

## SPE MEMBERS WORLDWIDE REPORT AN AVERAGE SALARY INCREASE OF 6.3%

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In 2002, The Gallup Organization collected confidential worldwide salary information on behalf of the Society of Petroleum Engineers. Gallup used an e-mail invitation to contact 9,400 members in 54 countries. This report summarizes preliminary conclusions. These results include responses from 1,788 Society members in the United States and 1,220 members from other countries, for an overall response rate of 32%. The main findings will be reported at the *SPE Annual Technical Conference and Exhibition, Petroleum Engineering Spike Session*.

The salary survey provides information to help SPE members compare compensation throughout the world. For the 2002 survey, SPE again used the World Wide Web to collect salary information worldwide, using a statically valid sampling of the society's membership.

For the purposes of this summary, respondents who were semi-retired, retired, or unemployed were excluded. As in the previous study, individuals reporting annual salaries of less than \$24,000 or more than \$250,000 were also excluded. All salary and income figures were reported in U.S. dollars. Results are examined for the United States and other countries, which were broken into regions according to the Society's new regional classifications. Employing the World Wide Web proved to be very effective in collecting salary information from respondents in foreign countries. Information from more than 54 countries worldwide is included in this summary.

### **General Findings**

Worldwide, respondents reported an average income of \$89,357 (see Table 1). Respondents reported that they earned an additional \$22,192 in bonuses, housing, retirement, and pension plans, and 33% reported having a car or car allowance. Members reported that their incomes had increased by 6.3% over the last year.

Worldwide, U.S. respondents and respondents from the Middle East region reported the highest average incomes, \$99,407 and \$81,970 respectively. As in last year's survey, Canadians reported the lowest average incomes (approximately \$66,166; see Figure 1). Middle Eastern respondents reported the highest average additional income of \$29,940 (including bonuses, housing, retirement, and pension plans). Respondents from South Central and East Europe were by far the most likely to have pursued education beyond a bachelor's degree (83%). Of the different regions examined, respondents in Canada were the least likely to have additional education (27%). Respondents from the Middle East and North Sea & Africa were the most likely to have a car or car allowance, but few respondents in Canada and the United States had a car or car allowance.

An examination of citizenship issues showed considerable differences in each individual region. Respondents were asked about the country where they were born and the country in which they primarily worked. When worldwide results were examined, there was no significant difference in income between those who were citizens (\$89,745) and those who were non-citizens (\$88,030). However, in the United States, citizens earned over \$14,000 more per year than non-citizens. On the other hand, in the South America and Caribbean region, non-citizens earned approximately \$42,000 more per year than citizens. In Canada, no significant difference in salary was detected between citizens and non-citizens. In all other regions, non-citizens earned more than citizens. Since no other variable that influences salaries seemed to affect the lower salaries earned by non-citizens in other countries, it is safe to conclude that in foreign countries, industry compensates non-citizens much more than the local employees.

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## SUMMARY OF RESULTS BY COUNTRY/REGION

