

**SURVEY OF ENGINEERING GRADUATES
CLASS OF 1997**

**UNIVERSITY OF HAWAI'I AT MANOA
CAREER SERVICES
2600 Campus Road
Honolulu, Hawai'i 96822**

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Gerald Lau
Career Counselor

University of Hawai'i
Career Services
2600 Campus Road
Honolulu, HI 96822-2205

**Survey of Engineering Graduates
Class of 1997**

INTRODUCTION

This report is based on a survey conducted in the Summer of 1998 by the Career Services office in cooperation with the College of Engineering. The survey focused on the post graduate activities of the College of Engineering Class of 1997. The data collected on the Civil, Electrical and Mechanical Engineering graduates related to their employment status, location of employment, type of work they are performing, methods used to secure employment and salary information. This is the fifteenth in a series of studies conducted by Career Services tracking University of Hawaii at Manoa postgraduate activities and the sixth that concentrates on engineering graduates.

It is hoped the data provided from this survey will identify current practices and issues related to the graduates' career search. In particular, we hope this information will be useful to faculty and staff in developing programs and services for students.

METHODOLOGY

The College of Engineering identified 153 graduates that comprised the Class of 1997. This population consisted of students who obtained their Bachelor of Science degrees in August 1996, December 1996 and May 1997. A cover letter (Appendix A), two questionnaires and a stamped return envelope were sent to all the graduates on July 2, 1998. One questionnaire (Appendix B) was prepared by the Career Services office and focused on the post graduate activities of the engineering graduates. The other questionnaire (Appendix C) was from the College of Engineering and asked the engineering graduates to assess the effectiveness of the College's educational programs. Data collected for the College of Engineering survey were released to the Assistant Dean of the College of Engineering and are not included in this study.

For the graduates who did not respond by July 31, 1998, contact by telephone calls was attempted to collect the survey data. For graduates that could not be reached directly, information was obtained through an immediate family member. Not everyone polled provided all the information requested, but whatever information they provided for the survey was included in this study. Attempts at telephone contacts continued until September 3, 1998, when at least one attempt was made to each non-respondent. To ensure confidentiality, one counselor handled all returned surveys and information obtained by telephone.

SURVEY RESULTS

1. RESPONSE RATES

Of the 153 graduates surveyed, 49 responded producing a response rate of 32 percent. Return rates for each of the three majors are presented in the following table.

Table 1: Response Rates

MAJOR	CIVIL	ELECTRICAL	MECHANICAL	TOTAL
Number Responded	26	14	9	49
Number of Graduates	84	42	27	153
Percentage of Respondents	31%	33%	33%	32%

