

Impact Of Graduate Education for the State of Alabama

Alabama Council of Graduate Deans

November, 2001

I. Introduction

The project encompasses two related, but distinctive, objectives. The **First Objective** is to provide information for decision-makers in Alabama to help them understand and support the role of graduate education programs in the State of Alabama. During the spring of 2000, The Alabama Council of Graduate Deans contracted with Auburn University's Center for Governmental Services (CGS) to conduct research on the *Economic Impact of Graduate Education for the State of Alabama*. The **Second Objective**, represented by the brochure **Graduate Education in Alabama: The Key to a Successful Alabama in the 21st Century**, is to publicize the considerable value added by Alabama's graduate programs to the economy and society in Alabama. This report summarizes the information received in support of the first objective of the project.

CGS conducted several independent surveys and analyses to appraise the role and potential of graduate education in the State of Alabama. These included:

- An in-depth telephone survey of targeted high-growth Alabama businesses and organizations;
- A broad-based telephone survey of a large group of Alabama businesses that have had contact with Alabama graduate programs or have employed Alabama graduate degree holders;
- A telephone survey of recent alumni from graduate programs in Alabama; and
- A survey and analysis of the activities and approaches of comparative graduate schools in the southeastern United States in support of social and economic development in their respective states.

This report provides a summary account of each survey, as well as overriding themes and recommendations for a plan of action.

The intended audience for this report on the appraisal and potential for graduate education programs in the State of Alabama consists of the following groups: Alabama State Legislators; Economic, Commercial, and Community Leaders in Alabama; and the Governing Boards of the Alabama Universities and the Alabama Educational Community.

State Legislators

The purposes in working with this group are to:

- (1) Develop an awareness of and appreciation for the link between graduate education programs and economic growth, general prosperity, and social development in the State;
- (2) Document the benefits to the State from enhanced graduate education support;
- (3) Outline the competitive situation of graduate education in the region, and Alabama's position in that environment; and
- (4) Project a plan of action through which the Legislators can alleviate any shortcomings.

Economic, Commercial and Community Leadership

The focus with these groups is to:

- (1) Heighten awareness about the importance of graduate education to the general and specific growth of Alabama business, economy, commerce, and society;
- (2) Elicit support for partnership programs with graduate education universities in Alabama;
- (3) Document the importance of graduate education to the creation, expansion, and diffusion of knowledge; and
- (4) Demonstrate how support for graduate education in other states has generated growth and enhanced the quality of life in those states.

Governing Boards and the Educational Community

Our expectations with these groups are to:

- (1) Articulate the contributions of Alabama's university based graduate programs;
- (2) Document the importance of strengthening the links between undergraduate education and the development of research capacity in the universities; and
- (3) Unify the interests of these groups with the economic and community leadership in support of a common program of action.

II. Business Survey of Emerging and Growing Alabama Businesses

The Center for Governmental Services (CGS) at Auburn University surveyed businesses in Alabama that were identified by members of the Alabama Council of Graduate Deans as having a strong interest in and relationship with graduate programs in the State. The objectives were to:

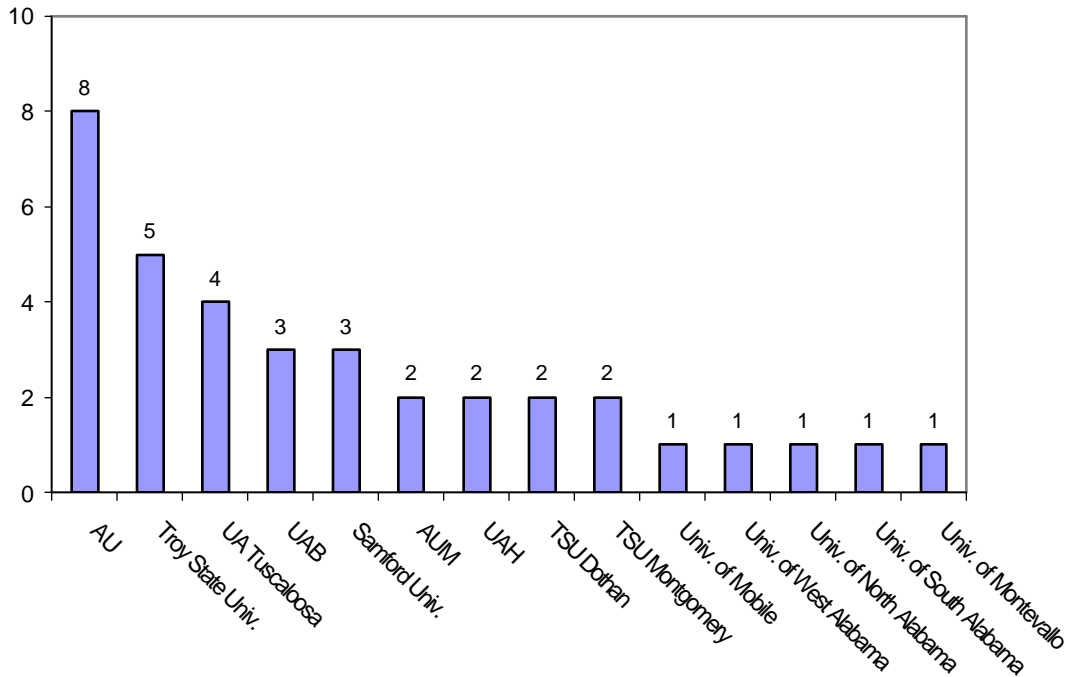
- (1) Gauge the level of support for graduate education by businesses in the State of Alabama;
- (2) Determine specifically what the graduate programs are doing best, what needs to be improved, and how graduate education in the State could be strengthened; and
- (3) Identify the level of support that these businesses have for increased State funding for graduate programs.

A. Methodology

In October 2000, graduate school deans from each participating university were asked to provide to CGS information on emerging and growing Alabama firms and businesses with which their respective graduate programs had formed partnerships or had extensive contact. Information requested included: contact person, title, name, address, telephone number, and description or type of firm or business. These contacts were limited to those firms or businesses that expressed a particularly strong interest in advanced degree programs or graduate research with university partners in Alabama. Preference was given to firms with an exclusive or strong Alabama presence. Doctoral/Research Extensive universities were requested to provide 10-15 contacts, while Doctoral/Research Intensive 7-10 contacts, and Masters Comprehensive 5-7 contacts each.

