



**The Society of Petroleum Engineers  
Richardson, Texas**



**Annual Membership Salary Survey  
Highlight Report**

**September 2011**

**SPE Research  
[speresearch@spe.org](mailto:speresearch@spe.org)**



## **SPE presents its annual salary survey for 2011**

On 18 July 2011, Invitations to participate in the Annual SPE Salary Survey were successfully sent to 49,239 professional members via e-mail. This year 8,520 members responded to the survey, resulting in a 17.3% response rate. This sample produces a margin of error of  $\pm 1.1\%$  at a 95% confidence level.

This year's participants are based in 98 different countries and represent citizenship in 101 countries. Their employers are based in 99 countries, and 46 U.S states. In 2011, a majority of respondents 54.6% were based in countries outside of the United States. Growth in membership outside of North America continues to drive this trend of increasing international participation in this study.

Women continue to progress in compensation in the petroleum industry, reporting a larger percentage increase in base and total compensation than men in 2011. Women again represented about 10% (9.6%) of respondents in this year's survey.



## General Findings

*All compensation data presented in this Highlight Report is expressed in US dollars. Data collected in local currencies has been converted to US dollars (USD) using the exchange rate as of 15 August 2011, which is the effective date of this year's data.*

Compensation in the petroleum industry in 2011 continues to follow the growth trend of recent years, with an overall increase in average base pay globally of 6.5%, which is slightly higher than the average self-reported increase of 5.9% among survey participants. Mean base pay increased from USD 139,194 in 2010 to USD 148,301 in 2011.

The percentage of workers in the industry reporting base pay increases increased from just over 70% in 2010 to over 80% in 2011. The Oceania, Australia and New Zealand region had the highest self-reported base pay increase at 8.1%. The lowest percentage increase was reported by respondents in the South, Central and Eastern Europe region (4.2%).

A slightly lower percentage of respondents indicated that they received a car allowance in 2011 (28.8%) than in 2010; a declining trend which continues for the third consecutive year. Car allowances were most commonly allowed in Africa (52.4%) and least common in South, Central and Eastern Europe (23.3%).

Average age continued an increasing trend in 2011, with the average reported age being 44 years, compared to 43 years in 2010, and 38 years in 2009.

Experience among petroleum engineering professionals remained stable from 2010 to 2011 with the average years of work experience averaging 19 years. The U.S. again reported the highest average years of experience at 22, which increased from 21 in 2010.

The percentage of respondents with highest education levels beyond a Bachelors Degree decreased slightly from 38% in 2010 to 37% in 2011. This continues a declining trend in the percentage of advanced-degree professionals from over 40% in 2009.

Seven out of ten workers (70%) globally indicated that they are a citizen of the country in which they work, while almost a third are expatriates. North Americans were most likely to work in their home countries.



