2003 SCEA NATIONAL SURVEY RESULTS

The 2003 SCEA national survey was completed in March 2004. This survey provides information to the membership on salary; work, education and SCEA related activities. The response to the survey was very good with 445 surveys returned which represents almost 40% of the membership. The compiled statistics are provided below. Since not every question was answered, when an average or percentage of the total is given, the calculation is based on the total number responding to that specific question. Throughout the survey the number of respondents varies. Salary figures have been rounded to the nearest 100 dollars and percentages have been rounded to the nearest decimal point.

DEMOGRAPHICS

Exhibit 1 shows the overall profile of the respondents to the survey.

PROFILE OF RESPONDENTS	
Gender	
Male	78.5%
Female	21.5%
Mean Age (Years)	49
Male	50
Female	44
Mean Years Experience	18.4
Male	20
Female	12.5
Supervisors	41.2%
Consultants	10.9%
Certified Cost Estimators/Analysts	38.0%

Exhibit 1. Profile of Respondents

Exhibit 2 provides the employment status of the respondents. The overwhelming majority of the respondents were full-time employees. This is understandable since the profession is going through a full-employment phase – people are hard to find. The overall percentage of unemployed is very low.

EMPLOYMENT STATUS		
Status	Number	Percent
Full-time	377	93.1
Part-time	13	3.2
Retired	13	3.2
Unemployed	2	0.5
Total	405	100.0

Exhibit 2. Employment Status

Exhibit 3 identifies the percentage of respondents by age. There seemed to be a good distribution by age for those who responded. It can be assumed that the majority of our members have been in the business for many years.

RESPONDENTS BY AGE		
Age Group	Number	Gender
<35	38	Male - 23 Female – 15
35-44	63	Male - 44 Female – 19
45-54	101	Male – 82 Female - 19
>55	101	Male - 89 Female – 12

Exhibit 3. Respondents By Age

Exhibit 4 shows the level of education the respondents have completed. Surprisingly almost 65% of those who responded have either a master's degree or a doctorate. The level of education of the SCEA membership is very impressive and unusually high for most organizations of this type.
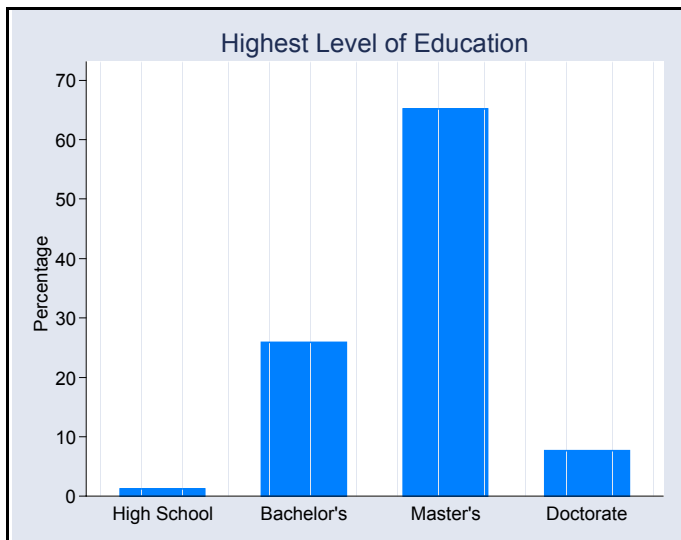

Exhibit 5 shows the principle field of study in which they received their degree. In some cases, people responded with more than one answer (i.e., one for undergraduate and one for graduate degree.) In those cases, the last degree was considered to reflect the primary field. Overall the area of Business Management was the largest field of study. The respondents have a technical background including engineering and accounting. This continues to conclude that the profession requires both technical and general business knowledge to perform the cost estimating and analysis function.

