



Consultants' Fees and Business Practices

Prepared by Bob Gauger, P.E.
January 2003

When a consultant is preparing a proposal or negotiating a contract, one of the ongoing concerns is deciding how much to charge. In order to establish a fixed price or a fee that is fair, yet competitive, consultants need to know what other consultants in similar fields charge. In response to this need, the Alliance of IEEE Consultants' Networks (AICN) has conducted a series of regional surveys and one national fee survey of their members. The current 2002 survey, which queried more than 2000 IEEE consultants, was the most comprehensive fee survey conducted by the IEEE or any of the other technical societies. More than 400 consultants responded.

These 400 responses included some data from consultants who were employed by companies and others who were working as contractors (job shoppers). As the AICN is primarily concerned with self-employed consultants who work as independent contractors, it was necessary to sort the data in order to remove those who worked more than half of their time as job shopper as well as those who worked for more than half of their time as an employee. That left 333 who were then labeled **independent consultants**. Tabular data are provided based on both the 400 **all consultants** and the 333 **independent consultants**. This separation was necessary, as independent consultants need to charge higher fees to cover marketing, taxes, and other business expenses.

The 2002 questionnaire consisted of fifteen questions covering the consultants' primary fields of expertise, education, registration, organization of their business, and billing practices, as well as fees and earnings. Although all respondents provided equivalent hourly fee data, some regarded questions about their annual earnings as private and did not provide that data.

The respondents covered a wide range of engineering experience, varying from two years to 52 years in the profession, with a median of 24 years. Consulting experience ranged from less than one year to 40 years, with a median of seven years. Because most consultants charge an hourly fee, all data were requested on a per hour basis. Approximately 24 percent reported having problems collecting their fees. The typical consultant has a Bachelor of Science (BS) or a Master of Science (MS) degree, while only 20 percent also have a Professional Engineer (P.E.) license.

The Institute of Electrical and Electronics Engineers, Inc. – United States of America (IEEE-USA)
1828 L Street, N.W., Suite 1202, Washington, DC 20036 • Tel: 202.785.0017 Fax: 202.785.0835

Summary Results for All Consultants

The first table shows the equivalent hourly fees charged by **all consultants** reporting. The results are shown for five arbitrary ranges of total engineering experience.

Analysis of Fee Data for All Consultants					
Engineering experience	Minimum	Maximum	Count	Average	Median
1 to 10 years	\$20/hr	\$175/hr	48	\$96/hr	\$90/hr
11 to 20 years	\$40/hr	\$320/hr	105	\$111/hr	\$100/hr
21 to 30 years	\$25/hr	\$2000/hr	130	\$139/hr	\$110/hr
31 to 40 years	\$31/hr	\$1000/hr	78	\$154/hr	\$120/hr
Over 40 years	\$45/hr	\$468/hr	25	\$145/hr	\$105/hr

The second table shows the reported annual earnings of these same consultants, again sorted by their experience in consulting. The median of their reported earnings are probably a better measure for comparison than their average earnings.

Analysis of Gross Annual Earnings from Consulting for All Consultants					
Engineering experience	Minimum	Maximum	Count	Average	Median
1 to 10 years	\$3,700	\$1,500,000	41	\$98,348	\$89,000
11 to 20 years	\$1,500	\$1,050,000	97	\$141,105	\$100,000
21 to 30 years	\$1,000	\$1,200,000	115	\$197,908	\$100,000
31 to 40 years	\$7,348	\$1,000,000	72	\$125,767	\$100,000
Over 40 years	\$2,009	\$415,500	25	\$110,544	\$75,000

Similar analyses of equivalent fees were made based on the years of consulting experience reported by all consultants.

Analysis of Fee Data for All Consultants					
Consulting experience	Minimum	Maximum	Count	Average	Median
1 to 3 years	\$20/hr	\$370/hr	94	\$107/hr	\$100/hr
3.1 to 10 years	\$25/hr	\$600/hr	177	\$122/hr	\$100/hr
10.1 to 20 years	\$25/hr	\$2000/hr	95	\$151/hr	\$120/hr
Over 20 years	\$45/hr	\$1000/hr	30	\$194/hr	\$150/hr

The analyses of gross annual earnings were also made, again based on the reported years of consulting experience. All consultants were again used as the database.

