (43) 72.3 (47) 60.0 (33)	8.2 (4) 12.3 (7) 16.9 (11) 29.1 (16)
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	20.8 (10) 20.3 (12) 27.7 (18) 16.4 (9)	70.8 (34) 67.8 (40) 55.4 (36) 52.7 (29)	8.3 (4) 11.9 (7) 16.9 (11) 30.9 (17)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	11.1 (5) 3.4 (2) 21.5 (14) 9.1 (5)	86.7 (39) 83.1 (49) 64.6 (42) 65.5 (36)	2.2 (1) 13.6 (8) 13.8 (9) 25.5 (14)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	10.6 (5) 10.2 (6) 26.2 (17) 10.9 (6)	83.0 (39) 81.4 (48) 67.7 (44) 65.5 (36)	6.4 (3) 8.5 (5) 6.2 (4) 23.6 (13)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.1 (1) 1.7 (1) 13.8 (9) 3.6 (2)	91.5 (43) 86.4 (51) 76.9 (50) 67.3 (37)	6.4 (3) 11.9 (7) 9.2 (6) 29.1 (16)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 0. (0) 3.1 (2) 3.6 (2)	95.7 (45) 93.1 (54) 82.8 (53) 70.9 (39)	4.3 (2) 6.9 (4) 14.1 (9) 25.5 (14)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 3.1 (2) 3.6 (2)	95.6 (43) 93.2 (55) 89.2 (58) 78.2 (43)	4.4 (2) 5.1 (3) 7.7 (5) 18.2 (10)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.0 (1) 3.4 (2) 1.5 (1) 1.8 (1)	91.8 (45) 89.7 (52) 86.2 (56) 76.4 (42)	6.1 (3) 6.9 (4) 12.3 (8) 21.8 (12)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE ACCESS (%) (n)	NOT SURE (%) (n)	
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 7.0 (4) 9.2 (6) 1.8 (1)	93.6 (44) 80.7 (46) 81.5 (53) 76.4 (42)	6.4 (3) 12.3 (7) 9.2 (6) 21.8 (12)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.2 (1) 0. (0) 7.7 (5) 5.6 (3)	95.7 (44) 90.0 (54) 87.7 (57) 74.1 (40)	2.2 (1) 10.0 (6) 4.6 (3) 20.4 (11)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.3 (1) 0. (0) 7.7 (5) 5.6 (3)	95.5 (42) 93.3 (56) 89.2 (58) 70.4 (38)	2.3 (1) 6.7 (4) 3.1 (2) 24.1 (13)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 4.6 (3) 1.8 (1)	93.7 (45) 88.1 (52) 89.2 (58) 78.2 (43)	6.2 (3) 10.2 (6) 6.2 (4) 20.0 (11)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 0. (0) 6.2 (4) 3.7 (2)	95.9 (47) 93.2 (55) 87.7 (57) 70.4 (38)	4.1 (2) 6.8 (4) 6.2 (4) 25.9 (14)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 4.6 (3) 3.7 (2)	95.8 (46) 91.5 (54) 92.3 (60) 66.7 (36)	4.2 (2) 6.8 (4) 3.1 (2) 29.6 (16)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	4.1 (2) 1.7 (1) 12.3 (8) 5.6 (3)	91.8 (45) 89.7 (52) 81.5 (53) 64.8 (35)	4.1 (2) 8.6 (5) 6.2 (4) 29.6 (16)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.2 (1) 1.7 (1) 1.5 (1) 0. (0)	95.7 (44) 94.9 (56) 95.4 (62) 75.9 (41)	2.2 (1) 3.4 (2) 3.1 (2) 24.1 (13)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 0. (0) 1.9 (1)	95.7 (45) 93.2 (55) 98.4 (63) 77.8 (42)	4.3 (2) 5.1 (3) 1.6 (1) 20.4 (11)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 1.5 (1) 1.9 (1)	95.7 (45) 91.5 (54) 96.9 (53) 77.8 (42)	4.3 (2) 6.8 (4) 1.5 (1) 20.4 (11)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 3.4 (2) 1.5 (1) 1.9 (1)	95.7 (45) 89.7 (52) 95.4 (62) 77.8 (42)	4.3 (2) 6.9 (4) 3.1 (2) 20.4 (11)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 0. (0) 3.7 (2)	95.8 (46) 93.2 (55) 98.5 (64) 79.6 (43)	4.2 (2) 5.1 (3) 1.5 (1) 16.7 (9)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 3.4 (2) 0. (0) 3.7 (2)	93.7 (45) 83.1 (52) 96.9 (63) 77.8 (42)	6.2 (3) 8.5 (5) 3.1 (2) 18.5 (10)

OUTCOME MEASURE		HAVE ACCESS		DON'T HAVE ACCESS		NOT SURE	
		(%)	(n)	(%)	(n)	(%)	(n)
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 3.4 (2) 0. (0) 3.7 (2)	93.7 (45) 89.8 (53) 95.4 (62) 75.9 (41)	6.2 (3) 6.8 (4) 4.6 (3) 20.4 (11)		
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 5.1 (3) 4.7 (3) 5.6 (3)	93.9 (46) 88.1 (52) 90.6 (58) 75.9 (41)	6.1 (3) 6.8 (4) 4.7 (3) 18.5 (10)		
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 4.7 (3) 5.6 (3)	94.0 (47) 91.7 (55) 90.6 (58) 77.8 (42)	6.0 (3) 6.7 (4) 4.7 (3) 16.7 (9)		
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all student and/or former students surveyed.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.0 (1) 1.7 (1) 0. (0) 3.7 (2)	95.9 (47) 93.1 (54) 95.2 (60) 81.5 (44)	2.0 (1) 5.2 (3) 4.8 (3) 14.8 (8)		
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	70.0 (35) 45.8 (27) 50.0 (32) 56.4 (31)	22.0 (11) 39.0 (23) 39.1 (25) 25.5 (14)	8.0 (4) 15.3 (9) 10.9 (7) 18.2 (10)		
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	6.1 (3) 5.1 (3) 7.8 (5) 5.5 (3)	89.8 (44) 84.7 (50) 82.8 (53) 69.1 (38)	4.1 (2) 10.2 (6) 9.4 (6) 25.5 (14)		
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 1.7 (1) 1.6 (1) 3.6 (2)	98.0 (49) 89.7 (52) 92.2 (59) 69.1 (38)	2.0 (1) 8.6 (5) 6.3 (4) 27.3 (15)		
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	0. (0) 0. (0) 1.6 (1) 1.8 (1)	98.0 (48) 93.1 (54) 93.7 (60) 71.4 (40)	2.0 (1) 6.9 (4) 4.7 (3) 26.8 (15)		
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	10.2 (5) 8.5 (5) 15.6 (10) 21.8 (12)	83.7 (41) 76.3 (45) 78.1 (50) 56.4 (31)	6.1 (3) 15.3 (9) 6.3 (4) 21.8 (12)		
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.0 (1) 3.4 (2) 4.7 (3) 9.1 (5)	92.0 (46) 88.1 (52) 89.1 (57) 63.6 (35)	6.0 (3) 8.5 (5) 6.3 (4) 27.3 (15)		
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	12.5 (6) 11.5 (7) 17.2 (11) 9.3 (5)	70.8 (34) 77.0 (47) 73.4 (47) 64.8 (35)	16.7 (8) 11.5 (7) 9.4 (6) 25.9 (14)		
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	2.0 (1) 3.4 (2) 3.1 (2) 1.9 (1)	93.9 (46) 89.8 (53) 84.4 (54) 75.9 (41)	4.1 (2) 6.8 (4) 12.5 (8) 22.2 (12)		
H-3	Ratio of total income for community services to total budget for community services.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	34.0 (17) 23.7 (14) 14.8 (9) 27.8 (15)	54.0 (27) 69.5 (41) 73.8 (45) 59.3 (32)	12.0 (6) 6.8 (4) 11.5 (7) 13.0 (7)		

OUTCOME MEASURE		HAVE ACCESS (%) (n)		DON'T HAVE (%) ACCESS(n)		NOT SURE (%) (n)							
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.	PRESIDENT 72.0 (36)	ACAD AFF 73.3 (44)	STUDENT AFF 49.2 (32)	BUDGET-FIN 70.4 (38)	26.0 (13)	21.7 (13)	43.1 (28)	22.2 (12)	2.0 (1)	5.0 (3)	7.7 (5)	7.4 (4)
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	PRESIDENT 34.0 (17)	ACAD AFF 24.6 (15)	STUDENT AFF 25.0 (16)	BUDGET-FIN 35.2 (19)	62.0 (31)	63.9 (39)	67.8 (37)	42.6 (23)	4.0 (2)	11.5 (7)	17.2 (11)	22.2 (12)
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	PRESIDENT 18.7 (9)	ACAD AFF 6.6 (4)	STUDENT AFF 22.2 (14)	BUDGET-FIN 18.5 (10)	75.0 (36)	86.9 (53)	68.3 (43)	63.0 (34)	6.2 (3)	6.6 (4)	9.5 (6)	18.5 (10)
H-7	Number and percentage of persons attending self and extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	PRESIDENT 10.2 (5)	ACAD AFF 18.3 (11)	STUDENT AFF 21.9 (14)	BUDGET-FIN 14.8 (8)	77.6 (38)	76.7 (46)	67.2 (43)	68.5 (37)	12.2 (6)	5.0 (3)	10.9 (7)	16.7 (9)
I-1	Number and percentage of students who are employed in businesses, agencies and organizations in the community.	PRESIDENT 21.6 (11)	ACAD AFF 11.5 (7)	STUDENT AFF 18.5 (12)	BUDGET-FIN 20.0 (11)	60.8 (31)	77.0 (47)	61.5 (41)	50.9 (28)	17.6 (9)	11.5 (7)	20.0 (13)	29.1 (16)
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	PRESIDENT 22.0 (11)	ACAD AFF 18.3 (11)	STUDENT AFF 30.8 (20)	BUDGET-FIN 14.5 (8)	68.0 (34)	73.8 (45)	55.4 (36)	56.4 (31)	10.0 (5)	8.2 (5)	13.8 (9)	29.1 (16)
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	PRESIDENT 36.5 (19)	ACAD AFF 1.5 (7)	STUDENT AFF 23.6 (17)	BUDGET-FIN 49.1 (27)	51.9 (27)	78.7 (48)	57.8 (37)	36.4 (20)	11.5 (6)	9.8 (6)	15.6 (10)	14.5 (8)
I-4	Faculty/staff and student expenditures in the community within a certain time period.	PRESIDENT 11.5 (6)	ACAD AFF 6.6 (4)	STUDENT AFF 7.7 (5)	BUDGET-FIN 16.4 (9)	76.9 (40)	88.5 (54)	80.0 (52)	67.3 (37)	11.5 (6)	4.9 (3)	12.3 (8)	16.4 (9)
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	PRESIDENT 51.0 (26)	ACAD AFF 23.9 (14)	STUDENT AFF 43.1 (28)	BUDGET-FIN 32.7 (18)	47.1 (24)	68.9 (42)	50.8 (33)	43.6 (24)	2.0 (1)	8.2 (5)	6.2 (4)	23.6 (13)
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	PRESIDENT 69.2 (36)	ACAD AFF 34.4 (21)	STUDENT AFF 54.7 (35)	BUDGET-FIN 80.0 (44)	26.9 (14)	60.7 (37)	35.9 (23)	16.4 (9)	3.8 (2)	4.9 (3)	9.4 (6)	3.6 (2)
I-7	Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	PRESIDENT 14.9 (7)	ACAD AFF 6.6 (4)	STUDENT AFF 13.8 (9)	BUDGET-FIN 7.3 (4)	80.9 (38)	83.6 (51)	75.4 (49)	67.3 (37)	4.3 (2)	9.8 (6)	10.8 (7)	25.5 (14)
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	PRESIDENT 18.0 (9)	ACAD AFF 5.0 (3)	STUDENT AFF 17.5 (11)	BUDGET-FIN 10.9 (6)	80.0 (40)	88.3 (53)	73.0 (46)	65.5 (36)	2.0 (1)	6.7 (4)	9.5 (6)	23.6 (13)
I-9	Value of community business properties attributable to institution-related expenditures.	PRESIDENT 6.2 (3)	ACAD AFF 5.0 (3)	STUDENT AFF 9.4 (6)	BUDGET-FIN 5.5 (3)	85.4 (41)	91.7 (55)	75.0 (48)	74.5 (41)	8.3 (4)	3.3 (2)	15.6 (10)	20.0 (11)



OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	PRESIDENT 12.2 (6) ACAD AFF 6.7 (4) STUDENT AFF 16.9 (11) BUDGET-FIN 9.1 (5)	81.6 (40) 88.3 (53) 76.4 (49) 67.3 (37)	6.1 (3) 5.0 (3) 7.7 (5) 23.6 (13)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	PRESIDENT 9.8 (5) ACAD AFF 3.3 (2) STUDENT AFF 14.1 (9) BUDGET-FIN 3.6 (2)	76.5 (39) 82.0 (50) 68.7 (44) 63.6 (35)	13.7 (7) 14.8 (9) 17.2 (11) 32.7 (18)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	PRESIDENT 6.0 (3) ACAD AFF 8.3 (5) STUDENT AFF 18.5 (12) BUDGET-FIN 7.3 (4)	80.0 (40) 85.0 (51) 64.6 (42) 67.3 (37)	14.0 (7) 6.7 (4) 16.9 (11) 25.5 (14)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	PRESIDENT 42.0 (21) ACAD AFF 25.0 (15) STUDENT AFF 43.1 (28) BUDGET-FIN 40.0 (22)	54.0 (27) 68.3 (41) 44.6 (29) 41.8 (23)	4.0 (2) 6.7 (4) 12.3 (8) 18.2 (10)
I-14	Geographic distribution of alumni.	PRESIDENT 55.8 (29) ACAD AFF 37.7 (23) STUDENT AFF 52.3 (34) BUDGET-FIN 50.9 (28)	36.5 (19) 55.7 (34) 36.9 (24) 29.1 (16)	7.7 (4) 6.6 (4) 10.8 (7) 20.0 (11)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	PRESIDENT 24.0 (12) ACAD AFF 11.7 (7) STUDENT AFF 21.9 (14) BUDGET-FIN 18.2 (10)	58.0 (29) 78.3 (47) 59.4 (38) 47.3 (26)	18.0 (9) 10.0 (6) 18.7 (12) 34.5 (19)
I-16	Number of persons from the community employed by the institution.	PRESIDENT 84.6 (44) ACAD AFF 68.3 (41) STUDENT AFF 67.7 (44) BUDGET-FIN 83.6 (46)	15.4 (8) 25.0 (15) 29.2 (19) 10.9 (6)	0. (0) 6.7 (4) 3.1 (2) 5.5 (3)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	PRESIDENT 18.7 (9) ACAD AFF 14.8 (9) STUDENT AFF 15.6 (10) BUDGET-FIN 16.7 (9)	75.0 (36) 75.4 (46) 67.2 (43) 59.3 (32)	6.2 (3) 9.8 (6) 17.2 (11) 24.1 (13)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	PRESIDENT 2.1 (1) ACAD AFF 0. (0) STUDENT AFF 0. (0) BUDGET-FIN 3.7 (2)	95.7 (45) 93.3 (56) 84.6 (55) 70.4 (38)	2.1 (1) 6.7 (4) 15.4 (10) 25.9 (14)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	PRESIDENT 40.0 (20) ACAD AFF 49.2 (30) STUDENT AFF 30.8 (20) BUDGET-FIN 22.2 (12)	58.0 (29) 39.3 (24) 60.0 (39) 51.9 (28)	2.0 (1) 11.5 (7) 9.2 (6) 25.9 (14)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	PRESIDENT 28.6 (14) ACAD AFF 26.2 (16) STUDENT AFF 26.2 (17) BUDGET-FIN 13.0 (7)	65.3 (32) 59.0 (36) 58.5 (38) 53.7 (29)	6.1 (3) 14.8 (9) 15.4 (10) 33.3 (18)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	PRESIDENT 14.3 (7) ACAD AFF 19.7 (12) STUDENT AFF 12.3 (8) BUDGET-FIN 13.0 (7)	81.6 (40) 63.9 (39) 69.2 (45) 53.7 (29)	4.1 (2) 16.4 (10) 18.5 (12) 33.3 (18)
J-6	Average amount of faculty time spent in selected research and art producing activities.	PRESIDENT 24.5 (12) ACAD AFF 21.3 (13) STUDENT AFF 15.6 (10) BUDGET-FIN 22.2 (12)	69.4 (34) 68.9 (42) 70.3 (45) 50.0 (27)	6.1 (3) 9.8 (6) 14.1 (9) 27.8 (15)

OUTCOME MEASURE		HAVE ACCESS		DON'T HAVE ACCESS		NOT SURE	
		(%)	(n)	(%)	(n)	(%)	(n)
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	54.9 (28) 56.7 (34) 47.7 (31) 63.6 (35)	43.1 (22) 36.7 (22) 38.5 (25) 29.1 (16)	2.0 (1) 6.7 (4) 13.8 (9) 7.3 (4)		
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	73.1 (38) 60.0 (36) 60.0 (39) 83.6 (46)	26.9 (14) 33.3 (20) 35.4 (23) 10.9 (6)	0. (0) 6.7 (4) 4.6 (3) 5.5 (3)		
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	36.7 (18) 41.0 (25) 32.3 (21) 22.2 (12)	57.1 (38) 50.8 (31) 53.8 (35) 44.4 (24)	6.1 (3) 8.2 (5) 13.8 (9) 33.3 (18)		
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	14.6 (7) 13.6 (8) 13.8 (9) 14.5 (8)	81.2 (39) 76.3 (45) 72.3 (47) 60.0 (33)	4.2 (2) 10.2 (6) 13.8 (9) 25.5 (14)		
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	45.1 (23) 57.4 (35) 31.2 (20) 29.1 (16)	51.0 (26) 26.2 (16) 56.2 (36) 45.5 (25)	3.9 (2) 16.4 (10) 12.5 (8) 25.5 (14)		
J-12	Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	12.0 (6) 10.0 (6) 14.1 (9) 9.1 (5)	78.0 (39) 83.3 (50) 75.0 (48) 65.5 (36)	10.0 (5) 6.7 (4) 10.9 (7) 25.5 (14)		
J-13	Number and percentage of graduates engaged in research activities.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	6.1 (3) 8.3 (5) 12.5 (8) 10.9 (6)	85.7 (42) 80.0 (48) 73.4 (47) 63.6 (35)	8.2 (4) 11.7 (7) 14.1 (9) 25.5 (14)		
J-14	Number and percentage of faculty /staff and students invited to participate in professional meetings and conferences.	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	31.4 (16) 28.3 (17) 27.0 (17) 16. (9)	60.8 (31) 51.7 (31) 60.3 (38) 56.4 (31)	7.8 (4) 20.0 (12) 12.7 (8) 27.3 (15)		
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	PRESIDENT ACAD AFF STUDENT AFF BUDGET-FIN	18.0 (9) 5.2 (3) 12.7 (8) 5.5 (3)	76.0 (38) 77.6 (45) 77.8 (49) 65.5 (36)	6.0 (3) 17.2 (10) 9.5 (6) 29.1 (16)		

**TABLE C.3**

**The Percentage and Number of  
Responses to the "Needs" Question, by  
Administrators in Community Colleges,  
Four-Year Colleges, and Universities\***