The job function for each respondent varies widely. The question stated: "what one area best describes your job function." Many of the respondents answered with two or three areas, which indicates that many perform multiple functions. We were hoping by narrowing the number of job options on this survey, respondents would be better able to fit their function within those given. This still did not occur, which also accounts for the high percentage of "Other" functions. Exhibit 6 provides the percentage of respondents and the job function they perform.
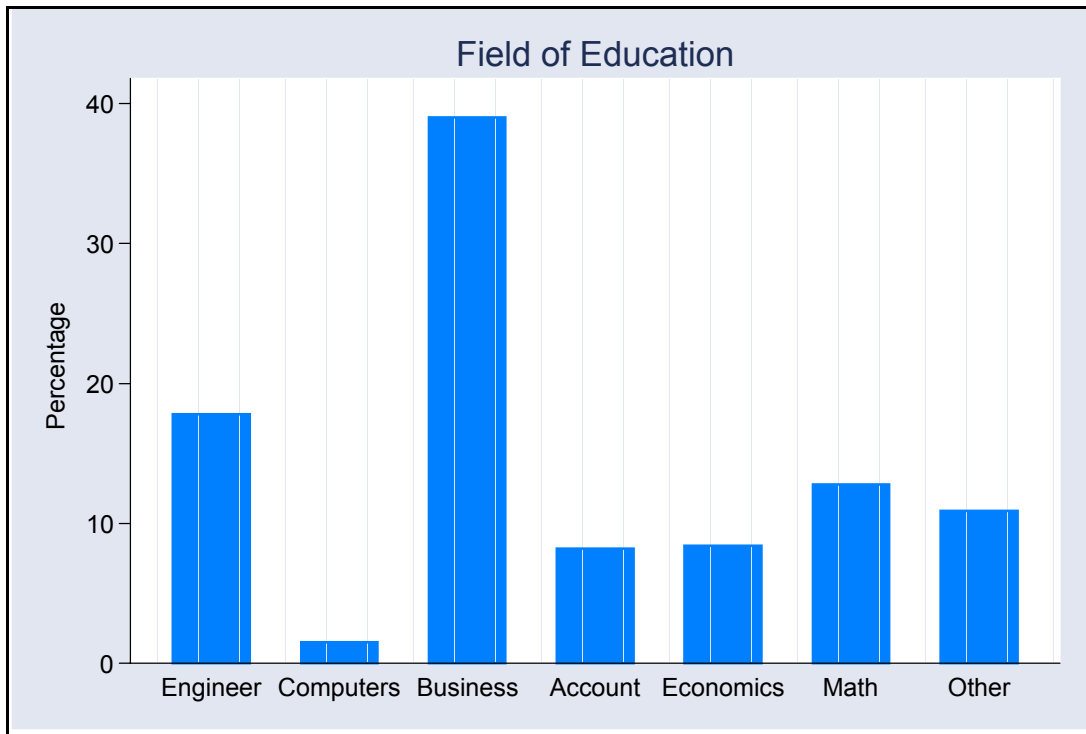
Exhibit 5. Principal Field of Education

Approximately 41% of the respondents are supervisors. While the range of those supervised varies widely, the median number supervised is about 6 people.
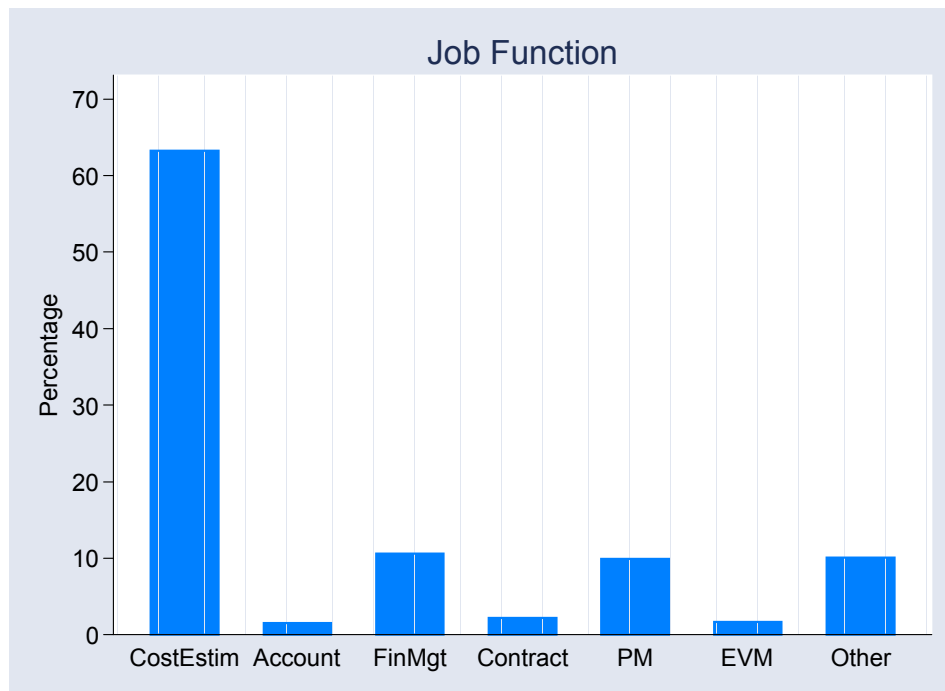