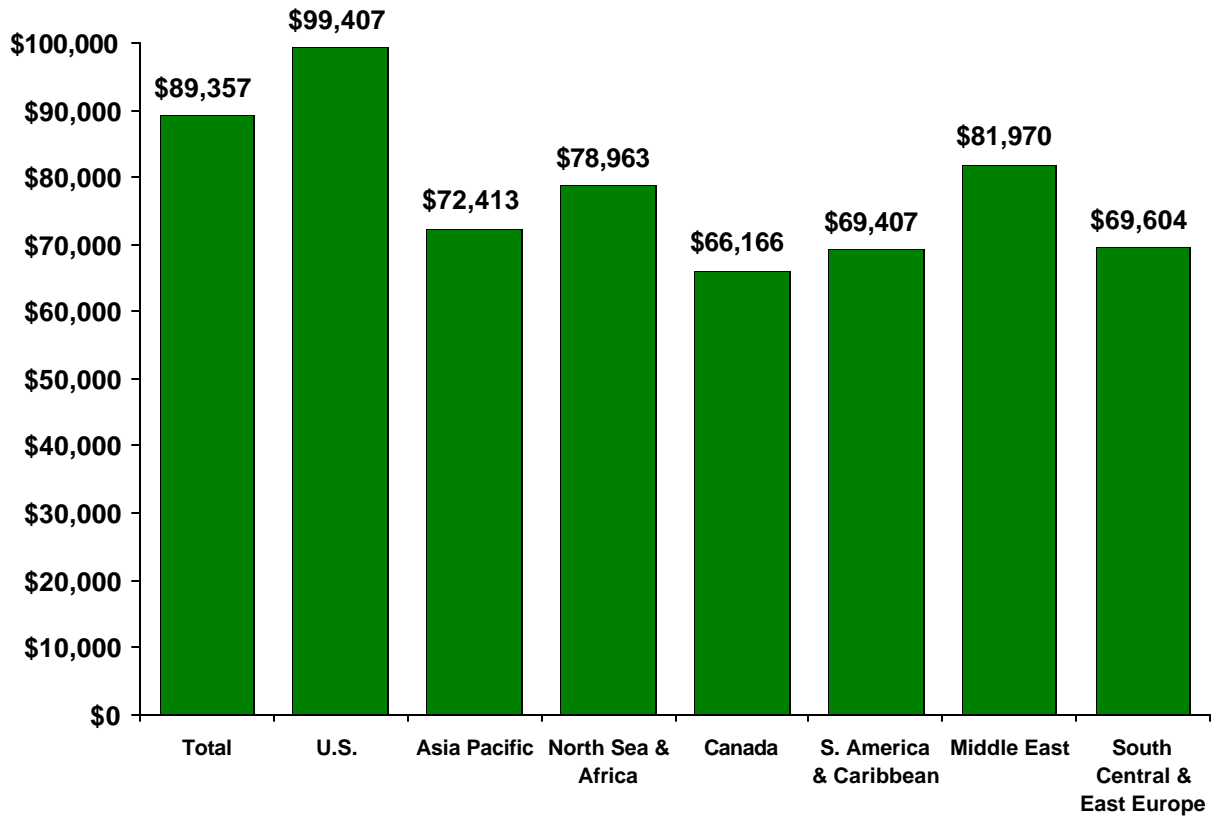
	Total (n=3,008)	U.S. (n=1,788)	Asia Pacific (n=187)	North Sea & Africa (n=483)	Canada (n=214)	S. America & Caribbean (n=145)	Middle East (n=136)	South Central & East Europe (n=47)
Average annual salary	\$89,357	\$99,407	\$72,413	\$78,963	\$66,166	\$69,407	\$81,970	\$69,604
Average additional income	\$22,192	\$23,109	\$21,487	\$20,200	\$19,307	\$15,971	\$29,940	\$18,312
Average reported salary increase	6.3%	6%	8%	6%	6%	7%	6%	14%
Percentage with car/car allowance	33%	25%	44%	53%	26%	46%	54%	36%
Average age	42	43	41	41	41	42	43	41
Average years of experience	18	19	17	16	17	17	18	15
Percentage with education beyond bachelor's degree	39%	32%	36%	59%	27%	64%	43%	83%
Percentage citizens	79%	90%	57%	70%	89%	62%	15%	60%
Percentage male	93%	91%	95%	93%	93%	95%	99%	98%
Average citizen income	\$89,745	\$100,473	\$60,882	\$75,365	\$66,063	\$55,461	\$49,381	\$60,899
Average citizen years of experience	19	20	17	16	17	17	16	14
Average non-citizen income	\$88,030	\$86,071	\$89,363	\$88,507	\$70,996	\$97,500	\$89,318	\$82,433
Average non-citizen years of experience	16	14	18	16	14	16	19	16

\*Sample size too small to permit analysis.

**Table 1**

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ANNUAL SALARY ACCORDING TO COUNTRY/REGION



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Figure 1

Not surprisingly, the average annual income increased with years of work experience (see Figure 2). This pattern held true for all of the geographic groups studied. Canadians earned less than other respondents in most years of experience categories. U.S. Society members earned more than other countries in all years of experience categories. In South Central and Eastern Europe, average salaries increased steadily with years of experience. In all other regions, average salaries leveled off after 20 years of experience.

