

2020 APEGS Salary Survey Summary Results

The Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) contacted 6,323 Professional Engineers, Professional Geoscientists, Engineers-in-Training, Geoscientists-in-Training and Licensees living in Saskatchewan. A total of 1,788 members completed the survey representing a 28.3-per-cent response rate. Surveys were completed in March and April 2020 and salaries reported were as at December 31, 2019. Insignitrix Research Inc. compiled and tabulated all results. The detailed report, which includes analysis by gender, can be found on the APEGS web site 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	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
1976 & Prior	19	1.1%	\$139,460	\$88,000	\$92,000	\$127,508	\$192,500	\$220,000
1977†								
1978†								
1979†								
1980†								
1981†								
1982	10	0.6%	\$138,329	\$85,200	\$104,000	\$139,000	\$176,800	\$183,000
1983†								
1984	13	0.8%	\$146,538	\$60,000	\$110,000	\$140,000	\$174,000	\$240,000
1985	10	0.6%	\$160,412	\$94,000	\$112,750	\$139,464	\$202,438	\$250,000
1986	17	1.0%	\$141,709	\$37,500	\$105,000	\$147,800	\$175,000	\$225,000
1987	30	1.8%	\$144,332	\$45,000	\$100,000	\$154,500	\$176,000	\$250,000
1988	24	1.4%	\$150,348	\$100,000	\$130,225	\$152,550	\$176,756	\$190,000
1989	17	1.0%	\$136,914	\$10,000	\$120,000	\$140,000	\$160,000	\$250,000
1990	15	0.9%	\$119,530	\$30,000	\$88,620	\$114,000	\$159,000	\$172,000
1991	15	0.9%	\$169,015	\$113,000	\$130,000	\$175,000	\$210,000	\$240,000
1992	11	0.7%	\$130,846	\$68,640	\$90,000	\$121,968	\$180,000	\$215,000
1993	18	1.1%	\$133,135	\$100	\$120,000	\$140,500	\$160,000	\$208,000
1994	30	1.8%	\$140,644	\$60,000	\$99,210	\$140,567	\$173,000	\$247,500
1995	22	1.3%	\$129,195	\$70,000	\$103,000	\$112,700	\$170,000	\$205,000
1996	28	1.7%	\$153,997	\$72,000	\$111,000	\$157,187	\$194,829	\$216,000
1997	16	1.0%	\$151,557	\$94,486	\$118,250	\$142,000	\$196,440	\$220,000
1998	23	1.4%	\$132,179	\$65,000	\$101,080	\$135,000	\$152,140	\$185,000
1999	28	1.7%	\$128,022	\$52,000	\$105,000	\$122,204	\$154,373	\$214,000
2000	39	2.3%	\$128,385	\$62,000	\$101,000	\$120,000	\$154,000	\$205,000
2001	44	2.6%	\$130,012	\$67,278	\$107,750	\$128,000	\$154,245	\$185,000
2002	39	2.3%	\$125,514	\$30,000	\$102,000	\$126,000	\$153,000	\$209,300
2003	34	2.0%	\$127,043	\$20,000	\$98,075	\$118,750	\$152,000	\$210,000
2004	38	2.3%	\$128,054	\$72,000	\$103,000	\$126,250	\$158,000	\$206,000
2005	62	3.7%	\$119,595	\$60,000	\$98,046	\$118,500	\$144,000	\$180,000
2006	49	2.9%	\$109,652	\$33,000	\$92,000	\$110,000	\$127,944	\$157,123
2007	75	4.5%	\$112,551	\$65,000	\$92,000	\$113,360	\$131,000	\$160,000
2008	74	4.4%	\$105,018	\$60,000	\$93,000	\$102,000	\$119,140	\$150,000
2009	75	4.5%	\$101,834	\$50,000	\$90,000	\$100,000	\$117,000	\$146,900
2010	76	4.5%	\$105,477	\$55,000	\$90,070	\$103,250	\$116,825	\$160,000
2011	74	4.4%	\$98,351	\$52,000	\$83,600	\$96,000	\$112,000	\$152,000
2012	86	5.1%	\$90,392	\$64,257	\$79,040	\$90,000	\$100,000	\$120,000
2013	84	5.0%	\$88,925	\$56,000	\$79,250	\$89,444	\$98,750	\$116,000
2014	80	4.8%	\$82,618	\$55,050	\$70,250	\$83,000	\$95,000	\$107,955
2015	90	5.4%	\$83,392	\$60,000	\$68,000	\$75,250	\$89,000	\$106,600
2016	70	4.2%	\$72,622	\$59,928	\$66,000	\$70,000	\$80,000	\$95,000
2017	63	3.8%	\$68,377	\$48,000	\$61,500	\$67,000	\$75,000	\$92,000
2018	73	4.4%	\$65,772	\$46,126	\$61,000	\$64,000	\$71,000	\$88,000
2019	71	4.2%	\$66,843	\$54,000	\$60,000	\$65,000	\$71,000	\$88,500