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\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED		
		(%)	(n)	(%)	(n)	(%)	(n)	
A-1	Student scores on tests that indicate development in their <u>breadth</u> of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	COMM COLL	41.9	(26)	37.1	(23)	21.0	(13)
		4-YR COLL	30.4	(28)	46.7	(43)	22.8	(21)
		UNIVERSITY	30.0	(24)	36.2	(29)	33.7	(27)
A-2	Student scores on tests that indicate development in their <u>depth</u> of knowledge concerning facts and principles in the particular fields in which a student elects to study.	COMM COLL	35.5	(22)	48.4	(30)	16.1	(10)
		4-YR COLL	32.6	(30)	41.3	(38)	26.1	(24)
		UNIVERSITY	28.7	(23)	38.7	(31)	32.5	(26)
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	COMM COLL	54.8	(34)	30.6	(19)	14.5	(9)
		4-YR COLL	16.7	(15)	56.7	(51)	26.7	(24)
		UNIVERSITY	25.0	(20)	50.0	(40)	25.0	(20)
A-4	Student scores on tests that indicate their ability to <u>apply</u> general or specialized knowledge to a problem and to implement a solution.	COMM COLL	34.4	(21)	42.6	(26)	25.0	(14)
		4-YR COLL	25.0	(23)	48.9	(45)	26.1	(24)
		UNIVERSITY	25.0	(20)	42.5	(34)	32.5	(26)
A-5	Student scores on tests that indicate their ability to <u>analyze</u> problems (e.g., the recognition of biased points in an article or speech).	COMM COLL	34.4	(21)	41.0	(25)	24.6	(15)
		4-YR COLL	22.0	(20)	50.5	(46)	27.5	(25)
		UNIVERSITY	25.3	(20)	41.8	(33)	32.9	(26)
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	COMM COLL	0.0	(0)	36.1	(22)	63.9	(39)
		4-YR COLL	3.3	(3)	42.4	(39)	54.3	(50)
		UNIVERSITY	7.5	(6)	36.2	(29)	56.2	(45)
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	COMM COLL	65.6	(40)	18.0	(11)	16.4	(10)
		4-YR COLL	54.3	(50)	25.0	(23)	20.7	(19)
		UNIVERSITY	41.2	(33)	35.0	(28)	23.7	(19)
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	COMM COLL	23.0	(14)	49.2	(30)	27.9	(17)
		4-YR COLL	22.0	(20)	37.4	(34)	40.7	(37)
		UNIVERSITY	6.2	(5)	50.0	(40)	43.7	(35)
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	COMM COLL	9.8	(6)	47.5	(29)	42.6	(26)
		4-YR COLL	4.3	(4)	31.5	(29)	64.1	(59)
		UNIVERSITY	2.5	(2)	18.7	(15)	78.7	(63)
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	COMM COLL	11.5	(7)	45.9	(28)	42.6	(26)
		4-YR COLL	13.2	(12)	40.7	(37)	46.2	(42)
		UNIVERSITY	3.7	(3)	47.5	(38)	48.7	(39)
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	COMM COLL	52.5	(32)	39.3	(24)	8.2	(5)
		4-YR COLL	42.9	(39)	45.1	(41)	12.1	(11)
		UNIVERSITY	40.0	(32)	41.2	(33)	18.7	(15)
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	COMM COLL	29.5	(18)	54.1	(33)	16.4	(10)
		4-YR COLL	33.0	(30)	46.2	(42)	20.9	(19)
		UNIVERSITY	46.2	(37)	35.0	(28)	18.7	(15)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED	
		(%)	(n)	(%)	(n)	(%)	(n)
B-3 Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	COMM COLL	55.7	(34)	36.1	(22)	8.2	(5)
	4-YR COLL	50.6	(48)	30.8	(28)	18.7	(17)
	UNIVERSITY	39.2	(31)	36.7	(29)	24.1	(19)
B-4 Number of awards and citations received per student and/or former student for their academic performance.	COMM COLL	23.0	(14)	45.8	(28)	31.1	(19)
	4-YR COLL	23.1	(21)	48.4	(44)	28.6	(26)
	UNIVERSITY	7.6	(6)	57.0	(45)	35.4	(28)
B-5 Number of students receiving a degree, diploma, and certificate within a certain time period.	COMM COLL	73.8	(45)	19.7	(12)	6.6	(4)
	4-YR COLL	69.7	(62)	21.3	(19)	9.0	(8)
	UNIVERSITY	71.2	(57)	22.5	(18)	6.2	(5)
B-6 Average amount of time it takes a student to earn a degree, diploma, or certificate.	COMM COLL	60.7	(37)	32.8	(20)	6.6	(4)
	4-YR COLL	47.3	(43)	41.8	(38)	11.0	(10)
	UNIVERSITY	53.2	(47)	35.4	(28)	11.4	(9)
B-7 Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	COMM COLL	62.3	(38)	27.8	(17)	9.8	(6)
	4-YR COLL	63.7	(58)	27.5	(25)	8.8	(8)
	UNIVERSITY	58.7	(47)	33.7	(27)	7.5	(6)
B-8 Number and percentage of graduates for the year who transferred from another school.	COMM COLL	47.6	(29)	41.0	(25)	11.5	(7)
	4-YR COLL	56.0	(51)	31.9	(29)	12.1	(11)
	UNIVERSITY	62.5	(50)	31.2	(25)	6.2	(5)
B-9 Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	COMM COLL	73.8	(45)	21.3	(13)	4.9	(3)
	4-YR COLL	71.4	(65)	22.0	(20)	6.6	(6)
	UNIVERSITY	70.0	(56)	26.2	(21)	3.7	(3)
B-10 Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	COMM COLL	57.4	(35)	31.1	(19)	11.5	(7)
	4-YR COLL	35.6	(32)	47.8	(43)	16.7	(15)
	UNIVERSITY	30.8	(24)	50.0	(39)	19.2	(15)
B-11 Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	COMM COLL	33.3	(20)	48.3	(29)	18.3	(11)
	4-YR COLL	26.4	(24)	58.2	(53)	15.4	(14)
	UNIVERSITY	16.2	(13)	61.2	(49)	22.5	(18)
B-12 Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	COMM COLL	32.8	(20)	45.9	(28)	21.3	(13)
	4-YR COLL	25.3	(23)	53.8	(49)	20.9	(19)
	UNIVERSITY	27.5	(22)	42.5	(34)	30.0	(24)
B-13 Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	COMM COLL	32.8	(20)	45.9	(28)	21.3	(13)
	4-YR COLL	25.6	(23)	48.9	(44)	25.6	(23)
	UNIVERSITY	27.5	(22)	47.5	(38)	25.0	(20)
B-14 Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	COMM COLL	27.9	(17)	52.5	(32)	19.7	(12)
	4-YR COLL	17.8	(16)	53.3	(48)	28.9	(26)
	UNIVERSITY	31.2	(25)	41.2	(33)	27.5	(22)
C-1 Number and percentage of former students surveyed who indicate that they would send their children to the same school.	COMM COLL	24.6	(15)	60.7	(37)	14.8	(9)
	4-YR COLL	29.3	(27)	56.5	(52)	14.1	(13)
	UNIVERSITY	25.0	(20)	60.0	(48)	15.0	(12)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED	
		(%)	(n)	(%)	(n)	(%)	(n)
C-2 Average amount of alumni gifts within a certain time period after graduation.	COMM COLL	20.0	(12)	43.3	(26)	36.7	(22)
	4-YR COLL	30.4	(28)	48.9	(45)	20.7	(19)
	UNIVERSITY	26.2	(21)	51.2	(41)	22.5	(18)
C-3 Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	COMM COLL	52.5	(32)	37.7	(23)	9.8	(6)
	4-YR COLL	46.7	(43)	45.7	(42)	7.6	(7)
	UNIVERSITY	36.2	(29)	48.7	(39)	15.0	(12)
C-4 Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	COMM COLL	45.9	(28)	42.6	(26)	11.5	(7)
	4-YR COLL	37.0	(34)	48.9	(45)	14.1	(13)
	UNIVERSITY	32.5	(26)	41.2	(33)	26.2	(21)
C-5 Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	COMM COLL	39.3	(24)	45.9	(28)	14.8	(9)
	4-YR COLL	32.6	(30)	52.2	(48)	15.2	(14)
	UNIVERSITY	27.5	(22)	41.2	(33)	31.2	(25)
C-6 Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	COMM COLL	37.7	(23)	44.3	(27)	18.0	(11)
	4-YR COLL	31.5	(29)	52.2	(48)	16.3	(15)
	UNIVERSITY	25.0	(20)	42.5	(34)	32.5	(26)
C-7 Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	COMM COLL	54.1	(33)	36.1	(22)	9.8	(6)
	4-YR COLL	42.4	(39)	48.9	(45)	8.7	(8)
	UNIVERSITY	35.0	(28)	42.5	(34)	22.5	(18)
C-8 Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	COMM COLL	55.7	(34)	36.1	(22)	8.2	(5)
	4-YR COLL	42.4	(39)	47.8	(44)	9.8	(9)
	UNIVERSITY	35.0	(28)	45.0	(36)	20.0	(16)
D-1 Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	COMM COLL	65.6	(40)	32.8	(20)	1.6	(1)
	4-YR COLL	38.0	(35)	50.0	(46)	12.0	(11)
	UNIVERSITY	29.1	(23)	53.2	(42)	17.7	(14)
D-2 Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	COMM COLL	47.5	(29)	37.7	(23)	14.8	(9)
	4-YR COLL	28.3	(26)	51.1	(47)	20.7	(19)
	UNIVERSITY	16.5	(13)	57.0	(45)	26.6	(21)
D-3 Average first salary of former students.	COMM COLL	49.2	(30)	41.0	(25)	9.8	(6)
	4-YR COLL	18.5	(17)	66.3	(61)	15.2	(14)
	UNIVERSITY	17.7	(14)	55.7	(44)	26.6	(21)
D-4 Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	COMM COLL	38.3	(23)	45.0	(27)	16.7	(10)
	4-YR COLL	13.0	(12)	69.6	(64)	17.4	(16)
	UNIVERSITY	16.5	(13)	57.0	(45)	26.6	(21)
D-5 Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	COMM COLL	44.3	(27)	37.7	(23)	18.0	(11)
	4-YR COLL	13.2	(12)	62.6	(57)	24.2	(22)
	UNIVERSITY	15.2	(12)	45.6	(36)	39.2	(31)
D-6 Number of professional occupation awards and citations received per former student surveyed.	COMM COLL	16.4	(10)	47.5	(29)	36.1	(22)
	4-YR COLL	6.5	(6)	58.7	(54)	34.8	(32)
	UNIVERSITY	7.6	(6)	51.9	(41)	40.5	(32)

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED							
		(%)	(n)	(%)	(n)	(%)	(n)						
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	COMM COLL	23.3 (14)	51.7 (31)	25.0 (15)	4-YR COLL	20.7 (19)	60.9 (56)	18.5 (17)	UNIVERSITY	10.1 (8)	57.0 (45)	32.9 (26)
D-8	Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	COMM COLL	26.2 (16)	49.2 (30)	24.6 (15)	4-YR COLL	7.6 (7)	54.3 (50)	38.0 (35)	UNIVERSITY	10.1 (8)	35.4 (28)	54.4 (43)
D-9	Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	COMM COLL	27.9 (17)	49.2 (30)	23.0 (14)	4-YR COLL	13.0 (12)	51.1 (47)	35.9 (33)	UNIVERSITY	8.9 (7)	43.0 (34)	48.1 (38)
D-10	Average first salary expectations of students.	COMM COLL	31.1 (19)	49.2 (30)	19.7 (12)	4-YR COLL	12.0 (11)	60.9 (56)	27.2 (25)	UNIVERSITY	13.9 (11)	44.3 (35)	41.8 (33)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	COMM COLL	63.9 (39)	27.9 (17)	8.2 (5)	4-YR COLL	52.2 (48)	40.2 (37)	7.6 (7)	UNIVERSITY	45.0 (36)	36.2 (29)	18.7 (15)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	COMM COLL	47.0 (25)	42.6 (26)	16.4 (10)	4-YR COLL	34.4 (31)	44.4 (40)	21.1 (19)	UNIVERSITY	20.0 (16)	40.0 (32)	40.0 (32)
O-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	COMM COLL	49.2 (30)	36.1 (22)	14.8 (9)	4-YR COLL	38.5 (35)	50.5 (46)	11.0 (10)	UNIVERSITY	28.7 (23)	43.7 (35)	27.5 (22)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	COMM COLL	11.9 (7)	40.7 (24)	47.5 (28)	4-YR COLL	14.1 (13)	34.8 (32)	51.1 (47)	UNIVERSITY	15.0 (12)	27.5 (22)	57.5 (46)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	COMM COLL	10.2 (6)	47.5 (28)	42.4 (25)	4-YR COLL	18.5 (17)	29.3 (27)	52.2 (48)	UNIVERSITY	16.2 (13)	22.5 (18)	61.2 (49)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	COMM COLL	1.7 (1)	25.4 (15)	72.9 (43)	4-YR COLL	4.3 (4)	37.0 (34)	58.7 (54)	UNIVERSITY	8.7 (7)	26.2 (21)	65.0 (52)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	COMM COLL	0.0 (0)	33.9 (20)	66.1 (39)	4-YR COLL	9.8 (9)	30.4 (28)	59.8 (55)	UNIVERSITY	11.2 (9)	23.7 (19)	65.0 (52)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	COMM COLL	0.0 (0)	23.7 (14)	76.3 (45)	4-YR COLL	7.6 (7)	21.7 (20)	70.7 (65)	UNIVERSITY	5.0 (4)	32.5 (26)	62.5 (50)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	COMM COLL	8.5 (5)	57.6 (34)	33.9 (20)	4-YR COLL	17.4 (16)	41.3 (38)	41.3 (38)	UNIVERSITY	15.0 (12)	48.7 (39)	36.2 (29)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	COMM COLL 4-YR COLL UNIVERSITY	25.4 (15) 27.2 (25) 16.2 (13)	42.4 (25) 33.7 (31) 36.2 (29)	32.2 (19) 39.1 (36) 47.5 (38)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	COMM COLL 4-YR COLL UNIVERSITY	8.2 ( 5) 9.8 ( 9) 3.7 ( 3)	45.9 (28) 46.7 (43) 46.2 (37)	45.9 (28) 43.5 (40) 50.0 (40)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	COMM COLL 4-YR COLL UNIVERSITY	4.9 ( 3) 7.6 ( 7) 3.7 ( 3)	47.5 (29) 52.2 (48) 51.2 (41)	47.5 (29) 40.2 (37) 45.0 (36)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	COMM COLL 4-YR COLL UNIVERSITY	23.0 (14) 18.5 (17) 11.2 ( 9)	42.6 (26) 41.3 (38) 41.2 (33)	34.4 (21) 40.2 (37) 47.5 (38)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	COMM COLL 4-YR COLL UNIVERSITY	4.9 ( 3) 13.0 (12) 3.7 ( 3)	54.1 (33) 51.1 (47) 52.5 (42)	41.0 (25) 35.9 (33) 43.7 (35)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	COMM COLL 4-YR COLL UNIVERSITY	6.6 ( 4) 12.0 (11) 5.0 ( 4)	52.5 (32) 53.3 (49) 46.2 (37)	41.0 (25) 34.8 (32) 48.7 (39)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	COMM COLL 4-YR COLL UNIVERSITY	5.0 ( 3) 10.9 (10) 7.5 ( 6)	55.0 (33) 51.1 (47) 43.7 (35)	40.0 (24) 38.0 (35) 48.7 (39)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	COMM COLL 4-YR COLL UNIVERSITY	0.0 ( 0) 1.1 ( 1) 2.5 ( 2)	24.6 (15) 16.3 (15) 21.5 (17)	75.4 (46) 82.6 (76) 75.9 (60)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	COMM COLL 4-YR COLL UNIVERSITY	1.6 ( 1) 5.4 ( 5) 3.7 ( 3)	18.0 (11) 19.6 (18) 35.0 (28)	80.3 (49) 75.0 (69) 61.2 (49)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	COMM COLL 4-YR COLL UNIVERSITY	3.3 ( 2) 6.5 ( 6) 3.7 ( 3)	37.7 (23) 30.4 (28) 32.5 (26)	59.0 (36) 63.0 (58) 63.7 (51)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	COMM COLL 4-YR COLL UNIVERSITY	4.9 ( 3) 6.6 ( 6) 3.7 ( 3)	41.0 (25) 24.2 (22) 33.7 (27)	54.1 (33) 69.2 (63) 62.5 (50)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	COMM COLL 4-YR COLL UNIVERSITY	1.6 ( 1) 4.3 ( 4) 3.7 ( 3)	39.3 (24) 28.3 (26) 35.0 (28)	59.0 (36) 67.4 (62) 61.2 (49)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	COMM COLL 4-YR COLL UNIVERSITY	14.8 ( 9) 17.4 (16) 16.2 (13)	34.4 (21) 39.1 (36) 38.7 (31)	50.8 (31) 43.5 (40) 45.0 (36)



OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	COMM COLL	14.8 ( 9)	44.3 (27)	41.0 (25)
		4-YR COLL	17.4 (16)	47.8 (44)	34.8 (32)
		UNIVERSITY	15.0 (12)	42.5 (34)	42.5 (34)
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	COMM COLL	18.0 (11)	49.2 (30)	32.8 (20)
		4-YR COLL	15.4 (14)	52.7 (48)	31.9 (29)
		UNIVERSITY	6.2 ( 5)	50.0 (40)	43.7 (35)
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	COMM COLL	14.8 ( 9)	49.2 (30)	36.1 (22)
		4-YR COLL	16.5 (15)	50.5 (46)	33.0 (30)
		UNIVERSITY	16.2 (13)	45.0 (36)	38.7 (31)
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	COMM COLL	1.6 ( 1)	36.1 (22)	62.3 (38)
		4-YR COLL	8.8 ( 8)	33.0 (30)	58.2 (53)
		UNIVERSITY	6.2 ( 5)	35.0 (28)	58.7 (47)
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	COMM COLL	60.7 (37)	31.1 (19)	8.2 ( 5)
		4-YR COLL	39.6 (36)	39.6 (36)	20.9 (19)
		UNIVERSITY	29.5 (23)	50.0 (39)	20.5 (16)
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	COMM COLL	42.6 (26)	41.0 (25)	16.4 (10)
		4-YR COLL	26.4 (24)	46.2 (42)	27.5 (25)
		UNIVERSITY	16.7 (13)	50.0 (39)	33.3 (26)
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	COMM COLL	34.4 (21)	47.5 (29)	18.0 (11)
		4-YR COLL	14.3 (13)	54.9 (50)	30.8 (28)
		UNIVERSITY	15.4 (12)	47.4 (37)	37.2 (29)
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	COMM COLL	32.8 (20)	47.5 (29)	19.7 (12)
		4-YR COLL	16.7 (15)	44.4 (40)	38.9 (35)
		UNIVERSITY	10.3 ( 8)	48.7 (38)	41.0 (32)
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	COMM COLL	37.7 (23)	42.6 (26)	19.7 (12)
		4-YR COLL	29.7 (27)	51.6 (47)	18.7 (17)
		UNIVERSITY	34.6 (27)	37.2 (29)	28.2 (22)
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	COMM COLL	32.8 (20)	47.5 (29)	19.7 (12)
		4-YR COLL	22.0 (20)	52.7 (48)	25.3 (23)
		UNIVERSITY	29.5 (23)	41.0 (32)	29.5 (23)
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	COMM COLL	27.9 (17)	54.1 (33)	18.0 (11)
		4-YR COLL	24.2 (22)	57.1 (52)	18.7 (17)
		UNIVERSITY	26.2 (21)	50.0 (40)	23.7 (19)
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	COMM COLL	24.6 (15)	47.5 (29)	27.9 (17)
		4-YR COLL	13.2 (12)	44.0 (40)	42.9 (39)
		UNIVERSITY	15.2 (12)	51.9 (41)	32.9 (26)
H-3	Ratio of total income for community services to total budget for community services.	COMM COLL	43.3 (26)	45.0 (27)	11.7 ( 7)
		4-YR COLL	23.1 (21)	39.6 (36)	37.4 (34)
		UNIVERSITY	28.2 (22)	37.2 (29)	34.6 (27)

OUTCOME MEASURE

BEST COPY AVAILABLE

NEED  
(%) (n)

WOULD LIKE  
(%) (n)

DON'T NEED  
(%) (n)

- H-4 Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.
- H-5 Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.
- H-6 Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.
- H-7 Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.
- I-1 Number and percentage of students who are employed in businesses, agencies and organizations in the community.
- I-2 Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.
- I-3 Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.
- I-4 Faculty/staff and student expenditures in the community within a certain time period.
- I-5 Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.
- I-6 Amount of land removed from the community tax base as a result of the existence of the institution.
- I-7 Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.
- I-8 Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.
- I-9 Value of community business properties attributable to institution-related expenditures.

	NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
COMM COLL	52.5 (32)	29.5 (18)	18.3 (11)
4-YR COLL	48.9 (45)	25.0 (23)	26.1 (24)
UNIVERSITY	45.0 (36)	30.0 (24)	25.0 (20)
COMM COLL	44.3 (27)	42.6 (26)	13.1 (8)
4-YR COLL	33.7 (31)	46.7 (43)	19.6 (18)
UNIVERSITY	37.5 (30)	40.0 (32)	22.5 (18)
COMM COLL	37.7 (23)	49.2 (30)	13.1 (8)
4-YR COLL	28.6 (26)	38.5 (35)	33.0 (30)
UNIVERSITY	30.4 (24)	43.0 (34)	26.6 (21)
COMM COLL	29.5 (18)	45.5 (28)	24.6 (15)
4-YR COLL	22.8 (21)	50.0 (46)	27.2 (25)
UNIVERSITY	21.2 (17)	46.2 (37)	32.5 (26)
COMM COLL	40.3 (25)	54.8 (34)	4.8 (3)
4-YR COLL	34.8 (32)	51.1 (47)	14.1 (13)
UNIVERSITY	32.5 (26)	50.0 (40)	17.5 (14)
COMM COLL	25.8 (16)	50.0 (31)	24.2 (15)
4-YR COLL	33.7 (31)	43.5 (40)	22.8 (21)
UNIVERSITY	21.2 (17)	48.7 (39)	30.0 (24)
COMM COLL	29.0 (18)	40.3 (25)	30.6 (19)
4-YR COLL	27.2 (25)	44.6 (41)	28.3 (26)
UNIVERSITY	25.0 (20)	48.7 (39)	26.2 (21)
COMM COLL	25.8 (16)	41.9 (26)	32.3 (20)
4-YR COLL	28.3 (26)	48.9 (45)	22.8 (21)
UNIVERSITY	21.2 (17)	32.5 (42)	26.2 (21)
COMM COLL	32.3 (20)	45.2 (28)	22.6 (14)
4-YR COLL	34.8 (32)	35.9 (33)	29.3 (27)
UNIVERSITY	30.0 (24)	43.7 (35)	26.2 (21)
COMM COLL	33.9 (21)	35.5 (22)	30.6 (19)
4-YR COLL	37.0 (34)	37.0 (34)	26.1 (24)
UNIVERSITY	31.2 (25)	38.7 (31)	30.0 (24)
COMM COLL	55.7 (34)	32.8 (20)	11.5 (7)
4-YR COLL	37.4 (34)	44.0 (40)	18.7 (17)
UNIVERSITY	20.0 (16)	43.7 (35)	36.2 (29)
COMM COLL	16.1 (10)	38.7 (24)	45.2 (28)
4-YR COLL	28.6 (26)	42.9 (39)	28.6 (26)
UNIVERSITY	23.7 (19)	41.2 (33)	35.0 (28)
COMM COLL	17.7 (11)	30.6 (19)	51.6 (32)
4-YR COLL	14.6 (13)	46.1 (41)	39.3 (35)
UNIVERSITY	16.5 (13)	40.5 (32)	43.0 (34)

