

2023 APEGS Salary Survey Summary Results

The Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) contacted 6,943 Professional Engineers, Professional Geoscientists, Engineers-in-Training, Geoscientists-in-Training and Licensees living in Saskatchewan. A total of 1,541 members completed the survey representing a 22.2 per cent response rate. Surveys were completed in February and March 2023 and salaries reported were as of December 31, 2022. Inshatrix Research Inc. compiled and tabulated all results. The detailed report, which includes analysis by gender, can be found on the APEGS web site under the 'About' menu.

Professional designation (P.Eng. and/or P.Geo.), supervision scope and job environment are the top three predictors of salary.

The work of engineering and geoscience professionals contributes to the public wellbeing and economic stability of Saskatchewan. The goal of providing current market salary information for engineers and geoscientists is to help ensure that the province retains proficient and competent services in engineering and geoscience. Making this information available provides guidance to both employers and employees to assess current compensation for professionals at various levels of education, experience, and responsibility. The salary survey also has the additional benefit of providing students, career counsellors and other interested persons with information on employment 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	12	0.9%	\$144,287	\$40,000	\$96,250	\$144,722	\$180,000	\$300,000
1977†								
1978†								
1979†								
1980†								
1981†								
1982†								
1983†								
1984†								
1985†								
1986†								
1987	12	0.9%	\$153,706	\$10,000	\$102,500	\$181,699	\$191,989	\$248,000
1988	12	0.9%	\$182,422	\$120,000	\$147,000	\$185,416	\$207,919	\$240,000
1989†								
1990†								
1991†								
1992	11	0.8%	\$141,939	\$90,000	\$100,000	\$130,000	\$177,100	\$220,000
1993†								
1994	16	1.2%	\$164,287	\$18,000	\$138,415	\$155,000	\$184,500	\$320,000
1995	15	1.1%	\$167,404	\$110,000	\$139,000	\$160,000	\$190,000	\$250,000
1996	18	1.3%	\$178,374	\$75,000	\$175,000	\$187,500	\$205,000	\$275,000
1997	16	1.2%	\$150,161	\$43,680	\$131,225	\$147,500	\$177,750	\$230,000
1998†								
1999	19	1.4%	\$146,390	\$75,000	\$112,590	\$140,000	\$160,000	\$250,000
2000	22	1.6%	\$135,495	\$77,000	\$109,000	\$127,320	\$147,000	\$210,000
2001	30	2.2%	\$144,857	\$71,000	\$108,781	\$141,500	\$165,108	\$240,000
2002	29	2.1%	\$145,153	\$60,000	\$128,000	\$144,000	\$172,000	\$215,000
2003	23	1.7%	\$145,328	\$100,169	\$120,000	\$140,000	\$174,500	\$185,000
2004	41	3.0%	\$142,961	\$85,000	\$112,000	\$140,000	\$167,000	\$210,000
2005	46	3.3%	\$135,060	\$70,279	\$112,000	\$131,750	\$153,000	\$210,000
2006	34	2.5%	\$135,666	\$86,000	\$113,000	\$132,500	\$164,000	\$185,000
2007	46	3.3%	\$117,922	\$60,000	\$101,500	\$115,500	\$135,000	\$152,000
2008	58	4.2%	\$124,109	\$50,000	\$108,000	\$124,000	\$141,780	\$190,500

2009	53	3.8%	\$121,915	\$76,000	\$105,000	\$120,000	\$135,000	\$170,000
2010	54	3.9%	\$124,576	\$84,344	\$105,000	\$119,500	\$145,000	\$176,000
2011	59	4.3%	\$116,215	\$74,000	\$95,000	\$114,000	\$135,684	\$180,000
2012	67	4.9%	\$104,314	\$63,100	\$90,522	\$106,000	\$120,000	\$142,623
2013	66	4.8%	\$104,884	\$70,144	\$92,250	\$105,000	\$115,500	\$135,000
2014	56	4.1%	\$100,632	\$72,759	\$86,891	\$99,150	\$108,000	\$144,800
2015	73	5.3%	\$101,627	\$74,000	\$86,000	\$98,000	\$111,000	\$142,000
2016	44	3.2%	\$95,482	\$68,000	\$80,000	\$90,624	\$107,250	\$140,000
2017	58	4.2%	\$86,302	\$60,000	\$75,000	\$86,500	\$100,000	\$110,000
2018	68	4.9%	\$83,757	\$60,000	\$74,125	\$82,000	\$91,500	\$110,000
2019	66	4.8%	\$78,733	\$58,000	\$70,000	\$76,500	\$87,000	\$101,000
2020	65	4.7%	\$75,386	\$58,000	\$67,000	\$72,000	\$83,962	\$98,500
2021	63	4.6%	\$71,278	\$55,000	\$67,000	\$70,500	\$75,382	\$92,000
2022	49	3.6%	\$71,257	\$60,000	\$65,000	\$69,800	\$79,500	\$86,000