*Not available due to reporting rules (insufficient data)

Annual Salary by Designation

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
P.Eng.	1,064	63.3%	\$121,852	\$74,500	\$95,000	\$112,143	\$142,875	\$197,000
P.Geo.	77	4.6%	\$125,424	\$75,000	\$98,000	\$115,000	\$144,000	\$210,000
P.Eng./P.Geo	16	1.0%	\$115,255	\$62,000	\$90,500	\$110,500	\$148,323	\$175,000
Engineering License	12	0.7%	\$121,203	\$79,188	\$90,564	\$120,500	\$143,375	\$173,000
Engineer-in-Training	482	28.7%	\$72,932	\$50,500	\$62,000	\$68,963	\$81,000	\$101,300
Geoscientist-in-Training	28	1.7%	\$83,330	\$48,000	\$64,250	\$81,150	\$96,563	\$117,000
Geo Licensee†								

*Not available due to reporting rules (insufficient data)

Annual Salary by Discipline

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Ag/Forestry	44	2.6%	\$92,970	\$61,200	\$68,775	\$87,800	\$113,000	\$141,000
Biological/Biomedical†								
Chem/Ceramic/Metal.	88	5.2%	\$107,848	\$64,000	\$80,000	\$98,000	\$126,500	\$194,417
Civil	351	20.9%	\$100,498	\$58,200	\$72,400	\$92,000	\$115,000	\$180,000
Elec/Eng/Physics	235	14.0%	\$111,063	\$58,500	\$83,500	\$108,699	\$134,000	\$177,000
Environmental	116	6.9%	\$100,792	\$50,000	\$74,250	\$92,223	\$111,890	\$170,000
Geo/Mining/Petro Eng.	166	9.9%	\$126,969	\$67,000	\$96,000	\$115,500	\$160,000	\$208,000
Geosciences	79	4.7%	\$117,513	\$65,000	\$89,500	\$110,000	\$140,000	\$210,000
Mechanical/Industrial	397	23.6%	\$107,188	\$60,000	\$75,000	\$100,000	\$132,000	\$180,000
SoftwareEngineering	42	2.5%	\$87,796	\$60,000	\$70,000	\$87,239	\$97,500	\$127,000
Other	155	9.2%	\$105,134	\$49,400	\$70,000	\$99,000	\$120,000	\$205,000

*Not available due to reporting rules (insufficient data)

Annual Salary by Function

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Corporate Management	148	8.8%	\$158,954	\$88,000	\$127,958	\$150,000	\$180,000	\$247,500
Project Management	608	36.2%	\$112,844	\$66,000	\$86,425	\$105,000	\$135,000	\$185,200
Project Administration	33	2.0%	\$87,558	\$54,000	\$66,000	\$80,000	\$110,400	\$134,000
Design	386	23.0%	\$89,803	\$56,000	\$66,839	\$85,000	\$104,000	\$144,500
Research/Planning	99	5.9%	\$102,604	\$48,000	\$70,000	\$97,000	\$123,600	\$190,000
Inspection/Quality Control	41	2.4%	\$92,610	\$52,000	\$62,000	\$73,250	\$100,000	\$142,060
Operating/Maintenance	153	9.1%	\$108,821	\$64,400	\$85,000	\$103,000	\$128,679	\$178,000
Teaching	30	1.8%	\$124,560	\$80,616	\$93,363	\$101,000	\$168,000	\$191,000
Marketing/Sales	30	1.8%	\$83,990	\$40,000	\$65,100	\$85,620	\$98,480	\$134,600
Approvals/Enforcement	55	3.3%	\$89,698	\$56,550	\$77,000	\$88,800	\$100,000	\$120,000
Exploration	37	2.2%	\$105,770	\$48,000	\$81,373	\$102,000	\$115,748	\$240,000
Other	60	3.6%	\$81,094	\$10,850	\$60,625	\$71,750	\$106,250	\$149,405

