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ABSTRACT

Results of a survey of public attitudes toward the activities conducted by Arizona's three public universities are presented, with 'a focus on the total Arizona university system rather than individual institutions. Priorities were assigned to the activities conducted by the three universities by all Arizona legislators and trustees, and random samples of/registered voters, senior administrators, faculty, and students from the universities Respondents also indicated how well they believed these activities were being performed. After describing the 10 missions \identified by respondents, attention is directed to a breakdown of the relative importance assigned to the missions by external groups (outside of the universities) and groups internal to the universities. The missions in order of priority are as follows: teaching programs and services, educational and cultural services, research and technical assistance, health care for teaching and research, improving quality, student support services, broadening access, optimizing revenues, special emphasis on women and minorities, and intercollegiate athletics. Additional information about the activities assigned to each mission/and their factor loadings is appended. Appended materials also describe survey development, sample selection, survey administration to the constituent groups, response rates, and data analysis. The survey questionnaire is included. (SW)

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The Department of Higher and Adult Education has been involved in preparing administrators, teachers and scholars in the fields of adult and higher education since the early 1960's. The Department offers individualized master's and doctoral programs emphasizing administration, teaching and research in adult education agencies, community colleges, four-year colleges and universities, and state and federal agencies. Sponsored publications, research, conferences and colloquia provide continuing opportunities for faculty and students to contribute to the generation and utilization of knowledge in the field. MISSIONS AND PRIORITIES OF ARIZONA UNIVERSITIES:

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A RESEARCH REPORT

Richard C. Richardson, Jr., Laurel H. Kimball; W. Shapard Wolf, Jr. and Gary L. Kleemann

by

Department of Higher and Adult Education Arizona State University Tempe, Arizona 1984

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#### CHAPTER 1

#### EXECUTIVE SUMMARY

This report is based upon two surveys completed during the 1982-83 academic year to develop background information for the April, 1983, Town Hall on Postsecondary Education organized by the Arizona Academy (Richardson, Wolf, and Kimball, 1983). The first survey asked all Arizona legislators, the members of the Böard of Regents, a random sample of registered voters, a random sample of members of the Arizona Academy, senior administrators and a random sample of faculty from the three Arizona public universities to assign priorities to the activities carried out by these three universities and to indicate-how well they believed these activities were being performed. The second survey, a modified version of the first, asked a random sample of students at the three universities to also assign priorities and evaluate performance.

In addition to furnishing information for the Town Hall, the study involved an effort to answer several questions:

- . Can an operational definition of the missions of Arizona universities be developed by analyzing the activities in which they engage?
- What are the differences and similarities among registered voters, legislators, members of the Arizona Academy, members of the Board of

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Regents, administrators and faculty in terms of the priorities they assign to the major missions of Arizona universities?

- 3. Which of the activities carried out by Arizona universities are regarded as most important by the groups identified in 2, above, and by students who attend the three universities? Which are considered least important?
  - For which of the activities do the greatest differences exist between perceptions of importance and assessments of how well they are being carried out? To what extent are these perceptions of discrepancy between importance and performance common to all groups? To what extent are these specific priorities for improvement associated uniquely with a single group?

This chapter provides an overview of selected findings from the surveys. Chapters 2 - 5 provide a more detailed look at survey results. The appendix describes the development and administration of the surveys, selection of respondents, response rates and procedures for analysis. The appendix also includes a copy of the first survey instrument and sample pages from the second survey, as well as more detailed information about responses.

The results presented in this report represent one of a number of different ways the data might have been analyzed and presented. We have chosen to focus on the total Arizona university system rather than individual institutions. Doctoral dissertations currently in progress by several of the coauthors of this monograph will provide a more complete anaylsis including disaggregated data by institution and by the demographics of respondents.



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The results of our analysis of the survey responses are summarized in the order in which they are discussed in the monograph. In addition, the final chapter contains a more comprehensive summary of the survey results.

#### Missions and Priorities

An analysis of all responses to the 66 activities included in the first survey produced ten recognizable mission categories, each represented by at least two activities and in combination accounting for all but 11 of the activities. These missions in order of the priority assigned to them by all responding groups were:

- 1. Teaching Programs and Services
- 2. Educational and Cultural Services
- 3. Research and Technical Assistance
- 4. Health Care for Teaching and Research
- 5. Improving Quality
- 6. Student Support Services
- 7. Broadening Access
- 8. Optimizing Revenues
- 9. Special Emphasis on Women and Minorities
- 10. Intercollegiate Athletics

Within the Arizona system, there was at least some overall support for each of the same priorities among the ten

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missions. While there was general agreement among all groups about the importance of the first three missions, there were substantive differences of opinion in five of the remaining areas.

- Regents assigned a much higher priority to affirmative action involving women and minorities than did any other groups. External groups without exception assigned this mission their lowest priority.
- 2. External groups in general and legislators in particular assigned a much higher priority to activities designed to optimize revenues from other than tax sources than did regents or internal groups.
  - Faculty and administrators gave a substantially higher priority to activities related to improving quality than did regents who assigned this mission their second lowest priority.
  - 4. Registered voters were more interested in broadening access to university services than were legislators. For this mission category, all other groups seemed to occupy a middle ground.
  - 5. All groups except regents assigned to intercollegiate athletics their lowest or next to lowest priority. Regents ranked this category ahead of improving quality and optimizing revenues.

#### Most and Least Important Activities

After the ten missions were identified, responses to individual activities



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were analyzed to identify the most and least important activities for each group.

While the student survey included 15 activities not common to the first survey as well as modifications to 8 other statements, it was possible to compare their responses on many activities to those from the other groups. The responses from voters, legislators and academy members were aggregated into a single external group. Similarly, administrators and faculty were merged into a single internal group. (Their disaggregated responses are available in the appendix.) This grouping simplified the identification of the most and least important activities for each respondent group.

1. Professional programs are an extremely high priority for all groups. Programs in arts and sciences have a much lower priority for everyone except internal groups. The difference in the priorities of the Regents and the faculty and administrators, as distinct from the external groups, is even more marked in terms of the relative value they assigned to requiring arts and science courses in all degree programs.

2. While the mission having to do with providing educational and cultural services ranked second in overall priority, none of the activities associated with this mission ranked in the top ten activities for any group. Instead, activities related to teaching and research predominated in the most important activities. External groups attached much higher priority to technical assistance to apply research results than did internal groups.



3. Special efforts to recruit women and minority faculty produced the greatest contrast, with such activities being among the top ten priorities for regents and the bottom fifteen for externals.

4. In general, there was more agreement on the least important activities than on the most important. With the exception of activities related to affirmative action, only leasing facilities for profit, increasing tuition for out-of-state students and developing new programs in veterinary medicine, dentistry and opthalmology ranked in the top half of priorities for at least one group and the bottom ten for another.

5. While this summary has stressed differences, agreement about relative priorities was the rule; significant differences were fairly limited.

Discrepancies Between Priorities and Accomplishment

Beyond assigning priorities to activities, respondents were asked to indicate how well an activity was being performed. For each activity, there were three possible conclusions for each respondent:

1. An activity was being performed less well than its assigned importance.

2. An activity was being performed at the same level as its assigned importance.

3. An activity was being performed at a higher level than its assigned importance.



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Efficiency considerations in a system with constrained resources suggest that in activity should be performed at no higher level than its assigned importance unless all activities of greater importance are also being performed at least as well as their importance merits. We found relatively few activities that any group thought were being performed better than their assigned importance. In contrast, there were many activities that one or more groups identified as needing substantial improvement:

> There was a high degree of consensus about the importance of and need for improvement in counseling for drug and alcohol abuse, special assistance for the handicapped, academic advising, use of computers in the undergraduate curriculum, and research opportunities for training students and updating faculty.

2. There was less consensus about the importance, but considerable agreement on the need to improve, the recruitment of recognized scholars and outstanding students, research opportunities in general and continuing education for the professions.

3. There were also priorities unique to three of the four groups: externals, increasing out-of-state tuition; regents, affirmative action and broadening access; students, improving student services and teaching.



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CHAPTER 2

DEFINING MISSIONS AND ASSIGNING PRIORITIES

One major purpose of the study reported in this monograph was to define missions of Arizona universities based on the activities in which they engage. It was reasoned that such a definition would be more useful to state policy makers than the more general categories of teaching, research and service commonly used to categorize the functions of a university. Prior to developing the survey used to define missions in this study, the Institutional Goals Inventory developed by Peterson and Uhl (1973) was examined by university administrators and determined not to be useful to the types of issues facing administrators, board members and legislators in Arizona. As an alternative, administrators and board members contributed to the development of a set of activities which they believed were representative of the range of missions assigned to Arizona universities. Students were not involved in the development of the original survey.

Thé process used in creating mission definitions involved factor analyzing responses to the relative importance of activities included in the survey Factor analysis is a statistical technique that examines intercorrelations among responses and then groups items according to their commonalities. The process assumes that if activities are closely related, people should follow a pattern in evaluating their importance. Since the activity statements were randomly ordered in the survey instrument, the patterns among items that emerged from factor analysis provide a clue as to how university mission is



defined in the minds of a variety of constituents, the majority of whom were not employees of the system.

Describing mission from the bottom up rather than the top down has some important advantages in improving communication between those who work for universities and those who support them with their tax dollars. The value of this approach has been demonstrated in a previous application to the community college system in Arizona (Richardson' Doucette, and Armenta, 1982).

Defining Missions

• The following ten missions, reported in overal order of priority, emerged from the analysis. Following a description of these missions, we examine a breakdown of the relative importance assigned to them by external groups (registered voters, Arizona Academy, legislators), internal groups (faculty and administrators), members of the Board of Regents and students. Means above 3.0 indicate support for the mission; means below 3.0 indicate lack of support or opposition to the mission. Admitional information about the activity items assigned to each mission category and their factor loadings appears in the Appendix. The discussion in the following chapters uses shortened forms of the activity items; the complete items as they appeared in the survey are listed at the end of this chapter in Table 2.2 by mission category for reference pur-



Mission 1. Teaching Programs and Services

Activity items that were grouped in this category included those having to do with offering graduate or undergraduate degree programs in the arts and sciences or in professional fields, including medicine and law. Also grouped here were items on academic advisement, requiring Diberal education courses in undergraduate degree programs and student government and student publications. This mission was clearly recognizable as the traditional teaching mission. Of particular interest was the inclusion of advisement and student development, activities which are sometimes perceived by internal groups as supplementary or even peripheral to the teaching role.

#### Mission 2. Educational and Cultural Services

This mission encompassed activities involving educational and cultural programs, either offered specifically for the community or open to the general public. Films, speakers, art exhibitions and creative arts performances were included, as were public television and radio. Also a part of this mission was poroviding information to keep the public aware of the programs and services available.

#### Mission 3. Research and Technical Assistance

The tenvitems included within this mission category contained rationales, related to both basic and applied research. This distinction did not seem important to respondents, other than faculty. Providing technical assistance to apply the results of research was viewed as an integral part of the role by \*



other respondents: Thus, agricultural extension was viewed as a part of the research and technical assistance mission, rather than the more narrowly defined community service included in Mission 2.

#### Mission 4. Health Care for Teaching and Research

The fourth mission in terms of overall importance focused in the area of health care services for the general public, offered in conjunction with a teaching hospital or on a fee-for-service basis to train medical or other health science students. Clearly, the public attaches considerable importance to health care, and that concern carnies over into their reaction to activities related to the future supply of health professionals or the development of new knowledge in the medical field.

#### Mission 5. Improving Quality

The first four missions were related to functions easily recognized as. accepted roles for universities. The fifth was more of a direction for change. Emerging quite clearly as a distinctive category with seven activity statements was the goal of improving quality. The statements in this mission dealt with recruiting students with academic and artistic talents, limiting enrollment to students with high test scores or strong achievement on standardized tests and awarding degrees only to students who passed a standardized writing examination. Also grouped in this mission category were activities related to attracting and retaining outstanding faculty members including special recruiting efforts, strengthening the library, sponsoring research and providing tenure. The distinguishing characteristic about each of the statements in this



category was the intent to improve quality. For example, two of the activities included the terms "sponsor research" or "support research." The rationale in each instance was related to improving or maintaining quality.

• Mission 6. Student Support Services

The activities grouped here encompassed a much narrower range than is commonly associated with the term we have used to describe the category of student services. Included were counseling services to assist students with depression, substance abuse and unwanted pregnancies. Remedial instruction and study skills also were grouped here, as were immediate care and continuing education for students-with health-related problems. Thus, the services in this category were limited to those designed to assist students in overcoming barriers to academic achievement: Conspicuous by their absence were the activity statements often viewed as closely related by student affairs professionals and having to do with readership training, recreational athletic programs and career and job placement services. It is interesting to note the fine distinctions the respondents made between services that are often grouped together for administrative purposes but which do, in fact, serve distinctive functions.

#### Mission 7. Broadening Access

This category included seven statements linked primarily by their description of programs and services provided either to a nontraditional clientele (senior citizens, physically handicapped, practicing professionals, general public) or in nontraditional locations (work place, off-campus locations, branch campuses). These statements also mentioned alternative delivery systems

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(telecommunication, radio or correspondence). The category encompassed noncredit courses, workshops and conferences as well as selected credit courses and programs. The emphasis of the mission was on extending access to students other than those pursuing regular degree programs in residence, either by taking courses and other educational experiences to them, or by providing special services to remove barriers as in the case of the physically handicapped.

#### Mission 8. Optimizing Revenues

As in the case of Mission 5, the activities encompassed by this category seem to represent as much a set of strategies as specific goals. Again, like Mission 5, this category seemed to be particularly relevant to the concerns of the 80's. All three of the activities are related to revenue sources other than tax dollars. Activities include leasing facilities, requiring nonresident students to pay higher tuition and contracting with private corporations to provide such services as bookstores, copying and food.

#### Mission 9. Special Emphasis on Women and Minorities

. This mission involved a series of statements characterized by the inclusion of such phrases as "ethnic and racial minorities," "qualified women," "qualified minority," or "international." Regardless of whether the remainder of the statement stressed faculty or students, research, teaching or student support services, the activity was grouped in this category. Here we see a third type of mission, one that focuses on clientele and which implies some special consideration in the affirmative action sense. As we shall see in the remain-

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ing sections of this monograph, a mission that implies special consideration for some groups is ranked well down the scale of priorities for most respondents, especially external groups.

#### Mission 10. Intercollegiate Athletics

This mission included two activities having to do with sponsoring competitive intercollegiate athletic programs for men and women and recruiting students with athletic talents. Not surprisingly, having competitive programs was a lot more appealing to respondents than recruiting talented athletes. Overall, however, this mission was ranked last in importance although, as described in the next section, there were differences of opinion on this ranking.

#### Assigning Priorities

The first part of this chapter reported missions of Arizona universities in order of the overall priority assigned by all respondents to the survey. Not all groups had the same priorities, however. Table 2.1 examines priorities for the ten missions on a disaggregated basis. Because the student survey included some items that are different, its results could not be included in the analysis of mission categories. We do report student data on those activities that were comparable. Those who are interested in greater detail about differences in the responses of the various groups will find disaggregated data in the Appendix.

Among all responding groups, the teaching mission was assigned top priority. There was almost as much consensus about the second priority, educational and cultural services for the community. Administrators however, ranked this

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### TABLE 2.1

Missions of Arizona Universities: Rankings for Importance by Respondent Groups

NC	).	MISSION CATECORIES DESCRIPTION	ALL RESPON. AVERAGE	AVERAGE	EXTERNAL G VOTERS	ROUPS LEGISL.	ACADEMY	REGENTS AVERAGE	<ul> <li>19.5714</li> </ul>	IRNAL GRO	
]	L	Teaching Programs and Services	1	1	1	1	1	: 1	1	- N - 1	1
2	2	Educational and Cultural Service	s 2	2	2	4	2	2 ·	2	2	3
	}	Research and Technical Assistance	e 3	3	4	2	3	ş	3	4	2
Ļ	1	Health Care for Teaching and, Kesearch	4	4	3-,.	5	4	4	5	5	4
c.	5.	Improving Quality	5	5	6	6	5	9.	. 4	3	5
'.(	5.	Student Support Service	. 6	8	7	7	8	б	6	6	7
	7	Broadening Access	7	6	5	8	7	7	· 7	7	6
5	3	Optimizing Revenues	. 8	7	8	3 🔩	6	10	• 10	. 10	10
. <b>c</b>	)	Emphasis on Women and Minorities	9	10	10	10	10	5	8	<b>, 8</b> ,	8
1(	)	Intercollegiate Athletics	10	9	9	9	9	8	9	9	<u>9</u>

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focused service mission as less important than Mission 3, research and legislators ranked this mission below Mission 3 and Mission 8, Optimizing Revenues. One explanation for the priority assigned to service relates to the nature of the three institutions which comprise the Arizona system. Only one of the three is an established research university, while a second belongs in the comprehensive university and college category. The third, while aspiring to research university status, is better described at this point in its history as a doctorate granting university (Carnegie Council on Policy, Studies in Higher Education, 1976).

There was also a strong degree of consensus about the importance of the mission dealing with health care of the general public in support of teaching and research programs the health care professionals.

Interesting differences emer of Mission 5, improving quality. In general, internal groups attached higher importance to this cluster of activities than did externals. Significantly, Regents ranked this mission next to last among their priorities. Improvements in quality invariably have a price tag. Further, many of the pressures to which Regents must respond in Arizona relate to competition between the two largest universities in the system, either to justify existing differences in quality measures or to achieve parity.

Faculty members and the Regents were most concerned about support services for students, Mission 6. The activities associated with this mission were less important to voters and Academy members.

The mission having to do with broadening access was most popular with voters and least popular with legislators who tend to equate new services with new costs. Voters and administrators ranked this mission more important than » did any other group.



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The most important differences for any of the missions occurred for optimizing revenues. The internal group and Regents ranked this mission last while the legislators ranked it in their top half. Within this mission category were a number of activities, around which swirled considerable controversy at the time of the survey. Charging higher tuition for nonresident students, contracting with private industry, and leasing a football stadium were all much more popular with legislators than with any other group.

Mission 9, which dealt with a series of affirmative action statements, was accorded last priority by all external groups. Internal groups were somewhat more positive about it, but only the Regents ranked this mission among their top.five\_priorities. On both this survey and a previous one dealing with community college missions, external groups responded in a uniformly negative pattern to activities suggesting special consideration for some groups.

It will probably come as no surprise to the reader to learn that intercollegiate athletics was at, or near the <u>bo</u>ttom, of the importance rankings for all groups.

The survey results reflect many more similarities than differences in terms of the importance attached to each of the missions. The traditional missions of teaching, research and service are at or near the top of everyone's list. All missions received at least some support from all groups, except for intercollegiate athletics from the faculty and optimizing revenues from the Board of Regents, the faculty and administrators. These were the only two missions receiving mean scores on importance of less than 3.0 from any group.

Table 2.2 lists survey statements grouped by mission category.

#### Table 2.2

Activity Statements Included in Each Mission

#### MISSION 1: TEACHING PROGRAMS AND SERVICES

- 5. Offer selected degree programs in fields such as medicine and law.
- 7. Offer selected undergraduate degree programs in business, engineering, education, architecture, social work, nursing, public administration, agriculture and forestry.
- Require all undergraduate degree programs to include liberal education courses such as humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- 41. Sponsor student government, student publications and other activities related to student development, outside of class.
- 47. Offer selected undergraduate degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- 60. Offer selected master's and doctoral degree programs in business, engineering, education, architecture, social work, public administration, agriculture and forestry.
- 63. Offer selected master's and doctoral degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- 65. Provide academic advisement to assist students in achieving educational goals.