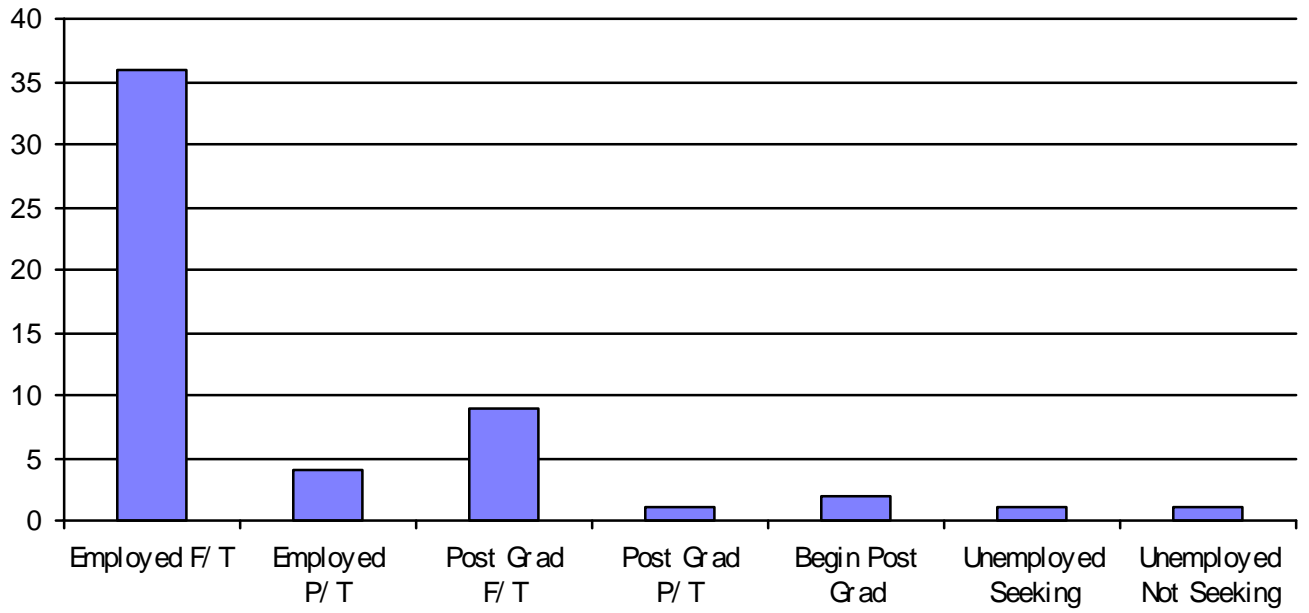
2. CURRENT EMPLOYMENT/CAREER STATUS

From the survey data collected, 67 percent of the graduates were employed full-time and seven percent were employed part-time. Nineteen percent of the graduates were continuing their education, and two percent were unemployed and seeking employment. Of the 19 percent of graduates attending school, two percent were working full-time and another four percent were working part-time. The remaining 13 percent of the graduates were attending school and not working. A further breakdown of the graduates' employment and career status is presented in Table 2 and Figure 1.

Table 2 Employment and Career Status

EMPLOYMENT/ CAREER STATUS	CIVIL		ELECTRICAL		MECHANICAL		TOTAL	
	N	Percent	N	Percent	N	Percent	N	Percent
Employed Full-time	19	63%	11	79%	6	60%	36	67%
Employed Part-time	4	13%	0	0%	0	0%	4	7%
Post Graduate Studies Full-time	5	17%	2	14%	2	20%	9	17%
Post Graduate Studies Part-time	1	3%	0	0%	0	0%	1	2%
To Begin Employment	0	0%	0	0%	0	0%	0	0%
To Begin Post Graduate Studies	0	0%	1	7%	1	10%	2	4%
Unemployed Seeking Employment	0	0%	0	0%	1	10%	1	2%
Unemployed Not Seeking Employment	1	3%	0	0%	0	0%	1	2%
Total	30	99%	14	100%	10	100%	54	101%

Figure 1: Employment/Career Status



3. EMPLOYER CLASSIFICATION

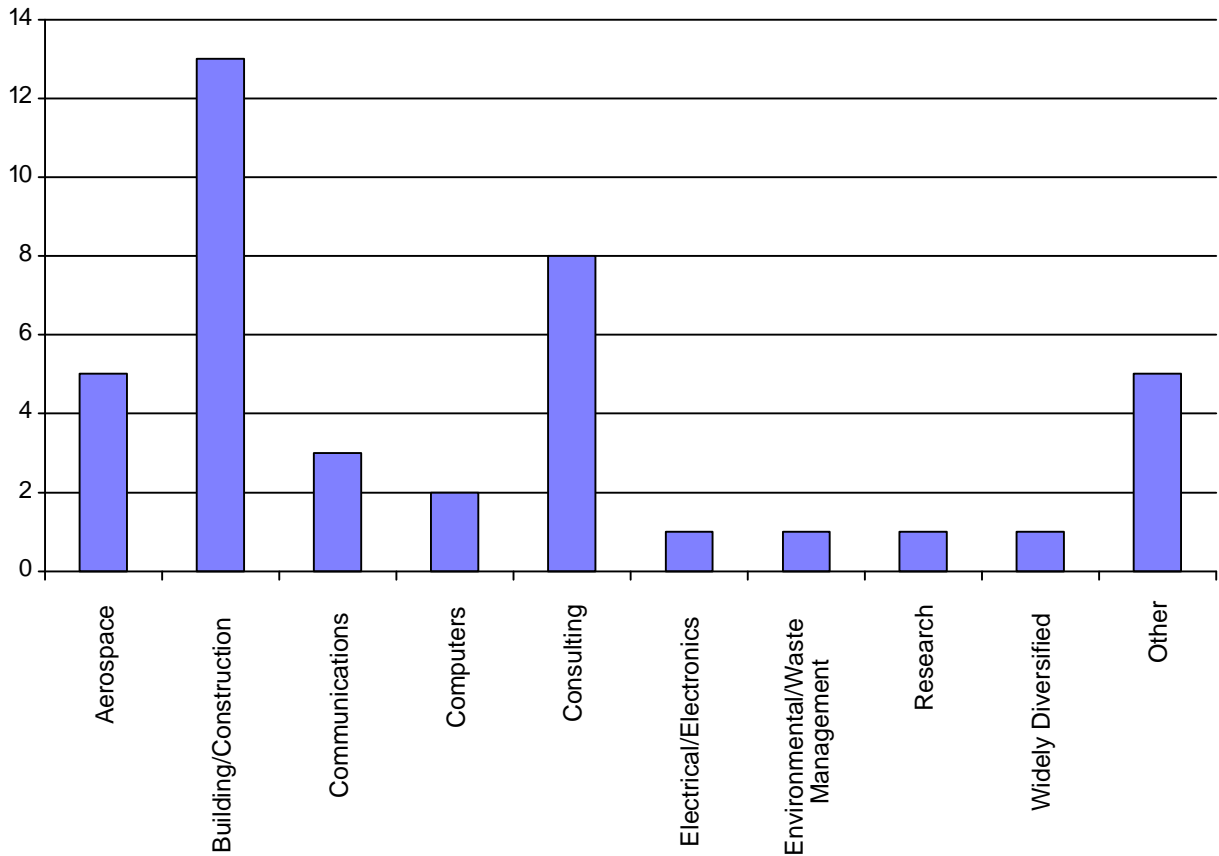
Eighty three percent (33 graduates) of the graduates that were working full or part-time were employed by private organizations. The remaining graduates held government positions. Percentages of the individual majors employed by private industry were 83 percent for Civil Engineering, 82 percent for Electrical Engineering and 83 percent for Mechanical Engineering. No one major was exclusively employed by private or government employers.