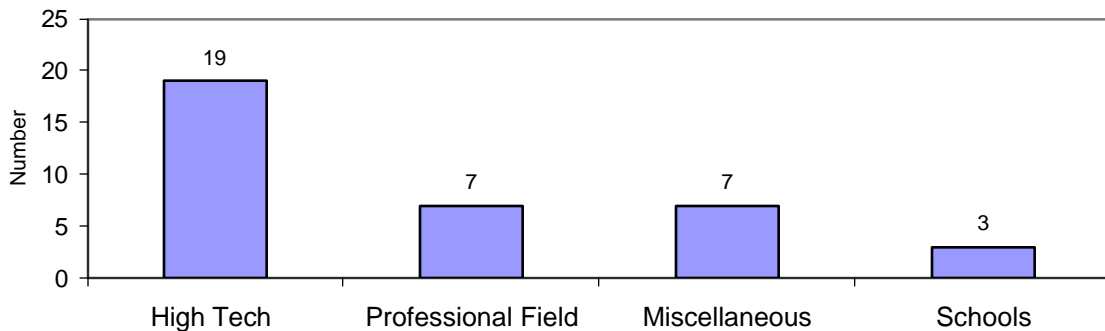
Several of the graduate schools submitted a list of contacts with a high number of organizations that were not private or business related (e.g. school districts, non-profit organizations, and local and state governmental entities). In order to stay within the scope of the project, business contacts were given priority for inclusion in this survey. In addition, many of the businesses appeared on more than one graduate school listing. Thus, some universities have a higher percentage of business contacts in the survey than did others, but all the participating universities are represented. In total, CGS contacted 36 firms and businesses for an interview that generally exceeded thirty minutes in length (See Figure 1).

Figure 1: Number of Businesses Contacted (by Referring Institution) for In-Depth Survey



The thirty-six completed contacts included nineteen high tech companies, seven growing companies currently hiring graduate professionals, seven miscellaneous businesses, and three school systems. Of the firms hiring graduates with degrees in a professional field, there were five accounting firms, one architectural firm, and one health care organization (see Figure 2). Of the 36 individuals who responded to the survey, 23 human resource directors, and 13 high-level company decision-makers.

Figure 2: Types of Businesses Contacted in the In-Depth Survey



The interviews followed a protocol (Appendix A), but were conducted in an informal conversation style to provide respondents with the opportunity to describe their experiences, thoughts, and suggestions. The instrument was pre-tested on 4 businesses, and modifications were made as needed. Because this survey was designed to be qualitative, rather than quantitative, some respondents spent more time on certain questions than others. The survey was designed to take approximately fifteen minutes, but many of the respondents spent considerably more time discussing the issues with our interviewers.

The data gathered from the in-depth business survey was grouped into three categories, namely; (a) Contacts with Graduate Programs, (b) Importance of Graduate Education, and (c) Support for Expanding Funding for Graduate Education (Appendix B).

B. Results

1. *Contacts with Graduate Education:*

As expected, the majority of the interactions with graduate programs in Alabama by Alabama businesses relate to the recruitment of highly skilled and professional employees. The most frequent form of contact between businesses and students is through recruitment and self-advertising at job fairs, career days, and intern\co-op programs. A select few companies were involved in providing presentations and outreach efforts to classes and student organizations. In addition, joint projects involving both business and university groups were also mentioned as possible contact avenues.

Some of the most helpful resources for businesses in accessing university information are the universities' web pages. Respondents suggested that student resumes and outlines of required curricula for degrees be placed on each university's web site. Furthermore, several businesses report difficulty in obtaining access to password-protected pages that contained more in-depth information about students, faculty, and services provided by the university.

Intern and co-op programs were overwhelmingly chosen by the businesses surveyed to be positive and beneficial. According to one respondent: "*The intern program is used to groom future employees to work in our company. It has been economical for us, and we get extra help at a lower cost.*" Other positive results from these programs are the influx of fresh ideas into local businesses, and the flexibility in wages and work hours that the interns provide. Some of the advantages for the students, as listed by the businesses, are *exposure to corporate culture* and *gaining of valuable relevant, work experience*.

Many of the businesses surveyed listed alumni employees as a possible source of contact among the schools, students, and businesses. These alumni facilitate better communication and help make the intern/co-op programs more useful for both the businesses and students. Businesses reported that enhanced communication between the business and academic worlds will lead to *real world* curriculum development, more cooperative projects, and advantageous new opportunities. Joint projects as well as web-based or distance-learning programs were some of the other resources listed as being helpful to the business community.

2. Importance of Graduate Education:

The businesses were also asked about the value that advanced degree holders add to their respective business activities. Some of the high-tech companies report that employees with graduate degrees add value to the company by making the company more marketable and helping the company win contracts.

Employees with advanced degrees were also listed as being more knowledgeable, more likely to advance, more helpful, more productive, more self-confident and more proficient with new technology. One respondent stated, "*Advanced degree holders are exposed to a broader view of the world, not just what is going on inside the company.*"

3. Support for Expanding Funding for Graduate Education:

The businesses were somewhat split on whether or not the State of Alabama should give more funds to graduate school programs. Eighteen of thirty-three respondents supported increased funding for general education. Some of the respondents were in favor of additional funds, but not at the expense of other State needs or if it resulted in higher taxes. A few were opposed to increased funding, and one respondent argued that *more funding was not necessary because the business community was already funding graduate education through its employee education support programs.*

Despite the reluctance to back additional State support, funding issues were the most frequently cited response to address improvement of graduate education in Alabama. Opening communication between the Legislature, the business community, and the academic community was the second most frequently cited solution.

C. Discussion

Survey respondents involved with a graduate internship program were very positive about their experiences. The majority of cited positive aspects related to the recruitment of quality students, enhanced research opportunities, and the relationships these programs foster among the participating entities. *The best graduate programs have internship programs.* (Comment by one survey respondent). Involvement of the business community in expanding internship and co-op programs would also enhance cutting edge curriculum development so that Alabama's graduate students will be better prepared to contribute to a rapidly changing world of work.