Mission 2: Educational and Cultural Services

- 1. Sponsor films, speakers, exhibitions and musical and dramatic productions for students and the community.
- 6. Operate non-profit public television and radio stations as a community and educational service.
- 20. Provide information to keep the public informed of educational, social and other services offered by the universities or other agencies.
- 26. Encourage advancement in the creative arts by sponsoring arts events, exhibitions and performances.

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#### Mission 3: Research and Technical Assistance

- Conduct research under contracts funded by business, industry, foundations and government agencies to assist the training of graduate students and to keep faculty up-to-date.
- 8. Conduct projects to apply the findings of research to everyday life.
- 9. Publish for sale scholarly books, pamphlets and reports to share the results of faculty and student research.
- 12. Conduct research to contribute to the future growth and welfare of the state and nation.
- 14. Provide technical assistance to the general public in areas such as agriculture, forestry, resource and energy conservation and community development to assist citizens in applying research findings to everyday life.
- 22. Sponsor research in health science to improve standards of medical care and to train health professionals.
- 29. Do research in areas such as energy, agriculture, electronics, government, economics, health and education to expand existing knowledge and to help solve immediate problems.
- 34. Conduct research and provide technical assistance in areas such as juvenile delinquency, health care, child welfare and unemployment.
- 42. Support the educational program with research laboratories like those used in business and industry.
- 50. Do research in the humanities, social and behavioral sciences, physical sciences and mathematics to expand existing knowledge and to help solve immediate problems.

Mission 4: Health Care for Teaching and Research

- Provide health care to the general public on a fee-for-service basis to train medical and other health science students.
- 36. Operate a teaching hospital to advance knowledge and to help train medical and other health science students.

#### Mission 5: Improving Quality

- 25. Actively recruit and offer financial aid to students with academic and artistic talents.
- 27. Award degrees only to students who pass a standard university test in writing skills.
- 38. Sponsor research to attract and keep well qualified faculty and students.



- 45. Provide tenure (reasonable assurance of continuing employment) to faculty who maintain professional standards approved by the Board of Regents.
- 46. Support research with libraries like those at other universities having similar programs.

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- 56. Make special efforts to recruit and retain recognized scholars and researchers for university faculties.
- 57. Limit enrollment to students who graduated in the upper half of their high school class or who have above average scores on standardized aptitude tests.

#### Mission 6: Student Support Services

- 11. Provide counseling and related services to assist students in coping with problems such as depression, stress and alcohol and drug abuse.
- 39. Offer remedial instruction in reading, writing and mathematics to university students who need help with these skills.
- 52. Provide students immediate medical care and continuing education on health-related problems.
- 58. Provide counseling and related services to help students avoid or cope with unwanted pregnancies.
- 59. Offer courses and workshops in areas such as study skills and academic survival skills.

#### Mission 7: Broadening Access

- 17. Provide selected programs and services at reduced tuition rates for senior citizens.
- 40. Provide conferences, short courses and workshops for doctors, lawyers, public administrators and similar groups to keep their skills up-to-date.
- 43. Offer selected courses by telecommunication, radio or correspondence.
- 48. Offer non-credit courses and workshops for the general public in areas such as health, recreation and hobbies.
- 51. Provide special assistance such as Braille texts, tutoring services, or sign language to physically handicapped students.
- 53. Offer selected courses and degree programs at off-campus locations or branch campuses.
- 55. Offer selected courses to groups of employees at their work place.

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#### Mission 8: Optimizing Revenues

- 10. Earn a profit by leasing university facilities such as football stadiums, activity centers, meeting rooms and exhibition space to private corporations.
- 30. Contract with private corporations to provide on-campus services currently run by universities such as bookstores, copying and food services.
- 37. Require students who are not residents of Arizona to pay the full costs of their education.

#### Mission 9: Emphasizing Minorities and Women

13. Accept international students who meet university admission standards.

- 18. Conduct research and provide technical assistance to meet the special needs of Arizona's ethnic and racial minorities.
- 23. Actively recruit and offer financial aid to ethnic and racial minorities.
- 31. Make special efforts to recruit and retain qualified women faculty.
- 49. Make special efforts to recruit and retain qualified minority faculty.
- 54. Include information about the achievements and needs of Arizona's ethnic and racial minorities as part of all undergraduate degree programs.
- 66. Provide special tutoring and advisement to ethnic and racial minority students to help them get through their educational programs.

#### Mission 10: Intercollegiate Athletics

21. Sponsor competitive intercollegiate athletic programs for men and women.

64. Actively recruit and offer financial aid to students with athletic talents.



#### COMPARING PRIORITIES FOR INDIVIDUAL ACTIVITIES

In Chapter 2 we described ten missions derived through analyzing the factorial structure underlying respondents' answers to the survey. The purpose of this chapter is to compare priorities assigned to activities within mission categories. To simplify the analysis, aggregated results are presented here. Complete results, including the disaggregated priorities for individual respondent groups, can be found in the Appendix.

As noted in Chapter 1, students at the three universities comprising the Arizona system completed a revised form of the survey. Eight of the statements from the original survey were modified, while an additional 15 were replaced with new statements suggested by the student leaders who helped to validate the revised survey. A complete list of the activity statements in both the original and revised surveys and detailed information about student responses appears in the Appendix.

We have reported student responses to statements common to the original survey, as well as statements that were modified, in the tables that follow. While changes to the survey format and statements may have affected student responses, it was our judgment that the desirability of comparing student priorities directly with those of other respondent groups outweighed any risks associated with misinterpreting the differences between the two instruments. We have reported in this chapter only the activities from the original Survey that were among the top ten or bottom ten priorities for any one of the four groups. Table 3.1 displays the 23 activities that appeared among the top

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TABLE 3.1

Most Important Activities Ranked by Respondent Group Twenty-three Activities which were among the 10 Most Important Activities for at least one Respondent Group

1			Nº 1		RANK BY	/ GROUP	1 
ITEM	MISSION		, <sup>1</sup> ,	EXTERNAL	REGENTS	INTERNAL	STUDENTS
5		Degree programs in medicine and law		3.	3	. 4	N/A
· 7*		Undergraduate degree programs in professional fiel	.ds	1	1 1	· 1	-5
19	'1	Undergraduate liberal arts requirement		28	. 8-	9,	42
47	1	Undergraduate degree programs in arts and sciences	<b>i</b> .	15	15	2	N/A
60	1	Graduate degree programs in professional fields		2	8	- 3 /	8.
63	, <b>1</b>	Graduate degree programs in arts and sciences		17	15	6	16
65		Academic advisement		6	/ 15	14	. 7
4	$3_{\mathbf{a},\mathbf{b}}$	Contract research		5	8	5	14
12*	3	Basic research in all fields		9	8	7	12
14	3	Technical assistance to community in applying rese	arch	<b>1</b>	30	20 ,	N/A
22		Research in health sciences		4 4	15	18	N/A
<sup>N</sup> 29	3 .	Bagic research in professional fields		8	30	8	N/A
36	4	Operate teaching hospital	· .	16	8	23	N/A
38	5	Research to attract and retain students and facult	. <u>ү</u>	13	30	10	15
46*		Library to support research	• •	31	35	12	6
56		Recruit and retain recognized scholars		20	<sup>540</sup> 8	15	29
,11	6	Counseling for drug and alcohol abuse		21	23	25	10
51	7	Special assistance to the handicapped		12	27	32	9
53	° <b>7</b> ·	Courses and programs at branch campuses		32	3	51	45
31	9	Recruit and retain women faculty		52	3	42	51
49	,9	Recruit and retain minority faculty	'n	-60	8	48	58
3	NONE	Develop student leadership		10	50	31	35
32	NONE	Career and job placement services	•	24	23	24	v 2 .

\*Modified in student survey

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N/A Items unique to student survey

Tied items are given the median rank for the thed items. When there are only two items or an NOTE: even number, the higher rank is used.

ten priorities for at least one group of respondents. N/A in the student column indicates that the statement did not appear on the student survey.

For the teaching mission, students and external groups assigned a much lower priority to requiring liberal education courses as a part of all undergraduate degrees than did regents or internal groups. This difference in priority attached to the liberal arts and sciences is also apparent in the statements dealing with both undergraduate and graduate degrees, a Pthough to a somewhat lesser extent. In contrast, all groups attach very high priority to programs in the professional fields. Students and external groups, on the other hand, attached higher priority to cademic advising than did regents or faculty and administrators. Still, all groups agreed advising was a relatively important activity.

While the service mission was ranked second overall, none of the individual activities which made up this mission was given top ten priority by any group. For the research mission, there was close agreement on the priority of activities related to basic research and research in support of teaching. External groups gave high priority to all forms of research and technical assistance. Students reported similar attitudes for the statements common to the two surveys. However, internal groups were relatively less supportive of providing technical assistance and research in the health sciences, perhaps reflecting the fact that only one of the three universities has specific responsibility for medical research and agricultural extension. Regents assigned lower priority than any of the other groups to providing technical assistance and research in fields.

Internal groups assigned lower priority to operating a teaching hospital than did other groups, again reflecting the fact that such an operation is common only to one university. The university with the teaching hospital is



often perceived as occupying a privileged position in the competition for scarce resources.

The mission category related to improving quality produced a number of interesting contrasts. Overall, internal groups assigned the highest priority to activities in this category, as might be expected. They were joined by students and external groups on the research-related item, reflecting the relatively high priority assigned by these two groups to most statements including the term, "research." Students also attached very high priority to a modified item on the library. Regents assigned high priority only to the statement involving the recruitment of recognized scholars. An activity statement in this category on providing tenure, while not making any merged group's list of the top ten, is nonetheless interesting because of the differences it reveals. Faculty ranked this item eighth while administrators ranked it fifty-first. No other group ranked it higher than thirty-eighth.

Students were substantially more interested in counseling for drug and alcohol abuse than were any of the other three groups. Both they and external groups were quite supportive of special assistance for the handicapped in rather marked contrast to regents and internal groups. Only regents attached high priority to offering courses and programs at branch campuses, reflecting one of the most important differences in priorities found in the survey. Interestingly, regents shared this priority most closely with legislators who ranked it seventeenth, in contrast with the overall rating by external groups of 32.

The mission having to do with special emphasis on minorities and women produced the most significant differences of opinion overall. Only the regents assigned high priority to the recruitment of minority faculty. In fact, this

<sup>26</sup> 36



activity was ranked among the lowest ten priorities, for both students and x external groups. A similar item on women faculty fared little better.

Career and job placement services were second in priority for students, but had substantially lower priority for all other groups. In a separate factor analysis performed on student responses, this activity was grouped with Item 11 as part of a well defined student services category, which also included a number of other high ranked activities that were not a part of the original survey. Ranked first in importance by students at the three universities was adequate study space. Information about university services was ranked third, while financial assistance services was ranked fourth. While we can only estimate the priorities that might have been assigned to these related activities by examining the item on career and job placement, it seems reasonable to infer that services designed for students as well as information about the availability of such services are more important to students than to anyone else.

More useful, however, are the estimates that can be derived of the success. with which such activities are perceived as being performed. We will turn our attention to that question in the following chapter after first completing our analysis of importance by looking at the lowest priorities for each group.

Table 3.2 provides information about the 20 items that were ranked by at least one group as being among their ten lowest in priority. The table suggests more agreement about low priority activities than their higher priority counterparts.

Uniformly, groups, ssigned low priority to limiting enrollment as a means of improving quality, faculty were the most positive about this practice but still ranked it only thirty-fourth.



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TABLE<sup>1</sup>3,2 Least Important Activities Ranked by Respondent Group

Twenty Activities which were among the 10 Least Important Activities for at least one Respondent Group .

RANK BY GROUP

ITEM	MISSION	DESCRIPTION OF ITEM	EXTERNAL.	REGENTS	INTERNAL	SIUDENI
57	5	Limit enrollment to high achieving students	58	65	45	59
17.	. 7	Selected programs for senior citizens	38	56	41	47
48	<b>.</b>	Non-credit courses for the public	54	- 44	59	41
/ 55	7.	Courses at the work place	56	39	57	N/A
10,	<b>.</b>	Lease facilities for profit	30.	60	60	50
30	8	Contract for services with private enterprise	59	64	66	61
37	<u> </u>	Increase tuition for out-of-state students	14	63 ·	61	63
18 )	9	Research for special needs of minorities	57	39	43	54
23	9	Recruit and offer financial aid to minorities	62	23	52	57
49	9	Recruit and retain minority faculty	60	8	48	58
54	9	Minority information in curriculum	63	53	63	66.
66	9	Special tutoring and advising for minorities	61	39	49	56
64	10	Recruit and offer financial aid to athletes	64	53	64	62
16	NONE	Let non-profit agencies use facilities	40	58	55	47
+ 24	NONE	Free library services to the public	53	59	62	, 60
28	NONE	University support for faculty consulting	65	62	65	64
33	NONE	Reduced tuition for university employees	66	60	39	N/A
.44	NONE	Cooperate to attract new business and industry	49	48	58	N/A
61	NONE	Admit high school students	47	56		53
62	NONE	Develop programs in veterinary medicine and dentistry	25	66		20

N/A Items unique to student survey

NOTE: Tied items are given the median rank for the tied items. When there are only two items or an even number, the higher rank is used.

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None of the groups evidenced much enthusiasm for broadening access by offering noncredit courses or courses at the place of work. As noted in the section on high priorities, regents were much more supportive of courses at branch campuses than of other activities in this mission; in fact, the regents gave this activity their third highest priority. The issue of establishing a branch campus on the west side of Phoenix has been a volatile political issue for several years. The range of priorities given to this activity by the various groups suggests that it will continue to be an issue.

In mission category 8, optimizing revenues, there is similar disagreement. Regents reserved three of their lowest-priorities for activities in this category. In fact, analysis of their mean scores for these activities reveals not only low priority, but resistance to leasing facilities for profit, contracting for services, and increasing tuition for out-of-state students. External groups, in marked contrast, assigned relatively high priority to increasing tuition charges. There was also a large rank difference in the importance assigned to leasing facilities for profit, with legislators being the most enthusiastic about this practice. At the time the survey was administered, one of the universities was under public pressure to lease its football stadium to a professional football franchise. (The lease was subsequently executed.)

We have already commented on the significant differences in priorities that existed between the regents and all other groups on the question of special emphasis on minorities and women. The difference was most pronounced on the recruiting questions where the regents have been under pressure from organized groups to improve the representation of minorities among both faculty and students.

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All groups were in relative agreement that the low priority assigned to recruiting athletes is appropriate.

Among the activities that did not relate to one of the ten mission categories there were few important differences. Predictably, university employees felt that continuing the fringe benefit of reduced tuition was more important than anyone else. Voters were much more positive about new programs in veterinary science and dentistry (not currently available in Arizona) than were any of the other groups. Regents and legislators were in close agreement on this one, ranking it sixty-sixth and sixty-first in order of importance, respectively.

#### CHAPTER 4

#### DISCREPANCIES BETWEEN PERFORMANCE AND PRIORITIES

The previous two chapters have discussed the priorities of the groups who participated in the survey. As well, we have suggested a way of grouping most of the activities conducted by universities into ten major mission categories. In this chapter, we turn to the second question asked by the survey, "how well is the activity being performed."

The intent of this chapter is to examine the question of how well an activity is being performed in relation to its importance. Given constrained resources, we should not expect agreement that all activities are being performed equally well. Instead, we would hope to find that important activities are being done well and less important activities are being done less well. Wherever an activity is being performed less well than its importance would suggest as desirable, administrative intervention in the form of additional resources may be necessary. Similarly, activities that are being achieved better than their importance warrants may represent areas from which slack resources can be obtained.

'Our method of analysis involved identifying for each group the twenty activities for which the group reported the greatest discrepancy between their perceptions of the activity's importance and their perceptions of how well the activity was being performed. Groups differed in their perceptions of how well 'activities were being performed, just as they differed on the importance they assigned to each of the activities. As a consequence, the pool of items that

included the twenty most discrepant activities for each group contained a total of 48 items. This figure probably overstates the level of differences since it includes 8 items that appeared only on the student survey.

We report these activities in four different categories. Four activities were identified by all groups as being among the twenty exhibiting the greatest discrepancies between importance and performance. An additional four activities were similarly identified by three of the responding groups. A larger pool of twelve activities was identified among the most discrepant by two groups. Finally, each group reported items unique to itself, reflecting its special concerns.

#### Activities Identified by Two or More Groups

Table 4.1 identifies the four activities identified by all groups as being most discrepant between importance and performance. In this Table and the following three, we have reported the median ranks for importance assigned by, the four groups. Similarly, we have reported the median percentage of the four groups who believed the activity was being done less well than its importance warranted (< Import), being done as well as its importance warranted (=Import), and being done better than its importance warranted (> Import).

These four activities on which all groups agreed appear to be good candidates for administrative attention. Three of the activities, counseling for drug and alcohol abuse, providing information on computers and special assistance to the handicapped, are among the top third of activities in importance as well as being in the twenty most discrepant between importance and performance. Overall, more respondents perceived a discrepancy between

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## TABLE 4.1

## Activities Identified by All Four Groups as Most Discrepant Between Importance and Performance

396Remedial instruction51612220517Special assistance to the handicapped207225415NONEInformation on computers in2375205	TEM MISSION	DESCRIPTION OF ITEM	IMPORTANCE	= IMPORTANCE	IMPORTANCE
517Special assistance to the handicapped207225415NONEInformation on computers in2375205	11 6	Counseling for drug and alcohol abuse 22	70%	25%	78
15 NONE Information on computers in , 23 , 75 20 5	39 6	Remedial instruction 51	61	22	20
	51 7	Special assistance to the handicapped 20	72	25	4
undergraduate program	15 NONE	Information on computers in 23 undergraduate program	75	20	5

Activities Identified by Three Groups as Most Discrepant Between Importance and Performance

		EDIAN OF RTANCE RANK	MEDIAN & OF GROUPS' ,DONE WELL QUEST	
ITEM MISSION	DESCRIPTION OF ITEM		IMPORIANCE = IMPO	RTANCE IMPORTANCE
65 1	Academic advisement	11	718	278 18
4 3	Contract research	7	68	28 4
3 NONE	Develop student leadership	33	67	27 5
62 NONE	Develop programs in veterinary medicine and dentistry	38	71	22 9

NOTE: Median percentages do not necessarily add to 100%.



priority and accomplishment for providing information on computers than for any other activity. The high importance rank given this item indicates strong support for improvement.

Table 4.2 lists four activities identified by three groups as being among the most discrepant. Academic advisement rankseleventh in importance. 0ver two-thirds of those responding believed this activity was not being performed as well as its importance justified. Research for training students and uddating faculty was ranked even higher in terms of median importance, but there was somewhat less agreement on the need for improvement. The relatively low ranking legislators and regents assigned to the developments of new professional programs not currently offered in Arizona, as well as the less-thanmajority sentiment that improvement was needed, reflects a conscious decrision by legislators and regents to subsidize tuition of state residents at out-of-state schools as opposed to starting costly new programs in the state. In contrast, voters perceived this activity as one of the 20 most important. Table 4.3 identifies activities perceived by two groups as most discrepant. Two missions, improving quality and conducting research, account for 8 of the

12 activities. Increased emphasis upon improving research is a dominant theme for at least one of the three universities, as well as for state polycy makers interested in attracting high-tech industry. There is also an active interest among a wide range of constituencies in improving the quality of education. The activities related to improving quality that receive high rankings as well as strong support for improvement, include recruiting recognized scholars and students of exceptional promise as well as providing these individuals with attractive research opportunities. Well down the fist of priorities and receiving substantially less support for change are practices that would limit enrollment at the state's universities or impose a writing test as a condition

## TABLE 4.3

# Activities Identified by Two Groups as Most Discrepant Between Importance and Performance

1) () 			lan of NCE Rank	MEDIAN & OF GROUPS' RESPONSES TO BEIN DONE WELL QUESTION THAT ARE:					
IT	EM MISSION	DESCRIPTION OF ITEM		IMPORTANCE :	= IMPORTANCE	IMPORTANCE			
{	83	Apply-research-to-everyday-life	-28	678	288	58			
<u> </u>	2 3	Basic research in all fields	9	68	28	3			
2	9 3	Basic research in professional fields	8	68	29	2			
2:	5 5	Recruit and offer financial aid to gifted students	21	64	29	4			
2	75	Require writing test for degree	49	60	26	13			
<u>ب</u> 3{	85	Research to attract and retain students and faculty	14	<b>69</b> ·	27	4. 			
56	6 5	Recruit and retain recognized scholars	18	67	29	5			
5	7 5	Limit enrollment to high achieving students	59	42	28	29			
4(	0 7	Continuing education for professionals	27	67	27	7			
1	7 7	Selected programs for senior citizens	41	60	26	10			
`1(	8 0	Lease facilities for profit	55	49	28	18			
<u> </u>	8 9	Research for special needs of minorities	49	54	32	16			

48

NOTE: Median percentages do not necessarily add to 100%.



for graduation. Among the remaining items, only continuing education opportunities for professionals ranks in the top half of respondents' priorities.