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**ANNUAL SALARY ACCORDING TO YEARS OF WORK EXPERIENCE BY COUNTRY/REGION**

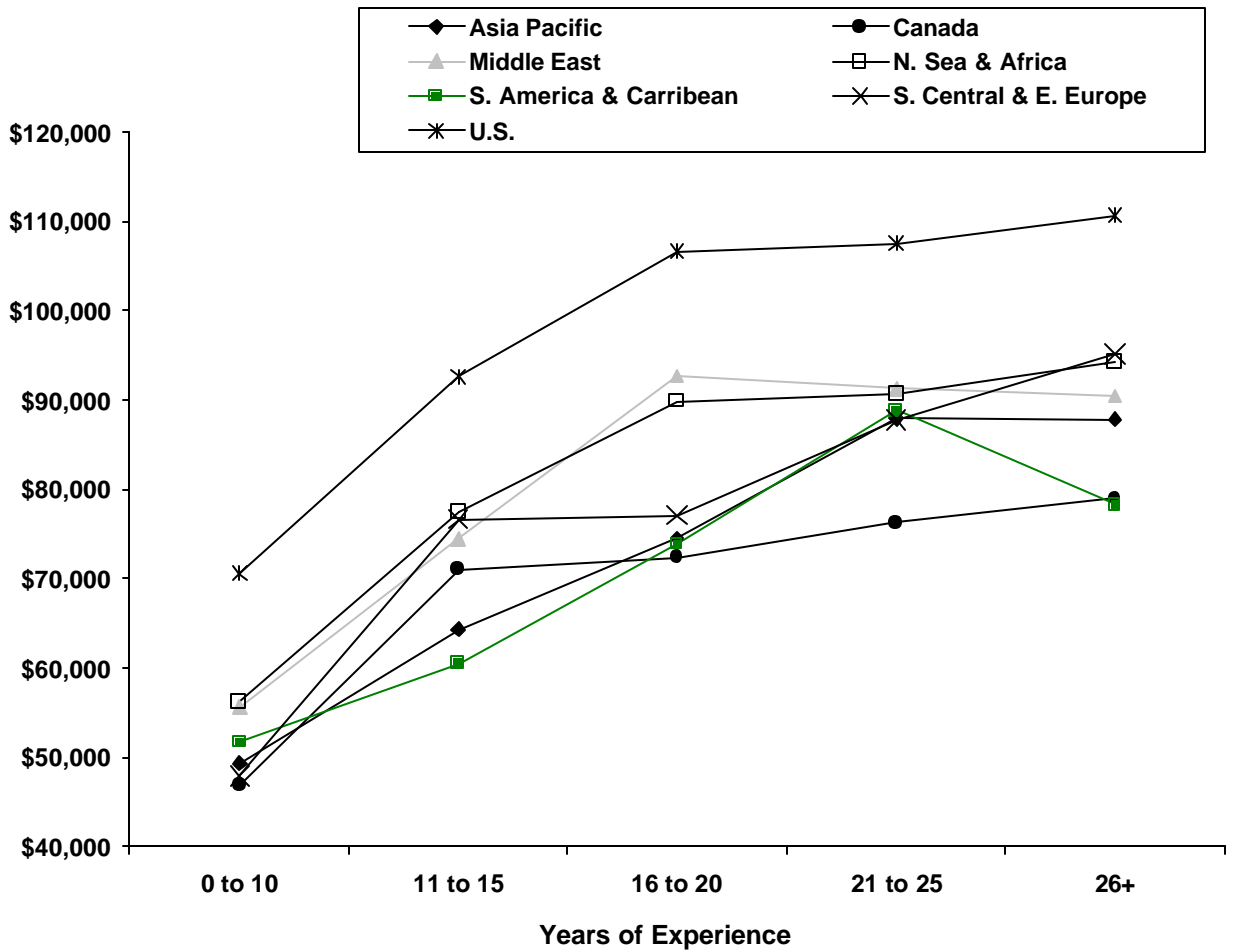


Figure 2

Survey results indicate that level of education may affect increases in salary more than years of experience for petroleum engineers with 0 to 20 years of experience. After 20 years or more of experience, no significant increase in salary was observed for respondents with education beyond a bachelor's degree (see Table 2). Having an advanced degree was financially advantageous for respondents with 0-15 years of experience. For this analysis, U.S. respondents with more than 25 years of experience and more than a bachelor's degree earned the highest average salary of \$115,895, and respondents in Canada with a bachelor's degree or less with 0 to 10 years of experience earned the lowest average salary of \$46,405. The results for South Central and East Europe were difficult to analyze due to small sample sizes.