Exhibit 6. Respondents By Job Function

Exhibit 7 provides a profile of the respondents by chapter. The result shows that the survey fairly

represented the actual membership. In other words, the Washington Chapter is the largest and they had the most responses. Those who do not belong to a chapter are second in size and they were the second largest respondents. It is interesting to note that almost 6% of the respondents do not know to which chapter they belong. This was due to many reasons, most of which were that they have never been notified by a chapter of meetings or national which chapter is serving them.

CHAPTER	NO. RESPONDENTS	PERCENT
Atlanta	2	0.5
Baltimore	6	1.5
Central St. Louis	8	2.0
Dayton	33	8.2
Greater Florida	24	5.9
Greater Phoenix	10	2.5
Huntsville	32	7.9
Minneapolis	2	0.5
New England	35	8.6
Pikes Peak	14	3.5
Rocky Mountain	6	1.5
San Diego	6	1.5
Southern California	26	6.5
Southern Maryland	3	0.7
Washington D.C.	109	26.9
Chapter Unknown	32	7.9
No Chapter	50	12.4

Exhibit 7. Respondents by Chapter

Another question dealt with the primary business of each respondent. The majority (64%) of the respondents worked for Business/Industry while the remaining 36% was split between military or civilian in the Government. Exhibit 8 shows the breakdown between industry, government and university. Below the exhibit shows the type of business the industry respondents primarily support.
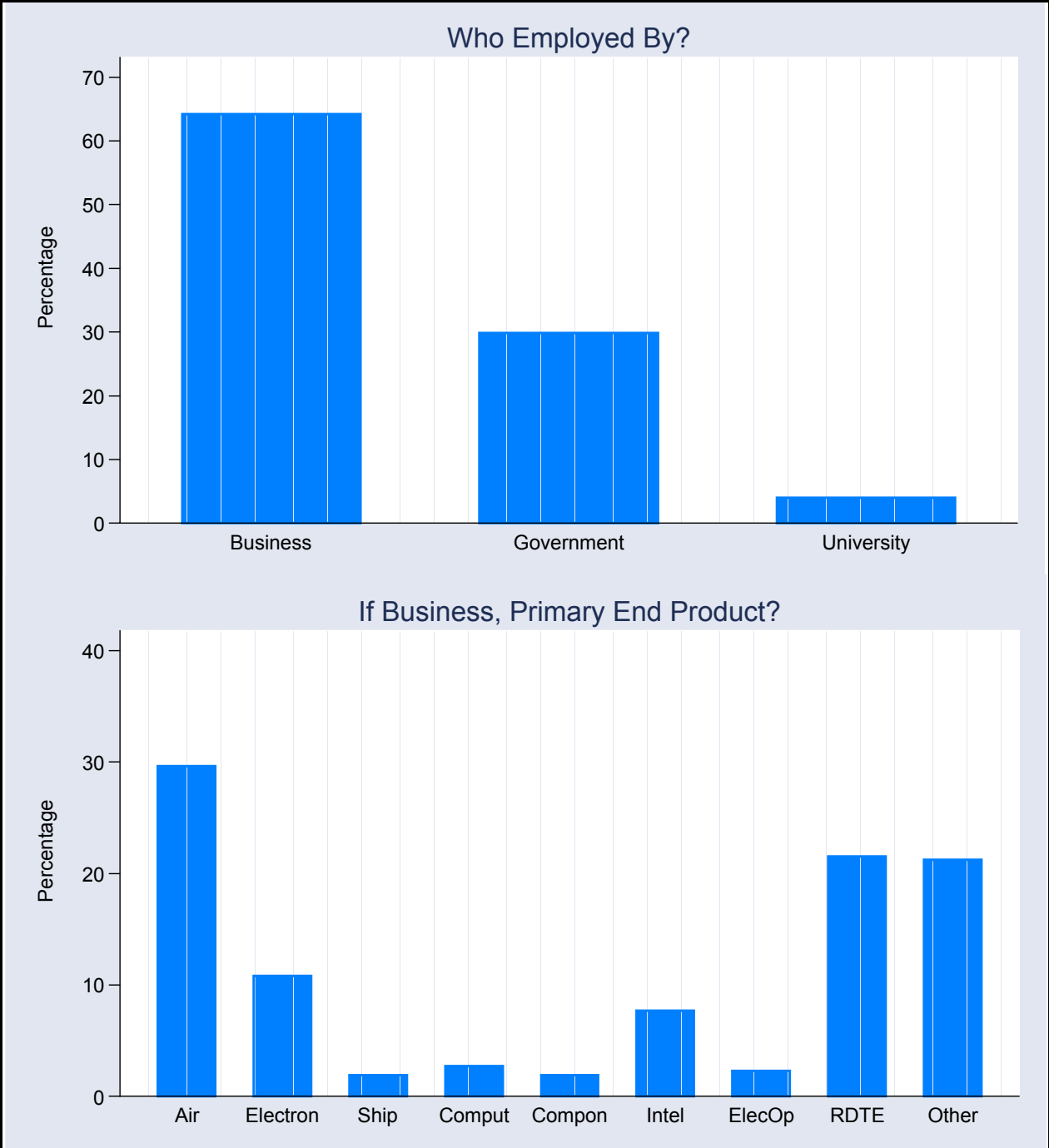
Who Employed By?