OUTCOME MEASURE			NEED	WOULD LIKE	DON'T NEED
			(%) (n)	(%) (n)	(%) (n)
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	COMM COLL	19.4 (12)	40.3 (25)	40.3 (25)
		4-YR COLL	14.4 (13)	45.6 (41)	40.0 (36)
		UNIVERSITY	17.5 (14)	40.0 (32)	42.5 (34)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	COMM COLL	33.9 (21)	53.2 (33)	12.9 (8)
		4-YR COLL	29.3 (27)	44.6 (41)	26.1 (24)
		UNIVERSITY	27.5 (22)	52.5 (42)	20.0 (16)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	COMM COLL	37.1 (23)	43.5 (27)	19.4 (12)
		4-YR COLL	21.7 (20)	44.6 (41)	33.7 (31)
		UNIVERSITY	22.5 (18)	42.5 (34)	35.0 (28)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	COMM COLL	32.3 (20)	43.5 (27)	24.2 (15)
		4-YR COLL	20.7 (19)	41.3 (38)	38.0 (35)
		UNIVERSITY	15.0 (12)	47.5 (38)	37.5 (30)
I-14	Geographic distribution of alumni.	COMM COLL	22.6 (14)	59.7 (37)	17.7 (11)
		4-YR COLL	35.9 (33)	47.8 (44)	16.3 (15)
		UNIVERSITY	31.2 (25)	50.0 (40)	18.7 (15)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	COMM COLL	64.5 (40)	32.3 (20)	3.2 (2)
		4-YR COLL	57.6 (53)	30.4 (28)	12.0 (11)
		UNIVERSITY	34.2 (27)	50.6 (40)	15.2 (12)
I-16	Number of persons from the community employed by the institution.	COMM COLL	58.1 (36)	24.2 (15)	17.7 (11)
		4-YR COLL	45.7 (42)	29.3 (27)	25.0 (23)
		UNIVERSITY	43.7 (35)	33.7 (27)	22.5 (18)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	COMM COLL	11.3 (7)	38.7 (24)	50.0 (31)
		4-YR COLL	9.9 (9)	50.5 (46)	39.6 (36)
		UNIVERSITY	23.7 (19)	43.7 (35)	32.5 (26)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	COMM COLL	3.2 (2)	29.0 (18)	67.7 (42)
		4-YR COLL	3.3 (3)	20.7 (19)	76.1 (70)
		UNIVERSITY	12.5 (10)	33.7 (27)	53.7 (43)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	COMM COLL	9.7 (6)	56.5 (35)	33.9 (21)
		4-YR COLL	25.0 (23)	41.3 (38)	33.7 (31)
		UNIVERSITY	30.0 (24)	40.0 (32)	30.0 (24)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	COMM COLL	9.7 (6)	58.1 (36)	32.3 (20)
		4-YR COLL	17.4 (16)	51.1 (47)	31.5 (29)
		UNIVERSITY	27.5 (22)	45.0 (36)	27.5 (22)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	COMM COLL	14.5 (9)	58.1 (36)	27.4 (17)
		4-YR COLL	19.6 (18)	58.7 (54)	21.7 (20)
		UNIVERSITY	23.7 (19)	51.2 (41)	25.0 (20)
J-6	Average amount of faculty time spent in selected research and art producing activities.	COMM COLL	14.8 (9)	49.2 (30)	36.1 (22)
		4-YR COLL	30.0 (27)	42.2 (38)	27.8 (25)
		UNIVERSITY	38.7 (31)	37.5 (30)	23.7 (19)

OUTCOME MEASURE		NEED (%) (n)		WOULD LIKE (%) (n)		DON'T NEED (%) (n)	
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	COMM COLL	41.9 (26)	33.9 (21)	24.2 (15)		
		4-YR COLL	40.2 (37)	35.9 (33)	23.9 (22)		
		UNIVERSITY	46.2 (37)	35.0 (28)	18.7 (15)		
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	COMM COLL	45.2 (28)	33.9 (21)	21.0 (13)		
		4-YR COLL	56.5 (52)	21.7 (20)	21.7 (20)		
		UNIVERSITY	57.5 (46)	27.5 (22)	15.0 (12)		
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	COMM COLL	25.8 (16)	50.0 (31)	24.2 (15)		
		4-YR COLL	26.1 (24)	34.8 (32)	39.1 (36)		
		UNIVERSITY	18.7 (15)	55.0 (44)	26.2 (21)		
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	COMM COLL	11.3 (7)	43.5 (27)	45.2 (28)		
		4-YR COLL	13.0 (12)	40.2 (37)	46.7 (43)		
		UNIVERSITY	18.7 (15)	45.0 (36)	36.2 (29)		
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	COMM COLL	19.4 (12)	50.0 (31)	30.6 (19)		
		4-YR COLL	27.2 (25)	38.0 (35)	34.8 (32)		
		UNIVERSITY	30.0 (24)	50.0 (40)	20.0 (16)		
J-12	Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	COMM COLL	19.4 (12)	43.5 (27)	37.1 (23)		
		4-YR COLL	21.7 (20)	37.0 (34)	41.3 (38)		
		UNIVERSITY	30.0 (24)	45.0 (36)	25.0 (20)		
J-13	Number and percentage of graduates engaged in research activities.	COMM COLL	6.5 (4)	41.9 (26)	51.6 (32)		
		4-YR COLL	16.3 (15)	55.4 (51)	28.3 (26)		
		UNIVERSITY	15.0 (12)	51.2 (41)	33.7 (27)		
J-14	Number and percentage of faculty /staff and students invited to participate in professional meetings and conferences.	COMM COLL	14.5 (9)	59.7 (37)	25.8 (16)		
		4-YR COLL	26.1 (24)	43.5 (40)	30.4 (28)		
		UNIVERSITY	20.0 (16)	46.2 (37)	33.7 (27)		
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	COMM COLL	11.3 (7)	53.2 (33)	35.5 (22)		
		4-YR COLL	17.4 (16)	54.3 (50)	28.3 (26)		
		UNIVERSITY	15.0 (12)	48.7 (39)	36.2 (29)		

**TABLE C.4**

**The Percentage and Number of  
Responses to the "Needs" Question, by  
Administrators in Public and Private  
Four-Year Colleges and Universities\***

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\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED			
		(%)	(n)	(%)	(n)	(%)	(n)		
A-1	Student scores on tests that indicate development in their <u>breadth</u> of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	4-YR PUB	30.2 (13)	41.9 (18)	27.9 (12)	4-YR PRIV	30.6 (15)	51.0 (25)	18.4 (9)
		UNIV PUB	22.7 (10)	38.6 (17)	38.6 (17)	UNIV PRIV	38.9 (14)	33.3 (12)	27.8 (10)
A-2	Student scores on tests that indicate development in their <u>depth</u> of knowledge concerning facts and principles in the particular fields in which a student elects to study.	4-YR PUB	34.9 (15)	34.9 (15)	30.2 (13)	4-YR PRIV	30.6 (15)	46.9 (23)	22.4 (11)
		UNIV PUB	22.7 (10)	38.6 (17)	38.6 (17)	UNIV PRIV	36.1 (13)	38.9 (14)	25.0 (9)
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	4-YR PUB	23.8 (10)	59.5 (25)	16.7 (7)	4-YR PRIV	10.4 (5)	54.2 (26)	35.4 (17)
		UNIV PUB	25.0 (11)	43.2 (19)	31.8 (14)	UNIV PRIV	25.0 (9)	58.3 (21)	16.7 (6)
A-4	Student scores on tests that indicate their ability to <u>apply</u> general or specialized knowledge to a problem and to implement a solution.	4-YR PUB	27.9 (12)	41.9 (18)	30.2 (13)	4-YR PRIV	22.4 (11)	55.1 (27)	22.4 (11)
		UNIV PUB	22.7 (10)	43.2 (19)	34.1 (15)	UNIV PRIV	27.8 (10)	41.7 (15)	30.6 (11)
A-5	Student scores on tests that indicate thier ability to <u>analyze</u> problems (e.g., the recognition of biased points in an article or speech).	4-YR PUB	23.8 (10)	40.5 (17)	35.7 (15)	4-YR PRIV	20.4 (10)	59.2 (29)	20.4 (10)
		UNIV PUB	22.7 (10)	40.9 (18)	36.4 (16)	UNIV PRIV	28.6 (10)	42.9 (15)	28.6 (10)
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	4-YR PUB	4.7 (2)	46.5 (20)	48.8 (21)	4-YR PRIV	2.0 (1)	38.8 (19)	59.2 (29)
		UNIV PUB	6.8 (3)	36.4 (16)	56.8 (25)	UNIV PRIV	8.3 (3)	36.1 (13)	55.6 (20)
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	4-YR PUB	53.5 (23)	18.6 (8)	27.9 (12)	4-YR PRIV	55.1 (27)	30.6 (15)	14.3 (7)
		UNIV PUB	45.5 (20)	27.3 (12)	27.3 (12)	UNIV PRIV	36.1 (13)	44.4 (16)	19.4 (7)
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	4-YR PUB	27.9 (12)	34.9 (15)	37.2 (16)	4-YR PRIV	16.7 (8)	39.6 (19)	43.7 (21)
		UNIV PUB	2.3 (1)	47.7 (21)	50.0 (22)	UNIV PRIV	11.1 (4)	52.8 (19)	36.1 (13)
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	4-YR PUB	4.7 (2)	37.2 (16)	58.1 (25)	4-YR PRIV	4.1 (2)	26.5 (13)	69.4 (34)
		UNIV PUB	2.3 (1)	15.9 (7)	81.8 (36)	UNIV PRIV	2.8 (1)	22.2 (8)	75.0 (27)
A-10	Number and percentage of students surveyed who have participated in activities that enhance thier athletic skills (e.g., intramural and varsity sports).	4-YR PUB	14.3 (6)	38.1 (16)	47.5 (20)	4-YR PRIV	12.2 (6)	42.9 (21)	44.9 (22)
		UNIV PUB	4.5 (2)	34.1 (15)	61.4 (27)	UNIV PRIV	2.8 (1)	63.9 (23)	33.3 (12)
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	4-YR PUB	58.1 (25)	27.9 (12)	14.0 (6)	4-YR PRIV	29.2 (14)	60.4 (29)	10.4 (5)
		UNIV PUB	40.9 (18)	45.5 (20)	13.6 (6)	UNIV PRIV	38.9 (14)	36.1 (13)	25.0 (9)
B-2	Number and percentage of students surveyed who have changed majors (lower divison, upper division, and/or graduate) within a certain time period.	4-YR PUB	34.9 (15)	48.8 (21)	16.3 (7)	4-YR PRIV	31.2 (15)	43.7 (21)	25.0 (12)
		UNIV PUB	45.5 (20)	36.4 (16)	18.2 (8)	UNIV PRIV	47.2 (17)	33.3 (12)	19.4 (7)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	4-YR PUB	53.5 (23)	30.2 (13)	16.3 (7)
		4-YR PRIV	47.9 (23)	31.2 (15)	20.8 (10)
		UNIV PUB	38.6 (17)	38.6 (17)	22.7 (10)
		UNIV PRIV	40.0 (14)	34.3 (12)	25.7 (9)
B-4	Number of awards and citations received per student and/or former student for their academic performance.	4-YR PUB	14.0 (6)	51.2 (22)	34.9 (15)
		4-YR PRIV	31.2 (15)	45.8 (22)	22.9 (11)
		UNIV PUB	6.8 (3)	56.8 (25)	36.4 (16)
		UNIV PRIV	8.6 (3)	57.1 (20)	34.3 (12)
B-5	Number of students receiving a degree, diploma, and certificate within a certain time period.	4-YR PUB	76.7 (33)	18.6 (8)	4.7 (2)
		4-YR PRIV	63.0 (29)	23.9 (11)	13.0 (6)
		UNIV PUB	77.3 (34)	13.6 (6)	9.1 (4)
		UNIV PRIV	63.9 (25)	33.3 (12)	2.8 (1)
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	4-YR PUB	55.8 (24)	37.2 (16)	7.0 (3)
		4-YR PRIV	39.6 (19)	45.8 (22)	14.6 (7)
		UNIV PUB	55.8 (24)	32.6 (14)	11.6 (5)
		UNIV PRIV	50.0 (18)	38.9 (14)	11.1 (4)
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	4-YR PUB	62.8 (27)	27.9 (12)	9.3 (4)
		4-YR PRIV	64.6 (31)	27.1 (13)	8.3 (4)
		UNIV PUB	59.1 (26)	31.8 (14)	9.1 (4)
		UNIV PRIV	58.3 (21)	36.1 (13)	5.6 (2)
B-8	Number and percentage of graduates for the year who transferred from another school.	4-YR PUB	60.5 (26)	32.6 (14)	7.0 (3)
		4-YR PRIV	52.1 (25)	31.2 (15)	16.7 (8)
		UNIV PUB	56.8 (25)	36.4 (16)	6.8 (3)
		UNIV PRIV	69.4 (25)	25.0 (9)	5.6 (2)
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	4-YR PUB	72.1 (31)	20.9 (9)	7.0 (3)
		4-YR PRIV	70.8 (34)	22.9 (11)	6.2 (3)
		UNIV PUB	65.9 (29)	27.3 (12)	6.8 (3)
		UNIV PRIV	75.0 (27)	25.0 (9)	0.0 (0)
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	4-YR PUB	37.2 (16)	51.2 (22)	11.6 (5)
		4-YR PRIV	34.0 (16)	44.7 (21)	21.3 (10)
		UNIV PUB	29.5 (13)	50.0 (22)	20.5 (9)
		UNIV PRIV	32.4 (11)	50.0 (17)	17.6 (6)
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	4-YR PUB	26.2 (11)	57.1 (24)	16.7 (7)
		4-YR PRIV	26.5 (13)	59.2 (29)	14.3 (7)
		UNIV PUB	15.9 (7)	59.1 (26)	25.0 (11)
		UNIV PRIV	16.7 (6)	63.9 (23)	19.4 (7)
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	4-YR PUB	28.6 (12)	50.0 (21)	21.4 (9)
		4-YR PRIV	22.4 (11)	57.1 (28)	20.4 (10)
		UNIV PUB	29.5 (13)	40.9 (18)	29.5 (13)
		UNIV PRIV	25.0 (9)	44.4 (16)	30.6 (11)
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	4-YR PUB	23.8 (10)	47.6 (20)	28.6 (12)
		4-YR PRIV	27.1 (13)	50.0 (24)	22.9 (11)
		UNIV PUB	20.5 (9)	52.3 (23)	27.3 (12)
		UNIV PRIV	36.1 (13)	41.7 (15)	22.2 (8)
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	4-YR PUB	19.0 (8)	45.2 (19)	35.7 (15)
		4-YR PRIV	16.7 (8)	60.4 (29)	22.9 (11)
		UNIV PUB	25.0 (11)	50.0 (22)	25.0 (11)
		UNIV PRIV	38.9 (14)	30.6 (11)	30.6 (11)
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	4-YR PUB	25.6 (11)	55.8 (24)	18.6 (8)
		4-YR PRIV	32.7 (16)	57.1 (28)	10.2 (5)
		UNIV PUB	25.0 (11)	56.8 (25)	18.2 (8)
		UNIV PRIV	25.0 (9)	63.9 (23)	11.1 (4)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
C-2	Average amount of alumni gifts within a certain time period after graduation.	4-YR PUB	23.3 (10)	58.1 (25)	18.6 (8)
		4-YR PRIV	36.7 (18)	40.8 (20)	22.4 (11)
		UNIV PUB	20.5 (9)	54.5 (24)	25.0 (11)
		UNIV PRIV	33.3 (12)	47.2 (17)	19.4 (7)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	4-YR PUB	41.9 (18)	46.5 (20)	11.6 (5)
		4-YR PRIV	51.0 (25)	44.9 (22)	4.1 (2)
		UNIV PUB	36.4 (16)	47.7 (21)	15.9 (7)
		UNIV PRIV	36.1 (13)	50.0 (18)	13.9 (5)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	4-YR PUB	32.6 (14)	46.5 (20)	20.9 (9)
		4-YR PRIV	40.8 (20)	51.0 (25)	8.2 (4)
		UNIV PUB	36.4 (16)	34.1 (15)	29.5 (13)
		UNIV PRIV	27.8 (10)	50.0 (18)	22.2 (8)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	4-YR PUB	25.6 (11)	58.1 (25)	16.3 (7)
		4-YR PRIV	38.8 (19)	46.9 (23)	14.3 (7)
		UNIV PUB	25.0 (11)	45.5 (20)	29.5 (13)
		UNIV PRIV	30.6 (11)	36.1 (13)	33.3 (12)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	4-YR PUB	27.9 (12)	53.5 (23)	18.6 (8)
		4-YR PRIV	34.7 (17)	51.0 (25)	14.3 (7)
		UNIV PUB	18.2 (8)	52.3 (23)	29.5 (13)
		UNIV PRIV	33.3 (12)	30.6 (11)	36.1 (13)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	4-YR PUB	44.2 (19)	44.2 (19)	11.6 (5)
		4-YR PRIV	40.8 (20)	53.1 (26)	6.1 (3)
		UNIV PUB	31.8 (14)	43.2 (19)	25.0 (11)
		UNIV PRIV	38.9 (14)	41.7 (15)	19.4 (7)
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	4-YR PUB	48.8 (21)	39.5 (17)	11.6 (5)
		4-YR PRIV	36.7 (18)	55.1 (27)	8.2 (4)
		UNIV PUB	36.4 (16)	45.5 (20)	18.2 (8)
		UNIV PRIV	33.3 (12)	44.4 (16)	22.2 (8)
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	4-YR PUB	44.2 (19)	46.5 (20)	9.3 (4)
		4-YR PRIV	32.7 (16)	53.1 (26)	14.3 (7)
		UNIV PUB	32.6 (14)	51.2 (22)	16.3 (7)
		UNIV PRIV	25.0 (9)	55.6 (20)	19.4 (7)
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	4-YR PUB	25.6 (11)	55.8 (24)	18.6 (8)
		4-YR PRIV	30.6 (15)	46.9 (23)	22.4 (11)
		UNIV PUB	16.3 (7)	65.1 (28)	18.6 (8)
		UNIV PRIV	16.7 (6)	47.2 (17)	36.1 (13)
D-3	Average first salary of former students.	4-YR PUB	23.3 (10)	65.1 (28)	11.6 (5)
		4-YR PRIV	14.3 (7)	67.3 (33)	18.4 (9)
		UNIV PUB	25.6 (11)	51.2 (22)	23.3 (10)
		UNIV PRIV	8.3 (3)	61.1 (22)	30.6 (11)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	4-YR PUB	16.3 (7)	67.4 (29)	16.3 (7)
		4-YR PRIV	10.2 (5)	71.4 (35)	18.4 (9)
		UNIV PUB	20.9 (9)	58.1 (25)	20.9 (9)
		UNIV PRIV	11.1 (4)	55.6 (20)	33.3 (12)
D-5	Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	4-YR PUB	20.9 (9)	51.2 (22)	27.9 (12)
		4-YR PRIV	6.2 (3)	72.9 (35)	20.8 (10)
		UNIV PUB	16.3 (7)	55.8 (24)	27.9 (12)
		UNIV PRIV	13.9 (5)	33.3 (12)	52.8 (19)
D-6	Number of professional occupation awards and citations received per former student surveyed.	4-YR PUB	4.7 (2)	55.8 (24)	39.5 (17)
		4-YR PRIV	8.2 (4)	61.2 (30)	30.6 (15)
		UNIV PUB	9.3 (4)	53.5 (23)	37.2 (16)
		UNIV PRIV	5.6 (2)	50.0 (18)	44.4 (16)



OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED		
		(%)	(n)	(%)	(n)	(%)	(n)	
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	4-YR PUB	18.6	(8)	67.4	(29)	14.0	(6)
		4-YR PRIV	22.4	(11)	55.1	(27)	22.4	(11)
		UNIV PUB	9.3	(4)	60.5	(26)	30.2	(13)
		UNIV PRIV	11.1	(4)	52.8	(19)	36.1	(13)
D-8	Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	4-YR PUB	11.6	(5)	48.8	(21)	39.5	(17)
		4-YR PRIV	4.1	(2)	59.2	(29)	36.7	(18)
		UNIV PUB	11.6	(5)	41.9	(18)	46.5	(20)
		UNIV PRIV	8.3	(3)	27.8	(10)	63.9	(23)
D-9	Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	4-YR PUB	16.3	(7)	44.2	(19)	39.5	(17)
		4-YR PRIV	10.2	(5)	57.1	(28)	32.7	(16)
		UNIV PUB	11.6	(5)	41.9	(18)	46.5	(20)
		UNIV PRIV	5.6	(2)	44.4	(16)	50.0	(18)
D-10	Average first salary expectations of students.	4-YR PUB	14.0	(6)	62.8	(27)	23.3	(10)
		4-YR PRIV	10.2	(5)	59.2	(29)	30.6	(15)
		UNIV PUB	18.6	(8)	37.2	(16)	44.2	(19)
		UNIV PRIV	8.3	(3)	52.8	(19)	38.9	(14)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	4-YR PUB	60.5	(26)	27.9	(12)	11.6	(5)
		4-YR PRIV	44.9	(22)	51.0	(25)	4.1	(2)
		UNIV PUB	43.2	(19)	38.6	(17)	18.2	(8)
		UNIV PRIV	47.2	(17)	33.3	(12)	19.4	(7)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	4-YR PUB	39.5	(17)	44.2	(19)	16.3	(7)
		4-YR PRIV	29.8	(14)	44.7	(21)	25.5	(12)
		UNIV PUB	27.3	(12)	31.8	(14)	40.9	(18)
		UNIV PRIV	11.1	(4)	50.0	(18)	38.9	(14)
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	4-YR PUB	44.2	(19)	46.5	(20)	9.3	(4)
		4-YR PRIV	33.3	(16)	54.2	(26)	12.5	(6)
		UNIV PUB	36.4	(16)	36.4	(16)	27.3	(12)
		UNIV PRIV	19.4	(7)	52.8	(19)	27.8	(10)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	4-YR PUB	16.3	(7)	30.2	(13)	53.5	(23)
		4-YR PRIV	12.2	(6)	38.8	(19)	49.0	(24)
		UNIV PUB	13.6	(6)	36.4	(16)	50.0	(22)
		UNIV PRIV	16.7	(6)	16.7	(6)	66.7	(24)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	4-YR PUB	18.6	(8)	30.2	(13)	51.2	(22)
		4-YR PRIV	18.4	(9)	28.6	(14)	53.1	(26)
		UNIV PUB	22.7	(10)	15.9	(7)	61.4	(27)
		UNIV PRIV	8.3	(3)	30.6	(11)	61.1	(22)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	4-YR PUB	0.0	(0)	34.9	(15)	65.1	(28)
		4-YR PRIV	8.2	(4)	38.8	(19)	53.1	(26)
		UNIV PUB	9.1	(4)	20.5	(9)	70.5	(31)
		UNIV PRIV	8.3	(3)	33.3	(12)	58.3	(21)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	4-YR PUB	4.7	(2)	18.6	(8)	76.7	(33)
		4-YR PRIV	14.3	(7)	40.8	(20)	44.9	(22)
		UNIV PUB	4.5	(2)	20.5	(9)	75.0	(33)
		UNIV PRIV	19.4	(7)	27.8	(10)	52.8	(19)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	4-YR PUB	2.3	(1)	14.0	(6)	83.7	(36)
		4-YR PRIV	12.2	(6)	28.6	(14)	59.2	(29)
		UNIV PUB	0.0	(0)	29.5	(13)	70.5	(31)
		UNIV PRIV	11.1	(4)	36.1	(13)	52.8	(19)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	4-YR PUB	18.6	(8)	39.5	(17)	41.9	(18)
		4-YR PRIV	16.3	(8)	42.9	(21)	40.8	(20)
		UNIV PUB	13.6	(6)	52.3	(23)	34.1	(15)
		UNIV PRIV	16.7	(6)	44.4	(16)	38.9	(14)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED			
		(%)	(n)	(%)	(n)	(%)	(n)		
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	4-YR PUB	25.6 (11)	32.6 (14)	41.9 (18)	4-YR PRIV	28.6 (14)	34.7 (17)	36.7 (18)
		UNIV PUB	15.9 (7)	36.4 (16)	47.7 (21)	UNIV PRIV	16.7 (6)	36.1 (16)	47.2 (17)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	4-YR PUB	7.0 (3)	44.2 (19)	48.8 (21)	4-YR PRIV	12.2 (6)	49.0 (24)	38.8 (19)
		UNIV PUB	2.3 (1)	47.7 (21)	50.0 (22)	UNIV PRIV	5.6 (2)	44.4 (16)	50.0 (18)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	4-YR PUB	7.0 (3)	46.5 (20)	46.5 (20)	4-YR PRIV	8.2 (4)	57.1 (28)	34.7 (17)
		UNIV PUB	2.3 (1)	52.3 (23)	45.5 (20)	UNIV PRIV	5.6 (2)	50.0 (18)	44.4 (16)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	4-YR PUB	20.9 (9)	32.6 (14)	46.5 (20)	4-YR PRIV	16.3 (8)	49.0 (24)	34.7 (17)
		UNIV PUB	11.4 (5)	50.0 (22)	38.6 (17)	UNIV PRIV	11.1 (4)	30.6 (11)	58.3 (21)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	4-YR PUB	7.0 (3)	53.5 (23)	39.5 (17)	4-YR PRIV	18.4 (9)	49.0 (24)	32.7 (16)
		UNIV PUB	4.5 (2)	54.5 (24)	40.9 (18)	UNIV PRIV	2.8 (1)	50.0 (18)	47.2 (17)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	4-YR PUB	9.3 (4)	51.2 (22)	39.5 (17)	4-YR PRIV	14.3 (7)	55.1 (27)	30.6 (15)
		UNIV PUB	6.8 (3)	43.2 (19)	50.0 (22)	UNIV PRIV	2.8 (1)	50.0 (18)	47.2 (17)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	4-YR PUB	7.0 (3)	51.2 (22)	41.9 (18)	4-YR PRIV	14.3 (7)	51.0 (25)	34.7 (17)
		UNIV PUB	9.1 (4)	40.9 (18)	50.0 (22)	UNIV PRIV	5.6 (2)	47.2 (17)	47.2 (17)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	4-YR PUB	0.0 (0)	14.0 (6)	86.0 (37)	4-YR PRIV	2.0 (1)	18.4 (9)	79.6 (39)
		UNIV PUB	2.3 (1)	25.6 (11)	72.1 (31)	UNIV PRIV	2.8 (1)	16.7 (6)	80.6 (29)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	4-YR PUB	4.7 (2)	16.3 (7)	79.1 (34)	4-YR PRIV	6.1 (3)	22.4 (11)	71.4 (35)
		UNIV PUB	4.5 (2)	29.5 (13)	65.9 (29)	UNIV PRIV	2.8 (1)	41.7 (15)	55.6 (20)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	4-YR PUB	2.3 (1)	34.9 (15)	62.8 (27)	4-YR PRIV	10.2 (5)	26.5 (13)	63.3 (31)
		UNIV PUB	2.3 (1)	29.5 (13)	68.2 (30)	UNIV PRIV	5.6 (2)	36.1 (13)	58.3 (21)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	4-YR PUB	11.6 (5)	16.3 (7)	72.1 (31)	4-YR PRIV	2.1 (1)	31.2 (15)	66.7 (32)
		UNIV PUB	2.3 (1)	34.1 (15)	63.6 (28)	UNIV PRIV	5.6 (2)	33.3 (12)	61.1 (22)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	4-YR PUB	2.3 (1)	27.9 (12)	69.8 (30)	4-YR PRIV	6.1 (3)	28.6 (14)	65.3 (32)
		UNIV PUB	2.3 (1)	36.4 (16)	61.4 (27)	UNIV PRIV	5.6 (2)	33.3 (12)	61.1 (22)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	4-YR PUB	20.9 (9)	32.6 (14)	46.5 (20)	4-YR PRIV	14.3 (7)	44.9 (22)	40.8 (20)
		UNIV PUB	13.6 (6)	45.5 (20)	40.9 (18)	UNIV PRIV	19.4 (7)	30.6 (11)	50.0 (18)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED		
		(%)	(n)	(%)	(n)	(%)	(n)	
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	4-YR PUB	18.6	(8)	41.9	(18)	39.5	(17)
		4-YR PRIV	16.3	(8)	53.1	(26)	30.6	(16)
		UNIV PUB	13.6	(6)	45.5	(20)	40.9	(18)
		UNIV PRIV	16.7	(6)	38.9	(14)	44.4	(16)
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	4-YR PUB	11.9	(5)	61.9	(26)	26.2	(11)
		4-YR PRIV	18.4	(9)	44.9	(22)	36.7	(18)
		UNIV PUB	6.8	(3)	59.1	(26)	34.1	(15)
		UNIV PRIV	5.6	(2)	38.9	(14)	55.6	(20)
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	4-YR PUB	19.0	(8)	47.6	(20)	33.3	(14)
		4-YR PRIV	14.3	(7)	53.1	(26)	32.7	(16)
		UNIV PUB	15.9	(7)	50.0	(22)	34.1	(16)
		UNIV PRIV	16.7	(6)	38.9	(14)	44.4	(16)
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	4-YR PUB	11.9	(5)	28.6	(12)	59.5	(25)
		4-YR PRIV	6.1	(3)	36.7	(18)	57.1	(28)
		UNIV PUB	6.8	(3)	36.4	(16)	56.8	(25)
		UNIV PRIV	5.6	(2)	33.3	(12)	61.1	(22)
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	4-YR PUB	32.6	(14)	51.2	(22)	16.3	(7)
		4-YR PRIV	46.8	(22)	29.2	(14)	25.0	(12)
		UNIV PUB	37.2	(16)	51.2	(22)	11.6	(5)
		UNIV PRIV	20.0	(7)	48.6	(17)	31.4	(11)
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	4-YR PUB	27.9	(12)	44.2	(19)	27.9	(12)
		4-YR PRIV	25.0	(12)	47.9	(23)	27.1	(13)
		UNIV PUB	25.6	(11)	51.2	(22)	23.3	(10)
		UNIV PRIV	5.7	(2)	48.6	(17)	45.7	(16)
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	4-YR PUB	18.6	(8)	53.5	(23)	27.9	(12)
		4-YR PRIV	10.4	(5)	56.2	(27)	33.3	(16)
		UNIV PUB	23.3	(10)	46.5	(20)	30.2	(13)
		UNIV PRIV	5.7	(2)	48.6	(17)	45.7	(16)
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	4-YR PUB	23.3	(10)	41.9	(18)	34.9	(15)
		4-YR PRIV	10.6	(5)	46.8	(22)	42.6	(20)
		UNIV PUB	16.3	(7)	53.5	(23)	30.2	(13)
		UNIV PRIV	2.9	(1)	42.9	(15)	54.3	(19)
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	4-YR PUB	32.6	(14)	46.5	(20)	20.9	(9)
		4-YR PRIV	27.1	(13)	56.2	(27)	16.7	(8)
		UNIV PUB	44.2	(19)	37.2	(16)	18.6	(8)
		UNIV PRIV	22.9	(8)	37.1	(13)	40.0	(14)
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	4-YR PUB	23.3	(10)	46.5	(20)	30.2	(13)
		4-YR PRIV	20.8	(10)	58.3	(28)	20.8	(10)
		UNIV PUB	34.9	(15)	44.2	(19)	20.9	(9)
		UNIV PRIV	22.9	(8)	37.1	(13)	40.0	(14)
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	4-YR PUB	25.6	(11)	58.1	(25)	16.3	(7)
		4-YR PRIV	22.9	(11)	56.2	(27)	20.8	(10)
		UNIV PUB	27.3	(12)	54.5	(24)	18.2	(8)
		UNIV PRIV	25.0	(9)	44.4	(16)	30.6	(11)
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	4-YR PUB	21.4	(9)	52.4	(22)	26.2	(11)
		4-YR PRIV	6.1	(3)	36.7	(18)	57.1	(28)
		UNIV PUB	18.2	(8)	54.5	(24)	27.3	(12)
		UNIV PRIV	11.4	(4)	48.6	(17)	40.0	(14)
H-3	Ratio of total income for community services to total budget for community services.	4-YR PUB	16.7	(7)	50.0	(21)	33.3	(14)
		4-YR PRIV	28.6	(14)	30.6	(15)	40.8	(20)
		UNIV PUB	25.0	(11)	50.0	(22)	25.0	(11)
		UNIV PRIV	32.4	(11)	20.6	(7)	47.1	(16)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.	4-YR PUB 51.2 (22) 4-YR PRIV 46.9 (23) UNIV PUB 47.7 (21) UNIV PRIV 41.7 (15)	30.2 (13) 20.4 (10) 36.4 (16) 22.2 (8)	15.6 (8) 32.7 (16) 15.9 (7) 36.1 (13)
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	4-YR PUB 34.9 (15) 4-YR PRIV 32.7 (16) UNIV PUB 40.9 (18) UNIV PRIV 33.3 (12)	51.2 (22) 42.9 (21) 43.2 (19) 36.1 (13)	14.0 (6) 24.5 (12) 15.9 (7) 30.6 (11)
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	4-YR PUB 37.2 (16) 4-YR PRIV 20.8 (10) UNIV PUB 29.5 (13) UNIV PRIV 31.4 (11)	39.5 (17) 37.5 (18) 52.3 (23) 31.4 (11)	23.3 (10) 41.7 (20) 18.2 (8) 37.1 (13)
H-7	Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	4-YR PUB 25.6 (11) 4-YR PRIV 20.4 (10) UNIV PUB 22.7 (10) UNIV PRIV 19.4 (7)	53.5 (23) 46.9 (23) 52.3 (23) 38.9 (14)	20.9 (9) 32.7 (16) 25.0 (11) 41.7 (15)
I-1	Number and percentage of students who are employed in businesses, agencies and organizations in the community.	4-YR PUB 46.5 (20) 4-YR PRIV 24.5 (12) UNIV PUB 29.5 (13) UNIV PRIV 36.1 (13)	44.2 (19) 57.1 (28) 56.8 (25) 41.7 (15)	9.3 (4) 18.4 (9) 13.6 (6) 22.2 (8)
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	4-YR PUB 44.2 (19) 4-YR PRIV 24.5 (12) UNIV PUB 27.3 (12) UNIV PRIV 13.9 (5)	44.2 (19) 42.9 (21) 47.7 (21) 50.0 (18)	11.6 (5) 32.7 (16) 25.0 (11) 36.1 (13)
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	4-YR PUB 32.6 (14) 4-YR PRIV 22.4 (11) UNIV PUB 25.0 (11) UNIV PRIV 25.0 (9)	48.8 (21) 40.8 (20) 50.0 (22) 47.2 (17)	18.6 (8) 36.7 (18) 35.0 (11) 27.8 (10)
I-4	Faculty/staff and student expenditures in the community within a certain time period.	4-YR PUB 34.9 (15) 4-YR PRIV 22.4 (11) UNIV PUB 25.0 (11) UNIV PRIV 16.7 (6)	53.5 (23) 44.9 (22) 52.3 (23) 52.8 (19)	11.6 (5) 32.7 (16) 22.7 (10) 30.6 (11)
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	4-YR PUB 46.5 (20) 4-YR PRIV 24.5 (12) UNIV PUB 34.1 (15) UNIV PRIV 25.0 (9)	39.5 (17) 32.7 (16) 45.5 (20) 41.7 (15)	14.0 (6) 42.9 (21) 20.5 (9) 33.3 (12)
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	4-YR PUB 37.2 (16) 4-YR PRIV 36.7 (18) UNIV PUB 31.8 (14) UNIV PRIV 30.6 (11)	41.9 (18) 32.7 (16) 40.9 (16) 35.1 (13)	20.9 (9) 30.6 (15) 27.3 (12) 33.3 (12)
I-7	Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	4-YR PUB 48.8 (21) 4-YR PRIV 27.1 (13) UNIV PUB 25.0 (11) UNIV PRIV 13.9 (5)	37.2 (16) 50.0 (24) 45.5 (20) 41.7 (15)	14.0 (6) 22.9 (11) 29.5 (13) 44.4 (16)
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	4-YR PUB 37.2 (16) 4-YR PRIV 20.8 (10) UNIV PUB 31.8 (14) UNIV PRIV 13.9 (5)	48.8 (21) 37.5 (18) 38.6 (17) 44.4 (16)	14.0 (6) 41.7 (20) 29.5 (13) 41.7 (15)
I-9	Value of community business properties attributable to institution-related expenditures.	4-YR PUB 23.3 (10) 4-YR PRIV 6.5 (3) UNIV PUB 18.2 (8) UNIV PRIV 14.3 (5)	53.5 (23) 39.1 (18) 50.0 (22) 28.6 (10)	23.3 (10) 54.3 (25) 31.8 (14) 57.1 (20)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	4-YR PUB	20.9 (9)	53.5 (23)	25.6 (11)
		4-YR PRIV	8.5 (4)	38.3 (18)	53.2 (25)
		UNIV PUB	20.5 (9)	45.5 (20)	34.1 (15)
		UNIV PRIV	13.9 (5)	33.3 (12)	52.8 (19)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	4-YR PUB	34.9 (15)	48.8 (21)	16.3 (7)
		4-YR PRIV	24.5 (12)	40.8 (20)	34.7 (17)
		UNIV PUB	31.8 (14)	52.3 (23)	15.9 (7)
		UNIV PRIV	22.2 (8)	52.8 (19)	25.0 (9)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	4-YR PUB	30.2 (13)	48.8 (21)	20.9 (9)
		4-YR PRIV	14.3 (7)	40.8 (20)	44.9 (22)
		UNIV PUB	27.3 (12)	47.7 (21)	25.0 (11)
		UNIV PRIV	16.7 (6)	36.1 (13)	47.2 (17)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	4-YR PUB	27.9 (12)	48.8 (21)	23.3 (10)
		4-YR PRIV	14.3 (7)	34.7 (17)	51.0 (25)
		UNIV PUB	18.2 (8)	50.0 (22)	31.8 (14)
		UNIV PRIV	11.1 (4)	44.4 (16)	44.4 (16)
I-14	Geographic distribution of alumni.	4-YR PUB	27.9 (12)	55.8 (24)	16.3 (7)
		4-YR PRIV	42.9 (21)	40.8 (20)	16.3 (8)
		UNIV PUB	31.8 (14)	50.0 (22)	18.2 (8)
		UNIV PRIV	30.6 (11)	50.0 (18)	19.4 (7)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	4-YR PUB	60.5 (26)	27.9 (12)	11.6 (5)
		4-YR PRIV	55.1 (27)	32.7 (16)	12.2 (6)
		UNIV PUB	36.4 (16)	54.5 (24)	9.1 (4)
		UNIV PRIV	31.4 (11)	45.7 (16)	22.9 (8)
I-16	Number of persons from the community employed by the institution.	4-YR PUB	53.5 (23)	27.9 (12)	18.6 (8)
		4-YR PRIV	38.8 (19)	30.6 (15)	30.6 (15)
		UNIV PUB	52.3 (23)	31.8 (14)	15.9 (7)
		UNIV PRIV	33.3 (12)	36.1 (13)	30.6 (11)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	4-YR PUB	7.0 (3)	53.5 (23)	39.5 (17)
		4-YR PRIV	12.5 (6)	47.9 (23)	39.6 (19)
		UNIV PUB	22.7 (10)	43.2 (19)	34.1 (15)
		UNIV PRIV	25.0 (9)	44.4 (16)	30.6 (11)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	4-YR PUB	2.3 (1)	16.3 (7)	81.4 (35)
		4-YR PRIV	4.1 (2)	24.5 (12)	71.4 (35)
		UNIV PUB	11.4 (5)	40.9 (18)	47.7 (21)
		UNIV PRIV	13.9 (5)	25.0 (9)	61.1 (22)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	4-YR PUB	23.3 (10)	41.9 (18)	34.9 (15)
		4-YR PRIV	26.5 (13)	40.8 (20)	32.7 (16)
		UNIV PUB	29.5 (13)	38.6 (17)	31.8 (14)
		UNIV PRIV	30.6 (11)	41.7 (15)	27.8 (10)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	4-YR PUB	11.6 (5)	51.2 (22)	37.2 (16)
		4-YR PRIV	22.4 (11)	51.0 (25)	26.5 (13)
		UNIV PUB	25.0 (11)	43.2 (19)	31.8 (14)
		UNIV PRIV	30.6 (11)	47.2 (17)	22.2 (8)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	4-YR PUB	14.0 (6)	58.1 (25)	27.9 (12)
		4-YR PRIV	24.5 (12)	59.2 (29)	16.3 (8)
		UNIV PUB	20.5 (9)	52.3 (23)	27.3 (12)
		UNIV PRIV	27.8 (10)	50.0 (18)	22.2 (8)
J-6	Average amount of faculty time spent in selected research and art producing activities.	4-YR PUB	30.2 (13)	39.5 (17)	30.2 (13)
		4-YR PRIV	29.8 (14)	44.7 (21)	25.5 (12)
		UNIV PUB	38.6 (17)	38.6 (17)	22.7 (10)
		UNIV PRIV	38.9 (14)	36.1 (13)	25.0 (9)

OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED	
	(%)	(n)	(%)	(n)	(%)	(n)
J-7 Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	4-YR PUB	41.9 (18)	44.2 (19)	14.0 (6)		
	4-YR PRIV	38.8 (19)	28.6 (14)	32.7 (16)		
	UNIV PUB	47.7 (21)	38.6 (17)	13.6 (6)		
	UNIV PRIV	44.4 (16)	30.6 (11)	25.0 (9)		
J-8 Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	4-YR PUB	58.1 (25)	27.9 (12)	14.0 (6)		
	4-YR PRIV	55.1 (27)	16.3 (8)	28.6 (14)		
	UNIV PUB	52.3 (23)	31.8 (14)	15.9 (7)		
	UNIV PRIV	63.9 (23)	22.2 (8)	13.9 (5)		
J-9 Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	4-YR PUB	23.3 (10)	37.2 (16)	39.5 (17)		
	4-YR PRIV	28.6 (14)	32.7 (16)	38.8 (19)		
	UNIV PUB	18.2 (8)	56.8 (25)	25.0 (11)		
	UNIV PRIV	19.4 (7)	52.8 (19)	27.8 (10)		
J-10 Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	4-YR PUB	11.6 (5)	48.8 (21)	39.5 (17)		
	4-YR PRIV	14.3 (7)	32.7 (16)	53.1 (26)		
	UNIV PUB	15.9 (7)	52.3 (23)	31.8 (14)		
	UNIV PRIV	22.2 (8)	36.1 (13)	41.7 (15)		
J-11 Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	4-YR PUB	25.6 (11)	39.5 (17)	34.9 (15)		
	4-YR PRIV	28.6 (14)	36.7 (18)	34.7 (17)		
	UNIV PUB	25.0 (11)	52.3 (23)	22.7 (10)		
	UNIV PRIV	36.1 (13)	47.2 (17)	16.7 (6)		
J-12 Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	4-YR PUB	25.6 (11)	41.9 (18)	32.6 (14)		
	4-YR PRIV	18.4 (9)	32.7 (16)	49.0 (24)		
	UNIV PUB	27.3 (12)	47.7 (21)	25.0 (11)		
	UNIV PRIV	33.3 (12)	41.7 (15)	25.0 (9)		
J-13 Number and percentage of graduates engaged in research activities.	4-YR PUB	16.3 (7)	62.8 (27)	20.9 (9)		
	4-YR PRIV	16.3 (8)	49.0 (24)	34.7 (17)		
	UNIV PUB	15.9 (7)	50.0 (22)	34.1 (15)		
	UNIV PRIV	13.9 (5)	52.8 (19)	33.3 (12)		
J-14 Number and percentage of faculty /staff and students invited to participate in professional meetings and conferences.	4-YR PUB	23.3 (10)	46.5 (20)	30.2 (13)		
	4-YR PRIV	28.6 (14)	40.8 (20)	30.6 (15)		
	UNIV PUB	15.9 (7)	45.5 (20)	38.6 (17)		
	UNIV PRIV	25.0 (9)	47.2 (17)	27.8 (10)		
J-15 Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	4-YR PUB	7.0 (3)	60.5 (26)	32.6 (14)		
	4-YR PRIV	26.5 (13)	49.0 (24)	24.5 (12)		
	UNIV PUB	15.9 (7)	47.7 (21)	36.4 (16)		
	UNIV PRIV	13.9 (5)	50.0 (18)	36.1 (13)		

**TABLE C.5**

**The Percentage and Number of  
Responses to the "Needs" Question, by  
College Administrators, State-Level  
Planners, and State Legislators\***