### AVERAGE ANNUAL SALARY ACCORDING TO EDUCATION AND EXPERIENCE

Years of experience	U.S.		Asia Pacific		N. Sea & Africa		Canada	
	Bachelor's or Less (n=1,221)	More than Bachelor's (n=562)	Bachelor's or Less (n=120)	More than Bachelor's (n=68)	Bachelor's or Less (n=199)	More than Bachelor's (n=285)	Bachelor's or Less (n=156)	More than Bachelor's (n=58)
0 to 10	\$66,738	\$78,082	\$50,100	\$47,728	\$58,385	\$55,444	\$46,405	\$48,023
11 to 15	\$90,216	\$94,163	\$60,738	\$69,833	\$71,189	\$81,486	\$69,696	*
16 to 20	\$104,562	\$111,799	\$71,657	\$78,048	\$89,507	\$90,207	\$72,066	\$73,360
21 to 25	\$104,775	\$112,941	\$87,363	\$89,552	\$96,564	\$88,054	\$75,235	\$79,048
26+	\$107,354	\$115,895	\$85,365	*	\$94,177	\$94,352	\$80,206	*
All years	\$96,978	\$103,402	\$71,444	\$76,588	\$83,154	\$76,612	\$66,677	\$66,455

\*Results are not reported for cell sizes of fewer than 10 respondents.

**Table 2**

### AVERAGE ANNUAL SALARY ACCORDING TO EDUCATION AND EXPERIENCE

Years of experience	South America & Caribbean		Middle East		South Central & East Europe	
	Bachelor's or Less (n=53)	More than Bachelor's (n=94)	Bachelor's or Less (n=79)	More than Bachelor's (n=58)	Bachelor's or Less (n=8)	More than Bachelor's (n=39)
0 to 10	*	\$52,823	\$49,945	\$62,696	*	*
11 to 15	*	*	\$71,708	*	*	*
16 to 20	*	\$78,499	\$81,579	\$106,867	*	*
21 to 25	*	\$76,833	\$103,079	\$85,782	*	*
26+	*	\$68,391	\$102,121	\$77,721	*	*
All years	\$79,332	\$67,494	\$82,290	\$84,294	*	\$65,818

\*Results are not reported for cell sizes of fewer than 10 respondents.

**Table 2 (Continued)**

Some differences were found in average salaries according to citizenship. In the United States, citizens earned more on average than non-citizens. In the other regions, non-citizens earned more than citizens. Citizen respondents from the Asia Pacific region reported the highest salary increase (9.1%). Non-citizen respondents from the North Sea/Africa region reported the lowest salary increase (5.5%).

**AVERAGE ANNUAL SALARY ACCORDING TO CITIZENSHIP**

	U.S.		Asia Pacific		N. Sea & Africa		Canada	
	Citizen (n=1,599)	Non-Citizen (n=182)	Citizen (n=105)	Non-Citizen (n=82)	Citizen (n=338)	Non-Citizen (n=145)	Citizen (n=190)	Non-Citizen (n=24)
Average annual salary	\$100,473	\$86,071	\$60,882	\$89,363	\$75,365	\$88,507	\$66,063	\$70,996
Average additional income	\$23,047	\$19,804	\$12,867	\$36,026	\$16,033	\$30,228	\$20,029	\$13,596
Percentage with car/car allowance	25%	27%	34%	57%	56%	45%	27%	17%
Average reported salary increase	6.0%	5.9%	9.1%	7.6%	6.0%	5.5%	6.0%	5.9%
Average years of experience	20	14	17	18	16	16	17	14
Percentage with education beyond bachelor's degree	29%	54%	32%	42%	60%	57%	25%	42%

