Georgia Institute of Technology Baccalaureate Alumni Survey

Summary

The Georgia Tech survey of baccalaureate alumni who graduated from 1994-1997 was undertaken to identify satisfaction levels with preparation for employment and experiences at Georgia Tech. A thorough survey process, including a pilot survey, prenotification card, two full mailings, and a telephone follow-up, yielded a 41.7% response rate. Because of the high quality assurance steps taken, and the results received, this report is based on the conclusion that results obtained are both accurate and broadly representative of the population of Georgia Tech bachelor's graduates for those years surveyed.

General Knowledge, Abilities and Skills

Alumni were asked to rate a set of skills, abilities, and attributes generally expected of a Georgia Tech graduate, first rating the importance of each item relative to their personal employment experience since graduation, and then rating each item relative to how well their education had prepared them. Georgia Tech baccalaureate alumni responded overwhelmingly that not only were they instructed in areas relevant to today's business world, they also were adequately prepared to use those skills and knowledge once they begin their careers.

There were 12 items for which there was a greater than 0.50 difference between mean ratings for importance and mean ratings for preparation. Those items included four subject areas: knowledge of advanced mathematics, physical sciences, life sciences, and business & finance; two global work aspects: the understanding of professional / ethical responsibility and product development/design from a business perspective; and six specific work areas: ability to communicate orally, communicate in writing, function on teams, use computing technology in communications, engage in lifelong learning / self-critique, and exercise leadership skills. In all but the first three cases, the difference was due to a higher mean rating on importance than was received in preparation.

There were only five areas in which greater than 20% of the respondents placed a high importance on an area in which they reported low preparation ('insufficient-preparation'). These areas included: business and finance, environmental aspects of professional practice, practicing in relation to social/cultural issues, practicing on a global scale, and understanding product development/design from a business perspective. Respondents felt they received more preparation than necessary for their current positions of employment ('excessive preparation') in six areas: knowledge of advanced mathematics, knowledge of physical sciences, knowledge of life sciences, knowledge of social sciences, knowledge of being a licensed professional within their discipline, and designing/conducting experiments.

Student Satisfaction and Experiences

Alumni (except those contacted through the telephone follow-up) were asked a series of questions concerning satisfaction levels with overall preparation, instruction, advisement, equity of treatment, and facilities at Georgia Tech. Over 90% of respondents were satisfied with their preparation to contribute and practice professionally within their discipline, as well as to contribute to society as a person. At least 90% of respondents rated instruction by faculty within their discipline and outside their discipline as satisfactory or better. Over 80% of respondents indicated that they found instruction by teaching assistants in their discipline and outside their discipline to be satisfactory or better. Respondents were not as pleased with the quality of advising they received. Slightly over half of the respondents were satisfied with their academic planning advisement, while less than half were satisfied with career planning and graduate education advising.

While enrolled at Georgia Tech, at least 30% of the respondents were involved in honor societies, student professional societies, or were members of a social fraternity or sorority. 58.5% of those responding indicated that they had held one or more leadership positions.

Further Education

To the question of current status with regard to graduate/professional study, 635 (41.3%) of the respondents either had already completed a program of study or were currently enrolled. The degree most often sought was a Masters in Business (27.1% of those respondents indicating which degree), followed by Ph.D. (11.4%), medical degrees (7.3%) and law degrees (5.6%). Respondents who had already completed a program or were currently enrolled were asked how well they were prepared by Georgia Tech for further study. Over two-thirds (69.7%) stated that they had received excellent or good preparation, but 21.6% felt they received only fair or poor preparation.

Employment

All alumni were asked about their employment status. Three-fourths (75.4%) of the respondents were currently employed full-time, but 14.9% were unemployed/not seeking employment. Nearly two-thirds of the respondents had either secured a position before completing their degree or accepted a position upon graduation. 66.7% of the currently employed alumni respondents reported that their annual income was between $30,000 and $69,999, and an additional 9.2% reported that their income was $100,000 or greater.

Those respondents (except those contacted through the telephone follow-up) who were currently employed were asked several additional questions. 45.6% were currently employed as a professional (Engineer, Architect, Analyst, etc.). 43.2% of the respondents felt that their position was directly related to their undergraduate degree from Georgia Tech, while 40.3% felt their position was somewhat related.

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Introduction

Background

The Georgia Tech survey of baccalaureate alumni who graduated from 1994-1997 was undertaken to identify satisfaction levels with preparation for employment and experiences at Georgia Tech. Alumni were asked to rate items concerned with the importance of various skills and abilities and the extent to which they believed their undergraduate education at Georgia Tech had adequately provided them with those skills and abilities. Questions were also posed concerning satisfaction levels with instruction, advisement, equity of treatment, and facilities at Georgia Tech. Alumni were also asked about their employment and further education status. In order to facilitate interpretation of the results of this survey, findings are grouped into the areas of general knowledge/abilities/skills, student satisfaction and experiences, further education, applied learning experiences / professional development, and employment.

Sample and Methodology

The entire survey process was designed to include elements standard in the survey research literature and shown to contribute to response rate. This included:

- a pilot survey of 400 alumni, conducted by email notification and web response;
- a custom-designed prenotification card mailed to all 4,415 alumni in the final sample (all but the five largest curricula were sampled at 100%), informing the alumni that they could respond to the survey on the web (web address given) or return the form that would be mailed in two weeks;
- a first mailing, using a personally-addressed cover letter from the President printed on bond, mailed first class, and including a postage-paid business reply envelope;
- a custom-designed follow-up card mailed to all who did not respond within two weeks of the first mailing;
- a second mailing to nonrespondents; and
- an independently-conducted telephone follow-up to those who had still not responded after two full mailings of the instrument (n=1,400).

This process yielded a 41.7% response rate (n=1,553).

Quality Assurance

Data quality assurance steps taken yielded the following findings:

- Precision: The overall margin of error for items included in this report was narrow at 2.5% (at a 95 percent confidence level).
- Reliability: Individual item reliabilities were high. Cronbach's Alphas were 0.86 for importance items, 0.91 for preparation items, and 0.96 for satisfaction items.
- The initial response rate for the survey was 32.8%. Due to this low response, a telephone follow-up of all 1400 non-respondents was undertaken. Because of survey length, only those items related to knowledge and skills acquisition, and selected items concerning employment and further education, were asked. Tests

of significance (t-tests at the 0.01 significance level) revealed that these non-respondents did not think less of their undergraduate preparation. If fact, telephone respondents were significantly more positive on most of the importance and preparation items than were other respondents.

- A post-hoc comparison of demographic information between the population and obtained response was conducted. Chi-square tests for sample representativeness ($p \leq 0.01$) revealed that there were no significant differences in proportion by college, gender, or year of graduation. There were significant differences by ethnicity: White/Caucasian students responded at a higher rate than expected. However, significance tests on ratings of preparation revealed few attitudinal differences by ethnicity among alumni.
- Because of the high quality assurance standards, and the results received, this report is based on the conclusion that results obtained are both accurate and broadly representative of the population of Georgia Tech bachelor's graduates for those years surveyed. Further methodological information on this survey is available from the Office of Assessment.

Rating Scales

All importance, preparation, and satisfaction items were rated by respondents on five-point scales. For items assessing the *importance* of each area, the scale ranged from 5 = 'extremely important' to 1 = 'not important'. For items assessing the *level of preparation* in each area, the scale ranged from 5 = 'very well prepared' to 1 = 'not prepared'. For items assessing satisfaction, the scale ranged from 5 = 'extremely satisfied' to 1 = 'not satisfied'.

In this report, three distinct pieces of information are presented on each survey item concerned with undergraduate preparation. First, mean ratings as to the perceived importance of each knowledge/ability/skill in the workplace are shown. Secondly, mean ratings as to of the quality of preparation received in each area are shown. Finally, an interpretation grid was developed to facilitate a visual understanding of any disparities between preparation ratings and perceived importance in the workplace. When reviewing the results of this survey, it is important to remember that *all three elements should be considered -- importance, preparation, and interpretation grid -- before arriving at a judgment as to the correct interpretation of the findings.*

Other survey items were rated using various categorical and ordinal scales. For select items, Chi-Square tests (using $p \leq 0.01$ as a significance level) were performed.