If Business, Primary End Product?

Exhibit 8. Who Employed By — Primary Business/Industry

The split in government employees between Military and Civilian is 83.2% for Civilian and 16.7 representing the Military. The breakdown of what percent is in each military branch is shown in Exhibit 9.

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The largest percentage of Civilian respondents is 82% in DoD with the
remainder in the "Other" category. "Other" includes Housing and Urban
Development (HUD), Missile Defense Agency (MDA), Federal Aviation Agency
(FAA), National Aeronautics and Space Agency (NASA), and Department of Energy

Exhibit 9. Military Branch Percentage

Military Branch -Percentage
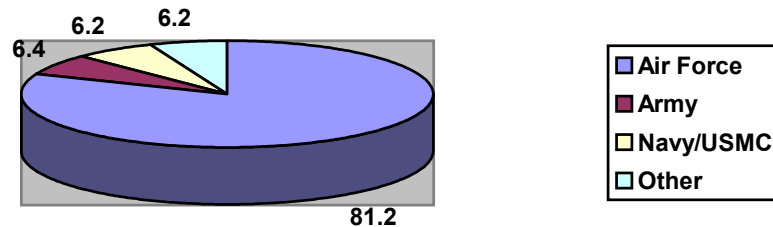
(DOE).
In addition, many SCEA members are active members of other societies or
associations. The largest number of respondents were members of the American
Society of Military Comptrollers (ASMC) – 18%, International Society of
Parametric Analysts (ISPA) – 15%, Project Management Institute (PMI) -9%.,
National Contract Management Association (NCMA) – 8%, and Military Operations
Research Society (MORS) – 6%.

For purposes of this survey we categorized the United States into 12 regions. Exhibit 10 provides a
breakdown of the states located in each region.

REGION	STATES IN REGION
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Mid Atlantic	New Jersey, New York, Pennsylvania
East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
Atlantic	Delaware, District of Columbia, Maryland, Virginia, West Virginia
South East	Florida, Georgia, North Carolina, South Carolina
East South Central	Alabama, Kentucky, Mississippi, Tennessee
West South Central	Arkansas, Louisiana, Oklahoma, Texas
Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah
Pacific	Alaska, California, Hawaii, Oregon, Washington
Canada	

Exhibit 10. Definition of Regions (States included in each Region)

COMPENSATION

Salary was the most interesting subject of the survey. The basic category breakdown is shown in the following exhibits. The median salary in 2003 was approximately $94,000. For reference purposes, our 1993 salary survey had the median salary at $60,000 or a 57% increase. The median salary for 2002 was $90,000. The median increase from 2002 to 2003 is 4.4%.

Exhibit 11 provides the median salary by geographical region and Exhibit 12 breaks down median salary by job function and gender. Where no salary is identified, the number of respondents is too small to provide reliable results. Exhibit 13 provides a further breakdown by geographical region and gender.