When identifying the employer types that hired the most graduates, the survey indicated that 33 percent of the Class of 1997 found careers with Building & Construction employers. This was followed by 18 percent employed by Consulting firms and 13 percent in the Aerospace industry. The Building & Construction category has been and still is significant to Civil Engineering majors as it employed 52 percent of those graduates. The Aerospace industry was the employer type that hired the largest number of Mechanical Engineering graduates at 33 percent. This employer type along with Communications were the top two categories that hired 27 percent of the Electrical Engineering graduates apiece. For further employer information see details in the following table and figure.

Table 3: Employer Classification

EMPLOYER CLASSIFICATION	CIVIL				ELECTRICAL				MECHANICAL				TOTAL			
	GOV.		PRIVATE		GOV.		PRIVATE		GOV.		PRIVATE		GOV.		PRIVATE	
EMPLOYER TYPE	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Aerospace	0	0%	0	0%	0	0%	3	27%	0	0%	2	33%	0	0%	5	13%
Building and Construction	0	0%	12	52%	0	0%	0	0%	0	0%	1	17%	0	0%	13	33%
Communications	0	0%	0	0%	0	0%	3	27%	0	0%	0	0%	0	0%	3	8%
Computers	0	0%	0	0%	1	9%	1	9%	0	0%	0	0%	1	3%	1	3%
Consulting	1	4%	6	26%	0	0%	0	0%	0	0%	1	17%	1	3%	7	18%
Electrical and Electronics	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	1	3%	0	0%
Environmental and Waste Management	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	1	3%	0	0%
Merchandising	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Research	1	4%	0	0%	0	0%	0	0%	0	0%	0	0%	1	3%	0	0%
Widely Diversified	0	0%	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	1	3%
Utilities	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	1	4%	1	4%	0	0%	1	9%	1	17%	1	17%	2	5%	3	8%
Total	4	17%	19	83%	2	18%	9	82%	1	17%	5	83%	7	18%	33	83%

Figure 2: Employer Type



4. LOCATION OF EMPLOYMENT

Data from the 40 full and part-time employed graduates showed that 78 percent (31 graduates) were employed in Hawaii (94 percent on Oahu and 6 percent on the island of Hawaii). The remaining 23 percent of the graduates were employed on the mainland (67 percent in California and 11 percent each in Nevada, Maryland and Washington). Sixty eight percent of the graduates employed in Hawaii were Civil Engineering majors. See Table 4 for additional information.

Table 4: Location of Employment

Location of Employment	Civil		Electrical		Mechanical		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
Hawaii	21	91%	7	64%	3	50%	31	78%
Mainland	2	9%	4	36%	3	50%	9	23%
Foreign	0	0%	0	0%	0	0%	0	0%
Total	23	100%	11	100%	6	100%	40	101%

5. SALARIES

Eighty three percent (33 graduates) of the employed graduates reported their full-time gross salary ranges. Overall 18 percent of the graduates indicated a current salary range between \$35,000 to \$39,000. Salary ranges of \$25,000 to \$29,999, \$30,000 to \$34,999, and \$40,000 to \$44,999 followed the overall range with 15 percent of the graduate population apiece. The individual mode salary ranges for Civil Engineering majors were \$30,000 to \$34,999, Electrical Engineering majors from \$45,000 to \$49,999, and Mechanical Engineering majors between \$40,000 to \$44,999. Overall 20 percent of the graduates indicated gross salary ranges above \$45,000. Of the four graduates that were part-time employed, three indicated their salaries between \$15,000 to \$19,000 and one indicated an annual salary range between \$45,000 to \$49,999. Table 5 provides additional details of graduate salary ranges.