Activities Unique to a Single Group

The discussion of differences in priorities in chapters 2 and 3 sets the stage for the final section of this chapter in which we examine those activities primarily of interest to a single group in terms of an expressed need for change. In the Tables that follow, we have reported importance rank and the percentages of the group falling in the categories of discrepancy identified earlier for each group separately. This is a departure from our practices in the preceding Tables of reporting median data for all groups combined regardless of the number that identified the activity as a concern. Table 4.4 displays the four activities of special concern to external groups. The fact that there are only four activities listed indicates that sixteen of the twenty activities they identified as most discrepant between importance and performance were shared with at least one other group. None of their unique items are of very high importance to external groups with the exception of the item involving increasing tuition charges for out-of-state students. Quite clearly there is considerable sentiment for a change in this area.

As indicated in Table 4.5, there were only two discrepant activities for internal groups not shared with some other constituency. One of these, requiring undergraduate liberal arts courses, received a particularly high priority.

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# TABLE 4.4

## Activities Identified by External Groups Only as Most Discrepant Between Importance and Performance

-		, ,	•	MEDIAN OF IMPORTANCE R	9 - 27 - 14	MEDIAN & OF GRC DONE WELL C	UPS' RESPONS UESTION THAT	2 - 1
	ITEM	MISSION		DESCRIPTION OF ITEMS	<b>、</b>	IMPORTANCE = I	MPORTANCE	IMPORTANCE
	2	( 4	· .	Provide health care to train students 33		628	298	98
	37	8 .	•	Increase tuition for out-of-state students 14	· · · · · ·	64: ····	26	9
	16	NONE	•	Let non-profit agencies use facilities 40		59	· · · 30	11
	33	NONE		Reduced tuition for university employees 66	<u>.</u>	15	27	58

NOTE: Median percentages do not necessarily add to 100%.

## TABLE 4.5

# Activities Identified by Internal Groups Only as Most Discrepant Between Importance and Performance MEDIAN OF MEDIAN & OF GROUPS' RESPONSES TO BEING IMPORTANCE RANK DONE WELL QUESTION THAT ARE: ITEM MISSION DESCRIPTION IMPORTANCE = IMPORTANCE IMPORTANCE

19	1	Undergraduate liberal arts requirement	9	698	268	58	•
9	8	Publish research findings	30	 69	26	5	
	-	•			 		

NOTE: Median percentages do not necessarily add to 100%.



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Unlike the previous two groups where a substantial majority of the activities identified as most discrepant were common to the lists generated by other groups, over half of the activities identified by the regents were unique as indicated in Table 4.6. From our previous knowledge of their priorities, we would expect Mission 9, Special Emphasis on Women and Minorities, to receive significant attention' and, indeed, four of the twelve activities they identify as most discrepant fall in this area. Increasing the number of minorities and women on the faculties are very high priority. They are also activities which the regents, with virtual unanimity, view as being done far less well than their importance merits.

Second only to their concern with women and minorities is their emphasis on broadening access. Only one of these activities made the top half of their priority list, however. Interesting, also, is their perception that making courses available in the work setting is being done far less well than its importance would merit.

One activity, sponsoring arts events and performances, stands out as being twenty-third in priority and twenty-first from the bottom in discrepancy between importance and performance. The regents' strong interest in the health field is reflected in items from two different mission categories, both of which were assigned relatively high priorities as well as being marked as in need of improvement.

The ten activities unique to the student list of most discrepant items, which appear in Table 4.7, are interesting for several reasons. Student leaders who assisted in validating the student version of the original survey identified fifteen new activities they wished to have included on their survey. Eight of these made the list of the 20 most discrepant, and seven of these eight were ranked in the top half of student priorities. Some of these

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## TABLE 4.6

# Activities Identified by Regents Only as Most Discrepant Between Importance and Performance

<u>'</u> ITEN	MISSION	DESCRIPTION OF ITEM	MEDIAN OF IMPORTANCE RANK	,	UP'S RESPONSI QUESTION THAT IMPORTANCE	
22	3	Research in health sciences	15	648	278	98
52,	6	Medical care and health education for students	15	55	27	18
. 43	7	Courses by telecommunication, radio or correspondence	30	73	18	9
48	7	Non-credit courses for the public	, <b>4</b> 4	45	27	27
55	, 7	Course at work place	39	90	10	0
မ္ဗ 23	gr-	Recruit and offer financial aid to minorities	23	82	18	0
31	12	Recruit and retain women faculty	3	, <b>91</b>	9	0
49	9	Recruit and retain minority faculty	8	91	9	0
54	Ya	Minority information in curriculum	53	55	27	18
61	NONE	Admit high school students	56	67	22	11

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NOTE: Median percentages do not necessarily add to 100%.



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## TABLE 4.7

Activities Identified by Students Only as Most Discrepant Between Importance and Performance

. \	ITEM	MISSION	ન	DESCRIPTION OF ITEM	MEDIAN OF IMPORTANCE RANK		•	GROUP'S RESPON VELL QUESTION TH = IMPORTANCE	
	42**	, 3		High quality research labs	13		708	288	28
ie See	32	NONE		Career and job placement services	2	andra Salashi a salashi	74	25	2
	2	* *		Remove unsatisfactory teachers	22	n thaight anns Airtean anns	83	12	6
, t	17	*	ь	Involve students in decision making	33	1	76	18	6
	<u>`</u> 20	*		Information to students about university services	3		70	29	6
	22		•	Provide financial aid services	<b>4</b>	1 an 1 an	73	24	2
40	34	*		Reward faculty for good teaching	19		74	22	4
	36	*		Offer small classes (25 or less)	<b>b</b> 17		71	24	5
•	40	* .		Course evaluations available to stude	ents 25		75	21	4
•	55	*		Faculty supervision of teaching assis	stants 40	n a training an	69	23	9

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.\* Items unique to the student survey

\*\* Modified in student survey

NOTE: Median percentages do not necessarily add to 100%.



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activities might well have made the lists of other groups had they been given the chance to respond. Even without the responses of other groups on these items, the student responses provide valuable information about student priorities and their perceptions of how well the activities most important to them are being performed in Arizona universities.

Among their top ten priorities, more than 70 percent of the students indicated that improvement was needed in services related to financial aid, career information and job placement and general information about university services. In the next ten most important, the emphasis was clearly on teaching with again more than 70 percent suggesting improvement in research labs, class size and teaching. Improving student involvement in decision making was a high priority for change, but the one activity that students felt was most in need of change was the removal of unsatisfactory teachers.

#### DISCUSSION

CHAPTER 5

The purpose of this study was to determine public attitudes toward the activities conducted by Arizona's public universities as background for a Town Hall on Postsecondary Education conducted by the Arizona Academy in April, 1983 (Richardson, Wolf, and Kimball, 1983). The study replicated, with some modifications, an earlier project involving Arizona's community colleges (Richardson, Doucette, and Armenta, 1982).

#### Mission Definition

The study yielded ten missions, three of which were easily identifiable in terms of the traditional triumvirate of teaching, research and service long associated with university mission. The research mission included both applied and basic research, as well as technical assistance. Whatever distinctions academics may make, the general public associates with the research mission a practical pay off as well as the necessary assistance to achieve that pay off.

The service mission was perceived by survey respondents in a way substantially narrower than its common definition as a general catchall category. Service, in terms of the mission defined in this study, involves providing educational and cultural experiences for the general community through media as well as live performances. Information about services as well as the actual events are subsumed within the mission category. The remaining seven missions form useful categories for addressing a range of contemporary concerns. Access, affirmative action, health care, improving quality, student services and increasing revenues all emerge as areas of concern represented by more than a single activity. Intercollegiate athletics also emerges as a distinctive mission category, a phenomenon that many may regret but none can easily refute.

In addition to these ten distinctive mission categories, the survey included eleven activities that did not form any coherent grouping. Included within this miscellaneous category were several "issue items" suggested especially for the Town Hall meeting as well as some activities in which Arizona universities do not currently engage.

Taken as a whole, the categories provide useful ways of summarizing the services universities provide to a state. Further, the relative emphasis upon some of these categories among the units of a system might serve as a useful starting point for mission differentiation. Finally, some categories such as affirmative action and optimizing revenues sharply delineated value gonflicts among different constituencies of the state university system.

#### Priorities: Mission Categories

Among the mission categories there was general agreement about the ton priorities for the system with a majority of respondents and groups ranking service above research. Only legislators and administrators ranked research higher for the system as a whole. Teaching, as could be expected, was every group's top priority. Areas of greatest disagreement included improving quality, with regents attaching amuch lower priority to this area than internal groups. In contrast, regents were the only group to attach high priority to activities related to affirmative action. The reaction of external groups who ranked this mission category fast in priority suggest one of two possibilities. Either they believe the activities in this category are already receiving more attention that they deserve, or they are resistant to special consideration for any group. The generally high support for special services to the handicapped

suggest that the resistance is focused on groups perceived to be capable of helping themselves as distinct from groups who must receive assistance because of circumstances over which they have no influence.

Significant differences also emerged in the priority for optimizing remenues where legislators gave the most support with regents, administrators and faculty giving this their lowest ranking. Legislators, in turn, were less interested in broadening access, a development that is frequently associated with new costs.

While the importance of differences in perspective should not be minimized, the results of these surveys suggest more agreement than disagreement about the activities in which Arizona universities engage. As well; there was support for all of the mission categories (as distinct from the activities that comprised them) with one interesting exception. The regents and internal groups did not support the activities in the category of optimizing revenues, probably seeing in these activities both intrusions on their own scope of authority and limitations on access through increases in user charges. As we shall see in later discussion, regents believe there is a significant need to broaden access to some currently underserved areas.

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#### Priorities: Activities

An analysis of the top ten and bottom ten priorities for each group revealed some expected differences as well as a few surprises. Among the expected differences were much stronger support for the liberal arts from faculty and administrators than from any other groups; a high priority on tenure only among faculty, a greater interest among students in counseling for drug and alcohol abuse as well as career services and a very strong difference of opinion between legislators and regents about the importance of charging higher tuition to out-of-state students and the importance of leasing facilities for profit.

Among the surprises were the very strong differences between regents and all other groups in the priorities assigned to the recruitment of women and minorities.

A study of the survey results failed to yield any suggestion of coalitions or combinations of our sample groups who consistently reported common priorities. The regents, who disagreed sharply with legislators on tuition and leasing, were in relative agreement with them on the importance of a branch campus. Among all groups there was more greement about unimportant activities than about important ones.

The results suggest the healthy differences of opinion that should be expected within any political system coping with conflicting values. The absence of coalitions, supports an inference that each of the constituents are receiving reasonable consideration from such policy level groups as



legislators, regents and administrators. There is no evidence, for example, that the regents consistently report attitudes that are closely aligned with those of any other groups.

#### Effectiveness

In a system with limited resources not everything can be done as well as possible; therefore, it makes sense to examine the discrepancy between how well an activity is being performed and its importance, and to use this discrepancy as a rough guide for resource allocation. Activities performed at a higher level than their importance warrants may indicate a misallocation of resources, in the same way as activities performed less well than their importance would seem to merit. Using this line of reasoning, we were able to identify activities where there were varying degrees of consensus about the need for more or less emphasis. Of course, as might be expected, activities requiring reduced resources were few and far between. As a result, the most interesting aspect of the issue were those activities identified by a high percentage of most groups as requiring greater attention.

Three activities emerged as the most important areas in need of improvement from virtually everyone's perspective. These areas included improved counseling for drug and alcohol abuse, special assistance for the handicapped and improved academic advisement. Also given high priority for increased emphasis was information on computers in the undergraduate curriculum and improved research opportunities for training students and updating faculty. Several of these activities, including advising and counseling, could be improved simply by changing the priorities of university personnel through

7. 6;

staff development activities and manipulation of the reward system. Others, such as emphasizing computers and research opportunities, require significant additional resources and must be approached incrementally through the reallocation of available dollars. Interestingly, greater progress seems to be taking place with the latter rather than the former activities, suggesting administrators find it easier to reallocate funds than to change employee attitudes.

Several additional activities were ranked as high priority in terms of need for additional emphasis by two or more of the groups responding to the survey, but this group of activities was more controversial as at least one group accorded them a relatively lower priority. This second category of priorities for increased emphasis included recruiting recognized scholars and outstanding students, improving research opportunities generally and increasing continuing education offerings for the professions. All of these activities require additional dollars and, thus, compete with other priorities such as recruiting minority and women faculty, a major concern of regents.

In addition to activities where there was some reasonable consensus about the need for change, three of the four groups had at least some unique priorities not shared with other constituencies. Among these unique concerns for the external groups, raising tuition for out-of-state students emerged as their most salient concern. The regents were most insistent about the need for improving affirmative action and broadening access. Students responding to a modified survey emphasized the need to improve student services including career counseling and job placement, financial assistance and information. They also were concerned about improving teaching but gave this lower priority than needed improvements in student services.

#### Conclusion

As we noted in chapter 1, the analysis presented in this monograph is only one of many ways in which the data might be used. Arizona's system of public universities includes institutions' with differing missions, ranging from the teaching emphasis of a comprehensive university, Northern Arizona, through an emerging research university, Arizona State, to an established research university, the University of Arizona. Data from the survey can be broken down by university to reflect differences in priority that are a function of institutional mission. Equally, patterns of effectiveness and efficiency can be analyzed for each institution by constituency to produce information of greater use to administrators. Indeed, dissertations currently in progress. will exploit a number of these possibilities.

Finally, the survey has potential for furnishing information about constituency perceptions of mission achievement by universities over time. The process through which the surveys were developed and validated ensured that activities important to all constituencies were represented in the instrument administered during the 1982-83 academic year. If, in five years, the surveys are reviewed and modified to reflect the relatively limited number of issues that will have disappeared or emerged in the interim, a readministration of the survey at that time would yield answers to the following questions:

. To what extent do perceptions of a university's missions change over five years? Can activities be subsumed within the same ten categories?

- 2. Within which ranges do perceptions of importance.of missions and the activities which comprise them change during the same period? To what extent do the priorities of any group at one point in time tend to endure?
- 3. Do changes in university priorities over a five year period alter constituencies' perceptions of effectiveness? Do constituent groups offer improved ratings for the performance of those activities on which a university has concentrated resources for a period of time?

The decade of the eighties has been described as a period of emphasis on improving quality. In order to know whether quality has been improved, there must be some measure of its presence or absence at a point in time followed by a subsequent assessment using similar criteria and methods. Clearly, attitudes of constituency groups are only one measure of how well a university is performing. However, such attitudes and the values on which they are based tend to assume primary importance in the political process through which universities receive their resources. It would seem that educational policy makers ignore them at the peril of the institutions they guide.



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#### APPENDIX

In this appendix a more detailed discussion of the research process as well as tables presenting detailed survey results are presented. The appendix describes the research in the following order:

- 1. Development of the two <u>Priorities for Arizona Universities</u> surveys: the first version and the student version
- 2. Selection of respondents for the two surveys
- 3. Administration of surveys to seven major constituent groups
- 4. Response rates to the two surveys
- 5. Analysis of survey results.

#### A. DEVELOPMENT OF THE SURVEYS

A major goal in the design of the original <u>Priorities for Arizona Universi-</u> <u>ties</u> survey was to sample adequately the activities in which universities engage.

#### Development of the First Survey

A series of 66 activity statements were generated for the first <u>Priorities</u> <u>for Arizona Universities</u> survey. As a basis for the generation of activity statements, the research team reviewed the literature on previous mission research and one activities conducted in higher education institutions across the nation. The Arizona Board of Regents' university mission statement, college catalogs and literature on organizational effectiveness and organizational theory were also consulted.

Only two major approaches to the study of goals in institutions of higher education have previously been undertaken on a large scale. The Gross and Grambsch studies in 1964 and 1971 were the first national studies done on institutional goals in higher education. They were followed by the Institutional Goals Inventory (IGI) of Peterson and Uhl in 1973 and 1975.

The activity-driven concept of mission developed by Richardson, Doucetteand Armenta (1982) in the <u>Community College Activities Survey</u> provided the conceptual framework for the Priorities for Arizona Universities survey.

The literature on college and university activities gave the research team a broad overview of the activities in higher education. However, to be sure that no major activities conducted by universities were omitted from the list, the activity statements were grouped into the three traditional university missions of teaching, research and service. This list of activities was then further analyzed to be certain that all aspects of university activities were appropriately sampled. In addition, a few items of policy interest identified by administrators and the Arizona Academy were added to the list of activities to provide further information.

Throughout the development of the questionnaire, every attempt was made by the research team to be objective. To this end, a final draft of the activity statements was given to administrators, regents and researchers at the three state universities. They were asked to validate the list by reviewing the activity statements to determine that the items accurately described the activities in which universities engage and to ensure that these statements were comprehensive and adequately sampled the full range of major university activities.

Each reviewer was directed to review the activity statements according to the instructions reproduced in Table A.1. The research team reviewed and

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#### Table A.1

#### Copy of Validation Instructions

#### VALIDATION INSTRUCTIONS

<u>Purpose</u>: The purpose of reviewing the following activity statements is to validate their comprehensiveness and appropriateness for use in an instrument designed to assess constituent support for university activities and missions and their evaluation of the effectiveness of current university activities. Specifically, the purpose of reviewing these statements is:

 To determine that the statements accurately describe activities in which universities are engaged, and

 To ensure that these statements are comprehensive and represent all major university activities.

Description of Activity Statements: The following activity statements are intended to be a comprehensive list of the major activities conducted by universities, arranged in the three traditional mission categories of teaching, research, and service. Each statement states a service provided by a university (a learning or research activity or a support service, not an administrative function). In many instances the clientele to whom the service is provided has been listed next; a rationale has been added for an activity only when necessary to set the context.

The language in this instrument is simple and direct because the survey will also be administered to constituencies outside, the universities, including registered voters, the legislature, and members of the Arizona Academy.

Respondents will be asked two questions about each activity:

Is this activity <u>important to do?</u> Is this activity being done well?

The format for their responses will be a five-point Likert Scale: 1) strongly disagree, 2) disagree, 3) not sure, 4) agree, and 5) strongly agree.

DIRECTIONS FOR REVIEW OF ACTIVITY STATEMENTS

Review each activity statement to determine if the statement accurately describes an activity of universities;

- Suggest revisions in wording by crossing out and revising directly

on the statement.

- Suggest deletion by writing "delete" in the grgi

- Write comments as needed in the margins.

2. Review each mission category to ensure that each category is comprehensive and contains statements of all major activities in which universities might engage related to the mission:

Suggest needed additions to each mission category on the last page.