Survey Findings

Demographics

There were no significant differences between the population and obtained response in terms of gender, year of graduation, or college. However, there were significant differences by ethnicity: minorities responded at a lower rate than expected given their percentage in the population.

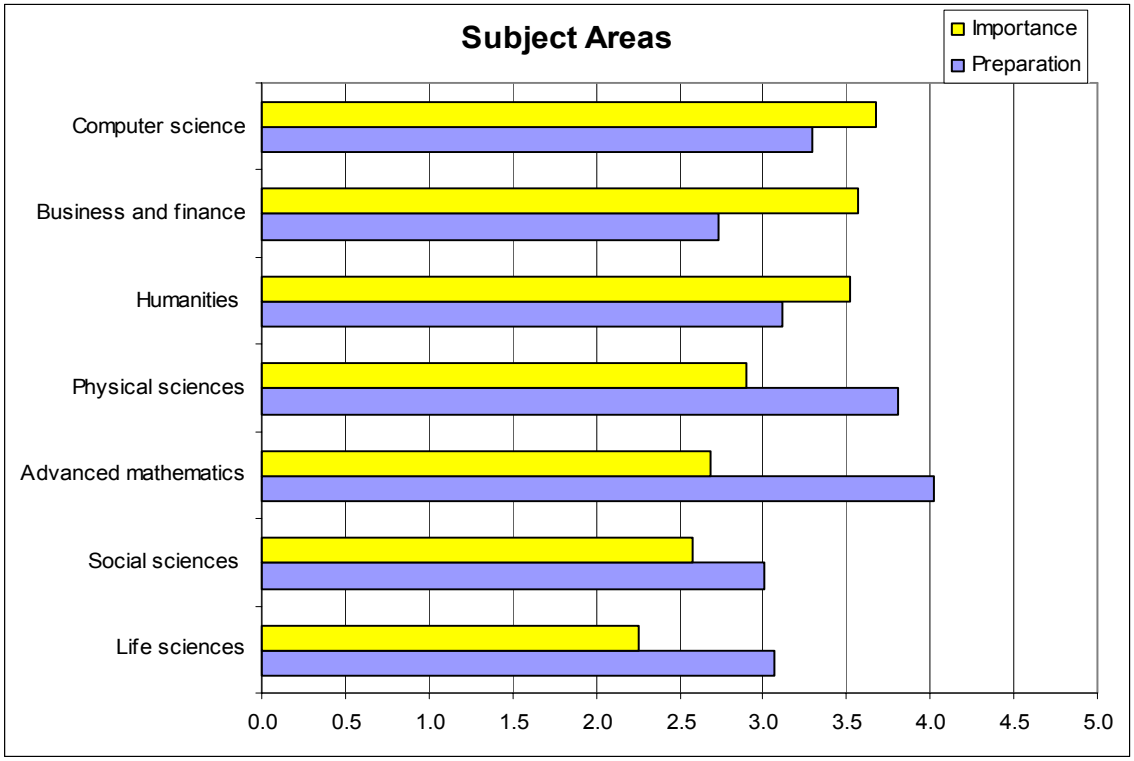
Table 1. Demographics.

	Response		Population	
Female	442	28.5%	1468	26.7%
Male	1111	71.5%	4035	73.3%
Asian	99	6.4%	563	10.2%
African-American	97	6.2%	500	9.1%
Hispanic	57	3.7%	217	3.9%
Native American	4	0.3%	7	0.1%
Multiracial	0	0.0%	2	0.1%
Caucasian	1296	83.5%	4214	76.6%
Graduated 1994-95	511	32.9%	1797	32.7%
Graduated 1995-97	542	34.9%	1970	35.8%
Graduated 1996-97	500	32.2%	1736	31.6%
Architecture	76	4.9%	322	5.9%
Computing	70	4.5%	220	4.0%
Engineering	1017	65.5%	3733	67.8%
Ivan Allen	67	4.3%	199	3.6%
Management	169	10.9%	585	10.6%
Sciences	154	9.9%	444	8.1%

General Knowledge, Abilities and Skills

The first page of the survey asked alumni to rate a set of skills, abilities, and attributes generally expected of a Georgia Tech graduate. Respondents rated the importance of each item relative to their personal employment experience since graduation, and then rated each item relative to how well their education at Georgia Tech had prepared them.

There were 12 items for which there was a greater than 0.50 difference between mean ratings for importance and mean ratings for preparation (tables with mean scores are found in the appendix). Those items included four subject areas: knowledge of advanced mathematics, physical sciences, life sciences, and business & finance; two global work aspects: the understanding of professional / ethical responsibility and product development/design from a business perspective; and six specific work areas: ability to communicate orally, communicate in writing, function on teams, use computing technology in communications, engage in lifelong learning / self-critique, and exercise leadership skills. In all but the first three cases, the difference was due to a higher mean rating on importance than was received in preparation.