Annual Salary by Industry

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Consulting Service	370	22.0%	\$102,312	\$57,173	\$70,000	\$91,601	\$125,000	\$185,000
Resource Industry Oil & Gas	77	4.6%	\$109,581	\$56,550	\$85,017	\$100,000	\$135,000	\$180,000
Except Oil & Gas	276	16.4%	\$126,445	\$72,000	\$100,000	\$117,450	\$146,975	\$205,000
Procurement/Construction	136	8.1%	\$102,294	\$58,000	\$71,850	\$93,000	\$127,250	\$180,000
Manufacturing Durables	190	11.3%	\$89,041	\$54,000	\$65,000	\$81,810	\$100,000	\$155,000
Manufacturing Non-Durables	53	3.2%	\$119,866	\$62,000	\$92,000	\$105,575	\$142,060	\$209,300
Service For Profit	41	2.4%	\$92,069	\$57,000	\$70,000	\$90,000	\$100,000	\$156,820
Service Not For Profit	131	7.8%	\$101,126	\$64,420	\$80,604	\$97,390	\$110,000	\$152,962
Utilities	244	14.5%	\$113,967	\$65,000	\$85,000	\$109,576	\$138,750	\$182,000
Educational Services	64	3.8%	\$119,260	\$50,000	\$83,036	\$99,179	\$167,822	\$220,000
Agriculture and Forestry	29	1.7%	\$94,073	\$61,200	\$68,500	\$88,500	\$110,000	\$160,000
Other	69	4.1%	\$97,041	\$49,400	\$70,000	\$95,194	\$120,000	\$168,000

Annual Salary by Degree

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Bachelor's Degree	1167	69.5%	\$104,303	\$60,000	\$74,500	\$96,900	\$123,600	\$179,000
...	189	11.3%	\$108,211	\$58,000	\$80,808	\$102,000	\$133,000	\$180,000
Master's Degree	232	13.8%	\$111,182	\$54,000	\$83,625	\$101,875	\$132,750	\$194,968
...	30	1.8%	\$131,013	\$48,000	\$89,000	\$109,250	\$185,200	\$243,202
Doctorate Degree	62	3.7%	\$134,893	\$55,000	\$96,000	\$140,274	\$175,000	\$220,000

Annual Salary by Experience

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
<1 year	84	5.0%	\$67,417	\$47,500	\$58,650	\$65,000	\$71,892	\$99,000
1 year	36	2.1%	\$81,855	\$46,126	\$61,650	\$66,500	\$72,000	\$150,000
1.5 years	64	3.8%	\$68,311	\$50,000	\$60,000	\$64,000	\$75,000	\$111,780
2 years	83	4.9%	\$72,320	\$50,000	\$63,500	\$68,400	\$78,000	\$101,550
3 years	95	5.7%	\$76,526	\$50,000	\$64,000	\$70,000	\$83,000	\$120,700
4 years	83	4.9%	\$81,940	\$58,000	\$69,000	\$76,000	\$87,444	\$108,300
5 years	105	6.3%	\$84,358	\$64,257	\$72,000	\$80,000	\$93,300	\$106,200
6 years	77	4.6%	\$91,746	\$66,839	\$80,500	\$90,480	\$99,000	\$116,000
7-8 years	172	10.2%	\$94,621	\$70,000	\$82,625	\$93,000	\$102,750	\$133,000
9-10 years	144	8.6%	\$106,651	\$76,600	\$92,000	\$104,000	\$118,375	\$145,000
11-12 years	144	8.6%	\$115,589	\$81,373	\$97,125	\$110,000	\$130,033	\$170,000
13-14 years	115	6.8%	\$122,380	\$85,000	\$102,500	\$120,000	\$140,000	\$180,000
15-17 years	119	7.1%	\$136,890	\$87,500	\$112,835	\$131,000	\$156,000	\$205,000
18-20 years	96	5.7%	\$131,505	\$65,300	\$105,000	\$126,500	\$154,350	\$201,000
21-24 years	80	4.8%	\$153,964	\$90,200	\$129,700	\$150,000	\$185,800	\$215,238
25+ years	183	10.9%	\$151,375	\$90,000	\$120,000	\$150,000	\$177,000	\$234,000