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Your suggestions and comments will be helpful in assessing the accuracy and completeness of this instrument for research on university missions and effectiveness in Arizona. Please return to Troy Crowder by August 24.

analyzed the comments and suggestions made and refined the instrument. As a result of the comments, the language of some activity statements was changed to improve clarity and consistency; in addition, a few items were added in areas which were underrepresented. Finally, a small pilot test was conducted with a convenience sample. Using practitioners and significant constituencies represented an effort to ensure that the activity statements were grounded in practice.

The format of the <u>Priorities for Arizona Universities</u> survey was designed to elicit the respondents' perceptions of the importance and level of accomplishment for each activity. Respondents were asked to rate the importance of an activity on a scale ranging from 1 = strongly disagree to 5 = strongly agree. To determine the perceptions of the levels of accomplishment of each activity, respondents were also asked to rate, on the same scale, how well they believed an activity was being done.

Table A.2 contains the list of 66 activity statements which were included in the final version of the first survey. A survey instrument is bound in at the end of this report to display the format and the instructions to respondents.

#### Development of the Second Survey

A second version of the survey was commissioned by the Arizona Students Association for administration to students at the three Arizona universities. Several modifications were made to the original survey. First, the instructions were clarified, and a choice of "don't know, or no opinion" was added to the possible responses for the "being done well" questions. While all

#### . Table A.2

#### List of Activity Statements in First Survey

- 1. Sponsor films, speakers, exhibitions and musical and dramatic productions for students and the community.
- \*2. Provide health care to the general public on a fee-for-service basis to train medical and other health science students.
- 3. Provide incentives and training to assist students in developing and practicing leadership skills.
- 4. Conduct research under contracts funded by business, industry, foundations and government agencies to assist the training of graduate students and to keep faculty up-to-date.
- \*5. Offer selected degree programs in fields such as medicine and law.
- 6. Operate non-profit public television and radio stations as a community and educational service.
- \*7. Offer selected undergraduate degree programs in business, engineering, education, architecture, social work, nursing, public administration, agriculture and forestry.
- \*8. Conduct projects to apply the findings of research to everyday life.
- 9. Publish for sale scholarly books, pamphlets and reports to share the results of faculty and student research.
- 10. Earn a profit by leasing university facilities such as football stadiums, activity centers, meeting rooms and exhibition space to private corporations.
- 11. Provide counseling and related services to assist students in coping with problems such as depression, stress and alcohol and drug abuse.
- \*12. Conduct research to contribute to the future growth and welfare of the state and nation.
- 13. Accept international students who meet university admission standards.
- \*14. Provide technical assistance to the general public in areas such as agriculture, forestry, resource and energy conservation and community development to assist citizens in applying research findings to everyday life.
- \*15. Include information about the use of computers in all undergraduate degree programs.

- 16. Let non-profit organizations use university facilities such as football stadiums, activity centers and exhibition space if they pay all costs.
- \*17. Provide selected programs and services at reduced tuition rates for senior citizens.
- 18. Conduct research and provide technical assistance to meet the special needs of Arizona's ethnic and racial minorities.
- 19. Require all undergraduate degree programs to include liberal education courses such as humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- \*20. Provide information to keep the public informed of educational, social and other services offered by the universities or other agencies.
- 21. Sponsor competitive intercollegiate athletic programs for men and women.\_
- \*22. Sponsor research in health science to improve standards of medical cares and to train health professionals.
- 23. Actively recruit and offer financial aid to ethnic and racial minorities.
- 24. Provide university library services free to the general public.
- 25. Actively recruit and offer financial aid to students with academic and artistic talents.
- 26. Encourage advancement in the creative arts by sponsoring arts events, exhibitions and performances.
- \*27. Award degrees only to students who pass a standard university test in writing skills.
- 28. Provide limited use of university resources such as secretarial help, computer time and copy services to faculty who serve as paid consultants to business and industry, government and community agencies.
- \*29. Do research in areas such as energy, agriculture, electronics, government, economics, health and education to expand existing knowledge and to help solve immediate problems.
  - 30. Contract with private corporations to provide on-campus services currently run by universities such as bookstores, copying and food services.
  - 31. Make special efforts to recruit and retain qualified women faculty.
  - 32. Provide career and job placement services to current and former university students.
- \*33. Permit state employees and their dependents to attend Arizona universities at reduced tuition rates.

- \*34. Conduct research and provide technical assistance in areas such as juvenile delinquency, health care, child welfare and unemployment.
- 35. Sponsor recreational athletic programs for all students.
- \*36. Operate a teaching hospital to advance knowledge and to help wain medical
- 37. Require students who are not residents of Arizona to pay the full costs of their education.
- 38. Sponsor research to attract and keep well qualified faculty and students.
- 39. Offer remedial instruction in reading, writing and mathematics to university students who need help with these skills.
- \*40. Provide conferences, short courses and workshops for doctors, lawyers, public administrators and similar groups to keep their skills up-to-date.
- \*41. Sponsor student government, student publications and other activities related to student development outside of class.
- \*42. Support the educational program with research laboratories like those used
- 43. Offer selected courses by telecommunication, radio or correspondence.
- \*44. Cooperate with state and local government, chambers of commerce and other non-profit groups in attracting business, industrial and residential development.
- 45. Provide tenure (reasonable assurance of continuing employment) to faculty who maintain professional standards approved by the Board of Regents.
- \*46. Support research with libraries like those at other universities having similar programs.
- \*47. Offer selected undergraduate degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- 48. Offer non-credit courses and workshops for the general public in areas such as health, recreation and hobbies.
- 49. Make special efforts to recruit and retain qualified minority faculty.
- \*50. Do research in the humanities, social and behavioral sciences, physical sciences and mathematics to expand existing knowledge and to help solve immediate problems.
- 51. Provide spectar assistance such as Braille texts, tutoring services, or sign language to physically handicapped students.
- 52. Provide students immediate medical care and continuing education on health-related problems.

- 53. Offer selected courses and degree programs at off-campus locations or branch campuses.
- 54. Include information about the achievements and needs of Arizona's ethnic and racial minorities as part of all undergraduate degree programs.
- \*55. Offer selected courses to groups of employees at their work place.
- 56. Make special efforts to recruit and retain recognized scholars and researchers for university faculties.
- 57. Limit enrollment to students who graduated in the upper half of their high school class or who have above average scores on standardized aptitude tests.
- 58. Provide counseling and related services to help students avoid or cope with unwanted pregnancies.
- 59. Offer courses and workshops in areas such as study skills and academic survival skills.
- 60. Offer selected master's and doctoral degree programs in business, engineering, education, architecture, social work, public administration, agriculture and forestry.
- 61. Admit to regular university courses high school students who are recommended by their principals.
- 62. Develop programs in veterinary medicine, dentistry, optometry, and other professional areas not currently available at any Arizona university.
- 63. Offer selected master's and doctoral degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.
- 64. Actively recruit and offer financial aid to students with athletic talents.
- 65. Provide academic advisement to assist students in achieving educational goals.
- 66. Provide special tutoring and advisement to ethnic and racial minority students to help them get through their educational programs.

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\* = Ttems modified or replaced on the student survey. See Table A.3 for the new wording. respondents were presumed to have opinions about the importance of each activity, changes in format were made for cases where an activity was not performed at one or more of the universities or the respondent simply had no personal acquaintance with that activity.

The second change was to make the instrument institution-specific. That is, rather than asking what a respondent thought about the total Arizona university system, the second instrument elicited a student's perceptions about the university he or she was currently attending.

Finally, a number of activity statements were deleted from the first questionnaire and replaced with items of specific concern to students. Suggestions for changes were submitted by the Arizona Students Association, but the research team made final changes in choice, format and wording of items. Student leaders validated this version of the survey instrument. Final changes were made as a result of this validation, and the survey, was administered to a convenience sample of students for a pilot test.

An effort was made to maintain comparability between the two <u>Priorities for</u> <u>Arizona Universities</u> surveys; 40 items remained common for the two instruments and 26 items were modified or replaced. While the changed items have been clearly indicated in the tables which follow, care should be taken not to compare responses for students with other groups on items for which the students answered a different question. The activity statements which were modified or replaced in the student version of the survey are listed in Table A.3. Two sample pages from the student survey are reproduced in Table A.4 to indicate the changes in format and instructions.

#### Table A.3

#### List of Activity Statements Modified or Replaced in Student Survey

- Remove from teaching assignments faculty who consistently receive unsatisfactory student course ratings.
- 5. Employ trained students to assist in academic advising.

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- 7. Offer selected undergraduate degree programs in business, humanities, the arts, behavioral and social sciences, physical sciences, mathematics and professional fields.
- 8. Offer short courses and provide technical assistance to help students and the general public use the findings of university research in areas such as energy conservation and crop production.
- 12. Conduct research in areas such as energy, agriculture, electronics, government economics, and education to contribute to the future growth and wealth of the state and nation.
- 14. Provide academic transcripts which include information about honors, awards, and activities when requested by students.
- 15. Include information about the use of computers in all undergraduate degree programs to develop computer literacy.
- 17. Provide opportunities for students to be involved in important university decisions including those related to the budget.
- 20. Provide current information to students about services offered by the university.
- 22. Provide advising and administrative services to help qualified students receive financial assistance.
- 27. Award degrees only to students who pass a standard test in writing skills to ensure that graduates can write clearly and effectively.
- 29. Change the academic transcripts issued by the Registrar's Office to include "+" or "-" letter grades.
- 33. Provide adequate space for students to study on campus.

- 34. Reward faculty for good teaching.
- 36. Offer small classes (25 or less).
- 40. Provide instructor evaluations to help students select courses.
- 41. Sponsor an effective student government to serve all students.

- 42. Provide high quality modern laboratories to support stordents and faculty research.
- 44. Reward faculty for good research.
- 46. Provide library resources and services to support the educational program.
- 47. Provide programs to acquaint students with the campus and to assist them in making good adjustment.
- 50. Sponsor student publications such as the campus newspaper and literary magazines to inform the campus community and to provide examples of student literary work.
- 55. Have regular members of the faculty closely supervise all classes taught by teaching assistants.

### Table A.4

### Sample Pages of Priorities for Arizona Universities

(the student survey)

This study is being done to find out how students feel about the priorities of the university they attend. The statements in this Not Being All questions are about this university, that is, booklet represent a wide range of activities universities can do, nol Stronaly, Adm all of these activities may currently be done at your university. the one at which you are presently enrolled. Introduction Please answer all of the questions as well as you can. If you wish to" Auree Cross through one number after important to do comment on any question or to explain an answer, please use the and one alter being done well. space at the back of this booklet. Nautral This university should . Disagree DIRECTIONS Strongly Disagree Please answer each of the statements in this book-2. Is this being done well? Here you show how. 1, Sponsor films, speakers, exhibitions and much you agree that the activity is now being done let as shown in the following examples. important To Do (1) (2) (3) (4) (5) musical and dramatic productions for sludents Each statement asks you to answer two questions: well at this university. If the activity is not being done and the community. currently al your university or il you have no infort. Is this important to do? Here you show how mation about the activity, a separate response is much you agree that the activity is important for your university to do. Everyone should answer this provided.  $(\mathbf{I})$ question. Please read the following examples carefully. Buing Done Well 2. Remove from teaching assignments faculty Example 1 Important To Do who consistently receive unsalisfactory student Not Being Done or No Opinton course ratings. All questions are about this university. That is, Strongly Agree the one at which you are presently enrolled Agres. Being Done Well Cross through one number after important to do and one after being done well. licutral This university should Disagrae 3. Provide incentives and training to assist 64 Strongly Disagree Auportant To Do students in developing and practicing leadership 1 Provide special tutoring and advising for skills. Important To De (1) (2) (0) (3) students having difficulty with their academic ·pipgrams Being Done Well Being Done Well 🗴 3 3 4 5 0 4. Conduct research under contracts funded by strongly disagrees that his/her university is cur-This first example shows that the person answering Important To Oo business, industry, foundations and government rently offering such tutoring and advising very well. is neulral about the importance of this activity but agencies to assist the training of graduate students and to keep faculty up-to-date. Example 2 2 Operate a teaching huspital to advance Inpertant Te De 🕕 🕽 🕘 🎽 Being Dons Well insole tge and to help train medical and othe health science students bằng Dane Well 🕕 🕽 🕲 🕲 🎘 .5. Employ trained students to assist in academic  $(\mathbf{I})$ Important To Do advising. tal is Important to do, but does not believe this This second example shows that the person answer-activity is currently being done. ing strongly agrees that operating a leaching hospi-(I)Being Done Well Example 3 Impertant Te Do 💥 (2) (3) (4) (5) ublish books of interest to Arizona or the West 6. Operate non-profit public television stations as 0 0 0 0 0(I)Important To Do a community and educational service. Beling Dens Well () (2 (3) (4) 💢 (0) Being Dane Well \* (1) (2) (3) (4) (5)\* (1) This third example shows that the person answering does,feel that this activily is being done well. does not believe publishing books is important but 1983 Richard C. Richardson, Jr. Laurel H. Kiniboll W. Shapard Wolf Jr. and Gary L. Kleerhann MIGROFILMED FROM eric

BEST AWAILABLE COPY

#### B. SELECTION OF SAMPLES

#### Respondents to the First Survey

All members of the Arizona Legislature and the Arizona Board of Regents were surveyed. All university administrators at the dean level and above at Arizona State University and Northern Arizona University were also surveyed. Because of a communication problem, deans at the University of Arizona did not receive the survey; all other administrators there were surveyed as for the other two universities.

Random samples of the Arizona Academy membership, of the three state universities' faculties and of Arizona registered voters were selected to represent the views of the groups of which they were a part. Twenty-five percent of the membership of the Arizona Academy, a total sample of 303, were selected. From the full-time faculty of the three universities, 988 university faculty members were kandomly selected within colleges; the number of faculty sampled was proportional to the size of the college, with 25% of the faculty sampled in colleges of 100 or more, 50% of the faculty sampled in medium-sized colleges (50-99) and all of the faculty included in small colleges (under 50). Statistical analysis of the raw and weighted data revealed on y small differences; unweighted data is reported here.

Registered voters were chosen to represent public attitudes because voters are the citizens who, having taken the trouble to register, are more likely to be active in the political process and, thus, to be an influential constituency of the university.

A commercial firm selected 2532 registered voters from the most current list available from county registrars in August. 1982. The list represented all those who had voted in the general election of November, 1980, or who had registered or re-registered after that election.



In a previous study using similar lists, a large number of surveys were returned as undeliverable by the Post Office. - To address this problem, researchers took several steps:

- A. A week before the mailing of the actual survey instrument, a letter describing the study was sent to each of the 2532 registered voters who had been selected. The letter was from the president of the Arizona Academy and urged the individual's participation in the survey. Address correction and return of undeliverable letters was requested from the Post Office.
- B. Those people for whom address corrections were received were kept in the sample, provided that the new address was still in Arizona.
- C. Letters returned as undeliverable were considered non-sample. There were 474 in this category, or 18.7% of the original sample. Since the Post Office forwards mail for some time, these returns represented people who moved a considerable time earlier and who had not updated their voter registration.
- D. A week after the introductory letter was sent, the survey instrument was sent to the 2058 voters for whom good mailing addresses had been obtained.

#### Respondents to the Student Survey

Because of the difficulty of getting students to respond to a-mail survey, and because the addresses that the universities had for students were known to contain many inaccuracies, students were surveyed in their classes. Approximately 50 classes were randomly sampled on each campus. Slightly different methods were used to draw the sample in each case, because of the unique characteristics of the institutions' data base systems.

At the University of Arizona, a systematic random sample was drawn by hand at a sampling interval of 124 from the courses listed in the Spring, 1983 Schedule of Classes. Before sampling, 1,198 courses designed for independent study were deleted from the 7,422 course sections. There were 1820 students enrolled in the 50 class sections selected.

At Arizona State University, a stratified random sample of 52 course sections was drawn from the master course list. Courses were stratified by

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school or college and by course level, i.e., lower division, upper division, graduate. The course sections were then randomly selected for each of the 26 cells produced by the stratification. In the course sections, 1874 were enrolled.

At Northern Arizona University, a stratified random sample of 50 classes, with 1476 students enrolled, was drawn from cells stratified along the same lines as the ASU sample.

The student data were appropriately weighted for analysis.

#### C. ADMINISTRATION OF SURVEYS

Administration of the First Survey

In the last week of August and the first week of September, 1982, the survey questionnaire, Priorities for Arizona Universities, was sent to 3808 subjects.

A letter and a postage-paid business reply envelope were included with each survey. The letter, which explained the project and encouraged the recipient to respond promptly, was from a recognized leader who had been identified for each respondent group:

- a. Members of the Arizona Academy received a letter from the President of the Academy.
- b. Voters received a letter from the President of the Arizona Academy referring to the earlier letter and urging them to respond.
- c. The faculty and adminstrators at the three universities received a letter from the president of their particular university.
- d. Members of the Board of Regents received a letter from the Executive Director of the Board of Regents.
- e. Legislators received a letter from President of the Board of Regents.



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Follow-up procedures designed to increase the response rate included the following:

TO HOW HIGH

A. A postcard was sent to each person in the six samples who had not returned the initial survey instrument within two weeks.

Second copies of the survey were sent to all non-respondents a week after the card was sent.

A third copy of the survey was sent to legislators who had not returned the completed survey.

#### Administration of the Student Survey

The second survey was administered during the Spring, 1983, semester to students in their classes at the three Arizona universities. A letter from the Academic Vice President at each university was sent to the faculty members who taught the classes selected for the sample, asking for permission to administer the survey. After permission was given, student leaders or a researcher went to the class and read a prepared statement of instructions before administering the survey. Permission was not granted for 5 classes at the University of Arizona; this accounts in part for the lower response rate at that university.

#### D. RESPONSE RATES

Response Rate for First Survey

An overall response rate of 83% was achieved by the first survey when all groups but the voters are considered, and the response rate was 64% when voters were included. A detailed breakdown of the response rate for each constituent

group is provided in Table A.5.

#### Table A.5

#### Response Rates of Respondent Groups for Priorities for Arizona Universities Surveys

#### A. First Survey

ERI

Group	<u>#Sent</u>	#Returned	<u>%Returned</u>
Registered Voters	2058	990	48%
Faculty			
ASU	340	285	84%
UA	405	. 333	82%
NAU	243	208	86% -
Administrators			
ASU	51	50	98%
UA	29	26	90%
NAU	、 55	50	91%
Arizona Academy	. 303	244	80%
Legislators	90.	56	2558%
Regents	11	11.	.100%
TOTAL	3808	2447	64%
(Without voters)	1750	1453	83%
B. Second Survey		<b>#</b>	
<u>Group</u>	<u>Sample</u>	Completed	* <u>Percent</u>
Students			
· ASU ′	1874	1428	. 76%-
UA	1820	, 1001	55%
° NAÚ	1476	880	60%

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The high response rate for most groups surveyed as well as the sampling procedures ensured that responses of most groups were representative of the total group from which they were selected.

Just under 50% of the registered voters in the sample returned the survey. Voters received three mailings in addition to the initial introductory letter; budget constraints prevented a fourth follow-up mailing. Nevertheless, the response rate of 48% for registered voters is the lowest achieved in this survey. The registered voters who responded to the survey were older and better educated than the general Arizona population; minority groups were also underrepresented. Comparison of characteristics of the survey's voter respondents with the demographic description of all Arizonans is provided in Table A.6.

#### Response Rate for the Student Survey

At ASU, 1428 students out of the 1874 students enrolled in 52 classes completed surveys for a response rate of 76%. The majority of those not responding were students who were officially on the enrol-iment rolls but were absent from the classroom at the time the survey was administered. A small number of students refused to participate in the survey, here as well as at the other two institutions.

At the University of Arizona, 45 classes were surveyed. Of the 1820 students enrolled in the classes, 1001 responded, for a response rate of 55%.

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#### Table A.5

#### Response Rates of Respondent Groups for Priorities for Arizona Universities Surveys

Ä			Fi	rst	Sur	vev	12	
	2	ie.	1					į.