Median Salary by Geographical Region

Geographical Region	Median Salary ($)
New England	97,500
Mid Atlantic	100,000
East North Central	85,000
West North Central	65,000
Atlantic	100,000
South East	75,000
East South Central	85,000
West South Central	100,000
Mountain	80,000
Pacific	100,000

Exhibit 11. Median Salary by Geographical Region

Job Function	Median Salary ($)	
	Males	Females
Cost estimating/analysis	100,000	76,000
Accounting	100,000	---
Financial management	83,500	94,000
Contracting	94,000	---
Program management	105,000	---
Earned value management	---	---
Other	100,000	91,500

Exhibit 12. Median Salary by Job Function and Gender

	Median Salary ($)	
Geographical Region	**Males**	**Females**
New England	100,000	82,500
Mid Atlantic	100,000	---
East North Central	85,000	80,500
West North Central	68,500	---
Atlantic	103,500	85,000
South East	78,000	69,000
East South Central	94,000	80,000
West South Central	120,000	---
Mountain	80,000	74,000
Pacific	100,000	75,000

Exhibit 13.   Median Salary by Geographical Region and Gender

Exhibit 14 further breaks down salary by education and experience. The median salary of those with only high school degrees is higher than those with Bachelor's and Master's degrees. This can be attributed to the fact that those with high school degrees have more years of experience.

Median Salary by Highest Level of Education

Highest Level of Education	**Median Salary ($)**
High school	100,000
Bachelor's degree	80,000
Master's degree	95,000
Doctorate	114,000

Median Salary by Highest Level of Education and Gender

	Median Salary ($)	
Highest Level of Education	**Males**	**Females**
Bachelor's degree	85,000	62,500
Master's degree	100,000	85,000
Doctorate	114,000	---

Median Salary by Years of Experience and Gender

	Median Salary ($)	
Years of Experience	**Males**	**Females**
<10	72,000	69,500
10-19	97,500	83,500
20-29	102,000	94,500
≥30	100,000	---

Exhibit 14. Median Salary by Education and Experience

In addition we were able to determine the average salary by employer. Exhibit 15 shows the salary split between Industry, Government and University/College.

Median Salary by Employer

Who Employed By?	Median Salary ($)
Business/industry	94,500
Government	92,000
University/college	88,500

Median Salary by Employer and Gender

Who Employed By?	Median Salary ($)	
	Males	Females
Business/industry	98,000	80,000
Government	100,000	82,000
University/college	104,000	---

Median Salary by Years of Experience and Employer

Years of Experience	Median Salary ($)		
	Business	Government	University
<10	70,000	72,000	---
10-19	88,500	94,500	111,000
20-29	105,000	101,000	---
≥30	100,000	122,500	---

Exhibit 15. Median Salary by Employer

Age was also an area that was evaluated. Exhibit 16 provides a breakout of age and gender.

Age	Median Salary ($)	
	Males	Females
<35	63,000	50,000
35-44	92,000	77,000
45-54	100,000	82,000
≥55	100,000	90,000

Exhibit 16. Median Salary by Employer

Finally, many of our members are consultants either full-time or part-time. Overall approximately 20% of those who responded are consultants. The consultant fee charged for consultant varied by type of consultant with the average fee is $100.00.

QUESTIONS CONCERNING THE ESTIMATING COMMUNITY

A series of questions dealt with who are we as cost estimators, how did we get here, and what value and importance is being a part of the community mean. We also talked about training and its importance. The majority of the responses showed that being a part of the community was important, and getting knowledge necessary to improve is important.

CCEA PAY INCREASE	NUMBER	PERCENT OF RESPONDENTS
Yes	49	33.9
No	94	66.1
Total Respondents Certified	133	100.0

Exhibit 17. Certification Increased/Will Increase Your Earning Power?