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\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED							
		(%)	(n)	(%)	(n)	(%)	(n)						
A-1	Student scores on tests that indicate development in their <u>breadth</u> of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	ADMIN	33.3 ( 78)	40.6 ( 95)	26.1 ( 61)	PLANNERS	32.0 ( 16)	50.0 ( 25)	18.0 ( 9)	LEGISLATORS	30.8 ( 4)	53.8 ( 7)	15.4 ( 2)
A-2	Student scores on tests that indicate development in their <u>depth</u> of knowledge concerning facts and principles in the particular fields in which a student elects to study.	ADMIN	32.1 ( 75)	42.3 ( 99)	25.6 ( 60)	PLANNERS	44.9 ( 22)	36.7 ( 18)	18.4 ( 9)	LEGISLATORS	38.5 ( 5)	46.2 ( 6)	15.4 ( 2)
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	ADMIN	29.7 ( 69)	47.4 (110)	22.8 ( 53)	PLANNERS	60.8 ( 31)	39.2 ( 20)	0. ( 0)	LEGISLATORS	46.2 ( 6)	53.8 ( 7)	0. ( 0)
A-4	Student scores on tests that indicate their ability to <u>apply</u> general or specialized knowledge to a problem and to implement a solution.	ADMIN	27.5 ( 64)	45.1 (105)	27.5 ( 64)	PLANNERS	30.0 ( 15)	46.0 ( 23)	24.0 ( 12)	LEGISLATORS	25.0 ( 3)	50.0 ( 6)	25.0 ( 3)
A-5	Student scores on tests that indicate their ability to <u>analyze</u> problems (e.g., the recognition of biased points in an article or speech).	ADMIN	26.4 ( 61)	45.0 (104)	28.6 ( 66)	PLANNERS	22.0 ( 11)	54.0 ( 27)	24.0 ( 12)	LEGISLATORS	15.4 ( 2)	61.5 ( 8)	23.1 ( 3)
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	ADMIN	3.9 ( 9)	38.6 ( 90)	57.5 (134)	PLANNERS	10.0 ( 5)	44.0 ( 22)	46.0 ( 23)	LEGISLATORS	7.7 ( 1)	30.8 ( 4)	61.5 ( 8)
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	ADMIN	52.8 (123)	26.6 ( 62)	20.6 ( 48)	PLANNERS	43.1 ( 22)	47.1 ( 24)	9.8 ( 5)	LEGISLATORS	6.5 ( 8)	38.5 ( 5)	0. ( 0)
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	ADMIN	16.8 ( 39)	44.8 (104)	38.4 ( 89)	PLANNERS	5.9 ( 3)	35.3 ( 18)	58.8 ( 30)	LEGISLATORS	61.5 ( 8)	84.6 ( 11)	7.7 ( 1)
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	ADMIN	5.2 ( 12)	31.3 ( 73)	63.5 (148)	PLANNERS	7.8 ( 4)	27.5 ( 14)	64.7 ( 33)	LEGISLATORS	15.4 ( 2)	84.6 ( 11)	0. ( 0)
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	ADMIN	9.5 ( 22)	44.4 (103)	46.1 (107)	PLANNERS	0. ( 0)	31.4 ( 16)	68.6 ( 35)	LEGISLATORS	0. ( 0)	53.8 ( 7)	46.2 ( 6)
8-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	ADMIN	44.4 (103)	42.2 ( 98)	13.4 ( 31)	PLANNERS	74.5 ( 38)	19.6 ( 10)	5.9 ( 3)	LEGISLATORS	30.8 ( 4)	53.8 ( 7)	15.4 ( 2)
8-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	ADMIN	36.6 ( 85)	44.4 (103)	19.0 ( 44)	PLANNERS	47.1 ( 24)	43.1 ( 22)	9.8 ( 5)	LEGISLATORS	7.7 ( 1)	76.9 ( 10)	15.4 ( 2)



OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	ADMIN	48.1 (111)	34.2 (79)	17.7 (41)
		PLANNERS	64.7 (33)	25.4 (15)	5.9 (3)
		LEGISLATORS	50.0 (6)	33.3 (4)	16.7 (2)
B-4	Number of awards and citations received per student and/or former student for their academic performance.	ADMIN	17.7 (41)	50.6 (117)	31.6 (73)
		PLANNERS	11.8 (6)	52.9 (27)	35.3 (18)
		LEGISLATORS	0. (0)	92.3 (12)	7.7 (1)
B-5	Number of students receiving a degree, diploma, and certificate within a certain time period.	ADMIN	71.3 (164)	21.3 (49)	7.4 (17)
		PLANNERS	86.3 (44)	11.8 (6)	2.0 (1)
		LEGISLATORS	33.3 (4)	50.0 (6)	16.7 (2)
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	ADMIN	52.8 (122)	37.2 (86)	10.0 (23)
		PLANNERS	66.7 (34)	31.4 (16)	2.0 (1)
		LEGISLATORS	30.8 (4)	53.8 (7)	15.4 (2)
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	ADMIN	51.6 (143)	29.7 (69)	8.6 (20)
		PLANNERS	76.0 (38)	24.0 (12)	0. (0)
		LEGISLATORS	61.5 (8)	38.5 (5)	0. (0)
B-8	Number and percentage of graduates for the year who transferred from another school.	ADMIN	55.0 (130)	34.1 (79)	9.9 (23)
		PLANNERS	62.7 (32)	29.4 (15)	7.8 (4)
		LEGISLATORS	38.5 (5)	53.8 (7)	7.7 (1)
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	ADMIN	71.5 (166)	23.3 (54)	5.2 (12)
		PLANNERS	72.5 (37)	27.5 (14)	0. (0)
		LEGISLATORS	69.2 (9)	23.1 (3)	7.7 (1)
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	ADMIN	39.7 (91)	44.1 (101)	16.2 (37)
		PLANNERS	54.0 (27)	40.0 (20)	6.0 (3)
		LEGISLATORS	53.8 (7)	46.2 (6)	0. (0)
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	ADMIN	24.7 (57)	56.7 (131)	18.6 (43)
		PLANNERS	56.0 (28)	40.0 (20)	4.0 (2)
		LEGISLATORS	23.1 (3)	61.5 (8)	15.4 (2)
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	ADMIN	28.0 (65)	47.8 (111)	24.1 (55)
		PLANNERS	42.0 (21)	38.0 (19)	20.0 (10)
		LEGISLATORS	38.5 (5)	38.5 (5)	23.1 (3)
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	ADMIN	28.1 (65)	47.6 (110)	24.2 (56)
		PLANNERS	26.0 (13)	48.0 (24)	26.0 (13)
		LEGISLATORS	25.0 (3)	58.3 (7)	16.7 (2)
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	ADMIN	25.1 (58)	48.9 (113)	26.0 (60)
		PLANNERS	25.5 (13)	43.1 (22)	31.4 (16)
		LEGISLATORS	23.1 (3)	53.8 (7)	23.1 (3)
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	ADMIN	26.6 (62)	58.8 (137)	14.6 (34)
		PLANNERS	15.7 (8)	41.2 (21)	43.1 (22)
		LEGISLATORS	15.4 (2)	76.9 (10)	7.7 (1)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
C-2	Average amount of alumni gifts within a certain time period after graduation.	ADMIN 25.3 ( 61)	48.3 (112)	25.4 ( 59)
		PLANNERS 5.9 ( 3)	39.2 ( 20)	54.9 ( 28)
		LEGISLATORS 16.7 ( 2)	41.7 ( 5)	41.7 ( 5)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	ADMIN 44.6 (104)	44.6 (104)	10.7 ( 25)
		PLANNERS 45.1 ( 23)	41.2 ( 21)	13.7 ( 7)
		LEGISLATORS 30.8 ( 4)	69.2 ( 9)	0. ( 0)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	ADMIN 37.8 ( 88)	44.6 (104)	17.6 ( 41)
		PLANNERS 35.3 ( 18)	47.1 ( 24)	17.6 ( 9)
		LEGISLATORS 38.5 ( 5)	53.8 ( 7)	7.7 ( 1)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	ADMIN 32.6 ( 76)	46.8 (109)	20.6 ( 48)
		PLANNERS 19.6 ( 10)	52.9 ( 27)	27.5 ( 14)
		LEGISLATORS 23.1 ( 3)	61.5 ( 8)	15.4 ( 2)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	ADMIN 30.9 ( 72)	46.8 (109)	22.3 ( 52)
		PLANNERS 13.7 ( 7)	60.8 ( 31)	25.5 ( 13)
		LEGISLATORS 0. ( 0)	83.3 ( 10)	16.7 ( 2)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	ADMIN 42.9 (100)	43.3 (101)	13.7 ( 32)
		PLANNERS 43.1 ( 22)	43.1 ( 22)	13.7 ( 7)
		LEGISLATORS 30.8 ( 4)	53.8 ( 7)	15.4 ( 2)
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	ADMIN 43.3 (101)	43.8 (102)	12.9 ( 30)
		PLANNERS 51.0 ( 26)	41.2 ( 21)	7.8 ( 4)
		LEGISLATORS 53.8 ( 7)	38.5 ( 5)	7.7 ( 1)
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	ADMIN 42.2 ( 98)	46.6 (106)	11.2 ( 26)
		PLANNERS 68.6 ( 35)	29.4 ( 15)	2.0 ( 1)
		LEGISLATORS 69.2 ( 9)	23.1 ( 3)	7.7 ( 1)
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	ADMIN 29.3 ( 68)	49.6 (115)	21.1 ( 49)
		PLANNERS 47.1 ( 24)	41.2 ( 21)	11.8 ( 6)
		LEGISLATORS 46.2 ( 6)	46.2 ( 6)	7.7 ( 1)
D-3	Average first salary of former students.	ADMIN 26.3 ( 61)	56.0 (130)	17.7 ( 41)
		PLANNERS 47.1 ( 24)	43.1 ( 22)	9.8 ( 5)
		LEGISLATORS 38.5 ( 5)	46.2 ( 6)	15.4 ( 2)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	ADMIN 20.8 ( 48)	58.9 (136)	20.3 ( 47)
		PLANNERS 49.0 ( 25)	37.3 ( 19)	13.7 ( 7)
		LEGISLATORS 23.1 ( 3)	53.8 ( 7)	23.1 ( 3)
D-5	Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	ADMIN 22.1 ( 51)	50.2 (116)	27.7 ( 64)
		PLANNERS 21.6 ( 11)	56.9 ( 29)	21.6 ( 11)
		LEGISLATORS 16.7 ( 2)	66.7 ( 8)	16.7 ( 2)
D-6	Number of professional occupation awards and citations received per former student surveyed.	ADMIN 9.5 ( 22)	53.4 (124)	37.1 ( 86)
		PLANNERS 9.8 ( 5)	45.1 ( 23)	45.1 ( 23)
		LEGISLATORS 8.3 ( 1)	50.0 ( 6)	41.7 ( 5)

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED							
		(%)	(n)	(%)	(n)	(%)	(n)						
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	ADMIN	17.7 (41)	57.1 (132)	25.1 (58)	PLANNERS	16.0 (8)	60.0 (30)	24.0 (12)	LEGISLATORS	8.3 (1)	66.7 (8)	25.0 (3)
D-8	Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	ADMIN	13.4 (31)	46.6 (108)	40.1 (93)	PLANNERS	17.6 (9)	47.1 (24)	35.3 (18)	LEGISLATORS	8.3 (1)	58.3 (7)	33.3 (4)
D-9	Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	ADMIN	15.5 (36)	47.8 (111)	36.6 (85)	PLANNERS	31.4 (16)	45.1 (23)	23.5 (12)	LEGISLATORS	30.8 (4)	46.2 (6)	23.1 (3)
D-10	Average first salary expectations of students.	ADMIN	17.7 (41)	62.2 (121)	30.2 (70)	PLANNERS	17.6 (9)	66.7 (34)	15.7 (8)	LEGISLATORS	16.7 (2)	66.7 (8)	16.7 (2)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	ADMIN	52.8 (123)	35.6 (83)	11.6 (27)	PLANNERS	68.6 (35)	27.5 (14)	3.9 (2)	LEGISLATORS	61.5 (8)	30.8 (4)	7.7 (1)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	ADMIN	31.2 (72)	42.4 (98)	26.4 (61)	PLANNERS	37.3 (19)	45.1 (23)	17.6 (9)	LEGISLATORS	33.3 (4)	58.3 (7)	8.3 (1)
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	ADMIN	37.9 (88)	44.4 (103)	17.7 (41)	PLANNERS	72.5 (37)	27.5 (14)	0. (0)	LEGISLATORS	53.8 (7)	38.5 (5)	7.7 (1)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	ADMIN	13.9 (32)	33.8 (76)	52.4 (121)	PLANNERS	9.8 (5)	31.4 (16)	58.8 (30)	LEGISLATORS	7.7 (1)	53.8 (7)	38.5 (5)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	ADMIN	15.6 (36)	31.6 (73)	52.8 (122)	PLANNERS	7.8 (4)	35.3 (18)	36.9 (29)	LEGISLATORS	8.3 (1)	66.7 (8)	25.0 (3)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	ADMIN	5.2 (12)	30.3 (70)	64.5 (149)	PLANNERS	2.0 (1)	5.9 (3)	92.2 (47)	LEGISLATORS	8.3 (1)	41.7 (5)	50.0 (6)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	ADMIN	7.8 (18)	29.0 (67)	63.2 (146)	PLANNERS	2.0 (1)	9.8 (5)	88.2 (45)	LEGISLATORS	7.7 (1)	30.8 (4)	61.5 (8)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	ADMIN	4.8 (11)	25.0 (60)	69.3 (160)	PLANNERS	2.0 (1)	7.8 (4)	90.2 (45)	LEGISLATORS	0. (0)	30.8 (4)	69.2 (9)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	ADMIN	14.3 (33)	48.1 (111)	37.7 (87)	PLANNERS	13.7 (7)	31.4 (16)	54.9 (28)	LEGISLATORS	0. (0)	41.7 (5)	58.3 (7)

	OUTCOME MEASURE	NEED		WOULD LIKE		DON'T NEED							
		(%)	(n)	(%)	(n)	(%)	(n)						
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	ADMIN	22.9 ( 53)	36.8 ( 85)	40.3 ( 93)	PLANNERS	13.7 ( 7)	35.3 ( 18)	51.0 ( 26)	LEGISLATORS	0. ( 0)	50.0 ( 6)	50.0 ( 6)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	ADMIN	7.3 ( 17)	46.4 (108)	46.4 (108)	PLANNERS	2.0 ( 1)	39.2 ( 20)	58.8 ( 30)	LEGISLATORS	0. ( 0)	46.2 ( 6)	53.8 ( 7)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	ADMIN	5.6 ( 13)	50.6 (118)	43.8 (102)	PLANNERS	5.9 ( 3)	27.5 ( 14)	66.7 ( 34)	LEGISLATORS	0. ( 0)	46.2 ( 6)	53.8 ( 7)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	ADMIN	17.2 ( 40)	41.6 ( 97)	41.2 ( 96)	PLANNERS	11.8 ( 3)	49.0 (25)	39.2 ( 20)	LEGISLATORS	0. ( 0)	69.2 ( 9)	30.6 ( 4)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	ADMIN	7.7 ( 18)	52.4 (122)	39.9 ( 93)	PLANNERS	5.9 ( 3)	49.0 ( 25)	45.1 ( 23)	LEGISLATORS	0. ( 0)	53.8 ( 7)	46.2 ( 6)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	ADMIN	8.2 ( 19)	50.6 (118)	41.2 ( 96)	PLANNERS	3.9 ( 2)	41.2 ( 21)	54.9 ( 28)	LEGISLATORS	0. ( 0)	69.2 ( 9)	30.8 ( 4)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	ADMIN	8.2 ( 19)	49.6 (115)	42.2 ( 98)	PLANNERS	4.0 ( 2)	36.0 ( 18)	60.0 ( 30)	LEGISLATORS	0. ( 0)	61.5 ( 8)	38.5 ( 5)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	ADMIN	1.3 ( 3)	20.3 ( 47)	78.4 (182)	PLANNERS	0. ( 0)	15.7 ( 8)	84.3 ( 43)	LEGISLATORS	7.7 ( 1)	38.5 ( 5)	53.8 ( 7)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	ADMIN	3.9 ( 9)	24.5 ( 57)	71.7 (167)	PLANNERS	0. ( 0)	15.7 ( 8)	84.3 ( 43)	LEGISLATORS	0. ( 0)	23.1 ( 3)	76.9 ( 10)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	ADMIN	4.7 ( 11)	33.0 ( 77)	62.2 (145)	PLANNERS	0. ( 0)	23.5 ( 12)	76.5 ( 39)	LEGISLATORS	0. ( 0)	53.8 ( 7)	46.2 ( 6)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	ADMIN	5.2 ( 12)	31.9 ( 74)	62.9 (146)	PLANNERS	3.9 ( 2)	21.6 ( 11)	74.5 ( 38)	LEGISLATORS	0. ( 0)	46.2 ( 6)	53.8 ( 7)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	ADMIN	3.4 ( 8)	33.5 ( 78)	63.1 (147)	PLANNERS	0. ( 0)	35.3 ( 18)	64.7 ( 33)	LEGISLATORS	7.7 ( 1)	53.8 ( 7)	38.5 ( 5)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	ADMIN	16.3 ( 38)	37.8 ( 88)	45.9 (107)	PLANNERS	7.8 ( 4)	43.1 ( 22)	49.0 ( 25)	LEGISLATORS	23.1 ( 3)	46.2 ( 6)	30.8 ( 4)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED			
		(%)	(n)	(%)	(n)	(%)	(n)		
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	ADMIN	15.9 ( 37)	45.1 (105)	39.1 ( 91)	PLANNERS	7.8 ( 4)	45.1 ( 23)	47.1 ( 24)
		LEGISLATORS	30.8 ( 4)	38.5 ( 5)	30.8 ( 4)				
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	ADMIN	12.9 ( 30)	50.9 (118)	36.2 ( 84)	PLANNERS	15.7 ( 8)	49.0 ( 25)	35.3 ( 19)
		LEGISLATORS	7.7 ( 1)	53.8 ( 7)	38.5 ( 5)				
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	ADMIN	15.9 ( 37)	48.3 (112)	35.8 ( 83)	PLANNERS	5.9 ( 3)	56.9 ( 29)	37.3 ( 19)
		LEGISLATORS	7.7 ( 1)	53.8 ( 7)	38.5 ( 5)				
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	ADMIN	6.0 ( 14)	34.5 ( 80)	59.5 (138)	PLANNERS	2.0 ( 1)	17.6 ( 9)	80.4 ( 41)
		LEGISLATORS	0. ( 0)	23.1 ( 3)	76.9 ( 10)				
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	ADMIN	41.7 ( 96)	40.9 ( 94)	17.4 ( 40)	PLANNERS	68.6 ( 35)	29.4 ( 15)	2.0 ( 1)
		LEGISLATORS	30.8 ( 4)	53.8 ( 7)	15.4 ( 2)				
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	ADMIN	27.4 ( 63)	46.1 (106)	26.5 ( 61)	PLANNERS	37.3 ( 19)	47.1 ( 24)	15.7 ( 8)
		LEGISLATORS	18.2 ( 2)	72.7 ( 8)	9.1 ( 1)				
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	ADMIN	20.0 ( 46)	50.4 (116)	29.6 ( 68)	PLANNERS	45.1 ( 23)	37.3 ( 19)	17.6 ( 9)
		LEGISLATORS	30.8 ( 4)	53.8 ( 7)	15.4 ( 2)				
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	ADMIN	18.8 ( 43)	46.7 (107)	34.5 ( 79)	PLANNERS	39.2 ( 20)	35.3 ( 18)	25.5 ( 13)
		LEGISLATORS	23.1 ( 3)	61.5 ( 8)	15.4 ( 2)				
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	ADMIN	33.5 ( 77)	44.3 (102)	22.2 ( 51)	PLANNERS	39.2 ( 20)	47.1 ( 24)	13.7 ( 7)
		LEGISLATORS	8.3 ( 1)	75.0 ( 9)	16.7 ( 2)				
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	ADMIN	27.4 ( 63)	47.4 (109)	25.2 ( 58)	PLANNERS	19.6 ( 10)	58.8 ( 30)	21.6 ( 11)
		LEGISLATORS	8.3 ( 1)	83.3 ( 10)	8.3 ( 1)				
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	ADMIN	25.9 ( 60)	53.9 (125)	20.3 ( 47)	PLANNERS	39.2 ( 20)	52.9 ( 27)	7.8 ( 4)
		LEGISLATORS	7.7 ( 1)	61.5 ( 8)	30.8 ( 4)				
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	ADMIN	16.9 ( 38)	47.6 (110)	35.5 ( 82)	PLANNERS	22.0 ( 11)	60.0 ( 30)	18.0 ( 9)
		LEGISLATORS	0. ( 0)	61.5 ( 8)	38.5 ( 5)				
H-3	Ratio of total income for community services to total budget for community services.	ADMIN	30.1 ( 69)	40.2 ( 92)	29.7 ( 68)	PLANNERS	32.0 ( 16)	52.0 ( 26)	16.0 ( 8)
		LEGISLATORS	15.4 ( 2)	30.8 ( 4)	53.8 ( 7)				

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.	ADMIN 48.5 (113) PLANNERS 35.3 ( 18) LEGISLATORS 30.8 ( 4)	27.9 ( 65) 43.1 ( 22) 46.2 ( 6)	23.6 ( 55) 21.6 ( 11) 23.1 ( 3)
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	ADMIN 37.8 ( 88) PLANNERS 37.3 ( 19) LEGISLATORS 30.8 ( 4)	43.3 (101) 54.9 ( 28) 46.2 ( 6)	18.9 ( 44) 7.8 ( 4) 23.1 ( 3)
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	ADMIN 31.6 ( 73) PLANNERS 32.0 ( 16) LEGISLATORS 18.2 ( 2)	42.9 ( 99) 56.0 ( 28) 72.7 ( 8)	25.5 ( 59) 12.0 ( 6) 9.1 ( 1)
H-7	Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	ADMIN 24.0 ( 56) PLANNERS 21.6 ( 11) LEGISLATORS 8.3 ( 1)	47.6 (111) 45.1 ( 23) 25.0 ( 3)	28.3 ( 66) 33.3 ( 17) 66.7 ( 8)
I-1	Number and percentage of students who are employed in businesses, agencies and organizations in the community.	ADMIN 35.5 ( 83) PLANNERS 33.3 ( 17) LEGISLATORS 30.8 ( 4)	51.7 (121) 56.9 ( 29) 53.8 ( 7)	12.8 ( 30) 9.8 ( 5) 15.4 ( 2)
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	ADMIN 27.4 ( 64) PLANNERS 64.7 ( 33) LEGISLATORS 38.5 ( 5)	47.0 (110) 29.4 ( 15) 46.2 ( 6)	25.6 ( 60) 5.9 ( 3) 15.4 ( 2)
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	ADMIN 26.9 ( 63) PLANNERS 17.6 ( 9) LEGISLATORS 23.1 ( 3)	44.9 (105) 51.0 ( 26) 46.2 ( 6)	28.2 ( 66) 31.4 ( 16) 30.8 ( 4)
I-4	Faculty/staff and student expenditures in the community within a certain time period.	ADMIN 25.2 ( 59) PLANNERS 11.8 ( 6) LEGISLATORS 15.4 ( 2)	48.3 (113) 64.7 ( 33) 61.5 ( 8)	26.5 ( 62) 23.5 ( 12) 23.1 ( 3)
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	ADMIN 32.5 ( 76) PLANNERS 23.5 ( 12) LEGISLATORS 8.3 ( 1)	41.0 ( 96) 56.9 ( 29) 58.3 ( 7)	26.5 ( 62) 19.6 ( 10) 33.3 ( 4)
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	ADMIN 34.2 ( 80) PLANNERS 17.6 ( 9) LEGISLATORS 30.8 ( 4)	37.2 ( 87) 58.8 ( 30) 30.8 ( 4)	28.6 ( 67) 23.5 ( 12) 38.5 ( 5)
I-7	Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	ADMIN 36.2 ( 84) PLANNERS 41.2 ( 21) LEGISLATORS 23.1 ( 3)	40.9 ( 95) 49.0 ( 25) 61.5 ( 8)	22.8 ( 53) 9.8 ( 5) 15.4 ( 2)
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	ADMIN 23.6 ( 55) PLANNERS 13.7 ( 7) LEGISLATORS 23.1 ( 3)	41.2 ( 96) 51.0 ( 26) 30.8 ( 4)	35.2 ( 82) 35.3 ( 18) 46.2 ( 6)
I-9	Value of community business properties attributable to institution-related expenditures.	ADMIN 16.1 ( 37) PLANNERS 12.0 ( 6) LEGISLATORS 15.4 ( 2)	40.0 ( 92) 54.0 ( 27) 38.5 ( 5)	43.9 (101) 34.0 ( 17) 46.2 ( 6)