**Table 3**

**AVERAGE ANNUAL SALARY ACCORDING TO CITIZENSHIP**

	South America & Caribbean		Middle East		South Central & East Europe	
	Citizen (n=89)	Non-Citizen (n=57)	Citizen (n=21)	Non-Citizen (n=116)	Citizen (n=28)	Non-Citizen (n=19)
Average annual salary	\$55,461	\$97,500	\$49,382	\$89,318	\$55,461	\$97,500
Average additional income	\$8,295	\$33,932	\$15,605	\$33,128	\$8,295	\$33,932
Percentage with car/car allowance	39%	58%	52%	53%	32%	42%
Average reported salary increase	7.8%	6.7%	7.3%	5.7%	7.8%	6.7%
Average years of experience	17	16	16	19	17	16
Percentage with education beyond bachelor's degree	71%	53%	29%	45%	93%	68%

**Table 3 (Continued)**

SPE members were asked to classify their job descriptions into one of eight categories. Five of the job description categories (Engineering, Management, Research & Development, Sales & Marketing, and Earth Science & Geology) had large enough sample sizes to examine trends according to years of experience (see Figure 3). The five groups had different starting salaries for 0 to 10 years of experience. Research and Development (R&D) respondents had the lowest average salary (\$53,151) for the first 10 years of their careers. Managers earned the highest average salary in that timeframe (\$81,062). Managers also earned higher salaries in all the other timeframes, with rapidly increasing average incomes according to years of experience. Sales & marketing, engineers, and earth science professionals had little increase in salary after 20 years of experience.

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**ANNUAL SALARY ACCORDING TO YEARS OF WORK EXPERIENCE AND JOB DESCRIPTIONS**