Table 5 Salary Ranges

Salary Ranges	Civil		Electrical		Mechanical		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
< \$15,000	0	0%	0	0%	0	0%	0	0
\$15,000 - \$19,999	3	18%	0	0%	0	0%	3	9%
\$20,000 - \$24,999	2	12%	0	0%	0	0%	2	6%
\$25,000 - \$29,999	3	18%	0	0%	2	33%	5	15%
\$30,000 - \$34,999	5	29%	0	0%	0	0%	5	15%
\$35,000 - \$39,999	3	18%	2	20%	1	17%	6	18%
\$40,000 - \$44,999	0	0%	2	20%	3	50%	5	15%
\$45,000 - \$49,999	0	0%	4	40%	0	0%	4	12%
\$50,000 - \$54,999	1	6%	2	20%	0	0%	3	9%
\$55,000 - \$59,999	0	0%	0	0%	0	0%	0	0%
\$60,000 - \$64,999	0	0%	0	0%	0	0%	0	0%
> \$65,000	0	0%	0	0%	0	0%	0	0%
Total	17	101%	10	100%	6	100%	33	99%

6. JOB SEARCH DURATION

From the data collected, 43 percent of the graduates secured employment before graduation. Fourteen percent found employment within four weeks of graduation, 11 percent within eight weeks, 14 percent within 12 weeks and 18 percent took over 12 weeks. See table below for an additional break down of the search duration information.

Table 6: Job Search Duration

Job Search Duration	Civil		Electrical		Mechanical		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
Before Graduation	6	55%	4	36%	2	33%	12	43%
1-4 Weeks After	1	9%	2	18%	1	17%	4	14%
5-8 Weeks After	2	18%	1	9%	0	0%	3	11%
9-12 Weeks After	1	9%	3	27%	0	0%	4	14%
> 12 Weeks	1	9%	1	9%	3	50%	5	18%
Total	11	100%	11	99%	6	100%	28	100%

7. FACTORS IN SECURING EMPLOYMENT

When the graduates of the Class of 1997 were asked to identify the most important factors they believed helped them attain their current work or continued studies, 54 percent indicated their academic major. This was followed by 52 percent indicating their personal and interpersonal skills, and another 46 percent noted their academic ability and performance that lead them to their current status.

Table 7: Factors in Securing Employment

Factors in Securing Employment	Civil (N = 25)		Electrical (N = 13)		Mechanical (N = 8)		Total (N = 46)	
	N	Percent	N	Percent	N	Percent	N	Percent
Academic Major	13	52%	9	69%	3	38%	25	54%
Academic Ability & Performance	9	36%	6	46%	6	75%	21	46%
Personal or Interpersonal Skills	12	48%	8	62%	4	50%	24	52%
Work or Intern Experience	12	48%	3	23%	1	13%	16	35%
Extracurricular Experiences	0	0%	2	15%	1	13%	3	7%
Job Specific Ability or Skills	5	20%	5	38%	0	0%	10	22%
Career or Academic Advisor	3	12%	6	46%	0	0%	9	20%
Networking Through Family and Friends	2	8%	2	15%	1	13%	5	11%
Not Applicable	1	4%	0	0%	0	0%	1	2%

8. SOURCES USED TO SECURE EMPLOYMENT

The three most used sources to secure employment indicated by the graduates were applying directly to the employer, use of UHM Career Services, and newspaper and Web classifieds. When asked to identify the effective job search method that lead to interviews and job offers, 29 percent indicated they applied directly to the employer and another 29 percent identified the use of UHM Career Services. Referrals from professors and advisors (13 percent), and family and friends (13 percent) were the next successful sources graduates used to attain interviews and job offers. See table below for additional information.