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<u>Group</u>	<u>#Sent</u>	<u>#Returned</u>	<u>%Returned</u>
Registered Voters	2058	<b>990</b>	48%
Faculty		juni antina serie di serie di Serie di serie	
AŠU	340	285	84%
UA , , , , , , , , , , , , , , , , , , ,	. 405	333, ,	82%
NAU	243	/ 208	• 86%
Administrators			
ASU	, 51	50	98%
AU	29	26	90%
A CNAU	55	50	91%
, Arizona Académy 🖌	303	244	80%
Legislators	·90	56	58%
Regents	$f \cdot \sum_{i=1}^{11} f_{i}$	• 11	( 100%
TOTAL	3808	2447	· ( 64%
(Without voters)	1750	<b>* 1</b> , <b>•4</b> 453	.• 83%
(B) second Survey			
Students	<u>Samp de</u>	<u>Completed</u>	Percent
	3,1874	1420	764
ASU UA		• 1428 • 1001	,
NAU	1820 1476	1001 •	55% 60%
			UU/8

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The high response rate for most surveyed as well as the sampling procedures ensured that responses of most groups were representative of the stotal group from which they were selected.

Just under 50% of the registered voters in the sample returned the survey. Voters received three mailings in addition to the initial introductory letter; budget constraints prevented a fourth follow-up mailing. Nevertheless, the response rate of 48% for registered voters is the lowest achieved in this survey. The registered voters who responded to the survey were older and better educated than the general Arizona population; minority groups were also underrepresented. Comparison of characteristics fof the survey's voter respondents with the demographic description of all Arizonans is provided in Table A.6.

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At the University of Arizona, 45 classes were surveyed. Of the 1820 students enrolled in the classes, 1001 responded, for a response rate of 55%.

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At Northern Arizona University, a sample of 50 classes was drawn; however, due to personnel problems, only 41 of the classes were actually sampled. Those not sampled appeared to be randomly distributed. There were 1,476 students enrolled in the 50 classes, and responses were obtained from 880, a response rate of 60%.

The response rate for the student survey is included in Part 2 of Table

#### ANALYSIS PROCEDURES

This section provides further details of the different analyses that have been reported in the body of this report, including:

- Identification of university missions by factor analysis of important to do questions
- 2. Identification of priorities for activities, by group
  - Identification of discrepancies of the important to do and being done well, by group.

#### Factor Analysis

A.6.

One of the goals of the research was to formulate missions for Arizona's universities, and to this end it was necessary to reduce the large number of activity statements included in the questionnaire to some smaller number. Common factor analysis was glosen to accomplish this, as this technique produces factors, or sets of activity statements, for which the respondents answers follow a similar pattern. The activities which grouped in each factor were then examined for their common dimension and the factor, or mission, was given a descriptive name.

Characteristics	Arizona Voters Responding <sub>y</sub> to Survey**	Arizona Résidents*
Sex Male Female	41.82% 55.76.	49.28 50.8
Age 15-24 25-34 35-44 45-54 55-64 65 & over	7.58 19.39 17.98 16.36 17.37 17.68	24.6% 21.4 14.2 12.0 12.4 14.9
Ethnic White Black Indian Oriental Other Spanish Heritage	86.46% 1.82 1.11 .51 2.63 4.65	82.48 5.6 2.8 0.8 8.4 16.2

#### Comparison of Demographic Profile of Voter Respondents with Profile of Arizona Residents

TABLE A.6

• Education	Mar	Loopa County		() Pima	County	
	Responde	ents Resider	nts . •	Respondents Male, Female	Resid	dents Female
Less than					170	
school High schoo	51 51	16%.		5 <del>8</del> 48	1/8	198
graduate Some colle		36 # 26	<b>S</b>	20 33 14 32	<b>4</b> 25 29	
College de	egree 14,	13.	m	19/ 22	16	12
Graduate	studies 20			20 24	<u>, 1</u> ,	<u> </u>

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\* Data from Arizona Statistical Review, September, 1981, Valley National Bank \*\* May not add to 100% because of miscoded or missing





Maximum likelihood factor analysis was used for the initial factor extraction, followed by orthogonal rotation Nixon, 1981). For this analysis only, all groups were considered together and had equal weighting. The input to the factor analysis program was a covariance matrix of the responses to the 66 important to do questions, which was constructed using pairwise deletion of where there was missing data.

The program was constrained to produce 7- thru 14-factor solutions, which were then examined using as criteria the degree of internal consistency within a factor and the absence of any single-item factors. The 10-factor solution was chosen as the solution which best fit the data and provided the most useful description of university activities.

Items were included in a factor if they loaded at the 0.30 level or higher. Items which loaded on more than one factor were included on the factor for which they had the highest loading. The 0.30 level was chosen because it included the most items that seemed to fit the definition of the factor, without introducing undue distortion (Comrey, 1973). This processes lowed 55 of the 66 items to load on one of the 10 factors.

Table A.7 contains a list of the ten factors and the items which loaded on each, showing the factor loading by item and the Chronbach's coefficient alpha for the factor. Coefficient alpha is a measure of whether or not items are measuring "the same thing," (Hull and Nie, 1981). That is, a high coefficient alpha indicates strong internal consistency among the items on a mission (Peterson and Uhl, 1975).

Table A.7 shows that one mission consists of 10 items, four of 7 or 8 items, three of 3 to 5 items and two of 2 items. While it is generally

#### TABLE A.7

Factor Loadings and Reliability Coefficients for Importance Responses of all Respondents to the first <u>Priorities for Arizona Universities</u> Survey

MISSION 1	MISSION 2	MISSION 3	MISSION 4	MISSION 5
TEACHING PROGRAMS AND SERVICES ITEM, LOADING	EDUCATIONAL & CULITURAL SERVICES ITEM LOADING	RESEARCH & TECHNICAL ASSISTANCE ITEM LOADING	HEALTH CARE FOR TEACHING & RESEARCH ITEM LOADING	IMPROVING QUALITY ITEM LOADING
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	26 .464 1 .454 6 .422; 20 .339 (alpha = 0.69)	29       .619         12       .618         8       .495         14       .488         50       .438         22       .434         4       .426         34       .409         9       .348	36 .540 2 .466 (alpha = 0.54)	56 .495 38 .473 * 46 .434 45 .434 57 .1 .359 27 .303 25 .300 (alpha = 0.66)

				i de la composición d La composición de la c	
	MISSION 6	MISSION 7	MISSION 8	MISSION 9	MISSION 10
	STUDENT SUPPORT	BROADENING	OPTIMIZING	EMPHASIZING	INTERCOLLEGIATE
. ;	SERVICES	ACCESS	REVENUES	MINORITIES & WOMEN	ATHLETICS
	ITHM I LOADING	ITEM LOADING	ITEM LOADING	ITEMAN LOADING	ITEM LOADING
	58 ,557	55 .538	37 .480	23 .815	64 .755
	52 .514	48 .533	10 .429	49.797	21 .670
	11 .494	53 .521	-30 .314	18.733	(alpha = 0.71)
	59 .475	17.360	(alpha = 0.43)	.66 .674	
	39 . 409	51 . 307		.597	
	(alpha = 0.72)	40.301		54 .578	92
11		(alpha = 0.71)		13 .306	
۲ <b>L</b>			<b></b>	(alpha = 0.87)	

recognized that three is the smallest number of items that should be used to describe a factor analysis of the scales with only two items, Athletics and Medical Care, shows that the items loading in each are the only items among the 66 in the survey that reference these areas. Future administrations of this will type of survey might include more items covering these areas so that the factor meaning could be better determined.

The coefficient alphas range from 0.87 to 0.43, with two missions having coefficients of less than 0.66. These figures indicate a high to moderate degree of reliability among the items on each scale, suggesting reasonable confidence that the means reported for missions do represent a true response to the concepts embodied in the items represented in that mission.

#### Means, Deviations and Ranks

In order to compute the priorities for items and missions, the mean scores for the important to do questions for both activities and missions were calculated. The importance means, as well as those for the being done well question, for all 66 items in the survey are presented in Table A.8. The means for the missions are reported in Table A. In included in these tables are the standard deviations and the ranks for the important to do question. In both cases the data are given for each of the seven groups surveyed, and also for the averages of the internal and external groups. These group averages are unweighted.

The ranks given for the important to do means are computed so that the highest mean has rank 1. In the smaller groups, particularly the Regents, there are several tied means. In these cases, the median rank for the tied items is used, unless there are only two or an even number of tied items, and

#### Table A.8

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# Importance, Level of Performance and Rankings for 66 Activities by Respondent Group

•	-,			n n Lite			Shoune	e e se						****	10
		AVERAGI	E OF T	HE THR GROUPS	EE		BÖAI	ND OF	REGENT			INT	AGE OF Ernal	GROUPS	
Item		Impor	rtant'	Done	Wall		Impo Mean	tant S.D.	Done « Mean	Well SVD.	IM RANK	Impo Mean	rtant S.D.	Done Mean	Well S.D.
/	RANK	Mean 			S, D.	1				a na si	18	4,47	0.67	3.80	0.86
1	18	4.12 3.94	0.90	3.59 3.06	0.84	23	4.36	0.50 0.94	3.82		36	4.00	1.06	3.28	0.98
3	10	4.22	0.86	3.06	0.85	50	3.73	1.27	3.18	0.98	31	4.15	0.94 0.70	3.05 3.55	0.86
- 4	5	4.33 4.38	0.84 0.82	3.36 3.60	0.96	1 3	4.64	0.67	4.73	0,47	4	4.65	0.66	4.13	0.89 1.08
6	19	4.12 4.55	1.03	3.78 3.76	1.07 0.94	23	4.36° 4.73	0.67	4.18 4.64	0.75 0.67	21	4.38	0.88 0.58		0.84
7 8	29	3.99	0.97	3.04	0.79	15	4.45	0.69	3.27 3.27	0.79 1.19	28	4.17	0.93		0.88
	37	3.82	0.98	3.07	0.79 0.97	39	4,09 2,90	1.22	3.10	0.99	60	3,24	1.33	2.69	0.87
11	<u>2</u> 1	4.10	1.11	2.96	0.83	1 23	4.36	1.03	3.45	0.82 0.94	25	4.31	0.90	3.16	0.93
12	9 50	4.26 3.58	0.87	3.25 3.35	0.91	1844	4.00	1.00	3.91	0.83	26	4.30	0.82	3.56	0.95
14	7	4.28	0.81	3131 2.96	0.85	30	4.27	0.79	2.18	0.69	20	4.40 4.09	0.74 1.07	3.36	0.90
15 16	40	3.78	1.12	2.96	0.80	1 58	3.20	1.48	3.00	0.82	1 55 1 41	3.54	1.15	2.96	0.80
17 . 18	38	3.82 3.18	1.18	2.96	0.83	56	3.55 4.09	1.29 1.22	2.55	1.04	1 43	3.85	1.05	2.82	0.86
. 19	28	3.99	1.13	3.28 3.17	0,93	8   30	4.55	/0.69	3.45	0.93 0.90	22	4.55	0.83 0.69	3 • 29 3 • 24	1.07
20 21	39	4.20 3.79	1.05	3.65	.,0,95	35	4,18	0.98	+ 4/, 18	0.75	56	3.46	1.17 0.74	3.72	1.07
22 23	62	4.34 2.79	0.73	3.41 3.03	0.83	15	4.45 4.36	1.04	3.91 2.55	0.54 0.82	52	3.67	° 1∨16	3.05	0.91
24	53	3.38	1.30	3.04	0.90	59	2.91	1.30	3,00 3,45	0.94 0.82	62	3.05 4.53	1.31 0.74	3.10	0.91
25 26	27	4.00 4.00	1.05	3.12 3.40	0.82	1 15	4 45	0.69	- 3355	0.93	1 19	4.41	0.71	3 55	0.89
27 28	45	3.69 2.45	1.29	2.70	0.89 0.76	53	3.64 2.50	1.03	2,50 3,40	0.85 0.52	36	4.00 2.65	1.17	2.18 2.79	0.93
29	8	4.27	0.80	3.26	0.78	30	4.27	0.65	3,64 2,90	0.81 0.99	8 66	4.57	0.68	3 40	0.86
30 31	59	3.05 3.54	1.25	2.89 3.04	0.81	64	2.36	0.67	2.55	0.93	42	3.90	1.17.	2.90	1.04
32	24	4.02	0.96		0.82	23	4.36	0.67	3.55 3.67	0.69 1.00	24	4.33 3.99	0.77 1.22	3.44	0.94 1.06
33 34	66	2.15 3.58	1.26	2.97	0.67	1 44	4.00	1.18	'3.00	0.77	35	4.04	0.91 0.98	3.07 3.27	0.76
35 36	1 43	3.74	1,06		0.81 0.98	30	4.27 4.55	0,79 0,82	3.00 4.27	0.79	23	4.36	0.86	3.72	1 🗝 0 0
37	14	4.16	1.04	3.09	0.96	63	2.45 4.27	1.13	2.90 3.82	0.99 0.87	61	3.07 4.54	0.75	3.07 2.97	0.97
· 38 39	13	4.18 ○3.59	0.86 1.36	3.01	0.77	1 53	3.64	1.43	2.55	0.69	1 54	3.60	1.34	2.79	0.94
40 41	23	4.09	0.98		0:82 0.76	39	4.09	0.94	3.36 3.91	1.12	1 27 39	4.24	0.82 0.89		0.81
<u>د</u> 42	1.36	3.85	0.92	3.06	0.70	1 50	3.73	0.90	3,10	0.88	38	4.00	0.98 1.01	2.91 2.90	0.87 0.86
( 43 	35	3.87	0.89		0.77	-1 48.	5-3-82	0, 98	3.27	1.01	58	3.36	1.26	2.94	0.76
49	4.46	3.69	1.15	3.38	0 <sub>(3</sub> .81 0°•68	50   35	3.73	1.27	4.30 3.78	0.67 0.67	17	4.53	0.90	,3.78 3.30	1.00
#6 47	1 15	4.16	0.85	3 . 57	0.83	:   15 <sub>1</sub>		0.69	4.18	0.75 0.92	59	4.68	0.63	4.08 3.05	0.82 0.86
48 49	54	3.38 3.04	1.24 1j.25	3.03	0471	.¦‴'8⁴	4.00	0.52	2.27	0.90	48	3.73	1.21	2.96	0.96
50	.¦∸ 34	3.92	g.86	5 3.24	0.69	15	4.45 4.30	0.69		0.92	13   32	4.53			
51 52	12	4.20 3. <del>76</del>	0.84	3,25	m. 0.72	∐ -15	4.45	1.04	4.00	0.77	29	4.18	0.83		
53 54	32	3.94	1.01	3,13	0 - 89 01 - 69	4:53	4.64	0.50	2.9	0.83	63	2.82	1.24	2.70	0.77
55	l) 56	3.23	1.16	5 - 2 - 82	0-71	<b>17 39</b>	4.09 4.55	0.70		0.52	57	3.36			0.78
56 57	20 58	4.11	0.86 1.34	∔∷.2 <b>.</b> 85	5ra 0 - 82	65	2.30	1 <b>.</b> 49	2.33	1.22	45	3.81	1.28	2.81	0.96
58	1 55	3.28 3.77	1.34	1. #2 01		10, 75	4.18	0.98	3.27	0.65	47	3.74	0.98	3.01	0.82
59 60	41	4.39	0.68	3.63	0.82	Î 8	4155	0.93	4.45	0.69	53	4.66 3.61	0.58	1.89	0.85
61 62	47		1.00	5 3.07	0.08	1 20	3.55 2.09	1.37	2.89	0.78	50	3.70	1.20	2.33	3 0.94
63	17	4.13	0.8	1 3:40	0.78	_15	4.45	1.04			64	4.62	0.66		) 1.08
64 65	64	4.32		7 3.1	3 0.87	ं। 15	4.45	. 0.52	2 3.50	0.97	1 14	4.51 3.71	0.64		
66 ===	61 =====	2.98	1.2°	7 3.02 ======	2   0.72 =====	39	4.09	0.54	2.91 ====	0.94 ======	49 =====	3•1.) ======			=======
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# Table A.8 (continued)