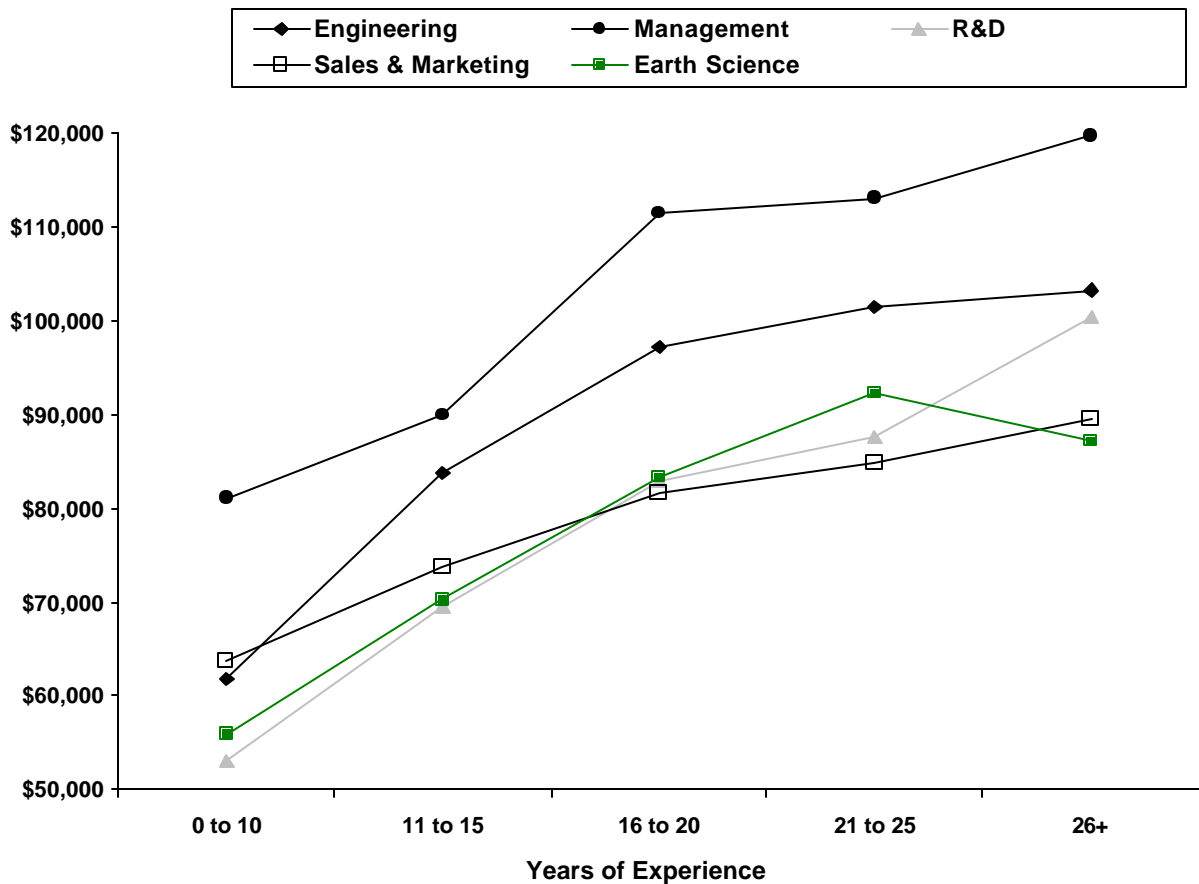


Figure 3

## **Worldwide Member Profile**

The average survey respondent, worldwide, was 42 years old, with 18 years of industry work experience. Thirty-nine percent had completed education beyond a bachelor's degree. The average income for members worldwide was \$89,357, with a reported average increase of 6.3%. One in three respondents had a car or car allowance. The majority of members (79%) were citizens of the country in which they worked. On average, those who were citizens of the country in which they worked earned the same as those who were not citizens. Compared to 2000 results, average salaries are up significantly. Of the nine employer types examined, members who worked as consultant/self-employed and large exploration and production companies earned the highest average incomes (\$99,830 and \$96,912, respectively).

## **U.S. Member Profile**

Two measures were available to assess the increase in salary from 2000 to 2002 (see Table 4). In both years' studies, respondents were asked to specify their annual base salary. Compared to 2000's results, the average annual reported salary in the United States rose from \$93,000 to \$99,407, representing a 6.9% increase in average salary. Survey respondents were also asked to estimate the percentage that their base salary increased in the last year. The self-reported average salary percentage increase among U.S. members (6.1%) was fairly close to the increase estimated based on reported salaries (6.9%).

The average survey respondent in the United States was 43 years old, with 19 years of industry work experience. About a third (32%) of the respondents completed education beyond their bachelor's degree. The average member's salary was \$99,407. One in four (25%) had a car or car allowance. Virtually all of those who worked in the United States were citizens (90%). U.S. workers who were citizens earned 17% more than those who were not citizens. Of the eight job descriptions examined, members who worked in general management had the highest average incomes (\$120,996). Of the nine employer types examined, those who worked for major or large exploration and production companies earned the highest average incomes (\$106,724 and \$110,703, respectively).