Several businesses use their alumni to develop contacts with university programs. Alumni Associations may be one method of enhancing discussion between these two communities. Such an on-going and structured method of collaborating and responding to the needs of the business community would also assist in communicating the needs of the universities to the State. Improved working relationships might also result in the ability to see and take advantage of new opportunities for research projects or other joint efforts. The inclusion of small, start-up companies in this communication network may result in the development of additional long-term relationships and joint programs.

Websites appear to be a crucial component of university/business relations. It also appears that some companies are more successful in learning to access the web page resources that are available. There is a need for more collaboration between the two communities in developing and advertising web pages that meet the needs of the students and the businesses community. Regardless of size, the development of an informative, relevant, and user-friendly website is imperative for every university graduate program.

III. Broad-Based Business Survey

CGS conducted a telephone survey of a relatively large number of diverse Alabama businesses and firms that were reported to have a working relationship with graduate programs in Alabama to obtain a reliable and valid sample of opinions from Alabama businesses that employ graduate-degreed students. The study examined the impact of graduate education on the world of business in Alabama. These organizations and businesses were surveyed about their perceptions regarding the quality of graduate education in Alabama, their experience with graduate students from universities in Alabama, and the importance they ascribe to further development of graduate education to Alabama.

A. Methodology

In October 2000, graduate school deans from each participating university were asked to provide to CGS information on Alabama businesses and firms that recruit graduate degree holders from their respective university. Information requested included: contact person, title, name, address, telephone number, and description or type of firm or business. Preference was given to organizations with a predominant or strong Alabama presence.

A survey protocol was constructed in coordination with the Alabama Council of Graduate Deans (Appendix C), and subject areas were comparable to those addressed in the in-depth business survey. Issue areas included: business needs for graduate-degreed employees, method of contact with graduate degree programs, company support for graduate education of employees, and willingness to expand opportunities for graduate education in Alabama. The survey instrument was reviewed and pre-tested.

Telephone interviews were scheduled between February 27 and March 2, 2001, and 255 surveys were completed. The original database consisted of 668 telephone numbers, of which 64 were determined to be incorrect numbers. 2619 dials were completed, with 604 contacts made to the businesses. Of the 255 organizations contacted, 249 (98%) report they are interested in or plan on hiring graduate degree holders. Appendix D provides the question-by-question frequency responses.

B. Results

Of the organizations surveyed, 71% state they would prefer to have more employees with advanced degrees. Sixty-six report that they are currently or have recently hired graduate degree holders. Concurrently, 74% of the businesses report having no difficulty obtaining graduate degreed students from

universities in Alabama, while 21% report slight difficulty, and only 5% report extreme difficulty (Table 1).

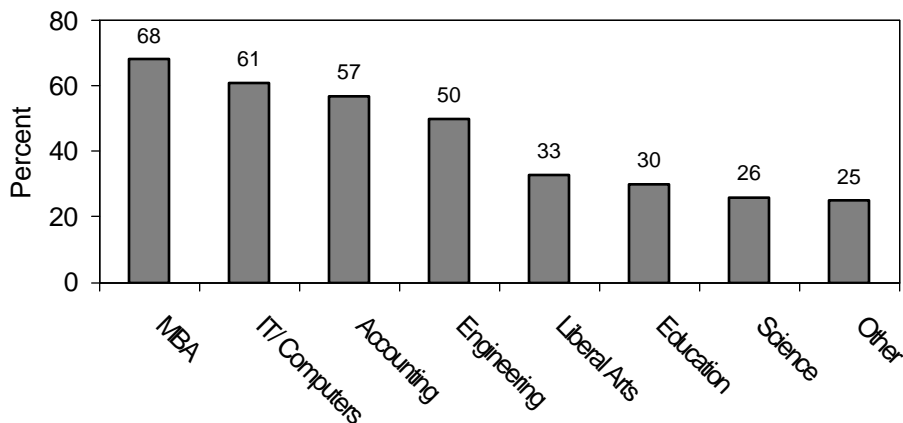
Table 1: Level of Difficulty in Hiring Graduate Degree Applicants from Alabama Universities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Difficulty	118	46.3	74.2	74.2
	Slightly Difficult	33	12.9	20.8	95.0
	Extremely Difficult	8	3.1	5.0	100.0
	Total	159	62.4	100.0	
Missing	Not Sure/ Do not know	21	8.2		
	System	75	29.4		
	Total	96	37.6		
Total		255	100.0		

When queried on where they recruit advanced degreed employees, most businesses report that they have no preference in regard to state of residency (66%). Those that do have a preference, favor Alabama students (26%).

Plans for hiring of graduate degree employees vary by type of degree. As expected from a business clientele, business and engineering degrees were more in demand than other fields of study (Figure 3). Two-thirds of the organizations report that they are likely to hire employees with a Masters degree in Business Administration. Meanwhile, 61% are likely to hire graduate degreed employees in Information Technology and Computers, 57% in Accounting, and 50% in Engineering.

Figure 3: Degree Fields where Alabama Businesses are Likely to Hire Employees with Graduate Degrees



When asked about the relationship between businesses and graduate programs, 56% of the organizations report that they are very satisfied with the level of cooperation between their organization and universities in Alabama. An additional 38% are satisfied with the quality of interactions with Alabama-based