Subject Areas
Importance
Preparation
Computer science
Business and finance
Humanities
Physical sciences
Advanced mathematics
Social sciences
Life sciences
0.0
0.5
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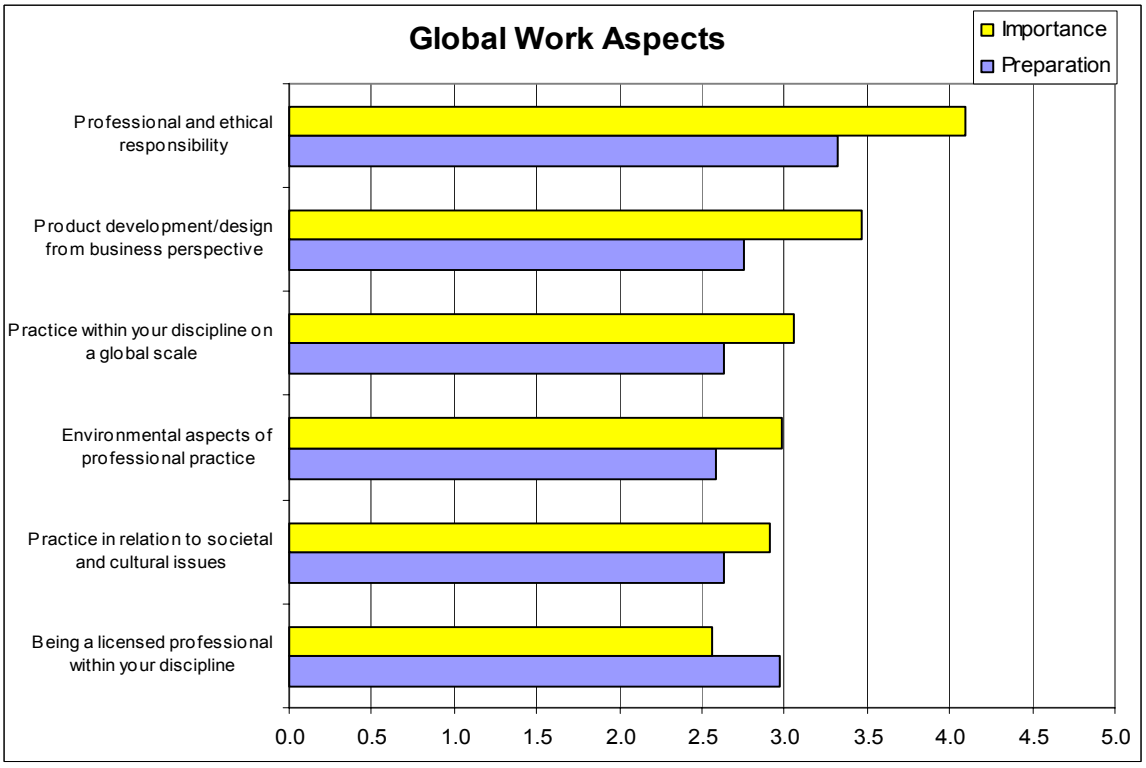
Global Work Aspects
Importance
Preparation
Professional and ethical responsibility
Product development/design from business perspective
Practice within your discipline on a global scale
Environmental aspects of professional practice
Practice in relation to societal and cultural issues
Being a licensed professional within your discipline
0.0
0.5
1.0
1.5
2.0
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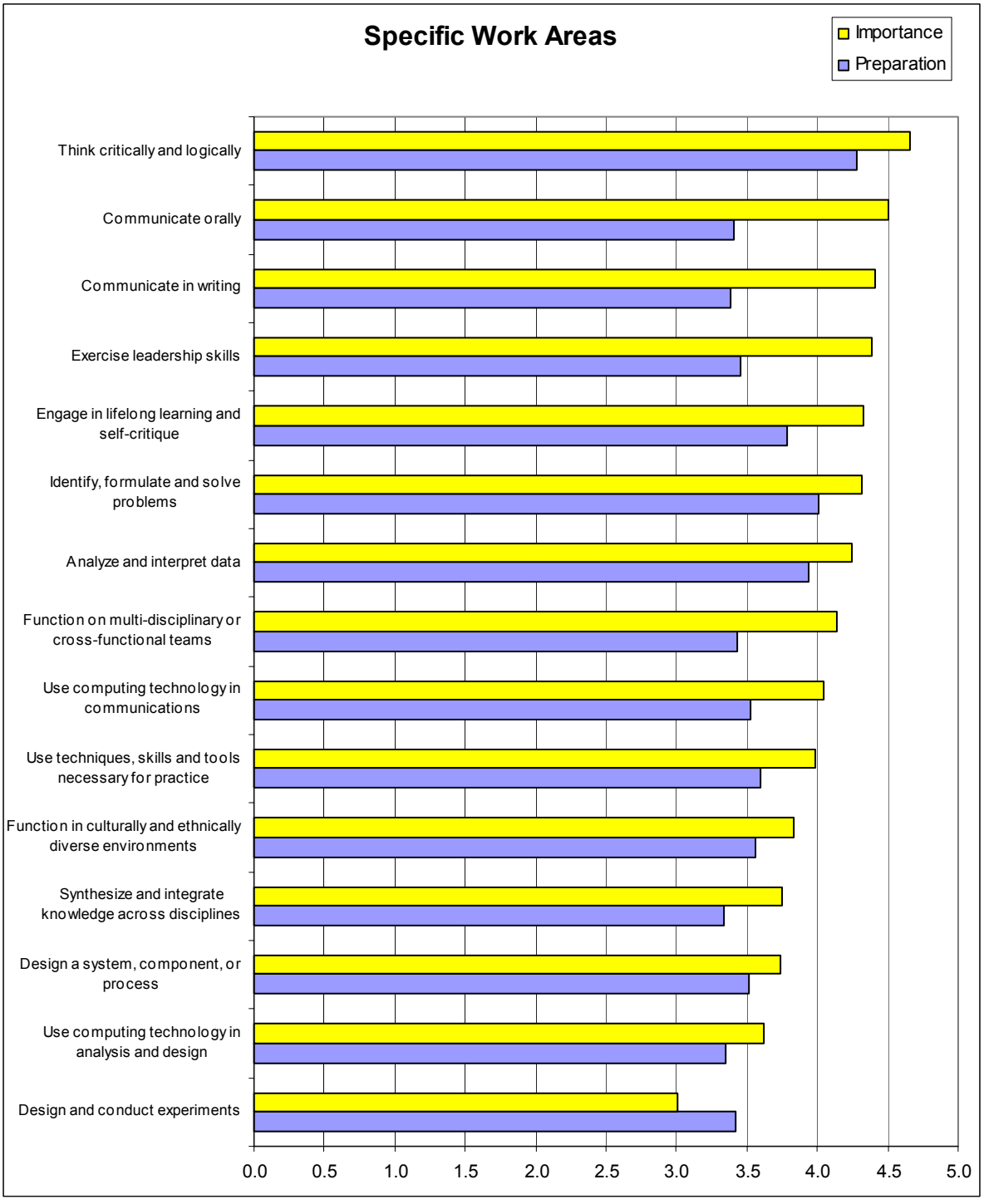
3.0
3.5
4.0
4.5
5.0


Specific Work Areas
Importance
Preparation
Think critically and logically
Communicate orally
Communicate in writing
Exercise leadership skills
Engage in lifelong learning and self-critique
Identify, formulate and solve problems
Analyze and interpret data
Function on multi-disciplinary or cross-functional teams
Use computing technology in communications
Use techniques, skills and tools necessary for practice
Function in culturally and ethnically diverse environments
Synthesize and integrate knowledge across disciplines
Design a system, component, or process
Use computing technology in analysis and design
Design and conduct experiments
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

An interpretation grid was developed to facilitate a visual understanding of any disparities between preparation ratings and perceived importance in the workplace. The grid is explained in the following chart. Tables with the percentage by category for each item are found in the appendix.

<table>
<tr><td rowspan="7">Importance</td><td>5</td><td colspan="2" rowspan="3">Insufficient Preparation
High Importance, Low Preparation: It may be necessary to revisit curriculum content.</td><td colspan="3" rowspan="3">Adequate Preparation
High Importance, High Preparation: Things are as they should be.</td></tr>
<tr><td>4</td></tr>
<tr><td>3</td></tr>
<tr><td>2</td><td colspan="2" rowspan="2">Not Pertinent
Low Importance, Low Preparation: Things are as they should be.</td><td colspan="3" rowspan="2">Excessive Preparation
Low Importance, High Preparation: It may be necessary to revisit curriculum content.</td></tr>
<tr><td>1</td></tr>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr>
<tr><td></td><td></td><td colspan="5">Preparation</td></tr>
</table>

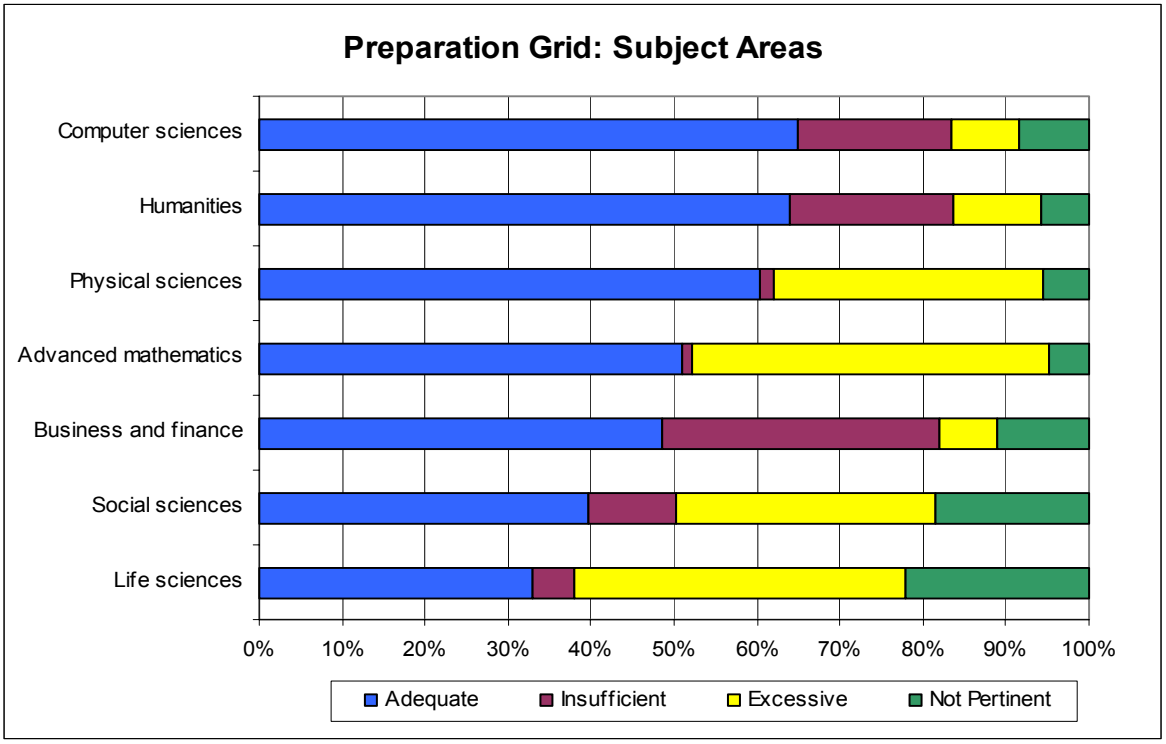
There were only five areas in which greater than 20% of the respondents placed a high importance on an area in which they reported low preparation ('insufficient preparation'). These areas included:

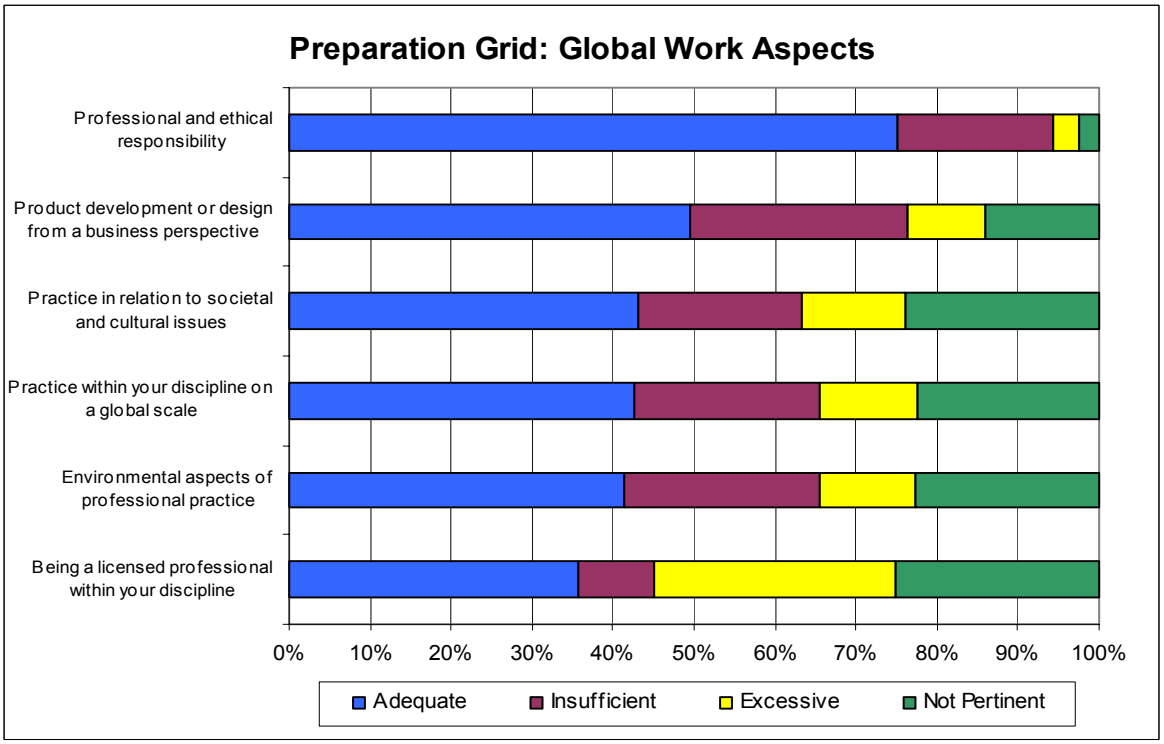
- business and finance,
- environmental aspects of professional practice,
- practicing in relation to social/cultural issues,
- practicing on a global scale, and
- understanding product development/design from a business perspective.

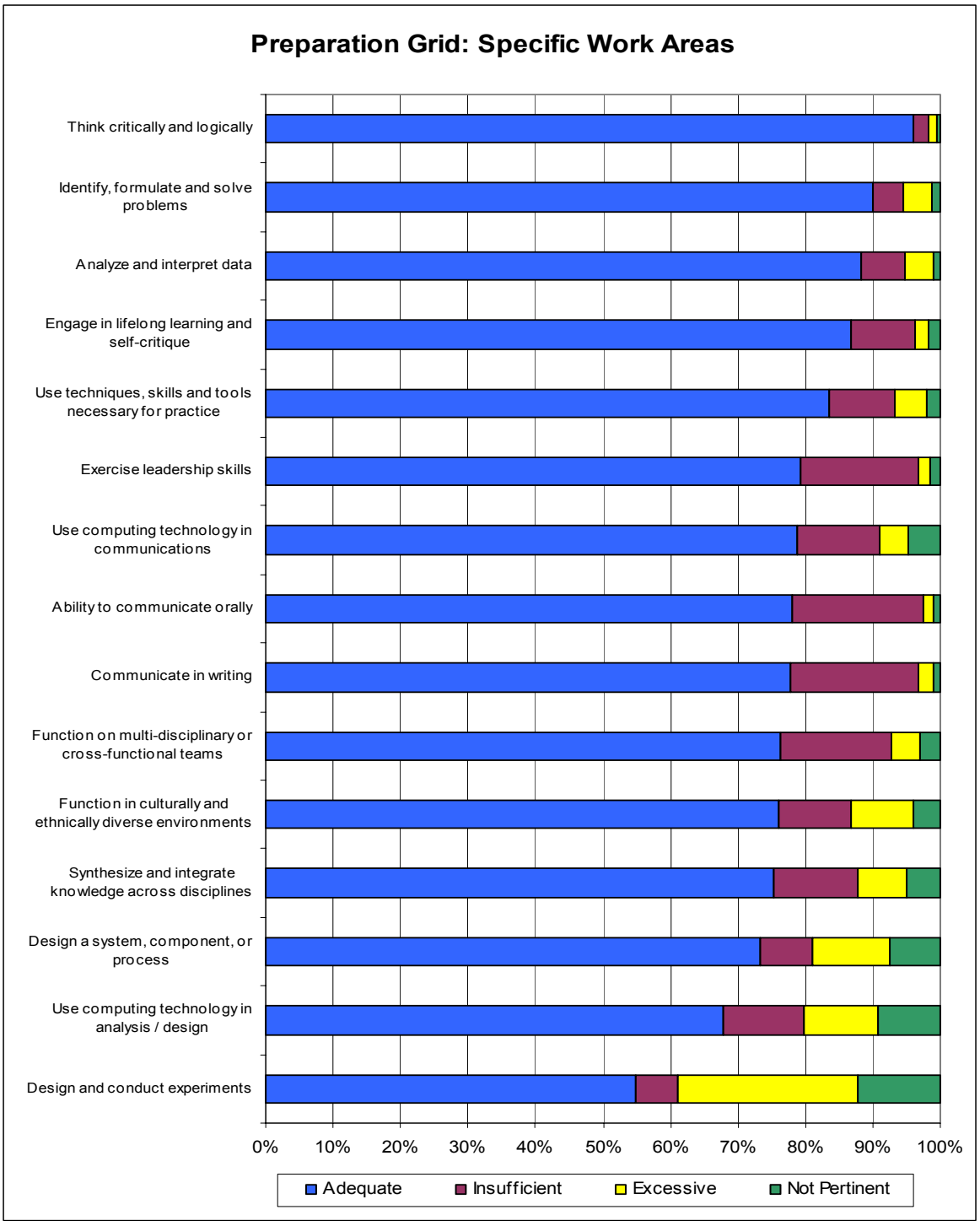
Respondents felt they received more preparation than necessary for their current positions of employment ('excessive preparation') in six areas:

- knowledge of advanced mathematics,
- knowledge of physical sciences,
- knowledge of life sciences,
- knowledge of social sciences,
- knowledge of being a licensed professional within their discipline, and
- designing/conducting experiments.

As is evident from the ratings, Georgia Tech baccalaureate alumni responded overwhelmingly that not only were they instructed in areas relevant to today's business world, they also were adequately prepared to use those skills and knowledge once they begin their careers.


