

2016 APEGS Salary Survey Summary Results

The Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) contacted 5,621 Professional Engineers, Professional Geoscientists, Engineers-in-Training, Geoscientists-in-Training and Licensees living in Saskatchewan. A total of 2,246 members completed the survey, representing a 40.0 % response rate. Of those, 2,153 were employed full-time and used in the analysis. Surveys were completed in February and March 2016 and salaries reported were as at December 31, 2015. Inshgtrix Research Inc. compiled and tabulated all results. The detailed report, which includes analysis by gender, can be found on the APEGS website at <http://www.apegs.ca/Portal/Pages/salary-survey>

The main goals of the survey are:

- to provide information to all members regarding monetary compensation for different levels of responsibility and advanced degrees;
- to provide information to employers to assist them in establishing appropriate pay levels for recent graduates and ensuring competitive compensation packages for experienced professionals; and
- to give students, career counsellors and other interested persons information on employment, including salaries, in the engineering and geoscience professions in Saskatchewan.

Annual Salary by Final Year of Graduation (B.Sc.)

	Count	Mean	5	25	Median	75	95	%
1976 & Prior	42	\$138,858	\$85,222	\$110,760	\$143,188	\$166,612	\$180,482	2.0%
1977	11	\$150,018	\$100,000	\$105,400	\$139,000	\$188,000	\$260,000	0.5%
1978	16	\$135,355	\$35,000	\$89,000	\$143,500	\$171,250	\$270,000	0.8%
1979	18	\$146,221	\$75,000	\$124,000	\$156,000	\$162,000	\$200,000	0.9%
1980	12	\$142,335	\$60,000	\$133,000	\$138,500	\$161,000	\$205,000	0.6%
1981	13	\$144,269	\$62,000	\$135,000	\$153,000	\$170,000	\$200,000	0.6%
1982	26	\$138,023	\$96,000	\$106,300	\$138,000	\$168,000	\$196,923	1.2%
1983	16	\$150,677	\$62,000	\$105,330	\$150,678	\$195,432	\$225,000	0.8%
1984	22	\$140,605	\$97,000	\$115,000	\$137,500	\$160,000	\$225,000	1.0%
1985	20	\$142,035	\$37,000	\$103,200	\$128,500	\$190,500	\$250,000	1.0%
1986	26	\$135,970	\$62,000	\$108,000	\$136,408	\$160,800	\$203,000	1.2%
1987	29	\$140,259	\$84,700	\$113,000	\$135,800	\$160,000	\$228,000	1.4%
1988	21	\$137,625	\$100,000	\$123,000	\$137,000	\$150,716	\$185,000	1.0%
1989	22	\$136,214	\$90,000	\$117,000	\$135,900	\$155,000	\$180,000	1.0%
1990	30	\$147,121	\$77,000	\$118,000	\$140,570	\$175,000	\$207,000	1.4%
1991	26	\$141,009	\$105,000	\$114,000	\$135,210	\$150,000	\$196,890	1.2%
1992	17	\$117,355	\$30,000	\$92,000	\$113,000	\$145,000	\$220,000	0.8%
1993	24	\$134,228	\$86,300	\$107,292	\$135,000	\$154,491	\$190,800	1.1%
1994	33	\$129,510	\$30,000	\$89,200	\$131,000	\$163,000	\$210,000	1.6%
1995	34	\$159,596	\$85,000	\$100,000	\$131,000	\$170,000	\$240,000	1.6%
1996	35	\$147,664	\$73,000	\$105,000	\$137,000	\$175,000	\$230,000	1.7%
1997	35	\$118,516	\$71,400	\$90,000	\$110,000	\$132,000	\$193,000	1.7%
1998	30	\$114,293	\$29,120	\$80,000	\$117,750	\$138,500	\$226,000	1.4%
1999	50	\$124,758	\$87,000	\$100,000	\$118,300	\$135,200	\$191,000	2.4%
2000	53	\$114,907	\$74,600	\$96,000	\$110,000	\$126,507	\$166,000	2.5%
2001	59	\$116,753	\$83,000	\$98,880	\$110,000	\$134,000	\$167,000	2.8%
2002	64	\$115,470	\$57,200	\$103,250	\$112,500	\$137,000	\$158,000	3.1%
2003	69	\$113,279	\$65,000	\$96,000	\$114,800	\$127,000	\$162,000	3.3%
2004	76	\$112,967	\$45,000	\$85,000	\$102,750	\$120,550	\$175,000	3.6%
2005	81	\$107,204	\$66,408	\$96,000	\$105,550	\$120,000	\$150,000	3.9%
2006	68	\$100,705	\$51,000	\$84,800	\$100,100	\$114,650	\$149,000	3.2%
2007	102	\$100,473	\$70,000	\$82,888	\$97,817	\$117,000	\$135,000	4.9%
2008	93	\$92,664	\$68,500	\$82,680	\$91,105	\$102,161	\$121,400	4.4%
2009	115	\$88,275	\$50,000	\$77,700	\$89,000	\$100,000	\$125,000	5.5%
2010	135	\$82,728	\$59,000	\$72,500	\$83,000	\$95,000	\$110,000	6.4%
2011	122	\$81,927	\$58,000	\$71,241	\$78,000	\$90,980	\$119,890	5.8%
2012	131	\$74,442	\$56,311	\$66,500	\$72,240	\$81,000	\$98,900	6.2%
2013	123	\$72,056	\$52,658	\$64,500	\$70,000	\$80,000	\$93,750	5.9%
2014	107	\$64,613	\$41,000	\$60,000	\$64,600	\$74,000	\$82,500	5.1%
2015	87	\$62,476	\$39,000	\$57,000	\$62,666	\$71,000	\$83,200	4.1%