Analysis of Gross Annual Earnings from Consulting for All Consultants					
Consulting experience	Minimum	Maximum	Count	Average	Median
1 to 3 years	\$1,000	\$300,000	85	\$96,625	\$90,000
3.1 to 10 years	\$1,500	\$1,500,000	162	\$144,893	\$100,000
10.1 to 20 years	\$1,000	\$1,200,000	88	\$222,837	\$125,000
Over 20 years	\$7,348	\$5,000,000	72	\$125,767	\$100,000

As noted earlier, most but not all of the engineers were willing to report their gross annual earnings from consulting. Eight or more engineers reported consulting earnings of one million dollars a year or more. Many of their hourly rates were considerably more than \$500 per hour. Figures this high tend to influence the averages and make the median values more representative and probably better for individual comparison.

Summary Results for Independent Consultants

In order to obtain data more useful to the typical independent AICN member, the data were scrubbed, eliminating any data from a respondent who reported contracting or working for an employer for more than 50 percent of the consulting hours. This reduced the count to 333 ***independent consultants***. Included with the independents were those consultants who had incorporated or were working with partners.

An analysis of the equivalent fees charged by these ***independent consultants*** is shown below. Again, this is shown for each range of engineering experience.

Analysis of Fee Data for Independent Consultants					
Engineering experience	Minimum	Maximum	Count	Average	Median
1 to 10 years	\$20/hr	\$175/hr	36	\$99/hr	\$100/hr
11 to 20 years	\$40/hr	\$320/hr	82	\$102/hr	\$100/hr
21 to 30 years	\$25/hr	\$2000/hr	117	\$143/hr	\$115/hr
31 to 40 years	\$31/ hr	\$1000/hr	65	\$160/hr	\$125/hr
Over 40 years	\$45/hr	\$468/hr	25	\$145/hr	\$105/hr

The next table shows the total earnings from consulting for these same ***independent consultants***.

Analysis of Gross Annual Earnings from Consulting for Independent Consultants					
Engineering experience	Minimum	Maximum	Count	Average	Median
1 to 10 years	\$3,700	\$1,500,000	32	\$162,040	\$120,000
11 to 20 years	\$1,500	\$1,000,000	79	\$128,361	\$120,000
21 to 30 years	\$1,000	\$5,000,000	104	\$125,246	\$100,000
31 to 40 years	\$7,348	\$1,000,000	58	\$130,196	\$110,000
Over 40 years	\$2,009	\$415,500	25	\$110,544	\$75,000

The same comparisons were made again, but this time based on the years of consulting experience for the engineers working as ***independent consultants***.

Analysis of Fee Data for Independent Consultants					
Consulting experience	Minimum	Maximum	Count	Average	Median
1 to 3 years	\$20/hr	\$310/hr	70	\$107/hr	\$100/hr
3.1 to 10 years	\$25/hr	\$600/hr	152	\$117/hr	\$100/hr
10.1 to 20 years	\$25/hr	\$2000/hr	79	\$159/hr	\$125/hr
Over 20 years	\$45/hr	\$1000/hr	28	\$194/hr	\$135/hr

Data showing their annual earnings from consulting was sorted by the years of consulting experience and is presented below.

Analysis of Gross Annual Earnings from Consulting for Independent Consultants					
Consulting experience	Minimum	Maximum	Count	Average	Median
1 to 3 years	\$1,000	\$300,000	62	\$95,490	\$88,000
3.1 to 10 years	\$1,500	\$1,500,000	142	\$134,891	\$150,000
10.1 to 20 years	\$6,000	\$5,000,000	72	\$246,148	\$135,000
Over 20 years	\$15,000	\$550,000	26	\$135,596	\$100,000

Comparison of the Results

The first observation is that average fees and median fees have not changed much since the fee surveys conducted in 2000. Regional fee surveys taken at that time reported at \$80 per hour fee (based on a small sample size), as well as average fees of \$100 and \$120 per hour. In comparison, this survey's **all consultants** data showed an average fee of \$130 and a median fee of \$100 per hour.

The number of consultants charging fees in the higher ranges made the results of this survey unusual. The data show that six percent of the **independent consultants** charged fees of \$250/hr or more. And looking at total earnings from consulting, approximately 14 percent of the **independent consultants** reported earning exceeding \$200,000 per year. A further study of the data showed that 2/3 of these high earners based at least part of their business on management consulting.

At the lower end of the scale, there were 20 consultants reporting rates of less than \$50 per hour. Several factors may have contributed to that result. Many of those respondents worked outside of the United States. And others were working in software and writing, both of which may command a lower rate.

Ongoing Analyses

It is planned to present these data graphically in the next report. Data will also be sorted by education, state, registration, and field of engineering. These sorts will then be used to determine how each parameter affects consultants' fees.

###