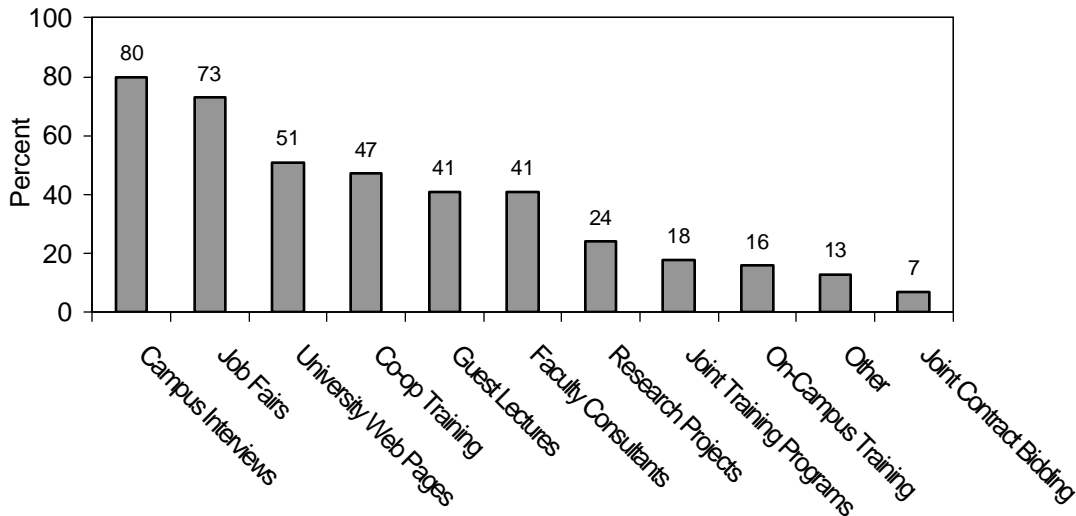
university graduate programs. Only 1% of the organizations contacted expressed dissatisfaction.

Table 2: Level of Satisfaction by Firms and Businesses with Alabama-based University Graduate Degree Programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dissatisfied	2	.8	1.0	1.0
	Neutral	12	4.7	5.7	6.7
	Satisfied	79	31.0	37.6	44.3
	Very Satisfied	117	45.9	55.7	100.0
	Total	210	82.4	100.0	
Missing	Not sure/ Do not know	37	14.5		
	System	8	3.1		
	Total	45	17.6		
Total		255	100.0		

In response to a question about the avenues of contact that organizations employ to reach graduate students in Alabama, 80% report utilizing campus interviews, while 73% utilize job fairs, 51% utilize university web pages, and 47% utilize co-op training programs. Furthermore, 40% report participating in a graduate internship program with an Alabama university, in which most of the interns (96%) were hired as full-time employees upon the completion of their graduate program and internship.

Figure 4: Type of Contact Utilized by Businesses in Alabama to Reach Graduate Students



Many Alabama firms significantly contribute to the graduate education of their employees. Sixty-eight percent of the organizations contacted report that they provide incentives for employees to go back to school to obtain a graduate degree (Table 3).

Table 3: Does Your Organization Offer Incentives for Employees to Obtain a Graduate Degree?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	77	30.2	32.5	32.5
	Yes	160	62.7	67.5	100.0
	Total	237	92.9	100.0	
Missing	Not sure/ Do not know	10	3.9		
	System	8	3.1		
	Total	18	7.1		
Total		255	100.0		

Organizations also report that a number of employees make use of the company subsidized assistance for graduate education each year. Twenty five percent of the organizations have 1-2 employees annually obtain a graduate degree, 11% have 3-5 employees, 5% 6-10 employees, and 11% over 10 employees annually (Table 4). Additionally, 56% of the organizations surveyed report that they would consider increasing the amount of support to employees who want to pursue a graduate degree.

Table 4: How Many Employees Obtain a Graduate Degree Through Your Company's Graduate Assistance Program Each Year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 -2	40	15.7	25.0	25.0
	3 -5	18	7.1	11.3	36.3
	6 -10	8	3.1	5.0	41.3
	Over 10	17	6.7	10.6	51.9
	0 or unsure	77	30.2	48.1	100.0
Total		160	62.7	100.0	
Missing	System	95	37.3		
Total		255	100.0		

Among the firms and organizations utilizing graduate degree holders, there is a strong consensus that the State of Alabama should provide stronger support for graduate education (Table 5). Eighty percent of the respondents state that there should be an increase in the number of Alabama students able to receive support for graduate education. Most significantly, 87% of the company representatives indicate that the State should increase its support for graduate

programs in Alabama, and only 8% of the respondents oppose enhanced State support for graduate education programs (Table 6).

Table 5: Would Your Company Like to See an Increase in the Number of Alabama Students Able to Get Support for Graduate Degrees?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely Not	9	3.5	4.2	4.2
	Probably Not	14	5.5	6.6	10.8
	Maybe	20	7.8	9.4	20.2
	Probably Yes	52	20.4	24.4	44.6
	Definitely Yes	118	46.3	55.4	100.0
	Total	213	83.5	100.0	
Missing	Not sure/ Do not know	34	13.3		
	System	8	3.1		
	Total	42	16.5		
Total		255	100.0		

Table 6: Should the State of Alabama Increase its Support for Graduate Programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely Not	5	2.0	2.4	2.4
	Probably Not	7	2.7	3.4	5.8
	Maybe	15	5.9	7.2	13.0
	Probably Yes	59	23.1	28.5	41.5
	Definitely Yes	121	47.5	58.5	100.0
	Total	207	81.2	100.0	
Missing	Not sure/ Do not know	40	15.7		
	System	8	3.1		
	Total	48	18.8		
Total		255	100.0		

C. Discussion

The survey of businesses that have had a record of working with university graduate programs in Alabama indicates that these organizations have had a satisfactory relationship with the graduate schools. At the same time, the survey suggests that the relationship between businesses and Alabama-based university graduate programs are often not very intense nor involve extensive collaborative relationships. It is interesting to note the high percentage of companies that will work with a graduate program in recruiting new employees

through job fairs, but the comparatively low number of organizations which partner with the graduate programs in a long-term and more substantive way.

Special efforts must be undertaken to encourage deeper and more extensive involvement of Alabama's business community with the graduate programs in the State. Businesses act and think nationally and globally, and geographical proximity between the firm and the university graduate program is not sufficient to induce a firm to collaborate with a neighboring university graduate program. This impacts hiring decisions as well, since relatively few businesses heavily weight residence in Alabama as a factor in recruiting graduate degreed employees.

Graduate schools throughout the State also need to cooperate with each other to market and promote their programs. Few businesses have the capacity or interest to investigate the offerings of 18 separate graduate schools in the State, and most would benefit from single web-based source of information.