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Item         Item <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th>* .</th><th>,</th><th>1</th><th>المحافظة المحري</th><th><b>3</b></th><th></th><th></th><th></th><th></th></th<>							* .	,	1	المحافظة المحري	<b>3</b>				
<pre>Ttem IH. Important Done Well IH. Important Done Well II. IM Important Done Well II. II. II. II. II. II. II. II. II. I</pre>		1		****	THE	T	HREE	.EX	TERNAD				*****		
#         RANK Hean         S. D.         Hean         "SUB1 RANK Hean         S. D.         Hean         SUB1 RANK Hean         Sub1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         SUB1 RANK         Hean         Hean         SUB1 RANK         Hean         Hean         SUB1 RANK         Hean	Item	IM		nt Done	No11	IM	Impor	tant -	Done	Valtr.		Impor	tant	Done	Well
1         1         1         1         0         1         0         1         0         1         0         1         0         1         1         0         1         1         0         0         1         0         0         1         0         0         1         1         1         0 <th0< th=""> <th0< th=""> <th0< th=""> <th0< th=""></th0<></th0<></th0<></th0<>	Ø	RANK	Mean 3.		S.P.	RANK	Mean	S.D.	Maan *	3,7011	RANK	Mean 🦉	5.D.	Hean	3.D.
1         1         2         3         1         0         3         1	<u> </u>	1	4.12.40	92 3.55	0.83	21	3.89	0.82	3.62	0.69				3.73	
1         7         1.30         0.86         3.29         0.81         2         4.43         0.66         3.65         0.78         1.4         4.45         0.77         3.51         0.84           5         2         4.35         0.68         3.55         0.69         1.45         0.78         1.55         0.77         3.56         1.00         3.86         0.69         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.66         0.61         1.44         4.65         0.61         0.67         1.36         0.66         0.47         0.60         0.61         1.40         0.67         1.38         0.60         0.76         1.40         0.67         1.39         0.76         0.76         1.30         1.40         0.60         0.76         1.50         0.68         0.76         1.50         0.67         1.55         0.76         1.55         0.76         1.55         0.77         1.55         0.77         1.55         0.77         1.55         0.77         1.55	1	1 30	3.99 1灑	3.00	0.89		3.49								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						2						4.45			
7       1       4.53       0.66       3.4       0.40       0.61       1       1.4       4.00       0.61       1.4       4.00       0.61       1.4       4.00       0.61       1.4       4.02       0.61       1.4       4.02       0.61       1.4       4.02       0.61       1.5       2.57       1.02       3.11       0.71       1.36       3.80       0.92       3.15       0.77       3.15       0.77       1.36       3.80       0.92       3.15       0.71       1.42       3.64       0.77       1.42       3.64       0.77       1.42       3.64       0.77       1.42       3.64       0.77       1.42       3.64       3.74       0.94       3.44       0.76       1.40       3.64       1.02       3.64       0.77       1.40       3.64       1.07       1.40       3.64       1.07       1.07       1.41       1.44       1.02       3.64       0.77       1.74       1.44       1.44       1.44       1.64       1.64       1.44       1.44       0.66       1.44       1.40       1.66       1.44       1.44       0.66       1.71       1.44       1.44       1.66       1.71       1.44       1.44       1.66       1.71	5		4.35 0.	84 3.50	0.94	- 9	4.24	0.86	4.04	0.85	1 3	4.52	0.74	3.86	1.00
6         2.6         4.6         0.7         5.0         0.8         1.4         4.02         0.81         3.47         0.63         3.1         3.97         1.1         3.6         3.88         0.92         3.93         0.77           10         125         4.05         1.1         1.6         1.88         0.92         3.15         0.71         1.2         3.15         0.71         1.2         3.15         0.71         1.25         2.66         0.78         0.93         0.78         0.93         0.77         1.22         0.82         0.78         0.93         3.75         0.94         3.64         0.76         1.1         1.6         0.76         1.41         0.78         0.74         0.78         0.77         1.5         4.19         0.78         1.4         0.78         1.4         0.78         1.6         0.77         1.5         4.19         0.78         0.77         1.5         4.19         0.78         3.5         0.85         3.14         1.4         0.66         0.77         1.6         3.73         3.74         0.74         3.73         0.78         3.75         1.72         3.75         0.76         3.75         1.72         3.75         0.72				02 3.74											
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$					0.81			0.81	3.27			3.93			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	. •				0.79										
A 12 100 4.25 0.88 3.21 0.81 3 4.33 0.88 3.76 0.61 9 4.28 0.428 0.42 0.93 0.76 0.80 136 0.76 140 0.80 3.65 0.77 15 4.28 0.05 141 0.78 14 16 0.80 3.65 0.77 15 4.19 0.57 41 0.78 11 0.78 15 0.77 15 3.30 0.79 3.29 0.86 10 4.16 0.80 3.63 0.77 15 4.19 0.57 41 0.78 11 0.78 15 0.77 15 3.31 0.78 17 0.74 16 139 3.83 1.10 2.96 0.80 127 3.84 1.01 3.00 0.87 146 3.54 11.01 0.76 14 0.66 0.77 15 3.30 1.10 2.96 0.87 155 3.20 1.20 0.86 0.76 15 3.30 1.10 0.89 156 3.54 11.00 0.87 146 0.77 15 13 3.86 1.22 0.96 0.80 127 3.84 1.01 3.00 0.87 146 3.54 11.00 0.87 146 0.77 16 15 3.31 0.72 0.56 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.77 0.86 0.70 3.58 0.95 0.86 0.96 0.97 0.98 0.99 1.56 0.70 3.58 0.96 0.92 0.11 4.22 0.67 3.14 0.97 136 3.74 0.94 3.52 0.85 120 4.12 0.42 17 0.86 0.32 0.12 0.92 0.13 1.00 0.87 140 0.66 0.86 0.90 0.12 0.92 0.37 0.86 0.86 0.90 0.87 0.97 0.87 0.97 0.86 0.90 0.87 0.97 0.87 0.97 0.86 0.96 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97												3.89			
$ \begin{array}{c} 14 & [ 6 & 4, 30 & 0.79 & 3.29 & 0.86 \\ 15 & [ 22 & 4.09 & 0.96 & 2.98 & 0.62 & [ 3 & 4.04 & 0.91 & 3.13 & 0.62 & [ 17 & 4.14 & 0.57 & 3.14 & 0.57 \\ 17 & 3.13 & 3.98 & 1.10 & 2.96 & 0.60 & [ 27 & 3.64 & 1.01 & 3.00 & 0.67 & [ 53 & 3.30 & -1.46 & 0.67 \\ 18 & 3.57 & 3.18 & 1.26 & 2.97 & 0.81 & 51 & 3.27 & 1.18 & 3.10 & 0.69 & [ 53 & 3.30 & -1.46 & 0.69 \\ 19 & [ 34 & 3.93 & 1.10 & 2.96 & 0.60 & [ 27 & 3.64 & 1.01 & 3.00 & 0.67 & [ 53 & 3.30 & -1.46 & 0.69 \\ 19 & [ 34 & 3.93 & 1.16 & 2.97 & 0.81 & 51 & 3.27 & 1.18 & 3.10 & 0.69 & [ 21 & 4.24 & 1.20 & 3.17 & 0.69 \\ 20 & [ 11 & 4.25 & 0.73 & 3.14 & 0.97 & [ 36 & 3.74 & 0.94 & 3.52 & 0.65 & [ 20 & 4.12 & 0.26 & 3.14 & 0.67 & 3.81 & 0.67 \\ 21 & [ 43 & 3.75 & 1.09 & 3.58 & 0.67 & [ 29 & 1.30 & 3.58 & 0.65 & [ 20 & 4.12 & 0.67 & 3.81 & 0.67 & 3.81 & 0.65 & 7 & 4.30 & 0.74 & 3.57 & 0.81 \\ 22 & [ 44 & 4.35 & 0.74 & 3.35 & 0.61 & 4 & 4.30 & 0.63 & 3.81 & 0.65 & 7 & 4.30 & 0.74 & 3.57 & 0.81 \\ 23 & [ 63 & 2.75 & 1.28 & 3.03 & 0.67 & 0.27 & 3.57 & 0.81 & 3.57 & 0.61 & 3.58 & 0.04 & 0.85 \\ 25 & [ 29 & 3.99 & 0.68 & 3.18 & 0.65 & 3.16 & 0.25 & 3.57 & 0.76 & 3.51 & 0.76 & 2.42 & 4.12 & 0.75 & 0.76 & 0.87 \\ 24 & [ 43 & 0.9 & 0.52 & 2.80 & 0.77 & 1.22 & 3.80 & 0.81 & 3.57 & 0.77 & 1.52 & 3.40 & 0.37 & 0.77 & 0.77 \\ 25 & [ 46 & 2.26 & 1.26 & 2.69 & 0.72 & 152 & 2.30 & 1.62 & 2.57 & 0.72 & 2.44 & 1.24 & 5.1 & 0.80 \\ 26 & [ 2.25 & 1.39 & 0.67 & 1.27 & 3.56 & 0.78 & 3.63 & 0.79 & 1.3 & 3.77 & 1.55 & 2.68 & 0.81 \\ 31 & [ 50 & 3.57 & 1.16 & 3.03 & 0.77 & 46 & 3.56 & 1.11 & 3.12 & 0.98 & 1.49 & 3.49 & 1.16 & 3.07 & 0.68 \\ 32 & [ 65 & 2.25 & 1.28 & 2.90 & 0.79 & 66 & 2.16 & 1.18 & 3.00 & 0.89 & [ 66 & 1.80 & 1.13 & 2.78 & 0.66 \\ 32 & [ 44 & 3.57 & 1.16 & 3.01 & 0.77 & 146 & 3.56 & 1.04 & 3.20 & 0.71 & 1.5 & 2.86 & 0.81 & 1.74 & 1.16 & 3.03 & 0.77 \\ 31 & [ 50 & 3.57 & 1.16 & 3.01 & 0.77 & 1.5 & 3.36 & 0.73 & 3.40 & 1.18 & 9.13 & 3.70 & 0.68 \\ 32 & [ 65 & 4.22 & 0.80 & 1.17 & 0.81 & 1.10 & 3.28 & 0.71 & 1.3 & 3.27 & 0.83 & 1.14 & 0.99 & 3.31 & 0.79 \\ 31 & [ 15 & 4.17 & 0.81 & 1.10 &$	<u> </u>	10	4.25 0.	88 3.21	0.81	3	4.33	0.88			9	4.28	0.82	¥8.30	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$													1.025 0.878	3.41	
$ \begin{array}{c} 17 \\ 18 \\ 17 \\ 18 \\ 17 \\ 18 \\ 17 \\ 18 \\ 17 \\ 18 \\ 17 \\ 18 \\ 17 \\ 18 \\ 18$		22		96 2.98	0.82	13.	4.04	0.91	3.13	0.62	17	°4 <b>.</b> 14 '		i pu	,0.74
18       57       3.18       1.26       2.97       0.81       51       3.27       1.18       3.10       0.56       3.14       1.12       1															
$\begin{array}{cccccccccccccccccccccccccccccccccccc$											.56	3.1416	1800	94	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	19		3.93 -1.	15 3.31								4.24	1-02-	3.17	
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$\begin{array}{c} 2''_{1} \left[ \begin{array}{c} 5'_{4} \\ 2''_{2} \\ 3'_{2} \\ 3''_{2} \\ 3''_{3} \\ 3''_{4} \\ 4 \\ 3''_{4} \\ 3'''_{4} \\ 3''_{4} \\ $	22	4	4.35 0.	74 3.35	0.83	4									0.81
25       29       3.99       1.08       3.11       0.45       3.5       0.79       1.22       4.08       0.47       0.47         26       27       4.00       0.92       3.80       0.84       2.73       3.84       0.83       3.57       0.72       1.24       4.06       1.07       2.55       0.92         28       65       2.51       1.25       2.89       0.78       1.68       2.24       4.06       1.07       2.55       0.92         28       65       2.51       1.25       2.99       0.72       1.65       2.30       0.78       1.37       1.15       2.35       0.80       0.74       2.35       0.78       3.63       0.79       1.3       4.21       0.83       3.28       0.74         30       61       2.93       1.25       2.91       0.79       32       3.80       1.16       2.74       1.11       1.15       2.07       0.83       3.66       1.87       3.77       0.66       1.81       3.00       0.69       3.11       0.76       3.31       0.77       3.33       0.77       3.33       0.77       3.33       0.77       3.33       0.77       3.33       0.77       3.3									-			1000	THOU		
$ \begin{array}{c} 27 &   16 & 3, 59 & 1, 52 & 2, 75 & 0, 67 & 31 & 3, 83 & 1, 16 & 2, 53 & 4, 50 &   23 & 4, 50 & 74 & 1, 23 & 2, 81 & 0, 82 \\ 28 &   65 & 2, 51 & 1, 25 & 2, 89 & 0, 72 &   65 & 2, 30 & 1, 02 & 2, 82 & 0, 85 &   65 & 2, 24 & 1, 23 & 2, 81 & 0, 88 \\ 29 &   8 & 4, 28 & 0, 80 & 3, 24 & 0, 78 &   8 & 4, 25 & 0, 78 & 3, 63 & 0, 79 &   13 & 4, 21 & 0, 83 & 3, 28 & 0, 74 \\ 30 &   61 & 2, 93 & 1, 25 & 2, 91 & 0, 79 &   32 & 3, 80 & 1, 16 & 2, 74 & 1, 12 &   51 & 3, 37 & 1, 15 & 2, 85 & 0, 81 \\ 31 &   50 & 3, 57 & 1, 16 & 3, 00 & 0, 77 &   46 & 3, 55 & 1, 11 & 112 & 0, 98 & 49 & 3, 44 & 1, 16 & 3, 07 & 0, 68 \\ 32 &   26 & 4, 02 & 0, 99 & 3, 13 & 0, 84 & 40 & 3, 65 & 1, 07 & 3, 31 & 0, 76 &   21 & 4, 11 & 0, 79 & 3, 29 & 0, 76 \\ 33 &   66 & 2, 22 & 1, 28 & 2, 90 & 0, 77 &   46 & 3, 67 & 0, 98 & 3, 38 & 0, 77 & 15 & 3, 89 & 0, 99 & 3, 31 & 0, 79 \\ 34 &   49 & 3, 59 & 1, 14 & 2, 94 & 0, 67 &   44 & 3, 62 & 1, 04 & 3, 20 & 0, 60 &   47 & 3, 49 & 1, 15 & 3, 03 & 0, 69 \\ 35 &   44 & 3, 71 & 1, 08 & 3, 17 & 0, 61 & 15 & 4, 02 & 1, 22 & 2, 90 & 1, 05 &   26 & 4, 02 & 1, 09 & 3, 03 & 0, 93 \\ 36 &   14 & 4, 4, 9 & 0, 85 & 3, 21 & 0, 77 &   18 & 3, 91 & 1, 06 & 3, 75 & 0, 83 &   14 & 4, 21 & 0, 86 & 3, 29 & 0, 71 \\ 37 & 147 & 3, 64 & 1, 34 & 3, 01 & 0, 75 &   50 & 3, 36 & 1, 42 & 3, 26 & 0, 92 &   50 & 3, 43 & 1, 39 & 2, 93 & 0, 75 \\ 41 & 142 & 4, 19 & 0, 85 & 3, 21 & 0, 77 &   18 & 3, 91 & 1, 06 & 3, 21 & 0, 77 &   41 & 3, 78 & 0, 92 & 3, 09 & 0, 69 \\ 42 & 136 & 3, 88 & 0, 91 & 3, 05 & 0, 77 & 133 & 3, 78 & 0, 83 & 3, 30 & 0, 71 & 30 & 3, 80 & 0, 89 & 3, 15 & 0, 79 \\ 44 &   53 & 3, 52 & 1, 14 & 3, 07 & 0, 67 & 23 & 3, 67 & -1, 30 & 3, 51 & 0, 76 &   38 & 3, 82 & 1, 14 & 3, 05 & 0, 79 \\ 44 &   53 & 3, 98 & 0, 77 & 3, 26 & 0, 68 & 42 & 3, 65 & 0, 96 & 3, 43 & 0, 66 &   322 & 3, 93 & 0, 69 \\ 47 & 20 & 4, 12 & 0, 866 & 3, 20 & 0, 77 &   57 & 3, 67 & 1, 30 & 3, 36 & 0, 76 &   38 & 3, 82 & 1, 14 & 3, 05 & 0, 79 \\ 47 & 20 & 4, 12 & 0, 866 & 3, 20 & 0, 77 &   57 & 3, 67 & 1, 30 & 3, 38 & 0, 67 &   33 & 3, 90 & 0, 99 \\ 47 & 20 & 4, $		29		08 3.11	0.85	35	3.75-	<b>əl.</b> 11	3.21	0.79	22	4.08	0-93	3.12	0.83
$\begin{array}{cccccccccccccccccccccccccccccccccccc$											24				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				25 2.89								2 24			0.88
• $\frac{11}{32}$ $\frac{50}{53}$ $\frac{57}{1}$ $\frac{116}{63}$ $\frac{3}{3}$ $\frac{0}{77}$ $\frac{1}{66}$ $\frac{5}{3}$ $\frac{56}{51}$ $\frac{1}{11}$ $\frac{3}{3}$ $\frac{12}{5}$ $\frac{0}{98}$ $\frac{1}{99}$ $\frac{3}{3}$ , $\frac{44}{116}$ $\frac{1}{6}$ $\frac{7}{3}$ $\frac{3}{29}$ $\frac{0}{56}$ $\frac{7}{66}$ $\frac{1}{21}$ $\frac{4}{4}$ $\frac{1}{11}$ $\frac{1}{6}$ $\frac{7}{3}$ $\frac{3}{29}$ $\frac{1}{6}$ $\frac{7}{66}$ $\frac{1}{21}$ $\frac{1}{4}$ $\frac{1}{11}$ $\frac{1}{6}$ $\frac{1}{22}$ $\frac{1}{128}$ $\frac{1}{28}$ $\frac{1}{290}$ $\frac{1}{3}$ $\frac{1}{10}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{3}$ $\frac{1}{10}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{3}$ $\frac{1}{10}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{290}$ $\frac{1}{290}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$ $\frac{1}{3}$ $\frac{1}{100}$	29				<u> </u>										
32.264.020.993.130.84403.651.073.10.76214.110.793.290.76331.662.221.282.900.671.443.621.043.200.691.661.891.132.780.86351.443.711.083.170.611443.621.043.200.60.473.491.153.630.64351.443.711.083.170.643.200.761353.890.993.310.79361.54.171.083.770.831.444.100.653.540.93381.414.190.653.210.771.83.911.063.750.831.444.210.663.290.71391.4473.641.343.010.75503.350.681.94.130.923.240.854104.633.671.013.103.650.973.500.732.93.980.973.500.611.94.130.923.240.85414.633.660.983.090.81373.741.053.350.661.94.133.900.893.500.75413.780.923.741.053.570.76383.490.833.900.833.900.833.90 <t< td=""><td></td><td>1</td><td>2.93 1.</td><td>16 3.03</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		1	2.93 1.	16 3.03	-										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	. 32.	26	4.02 0.	99 3.13	0.84	40	3.65	1.07	3.31	0.76	21	4.11	0.79	. 3.29	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1	A												
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1 . 7						0.98	3.38	0.77		3.89	0.99	· 3.31	0.79
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		15									1				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$															
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	. 39	N 47'	3.64 1.	34 3.01	0.75				3.26		-				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										0.86					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	42	36	3.88 0.	91 3.05	0.70	43	3.63	0.96	3,21	0.72	451	3.78	0.92	3.09	0.69
$\begin{array}{cccccccccccccccccccccccccccccccccccc$															
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	45	l* 38	3.83 1.	05 3.37	0.77	57	3.07	1.30	3.61	0.85	54	3.25	1.32	3.38	0.93
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	46 +	32	3.98 0.	77 3.26	0.68		3.65	0.96	3.48		1 . 32 .	3.93	0.82		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	47	51		19 3.09	0.77		2.6	1.14		0.58		2.81	1.22	2.94	0.77
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	49	1.59	3.04 1.	25 3.02	0.71	1152	3.24		3.24	0.80	59	2.99	1,24	- 3.03	0.67
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50 51	-35			0.81	29	3.83		3.58	0.77	i. ∡7  . 28	3.99	0.94	3.11	0.67
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	52	42	3.78 1.	01 3.20	0.73	47	3.55	1.03	3.38	0.66	43	3.71	0.96	. 3.40	0.65
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	53	33	3.97 0.	99 3.11 18 2 02	0.89		3.95	1.03	3.55		1 39	3.81	1.10	3.12	0.88
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	55	<b>1 56</b> <sup>™</sup>	3.30 1.	15 2.82	0.72	56		1.18	2,98	0.66	60	2.98	1.18	2.78	0.70
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	56	1. 24	4.07 0.	87 3.17	0.72	1.12	4.07	0.89	3.71	0.67	10	4.25	0.82	3.23	0.83.
63☆! 23 4.08 0£322 <sup></sup> 3.35 0.78 ¦ 19 3.89 0.94 3.67 0.78 ¦ 5 4.37 0.67 3.54 0.76 64 ¦ 64 2.68 1.26 3.36 1202 ¦ 62 2.89 1.15 4.02 0.79 ¦ 61 2.95 1.25 3.70 0.99 65 ¦ 5 4.33 0.68 3.11 0.87 ¦ 7 4.25 0.67 3.27 0.80 ¦ 8 4.29 0.65 3.18 0.86	57	50	3.33	34 2.92	.0.78	i 54 1.59.	2.98 .	1.31	3.22	0.05	575	3.12	1.33	2.92	0.71
63☆! 23 4.08 0£322 <sup></sup> 3.35 0.78 ¦ 19 3.89 0.94 3.67 0.78 ¦ 5 4.37 0.67 3.54 0.76 64 ¦ 64 2.68 1.26 3.36 1202 ¦ 62 2.89 1.15 4.02 0.79 ¦ 61 2.95 1.25 3.70 0.99 65 ¦ 5 4.33 0.68 3.11 0.87 ¦ 7 4.25 0.67 3.27 0.80 ¦ 8 4.29 0.65 3.18 0.86	59	1 41 <sub>20</sub>	3.81. 0.	97 3.01	40.70	38	3.71	1.00	3.06	0.62	1 45/	3.60	1.08	2.92	0.70
63☆! 23 4.08 0£322 <sup></sup> 3.35 0.78 ¦ 19 3.89 0.94 3.67 0.78 ¦ 5 4.37 0.67 3.54 0.76 64 ¦ 64 2.68 1.26 3.36 1202 ¦ 62 2.89 1.15 4.02 0.79 ¦ 61 2.95 1.25 3.70 0.99 65 ¦ 5 4.33 0.68 3.11 0.87 ¦ 7 4.25 0.67 3.27 0.80 ¦ 8 4.29 0.65 3.18 0.86		1 2	4.35 0.	04 3.56	80.81	1 5	4.27	0.80	3.90	~ U.77 0.69	48	4.57 3.46			0.62
63☆! 23 4.08 0£322 <sup></sup> 3.35 0.78 ¦ 19 3.89 0.94 3.67 0.78 ¦ 5 4.37 0.67 3.54 0.76 64 ¦ 64 2.68 1.26 3.36 1202 ¦ 62 2.89 1.15 4.02 0.79 ¦ 61 2.95 1.25 3.70 0.99 65 ¦ 5 4.33 0.68 3.11 0.87 ¦ 7 4.25 0.67 3.27 0.80 ¦ 8 4.29 0.65 3.18 0.86	- 62	18	4.15 01	91 2.53	0.92	61	2.91	1.32	2.78	0.99	1 44	3.67	1.21	2.35	0.87
65   5 4.33 0.68 3.11 0.87   7 4.25 0.67 3.27 0.80   8 4.29 0.65 3.18 0.86 66   60 2.95 1.26 3.02 0.73   53 3.24 1.23 3.08 0.71   58 3.07 1.28 2.98 0.68	63 🎻	: 23	4.08 0	82 3.35	0.78	1 49	3.89		3.67	0.78		4.37			0.76
66   60 2.95 1.26 3.02 0.73   53 3.24 1.23 3.08 0.71   58 3.07 1.28 2.98 0.68	65	1 5		68 3.11		1.7	4.25	0.67	3.27	0.80	8	4.29	0.65	3.18	0.86
	· 66 ·	60	2.95 1.	26 3.02		53	3.24	1.23	3.08.	0.71	1 58	3.07	1.28	2.98	0.68
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## Table A.8 (continued)