Figure 1

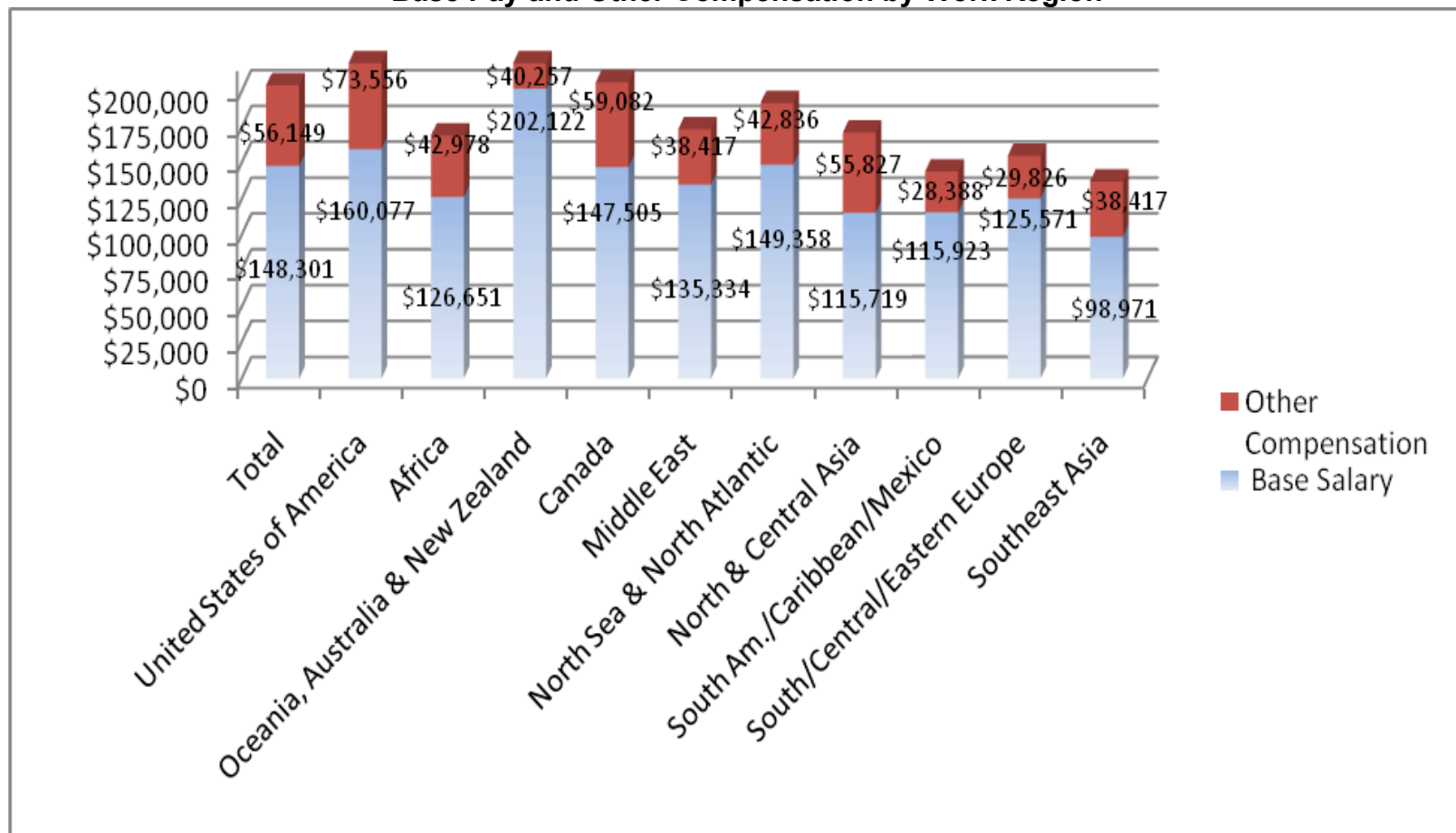
**SUMMARY OF RESULTS BY WORK REGION (All compensation data is expressed in US dollars.)**

n= region includes only valid cases where respondent entered their region (n=7820). Total=valid cases.	Total (n=8520)	USA (n=3488)	Africa (n=292)	Oceania, Australia, New Zealand (n=368)	Canada (n=533)	Middle East (n=633)	North Sea & North Atlantic (n=1120)	Northern & Central Asia (n=263)	S. America, Caribbean, & Mexico (n=415)	South Central & Eastern Europe (n=180)	Southeast Asia (n=528)
Base Pay											
Mean	\$148,301	\$160,077	\$126,651	\$202,122	\$147,505	\$135,334	\$149,358	\$115,719	\$115,923	\$125,571	\$98,971
Median	\$138,000	\$153,000	\$152,152	\$186,313	\$137,700	\$103,428	\$142,443	\$70,308	\$96,000	\$108,257	\$78,372
Other Compensation											
Mean	\$56,149	\$73,556	\$42,978	\$40,257	\$59,082	\$38,417	\$42,836	\$55,827	\$28,388	\$29,826	\$38,417
Median	\$28,280	\$38,000	\$35,611	\$19,045	\$30,375	\$11,391	\$17,900	\$4,020	\$8,000	\$10,718	\$11,172
Total Compensation											
Mean	\$204,368	\$233,536	\$169,629	\$242,380	\$206,587	\$173,751	\$192,054	\$171,546	\$144,311	\$154,597	\$130,703
Median	\$169,000	\$203,000	\$197,000	\$218,400	\$174,656	\$128,327	\$163,308	\$78,390	\$106,000	\$122,682	\$95,757
Average Base Pay Increase	5.9%	5.8%	7.2%	8.1%	5.5%	5.5%	5.1%	6.8%	7.7%	4.2%	7.5%
% With Car Allowance	28.8%	25.0%	52.4%	26.4%	24.1%	42.6%	40.1%	34.5%	36.1%	23.3%	43.9%
Average Age	44	46	41	41	43	42	44	41	41	44	39
Average Years of Experience	19	22	15	17	18	18	18	17	16	18	15
% With Education Beyond Bachelor's Degree	37.0%	32.5%	42.8%	35.0%	25.2%	16.8%	68.6%	54.5%	49.2%	63.9%	31.3%
% Citizens of Work Region	70.0%	88.2%	66.4%	69.0%	85.4%	42.6%	67.1%	69.6%	76.4%	42.3%	63.4%