Annual Salary by Designation

	Count	Mean	5	25	Median	75	95	%
P.Eng.	1377	\$118,492	\$72,000	\$90,124	\$110,000	\$135,760	\$190,000	61.3%
P.Geo.	106	\$121,629	\$60,000	\$97,500	\$117,500	\$145,000	\$185,000	4.7%
P.Eng./P.Geo	19	\$129,856	\$50,000	\$92,000	\$131,000	\$160,000	\$202,000	0.8%
Engineering Licensee	12	\$121,246	\$70,000	\$87,250	\$110,228	\$145,000	\$240,000	0.5%
Engineer-in-Training	690	\$72,994	\$46,040	\$63,000	\$70,037	\$81,000	\$105,000	30.7%
Geoscientist-in-Training	40	\$75,853	\$24,000	\$60,000	\$70,000	\$87,000	\$150,000	1.8%
Geoscience Licensee*	NA	NA	NA	NA	NA	NA	NA	NA

*NA = Not available due to reporting rules (insufficient data)

Annual Salary by Discipline

	Count	Mean	5	25	Median	75	95	%
Civil	479	\$96,392	\$60,000	\$70,073	\$88,200	\$110,000	\$165,000	21.3%
Mech/nd	506	\$103,073	\$55,000	\$75,000	\$92,588	\$123,858	\$175,000	22.5%
Elec/Eng Physics	344	\$106,519	\$60,000	\$77,000	\$100,000	\$124,700	\$167,000	15.3%
Chem/Ceramic Metal	101	\$110,618	\$63,200	\$83,000	\$99,813	\$138,000	\$186,000	4.5%
Geo/Mining/Petro Eng	258	\$117,895	\$66,408	\$85,000	\$107,700	\$148,250	\$190,800	11.5%
Ag/Forestry	55	\$93,678	\$57,924	\$69,888	\$88,527	\$110,000	\$150,000	2.4%
Environmental	147	\$97,134	\$52,000	\$68,500	\$88,285	\$110,000	\$150,000	6.5%
Geosciences	122	\$109,338	\$53,329	\$79,000	\$105,261	\$136,000	\$185,000	5.4%
Computer Eng	35	\$92,799	\$55,000	\$69,432	\$84,242	\$103,000	\$160,000	1.6%
Biological/Biomedical*	NA	NA	NA	NA	NA	NA	NA	NA
Industrial*	NA	NA	NA	NA	NA	NA	NA	NA
Other	191	\$106,675	\$49,000	\$72,479	\$97,919	\$125,500	\$220,000	8.5%

*NA = Not available due to reporting rules (insufficient data)