Table 8: Sources Used to Secure Employment

Employment Sources	Civil (N = 21)		Electrical (N = 11)		Mechanical (N = 5)		Total (N = 37)	
	N	Percent	N	Percent	N	Percent	N	Percent
Applied Directly	10	48%	7	64%	3	60%	20	54%
Referral by Professor/Advisor	6	29%	6	55%	0	0%	12	32%
Referral by Family or Friend	3	14%	3	27%	1	20%	7	19%
Networking on Own	4	19%	2	18%	3	60%	9	24%
Previous Employer	2	10%	1	9%	0	0%	3	8%
Career Services	10	48%	8	73%	2	40%	20	54%
Newspaper/Web Classifieds	6	29%	4	36%	4	80%	14	38%
Government Employment Agency	2	10%	1	9%	0	0%	3	8%
Private Employment Agency	1	5%	1	9%	1	20%	2	5%
Other	2	10%	0	0%	0	0%	2	5%

9. JOB RELEVANCE

Of the 40 graduates that held full or part-time positions, 65 percent indicated their current jobs were relevant to their career goals. Another 30 percent of the graduates felt their jobs were somewhat relevant and five percent indicated their jobs were not relevant to their career goals.

Table 9: Job Relevance

Job Relevance	Civil		Electrical		Mechanical		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
Relevant	15	65%	7	64%	4	67%	26	65%
Somewhat Relevant	6	26%	4	36%	2	33%	12	30%
Not Relevant	2	9%	0	0%	0	0%	2	5%
Total	23	100%	11	100%	6	100%	40	100%

10. CAREER SERVICES' PROGRAMS

The responses from the Class of 1997 graduates showed that 57 percent were satisfied with the services they received from Career Service and nine percent were not. Twenty two percent of the graduates did not use our services because they were already employed, did not need assistance, did not have the time or had other reasons than those mentioned. Finally, 13 percent (six graduates) did not know of our services.

Table 10: Career Services' Programs

Career Services Programs	Civil		Electrical		Mechanical		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
Used services and were satisfied	14	58%	8	62%	4	44%	26	57%
Used services and were not satisfied	0	0%	2	15%	2	22%	4	9%
Did not use services, already employed	1	4%	0	0%	1	11%	2	4%
Did not use services, did not need assistance	2	8%	0	0%	1	11%	3	7%
Did not use services, no time	1	4%	0	0%	0	0%	1	2%
Did not use services, other reasons	2	8%	2	15%	0	0%	4	9%
Did not know of services	4	17%	1	8%	1	11%	6	13%
Total	24	99%	13	100%	9	99%	46	101%

11. GRADUATE STUDIES

From the survey conducted, 23 percent (12 graduates) of the graduates were attending or accepted to graduate school. Of the six Civil Engineering graduates attending graduate school, three were attending graduate school full-time and not working; two graduates were attending graduate school full-time and working part-time; and one was attending graduate school part-time and working full-time. Two Electrical Engineering graduates were attending graduate school full-time and not working, and another was accepted to graduate school while working full-time. This was similar to the Mechanical Engineering graduates two of whom were continuing graduate studies full-time and not working, and one was accepted to graduate school and working full-time. The Civil Engineering graduates indicated their graduate studies were in the fields of Business Administration, Environmental Engineering, Civil Engineering, and Law. All the Electrical and Mechanical graduates were continuing their graduate studies in their respective undergraduate fields.

SUMMARY

- **Employment Status:** From those surveyed 74 percent were employed either full-time or part-time. Twenty three percent were continuing their education either full-time, part-time, or were accepted and waiting to attend graduate school. The combined graduates that were employed or continuing their graduate school represented 96 percent (46 graduates) of the total that responded. Of the responding graduates, two percent reported that they were unemployed and looking for work. This statistic is low when compared to the previous survey conducted in 1993 that indicated unemployment at 20 percent. The lower unemployment percentage could be explained by an increase of mainland opportunities that were not present during the recession in the early '90's. In addition, these college graduates were aware of the economic difficulties while pursuing their degrees and planned career search strategies accordingly. This is reflected in a higher percentage of graduates finding mainland employment or continuing their education in graduate school.
- **Types of Employment:** Private industry employed the majority of the graduates in a variety of fields. The Building and Construction Employers hired the majority of Civil Engineering Graduates at 52 percent. There was a wider variety of employers hiring Electrical and Mechanical Engineering graduates with no one employer type hiring a majority of these majors.
- **Location of Employment:** Though the majority of the graduates were employed in Hawai'i, 23 percent secured mainland employment. This is a higher percentage of graduates than the six percent and 16 percent reported in the 1993 and 1990 engineering surveys. Of those graduates that found mainland employment, the majority (78 percent) were either Electrical or Mechanical Engineering majors. Sixty eight percent of those employed in Hawai'i were Civil Engineering majors.
- **Job Search Duration:** Overall, the 1997 graduates took a longer time to secure employment than the 1993 and 1990 graduates. Fifty seven percent of the graduates surveyed indicated they were employed within the first month after graduation. This statistic was 17 and 19 percent lower than the 1993 and 1990 graduating class. A possible explanation could be Hawai'i's economic situation and a more competitive job market could have extended the graduates' employment search.
- **Sources Used to Secure Employment:** When the graduates were asked to identify the sources they used to secure employment, many indicated a variety of job search strategies. The three most used were applying directly to employers, using Career Services and the use of newspaper and Web classifieds. When the graduates were asked which source they found to be most successful, they indicated applying directly, Career Services, and referrals from a wide range of personal contacts.
- **Comments:** When reviewing the comments from the Class of 1997, many stated similar concerns as those indicated in previous surveys. The Class of 1997 advised current and soon to graduate students to obtain work experience prior to graduation, start their job search early and to keep up their job search efforts. Additionally, several of the graduates offered advice to future engineering