Figure 2

**Base Pay and Other Compensation by Work Region**





## Job Categories and Total Compensation

Median total compensation increased from USD 149,279 in 2010 to USD 169,000 in 2011, an increase of 13.2%. The region with the highest median total compensation increase was Oceania, Australia, and New Zealand. The region with the lowest overall compensation was Southeast Asia, followed by the South America, Caribbean and Mexico region.

Overall compensation increases are driven by strong growth among all levels in Oceania, including Australia and New Zealand. The U.S., Canada and the Middle East also experienced strong growth in their top-level compensation, while the U.S., Southeast Asia, South, Central and Eastern Europe and Oceania reported growth in the lower-tier categories.

Professionals in the United States, Oceania, Northern and Central Asia and Canada reported some of the highest percentage increases among all categories and regions.

Figure 3

TOTAL COMPENSATION BY JOB CATEGORY AND WORK REGION										
	United States	Africa	Oceania Australia/NZ	Canada	Middle East	North Sea/ Atlantic	Northern/ Central Asia	South Am./Carib./ Mexico	South Cent. / East. Europe	Southeast Asia
Executive/Top Management	\$447,557	\$341,393	\$464,027	\$337,123	\$473,735	\$405,336	\$337,492	\$285,636	\$290,108	\$254,024
Manager/Director	\$285,321	\$256,030	\$352,907	\$276,936	\$245,161	\$239,889	\$249,026	\$208,603	\$226,111	\$186,663
Supervisor	\$181,524	\$128,383	\$183,555	\$163,212	\$153,085	\$145,858	\$99,587	\$108,396	\$113,611	\$85,370
Professional	\$216,078	\$177,565	\$239,139	\$202,235	\$153,334	\$195,241	\$211,807	\$134,825	\$111,908	\$146,941
Technician/Specialist	\$149,273	\$72,096	\$138,522	\$132,670	\$89,804	\$125,485	\$50,838	\$80,840	\$84,598	\$31,690



## **Job Function/Discipline and Base Pay**

Engineering in other technical categories represented the highest mean base pay in 2011 at USD 164,270, which was narrowly ahead of Finance and Administration at USD 164,222. These categories were followed by the Drilling discipline (USD 162,240) as the highest average compensation in average base pay in 2011. The Other engineering category, which includes some hybrid, multiple or specialized disciplines, and Drilling showed some of the largest average percentage base pay increases globally.

Academia was one of the few categories to show flat to negative growth in average base pay over the past year, and remained the lowest average mean compensation category at USD 82,983, followed by Chemical Engineering at USD 105,035.

Southeast Asia again showed the widest disparity in mean compensation in most categories, compared to other regions, followed by North and Central Asia, although Southeast Asia reported strong growth in compensation in the Computer/IT category, as well as in the Other or Combination engineering discipline category.

Aside from the Drilling technical discipline, other technical disciplines remained relatively stable, with the largest reported average base pay increase in the Non-Engineering Technical category, which reported an average base pay growth from 2010 (USD 122,351) to 2011 (USD 160,567).

With most of the technical categories remaining stable, some of the non-technical categories such as Marketing and Research reported moderate increases, while the Professional Training and College/University/Academic categories' average compensation showed a decrease from 2010 to 2011.