Annual Salary by Sector

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Public Sector	530	100.0%	\$107,583	\$63,630	\$80,616	\$100,000	\$125,000	\$180,000
Private Sector	1,135	100.0%	\$106,902	\$57,990	\$74,000	\$98,046	\$130,000	\$190,000
		Mean	5	25	Median	75	95	%

Total Salary (full time positions)

	COUNT	COLUMN N %	MEAN	PERCENTILE 05	PERCENTILE 25	MEDIAN	PERCENTILE 75	PERCENTILE 95
Base Salary	1,680	94.8%	\$105,716	\$55,000	\$74,856	\$98,000	\$128,000	\$186,000
Salary incl. bonus			\$129,529	\$60,401	\$82,650	\$110,350	\$157,395	\$259,670
		Mean	5	25	Median	75	95	%

Salary Changes - Full Time Positions

	MEDIAN SALARY	% INCREASE	MEAN SALARY	% INCREASE
1987	\$48,000		\$49,269	
1989	\$50,928	6.10%	\$62,887	27.64%
1991	\$54,110	6.25%	\$57,578	-8.44%
1993	\$54,480	0.68%	\$56,703	-1.52%
1995	\$56,400	3.52%	\$59,142	4.30%
1997	\$60,000	6.38%	\$62,266	5.28%
1999	\$62,500	4.17%	\$65,401	5.03%
2001	\$66,000	5.60%	\$68,877	5.31%
2003	\$68,800	4.24%	\$71,210	3.39%
2005	\$71,008	3.21%	\$73,607	3.37%
2007	\$74,000	4.21%	\$77,374	5.12%
2008	\$76,352	3.18%	\$83,025	7.30%
2009	\$80,000	4.78%	\$86,908	4.68%
2010	\$82,950	3.69%	\$91,548	5.34%
2011	\$84,224	1.54%	\$91,154	-0.43%
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%
2016	\$96,000	-1.03%	\$104,628	-0.46%
2017	\$97,000	1.04%	\$107,130	2.39%
2018	\$96,485	-0.53%	\$104,743	-2.23%
2019	\$97,500	1.05%	\$107,287	2.43%
2020	\$99,265	1.81%	\$107,298	0.00%

Regression Analysis

A stepwise linear regression was used to find the best model for predicting salaries for engineers and geoscientists working in different industries. This process was used to:

- Identify key factors which predict salary as well as factors which are not related to salary
- Make the results independent of the different scales used to measure each factor
- Identify Boolean components (such as receipt of professional designation) influencing salary
- Create a linear formula with as much predictive power as possible

An overall formula was also produced which members of APEGS can easily use to estimate their salary. The formula explains about 57 percent (57.2%) of variance in salary. Any model explaining at least 50% of the variance in the dependent variable can be considered an effective model. B-values are the raw numerical coefficients of each variable. Since the scales for each variable are different, the beta values are a better measure of relative importance of factors within the model. Refer to the "Classification Rating Guide", which can be found on <http://www.apegs.ca/Portal/Pages/salary-survey>, to determine the values for each factor.

FACTOR	COEFFICIENT (B)	RELATIVE IMPORTANCE (BETA)
(Constant)	46481	
Duties (A)	127	0.196
Experience (C)	342	0.325
Leadership Authority and/or Supervision Exercised (F)	151	0.113
Supervision Scope (G)	784	0.200
Receipt of professional designation	10739	0.123

To calculate the approximate projected salary, input the points for each variable in the following formula:

Formula for expected salary (SE) without bonus:

$$SE = 46,481 + 127*A + 342*C + 151*F + 784*G$$

Add 10,739 if you have acquired professional status within your field (P.Eng. or P.Geo.)