One of the most important questions was whether or not people attend local meetings. While it is known that the majority of people do not attend meetings (65% of respondents), the question stated, "What would motivate you to attend meetings?" Exhibit 18 provides a summary of the results. These are ranked according from greatest motivation to least. The major reasons for not attending meetings were distance (too far to travel) and timing (not convenient due to other priorities). There were many respondents who stated that they were never informed as to when a meeting was being held.
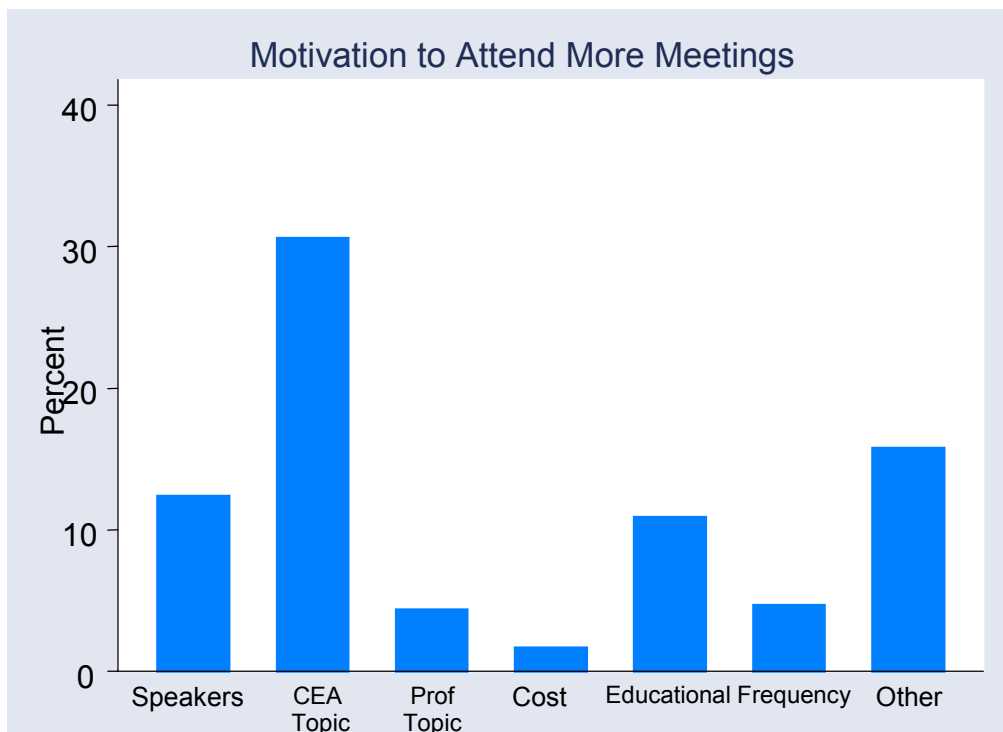

Exhibit 18. Motivation to Attend Meetings

Equally important were the responses for topics and method of education or training people were interested in receiving. Since the number of topics was too large, the ranking of importance were equivalent. However, estimating methods was the highest ranked and almost twice as desirable as cost

analysis for areas of training. The most preferred method of training is regional seminars. This is a logical approach since it saves travel funds and allows more people opportunity to attend since they are typically less costly and do not span long timeframes. Exhibits 19 and 20 provide a summary of the results.

Topic	Percent
Estimating methods	48%
Risk management	46%
Parametric techniques	37%
Software sizing and estimating	33%
Earned value management	29%
Operations/support	29%
Data analysis	28%
Economic analysis	27%
Cost/price analysis	26%
DTC/LCC	26%
Probability/statistics	24%
Cost proposal preparation	20%
Regression analysis	15%
Learning curves	15%
Cost accounting	13%
Defective pricing	9%

Exhibit 19. Topics for SCEA Training

Method	Percent
Sessions at regional locations	27%
Sessions at company, onsite	14%
Correspondence courses	21%
Regular meetings	9%
National conference	12%
Other	17%
Total	100%