Figure 4

<b>BASE PAY BY REGION OF COMPANY HEADQUARTERS AND JOB FUNCTION*</b>											
Cells without data did not have enough responses to represent statistically valid data.	United States of America	Africa	Oceania, Australia & New Zealand	Canada	Middle East	North Sea & N. Atlantic	North & Central Asia	South America/Caribbean/Mexico	South/Central/Eastern Europe	SE Asia	Grand Total
College/University/Academic	\$107,247	\$94,227	\$77,294	\$161,866	\$61,107	\$79,741	\$37,447	\$60,101	\$17,646	\$5,760	\$82,983
Computer or Information Technology	\$143,982	\$52,282	*	\$112,843	\$114,910	\$154,597	\$42,000	\$62,818	\$28,489	\$52,128	\$122,954
Earth Science/Geology	\$164,732	\$89,017	\$235,582	\$195,809	\$124,921	\$157,588	\$117,610	\$80,675	\$142,662	\$104,414	\$152,091
Engineering - Chemical/Chemistry	\$152,059	\$40,611	\$138,513	\$95,667	\$75,366	\$138,834	\$59,767	\$57,514	\$48,838	\$37,241	\$105,035
Engineering - Civil/Construction/Facilities	\$157,734	\$117,131	\$189,073	\$138,864	\$101,585	\$130,809	\$134,599	\$105,027	\$185,176	\$79,529	\$139,804
Engineering - Completions	\$154,149	\$106,829	\$156,681	\$128,853	\$150,106	\$144,646	\$91,125	\$107,554	\$202,831	\$89,300	\$144,023
Engineering - Drilling	\$175,363	\$144,631	\$236,796	\$157,086	\$116,539	\$170,242	\$127,132	\$142,137	\$118,373	\$148,641	\$162,240
Engineering - Health/Safety/Environment	\$148,072	\$66,371	\$306,116	\$130,915	\$138,518	\$125,340	\$177,727	\$126,867	\$164,268	\$49,833	\$140,082
Engineering - Other or Combination of Above	\$175,424	\$177,779	\$206,771	\$158,272	\$134,163	\$158,502	\$180,256	\$115,453	\$164,182	\$108,340	\$164,270
Engineering - Production	\$143,047	\$116,727	\$153,941	\$137,100	\$110,010	\$152,624	\$94,608	\$100,927	\$114,440	\$81,032	\$131,225
Engineering - Reservoir	\$169,272	\$120,441	\$196,743	\$145,716	\$139,275	\$142,014	\$96,722	\$109,560	\$92,983	\$85,924	\$148,694
Finance or Administration	\$170,602	\$37,272	\$288,802	\$134,518	\$136,122	\$186,360	\$101,045	\$115,309	\$368,629	\$121,031	\$164,222
Geophysics/Petrophysics/Physics	\$152,475	\$145,742	\$181,560	\$129,384	\$117,137	\$135,485	\$148,051	\$137,806	\$45,913	\$83,946	\$137,208
Non-Engineering Technical	\$130,801	\$197,668	\$175,066	\$119,748	\$556,686	\$169,771	\$43,571	\$116,054	\$108,257	\$98,711	\$160,567
Other or Combination of Above	\$182,360	\$165,758	\$264,136	\$182,068	\$179,297	\$162,355	\$176,214	\$148,625	\$182,398	\$132,010	\$176,775
Professional Training	\$139,894	\$180,000	\$207,014	\$120,000	\$141,327	\$102,485	\$120,000	\$85,230	\$48,431	\$8,708	\$123,507
Research	\$139,544	*	\$181,482	\$158,819	\$157,277	\$119,585	\$41,916	\$114,921	\$83,263	\$21,621	\$128,254
Sales or Marketing	\$131,590	\$105,919	\$178,094	\$140,710	\$141,656	\$143,579	\$144,895	\$120,970	\$194,886	\$113,863	\$136,008

\*Table includes only cell values containing adequate valid cases to be statistically representative