IV. Graduate Alumni Survey

In addition to the surveys of the business community in Alabama, the Center for Governmental Services (CGS) at Auburn University conducted a random telephone survey of recent alumni from graduate programs throughout Alabama. The purpose of the survey was to obtain information about that individual's experience while being a graduate student in Alabama; including, reasons for attending graduate school in Alabama, evaluation of the experience, and comparisons with other graduate experiences.

A. Methodology

In October 2000, the Alabama-based graduate schools provided contact information on advanced degree holder alumni. Information requested included: name, telephone number, degree awarded, field, and date of graduate degree. Table 7 provides information about the requested number of contacts, target number of completions, number of received contacts (with completed information), and actual number of alumni contacted (by school).

Table 7: Alumni Contacts by Participating University

	Requested	Target	Received	Contacts
Alabama State University	70	35	72	23
Auburn University	240	120	*1000	79
Auburn University (Montgomery)	70	35	*0	15
Samford University	40	20	49	14
Troy State University	150	75	78	10
Troy State (Dothan) University	90	45	109	29
University of Alabama	260	130	260	56
University of Alabama (Birmingham)	260	130	276	80
University of Montevallo	60	30	59	21
University of North Alabama	70	35	50	19
University of South Alabama	150	75	60	4
University of West Alabama	50	25	25	8

*Contacts received from Auburn University also included contacts for Auburn University Montgomery.

■ Formula = (number of Master's degrees awarded 1999 * 12%) + 15 + (Points awarded for number of Doctoral degrees awarded 1999). Information obtained from Alabama Council of Graduate Deans Survey, November 10, 1999

The survey questionnaire was developed in coordination with the Alabama Council of Graduate Deans (Appendix E). Questions examined the alumnus's experiences in graduate school while in Alabama, his/ her experiences upon completion of the graduate degree, and the comparative experiences of their peers. The survey instrument was reviewed and pre-tested prior to implementation.

Telephone interviewing occurred between February 15th and 18th, 2001; resulting in 357 completed surveys. The original database consisted of 1,347 telephone numbers, with 319 numbers found to be unusable or inaccurate; 4,276 numbers were dialed, and 1,028 contacts made. The significant demographic characteristics of the respondents were as follows: 43% are 25 – 34 years of age; 73% earned a Master's degree; 60% are Auburn University, University of Alabama, or University of Alabama Birmingham alumni. Forty-two percent have earnings between \$40-74,000 per year (See Appendix F).

B. Results

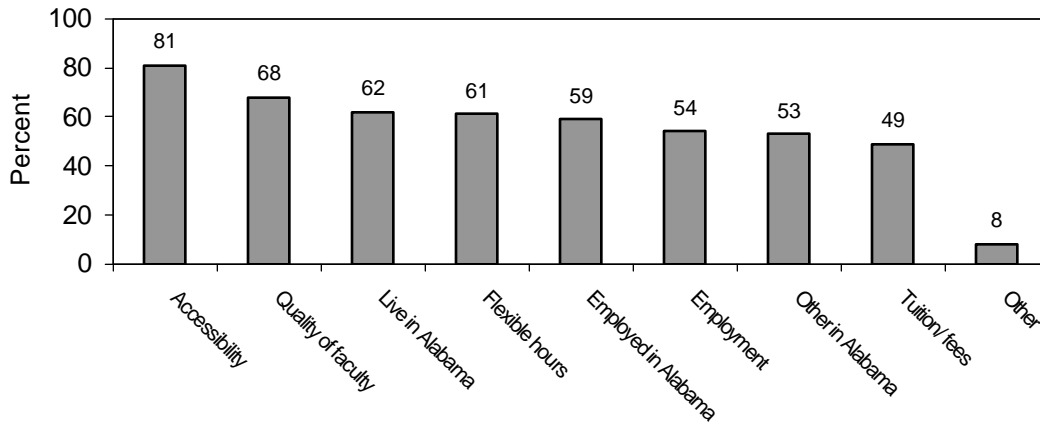
Of the alumni contacted, 74% report that they are currently working in their field of study, and 80% report that they have been professionally employed in Alabama at some point during their post-graduate degree career. Of those who have been professionally employed in Alabama at some time, 88% are currently employed in the State. Significantly, 92% of the graduate alumni state that they would strongly consider employment in Alabama if the right opportunities were available (Table 8). These data emphatically stress the importance that graduate education has on enhancing the technical and professional competitive capacity of the State. In short, graduate education in Alabama is an exceptionally effective investment.

Table 8: Given the Opportunity, Would You Consider Employment in Alabama?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	29	8.1	8.3	8.3
	Yes	322	90.2	91.7	100.0
	Total	351	98.3	100.0	
Missing	System	6	1.7		
Total		357	100.0		

When asked their reasons for matriculation in graduate school in Alabama, 81% state that accessibility was a major consideration. Other significant reasons include: quality of faculty (68%), desire to live in Alabama (62%), flexible hours (61%), and employed in Alabama at the time (59%). Factors such as employment opportunities (54%), having a significant other in Alabama (53%), and tuition (49%), did not appear to have a strong influence on the decision to seek a graduate degree in Alabama (Figure 5).

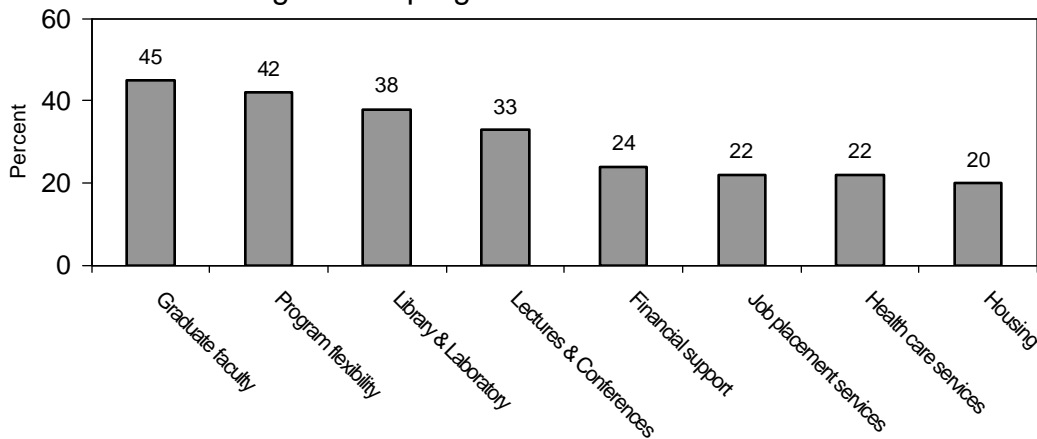
Figure 5: Reason for Matriculation in Graduate School in Alabama



When asked to compare their graduate experience in Alabama with their understanding or perception of other graduate programs in the Southeast, graduate program alumni from Alabama universities state that Alabama's graduate programs are *better* or *much better* than others in the Southeast (52%). Forty-seven percent report that they are *equal to others in the Southeast*.