graduates such as: “Build a rapport with professors” and “show individuality in either your resume or by conversation w/ an employer.” These comments highlight the graduates’ identifying personal and interpersonal skills as an important factor in securing employment.

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SECTION III (continued)

11. When did you secure this job?

- a. Before graduation
- After graduation Check one:
 - b. 1-4 weeks after
 - c. 5-8 weeks after
 - d. 9-12 weeks after
 - e. >12 weeks

12. Is this your first job after graduation? a. Yes b. No If no, how many jobs have you had? ____

13. Please check the box of each avenue you used in your job search.

- a. Applied directly to organization
- b. Referral by Professor/Advisor
- c. Referral by Family and Friend
- d. Networking on your own
- e. Previous employer
- f. Career Services (Dial-A-Job, campus interview, etc.)
- g. Newspaper/Web classifieds
- h. Government employment agency
- i. Private employment agency
- j. Other (Specify: _____)

14. Of the job search methods you used, which did you find effective (i.e. led to interviews, job offers)?

15. Please indicate your current gross annual salary range.

- a. Under \$15,000
- b. \$15,000-19,999
- c. \$20,000-24,999
- d. \$25,000-29,999
- e. \$30,000-34,999
- f. \$35,000-39,999
- g. \$40,000-44,999
- h. \$45,000-49,999
- i. \$50,000-54,999
- j. \$55,000-59,999
- k. \$60,000-64,999
- l. over \$65,000

SECTION IV If you are attending school or accepted and will begin school, complete this section.

16. Name of institution you are attending.

School Name

Location (City & State/Country)

17. Please name the degree and major/discipline you are pursuing.

SECTION V Please fill out this section completely.

18. Please indicate your usage of CS programs (counseling, workshops, career fairs, Dial-A-Job, on-campus interviews, resume reviews, Web page CS library, practice interviews, etc.)

- a. Used service(s) and was satisfied
- b. Used service(s) and was not satisfied
- Knew about services but did not use because
 - c. Already employed
 - d. Did not need assistance
 - e. No time
 - f. Other
- g. Did not know of services

19. If you made use of any service, what was the main reason for your satisfaction or dissatisfaction?

20. When you attended UHM, which one of the following methods would you have preferred when accessing career information?

- a. Through engineering clubs and organizations
- b. Checking Web sites (www2.hawaii.edu/career)
- c. Reading email announcements
- d. Reading bulletin boards in Holmes Hall
- e. Other (Specify: _____)

21. What advice would you offer current and soon to be graduating students in your major?

**UNIVERSITY OF HAWAII – COLLEGE OF ENGINEERING
SURVEY OF ENTRY-LEVEL ENGINEER SKILLS**

The College of Engineering is interested in assessing your perception of the importance of various skills in engineering work settings. This information will be used to enhance the undergraduate engineering curricula at the University of Hawaii. Questions 1-27 directly address specific skills. Questions 28-32 provide an open-ended opportunity to further evaluate your learning experiences at the University of Hawaii's College of Engineering.