†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.	900	62.8%	\$129,651	\$80,000	\$100,209	\$122,000	\$150,000	\$207,999
P.Geo.	62	4.3%	\$131,974	\$85,000	\$102,018	\$122,500	\$160,000	\$190,000
P.Eng. and P.Geo†								
Engineering License	13	0.9%	\$131,425	\$79,000	\$100,000	\$119,184	\$139,840	\$250,000
Engineer-in-Training	408	28.5%	\$78,704	\$58,000	\$67,410	\$74,880	\$86,000	\$110,000
Geoscientist-in-Training	35	2.4%	\$83,069	\$55,575	\$75,000	\$85,000	\$94,800	\$108,000
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
Agriculture and Forestry	32	2.2%	\$105,924	\$59,000	\$82,375	\$98,400	\$134,250	\$172,000
Biological and Biomedical†								
Chemical, Ceramic and Metallurgical	66	4.6%	\$123,304	\$70,000	\$92,000	\$110,500	\$145,000	\$229,000
Civil	301	21.1%	\$105,726	\$62,688	\$78,800	\$97,200	\$125,000	\$188,831
Electrical and Engineering Physics	197	13.8%	\$121,487	\$65,686	\$87,000	\$117,000	\$151,000	\$190,120
Environmental	85	6.0%	\$103,117	\$60,320	\$75,000	\$95,163	\$118,000	\$172,070
Geological, Mining, Petroleum Engineering	142	9.9%	\$126,733	\$72,800	\$97,370	\$118,500	\$148,300	\$212,000
Geosciences: (Geology, Geophysics, Geochemistry, Hydrogeology)	76	5.3%	\$120,628	\$70,000	\$91,400	\$112,000	\$150,000	\$190,000

Mechanical and Industrial	371	26.0%	\$115,819	\$62,000	\$80,000	\$106,500	\$142,000	\$205,000
Software Engineering	34	2.4%	\$103,568	\$56,993	\$82,500	\$97,423	\$125,000	\$150,000
Other	122	8.5%	\$106,846	\$63,000	\$80,000	\$99,800	\$120,000	\$183,000

†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	118	8.3%	\$169,371	\$99,300	\$131,337	\$165,000	\$198,000	\$296,034
Project or Operations Management	460	32.3%	\$117,207	\$66,028	\$87,550	\$111,000	\$140,000	\$188,714
Project Administration	30	2.1%	\$101,139	\$60,000	\$91,520	\$98,000	\$120,000	\$134,000
Design	392	27.6%	\$98,554	\$62,000	\$74,000	\$90,000	\$114,000	\$160,000
Research/Planning	58	4.1%	\$110,370	\$60,000	\$85,000	\$103,009	\$132,000	\$177,007
Inspection or Quality Control or Resident Services	37	2.6%	\$89,286	\$54,500	\$65,000	\$75,000	\$110,500	\$160,000
Operating or Maintenance	144	10.1%	\$119,787	\$70,000	\$92,125	\$110,500	\$144,950	\$190,120
Teaching	20	1.4%	\$151,261	\$87,405	\$100,252	\$157,463	\$190,341	\$228,834
Marketing/Sales	13	0.9%	\$105,509	\$45,000	\$78,000	\$105,000	\$133,500	\$160,000
Regulatory Approvals and/or Enforcement	41	2.9%	\$99,451	\$65,495	\$82,000	\$96,700	\$117,000	\$148,000
Exploration	42	3.0%	\$110,378	\$70,000	\$80,900	\$101,000	\$128,000	\$170,000
Other	73	5.1%	\$100,863	\$55,575	\$75,920	\$95,000	\$112,000	\$177,000