Preparation Grid: Subject Areas
Computer sciences
Humanities
Physical sciences
Advanced mathematics
Business and finance
Social sciences
Life sciences
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Adequate
Insufficient
Excessive
Not Pertinent


Preparation Grid: Global Work Aspects
Professional and ethical responsibility
Product development or design from a business perspective
Practice in relation to societal and cultural issues
Practice within your discipline on a global scale
Environmental aspects of professional practice
Being a licensed professional within your discipline
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Adequate
Insufficient
Excessive
Not Pertinent


Preparation Grid: Specific Work Areas
Think critically and logically
Identify, formulate and solve problems
Analyze and interpret data
Engage in lifelong learning and self-critique
Use techniques, skills and tools necessary for practice
Exercise leadership skills
Use computing technology in communications
Ability to communicate orally
Communicate in writing
Function on multi-disciplinary or cross-functional teams
Function in culturally and ethnically diverse environments
Synthesize and integrate knowledge across disciplines
Design a system, component, or process
Use computing technology in analysis / design
Design and conduct experiments
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Adequate
Insufficient
Excessive
Not Pertinent

Student Satisfaction and Experiences

Alumni (except those contacted through the telephone follow-up) were asked a series of questions concerning satisfaction levels with overall preparation, instruction, advisement, equity of treatment, and facilities at Georgia Tech. Over 90% of respondents were satisfied with their preparation to contribute and practice professionally within their discipline, as well as to contribute to society as a person.

Table 2. Satisfaction with overall preparation.

	Extremely Satisfied, Very Satisfied, or Satisfied		% not responding to question
	n	%	
Contribute to society as a person	1148	91.8%	4.4%
Practice professionally within your discipline	1150	91.6%	4.0%
Contribute professionally in your discipline	1155	91.0%	3.1%
Enter the workforce after graduation	1106	88.3%	4.4%
Interview and obtain your first job after graduation	981	78.7%	4.7%

In the aggregate, respondents were satisfied with the quality of instruction provided by faculty in all disciplines. At least 90% of respondents rated instruction by faculty within their discipline and outside their discipline as satisfactory or better. Only two areas had more than 25% of respondents reporting that they were somewhat or not satisfied with the quality of faculty instruction: computer science and humanities.

Respondents were slightly less satisfied with the quality of instruction provided by student teaching assistants. Over 80% of the respondents indicated that they found instruction by teaching assistants in their discipline and outside their discipline to be satisfactory or better. Six of the twelve areas had more than 25% of respondents reporting that they were somewhat or not satisfied with the quality of student teaching instruction: mathematics, computer science, physical sciences, life sciences, humanities, and architecture.

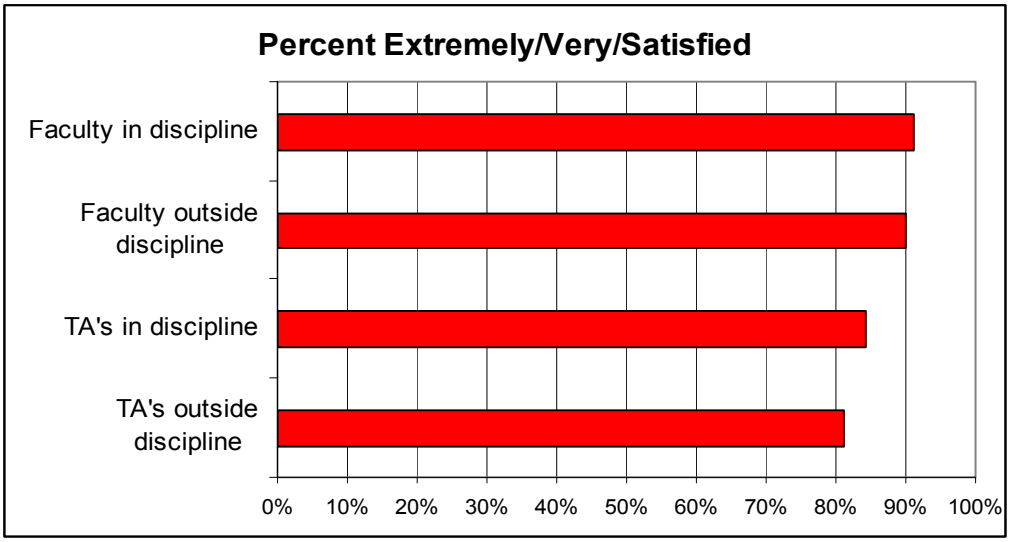


Table 3. Quality of instruction provided by faculty

	Extremely Satisfied, Very Satisfied, or Satisfied		% not responding to question
	n	%	
Faculty in discipline	1177	91.1%	1.3%
Faculty outside discipline	1141	90.0%	3.1%
Engineering	944	91.7%	21.3%
Physical sciences	1041	84.7%	6.1%
Management	568	80.7%	46.2%
Life sciences	740	77.9%	27.4%
Social sciences	951	77.4%	6.1%
Architecture	193	76.3%	80.7%
Mathematics	949	75.0%	3.4%
Humanities	890	71.4%	4.7%
Computer science	691	65.0%	18.8%

Table 4. Quality of instruction provided by student teaching assistants

	Extremely Satisfied, Very Satisfied, or Satisfied		% not responding to question
	n	%	
TA's in discipline	979	84.3%	11.3%
TA's outside discipline	902	81.0%	14.9%
Engineering	714	82.2%	33.6%
Management	333	79.9%	68.1%
Social sciences	335	76.8%	66.7%
Architecture	141	74.2%	85.5%
Humanities	335	73.6%	65.2%
Life sciences	513	73.4%	46.6%
Physical sciences	736	70.1%	19.8%
Computer science	549	67.4%	37.7%
Mathematics	763	64.4%	9.5%

Alumni respondents were not as pleased with the quality of advising they received. Slightly over half of the respondents were satisfied with their academic planning advisement, while less than half were satisfied with career planning and graduate education advising. Four of the eight facilities rated were judged less than satisfactory by 25% or more respondents: library, residence halls, architectural studios, and classrooms.

Table 5. Satisfaction with advisement and facilities.

	Extremely Satisfied, Very Satisfied, or Satisfied		% not responding to question
	n	%	
Academic planning advisement	701	56.5%	5.2%
Graduate education advisement	345	43.7%	39.6%
Career planning advisement	486	40.2%	7.6%
Recreational facilities	1035	83.9%	5.7%
Science laboratories	1019	83.4%	6.6%
Engineering laboratories	813	82.6%	24.8%
Computing labs	1007	79.4%	3.1%
Classrooms	956	74.2%	1.5%
Architectural studios	123	69.1%	86.4%
Residence halls	755	68.9%	16.3%
Library	762	60.2%	3.3%

Overall, approximately 90% of respondents were satisfied with the equity of treatment they received, relative to other students, from all academic personnel and from their fellow students. In order to test for significant differences by gender and ethnicity, responses were collapsed into the categories of satisfied vs. not satisfied. High levels of satisfaction were also evident when disaggregating by gender and ethnicity, but some differences were noted. Females and African-Americans were significantly *less* likely than their counterparts to be satisfied with the equity of treatment they received from faculty and from fellow students, while African-Americans were significantly *less* likely to be satisfied with the equity of treatment they received from academic administrators (a table of the disaggregated responses is found in the appendix).

Table 6. Satisfaction with equity of treatment.

	Extremely Satisfied, Very Satisfied, or Satisfied		**% not responding to question**
	n	**%**	
From fellow students	1153	93.1%	5.4%
From staff	1128	92.2%	6.5%
From student teaching assistants	1117	90.7%	5.9%
From academic administrators	1068	89.1%	8.4%
From faculty	1114	89.0%	4.4%

Respondents were asked to indicate which extracurricular activities they were involved with while enrolled at Georgia Tech.

- 424 (32.4%) were involved in honor societies
- 398 (30.4%) were involved in student professional societies
- 262 (20.0%) were involved in student government
- 158 (12.1%) were involved in drama tech/band/choral groups
- 398 (30.4%) were members of a social fraternity or sorority
- 133 (10.2%) were FASET leaders/campus tour guides
- 203 (15.5%) were involved in community service projects (i.e. Team Buzz)
- 252 (19.3%) were involved in leadership skills development programs
- 551 (42.1%) were involved in other extracurricular activities: 16.3% sports-related, 2.8% ROTC, and 2.8% religious
- 148 (11.3%) were not involved in significant extracurricular activities.

Regarding level of involvement in extracurricular activities, for the 1,154 alumni who responded to this question, 18.7% came to some meetings or activities, 22.8% came to most meetings or activities, and 58.5% held one or more leadership positions.

Alumni (except those contacted through the telephone follow-up) were asked two sets of questions concerning work-related learning experiences and professional development. Over one-third of the respondents reported participating in the cooperative education program while at Georgia Tech, and 61.0% found the experience helpful in obtaining their first job. Of the 20.3% of respondents who participated in an internship, 53.9% found it helpful in obtaining their first job.