Please indicate, based on your experience in engineering work settings, (a) the importance of the following skills for entry level engineers and (b) how well prepared you were, as a new graduate, to function effectively with regard to each of the skills. *Please circle the descriptor which best describes (a) importance AND (b) the extent of preparation received in the skill area.*

1. Ability to apply mathematical knowledge to engineering tasks

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

2. Ability to apply scientific knowledge to engineering tasks

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

3. Ability to apply engineering knowledge to engineering tasks

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

4. Ability to design experiments

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

5. Ability to conduct experiments

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

6. Ability to analyze data

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

7. Ability to interpret data

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

8. Ability to design a system, component or process to meet the desired needs

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

9. Ability to function effectively on a single-discipline team

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

10. Ability to function effectively on multi-disciplinary team

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

11. Ability to identify engineering problems

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

12. Ability to formulate engineering problems

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

13. Ability to solve engineering problems

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

14. An understanding of professional and ethical responsibility

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

15. Ability to communicate effectively as a public speaker

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

16. Ability to communicate effectively using computer resources

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

17. Ability to communicate effectively through written vehicles, e.g., memos, letters, proposals, reports

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

18. Sufficient education to understand the impact of engineering solutions in a global/societal context

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

19. Recognition of the need for and an ability to engage in life-long learning

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

20. Knowledge of contemporary issues

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

21. Ability to use the techniques, skills and modern engineering tools necessary for engineering practice

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

22. Performance under pressure

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

23. Adaptability to different cultural environments

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

24. Ability and willingness to learn new skills

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

25. Initiative

(a) Very Important	Important	Not so important	Not at all important
(b) Very Prepared	Prepared	Not so prepared	Not at all prepared

26. Sensitivity and acceptance of style differences in others

- | | | | |
|--------------------|-----------|------------------|----------------------|
| (a) Very Important | Important | Not so important | Not at all important |
| (b) Very Prepared | Prepared | Not so prepared | Not at all prepared |

27. How satisfied were you overall with your undergraduate education at the College of Engineering?

- | | | | |
|----------------|--------------------|-----------------------|-------------------|
| Very satisfied | Somewhat satisfied | Somewhat dissatisfied | Very dissatisfied |
|----------------|--------------------|-----------------------|-------------------|

28. How would you change the training you received to better prepare future students for an engineering position?

29. What did you find most useful in preparing you to function as an engineer?

30. What did you find least useful in preparing you to function as an engineer?

31. In which work skills/abilities do feel most competent?

32. In which work skills/abilities do you feel least competent?

Appendix D: Personal Comments to Question 19

The following is a list of comments from the question, "If you made use of any services, what was the main reason for your satisfaction or dissatisfaction?" These comments are presented by major and are in unedited form.

Civil Engineering

Response from the CS office always prompt. Mr. Lau was extremely helpful.

Career Counselor was very helpful in asking questions

Received lots of help with my cover letter and resume. Also received help in gaining experience in interviews.

Got an interview w/a company.

I had good experiences with the counselors, helpful, good feedback.

Helpful.

Gerald Lau was very helpful in preparing me for interviews.

Helped me clean up my resume

What is learn in college is nothing compared to what you learn on the job.

Satisfaction – Information on how to look for a job. Support of counselor.

Got me intern position & interviews, foot in the door

Not Applicable

Helpful people, current information

Convenient, current, descriptive

Electrical Engineering

Resume drafts & campus interviews

Obtained interviews via services

I mainly used Career Fairs and counseling for help w/my resume. Both yield positive results.

CS's friendly service

Staff did not follow up - 1 case had an employer who "disappeared" after interview; Failed to inform another interviewer that had signed up

On campus interviews for Hawaii companies/organizations

On-campus led to further interviews w/companies

Assistance in obtaining job interviews

Availability of help from Career Services Staff. Quality of assistance was high.

Did not get a job through it.

The resume workshop was very helpful.

Mechanical Engineering

Received job offers.

the materials are not current.

Easy access to information

N/A

Job assignment was low pay & not long term.

Appendix E: Personal Comments to Question 21

The following are responses from graduates to the question, "What advice would you offer current and soon to be graduating students in your major?" Comments are presented in unedited form.

Civil Engineering

Establish contacts prior to graduation. Grades aren't always everything.

Try to get an engineering related job or intern as soon as possible.

Submit resumes early and consider working as an intern while going to school.

Get experience, intern.

*-Be patient
-Be aggressive*

It is easier to obtain employment through networking; however, if applying directly to an organization, try to show individuality in either your resume or by conversation w/ an employer - something to make them remember you. They see so many resumes and most times you get lost in a pile of papers. They seem to like people that are determined and hardworking, willing to do 110%, someone who will get along w/others in the office.

Good luck!

Get good grades & work hard or you won't get many opportunities

Get into the Co-op program.

What is learn in college is nothing compared to what you learn on the job.