Annual Salary by Industry

	Count	Column N %	Mean	Percentile 05	Percentile 25	Median	Percentile 75	Percentile 95
Consulting Service	334	23.3%	\$104,833	\$61,440	\$74,000	\$93,000	\$124,900	\$190,000
Resource Industry Oil & Gas	74	5.2%	\$122,374	\$67,380	\$92,000	\$119,250	\$148,500	\$187,800
Resource Industry Except Oil & Gas	260	18.1%	\$131,516	\$75,000	\$98,768	\$128,169	\$152,000	\$212,000
Procurement and Construction	122	8.5%	\$106,307	\$62,500	\$77,000	\$100,000	\$128,376	\$180,000
Manufacturing Durables	149	10.4%	\$97,129	\$60,000	\$71,000	\$90,000	\$110,860	\$165,000
Manufacturing Non-Durables	48	3.3%	\$131,207	\$80,000	\$102,625	\$119,963	\$149,812	\$230,000
Service For Profit	16	1.1%	\$108,224	\$45,000	\$80,625	\$106,891	\$130,000	\$206,237
Service Not For Profit	120	8.4%	\$107,269	\$69,164	\$86,492	\$106,058	\$120,750	\$172,000
Utilities	193	13.5%	\$127,306	\$69,396	\$93,000	\$122,000	\$153,000	\$204,150
Educational Services	36	2.5%	\$132,249	\$50,000	\$94,250	\$114,737	\$185,250	\$233,852
Agriculture and Forestry	26	1.8%	\$93,036	\$67,500	\$74,000	\$83,850	\$104,000	\$150,000
Other	50	3.5%	\$92,771	\$55,000	\$75,382	\$86,850	\$101,970	\$168,000

Annual Salary by Sector

	Count	Mean	Percentile 05	Percentile 25	Median	Percentile 75	Percentile 95
Public Sector	418	\$116,254	\$69,120	\$88,000	\$109,000	\$138,000	\$190,455
Private Sector	1,003	\$113,395	\$62,000	\$80,000	\$103,000	\$137,500	\$198,000

Total Salary (full time positions)

	Count	Mean	Percentile 05	Percentile 25	Median	Percentile 75	Percentile 95
Base Salary	1,428	\$114,143	\$63,000	\$82,000	\$105,000	\$137,697	\$193,800
Salary incl. bonus		\$137,515	\$66,003	\$88,910	\$118,000	\$165,000	\$290,000

Salary Changes - Full Time Positions (not including bonus, not all survey years listed)

	median salary	% increase	mean salary	% increase
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%
2021	\$98,022	-1.25%	\$108,008	0.65%
2022	\$104,000	6.10%	\$112,940	4.57%
2023	\$105,000	0.96%	\$114,143	1.07%

Regression Analysis

A lasso regression model was used to establish a framework for predicting salaries for engineers and geoscientists working in different industries. This process was used to:

- Identify how closely factors are associated with salaries
- Identify Boolean components (such as receipt of professional designation) influencing salary
- Create a linear formula that effectively predicts salaries while minimizing model overfitting

The model explains about 62 percent (61.6%) of variance in salary. A formula was produced which members of APEGS can easily use to estimate their salary.

Factor	Coefficient
(Constant)	\$ 42779.14
Duties (A)	\$ 109.13
Experience (C)	\$ 378.54
Recommendations (D)	\$ 104.19
Supervision Received (E)	\$ 13.28
Leadership Authority (F)	\$ 113.27
Supervision Scope (G)	\$ 818.20
Job Environment (I)*	\$ 594.53
Absence from Base of Operations (J)	\$ 399.12
Accident and Health Hazards (K)	\$ 526.43
Professional Designation(s)	\$ 9143.10

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

Formula for expected salary (S_E) *without bonus*:

$$S_E = 42,779 + 109*A + 379*C + 104*D + 13*E + 113*F + 818*G - 595*I + 399*J + 526*K$$

Add \$9,143 if you have acquired professional status within your field (P.Eng. and/or P.Geo.)

Additional Notes

- Use of professional seal was excluded from the model due to this factor being not applicable for some respondents.
- 10-fold cross validation was used to select a lambda value for the lasso model.
- Higher ratings for factors with an asterisk (*) are associated with lower wages.