۰.	,			THE	TWO	INTE	RNAI.	GROU	99		. 1	1 5					
	Item	IÅ		FACULT' rtant		Well	IIM			STRATO Done	Well	IM	Impo	STUDE	NTS*** Done		
-	#	RANK	Mean	S.D.:	Mean		RANK		5.D.	Mean		RANK		S.D.	Hean		•
J.	1	17 38	4.47	0.69	3.78 3.24	0.87 0.97	17	4.47	0.52	3,96 3,54	0.79	23	4.22	0.81	3:59 2:30	0.89	
7	3 4	5 v 4	4.63 4.63	0.72	3.54	1.02	22	4.41 4.70	0.72	3.24	0.93	35     14	4.05	0.87 0.87	2.99 3.20	0.84	
5 - 5 <b>- 5</b> - <b>5</b>	5	20. 1	4.40	0.87	3.80	1.09	2	4.77	0.55	4.32	0,90	46	3.82 3.94	1,03 1,02	2,94	0.98	;
,	7	28 30	4.19 4.19	0.94	3.03	0.88	† 1	4.87	0.34	4:51	0.64	1 · 5 1 37 :	4.49 3.96	0.74 0.88	3.93	0.92	•
, ;	9	60 26	3 23 4 31	1.33	2.68	0.87	39	4.06	0.96	2.95	0.91	1.44	3.84 3.73	0.93	2.92	0.88	
	11	7 24	4.61	0.71	3.45	0.92	27	4.33	0.85		0.87	10	4.42	0.82	3.24	1.04	
 بعنچ	13	21	4.39	0.76	3.34	0, 88	32	4.51	0.55	3.78	0.92	43	3.87	1.10	3.63	0.99	
	,14 , 15	39 · 43	3.99 3.85	1.07	2.74	0.86	24	4.38	0.86	2.58	0.92	20	4.23	0.93'	2.67	0.99	
	16. 1 17	10	4.56	0.83	3.28	1.08	54	3.65	1.06	2.70	0.93	33	4.07 3.49	1.04	2.99	0.98	
•	19	56 18	3 • 38 4 • 45	1.19	3.65	1.08	45	3.90 :4.51	1.00	2.86 3.39	0.84	42	3.92	1.14	2.90	0.87	
	20 21 -	51 14	3.63	1.16	3.02	0,90	26 41	4.02	0.66	3.17	0.95	32	4.55	0.61	3.80	v 1.11 0.98	
	22	19 36	4.40	0.72	3.51	0.90	11	4.57: 3.90	0.58	3.69	0.81	57	4.50	0.71	2.98		
•	24 25	9 66	4.56 2.56	0.69	3.39	0.87	62	3.20	1.31 0,63	3.27	0.90	60   27	3.20 4.17	1.36 0.92"	3.23	1.03	
13	.25) 27:	42	3.87 4.03	1.18 0.92	2.85 3.06	1.05	19 52	4.44 3.78	0.61	3.84 2.28	0.79	28 55	4.14 3.49	0.83	3.34 2:64	0.90	
•	28, 29:	23	4.36 3.06	0.87 1.39	3.69 3.05	1.01 0.96	65	2.35	1.32 0.59	2.96 3.43	1.04	64 65	2.91		2.90	0.75	
· ·	30) 31	12	4.54 3.61	0•77 1•34	2.92	1.02 0.94	66	2.29 4.07	1.27 1.08	2.83 3.21	1.00	61   51	3.16 3.60∴	1.37	2.85 2.98		
:-	32 3 <b>3</b>	27	4.22 3.96	0.84	3.09 3.44	0.86 0.81	21	4.42 3.50	0.59 1.35	3•72 3•34	.0.93	2	4.613 4.62	0.61	3.24	1.06	
2	34' 35	40` 48	3.97	1.00	2.89 2.90	0.88 0.86	34	4.13 4.37	0.77	3•15 3•71	0.76	19   34	4.23 4.06	0.93	3.32	0.92	
•	36 37	8	4.57 4.55	0.79	3.74	1.01	23	4.39 3.15	0.81 1.33	3.93 3.21	0.92	17	4.24 3.07*	0.90	2.69	1.12- 1.15-	
	38 39	2	4.68 3.29	0.64	4.05 3.05	0.83	14	4.53 3.46	0.57	3.29	0.96	15	4.27 3.99	0.82	3.02 2.93	0.87	•
	40 41-	49 13	3.70	1.22	2.93	0.96 0.85	19   33	· 4 . 44 . 4 . 17	0.64	3.10 3.63	0.93	25   30	4.22 4.10	0.94	2.56	1.11	Y
<i>.</i> .	42.4	32	4.10	0.91	3.05	0.80 0.81	31	4.21 4.10	0.88 .0.83	3.00 2.90	0.82	13	4.29 3.59	0.77	3.07	0.91	•
	44 45	) 53 63	3.60	1.17 1.24	3.07	0.90	43	3.92 3.79	1.11 1.25	3.04	0.78	38	3.95	0.93	3.08 3.26	*0.75 \ 0.87	'
	46 47	57	3.29	1.11	2.73	0.77	18	4.45 4.70	0.77 0.51	3.46 4.24	0.94	26	4.49	0.67 0.82	3.47 3.19	0.99 0.99	
•	48	45	3.81	1.28	2.72	0.93 0.80	61 42	3.33 3.97	1.13 1.08	3.00 3.18	0.75	48	3°78 3,22	1.08	2.98 ~2-87	0.91	•
•	50 51		3.84	0.98	2.98 3.85			4.55	0.58	3.65 3.44	0.73	24	4.22	0.78	3.42	1.04 0.92	
3	52 53	1.0	4.62	0.67	3.78	0.90	35	4.12 4.27	0.85	3.75° 3.35		11	4.33	0,76-	3.28	0.96 .0.95	
· •	54 55	19	4.49	0.65	3.36 2.98	0.94 0.84	64 -47	3.01 3.86	1.28 0.88	2.73	0.73	66	2.83 3.949	1.20	2.77	0.79	
`: 	56	31 34	4.11 4.05	0.97	3.02	0.85	13	4.54 3.81	0.68	3.30 .3.46*	0.92	(29) 59	4,12	/0.85	2.98	0.82 1,.00	•
		55	3.52	1.16	2.96	0.78	55 46	3.60	1.14	3.26	0.77	41	3.035	<b>1.10</b> 1		0.95 0.93	,
•••	60 61	64	2.69	1.41	2.76	0.92	53	4.75	0.46	4.22 3.33	0.71	l - 8	3.54	0.85 0.73 1.14	3.60 3.02	0.94	í
	62 63	33 35	4.06	1.19	3.81 3.20	1.02	59	3.40	1.43 0.54	2.24	1.04	21	4 23 4 25	0.85 0.81		1.01	
	64 65	59 54	3.28	1.27	2,92	0.76		*3.57	1.05	3.99 3.24	0.75	62	3.11	1.25	3.56	1.08	
	66	47   47	3.75		2.35	0.92	47 /	3.86	1.08	3.08		56	3.30 ======	1225	2.97	0.84	
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### Importance, Level of Performance and Rankings for 10 University Missions by Respondent Group

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	#	RĄŅK	Mean	S.D.	Mean	S.D.	RANK	Mean	S.D.	Mean	S.D.,	RANK	Mean	S.D.	Mean	S.D.
	1		4.20	. 0.53	3.47	0.58	1	4.48	0.62/	4.12	0.53	· 1	4,/55	0.39	3.77	0.57
	2		4.11		3.51	0.63	2	4.36	0.53	3.70 3.55	0.53 0.43	2	4.41	0.52	3.60 3.27	
	⇒ 3 4	ί <b>ε</b> μ.	4.06	01285	3.21	0.52	4	4.23	0.75	3.91	0.49	5	4.18	0.82	3.10	0.285
	5	5	3.82	0.58	3.11	0.49 0.52	. 9	3.89	0/64	3.52 3.27	0.50 0.60	4	4.34	0.49		0.61
	. 0. 7	6	3.70	0.63	3.03	0.52		4.12	.0.54	3.10	0.53 4	7.1	3.78	0.65	2.95	0.54
	8	' V	3.73	0.75	2.02	0.63	10	2.53	/1.00	2.97	0.60			0.89	2.85 3.00	0.61
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	3	4	4.07	0.56	3:19	0.64 0.52 0.80 0.49	2	4.01	0.50	3.'52	0.41	3	4.05 `#.00	0.56 0.84	3.26	6 48 0 79
	4 5		4.07 3.82	0.84 0.58		0.49	6	3.65	0.71	3.29	0.49	5,	3.87	0.55	3.09	0.47
• *	6	7		0.80	3.02	0.53	1/7	3.50	0.82	3.15	0.51: 0.43	8 7	3.55	0.80	3.04	0.44
	7 - 8	8	3.73	0.60	2.95	0.49 0.53 0.53 0.64	3	3.86	0.79	2.80	0.71	1 6	3.72	0.80	2.85	0.60
	- 9	10	3.13 3.22	0.89	3.06 3.48	0.53/	10	3.20	0.94	3.22	0.53	10	3.14	.0.88	3.03	
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	1		4.54 4.41		3.74	0.57	1 1	4.63	0.35		0.54			•		·
	2	1 /4 .	4.35	0.93	3.26	0.59	2	4.43	0.43		0.53			, .	ø '.	
•	4	5	4.17	0.81	3.46	0.86	4	4.22	0.82	3.72	0.79					
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Table A.9.

then the higher rank is used. While some means may appear to be tied in the table, the ranks reported were computed on the means to 4 significant digits, whereas the means reported in the table have been rounded off.

#### **Discrepancy** Percentages

The discrepancy between important to do and being done well serves as a measure of how satisfied the groups are with the priority and level of accomplishment for each activity. The text discusses items for which there is great discrepancy between the perceptions of importance and accomplishment, and this section explains how the discrepancies were computed.

For each individual respondent, on each item, there were three possible combinations of responses to the two questions, important to do and being done well:

The important to do rating was higher than the being done well rating.
 The important to do rating was the same as the being done well rating.
 The important to do rating was lower than the being done well rating.

Table A.10 presents the percentage of respondents in each group whose responses placed them into the categories above. The three columns under each group heading are in the same order as the listing above... It is readily seen that the three categories above can be divided into two outcomes for our purposes. In numbers 1 and 3, above, the individual perceives a discrepancy between the priority and the accomplishment of an activity; where in number 2, the respondent's perceptions of the two measures are the same. The selection of the 20 most discrepant items for discussion in chapter 4 was made simply by taking the 20 items with the lowest percentage of no discrepancy. For this purpose, it was not important how the discrepancies were distributed, only that

#### Table A.10

# India n.io Discrepancies Between Importance and Performance by Respondent Group

Item¦ I:	=D!EX	TERNAL	I=D	REG	ENTS	I=D		TERNAL		I=D		UDENT	
_#   R/ 		I>D I <d 49% 9%</d 	RANK	I=D 64%	I>D I <d 36% 07</d 		46%	I>D 1 49% 52	5% 5%	27 66	I=D 37%	I>D 53% 83	I <d.< td=""></d.<>
3 11 5	48   29 56   26 50   28 9   43	62 9 69 4 68 4 54 3	21    56    20    9	45 18 45 64	45 9 64 18 45 ▶9 18 18	21    45    48    48	39 28 28 58	67 68 40	5 4 2	50 51 33 <b>*</b>	28 28 35	68 68 58	5 4 7
6    7	2   54 12   42 40   31	34 12 57 1 62 6	8    1    58	64 82 18	18 18 9 9 9 82 0	11 6 11 5 147	51 52 28 26	42 47 67 69	8 2 5 5	2 3m 29# 28	54 52 36 37	31 45 60 58	* 15 3 4
1 10    1 11	24   36 59   25 65   19 55   26	56 8 66 9 71 9 69 4	32    55    50,    25	36 20 27 45	55 9 40 40 64 9 55 0	54    37-    58    56	31 24 24	46 72• 74	23 5 2	39 52 46	33 27 29	53 70 68	14 4 3
13    14	55   26 4 - 50 43   30 61   23	34 16 66 4 70 6	10 10 10 36 10 66	64 36 9	27 9 64 0 91 0	10 139 164	44 31 19	50 67 74	6 2 7	4 36 <b>*</b> 63	51 34 20	35 63 76	14 3 4
16    17    18	47   30 58   26 21   37	59 11 59 15 38 25	18 44 63	50 30 9	30 20 60 10 73 18	20 62 51	39 22 27	48 70 62	13 9 11	35 65 <b>*</b> 19	35 18 41 46	57 76 46 38	6 13 17
20    21	30   34 32   34 1   59	53 13 63 3 27 14	35 39 15	36 36 55 27	64 0 64 0 27 18 64 9	53 38 2 27	26 31 54 38	69 67 18 60	5 2 29 2	7 47 <b>#</b> 1 57 <b>#</b>	29 56 24	70 33 73	2 11 2
23    24-	34 34 22 37 35 33 51 28	64 2 24 →38 42 24 62 10	51    59    12    37	18 60 36	82 0 20 20 64 0	30 24 65	35 38 17	47 29• 81	18 33 2	18 15 43	41 42 31	- 36 31 64	23 27 5
26    27   `	6 47 63, 22 29 35	48 6 60 17 20 46	52 43 54	27 30 20	73 0 60 10 30 50	18 11 66 11 31	40 16 34	57 76 28	3 8 38	17 45 6	42 30 47	54 55 30 41	- 15 23 23
29    30 ·    31	49   29 20   37 28   35	68 3 35 28 45 19	11 16 11 17 11 65	55 50 9 45	45 0 20 30 91 0 55 0	57    17    44    25	24 40 29 38	75 23 56 59	2 37 15 3	32 <b>*</b> 16 13 55	36 42 42 25	38 46 74	20 12 20
3 11	45   30 53   27 39   31 10   42	62 8 15 58 55 14 46 12	26 28 31 24	45 44 36 45	55 11 55 55 55 0	4    41    15	52 30 41	32 65 52	15 4 7	44# 60# 12	30 22 42	67 74 51	2 41 6
36 11	17 . 39 57 26 46 30	55 7 64 9 66 5	6 42 23	73 30 45	27 0 20 50 45 9	7 32 63	50 34 20	46 32 78	4 34 2	58# 23 54	24 40 25	71 31 72 68	5 29 10
11月日	64   21 52   27 3   50	58 21 . 67 7 40 10 58 6	62 30 5 45	9 36 73 30	64 27 45 18 18 9 60 10	61 52 8 34	23 27 50 34	58 70 44 61	20 3 6 5	61 62 <b>*</b> 31 49	22 21 36 28	75 61 70	4 4 2
2   • 3   • 4   •	25   36 23 - 36 31   34 16   39	58 6 57 7 50 16 43 18	57 122 2	18 45 80	73 9 45 9 	35	38	58 43 52	8 18 8	-38 <b>*</b> 20	44 34 41	48 61 47	8 6 12
46    47    48	8-  43 5   47 27   35	53 4 49 4 43 22	47	67 73 27	33 0 18 9 45 27	12	32 53 43	67 46 35	1 2 22	26 <b>*</b> 34 <b>*</b> 30	35 36	62 60 56 39	1 5 8 19
49 50 51	-26   36 13   40 60   25	31 33 54 6 70 5	38 60	9 36 11 27	91 0 64 0 89 0 55 18	46	29 28 27 38	52 70 67 58	19 1 6 5	14 8* 53 40	44 25	52 73 (65	4
52    53    54    55	15   39 33   34 19   38 37   32	49 11 56 10 28 34 45 23	-27 19	45 27	55 0 55 18 90 0	11 22	39 41 37	48 30 48	13 29 15	22 5 59 <b>*</b>	40 49 23	52 29 69	8 22 9
56    57		65 5 42 35 44 25	19 11 41 146	45 33 30	45 <sup>6</sup> 9 33 33 70 0	59 40	25 24 31	71 60 57	5 16 12		28 34 32	69 42 61 64	4 24 7 4
61 🗍	44   30 14   40 36   33	60 9 58 2 53 14	3    53	36 73 22	55 18 67 11 0 44	11 11	34 43 36 24	58 56 50 66	7 1, 14 10	41 11 24 64	32 43 38 20	56 51 78	2 12
62    63    64    65	66   16 18   38 7   44 54   27	77777 583 1443 7222	1 33 1 14	56 36 55 40	55 9 9 36	19	39	59 9 70	2 49 2	25 10 56	38 44 25	60 22 74	2 35 1
66 11	38   32	211 · 211	11 40	36 ======	64 ( ========	43 ===`====		56 =====	15 ====	21 =====	40 ======	41 =====	19 ====
-T	n = Item I=D = Per I>D - Per	modified i cent perce cent perce	n the s iving l iving l	student Importa Importa	survey. nt equal nt greate	to Done r than	Well. Done W	Iell./	•	•		•	•
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	•		•		81	Č	99			•	, · · ·	• • • • • • •	

these were the 20 items for which the respondents felt the most need for change either in priority or accomplishment.

The ranks beside each item are for the no discrepancy column. Rank 1 is assigned to the item with the highest proportion of respondents in this category and rank 66 to that item with the lowest proportion of respondents perceiving no discrepancy. This latter item is the most discrepant for this group.

# 

# Northern Arizona University Flagstaff Arizona State University Tempe University of Arizona Tucson

SPONSORED BY:

DEPARTMENT OF HIGHER AND ADULT EDUCATION. ARIZONA STATE UNIVERSITY



This study is being done to find out how Arizonans feel about the priorities of our three state universities. The statements in this booklet represent a wide range of possible activities universities can do; not all of these activities are currently being done at Arizona's universities. Please answer all of the questions as well as you can. If you wish to comment on any questions or to explain an answer, please feel free to use the space at the back of this booklet.

#### DIRECTIONS

Please answer each of the statements in this booklet as shown in the following examples. Each statement asks you to answer two questions:

Introduction

1. Is this important to do? Here you show how much you agree that the activity is important for our universities to do 2. Is this being done well? Here you show how much you agree that the activity is now being done well at our universities:

Please read the following examples carefully.

#### Example 1

Cross thro	ough one nui	nber after ir	nportant t	o do			Strongly A Agree	
and one a	after being do	ne well.				NO		
Universiti	es shouid					Disagree ``		
					Strongly DI	aagree /		
1. Publish	books of inte	rest to Arizo	na or the V	Vest.	Important To Do		3 4	
, , , , ,				0;;'	Being Done Wel	ı 🛈 📀	3 4	) (

This first example shows that the person answering strongly agrees that, for our universities, publishing

books is **Important to do,** and al strongly agrees that this is now being done well.