Table 7. Applied learning experiences.

	None or No Reponse	1-5 qtrs	6-10 qtrs	>10 qtrs	Helpful in obtaining first job?
Cooperative education program	827 63.2%	136 10.4%	316 24.1%	30 2.3%	352 61.0%
Undergraduate research experience	984 75.2%	285 21.8%	31 2.4%	9 0.7%	267 38.6%
Internship	1043 79.7%	257 19.6%	6 0.5%	3 0.2%	278 53.9%
Summer employment or part-time job in major	816 62.3%	400 30.6%	51 3.9%	42 3.2%	378 49.7%
Any on-campus employment	785 60.0%	289 22.1%	130 9.9%	105 8.0%	229 35.3%

Further Education

To the question of current status with regard to graduate/professional study, 635 (41.3%) of the respondents either had already completed a program of study or were currently enrolled. The degree most often sought was a Masters in Business (27.1% of those respondents indicating which degree), followed by Ph.D. (11.4%), medical degrees (7.3%) and law degrees (5.6%). 45.2% of all respondents stated that they had not applied for further education. There were significant differences in status of further education by cohort, college, and ethnicity. Respondents more likely to have pursued further education include earlier graduates, graduates in science and Ivan Allen disciplines, and minorities.

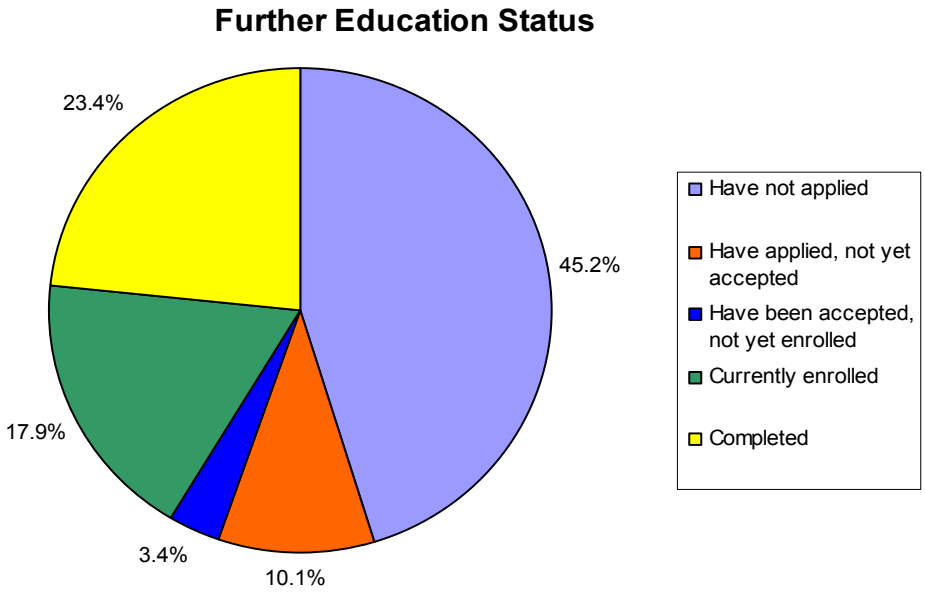


Table 8. Further education, by cohort.

	1994-95 Grad.	1995-96 Grad.	1996-97 Grad.	Total	
Have not applied	40.7%	44.1%	51.0%	695	45.2%
Have applied, not yet accepted	8.9%	9.4%	12.1%	155	10.1%
Have been accepted, not yet enrolled	2.2%	4.5%	3.4%	52	3.4%
Currently enrolled	15.4%	19.5%	18.8%	275	17.9%
Completed	32.9%	22.5%	14.7%	360	23.4%

Table 9. Further education, by college.

	Arch.	Comp.	Engin.	Ivan Allen	Mgmt.	Sci.
Have not applied	46.1%	47.1%	47.1%	28.4%	61.2%	22.1%
Have applied, not yet accepted	11.8%	15.7%	9.9%	10.4%	12.7%	5.2%
Have been accepted, not yet enrolled	6.6%	1.4%	2.6%	3.0%	4.8%	6.5%
Currently enrolled	10.5%	10.0%	17.4%	19.4%	9.1%	37.0%
Completed	25.0%	25.7%	23.1%	38.8%	12.1%	29.2%

Respondents who had already completed a program or were currently enrolled were asked how well they were prepared by Georgia Tech for further study. Over two-thirds (69.7%) stated that they had received excellent or good preparation, but 21.6% felt they received only fair or poor preparation for further study.

Non-telephone follow-up respondents were asked two additional questions. Of those respondents who stated that they were currently enrolled in a program of study, 158 (69.0%) were enrolled full-time. Respondents who were not already enrolled or had not already completed a degree were asked about their level of interest in continuing their education through graduate/professional school. 35.0% of those responding stated that they had a moderate or high interest, while only 11.0% had no interest in further education.

Employment

All alumni were asked about their employment status. Three-fourths (75.4%) of the respondents were currently employed full-time, but 14.9% were unemployed/not seeking employment. There were no significant differences by cohort. Although cell-size limitations prevented testing by college, Engineering had the highest percentage employed full-time and Sciences had the lowest percentage.

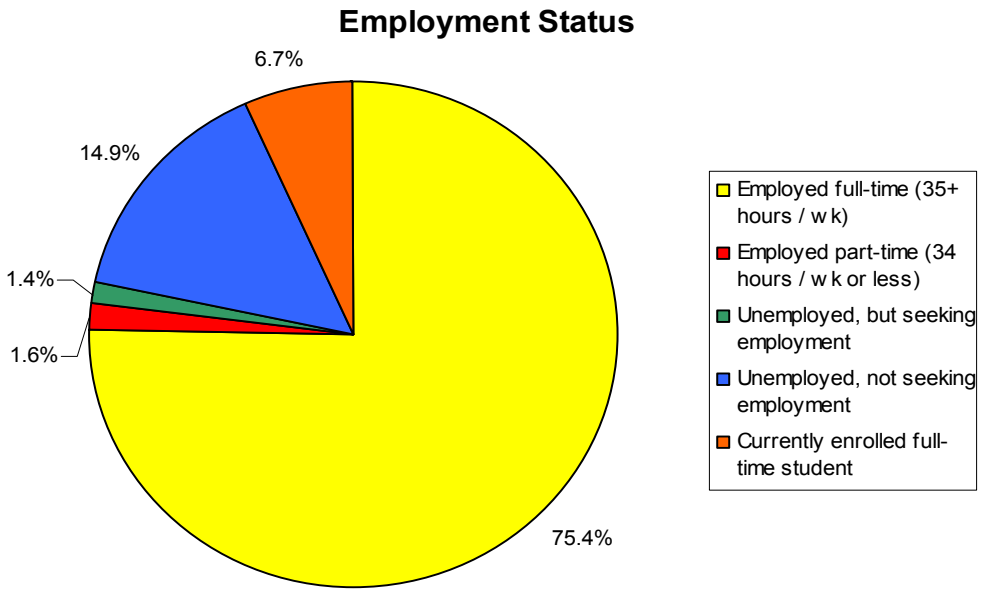


Table 10. Current employment status by cohort.

	1994-95 Grad.	1995-96 Grad.	1996-97 Grad.	Total	
Employed full-time (35+ hours / wk)	76.1%	74.8%	75.3%	1153	75.4%
Employed part-time (34 hours / wk or less)	1.6%	1.5%	1.8%	25	1.6%
Unemployed, but seeking employment	1.2%	1.3%	1.8%	22	1.4%
Unemployed, not seeking employment	14.7%	16.1%	13.8%	228	14.9%
Currently enrolled full-time student	6.4%	6.4%	7.3%	102	6.7%

Table 11. Current employment status by college.