OUTCOME MEASURE		FEED	WOULD LIKE	DON'T NEED	
		(%) (n)	(%) (n)	(%) (n)	
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	ADMIN	16.8 ( 35)	42.2 ( 98)	40.9 ( 95)
		PLANNERS	5.9 ( 3)	47.1 ( 24)	47.1 ( 24)
		LEGISLATORS	7.7 ( 1)	53.8 ( 7)	38.5 ( 5)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	ADMIN	29.9 ( 70)	49.6 (116)	20.5 ( 48)
		PLANNERS	33.3 ( 17)	54.9 ( 28)	11.8 ( 6)
		LEGISLATORS	38.5 ( 5)	53.8 ( 7)	7.7 ( 1)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	ADMIN	26.1 ( 61)	43.6 (102)	30.3 ( 71)
		PLANNERS	23.5 ( 12)	64.7 ( 33)	11.8 ( 6)
		LEGISLATORS	30.8 ( 4)	53.8 ( 7)	15.4 ( 2)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	ADMIN	21.8 ( 51)	44.0 (103)	34.2 ( 80)
		PLANNERS	7.8 ( 4)	51.0 ( 26)	41.2 ( 21)
		LEGISLATORS	7.7 ( 1)	46.2 ( 6)	46.2 ( 6)
I-14	Geographic distribution of alumni.	ADMIN	30.8 ( 72)	51.7 ( 121)	17.5 ( 41)
		PLANNERS	41.2 ( 21)	47.1 ( 24)	11.8 ( 6)
		LEGISLATORS	15.4 ( 2)	53.8 ( 7)	30.8 ( 4)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	ADMIN	51.5 (120)	37.8 ( 88)	10.7 ( 25)
		PLANNERS	47.1 ( 24)	43.1 ( 22)	9.8 ( 5)
		LEGISLATORS	30.8 ( 4)	46.2 ( 6)	23.1 ( 3)
I-16	Number of persons from the community employed by the institution.	ADMIN	48.3 (113)	29.5 ( 69)	22.2 ( 52)
		PLANNERS	31.4 ( 16)	51.0 ( 26)	17.6 ( 9)
		LEGISLATORS	23.1 ( 3)	61.5 ( 8)	15.4 ( 2)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	ADMIN	15.0 ( 35)	45.1 (105)	39.9 ( 93)
		PLANNERS	15.7 ( 8)	37.3 ( 19)	47.1 ( 24)
		LEGISLATORS	7.7 ( 1)	38.5 ( 5)	53.8 ( 7)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	ADMIN	6.4 ( 15)	27.4 ( 64)	66.2 (155)
		PLANNERS	3.9 ( 2)	27.5 ( 14)	68.6 ( 35)
		LEGISLATORS	7.7 ( 1)	30.8 ( 4)	61.5 ( 8)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	ADMIN	22.6 ( 53)	44.9 (105)	32.5 ( 76)
		PLANNERS	19.6 ( 10)	37.3 ( 19)	43.1 ( 22)
		LEGISLATORS	7.7 ( 1)	23.1 ( 3)	69.2 ( 9)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	ADMIN	13.8 ( 44)	50.9 (119)	30.3 ( 71)
		PLANNERS	13.7 ( 7)	43.1 ( 22)	43.1 ( 22)
		LEGISLATORS	0. ( 0)	38.5 ( 5)	61.5 ( 8)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	ADMIN	19.7 ( 46)	56.0 (131)	24.4 ( 57)
		PLANNERS	15.7 ( 8)	41.2 ( 21)	43.1 ( 22)
		LEGISLATORS	7.7 ( 1)	46.2 ( 6)	46.2 ( 6)
J-6	Average amount of faculty time spent in selected research and art producing activities.	ADMIN	29.0 ( 67)	42.4 ( 98)	28.6 ( 66)
		PLANNERS	43.1 ( 22)	45.1 ( 23)	11.8 ( 6)
		LEGISLATORS	23.1 ( 3)	53.8 ( 7)	23.1 ( 3)

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED		
		(%)	(n)	(%)	(n)	(%)	(n)	
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	ADMIN	42.7	(100)	35.0	(82)	22.2	(52)
		PLANNERS	41.2	(21)	39.2	(20)	19.6	(10)
		LEGISLATORS	38.5	(5)	38.5	(5)	23.1	(3)
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	ADMIN	53.8	(126)	26.9	(63)	19.2	(45)
		PLANNERS	51.0	(26)	33.3	(17)	15.7	(8)
		LEGISLATORS	33.3	(4)	58.3	(7)	8.3	(1)
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	ADMIN	23.1	(55)	45.7	(107)	30.8	(72)
		PLANNERS	15.7	(8)	49.0	(25)	35.3	(18)
		LEGISLATORS	0.	(0)	38.5	(5)	61.5	(8)
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	ADMIN	14.5	(34)	42.7	(100)	42.7	(100)
		PLANNERS	11.8	(6)	49.0	(25)	39.2	(20)
		LEGISLATORS	0.	(0)	61.5	(8)	38.5	(5)
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	ADMIN	26.1	(61)	45.3	(106)	28.6	(67)
		PLANNERS	19.6	(10)	41.2	(21)	39.2	(20)
		LEGISLATORS	15.4	(2)	46.2	(6)	38.5	(5)
J-12	Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	ADMIN	23.9	(56)	41.5	(97)	34.6	(81)
		PLANNERS	19.6	(10)	54.9	(28)	25.5	(13)
		LEGISLATORS	23.1	(3)	46.2	(6)	30.8	(4)
J-13	Number and percentage of graduates engaged in research activities.	ADMIN	13.2	(31)	50.4	(118)	36.3	(86)
		PLANNERS	15.7	(8)	49.0	(25)	35.3	(18)
		LEGISLATORS	15.4	(2)	69.2	(9)	15.4	(2)
J-14	Number and percentage of faculty /staff and students invited to participate in professional meetings and conferences.	ADMIN	20.9	(49)	48.7	(114)	30.3	(71)
		PLANNERS	9.8	(5)	29.4	(15)	60.3	(31)
		LEGISLATORS	0.	(0)	53.8	(7)	46.2	(6)
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	ADMIN	15.0	(35)	52.1	(122)	32.9	(77)
		PLANNERS	3.9	(2)	43.1	(22)	52.9	(27)
		LEGISLATORS	0.	(0)	53.8	(7)	46.2	(6)



**TABLE C.6**

**The Percentage and Number of  
Responses to the "Access" Question, by  
College Administrators, State-Level  
Planners, and State Legislators\***

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\*It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
A-1	Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).	ADMIN 32.5 ( 76) PLANNERS 18.0 ( 9) LEGIS 15.4 ( 2)	53.4 (125) 74.0 ( 37) 53.8 ( 7)	14.1 ( 33) 8.0 ( 4) 30.8 ( 4)
A-2	Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.	ADMIN 35.3 ( 82) PLANNERS 18.0 ( 9) LEGIS 7.7 ( 1)	50.4 (117) 74.0 ( 37) 53.8 ( 7)	14.2 ( 33) 8.0 ( 4) 38.5 ( 5)
A-3	Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.	ADMIN 36.7 ( 84) PLANNERS 50.0 ( 25) LEGIS 46.2 ( 6)	44.1 (101) 36.0 ( 18) 15.4 ( 2)	19.2 ( 44) 14.0 ( 7) 38.5 ( 5)
A-4	Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.	ADMIN 13.1 ( 30) PLANNERS 6.0 ( 3) LEGIS 16.7 ( 2)	67.7 (155) 82.0 ( 41) 41.7 ( 5)	19.2 ( 44) 12.0 ( 6) 41.7 ( 5)
A-5	Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech).	ADMIN 7.9 ( 18) PLANNERS 10.0 ( 5) LEGIS 0. ( 0)	71.5 (163) 84.0 ( 42) 46.2 ( 6)	20.6 ( 47) 6.0 ( 3) 53.8 ( 7)
A-6	Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.	ADMIN 1.8 ( 4) PLANNERS 4.0 ( 2) LEGIS 7.7 ( 1)	87.6 (197) 82.0 ( 41) 61.5 ( 8)	10.7 ( 24) 14.0 ( 7) 30.8 ( 4)
A-7	Student scores on tests that indicate their ability to read, write, speak, and/or listen.	ADMIN 43.7 (101) PLANNERS 28.0 ( 14) LEGIS 7.7 ( 1)	39.8 ( 92) 60.0 ( 30) 38.5 ( 5)	16.5 ( 38) 12.0 ( 6) 53.8 ( 7)
A-8	Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).	ADMIN 22.7 ( 52) PLANNERS 6.0 ( 3) LEGIS 23.1 ( 3)	57.2 (131) 84.0 ( 42) 23.1 ( 3)	20.1 ( 46) 10.0 ( 5) 53.8 ( 7)
A-9	Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.	ADMIN 11.1 ( 25) PLANNERS 14.0 ( 7) LEGIS 15.4 ( 2)	72.0 (162) 80.0 ( 40) 30.8 ( 4)	16.9 ( 38) 6.0 ( 3) 53.8 ( 7)
A-10	Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).	ADMIN 38.3 ( 87) PLANNERS 18.0 ( 9) LEGIS 38.5 ( 5)	48.5 (110) 72.0 ( 36) 23.1 ( 3)	13.2 ( 30) 10.0 ( 5) 28.5 ( 5)
B-1	Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.	ADMIN 49.8 (114) PLANNERS 36.0 ( 18) LEGIS 15.4 ( 2)	30.6 ( 70) 52.0 ( 26) 38.5 ( 5)	19.7 ( 45) 12.0 ( 6) 46.2 ( 6)
B-2	Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period.	ADMIN 48.5 (111) PLANNERS 25.5 ( 13) LEGIS 23.1 ( 3)	26.7 ( 84) 66.7 ( 34) 23.1 ( 3)	14.8 ( 34) 7.8 ( 4) 53.8 ( 7)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	ADMIN 60.5 (138)	27.2 (62)	12.3 (28)
		PLANNERS 51.0 (26)	41.2 (21)	7.8 (4)
		LEGIS 50.0 (6)	25.0 (3)	25.0 (3)
B-4	Number of awards and citations received per student and/or former student for their academic performance.	ADMIN 31.1 (71)	51.3 (117)	17.5 (40)
		PLANNERS 15.7 (8)	68.6 (35)	15.7 (8)
		LEGIS 30.8 (4)	30.8 (4)	38.5 (5)
B-5	Number of students receiving a degree, diploma, and certificate within a certain time period.	ADMIN 75.9 (173)	17.5 (40)	6.6 (15)
		PLANNERS 70.6 (36)	23.5 (12)	5.9 (3)
		LEGIS 72.7 (8)	9.1 (1)	18.2 (2)
B-6	Average amount of time it takes a student to earn a degree, diploma, or certificate.	ADMIN 52.2 (119)	32.0 (73)	15.8 (36)
		PLANNERS 38.0 (19)	50.0 (25)	12.0 (6)
		LEGIS 50.0 (6)	25.0 (3)	25.0 (3)
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	ADMIN 57.4 (132)	24.3 (56)	18.3 (42)
		PLANNERS 40.0 (20)	48.0 (24)	12.0 (6)
		LEGIS 61.5 (8)	15.4 (2)	23.1 (3)
B-8	Number and percentage of graduates for the year who transferred from another school.	ADMIN 67.5 (156)	18.2 (42)	14.3 (33)
		PLANNERS 47.1 (24)	37.3 (19)	15.7 (8)
		LEGIS 38.5 (5)	15.4 (2)	46.2 (6)
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	ADMIN 74.0 (171)	13.4 (31)	12.6 (29)
		PLANNERS 43.1 (22)	43.1 (22)	13.7 (7)
		LEGIS 61.5 (8)	15.4 (2)	23.1 (3)
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	ADMIN 26.4 (60)	49.3 (112)	24.2 (55)
		PLANNERS 24.5 (12)	61.2 (30)	14.3 (7)
		LEGIS 38.5 (5)	15.4 (2)	46.2 (6)
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	ADMIN 17.2 (39)	64.3 (146)	18.5 (42)
		PLANNERS 14.0 (7)	74.0 (37)	12.0 (6)
		LEGIS 30.8 (4)	23.1 (3)	46.2 (6)
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	ADMIN 7.0 (16)	74.7 (171)	18.3 (42)
		PLANNERS 8.0 (4)	78.0 (39)	14.0 (7)
		LEGIS 30.6 (4)	38.5 (5)	30.8 (4)
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	ADMIN 3.5 (8)	79.4 (181)	17.1 (39)
		PLANNERS 4.0 (2)	88.0 (44)	8.0 (4)
		LEGIS 16.7 (2)	66.7 (8)	16.7 (2)
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	ADMIN 3.5 (8)	82.5 (188)	14.0 (32)
		PLANNERS 4.0 (2)	86.0 (43)	10.0 (5)
		LEGIS 15.4 (2)	61.5 (8)	23.1 (3)
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	ADMIN 3.9 (9)	84.0 (194)	12.1 (28)
		PLANNERS 2.0 (1)	90.0 (45)	8.0 (4)
		LEGIS 7.7 (1)	61.5 (8)	30.8 (4)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
C-2	Average amount of alumni gifts within a certain time period after graduation.	ADMIN 39.0 ( 90) PLANNERS 10.0 ( 5) LEGIS 16.7 ( 2)	46.3 (107) 74.0 ( 37) 41.7 ( 5)	14.7 ( 34) 16.0 ( 8) 41.7 ( 5)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	ADMIN 9.1 ( 21) PLANNERS 10.2 ( 5) LEGIS 7.7 ( 1)	75.3 (174) 81.6 ( 40) 53.8 ( 7)	15.6 ( 36) 8.2 ( 4) 38.5 ( 5)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	ADMIN 5.2 ( 12) PLANNERS 6.0 ( 3) LEGIS 7.7 ( 1)	79.2 (183) 82.0 ( 41) 61.5 ( 8)	15.6 ( 36) 12.0 ( 6) 30.8 ( 4)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	ADMIN 4.8 ( 11) PLANNERS 2.0 ( 1) LEGIS 0. ( 0)	80.9 (186) 85.7 ( 42) 61.5 ( 8)	14.3 ( 33) 12.2 ( 6) 38.5 ( 5)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	ADMIN 3.5 ( 8) PLANNERS 2.0 ( 1) LEGIS 0. ( 0)	81.8 (189) 86.0 ( 43) 58.3 ( 7)	14.7 ( 34) 12.0 ( 6) 41.7 ( 5)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	ADMIN 7.4 ( 17) PLANNERS 8.0 ( 4) LEGIS 0. ( 0)	80.1 (185) 86.0 ( 43) 69.2 ( 9)	12.6 ( 29) 6.0 ( 3) 30.8 ( 4)
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	ADMIN 5.6 ( 13) PLANNERS 12.0 ( 6) LEGIS 0. ( 0)	79.7 (184) 82.0 ( 41) 61.5 ( 8)	14.7 ( 34) 6.0 ( 3) 38.5 ( 5)
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	ADMIN 34.5 ( 79) PLANNERS 28.0 ( 14) LEGIS 32.1 ( 3)	48.5 (111) 60.0 ( 30) 23.1 ( 3)	17.0 ( 39) 12.0 ( 6) 53.8 ( 7)
O-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	ADMIN 15.7 ( 36) PLANNERS 19.6 ( 10) LEGIS 7.7 ( 1)	67.4 (155) 72.5 ( 30) 61.5 ( 8)	17.0 ( 39) 7.8 ( 4) 30.8 ( 4)
O-3	Average first salary of former students.	ADMIN 26.2 ( 60) PLANNERS 24.0 ( 12) LEGIS 15.4 ( 2)	58.1 (133) 68.0 ( 34) 38.5 ( 5)	15.7 ( 36) 8.0 ( 4) 46.2 ( 6)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	ADMIN 9.6 ( 22) PLANNERS 20.0 ( 10) LEGIS 7.7 ( 1)	72.9 (167) 68.0 ( 34) 53.8 ( 7)	17.5 ( 40) 12.0 ( 6) 38.5 ( 5)
D-5	Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	ADMIN 4.4 ( 10) PLANNERS 6.0 ( 3) LEGIS 0. ( 0)	81.1 (185) 80.0 ( 40) 58.3 ( 7)	14.5 ( 33) 14.0 ( 7) 41.7 ( 5)
O-6	Number of professional occupation awards and citations received per former student surveyed.	ADMIN 3.1 ( 7) PLANNERS 4.0 ( 2) LEGIS 8.3 ( 1)	83.6 (189) 88.0 ( 44) 58.3 ( 7)	13.3 ( 30) 8.0 ( 4) 33.3 ( 4)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
D-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	ADMIN 5.3 ( 12) PLANNERS 4.1 ( 2) LEGIS 8.3 ( 1)	80.3 (183) 83.7 ( 41) 50.0 ( 6)	14.5 ( 33) 12.2 ( 6) 41.7 ( 5)
D-8	Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	ADMIN 3.1 ( 7) PLANNERS 0. ( 0) LEGIS 8.3 ( 1)	84.4 (190) 92.0 ( 46) 50.0 ( 6)	12.4 ( 28) 8.0 ( 4) 41.7 ( 5)
D-9	Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	ADMIN 3.1 ( 7) PLANNERS 0. ( 0) LEGIS 15.4 ( 2)	84.5 (191) 90.0 ( 45) 53.8 ( 7)	12.4 ( 28) 10.0 ( 5) 30.8 ( 4)
D-10	Average first salary expectations of students.	ADMIN 11.5 ( 26) PLANNERS 3.9 ( 2) LEGIS 8.3 ( 1)	74.8 (169) 84.3 ( 43) 58.3 ( 7)	13.7 ( 31) 11.8 ( 6) 33.3 ( 4)
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	ADMIN 26.5 ( 61) PLANNERS 20.0 ( 10) LEGIS 15.4 ( 2)	56.5 (130) 72.0 ( 36) 46.2 ( 6)	17.0 ( 39) 8.0 ( 4) 38.5 ( 5)
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	ADMIN 11.1 ( 25) PLANNERS 7.8 ( 4) LEGIS 16.7 ( 2)	72.1 (163) 76.5 ( 39) 50.0 ( 6)	16.8 ( 38) 15.7 ( 8) 33.3 ( 4)
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	ADMIN 21.6 ( 49) PLANNERS 21.6 ( 11) LEGIS 15.4 ( 2)	61.2 (139) 62.7 ( 32) 38.5 ( 5)	17.2 ( 39) 15.7 ( 8) 46.2 ( 6)
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	ADMIN 11.6 ( 26) PLANNERS 4.0 ( 2) LEGIS 15.4 ( 2)	74.1 (166) 90.0 ( 45) 46.2 ( 6)	14.3 ( 32) 6.0 ( 3) 38.5 ( 5)
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	ADMIN 15.0 ( 34) PLANNERS 4.0 ( 2) LEGIS 25.0 ( 3)	73.9 (167) 90.0 ( 45) 41.7 ( 5)	11.1 ( 25) 6.0 ( 3) 33.3 ( 4)
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	ADMIN 5.8 ( 13) PLANNERS 2.0 ( 1) LEGIS 18.2 ( 2)	80.1 (181) 90.0 ( 45) 54.5 ( 6)	14.2 ( 32) 8.0 ( 4) 27.3 ( 3)
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 8.3 ( 1)	85.3 (191) 92.0 ( 46) 58.3 ( 7)	12.9 ( 29) 8.0 ( 4) 33.3 ( 4)
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	ADMIN 2.2 ( 5) PLANNERS 2.0 ( 1) LEGIS 16.7 ( 2)	88.8 (199) 90.0 ( 45) 58.3 ( 7)	8.9 ( 20) 8.0 ( 4) 25.0 ( 3)
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	ADMIN 2.2 ( 5) PLANNERS 0. ( 0) LEGIS 8.3 ( 1)	85.9 (195) 92.0 ( 46) 50.0 ( 6)	11.9 ( 27) 8.0 ( 4) 41.7 ( 5)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	ADMIN 4.9 ( 11) PLANNERS 0. ( 0) LEGIS 16.7 ( 2)	82.6 (185) 92.0 ( 46) 50.0 ( 6)	12.5 ( 28) 8.0 ( 4) 33.3 ( 4)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	ADMIN 4.0 ( 9) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	86.7 (195) 92.0 ( 46) 61.5 ( 8)	9.3 ( 21) 8.0 ( 4) 30.8 ( 4)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	ADMIN 4.0 ( 9) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	87.0 (194) 92.0 ( 46) 53.8 ( 7)	9.0 ( 20) 8.0 ( 4) 38.5 ( 5)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	ADMIN 2.2 ( 5) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	87.2 (198) 94.0 ( 47) 61.5 ( 8)	10.6 ( 24) 6.0 ( 3) 30.8 ( 4)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	ADMIN 2.6 ( 6) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	86.8 (197) 92.0 ( 46) 69.2 ( 9)	10.6 ( 24) 8.0 ( 4) 23.1 ( 3)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	ADMIN 2.7 ( 6) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	86.7 (196) 92.0 ( 46) 61.5 ( 8)	10.6 ( 24) 8.0 ( 4) 30.8 ( 4)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	ADMIN 6.2 ( 14) PLANNERS 2.0 ( 1) LEGIS 7.7 ( 1)	81.9 (185) 89.8 ( 44) 46.2 ( 6)	11.9 ( 27) 8.2 ( 4) 46.2 ( 6)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	ADMIN 1.3 ( 3) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	90.6 (203) 94.0 ( 47) 53.8 ( 7)	8.0 ( 18) 6.0 ( 3) 38.5 ( 5)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	ADMIN .9 ( 2) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	91.5 (205) 94.0 ( 47) 61.5 ( 8)	7.6 ( 17) 6.0 ( 3) 30.8 ( 4)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	ADMIN 1.3 ( 3) PLANNERS 0. ( 0) LEGIS 0. ( 0)	90.7 (204) 94.0 ( 47) 69.2 ( 9)	8.0 ( 18) 6.0 ( 3) 30.8 ( 4)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 0. ( 0)	89.7 (201) 94.0 ( 47) 61.5 ( 8)	8.5 ( 19) 6.0 ( 3) 38.5 ( 5)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	ADMIN 1.3 ( 3) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	92.0 (208) 94.0 ( 47) 69.2 ( 9)	6.6 ( 15) 6.0 ( 3) 23.1 ( 3)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 0. ( 0)	89.4 (202) 94.0 ( 47) 53.8 ( 7)	8.8 ( 20) 6.0 ( 3) 46.2 ( 6)

OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 7.7 ( 1)	88.9 (201) 94.0 ( 47) 53.8 ( 7)	9.3 ( 21) 6.0 ( 3) 38.5 ( 5)
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	ADMIN 4.0 ( 9) PLANNERS 0. ( 0) LEGIS 15.4 ( 2)	87.2 (197) 90.0 ( 45) 53.8 ( 7)	8.8 ( 20) 10.0 ( 5) 30.8 ( 4)
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	ADMIN 3.1 ( 7) PLANNERS 0. ( 0) LEGIS 0. ( 0)	88.6 (202) 90.0 ( 45) 58.3 ( 7)	8.3 ( 20) 10.0 ( 5) 41.7 ( 5)
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 16.7 ( 2)	91.5 (205) 94.0 ( 47) 58.3 ( 7)	6.7 ( 15) 6.0 ( 3) 25.0 ( 3)
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	ADMIN 54.8 (125) PLANNERS 35.3 ( 18) LEGIS 46.2 ( 6)	32.0 ( 73) 47.1 ( 24) 30.8 ( 4)	13.2 ( 30) 17.6 ( 9) 23.1 ( 3)
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	ADMIN 6.2 ( 14) PLANNERS 2.0 ( 1) LEGIS 18.2 ( 2)	81.5 (185) 88.0 ( 44) 45.5 ( 5)	12.3 ( 28) 10.0 ( 5) 36.4 ( 4)
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	ADMIN 1.8 ( 4) PLANNERS 0. ( 0) LEGIS 8.3 ( 1)	77.2 (198) 36.3 ( 44) 50.0 ( 6)	11.0 ( 25) 13.7 ( 7) 41.7 ( 5)
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	ADMIN .9 ( 2) PLANNERS 2.0 ( 1) LEGIS 8.3 ( 1)	89.0 (202) 90.0 ( 45) 50.0 ( 6)	10.1 ( 23) 8.0 ( 4) 41.7 ( 5)
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	ADMIN 14.1 ( 32) PLANNERS 15.7 ( 8) LEGIS 0. ( 0)	73.6 (167) 74.5 ( 38) 45.5 ( 5)	12.3 ( 28) 9.8 ( 5) 54.5 ( 6)
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	ADMIN 4.8 ( 11) PLANNERS 4.0 ( 2) LEGIS 9.1 ( 1)	83.3 (190) 88.0 ( 44) 45.5 ( 5)	11.8 ( 27) 8.0 ( 4) 45.5 ( 5)
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	ADMIN 12.8 ( 29) PLANNERS 13.7 ( 7) LEGIS 0. ( 0)	71.8 (163) 74.5 ( 38) 38.5 ( 5)	15.4 ( 35) 11.8 ( 6) 61.5 ( 8)
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	ADMIN 2.7 ( 6) PLANNERS 2.0 ( 1) LEGIS 7.7 ( 1)	85.8 (194) 89.8 ( 44) 53.8 ( 7)	11.5 ( 26) 8.2 ( 4) 38.5 ( 5)
H-3	Ratio of total income for community services to total budget for community services.	ADMIN 24.6 ( 55) PLANNERS 24.0 ( 2) LEGIS 7.7 ( 1)	64.7 (145) 70.0 ( 35) 53.8 ( 7)	10.7 ( 24) 6.0 ( 3) 38.5 ( 5)

OUTCOME MEASURE		BEST COPY AVAILABLE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	HOT SURE (%) (n)
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.	ADMIN	65.5 (150)	28.8 (66)	5.7 (13)	
		PLANNERS	33.3 (17)	58.8 (30)	7.8 (4)	
		LEGIS	15.4 (2)	44.2 (6)	38.5 (5)	
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	ADMIN	29.3 (67)	56.8 (130)	14.0 (32)	
		PLANNERS	9.8 (5)	74.5 (38)	15.7 (8)	
		LEGIS	15.4 (2)	46.2 (6)	38.5 (5)	
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	ADMIN	16.4 (37)	73.5 (166)	10.2 (23)	
		PLANNERS	12.0 (6)	78.0 (39)	10.0 (5)	
		LEGIS	18.2 (2)	45.5 (5)	36.4 (4)	
H-7	Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	ADMIN	16.7 (38)	72.2 (164)	11.0 (25)	
		PLANNERS	4.0 (2)	90.0 (45)	6.0 (3)	
		LEGIS	8.3 (1)	41.7 (5)	50.0 (6)	
I-1	Number and percentage of students who are employed in businesses, agencies and organizations in the community.	ADMIN	17.7 (41)	62.9 (146)	19.4 (45)	
		PLANNERS	12.0 (6)	74.0 (37)	14.0 (7)	
		LEGIS	23.1 (3)	38.5 (5)	38.5 (5)	
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	ADMIN	21.6 (50)	63.2 (146)	15.2 (35)	
		PLANNERS	15.7 (8)	78.4 (40)	5.9 (3)	
		LEGIS	15.4 (2)	38.5 (5)	46.2 (6)	
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	ADMIN	30.2 (70)	56.9 (132)	12.9 (30)	
		PLANNERS	14.0 (7)	78.0 (39)	8.0 (4)	
		LEGIS	30.8 (4)	38.5 (5)	30.8 (4)	
I-4	Faculty/staff and student expenditures in the community within a certain time period.	ADMIN	10.3 (24)	78.5 (183)	11.2 (26)	
		PLANNERS	8.0 (4)	85.0 (43)	6.0 (3)	
		LEGIS	23.1 (3)	38.5 (5)	38.5 (5)	
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	ADMIN	37.1 (86)	53.0 (123)	9.9 (23)	
		PLANNERS	20.0 (10)	72.0 (36)	8.0 (4)	
		LEGIS	33.3 (4)	33.3 (4)	33.3 (4)	
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	ADMIN	58.6 (136)	35.8 (83)	5.6 (13)	
		PLANNERS	26.0 (13)	62.0 (31)	12.0 (6)	
		LEGIS	38.5 (5)	23.1 (3)	38.5 (5)	
I-7	Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	ADMIN	10.5 (24)	76.8 (175)	12.7 (29)	
		PLANNERS	6.0 (3)	82.0 (41)	12.0 (6)	
		LEGIS	15.4 (2)	46.2 (6)	38.5 (3)	
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	ADMIN	12.7 (29)	76.8 (175)	10.5 (24)	
		PLANNERS	6.0 (3)	84.0 (42)	10.0 (5)	
		LEGIS	23.1 (3)	30.8 (4)	46.2 (6)	
I-9	Value of community business properties attributable to institution-related expenditures.	ADMIN	6.6 (15)	81.5 (185)	11.9 (27)	
		PLANNERS	0. (0)	92.0 (46)	8.0 (4)	
		LEGIS	23.1 (3)	38.5 (5)	38.5 (5)	



OUTCOME MEASURE		HAVE ACCESS (%) (n)	DON'T HAVE (%) ACCESS (n)	NOT SURE (%) (n)
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	ADMIN 11.4 ( 26) PLANNERS 6.0 ( 3) LEGIS 23.1 ( 3)	78.2 (179) 86.0 ( 43) 38.5 ( 5)	10.5 ( 24) 8.0 ( 4) 38.5 ( 5)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	ADMIN 7.8 ( 18) PLANNERS 4.0 ( 2) LEGIS 15.4 ( 2)	72.7 (168) 84.0 ( 42) 38.5 ( 5)	19.5 ( 45) 12.0 ( 6) 46.2 ( 6)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	ADMIN 10.4 ( 24) PLANNERS 5.9 ( 3) LEGIS 23.1 ( 3)	73.9 (170) 78.4 ( 40) 30.8 ( 4)	15.7 ( 36) 15.7 ( 8) 46.2 ( 6)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	ADMIN 37.4 ( 86) PLANNERS 16.0 ( 8) LEGIS 23.1 ( 3)	52.2 (120) 66.0 ( 33) 30.8 ( 4)	10.4 ( 24) 18.0 ( 9) 46.2 ( 6)
I-14	Geographic distribution of alumni.	ADMIN 48.9 (114) PLANNERS 15.7 ( 8) LEGIS 23.1 ( 3)	39.9 ( 93) 64.7 ( 33) 38.5 ( 5)	11.2 ( 26) 19.6 ( 10) 38.5 ( 5)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	ADMIN 18.8 ( 43) PLANNERS 6.0 ( 3) LEGIS 30.8 ( 4)	61.1 (140) 80.0 ( 40) 38.5 ( 5)	20.1 ( 46) 14.0 ( 7) 30.8 ( 4)
I-16	Number of persons from the community employed by the institution.	ADMIN 75.4 (175) PLANNERS 43.1 ( 22) LEGIS 46.2 ( 6)	20.7 ( 48) 47.1 ( 24) 30.8 ( 4)	3.9 ( 9) 9.8 ( 5) 23.1 ( 3)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	ADMIN 16.3 ( 37) PLANNERS 5.9 ( 3) LEGIS 23.1 ( 3)	69.2 (157) 84.3 ( 43) 46.2 ( 6)	14.5 ( 33) 9.8 ( 5) 30.8 ( 4)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	ADMIN 1.3 ( 3) PLANNERS 2.0 ( 1) LEGIS 15.4 ( 2)	85.8 (194) 92.0 ( 46) 46.2 ( 6)	12.8 ( 29) 6.0 ( 3) 38.5 ( 5)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	ADMIN 35.7 ( 82) PLANNERS 24.0 ( 12) LEGIS 23.1 ( 3)	52.2 (120) 68.0 ( 34) 46.2 ( 6)	12.2 ( 28) 8.0 ( 4) 30.8 ( 4)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	ADMIN 23.6 ( 54) PLANNERS 16.0 ( 8) LEGIS 23.1 ( 3)	59.0 (135) 72.0 ( 36) 38.5 ( 5)	17.5 ( 40) 12.0 ( 6) 38.5 ( 5)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	ADMIN 14.8 ( 34) PLANNERS 10.0 ( 5) LEGIS 30.8 ( 4)	66.8 (153) 76.0 ( 38) 30.8 ( 4)	18.3 ( 42) 14.0 ( 7) 38.5 ( 5)
J-6	Average amount of faculty time spent in selected research and art producing activities.	ADMIN 20.6 ( 47) PLANNERS 17.6 ( 9) LEGIS 15.4 ( 2)	64.9 (148) 64.7 ( 33) 38.5 ( 5)	14.5 ( 33) 17.6 ( 9) 46.2 ( 6)

OUTCOME MEASURE		HAVE ACCESS		DON'T HAVE		NOT SURE		
		(%)	(n)	(%)	ACCESS (n)	(%)	(n)	
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	ADMIN	65.4	(128)	36.8	(85)	7.8	(18)
		PLANNERS	30.0	(15)	62.0	(31)	8.0	(4)
		LEGIS	30.8	(4)	30.8	(4)	38.5	(5)
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	ADMIN	68.5	(159)	27.2	(63)	4.3	(10)
		PLANNERS	48.0	(24)	40.0	(20)	12.0	(6)
		LEGIS	60.0	(6)	25.0	(3)	25.0	(3)
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	ADMIN	33.2	(76)	51.5	(118)	15.3	(35)
		PLANNERS	19.6	(10)	70.6	(36)	9.8	(5)
		LEGIS	7.7	(1)	53.8	(7)	38.5	(5)
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	ADMIN	14.1	(32)	72.2	(164)	13.7	(31)
		PLANNERS	6.0	(3)	80.0	(40)	14.0	(7)
		LEGIS	15.4	(2)	61.5	(8)	23.1	(3)
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	ADMIN	40.7	(94)	44.6	(103)	14.7	(34)
		PLANNERS	20.0	(10)	72.0	(36)	8.0	(4)
		LEGIS	38.5	(5)	38.5	(5)	23.1	(3)
J-12	Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	ADMIN	11.4	(26)	75.5	(173)	13.1	(30)
		PLANNERS	8.0	(4)	84.0	(42)	8.0	(4)
		LEGIS	23.1	(3)	61.5	(8)	15.4	(2)
J-13	Number and percentage of graduates engaged in research activities.	ADMIN	9.6	(22)	75.4	(172)	14.9	(34)
		PLANNERS	3.9	(2)	90.2	(46)	5.9	(3)
		LEGIS	30.8	(4)	38.5	(5)	30.8	(4)
J-14	Number and percentage of faculty /staff and students <u>invited</u> to participate in professional meetings and conferences.	ADMIN	25.8	(59)	57.2	(131)	17.0	(39)
		PLANNERS	14.0	(7)	82.0	(41)	4.0	(2)
		LEGIS	15.4	(2)	53.8	(7)	30.8	(4)
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	ADMIN	10.2	(23)	74.3	(168)	15.5	(35)
		PLANNERS	2.0	(1)	88.0	(44)	10.0	(5)
		LEGIS	8.3	(1)	58.3	(7)	33.3	(4)

TABLE C.7

The Percentage and Number of  
Responses to the "Needs" Question, by  
Sector of State-Level Planner\*

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\*Two sectors of state-level planners were surveyed: (1) state directors of higher education boards or coordinating councils [this group was identified from the December 15, 1973 listing of State Higher Education Executive Officers--SHEEO], and (2) state directors of community/junior college boards, coordinating councils, or comparable agencies [this group was identified from a November 15, 1973 listing furnished by the American Association of Community/Junior Colleges--AAC/JC].

It should be noted in reviewing this table that if a respondent did not record a choice for any measure in the questionnaire, the no response was not considered in calculating the distribution of responses across the question categories in the table.

OUTCOME MEASURE

BEST COPY AVAILABLE

NEED  
(%) (n)

WOULD LIKE  
(%) (n)

DON'T NEED  
(%) (n)

A-1 Student scores on tests that indicate development in their breadth of knowledge about facts and principles across several broad fields of study (e.g., the humanities, the physical sciences, etc.).

SHEEO  
AAC/JC

45.2 (14)	35.5 (11)	19.4 (6)
10.5 (2)	73.7 (14)	15.8 (3)

A-2 Student scores on tests that indicate development in their depth of knowledge concerning facts and principles in the particular fields in which a student elects to study.

SHEEO  
AAC/JC

53.3 (16)	23.3 (7)	23.3 (7)
31.6 (6)	57.9 (11)	10.5 (2)

A-3 Number of students passing certification or licensing exams (e.g., bar exam, CPA, LPN) on the first attempt as a percentage of all students taking the exam.

SHEEO  
AAC/JC

62.5 (20)	37.5 (12)	0.0 (0)
57.9 (11)	42.1 (8)	0.0 (0)

A-4 Student scores on tests that indicate their ability to apply general or specialized knowledge to a problem and to implement a solution.

SHEEO  
AAC/JC

32.3 (10)	41.9 (13)	25.8 (8)
26.3 (5)	52.6 (10)	21.1 (4)

A-5 Student scores on tests that indicate their ability to analyze problems (e.g., the recognition of biased points in an article or speech)

SHEEO  
AAC/JC

25.8 (8)	48.4 (15)	25.8 (8)
15.8 (3)	63.2 (12)	21.1 (4)

A-6 Number of patents awarded and copyrights obtained by students and/or former students within a certain time period.

SHEEO  
AAC/JC

16.1 (5)	35.5 (11)	48.4 (15)
0.0 (0)	57.9 (11)	42.1 (8)

A-7 Student scores on tests that indicate their ability to read, write, speak, and/or listen.

SHEEO  
AAC/JC

46.9 (15)	40.6 (13)	12.5 (4)
36.8 (7)	57.9 (11)	5.3 (1)

A-8 Number and percentage of students surveyed who have participated in activities that enhance their communication skills (e.g., debate, encounter groups, etc.).

SHEEO  
AAC/JC

3.1 (1)	37.5 (12)	59.4 (19)
10.5 (2)	31.6 (6)	57.9 (11)

A-9 Student scores on tests that indicate their ability to perform tasks requiring physical dexterity and skill.

SHEEO  
AAC/JC

0.0 (0)	21.9 (7)	78.1 (25)
21.1 (4)	36.8 (7)	42.1 (8)

A-10 Number and percentage of students surveyed who have participated in activities that enhance their athletic skills (e.g., intramural and varsity sports).

SHEEO  
AAC/JC

0.0 (0)	25.0 (8)	75.0 (24)
0.0 (0)	42.1 (8)	57.9 (11)

B-1 Number and percentage of students surveyed identifying a certain degree, diploma, or certificate as the highest degree planned.

SHEEO  
AAC/JC

78.1 (25)	18.7 (6)	3.1 (1)
68.4 (13)	21.1 (4)	10.5 (2)

B-2 Number and percentage of students surveyed who have changed majors (lower division, upper division, and/or graduate) within a certain time period

SHEEO  
AAC/JC

43.7 (14)	43.7 (14)	12.5 (4)
52.6 (10)	42.1 (8)	5.3 (1)

OUTCOME MEASURE			NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
B-3	Number and percentage of students surveyed who are taking noncredit, independent study, or special courses.	SHEEO AAC/JC	62.5 (20) 68.4 (13)	34.4 (11) 21.1 ( 4)	3.1 ( 1) 10.5 ( 2)
B-4	Number of awards and citations received per student and/or former student for their academic performance.	SHEEO AAC/JC	15.6 ( 5) 5.3 ( 1)	43.7 (14) 68.4 (13)	40.6 (13) 26.3 ( 5)
B-5	Number of students receiving a degree, diploma, and certificate within a certain time period.	SHEEO AAC/JC	90.6 (29) 78.9 (15)	9.4 ( 3) 15.8 ( 3)	0.0 ( 0) 5.3 ( 1)
B-6	Average amount of time takes a student to earn a degree, diploma, or certificate.	SHEEO AAC/JC	68.7 (22) 63.2 (12)	31.2 (10) 31.6 ( 6)	0.0 ( 0) 5.3 ( 1)
B-7	Number of students graduating from the institution after a certain period of time as a percentage of their entering class.	SHEEO AAC/JC	67.7 (21) 89.5 (17)	32.3 (10) 10.5 ( 2)	0.0 ( 0) 0.0 ( 0)
B-8	Number and percentage of graduates for the year who transferred from another school.	SHEEO AAC/JC	59.4 (19) 68.4 (13)	34.4 (11) 21.1 ( 4)	6.3 ( 2) 10.5 ( 2)
B-9	Number and percentage of students leaving the institution prior to receiving a degree, diploma or certificate during a particular academic term or year.	SHEEO AAC/JC	71.9 (23) 73.7 (14)	28.1 ( 9) 26.3 ( 5)	0.0 ( 0) 0.0 ( 0)
B-10	Number of graduates accepted for study in another educational program that will result in a degree, diploma or certificate as a percentage of those applying.	SHEEO AAC/JC	45.2 (14) 68.4 (13)	48.4 (15) 26.3 ( 5)	6.5 ( 2) 5.3 ( 1)
B-11	Number of graduates working toward or receiving another educational degree, diploma, or certificate after a certain time period following graduation as a percentage of their graduating class.	SHEEO AAC/JC	51.6 (16) 63.2 (12)	41.9 (13) 36.8 ( 7)	6.5 ( 2) 0.0 ( 0)
B-12	Student and/or former student scores on a scale measuring their perceptions of their educational achievement.	SHEEO AAC/JC	41.9 (13) 42.1 ( 8)	32.3 (10) 47.4 ( 9)	25.8 ( 8) 10.5 ( 2)
B-13	Student scores on a scale measuring their perceptions about the amount of learning that took place in certain activities sponsored by the institution outside of formal instruction.	SHEEO AAC/JC	19.4 ( 6) 36.8 ( 7)	48.4 (15) 47.4 ( 9)	32.3 (10) 15.8 ( 3)
B-14	Student scores on a scale measuring their interest in continued self-initiated study and inquiry.	SHEEO AAC/JC	21.9 ( 7) 31.6 ( 6)	43.7 (14) 42.1 ( 8)	34.4 (11) 26.3 ( 5)
C-1	Number and percentage of former students surveyed who indicate that they would send their children to the same school.	SHEEO AAC/JC	12.5 ( 4) 21.1 ( 4)	40.6 (13) 42.1 ( 8)	46.9 (15) 36.8 ( 7)