Exhibit 20. Methods of Training

Other issues that were addressed was how people entered into the Cost Estimating and Analysis basis, whether they were aware of the profession during college and prior to joining the profession and specifically how did they find their job. Exhibits 21, 22, and 23 provide the results to these questions.
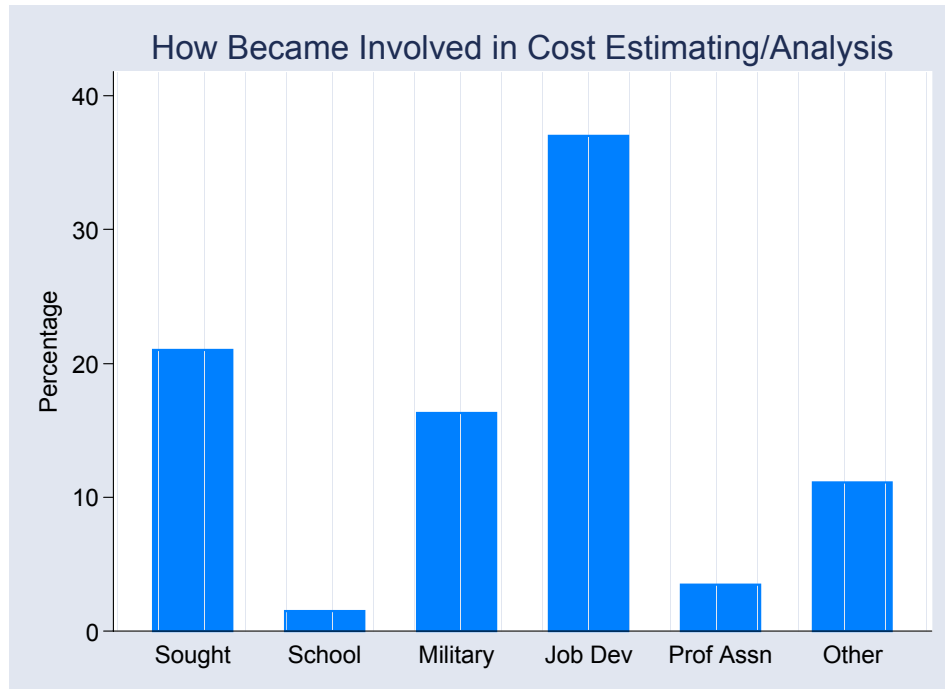
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Exhibit 21. How Did You Become Involved in the Cost Estimating/Analysis Field?

AWARE OF COST ESTIMATING IN COLLEGE	NUMBER	PERCENT OF RESPONDENTS
Yes	32	8.0
No	368	91.4
Do Not Know	3	0.6

Exhibit 22. How Did You Become Involved in the Cost Estimating/Analysis Field?
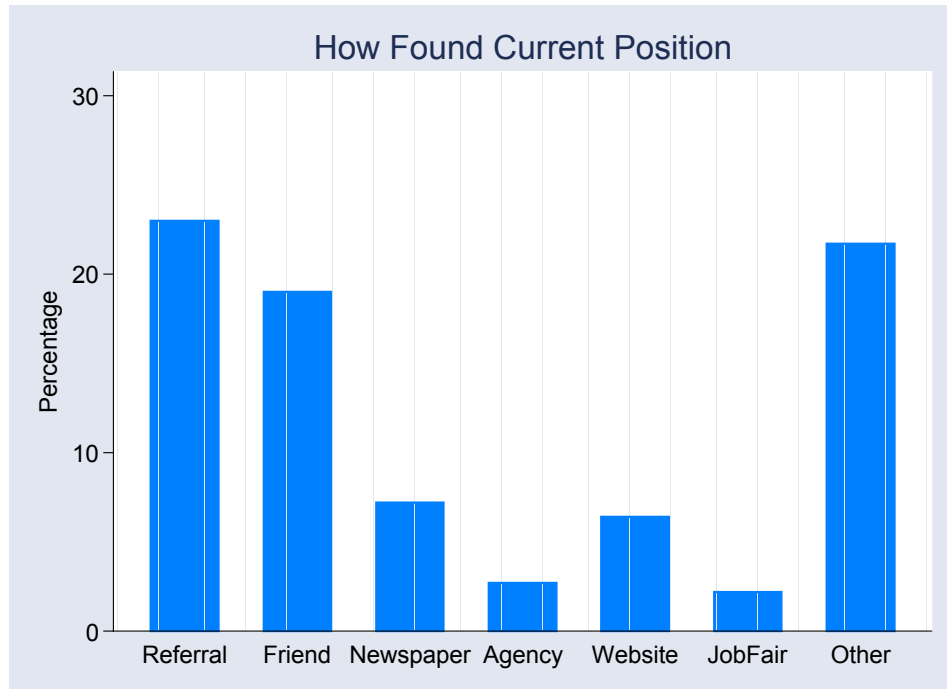
How Found Current Position

Exhibit 23. How Did You Find Your Current Job in Cost Estimating/Analysis?

PLEASE WATCH FOR THE SCEA 2004 SURVEY COMING IN OCTOBER 2004.