	Arch.	Comp.	Engin.	Ivan Allen	Mgmt.	Sci.
Employed full-time (35+ hours / wk)	70.7%	75.7%	79.0%	71.2%	77.1%	52.7%
Employed part-time (34 hours / wk or less)	8.0%	2.9%	1.2%	1.5%	1.8%	0.7%
Unemployed, but seeking employment	2.7%	0.0%	0.7%	3.0%	3.0%	4.1%
Unemployed, not seeking employment	16.0%	20.0%	13.6%	16.7%	16.9%	17.6%
Currently enrolled full-time student	2.7%	1.4%	5.5%	7.6%	1.2%	25.0%

Respondents (except those contacted through the telephone follow-up) were asked how long it took them to get their first full-time permanent job after graduation. Nearly two-thirds (63.8%) of the respondents had either secured a position before completing their degree or accepted a position upon graduation.

Table 12. Length of time to first full-time permanent job.

	Frequency	Percent
Had same job before completing degree	204	17.8%
Accepted position upon graduation	526	46.0%
1-3 months	225	19.7%
4-6 months	85	7.4%
7-12 months	43	3.8%
Over 1 year	43	3.8%
Have not yet obtained a full-time permanent job	18	1.6%

Those respondents (except those contacted through the telephone follow-up) who were currently employed were asked several additional questions. 45.6% were currently employed as a professional (Engineer, Architect, Analyst, etc.). 43.2% of the respondents felt that their position was directly related to their undergraduate degree from Georgia Tech, while 40.3% felt their position was somewhat related. For those alumni employed outside their undergraduate major field of study, 84.8% of the 433 respondents stated that this was their preference. Most currently employed respondents were satisfied with their career choice since graduation (88.5%) and their career progression since graduation (87.4%).

Table 13. Primary job function.

	Frequency	Percent
Professional: Engineer, Architect, Analyst, other	525	45.6%
Other	222	19.3%
Consultant	134	11.6%
Functional management/department head	121	10.5%
Corporate official/general management	61	5.3%
Supervisor of Technical/Professional personnel	56	4.9%
Engineering Information Specialist	29	2.5%
Graduate Student	3	0.3%

Currently employed alumni (except those contacted through the telephone follow-up) were asked about the number of employees in their organization that are located either at the current work site or world-wide sites. Two-thirds of the respondents have 10-1000 employees at their current site. 19.3% are employed at companies with no other work site, while 24.8% are employed at companies with 50,000 or more employees world-wide.

Table 14. Number of employees.

At your work site	Frequency	Percent
<10	108	10.7%
10-100	318	31.5%
101-1,000	361	35.7%
1,001-10,000	194	19.2%
>10,000	30	3.0%
At world-wide sites		
No other sites	186	19.3%
<1,000	183	19.0%
1,001-10,000	210	21.8%
10,001-50,000	147	15.2%
>50,000	239	24.8%

All currently employed alumni were asked about their annual income. 66.7% of the respondents reported that their annual income was between $30,000 and $69,999. An additional 9.2% reported that their income was $100,000 or greater. There were no significant differences by cohort, and cell-size limitations prevented testing for differences by college.

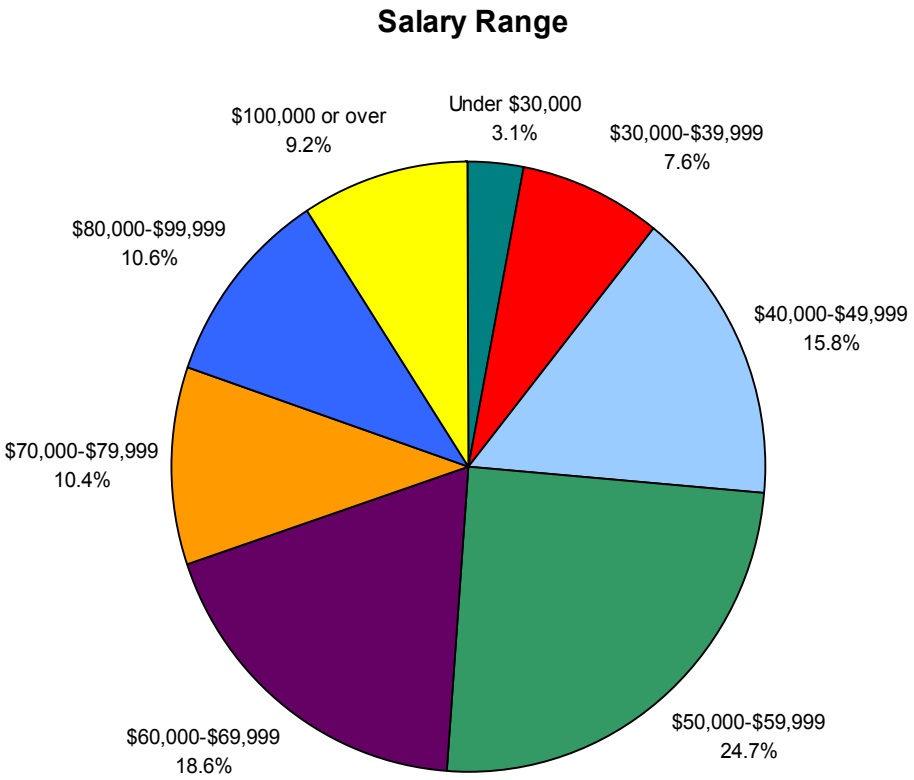


Table 15. Salary range by cohort.

	1994-95 Grad.	1995-96 Grad.	1996-97 Grad.	Total	
Under $20,000	1.3%	0.3%	1.6%	12	1.0%
$20,000 - $29,999	2.3%	2.0%	1.9%	24	2.1%
$30,000-$39,999	8.1%	6.8%	8.0%	88	7.6%
$40,000-$44,999	4.2%	5.8%	9.3%	74	6.4%
$45,000-$49,999	7.6%	9.1%	11.7%	109	9.4%
$50,000-$54,999	10.2%	13.6%	14.9%	149	12.9%
$55,000-$59,999	11.7%	11.9%	11.7%	136	11.8%
$60,000-$64,999	11.7%	11.6%	11.2%	133	11.5%
$65,000-$69,999	7.0%	8.3%	5.9%	82	7.1%
$70,000-$74,999	6.8%	6.1%	5.3%	70	6.1%
$75,000-$79,999	5.2%	5.6%	2.1%	50	4.3%
$80,000-$84,999	5.0%	3.8%	4.3%	50	4.3%
$85,000-$89,999	2.6%	2.3%	2.7%	29	2.5%
$90,000-$94,999	3.7%	1.8%	1.1%	25	2.2%
$95,000-$99,999	2.1%	1.3%	1.3%	18	1.6%
$100,000-$109,999	3.9%	3.0%	3.5%	40	3.5%
$110,000-$119,999	1.6%	2.3%	0.5%	17	1.5%
$120,000 or over	5.0%	4.5%	2.9%	48	4.2%

Table 16. Salary range by college.

	Arch.	Comp.	Engin.	Ivan Allen	Mgmt.	Sci.
Under $20,000	0.0%	0.0%	0.8%	4.3%	2.3%	1.3%
$20,000 - $29,999	6.7%	0.0%	1.0%	0.0%	4.6%	7.5%
$30,000-$39,999	23.3%	0.0%	4.3%	21.3%	9.2%	22.5%
$40,000-$44,999	13.3%	1.9%	4.9%	14.9%	10.0%	8.8%
$45,000-$49,999	15.0%	0.0%	10.3%	10.6%	8.5%	3.8%
$50,000-$54,999	5.0%	5.6%	14.9%	4.3%	13.8%	7.5%
$55,000-$59,999	10.0%	3.7%	13.0%	10.6%	9.2%	11.3%
$60,000-$64,999	6.7%	11.1%	13.8%	6.4%	4.6%	7.5%
$65,000-$69,999	5.0%	1.9%	7.9%	2.1%	7.7%	6.3%
$70,000-$74,999	6.7%	11.1%	6.4%	6.4%	4.6%	1.3%
$75,000-$79,999	1.7%	11.1%	4.3%	0.0%	5.4%	2.5%
$80,000-$84,999	0.0%	9.3%	4.2%	6.4%	3.8%	5.0%
$85,000-$89,999	0.0%	7.4%	2.8%	0.0%	0.8%	2.5%
$90,000-$94,999	1.7%	3.7%	2.0%	2.1%	1.5%	3.8%
$95,000-$99,999	0.0%	3.7%	1.5%	2.1%	2.3%	0.0%
$100,000-$109,999	0.0%	14.8%	2.9%	4.3%	2.3%	5.0%
$110,000-$119,999	1.7%	1.9%	1.7%	2.1%	0.8%	0.0%
$120,000 or over	3.3%	13.0%	3.1%	2.1%	8.5%	3.8%

446 (34.1%) respondents had participated in one or more continuing education activities since graduation. Of the 364 who indicated the number of activities, 40.9% had participated in 1-2 events and 29.9% had participated in 5 or more events. 460 (35.1%) of the respondents had attended at least one professional conference since graduation. Of the 192 who indicated the number of conferences, 43.2% had participated in 1-2 events and 25.5% had participated in 5 or more events.