In evaluation of specific factors, graduate program alumni evaluate Alabama graduate programs to be "better" to "much better" in graduate faculty (45%), program flexibility (42%), library and laboratory resources (38%), and lectures and conferences (33%) than other comparable universities in the Southeast.

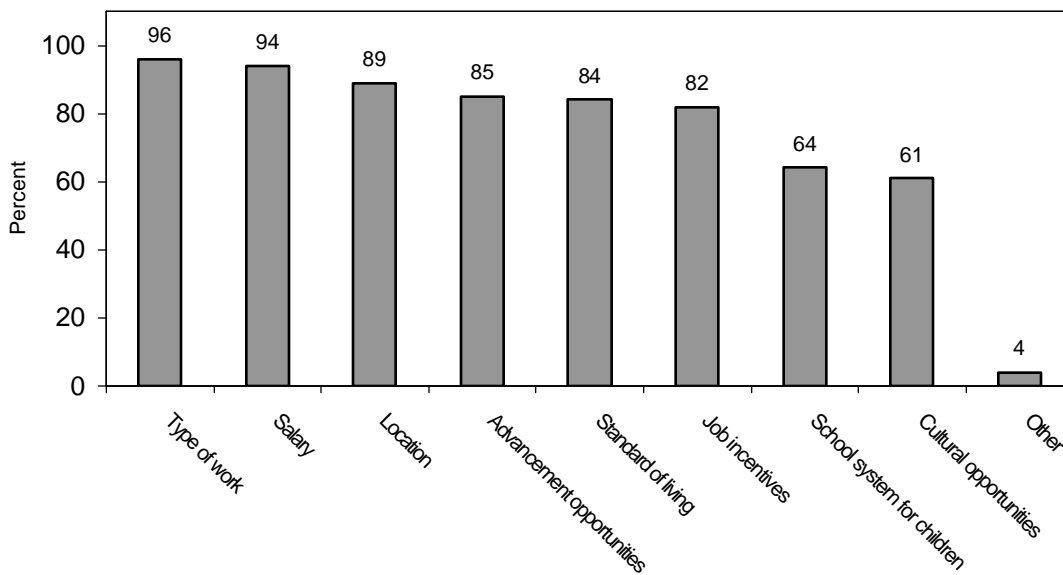
Figure 6: Factors Alabama Schools are "Better" or "Much Better" in comparison to other graduate programs in the Southeast



From the perspective of the alumni, graduate education programs in Alabama are well received and evaluated. Only 2% of the graduate program alumni believe that Alabama graduate schools are worse than others in the Southeast, and relatively few respondents state that their graduate programs were inferior to programs in other universities in the Southeastern United States

Many factors affect the decision to accept professional employment following the award of a graduate degree. Those considered to be of particular significance include: type of work (96%), salary (94%), location (89%), potential for job advancement (85%), standard of living (84%), and job incentives (82%). Factors that are less significant, but still important, include: the school system for children (64%) and cultural opportunities (61%) (Figure 7). Given the right environment and support, it is likely that an even higher percentage of Alabama's graduate degreed alumni would remain in or return to the State.

Figure 7: Important Factors to Alumni of Graduate Programs in Alabama when Accepting Professional Employment



When asked to compare the level and quality of support for graduate education by the State of Alabama to other southeastern states, 38% of the graduate degree alumni believe that the level of support to graduate education in Alabama was better than in other Southeastern states. Thirty-seven percent categorize Alabama state support as inferior to our neighboring states, and 26% thought that the level and quality of support between Alabama and other regional university systems were equivalent (Table 9).

Table 9: The Level and Quality of Support Provided by the State of Alabama for Graduate Programs in Comparison to Other Southeastern Universities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much worse	37	10.4	11.7	11.7
	Worse	78	21.8	24.7	36.4
	Neutral	81	22.7	25.6	62.0
	Favorable	96	26.9	30.4	92.4
	Very favorable	24	6.7	7.6	100.0
	Total	316	88.5	100.0	
Missing	No opinion	33	9.2		
	System	8	2.2		
	Total	41	11.5		
Total		357	100.0		

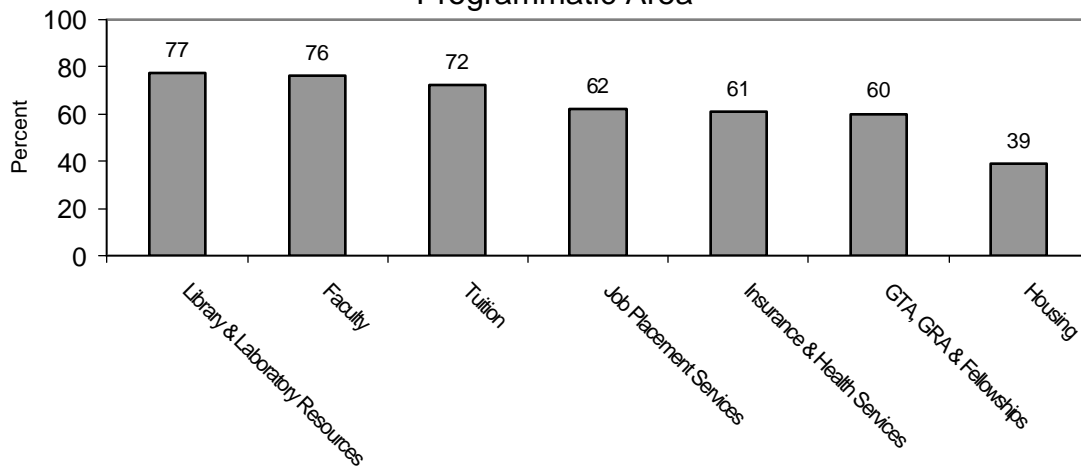
The data in Table 9 do not imply a high degree of satisfaction with the level of support available to graduate degree programs in the State of Alabama. Ninety-seven percent of the graduate degree alumni queried argue that additional funding is necessary (Table 10).