## U.S. RESULTS

### ANNUAL SALARY ACCORDING TO JOB DESCRIPTION AND YEARS OF EXPERIENCE

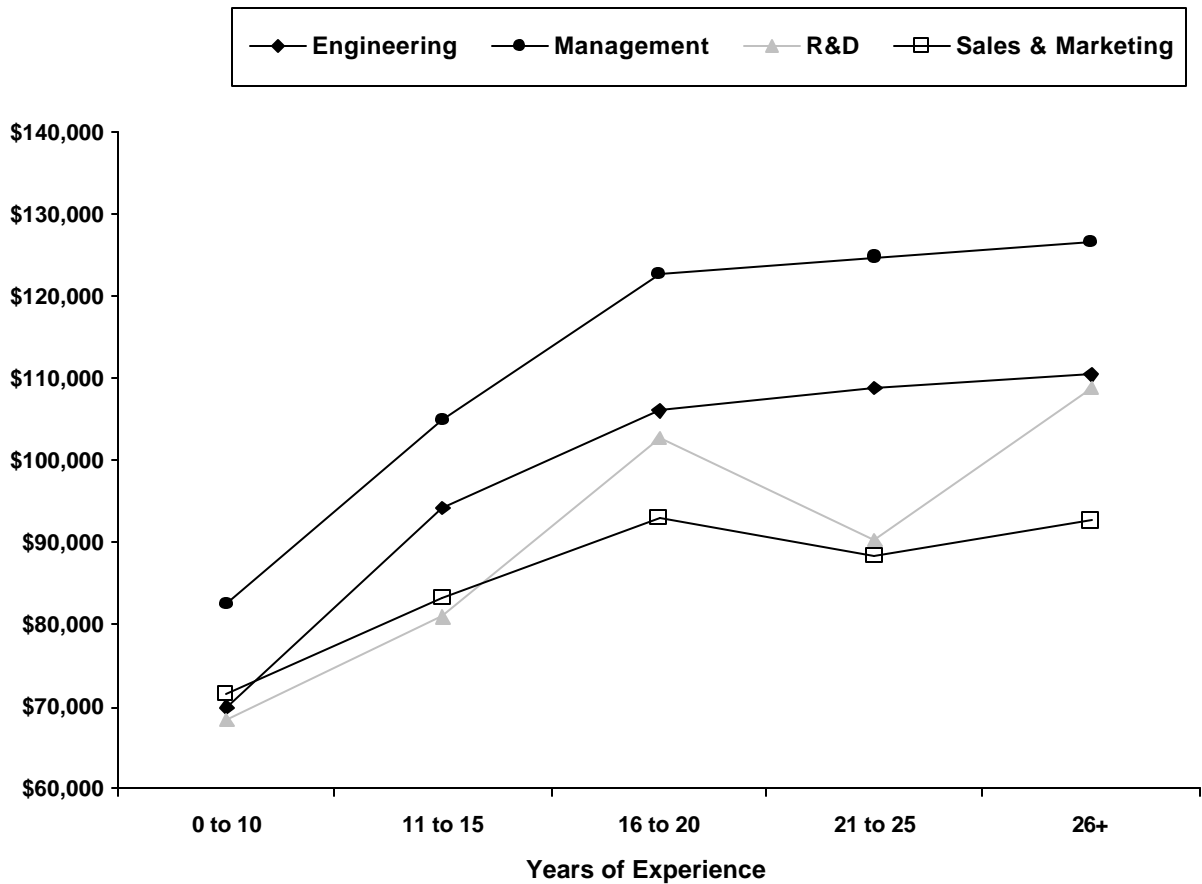
Years of experience	Totals		Engin- eering		Manage- ment		R&D		Sales & Marketing		Computer Techno- logies		Education		Earth Science		Superintendent/ Foreman/ Tech	
	n	Salary	n	Salary	n	Salary	n	Salary	n	Salary	n	Salary	n	Salary	n	Salary	n	Salary
0 to 10	343	\$70,640	257	\$69,968	16	\$82,516	17	\$68,338	27	\$71,635	10	\$68,930	6	\$70,800	5	\$80,760	5	\$62,800
11 to 15	188	\$92,635	126	\$94,283	18	\$104,839	11	\$80,955	12	\$83,205	6	\$80,495	6	\$76,625	7	\$90,571	2	\$91,500
16 to 20	338	\$106,724	219	\$106,058	55	\$122,717	15	\$102,687	25	\$92,915	4	\$92,100	4	\$90,929	11	\$100,618	5	\$78,900
21 to 25	513	\$107,540	304	\$108,784	87	\$124,733	21	\$90,329	57	\$88,464	4	\$85,525	8	\$85,344	17	\$107,121	13	\$103,975
26+	396	\$110,699	202	\$110,398	99	\$126,607	16	\$108,771	40	\$92,637	5	\$89,600	11	\$97,868	11	\$89,264	12	\$87,504
Total	1,778	\$99,407	1,848	\$97,940	275	\$120,996	80	\$90,754	161	\$86,910	29	\$80,371	35	\$85,930	51	\$97,011	37	\$89,006

Table 4

Four of the job description categories (Engineering, Management, Research & Development, and Sales & Marketing) had large enough sample sizes to examine trends according to years of experience (see Figure 4). Members in engineering, R&D, and sales & marketing earned similar salaries at 0 to 10 years of experience. Managers started with higher salaries than the rest of the groups, with rapidly increasing average incomes according to years of experience. Sales & marketing and engineering workers showed little in the way of salary increases according to experience. These groups' salaries flattened after 20 years of experience.

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## U.S. ANNUAL SALARY ACCORDING TO YEARS OF WORK EXPERIENCE BY JOB DESCRIPTIONS



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Figure 4

### Other Countries Member Profile

The average survey respondent in countries other than the United States was 41 years old, with 16.8 years of industry work experience. About half (49%) of the respondents completed education beyond their bachelor's degree. The average non-U.S. member's salary was \$74,628, with an average reported salary increase of 6.7%. About half (45%) had a car or car allowance. From the eight job types for this group, general managers earned the highest average salary of \$95,081. Of the nine employer types, the highest average salary for this group was in consulting, at \$89,985.