Table 17. Professional development.

	Frequency	Percent
Participated in one or more continuing education activities since graduation	446	34.1%
Attended at least one professional conference since graduation	460	35.1%
Passed the fundamentals of engineering exam	293	22.4%
Licensed engineer or architect	44	3.4%

Appendix

Table 18. Knowledge, skills, and abilities: subject areas.

	Importance to Current Work			How well prepared by Georgia Tech		
	Mean	**Std. Dev.**	**N**	**Mean**	**Std. Dev.**	**N**
Knowledge of advanced mathematics	2.69	1.23	1544	4.02	0.93	1491
Knowledge of physical sciences	2.90	1.24	1544	3.81	0.92	1484
Knowledge of life sciences	2.26	1.20	1530	3.06	1.06	1444
Knowledge of computer science	3.67	1.16	1539	3.29	1.14	1488
Knowledge of humanities	3.52	1.05	1536	3.11	0.96	1478
Knowledge of social sciences	2.58	1.10	1536	3.00	0.96	1469
Knowledge of business and finance	3.57	1.17	1529	2.73	1.17	1475

Table 19. Knowledge, skills, and abilities: global work aspects.

	Importance to Current Work			How well prepared by Georgia Tech		
	Mean	**Std. Dev.**	**N**	**Mean**	**Std. Dev.**	**N**
Understanding of professional and ethical responsibility within discipline	4.10	0.96	1532	3.32	1.08	1498
Understanding of product development or design from a business perspective	3.46	1.29	1528	2.75	1.10	1481
Understanding of environmental aspects of professional practice within your discipline	2.98	1.26	1519	2.59	1.07	1475
Understanding of practice within your discipline in relation to societal and cultural issues	2.92	1.19	1523	2.63	1.04	1473
Understanding of practice within your discipline on a global scale	3.06	1.25	1520	2.64	1.07	1473
Being a licensed professional within your discipline	2.56	1.58	1520	2.97	1.27	1391

Table 20. Knowledge, skills, and abilities: specific work areas.

	Importance to Current Work			How well prepared by Georgia Tech		
	Mean	**Std. Dev.**	**N**	**Mean**	**Std. Dev.**	**N**
Ability to communicate orally	4.51	0.76	1542	3.41	1.05	1510
Ability to communicate in writing	4.40	0.81	1539	3.39	1.02	1507
Ability to function on multi-disciplinary or cross-functional teams	4.14	0.99	1537	3.43	1.07	1511
Ability to function in culturally and ethnically diverse environments	3.83	1.14	1540	3.56	1.06	1513
Ability to design and conduct experiments	3.01	1.34	1541	3.42	1.06	1504
Ability to analyze and interpret data	4.25	0.92	1541	3.93	0.95	1513
Ability to identify, formulate and solve problems within your discipline	4.32	0.94	1539	4.01	0.91	1512
Ability to design a system, component, or process to meet desired needs/quality	3.73	1.27	1536	3.51	1.04	1499
Ability to use computing technology in communications	4.05	1.07	1536	3.53	1.07	1507
Ability to use computing technology in discipline-specific analysis / design	3.63	1.28	1534	3.35	1.10	1499
Ability to synthesize and integrate knowledge across disciplines	3.75	1.06	1532	3.33	0.98	1504
Ability to use techniques, skills and tools necessary for practice in your discipline	3.99	0.99	1514	3.60	0.97	1489
Ability to think critically and logically	4.66	0.67	1540	4.28	0.84	1516
Ability to engage in lifelong learning and self-critique	4.33	0.87	1535	3.78	1.04	1512
Ability to exercise leadership skills	4.38	0.85	1537	3.46	1.09	1509

Table 21. Preparation: subject areas.

	Adequate	Insufficient	Excessive	Not Pertinent
Apply knowledge of advanced mathematics	759 51.0%	18 1.2%	639 43.0%	71 4.8%
Apply knowledge of physical sciences	893 60.3%	25 1.7%	481 32.5%	82 5.5%
Apply knowledge of life sciences	475 33.0%	70 4.9%	577 40.1%	316 22.0%
Apply knowledge of computer sciences	965 65.0%	272 18.3%	123 8.3%	125 8.4%
Apply knowledge of humanities	939 63.8%	290 19.7%	158 10.7%	84 5.7%
Apply knowledge of social sciences	581 39.7%	156 10.6%	457 31.2%	271 18.5%
Apply knowledge of business and finance	710 48.4%	493 33.6%	100 6.8%	163 11.1%

Table 22. Preparation: global work aspects.

	Adequate	Insufficient	Excessive	Not Pertinent
Understanding of professional and ethical responsibility within your discipline	1125 75.3%	285 19.1%	48 3.2%	37 2.5%
Understanding of product development or design from a business perspective	732 49.6%	396 26.8%	141 9.6%	206 14.0%
Understanding of environmental aspects of professional practice within your discipline	610 41.5%	352 24.0%	173 11.8%	334 22.7%
Practice within your discipline in relation to societal and cultural issues	631 43.0%	297 20.2%	190 13.0%	349 23.8%
Practice within your discipline on a global scale	624 42.5%	338 23.0%	175 11.9%	331 22.5%
Being a licensed professional within your discipline	496 35.8%	127 9.2%	414 29.9%	348 25.1%

Table 23. Preparation: specific work areas.

	Adequate	Insufficient	Excessive	Not Pertinent
Communicate orally, informally and in prepared presentations	1177 78.1%	292 19.4%	25 1.7%	13 0.9%
Communicate in writing	1166 77.7%	287 19.1%	33 2.2%	15 1.0%
Function on multi-disciplinary or cross-functional teams	1149 76.4%	246 16.4%	66 4.4%	43 2.9%
Function in culturally and ethnically diverse environments	1147 76.0%	163 10.8%	137 9.1%	62 4.1%
Design and conduct experiments	822 54.8%	94 6.3%	400 26.7%	184 12.3%
Analyze and interpret data	1332 88.2%	100 6.6%	62 4.1%	16 1.1%
Identify, formulate, and solve problems within your discipline	1359 90.2%	66 4.4%	63 4.2%	19 1.3%
Design to meet desired needs/quality	1094 73.3%	118 7.9%	168 11.3%	113 7.6%
Use computing technology in communications	1185 78.9%	181 12.1%	65 4.3%	70 4.7%
Use computing technology in discipline-specific analysis and design	1011 67.7%	181 12.1%	163 10.9%	138 9.2%
Synthesize and integrate knowledge across disciplines	1127 75.2%	189 12.6%	107 7.1%	75 5.0%
Practice in your discipline	1235 83.6%	143 9.7%	68 4.6%	31 2.1%
Think critically and logically	1451 96.0%	35 2.3%	16 1.1%	9 0.6%
Engage in lifelong learning and self-critique	1306 86.7%	144 9.6%	30 2.0%	26 1.7%
Exercise leadership skills	1191 79.2%	264 17.6%	24 1.6%	24 1.6%

Table 24. Satisfaction with equity of treatment, by gender and ethnicity

	Extremely Satisfied, Very Satisfied, or Satisfied				
	From fellow students	From staff	From student teaching assistants	From academic administrators	From faculty
Males	94.6	93.0	91.6	90.4	91.2
Females	89.6	89.9	88.4	85.8	83.8
Asian	90.4	93.1	91.8	87.5	90.4
African-American	80.3	87.0	85.9	73.8	69.0
Other Minorities	85.7	87.5	85.7	93.6	91.8
Caucasian	94.5	92.7	91.1	90.0	90.2