Annual Salary by Function

	Count	Mean	5	25	Median	75	95	%
Corp Mgmt	177	\$147,490	\$88,000	\$116,000	\$140,000	\$170,000	\$228,000	7.9%
Project/Op Mgmt	843	\$109,617	\$63,000	\$82,000	\$100,000	\$130,000	\$185,000	37.5%
Project Admin	78	\$85,902	\$52,500	\$67,200	\$83,600	\$98,000	\$140,000	3.5%
Design	472	\$88,694	\$56,000	\$69,600	\$80,000	\$101,000	\$145,000	21.0%
Research/Planning	134	\$97,920	\$25,000	\$68,618	\$90,000	\$115,000	\$165,000	6.0%
Inspec/Quality/Res	57	\$80,069	\$52,200	\$64,000	\$71,000	\$85,200	\$148,318	2.5%
Operating/Maint	194	\$102,098	\$56,000	\$77,000	\$97,100	\$124,300	\$160,000	8.6%
Teaching	43	\$116,408	\$65,000	\$85,000	\$120,000	\$147,000	\$169,000	1.9%
Marketing/Sales	28	\$102,429	\$49,000	\$74,318	\$89,500	\$130,000	\$184,000	1.2%
Reg Approvals/Enforce	64	\$92,937	\$59,500	\$75,000	\$91,650	\$110,000	\$133,000	2.8%
Exploration	55	\$103,912	\$30,000	\$76,000	\$95,000	\$130,000	\$196,890	2.4%
Other	101	\$96,246	\$40,000	\$62,500	\$89,000	\$114,000	\$161,000	4.5%

Annual Salary by Industry

	Count	Mean	5	25	Median	75	95	%
Consulting Service	594	\$99,875	\$57,000	\$69,000	\$85,250	\$115,000	\$185,000	26.4%
Resource Ind Oil/Gas	111	\$106,828	\$50,000	\$78,000	\$99,000	\$127,000	\$190,000	4.9%
Resource Ind	414	\$118,833	\$73,000	\$92,800	\$111,500	\$140,000	\$189,000	18.4%
Procurement/Construc	181	\$94,308	\$56,500	\$70,000	\$88,000	\$110,000	\$164,900	8.1%
Manufac Durables	197	\$91,651	\$52,000	\$67,200	\$83,000	\$108,000	\$159,000	8.8%
Manufac Non-Durables	69	\$119,727	\$70,000	\$84,000	\$107,500	\$146,000	\$191,951	3.1%
Service For Profit	30	\$95,147	\$45,000	\$60,000	\$83,500	\$110,000	\$180,251	1.3%
Service Not For Profit	176	\$95,873	\$60,000	\$75,785	\$91,548	\$109,500	\$150,000	7.8%
Utilities	278	\$108,377	\$60,606	\$84,000	\$105,000	\$128,000	\$174,382	12.4%
Educational Services	79	\$114,013	\$23,000	\$75,000	\$102,000	\$145,000	\$203,000	3.5%
Agriculture/Forestry	27	\$91,013	\$55,570	\$63,000	\$88,500	\$105,427	\$135,000	1.2%
Other	90	\$96,499	\$24,000	\$72,100	\$89,819	\$112,000	\$151,000	4.0%

Annual Salary by Degrees

	Count	Mean	5	25	Median	75	95	%
Bachelor's	1489	\$100,518	\$58,000	\$72,760	\$91,000	\$118,245	\$175,000	66.3%
Bachelor's > Master's	249	\$108,420	\$58,000	\$84,498	\$103,188	\$130,000	\$179,000	11.1%
Master's Degree	358	\$106,651	\$50,000	\$78,000	\$100,000	\$127,000	\$186,000	15.9%
Master's > Doctorate	47	\$136,612	\$65,000	\$85,000	\$110,000	\$165,000	\$240,000	2.1%
Doctorate	103	\$122,387	\$35,000	\$86,603	\$120,000	\$150,000	\$186,000	4.6%