Work (volunteer) @ your field. Participate in clubs/organizations/activities. Learn/absorb as much as you can this way.

Satisfaction - Information on how to look for a job. Support of counselors.

Consider moving to the mainland to develop/start a career especially in consulting and design. Entry level positions in Hawaii are very limited and most often offer approx. \$28,000/yr. w/a Master's degree (from a mainland university)! With Hawaii dependence on tourism and not industry/industrial-related services, projects in large-scale sums will always limit the growth of young engineers who wish to remain in Hawaii. It is best to develop a career on the mainland then return home with experience and P.E. under one's belt. It is at that time that one will be able to afford living on one's own in the 50th state.

Intern/co-op

Get an intern ASAP!

*Be personable & sociable, not shy
Grades aren't the only important thing*

Work hard for your goal

Work while still in school to find out if this is the right major for yourself.

Be patient in finding job.

Get an intern in an engineering firm before you graduate to see what engineering is really all about. In consulting engineering what you learn in school is not what you do in the real world.

Don't trust or rely on the Career Counseling/Placement Counselor. My uncle had asked me why he didn't see my resume. The career counselor didn't even let me know that I could turn my resume in and have it stored at UHM for access to companies.

Obtain a summer job rather than attempting to complete school quicker. No class can make up for experience in the working world. Getting one's foot in the door may secure you a job after graduation. If you work in your field earlier enough in your schooling you can make sure you are in the right field.

Electrical Engineering

Don't quit - good things happen when you least expect it!

Sign up for campus interviews, talk to professors.

Go to career fairs.

look for jobs prior 1 year before graduation.

Get involved with projects & build a rapport with professors. No matter how tough it is to get through your major landing that first job makes it all worthwhile.

Don't rely on your grades - they aren't important toward getting an interview. Network with friends, recent graduates, professors, and the people that visit the Expo. Use Career Services when all else fails.

Put in as much effort to looking for a job as you would for a 3 credit class.

Gain experience through internships or the labs

Obtain experience in your field of study through internships. Talk to people that are actively working in your field of study. Maintain a high GPA.

My advice is to interview with as many employer's as you can. This can be accomplished by taking advantage of On-Campus interviews and sending your resume out to other companies. For job opportunities, I would also suggest looking on the WEB. Also got recommendations from at least 1 or 2 professors. Finally, I would also suggest applying to some graduate schools and taking the GRE as a back-up plan.

Look at California.

Send resume early, don't wait until month before graduating.

My advice to them is to take advantage of the CS program that has to offer. It is never too early or too late to start.

Mechanical Engineering

Start your job search early (not in your final semester) and try to keep as many options as you can open. Use Career Services as much as possible, talk to Gerald Lau (he was very helpful).

don't give up

There is very little opportunities for mechanical engineers in Hawaii. I'd have to say, go to the mainland; better opportunities, better salary.

If you don't have a family member or friend with connections, go to the mainland or switch majors.

Never let anyone tell you that you can't succeed. No matter what your GPA is - apply, apply, apply!!

Must send in resume at least 1/2 year before graduation date. Follow up on each resume sent out. And always remember to give thanks to the employers.

Appendix F: Employer List

The following list employers that hired the Class of 1997 graduates as reported by this survey. The number enclosed in parentheses next to the employer's name marks employers hiring more than one graduate.

Civil Engineering Majors:

Fletcher Pacific Construction Co., Ltd.
Hawaiian Dredging Construction Co.
Jas W. Glover, Ltd.
Kaikor Construction
Kiewit Pacific Co.
Mitsunaga & Assoc.
Naval Facilities Engineering Command, Pacific Division
North Pacific Construction, Inc.
Oahu Construction
Okahara & Assoc.
PELSA, Inc.
PER, Inc.
RMF, Inc.
South Pacific Steel
Stanley Yim & Assoc. (2)
Tetra Civil Engineering & Land Planning
Thomas Cook Currency Services, Inc.
U.S. Geological Survey
USR Greiner, Inc.
University of Hawaii
Water Resources Research Center
Wm. Dean Alcon & Assoc.

Electrical Engineering Majors:

Adtech, Inc. (3)
Cedric Chong & Assoc.
Hewlett Packard
Mitsubishi International Corp.
Ottis Elevator Co.
Raytheon
Space and Naval Warfare Systems Center-- San Diego (2)
TRW (2)

Mechanical Engineering Majors:

Boeing
Hawaiian Airlines
Mechanical Engineers of Hawaii Corp.
Ocean House Builders
TRW
U.S. Army Corps. of Engineers