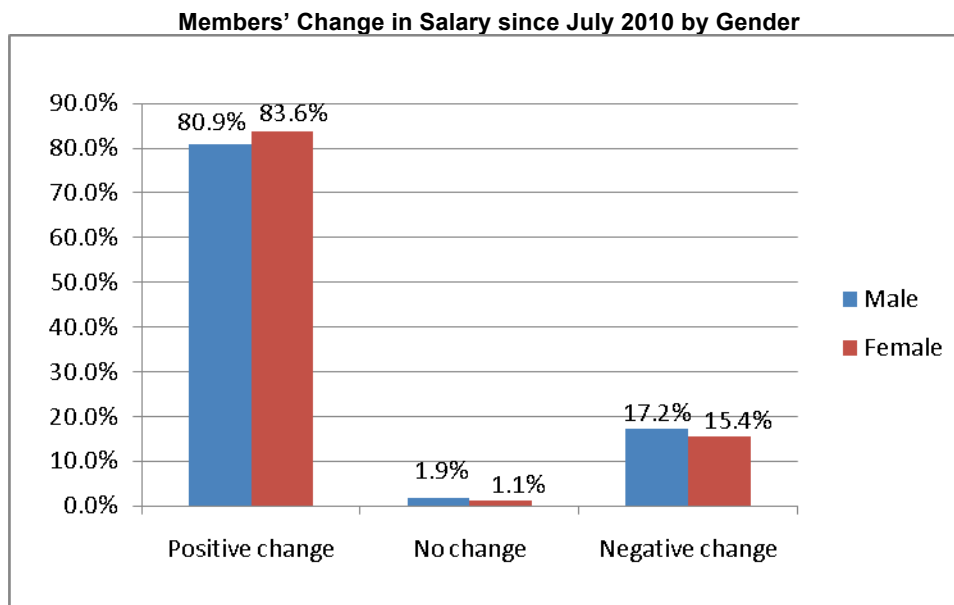


## The Impact of Gender

In 2011, the average base pay of females (USD 109,903) was the same percentage of base pay, 72% compared to males (USD 152,591) in 2010. Females in the industry were again more likely to report a positive change in base pay, with 83.6% reporting a positive change in income, compared to 80.9% of males reporting an increase in base pay. Both genders were about 10% more likely to report positive change than 2010.

There is also a difference in average years of experience between genders, with men reporting an average of 19.9 years of experience, compared to 11.9 years for females.

Figure 5





## Experience Level and Compensation

Both average level of experience and total compensation increased in both males and females from 2010 to 2011. Some of the largest percentage increases were seen among female top executives and male professionals, supervisors and technician/specialists. Base pay and total compensation again shows the value of experience, with top-level managers and directors earning significantly more than other categories of workers.

Figure 6

Cash Compensation by Position and Experience										
	Female					Male				
	Executive/Top Management	Manager/Director	Professional	Supervisor	Technician/Specialist	Executive/Top Management	Manager/Director	Professional	Supervisor	Technician/Specialist
Average Years of Experience	24.0	20.0	10.0	15.0	10.0	29.0	25.0	16.0	21.0	15.0
Number of Records	22	80	473	103	71	489	1,576	2,907	1,259	303
Base Pay	\$193,573	\$155,418	\$104,389	\$118,101	\$63,246	\$232,120	\$184,103	\$129,747	\$193,573	\$155,418
Other Cash	\$66,247	\$64,102	\$25,283	\$26,057	\$7,058	\$183,870	\$83,242	\$35,474	\$66,247	\$64,102
Total Cash	\$259,821	\$219,520	\$129,451	\$144,159	\$70,304	\$415,038	\$267,038	\$165,177	\$259,821	\$219,520



## How to Learn More

This report represents a portion or representation of segments of the industry. Presentation of every possible permutation or combination of the many jobs, geographies, and employer types and an analysis of the data dispersion in all of the compensation elements included are not possible in this summary, however detailed reports are available.

SPE will provide detailed reports, made available for purchase in electronic format at a USD 50 member price and USD 125 non-member price through the SPE Bookstore at [www.spe.org/store](http://www.spe.org/store) beginning in late November, 2011.

Data tables will be made available for download through the bookstore as well, to provide the opportunity for individual analysis and localization of data. Pricing for access to data for analysis will be USD 225 for SPE members and USD 425 for non-members, also available in mid-November, 2011.

Inquiries regarding purchase may be addressed through the bookstore site. Other questions regarding the survey can be addressed to [speresearch@spe.org](mailto:speresearch@spe.org).

Thank you for your interest in this important project.

SPE Research