Annual Salary by Experience

	Count	Mean	5	25	Median	75	95	%
<1 year	100	\$65,775	\$30,096	\$54,000	\$62,583	\$75,000	\$113,000	4.5%
1 year	47	\$66,481	\$25,000	\$56,000	\$63,200	\$73,112	\$121,000	2.1%
1.5 years	77	\$67,014	\$43,000	\$60,036	\$68,000	\$74,100	\$90,000	3.4%
2 years	122	\$75,112	\$53,000	\$63,800	\$70,656	\$79,040	\$105,000	5.4%
3 years	175	\$74,993	\$54,000	\$65,000	\$71,450	\$82,000	\$107,000	7.8%
4 years	170	\$79,936	\$58,625	\$70,000	\$76,503	\$86,000	\$105,000	7.6%
5 years	179	\$86,582	\$64,000	\$74,250	\$84,000	\$96,700	\$120,000	8.0%
6 years	120	\$90,665	\$66,573	\$79,075	\$89,686	\$98,950	\$125,500	5.3%
7-8 years	211	\$98,317	\$68,000	\$85,000	\$95,160	\$112,900	\$132,000	9.4%
9-10 years	201	\$107,927	\$73,000	\$92,000	\$106,000	\$119,500	\$150,000	8.9%
11-12 years	119	\$117,733	\$74,334	\$92,250	\$110,000	\$130,000	\$175,000	5.3%
13-14 years	106	\$119,265	\$84,000	\$103,000	\$118,000	\$138,000	\$160,000	4.7%
15-17 years	147	\$123,238	\$85,000	\$100,000	\$120,000	\$140,000	\$172,000	6.5%
18-20 years	95	\$147,435	\$79,000	\$110,000	\$137,000	\$165,000	\$195,000	4.2%
21-24 years	93	\$142,025	\$78,000	\$108,000	\$135,000	\$168,000	\$228,000	4.1%
25+ years	284	\$148,508	\$76,000	\$120,300	\$145,000	\$170,000	\$228,000	12.6%

Annual Salary by Sector

	Count	Mean	5	25	Median	75	95	%
Public Sector	675	\$103,094	\$59,000	\$78,000	\$98,000	\$120,090	\$165,000	43.6%
Private Sector	1549	\$104,771	\$56,650	\$74,000	\$94,900	\$125,000	\$185,000	56.4%

Total Salary

	Count	Mean	5	25	Median	75	95	%
Base Salary	2153	\$104,239	\$58,000	\$75,000	\$95,680	\$125,000	\$180,000	100%
Salary including bonus	2153	\$121,601	\$60,200	\$82,000	\$107,900	\$147,000	\$225,000	100%

Salary Changes - Full Time Positions

	median	% increase	mean	% increase
1987	\$48,000			
1989	\$50,928	6.10%	\$62,887	27.60%
1991	\$54,110	6.20%	\$57,578	-8.40%
1993	\$54,480	0.70%	\$56,703	-1.50%
1995	\$56,400	3.50%	\$59,142	4.30%
1997	\$60,000	6.40%	\$62,266	5.30%
1999	\$62,500	4.20%	\$65,401	5.00%
2001	\$66,000	5.60%	\$68,877	5.30%
2003	\$68,800	4.20%	\$71,210	3.40%
2005	\$71,008	3.20%	\$73,607	3.40%
2007	\$74,000	4.20%	\$77,374	5.10%
2008	\$76,352	3.20%	\$83,025	7.30%
2009	\$80,000	4.80%	\$86,908	4.70%
2010	\$82,950	3.70%	\$91,548	5.30%
2011	\$84,224	1.54%	\$91,154	-0.40%
2012	\$89,472	6.23%	\$96,219	5.56%
2013	\$90,000	0.59%	\$98,030	1.88%
2014	\$94,500	5.00%	\$102,475	4.53%
2015	\$97,000	2.65%	\$105,111	2.57%
	\$95,680	-1.36%	\$104,239	-0.83%

Regression Analysis

Stepwise linear regression was used to find the best model for estimating salaries. The formula produced explains over 50 per cent of the variance in salary (51.1%). Any model explaining at least 50 per cent of the variance in the dependent variable can be considered an effective model. Refer to the "Classification Rating Guide", which can be found on www.apegs.ca to determine the values for each factor.

Factor	B (Coefficient)	Beta (Relative importance)
Duties (A)	147	0.200
Experience (C)	338	0.287
Supervision Scope (G)	770	0.167
Professional designation	8,088	0.083
(Constant)	55,267	

Formula for expected salary (SE) without bonus:

$$SE = 55267 + (147 \times A) + (338 \times C) + (770 \times G)$$

Add 8,088 if you have acquired professional status within your field - P.Eng. or P.Geo.