Table 10: Agreement with the Statement –
“Alabama Graduate Programs Do Not Need Any More Funding”

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	335	93.8	96.5	96.5
	Yes	12	3.4	3.5	100.0
	Total	347	97.2	100.0	
Missing	System	10	2.8		
Total		357	100.0		

Alumni support for increased state funding is strongest among six programmatic components of graduate education. They include: Library and Laboratory Resources (77% support), Faculty (76% support), Tuition (72% support), Job Placement Services (62% support), Insurance and Health Services (61% support), and Graduate Teaching Assistantships, Graduate Research Assistantships, and Fellowships/Scholarship Assistance (60% support).

Figure 8: Support for Increased State Funding by Programmatic Area



C. Discussion

The survey of graduate degree alumni from universities in Alabama underscores a very significant point; namely eighty percent of graduate degree alumni remain in Alabama following the receipt of their degree. The rate of attrition to other states is low, and the long-term economic benefit to Alabama more than reimburses the State for its investment in graduate programs. Additionally, those graduate degree individuals who are not currently employed in Alabama would gladly return to the State if a satisfactory position became available. Graduate education, in short, is an outstanding investment for the State.

Not surprisingly, few graduate degree alumni from Alabama universities disparage their graduate education experience. The quality of faculty, accessibility of programs, and other available resources for graduate education in Alabama are perceived by the alumni to be equal to or superior to other universities in the Southeast.

Graduate alumni, however, are not complacent about the level of support or funding provided by the State. They overwhelmingly endorse the need to increase funding. Overall, the cadre of graduate degree individuals from Alabama universities is an untapped resource in mobilizing support for graduate education in the State. These alumni are a knowledgeable and committed constituency for support of graduate education.

V. Peer Institutional Qualitative Comparisons

In an effort to identify strengths and establish benchmarks for comparison, the Center for Governmental Services (CGS) interviewed Deans or Associate Deans of graduate schools at universities throughout the Southeast.

A. Methodology

Graduate Deans at thirty-one universities located in Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee were contacted and interviewed (Appendix G). The interviews ranged in length from ten to sixty minutes, and the universities selected represent the major graduate level classifications included in the Carnegie Classification Code. Eight universities were included from the Carnegie *Research Extensive* category, eight from the *Research Intensive* category, and fourteen universities from the *Master's Comprehensive* category for a total of 30 completed interviews out of 46 attempted (65% response rate). Each graduate office was contacted at least twice.

An open-ended interview procedure allowed the Graduate Deans to elaborate on the positive attributes of their graduate school, while paying particular attention to the future of graduate education in their respective state. Respondents were encouraged to elaborate on issues related to:

- (1) Successes of their graduate education program;
- (2) Activities which demonstrate to key stakeholders the importance of graduate education;
- (3) Specific examples of contributions to their state by graduate education
- (4) Resources utilized to secure current and future funding for graduate programs; and
- (5) An appraisal of the future of graduate education within their state and their university.

B. Results

1. Role of Graduate Education

Many of the Graduate Deans, stated that the role of graduate education is to maintain and increase intellectual capital while expanding the knowledge base. The most obvious way graduate schools contribute in this fashion is by educating students. Also, as underscored by the Graduate Deans, research is an equal contributor or partner in this process. Graduate students influence research productivity in several ways including conducting their own research, working with faculty on research, and/or inspiring faculty to excel.

2. Technology

A second common theme voiced by the Graduate Deans is that technology is the foundation of the future. Technology can be utilized to recruit, educate, collaborate, market, and advertise graduate education programs. Furthermore, Graduate Deans report that access to the latest technology is crucial to the success of graduate education. Through technology, graduate schools can recruit the highest quality student utilizing the Internet and university web pages, as well as attract those students interested in technical fields of study. Technology is also a critical feature in promoting and maintaining collaborative partnerships with industry.

Mississippi State University (MSU) provides an example of how the technology of a university can attract new industry. At this campus, graduate faculty have been integrally involved in the recruitment of the new Nissan Assembly plant, demonstrating to Nissan that the University's has made a strong commitment to support the technical needs of the industry. Due to this strong commitment, Nissan is also considering moving their Research and Development offices to Mississippi. This project will contribute to Mississippi's economy, providing increased opportunities for the advancement of graduate education. This may not have been possible without the University's technical capacities, its graduate faculty, and its demonstration of support for quality graduate education.

3. Needs assessments

When discussing the future of graduate education, the most common theme among all graduate deans surveyed, is the ability of graduate schools to address simultaneously the needs of the students, the community, and the economy. At the University of North Florida, a community advisory committee assisted in completing a needs assessment to identify and prioritize the needs of the community. This effort directly led to the development of a Master's Degree in physical therapy on that campus. Georgia College & State University regularly uses community practitioners to assist with the campus needs assessment in order to keep programs and curricula current with community needs. At the University of Central Florida, yearly statistics are recorded that analyze the needs of students. Typically, they report that financial support for graduate education is their greatest need.

The needs assessments of these different universities reveal some common impressions about the future of graduate education:

- *Alternative learning opportunities*, including web-based classes, video classes, one-time training sessions, night and weekend classes, certificate programs, and distance learning programs, are keys to the success of graduate education. These programs provide education while establishing community links and attracting new students.