#### Example 2

								よ に 、
2. Provide	special tutoring airing difficulty with	nd advising fo	or - r	Important T	o Do 🛛 🕻	) (Ľ	) (3) {	
programs.			•  -		-			
				Being Done	Well G		) (3) (	
				Doing Doing		X		
		1		2				

This second example shows that the person disagrees that this is now being done well at our answering agrees that providing these services to universities.

**d**02

Cross through one number after <b>important to do</b> and one after <b>being done well.</b>	Strongty Dist	Disagr <b>Vice</b>	<b>Neut</b> 88			
1. Sponsor flims, speakers, exhibitions and musical and dramatic productions for students and the community.	important To Do	Ø	2	<b>3</b>		O
	Being Done Well	Ĵ.	2	$\odot$		
2. Provide health care to the general public on a fee-for-service basis to train medical and other, health science students.	Important To Do	Ô	2	۲	4	CD.
	Being Done Weli	Ø	2	0	(1)	
3. Provide incentives and training to assist students in developing and practicing leadership skills.	Important To Do	O	2,	<u>(0)</u>	4	
	Being Done Well	Θ	2	۲		(O)
4. Conduct research under contracts funded by business, industry, foundations and government agencies to assist the training of graduate students and to keep faculty up-to-date.	Important To Do	Ô	2	Ø	4	O
	Being Done Well	Ð	2	3	4	Ô
5. Offer selected degree programs in fields such as medicine and law.	Important To Do		2	3	4	O
	Béing Done Well	Ô	2	3	4	0
6. Operate non-profit public television and radio stations as a community and educational service.	Important To Do	O	2	3		
	Being Done Well		2	3	` <b>(</b> )	6

•

Cross through one number after important to do and one after being done well.			Neu	ay s <b>h</b> aya tar	)ree 4	
Universities should	Strongly Disa	Disag Disag	r00		•	
7. Offer selected undergraduate degree programs in business, engineering, education, architecture, social work, nursing, public administration, agriculture and forestry.	Important To Do	0	2	3	4	
	Being Done Weil	0,	2	3	(1)	K
8. Conduct projects to apply the findings of research to everyday life.	Important To Do		2	3	4	
	Being Done Well	O	(2)	Ì.		
9. Publish for sale scholarly books, pamphlets and reports to share the results of faculty and student research.	Important To Db	٩	2	3		K
· · · · · · · · · · · · · · · · · · ·	Being Done Well	0	2	3	4	間に次
10. Earn a profit by leasing university facilities such as football stadiums, activity centers, meeting rooms and exhibition space to private	Important 'Fo Do	Q	2	3	4	同義が
corporations.	Being Done Well	Ð	2	3	4	時代に前
11. Provide counseling and related services to assist students in coping with problems such as depression, stress and alcohol and drug abuse.	Important To Do	Ð	2	٩	4	
	Being Done Well	Ó	2	3	4	
12. Conduct research to contribute to the future growth and welfare of the state and nation.	Important To Do	Ð	P	3	4	調えの経
	Being Done Well	Ô	2	3	4	天気に
ž., 11	)4	•	•		 - -	

	1	∎ † artî		a subberi	niy Agi ree	"07"称
Cross through one number after <b>important to do</b> and one after <b>being done well.</b> Universities should	n	Disagri	Nout Be	- N PERM	ļ	
	Strongly Diss	1.66	1 1 1 1 1 1 1	ni si Alatik	<u>د</u>	
13. Accept international atudenta who meet university admission standards.	Ìmportant To Do	O	2	3		Ó
	Being Done Well	D	2	٩		0
14. Provide technical assistance to the general public in areas such as agriculture, forestry, resource and energy conservation and community development to assist citizens in applying	Important To Do	Ð	@.	3		•
research findings to everyday life.	Being Done Well		2	3	4	Ô
15. Include information about the use of computers in all undergraduate degree programs.	Important To Do	Ð	2	۲	4	
	Being Done Well	Ð	2	3	4	e.
16. Let non-profit organizations use university facilities such as football stadiums, activity centers and exhibition space if they pay all costs.	Important To Do	Ô	2	9		0
	Being Done Well	Ð	2	3	4	6
17. Provide selected programs and services at reduced tuition rates for senior citizens.	, Important To Do	Ċ	2	3		
	Being Done Weil	Đ	2	3		
18. Conduct research and provide technical assistance to meet the special needs of Arizona's ethnic and racial minorities.	Important To Do	0	2	3	4	
	Being Done Weil	Ö	2	3	4	6

			<b>Stron</b>	oly Ao Ireo	
Cross through one number after important to do and one after being done well.			Neutral	, co	
Universities should		Disagroo		۹,	
	Strongly Disa				
19. Require all undergraduate degree programs to include liberal education courses such as humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.	Important To Do	<b>Ø</b> (			Q
	Baing Done Well	0(	2 <b>3</b>	4	
20. Provide information to keep the public informed of educational, social and other services offered by the universities or other agencies.	Important To Do	0(	2	4	に
	Being Done-Well	0(	2	(1)	R.
21. Sponsor competitive intercollegiate athletic , programs for men and women.	Important To Do	0(	2 <b>2</b>	(4)	
	Being Done Well	•	2		読い。
22. Sponsor research in health science to improve standards of medical care and to train health professionals.	Important To Da	0	D) 🗿	4	
	Being Done Well	0(	2	4	
23. Actively recruit and offer financial aid to ethnic and racial minorities.	Important To Do	0 (	2 <b>3</b>		
	Being Done Weil	0	2	۲	
24. Provide university library services free to the general public.	Important' To Do	0	2 <b>0</b>	4	
	Being Done Well	<b>@</b> (	2	4	
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ในสารระบบ (1911)ใน กลารรณณา ซูกิสารรณณ<mark>าสารระบบ สว</mark>ัยกณาและสารราก สารกระบบสารระบบ การสารรณณาสารณ์สารรณณาสารรณณาสา

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Cross through one number after important to do and one after being done well.				<b>ry</b> Iral /	r08	
Universities should	Strongly Dieją	Disag	rog		12 Mill Hale Strick And Stri And Strick And	
25. Actively recruit and offer financial aid to students with academic and artistic talents.	Important To Do	O,	(2)	ð	, (4)	(6 )
	Being Done Well		2			
26. Encourage advancement in the creative arts by sponsoring arts events, exhibitions and performances.	Important To Do	O,	2	0	4	(c)
	Being Done Well	O	0	0)	Ċ	Q
27. Award degrees only to students who pass a standard university test in writing skills.	Important To Do		1		٩	
	Being Done Well	0	2	0	<b>(</b> ).	
28. Provide limited use of university resources such as secretarial help, computer time and copy services to faculty who serve as paid consultants to	Important To Do		2	Ô	4	
business and industry, government and community agencies.	Being Done Well	Q	2	0		
29. Do research in areas such as energy, agriculture, electronics, government, economics, health and education to expand existing knowledge	Important To Do	同	2	0		
and to help solve immediate problems.	Being Done Well	0	2	9	4	
30. Contract with private corporations to provide 'on-campus services currently run by universities such as bookstores, copying and food services.	Important To Do		2	Ø	•	
•	Being Done Well	0	٢	Ø		G
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Cross through one number after important to do and one after Being done well.		<b>•</b>	Agree'	
Universities should a N	Strongly Disa	Disagree		
31. Make special efforts to recruit and retain , qualified women faculty.	Important To Do			C
• • •	Being Qone Welt	<b>.</b> @		
32. Provide career and job placement services to current and former university students.	Important To Do	0		Ć
	Being Done Well			
33. Permit state employees and their dependents to attend Arizona universities at reduced tuition rates.	important To Do	0 (2		
- · · ·	Being Done We	1 2		
34. Conduct research and provide technical assistance in areas such as juvenile delinquency, health care, child welfare and unemployment.	Important To Do	0		) E C
<b>6</b> .	Being Done Well	0.0		
35. Sponsor recreational athletic programs for all students.	· Important To Do		0.0	) C
••••••••••••••••••••••••••••••••••••••	Being Done Well	0	<b>9</b> (•	
36. Operate a teaching hospital to advance knowledge and to help train medical and other health science students.	Important 🙇 Do	Ð,		
, · · · ·	Being Done Weti	00		) <mark>E</mark>

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Cross through one number after <b>important to do</b> and one after <b>being done well.</b>		Neu	Agree '	
Universities should	Strongly Disa	Disagree Cae		
37. Require students who are not residents of Arizona to pay the full costs of their education.	Important To Do	0	3 4	<b>(B)</b>
	Being Done Well	00	3 4	G
38. Sponsor research to attract and keep well qualified faculty and students.	Important To Do		3	Ð
	Being Done Well	00	3 4	5
39. Offer remedial instruction in reading, writing and mathematics to university students who need help with these skills.	Important To Do		3	5
	Being Done Well	02		5
40. Provide conferences, short courses and work- shops for doctors, lawyers, public administrators and similar groups to keep their skills up-to-date.	Important To Do	1 2	30	(5)
	Being Done Well	1) (2)	3)(4)	6
41. Sponsor student government, student publications and other activities related to student development outside of class.	Important To Do	0	3 4	(5)
	Being Done Well	1) 2	3 4	(5)
42. Support the educational program with research laboratories like those used in business and industry.	Important To Do		. 3 4	6
- 7	Being Done Well			6

		Strongly Agree					
Cross through one number after important to do and one after being done well.			Neu				
Universities should.	Sicongly Disa	Disag T <b>ee</b>	ree				
43. Offer selected courses by telecommunication, radio or correspondence.	Important To Do		2	3	4	S.	
	Being Done Well		2	3	4	G	
44. Cooperate with state and local government, chambers of commerce and other non-profit groups in attracting business, industrial and	Important To Do	Q	2	3	4	N.	
residential development.	Being Done Well	Ð	2	3	4	S	
45. Provide tenure (reasonable assurance of continuing employment) to faculty who maintain professional standards approved by the Board of	Important To Do	Ð	2	0		に で に	
Regents.	Being Qone Well	0	2	<b>3</b>	(4)	N.C.	
46. Support research with libraries like those at other universities having similar programs.	Important To Do	Θ	2	3	4	X	
	Being Done Well	Ð	2	3	4	X	
47. Offer selected undergraduate degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and	Important To Do		2	3	4		
mathematics.	Being Done Well	C	2	0	4		
48. Offer non-credit courses and workshops for the general public in areas such as health, recreation and hobbies.	Important To Do	e.	2	0			
	Being Done Well	E	2			) ((	



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Cross through one number after <b>important to do</b> and one after <b>being done well.</b>			Neu	na calantaria	jtee ,	
Universities should	Strongly Disa	. Disagi <b>gree</b>	ree			
49. Make special efforts to recruit and retain , qualified minority faculty.	Important To Do	Ð	2	3	4	S
	Being Done Well	Ð	2	3	4	G
50. Do research in the humanities, social and behavioral sciences, physical sciences and mathematics to expand existing knowledge and to	Important To Do	Ð	2	3	4	
help solve immediate problems.	🖌 Being Done Well	Ð	2	3	4	C
51. Provide special assistance such as Braille texts, tutoring services, or sign language to physically handicapped students.	Important To Do	Ð	2	۲	4	N. S.
	Being Done Well	E	2	3	4	C
52. Provide students immediate medical care and continuing education on health-related problems.	_ Important To Do	Ē	2	3	4	
	Being Done Well	Ð	2	3	4	C
53. Offer selected courses and degree programs at off-campus locations or branch campuses.	Important To Do	Θ	2	3		C
	Being Done Well	0	2	3	4	C
54. Include information about the achievements and needs of Arizona's ethnic and racial minorities as part of all undergraduate degree programs.	Important To Do	Ē	2	3	4	
	Being Done Well	-0	2	3	4	C
11	111			•		

	· 010	7 <b>7</b> -	St	rongly Ag Agree	<b>(88</b>
Cross through one number after <b>important to do</b> and one after <b>being done well</b> ,	0		Neutral	Ağı cc	
Universities should.	Strongly Disa	Disagr j <b>ree</b>	88		
55. Offer selected courses to groups of employees at their work place.	Important To Do +		2		9
	Being Done Well	$\odot$	2		6
56. Make special efforts to recruit and retain recognized scholars and researchers for university faculties.	Important To Do		20		5
	Being Done Well	Đ.	2	D (4)	5
57. Limit enrollment to students who graduated in the upper half of their high school class or who have above average scores on standardized aptitude tests.	Important To Do	Ð	2	<b>D</b> (4)	(5)
aprilude tosto.	Being Done Well		2	B) (4)	5
58. Provide counseling and related services to help students avoid or cope with unwanted pregnancies.	Important To Do		۵ (	3). (4)	5
	Being Done Well	9	2(	3) (4)	5
59. Offer courses and workshops in areas such as study skills and academic survival skills.	Important To Do	9	2	3) (4)	5
	Being Done Well	Θ	2	Ð 4	5
60. Offer selected master's and doctoral degree programs in business, engineering, education, architecture, social work, public administration,	Important To Do	0	2	3) (4)	5
agriculture and forestry.	Being Done Well	Ð	2 (	3) (4)	6

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		Strongly Agree Agree				<b>188</b>
Cross through one number after <b>important to do</b> and one after <b>being done well.</b> Universities should		Disag	Neu ree	<u>क्षरात्र</u> ालं		
61. Admit to regular university courses high school students who are recommended by their principals.	Strongly Dist		2	3	4	E)
	• Being Done Well	Ð	·②	: <b>(</b> 3)	4	9
62. Develop programs in veterinary medicine, dentistry, optometry, and other professional areas not currently available at any Arizona university.	Important To Do	0	2	3	4	6
	Being Done Well	, ©	(2)°	3	4	
63. Offer selected master's and doctoral degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.	Important To Do	Ó	2	3	4	E
	Being Done Well	Ð	2	3	4	Ð.
64. Actively recruit and offer financial aid to students with athletic talents.	Important To Do :	Ð	2	3	4	
	Béing Done Weil	Ð	2	3		
65. Provide academic advisement to assist students in achieving educational goals.	Important To'Ob'		2	3.		(5)
	Being Done Well	0	2	3	•	9
66. Provide special tutoring and advisement to <sup>1</sup> ethnic and racial minority students to help them get through their educational programs.	Important To Do	e	2	3	4	6
	Being Done Well	Ð	.2	3	4	Ć,

Now, we have some questions to get information about your background. We know that people of different backgrounds differ in their opinions. Young people are different than old, men and women answer differently and people with different amounts of education also have different opinions. You can help us understand these differences by answering the following questions about yourself. Thank You.

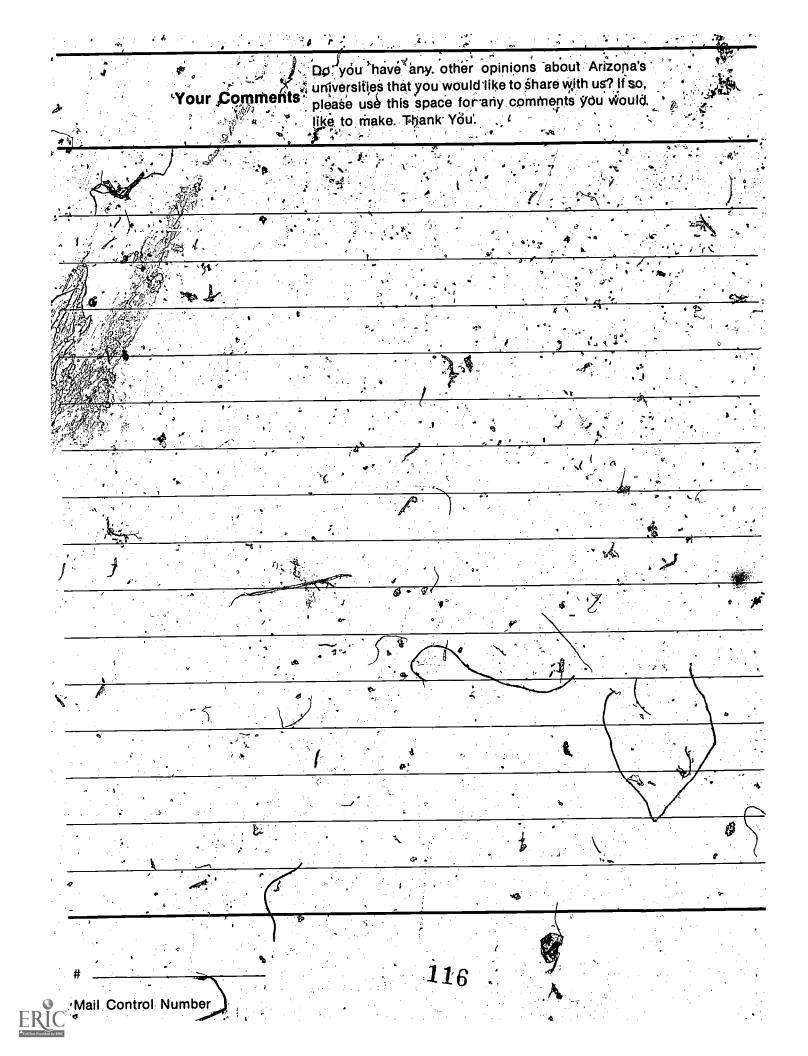
Please cross through the number which is beside your answer to each question. 67. What is your sex? 1) Female Mate 2 68. What is your age? 69. What is your marital status? Single, never married Married 2 Separated 3 Divorced 4 5 Widowed 70. What is the highest level of formal schooling you have completed? ~(Cross anough one only.) Grade school (1st thru 8th grades) Some high school 2 'High school graduate 3 Some college 4

- 5) Community college degree (associate)
- 6) 4-year college or university degree (bachelor's)
- 7 Post-graduate course work
- 8) Graduate degree (master's, doctor's)
- (9), Other (What?)



6. What is your racial or ethnic background? 1. If you checked that you have a university legree, which university is it from? Black 1 No, do not have a university degree. Hispanic Yes, my degree is from: ... American Indian 3 2) Arizona State University Asian/Oriental 4 Northern Arizona University White, not Hispanic 5 University of Arizona 4 Other (What?) 6. Other (Which?) 5 77. What was the total income from all sources, 72. Has one of your close relatives (e.g., prother, before taxes, in 1981 for all persons living in your house? sister, parents, children, spouse) other than ourself ever attended an Arizona university? 1) kess than \$10,000 Yes 2) \$10,000 to less than \$20,000 2) No \$20,000 to less than \$30,000 3) 73. Do you have any children? \$30,000 to less than \$40,000 4 1) Yes. How many? 5 \$401000 to less than \$50,000 2. No 6) \$50,000 to less than \$60,000 74. If you do have children, how old are they now? 7 Over \$60,000/ Cross through each number that applies.) 1) Do not have any children Newborn to less than 14 years 14 thru 18 years 📈 Over 18 thru 22 years 5)) Over 22 vears 75. Politically, how do you think of yourself? Conservative. 10 2 Somewhat conservative Middle-of-the-road Somewhat liberal Liberal 5) 0 11515

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Publications of Department of Higher and Adult Education Arizona State University

R. Erbschloe. <u>Financial Aid for Students at Arizona's Postsecondary</u>
 <u>Educational Institutions, 1972-1981</u>. January, 1983. \$5
 R. G. Richardson, Jr., et al. <u>A Report on Literacy Development in Community</u>
 <u>Colleges: Technical Report</u>. May, 1982. \$5 ED217925

R. C., Righardson, Jr. and L. C. Attinasi, Jr. <u>Persistence of Undergraduate</u>
 <u>Students at Arizona State University: A Research Report</u>. September,
 .1982. \$5 ED223138

R. C. Richardson, Jre and D. S. Doucette. <u>Persistence, Performance and Degree</u> <u>Achievement of Arizona Community College Transfers in Arizona's Public</u> <u>Universities</u>. November, 1980. \$5

R. C. Richardson, Jr., D. S. Doucette, and R. R. Armenta. <u>Missions of Arizona</u> <u>Community Colleges: A Research Description</u>. February, 1982. \$5 ED215716

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