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (r)	DON'T NEED (%) (n)	
C-2	Average amount of alumni gifts within a certain time period after graduation.	SHEEO AAC/JC	3.1 ( 1) 10.5 ( 2)	40.6 (13) 36.8 ( 7)	56.2 (18) 52.6 (10)
C-3	Student and/or former student scores on a scale measuring their degree of satisfaction with their overall educational experience.	SHEEO AAC/JC	37.5 (12) 57.9 (11)	46.9 (15) 31.6 ( 6)	15.6 ( 5) 10.5 ( 2)
C-4	Student scores on a scale measuring their degree of satisfaction with their knowledge and skills development (e.g., changes in their breadth and depth of knowledge, changes in their communication skills).	SHEEO AAC/JC	28.1 ( 9) 47.4 ( 9)	53.1 (17) 36.8 ( 7)	18.7 ( 6) 15.8 ( 3)
C-5	Student scores on a scale measuring their degree of satisfaction with their personal development (e.g., changes in their ability to cope with new situations, changes in their self-concept).	SHEEO AAC/JC	15.6 ( 5) 26.3 ( 5)	50.0 (16) 57.9 (11)	34.4 (11) 15.8 ( 3)
C-6	Student scores on a scale measuring their degree of satisfaction with their social and cultural development (e.g., changes in their ability to get along with others, changes in their appreciation of cultural activities and artifacts).	SHEEO AAC/JC	12.5 ( 4) 15.8 ( 3)	56.2 (18) 68.4 (13)	31.2 (10) 15.8 ( 3)
C-7	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their educational career goals.	SHEEO AAC/JC	37.5 (12) 52.6 (10)	46.9 (15) 36.8 ( 7)	15.6 ( 5) 10.5 ( 2)
C-8	Student scores on a scale measuring their degree of satisfaction with their progress in achieving their occupational career goals.	SHEEO AAC/JC	46.9 (15) 57.9 (11)	40.6 (13) 42.1 ( 8)	12.5 ( 4) 0.0 ( 0)
D-1	Number and percentage of former students (graduates and nongraduates) surveyed who were employed within a certain time period after leaving the institution.	SHEEO AAC/JC	62.5 (20) 78.9 (15)	34.4 (11) 21.1 ( 4)	3.1 ( 1) 0.0 ( 0)
D-2	Number and percentage of former students (graduates and nongraduates) surveyed who received the job of their first choice.	SHEEO AAC/JC	37.5 (12) 63.2 (12)	43.7 (14) 36.8 ( 7)	18.7 ( 6) 0.0 ( 0)
D-3	Average first salary of former students.	SHEEO AAC/JC	34.4 (11) 68.4 (13)	50.0 (16) 31.6 ( 6)	15.6 ( 5) 0.0 ( 0)
D-4	Distribution of former students (graduates and nongraduates) across income categories within a certain time period after leaving the institution.	SHEEO AAC/JC	43.7 (14) 57.9 (11)	37.5 (12) 36.8 ( 7)	18.7 ( 6) 5.3 ( 1)
D-5	Former students (graduates and nongraduates) scores on a scale measuring their degree of satisfaction with their job performance.	SHEEO AAC/JC	15.6 ( 5) 31.6 ( 6)	56.2 (18) 57.9 (11)	28.1 ( 9) 10.5 ( 2)
D-6	Number of professional occupation awards and citations received per former student surveyed.	SHEEO AAC/JC	12.5 ( 4) 5.3 ( 1)	34.4 (11) 63.2 (12)	53.1 (17) 31.6 ( 6)

	OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED	
			(%)	(n)	(%)	(n)	(%)	(n)
0-7	Number and percentage of former students surveyed who are in management positions within a certain time period after leaving the institution.	SHEEO AAC/JC	12.5 ( 4) 22.2 ( 4)	53.1 (17) 72.2 (13)	34.4 (11) 5.6 ( 1)			
D-8	Number of voluntary/involuntary changes in <u>employment</u> within a given time period per former student surveyed.	SHEEO AAC/JC	6.3 ( 2) 36.8 ( 7)	43.7 (14) 52.6 (10)	50.0 (16) 10.5 ( 2)			
D-9	Number of voluntary/involuntary changes in <u>career field</u> within a given time period per former student surveyed.	SHEEO AAC/JC	21.9 ( 7) 47.4 ( 9)	46.9 (15) 42.1 ( 8)	31.2 (10) 10.5 ( 2)			
D-10	Average first salary expectations of students.	SHEEO AAC/JC	12.5 ( 4) 26.3 ( 5)	65.6 (21) 68.4 (13)	21.9 ( 7) 5.3 ( 1)			
D-11	Number and percentage of students surveyed who are aspiring to a particular type of occupational career.	SHEEO AAC/JC	65.6 (21) 73.7 (14)	28.1 ( 9) 26.3 ( 5)	6.3 ( 2) 0.0 ( 0)			
D-12	Number and percentage of students and/or former students surveyed who are seeking certain levels of employment.	SHEEO AAC/JC	28.1 ( 9) 52.6 (10)	43.7 (14) 47.4 ( 9)	28.1 ( 9) 0.0 ( 0)			
D-13	Number and percentage of former students (graduates and nongraduates) surveyed accepting employment in their major field of study.	SHEEO AAC/JC	68.7 (22) 78.9 (15)	31.2 (10) 21.1 ( 4)	0.0 ( 0) 0.0 ( 0)			
E-1	Number of students and/or former students reporting certain mental and physical illnesses as a percentage of all the students and/or former students surveyed.	SHEEO AAC/JC	9.4 ( 3) 10.5 ( 2)	25.0 ( 9) 42.1 ( 8)	65.6 (21) 47.4 ( 9)			
E-2	Number and percentage of students surveyed who have participated in special mental health counseling programs within a certain period of time.	SHEEO AAC/JC	9.4 ( 3) 5.3 ( 1)	25.0 ( 8) 52.6 (10)	65.6 (21) 42.1 ( 8)			
E-3	Number and percentage of students and/or former students surveyed who belong to or hold office in religious organizations.	SHEEO AAC/JC	3.1 ( 1) 0.0 ( 0)	9.4 ( 3) 0.0 ( 0)	87.5 (28) 100.0 (19)			
E-4	Student and/or former student scores on a scale measuring their religious and spiritual attitudes and beliefs.	SHEEO AAC/JC	3.1 ( 1) 0.0 ( 0)	12.5 ( 4) 5.3 ( 1)	84.4 (27) 94.7 (18)			
E-5	Number and percentage of students and/or former students surveyed who regularly attend religious services.	SHEEO AAC/JC	3.1 ( 1) 0.0 ( 0)	12.5 ( 4) 0.0 ( 0)	84.4 (27) 100.0 (19)			
E-6	Student and/or former student scores on a scale measuring their attitudes and beliefs toward new or different ideas and things.	SHEEO AAC/JC	15.6 ( 5) 10.5 ( 2)	28.1 ( 9) 36.8 ( 7)	56.2 (18) 52.6 (10)			

OUTCOME MEASURE		NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)	
E-7	Student and/or former student scores on a scale measuring their perceptions about their self-image.	SHEEO AAC/JC	12.5 ( 4) 15.8 ( 3)	28.1 ( 9) 47.4 ( 9)	59.4 (19) 36.8 ( 7)
F-1	Number and percentage of students and/or former students surveyed who hold membership in social, charitable, political, or civic organizations.	SHEEO AAC/JC	3.1 ( 1) 0.0 ( 0)	34.4 (11) 47.4 ( 9)	62.5 (20) 52.6 (10)
F-2	Number of awards and citations earned per student and/or former student for social contributions.	SHEEO AAC/JC	9.4 ( 3) 0.0 ( 0)	21.9 ( 7) 36.8 ( 7)	68.7 (22) 63.2 (12)
F-3	Student and/or former student scores on a scale measuring their perceptions about their ability to live and interact with other people.	SHEEO AAC/JC	9.4 ( 3) 15.8 ( 3)	43.7 (14) 57.9 (11)	46.9 (15) 26.3 ( 5)
F-4	Number and percentage of students and/or former students surveyed who have been candidates for positions in local, state, and federal government.	SHEEO AAC/JC	6.3 ( 2) 5.3 ( 1)	40.6 (13) 63.2 (12)	53.1 (17) 31.6 ( 6)
F-5	Number and percentage of students and/or former students surveyed who hold office in social, charitable, political, or civic organizations.	SHEEO AAC/JC	3.1 ( 1) 5.3 ( 1)	34.4 (11) 52.6 (10)	62.5 (20) 42.1 ( 8)
F-6	Number and percentage of students and/or former students surveyed who have participated in special social development programs (e.g., the Peace Corps, and VISTA).	SHEEO AAC/JC	3.1 ( 1) 5.6 ( 1)	37.5 (12) 33.3 ( 6)	59.4 (19) 61.1 (11)
F-7	Number and percentage of students and/or former students surveyed who have changed their political party affiliation within a certain period of time.	SHEEO AAC/JC	0.0 ( 0) 0.0 ( 0)	25.0 ( 8) 0.0 ( 0)	75.0 (24) 100.0 (19)
F-8	Amount of monetary contributions per student and/or former student made to political, charitable, and social organizations or special interest groups within a certain time period relative to income category.	SHEEO AAC/JC	0.0 ( 0) 0.0 ( 0)	18.7 ( 6) 10.5 ( 2)	81.2 (26) 89.5 (17)
F-9	Average amount of time devoted to political, charitable, and social organizations or special interest groups within a certain time period per student and/or former student.	SHEEO AAC/JC	0.0 ( 0) 0.0 ( 0)	25.0 ( 8) 21.1 ( 4)	75.0 (24) 78.9 (15)
F-10	Student and/or former student scores on a scale measuring their political attitudes and beliefs.	SHEEO AAC/JC	6.3 ( 2) 0.0 ( 0)	25.0 ( 8) 15.8 ( 3)	68.7 (22) 84.2 (16)
F-11	Number and percentage of students and/or former students surveyed who have used mechanisms of the political process (e.g., voted in elections, circulated petitions, attended hearings, written letters to their congressman).	SHEEO AAC/JC	0.0 ( 0) 0.0 ( 0)	34.4 (11) 36.8 ( 7)	65.6 (21) 63.2 (12)
F-12	Student and/or former student scores on a scale measuring their racial and ethnic attitudes and beliefs.	SHEEO AAC/JC	3.1 ( 1) 15.8 ( 3)	46.9 (15) 36.8 ( 7)	50.0 (16) 47.4 ( 9)



		BEST COPY AVAILABLE	NEED (%) (n)		WOULD LIKE (%) (n)		DON'T NEED (%) (n)	
F-13	Student and/or former student scores on a scale measuring their ethical and moral attitudes and beliefs and their concern for human welfare.	SHEEO AAC/JC	3.1 ( 1) 15.8 ( 3)	50.0 (16) 36.8 ( 7)	46.9 (15) 47.4 ( 9)			
F-14	Student and/or former student scores on a scale measuring their current and desired social and economic level.	SHEEO AAC/JC	9.4 ( 3) 26.3 ( 5)	50.0 (16) 47.4 ( 9)	40.6 (13) 26.3 ( 5)			
F-15	Student and/or former student scores on a scale measuring their interest in and acquaintance with the arts, great books, and other cultural artifacts and activities.	SHEEO AAC/JC	9.4 ( 3) 0.0 ( 0)	56.2 (18) 57.9 (11)	34.4 (11) 42.1 ( 8)			
F-16	Number of students and/or former students having a personal library of well-known literary works or pieces of art as a percentage of all students and/or former students surveyed.	SHEEO AAC/JC	3.1 ( 1) 0.0 ( 0)	18.7 ( 6) 15.8 ( 3)	78.1 (25) 84.2 (16)			
G-1	Number of nonmatriculating participants enrolled in instructional programs as a percentage of the total number of persons in those programs.	SHEEO AAC/JC	68.7 (22) 68.4 (13)	28.1 ( 9) 31.6 ( 6)	3.1 ( 1) 0.0 ( 0)			
G-2	Nonmatriculating participant scores on a scale measuring their degree of satisfaction with their educational experience.	SHEEO AAC/JC	31.2 (10) 47.4 ( 9)	50.0 (16) 42.1 ( 8)	18.7 ( 6) 10.5 ( 2)			
G-3	Number and percentage of nonmatriculating participants surveyed who received a promotion and/or salary increase as a result of job-related educational experiences.	SHEEO AAC/JC	34.4 (11) 63.2 (12)	40.6 (13) 31.6 ( 6)	25.0 ( 8) 5.3 ( 1)			
G-4	Scores of nonmatriculating participants, who are working or have returned to their job, on a scale measuring their satisfaction with their job performance as a result of job-related educational experiences.	SHEEO AAC/JC	25.0 ( 8) 63.2 (12)	37.5 (12) 31.6 ( 6)	37.5 (12) 5.3 ( 1)			
G-5	Average amount of time per faculty/staff member spent in selected educational activities for their personal educational growth and development while at the institution.	SHEEO AAC/JC	28.1 ( 9) 57.9 (11)	56.2 (18) 31.6 ( 6)	15.6 ( 5) 10.5 ( 2)			
G-6	Faculty/staff scores on a scale measuring their perceptions of their educational growth and development as a result of their experiences while at the institution.	SHEEO AAC/JC	9.4 ( 3) 36.8 ( 7)	62.5 (20) 52.6 (10)	28.1 ( 9) 10.5 ( 2)			
H-1	Average amount of time faculty/staff and students spent in selected community service activities (e.g., giving professional service and advice outside the institution) within a certain time period.	SHEEO AAC/JC	37.5 (12) 42.1 ( 8)	59.4 (19) 42.1 ( 8)	3.1 ( 1) 15.8 ( 3)			
H-2	Estimated replacement value of specific community services received by individuals or organizations that receive the services.	SHEEO AAC/JC	18.7 ( 6) 27.3 ( 5)	56.2 (18) 66.7 (12)	25.0 ( 8) 5.6 ( 1)			
H-3	Ratio of total income for community services to total budget for community services.	SHEEO AAC/JC	28.1 ( 9) 38.9 ( 7)	46.9 (15) 61.1 (11)	25.0 ( 8) 0.0 ( 0)			

OUTCOME MEASURE		NEED		WOULD LIKE		DON'T NEED	
		(%)	(n)	(%)	(n)	(%)	(n)
H-4	Number of faculty/staff on leave from the institution to local, state, and national governments in a policy, management or technical role.	SHEEO AAC/JC	37.5 (12) 31.6 (6)	53.1 (17) 26.3 (5)	9.4 (3) 42.1 (8)		
H-5	Number of individuals not associated with the institution who were served by a particular support program (e.g., the computer center, the library, the health services staff, etc.) as a percentage of the total number of individuals served within a certain time period.	SHEEO AAC/JC	28.1 (9) 52.6 (10)	62.5 (20) 42.1 (8)	9.4 (3) 5.3 (1)		
H-6	Estimated monetary value of specific community services (e.g., health services, computer services, etc.) offered relative to other comparable services offered elsewhere.	SHEEO AAC/JC	28.1 (9) 38.9 (7)	59.4 (19) 50.0 (9)	12.5 (4) 11.1 (2)		
H-7	Number and percentage of persons attending selected extramural, cultural, and recreational events who are not students or members of the institution's faculty/staff.	SHEEO AAC/JC	21.9 (7) 21.1 (4)	40.6 (13) 52.6 (10)	37.5 (12) 26.3 (5)		
I-1	Number and percentage of students who are employed in businesses, agencies and organizations in the community.	SHEEO AAC/JC	25.0 (8) 47.4 (9)	39.4 (19) 52.6 (10)	15.6 (5) 0.0 (0)		
I-2	Number and percentage of graduates of a particular graduating class who are employed in-state versus out-of-state.	SHEEO AAC/JC	62.5 (20) 68.4 (13)	31.2 (10) 26.3 (5)	6.3 (2) 5.3 (1)		
I-3	Total dollar amount of goods and services purchased by the institution from a particular sector of the community within a certain time period.	SHEEO AAC/JC	15.6 (5) 21.1 (4)	53.1 (17) 47.4 (9)	31.2 (10) 31.6 (6)		
I-4	Faculty/staff and student expenditures in the community within a certain time period.	SHEEO AAC/JC	12.5 (4) 10.5 (2)	62.5 (20) 68.4 (13)	25.0 (8) 21.1 (4)		
I-5	Estimated dollar amount of the institution's payroll as a percentage of the estimated total community payroll.	SHEEO AAC/JC	21.9 (7) 26.3 (5)	53.1 (17) 63.2 (12)	25.0 (8) 10.5 (2)		
I-6	Amount of land removed from the community tax base as a result of the existence of the institution.	SHEEO AAC/JC	15.6 (5) 21.1 (4)	62.5 (20) 52.6 (10)	21.9 (7) 26.3 (5)		
I-7	Employers scores on a scale measuring their degree of satisfaction with the performance of students and/or former students on the job.	SHEEO AAC/JC	37.5 (12) 47.4 (9)	50.0 (16) 47.4 (9)	12.5 (4) 5.3 (1)		
I-8	Amount of private housing owned or rented by students and/or faculty/staff as a percentage of the total housing available in the community.	SHEEO AAC/JC	12.5 (4) 15.8 (3)	53.1 (17) 47.4 (9)	34.4 (11) 36.8 (7)		
I-9	Value of community business properties attributable to institution-related expenditures.	SHEEO AAC/JC	12.9 (4) 10.5 (2)	48.4 (15) 63.2 (12)	38.7 (12) 26.3 (5)		

OUTCOME MEASURE			NEED (%) (n)	WOULD LIKE (%) (n)	DON'T NEED (%) (n)
I-10	Amount and percentage of the local credit base due to institution-related deposits in community banks.	SHEEO AAC/JC	9.4 (3) 0.0 (0)	40.6 (13) 57.9 (11)	50.0 (16) 42.1 (8)
I-11	Extent to which the presence of the institution influences businesses locating in the community.	SHEEO AAC/JC	25.0 (8) 47.4 (9)	56.2 (18) 52.6 (10)	18.7 (6) 6.0 (0)
I-12	Amount and percentage of federal revenue sharing allocation attributable to the institution's presence in the community.	SHEEO AAC/JC	12.5 (4) 42.1 (8)	68.7 (22) 57.9 (11)	18.7 (6) 0.0 (0)
I-13	Institution-related contributions as a percentage of total community fund raising (e.g., United Fund program).	SHEEO AAC/JC	6.3 (2) 10.5 (2)	46.9 (15) 57.9 (11)	46.9 (15) 31.6 (6)
I-14	Geographic distribution of alumni.	SHEEO AAC/JC	40.6 (13) 42.1 (8)	43.7 (14) 52.6 (10)	15.6 (5) 5.3 (1)
I-15	Community attitudes toward the institution (e.g., attitudes toward the institution's contribution to community social/cultural activities and the institution's impact on the amount of crime in the community).	SHEEO AAC/JC	37.5 (12) 63.2 (12)	50.0 (16) 31.6 (6)	12.5 (4) 5.3 (1)
I-16	Number of persons from the community employed by the institution.	SHEEO AAC/JC	25.0 (8) 42.1 (8)	56.2 (18) 42.1 (8)	18.7 (6) 15.8 (3)
J-1	Distribution of publications by type of publication (e.g., books, monographs, etc.) per student, former student, and/or faculty member within a certain time period.	SHEEO AAC/JC	18.7 (6) 10.5 (2)	34.4 (11) 42.1 (8)	46.9 (15) 47.4 (9)
J-2	Number of times a given publication is cited in bibliographies of other authors within a certain time period.	SHEEO AAC/JC	6.3 (2) 0.0 (0)	21.9 (7) 36.8 (7)	71.9 (23) 63.2 (12)
J-3	Number of articles published per faculty/staff member in prestigious journals within a certain time period.	SHEEO AAC/JC	21.9 (7) 15.8 (3)	43.7 (14) 26.3 (5)	34.4 (11) 57.9 (11)
J-4	Number of papers presented at professional meeting per student, former student, and/or faculty/staff member within a certain time period.	SHEEO AAC/JC	12.5 (4) 15.8 (3)	50.0 (16) 31.6 (6)	37.5 (12) 52.6 (10)
J-5	Number of awards and citations received by students, former students, and/or faculty members for their research and art products within a certain time period.	SHEEO AAC/JC	15.6 (5) 15.8 (3)	40.6 (13) 42.1 (8)	43.7 (14) 42.1 (8)
J-6	Average amount of faculty time spent in selected research and art producing activities.	SHEEO AAC/JC	53.1 (17) 26.3 (5)	46.9 (15) 42.1 (8)	0.0 (0) 31.6 (6)

OUTCOME MEASURE		NEED (%) (n)		WOULD LIKE (%) (n)		DON'T NEED (%) (n)	
J-7	Number of proposals funded for certain purposes (e.g., research versus training) by level of funding as a percentage of all proposals submitted.	SHEEO AAC/JC	46.9 (15) 31.6 (6)	40.6 (13) 36.8 (7)	12.5 (4) 31.6 (6)		
J-8	Total dollar amount of gifts and/or grants received for certain purposes (e.g., research versus training) as a percentage of total budget within a certain time period.	SHEEO AAC/JC	56.2 (18) 42.1 (8)	31.2 (10) 36.8 (7)	12.5 (4) 21.1 (4)		
J-9	Number and percentage of faculty/staff surveyed who have created films, taped lectures, etc. within a certain time period.	SHEEO AAC/JC	15.6 (5) 15.8 (3)	46.9 (15) 52.6 (10)	37.5 (12) 31.6 (6)		
J-10	Number of patents and/or copyrights received per student, former student, and/or faculty member within a certain time period.	SHEEO AAC/JC	12.5 (4) 10.5 (2)	50.0 (16) 47.4 (9)	37.5 (12) 42.1 (8)		
J-11	Number of books or monographs written by faculty/staff that are published commercially within a certain time period.	SHEEO AAC/JC	25.0 (8) 10.5 (2)	43.7 (14) 36.8 (7)	31.2 (10) 52.6 (10)		
J-12	Judgements of peer groups and/or potential beneficiary groups regarding the worth/impact of research project results.	SHEEO AAC/JC	21.9 (7) 15.8 (3)	59.4 (19) 47.4 (9)	18.7 (6) 36.8 (7)		
J-13	Number and percentage of graduates engaged in research activities.	SHEEO AAC/JC	15.6 (5) 15.8 (3)	59.4 (19) 31.6 (6)	25.0 (8) 52.6 (10)		
J-14	Number and percentage of faculty /staff and students <u>invited</u> to participate in professional meetings and conferences.	SHEEO AAC/JC	6.3 (2) 15.8 (3)	25.0 (8) 36.8 (7)	68.7 (22) 47.4 (9)		
J-15	Number and percentage of graduates who have produced or exhibited certain art forms (e.g., paintings, sculptures, plays, etc.).	SHEEO AAC/JC	6.3 (2) 0.0 (0)	46.9 (15) 36.8 (7)	46.9 (15) 60.2 (12)		

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