- Universities within a state must work together to eliminate the *unnecessary duplication of services/programs*. This may include working together to offer joint programs.
- *External mentoring programs* provide continuity and stability for graduate education. These programs provide graduate students with links to the reality of their profession, as well as develop relationships with local businesses and increase the potential for financial liaisons with the university. Every university typically has at least one alumnus in an influential position, and collaborative relationships with these individuals can assist both the students and the university.
- *Internal mentoring programs* such as at Appalachian State University provide links of communication between faculty, graduate students, and undergraduate students, which contribute to recruitment, retention, and innovation at the graduate level.

4. Community & Business Partnerships

The most innovative and financially successful avenues for furthering graduate education are those that involve the collaboration of several different types of entities, including: universities, businesses, civic groups, and governmental organizations. In many cases, notable partners are local school districts, which are under great pressure to improve standards for teachers and administrators. Many school districts have received federal funding to reach these goals, and universities such as Francis Marion, Arkansas Technical University, Georgia Southern, North Carolina A & T University, and Southern Arkansas University report establishing effective partnerships that provide the schools with needed training, while enrolling new students in the university programs.

Other significant partnerships exist with companies and industries. Examples include: General Electric and Clemson University; Procter and Gamble and the University of Florida; Digital Media and East Tennessee State University; Lucent Technologies and University of Central Florida; and Wal-Mart and Arkansas Technical University.

5. Alternative Funding & Collaborative Lobbying

A final major concern reported by Graduate Deans relates to the attainment of financial resources. A large majority of the Deans make reference to the need for “alternative” funding, which typically refers to financial support from grants, joint ventures, foundation entities, and alumni fundraising.

Several Deans recommend that graduate schools find ways to better utilize grant dollars. The respondents report that often a funded project may be completed under budget, resulting in unused grant dollars following the completion of a project. These Deans recommend the need to continue positive project management, while allowing the university to retain any unused funds. Deans report that effective project management would allow for efficiency as well as promote more research and employment opportunities for graduate students upon completion of the grant work.

The Deans recognize the importance of financial support from their state, and two themes were predominate:

- Graduate schools must lobby for money in an organized, comprehensive, and *collaborative* fashion. For many states, this means that one proposal is sent to the legislator on behalf of all the universities in the state. Many schools report having paid lobbyists to promote these goals at both the state and national level. Deans report that the key to effective lobbying is emphasizing the qualitative contributions of graduate education, not quantitative contributions.
- Education must be treated as a single entity, and educators should cooperatively emphasize the importance of education at all levels. Deans report that language such as “K-20” is key to establishing a unified front on the importance of education. This unity increases the bargaining power of the lobbyist, and eliminates internal turmoil that reflects negatively on all education.

C. Discussion

In regard to the future of graduate education throughout the Southeast, neither size, location, nor Carnegie Classification category are sufficient to explain the varying treatment of graduate education and graduate programs across the state. Based upon interviews with graduate deans in other states, the key factors for the successful future of graduate education are commitment, capital investment, and collaboration with the community and with other universities. Capital is the development of human intellect to fuel the innovations needed to ensure a prosperous financial and social future. Collaboration is needed for technological advancement, as well as lobbying and business relationship development. Working jointly together with key stakeholders in an effort to develop partnerships will stimulate increases in funding through lobbying, advancement in technology, and a proliferation of business alliances.

VI. Conclusion and Recommendations

Graduate education programs make a significant contribution to the economy and quality of life in the State of Alabama. Representatives from Alabama's growing, firms value their relationships with university-based graduate programs in Alabama and strongly endorse even closer collaboration and cooperation. These firms also understand and underscore the importance of campus interviews, job fairs, web pages, co-op programs and internships as valuable tools to advance their competitive potential in developing Alabama's economic infrastructure.

Among Alabama's growing technology and service sectors, there is a strong demand for employees with graduate degrees. This is particularly true for the fields of information technology, business administration, engineering, and accounting. These businesses, while not dissatisfied with the level of cooperation with the university-based graduate programs in Alabama, perceive that more can be done and strongly emphasize the need for increased support for graduate programs in the State. Many firms also invest heavily in graduate education programs for their employees, and capitalize on their proximity to a university-based graduate program to enhance their organizations skills and their workforce's capabilities.

Investment in graduate education provides an immediate payoff to the State. Over eighty percent of recent alumni of graduate degree programs from Alabama universities are professionally employed in Alabama and contribute directly and immediately to the economy and quality of life in the State. Over ninety percent of recent graduate-degreed alumni have a preference to pursue their career in the State.

Accessibility of high quality graduate education, high quality graduate faculty, and an affinity to Alabama all contribute significantly to the decision to attend graduate school in the State. Although graduate degree alumni value their education and appreciate the commitment the State has made to their education, they strongly feel that more funding and attention must be paid to the further development of graduate education in Alabama.

Alabama has much to learn from the experiences of graduate schools in other southeastern universities. The graduate deans from our peer institutions emphatically point out that graduate education programs must have a higher profile and priority, both within the university and among state-level decision-makers. Graduate programs must lead by becoming the early adopters of technology and by their eagerness to invest heavily in technology in all fields of study.

Graduate school deans from successful programs throughout the southeast underscore the necessity for graduate programs to partner with their

communities in accessing emerging needs and providing rapid and effective responses to these needs. To survive and prosper, graduate schools and graduate programs must also aggressively initiate community and business partnerships and engage in inter-university collaboration and collaborative governmental relations. To lay the foundation for growth in the 21st century, the K-20 education community must approach decision-makers with an integrated and unified program of action and a common vision for the future.

Recommendations:

1. Strengthen collaboration among the graduate schools in Alabama to encourage inter-university graduate school partnerships in marketing graduate programs State-wide, communicating with State decision-makers, and in strengthening relationships with potential clients and supporters.
2. Foster cooperation among the universities in developing and implementing a strategic plan to strengthen, distribute, and evaluate graduate program offerings, based upon a common community-based needs assessment strategy.
3. Promote a unified public affairs and governmental relations program based upon the adoption of a “K-20” approach to education in Alabama.
4. Work with university governing boards and the central administration to raise the visibility of the importance of graduate education on individual university campuses.
5. Encourage graduate programs to increase and strengthen partnerships with the business, service, and commercial sectors.