

# 2012 APEGS Salary Survey Summary Results

The Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) contacted a total of 4,710 Professional Engineers, Professional Geoscientists, Engineers-in-Training, Geoscientists-in-Training and Licensees living in Saskatchewan. A total of 1,757 members completed the survey, representing a 37.3 per cent response rate. Of those, 1,716 were employed full-time and used in the analysis. Surveys were completed from mid-February to late March 2013 and salaries reported were as at December 31, 2012. Insightrix Research Inc. compiled and tabulated all results. The detailed report from Insightrix can be found on the APEGS website at [www.apegs.sk.ca](http://www.apegs.sk.ca)

## 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        | %           |
|---------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Prior to 1976 | 47    | \$145,668 | \$113,249 | \$126,256 | \$140,186 | \$163,186 | \$188,004 | 2.8%        |
| 1977          | 12    | \$127,535 | \$67,000  | \$107,500 | \$128,500 | \$157,500 | \$200,000 | .7%         |
| 1978          | 17    | \$148,246 | \$83,781  | \$107,000 | \$130,000 | \$184,000 | \$255,000 | 1.0%        |
| 1979          | 17    | \$148,829 | \$90,000  | \$118,000 | \$145,000 | \$165,000 | \$245,000 | 1.0%        |
| 1980          | 20    | \$121,122 | \$40,105  | \$119,000 | \$125,302 | \$136,000 | \$156,563 | 1.2%        |
| 1981          | 10    | \$144,621 | \$90,000  | \$128,412 | \$150,000 | \$165,000 | \$180,000 | 0.6%        |
| 1982          | 20    | \$130,654 | \$97,000  | \$104,182 | \$119,400 | \$149,000 | \$197,500 | 1.2%        |
| 1983          | 16    | \$161,173 | \$102,000 | \$135,000 | \$150,000 | \$180,000 | \$280,000 | 1.0%        |
| 1984          | 20    | \$137,450 | \$83,000  | \$105,000 | \$128,000 | \$160,000 | \$211,500 | 1.2%        |
| 1985          | 21    | \$139,298 | \$93,400  | \$100,000 | \$120,000 | \$150,500 | \$205,000 | 1.3%        |
| 1986          | 26    | \$135,440 | \$95,000  | \$104,000 | \$127,000 | \$156,000 | \$205,000 | 1.5%        |
| 1987          | 31    | \$128,363 | \$84,000  | \$114,000 | \$126,500 | \$143,000 | \$185,000 | 1.8%        |
| 1988          | 19    | \$126,724 | \$100,000 | \$114,000 | \$121,000 | \$134,648 | \$170,000 | 1.1%        |
| 1989          | 23    | \$117,300 | \$80,000  | \$86,000  | \$120,000 | \$130,000 | \$160,000 | 1.4%        |
| 1990          | 22    | \$119,160 | \$72,000  | \$85,200  | \$118,159 | \$150,000 | \$181,600 | 1.3%        |
| 1991          | 16    | \$125,404 | \$85,000  | \$100,300 | \$125,580 | \$145,500 | \$195,000 | 1.0%        |
| 1992          | 14    | \$106,531 | \$65,000  | \$96,000  | \$122,192 | \$128,000 | \$160,000 | 0.8%        |
| 1993          | 17    | \$121,960 | \$71,000  | \$103,000 | \$125,000 | \$135,000 | \$185,000 | 1.0%        |
| 1994          | 29    | \$129,830 | \$82,722  | \$103,000 | \$128,000 | \$154,000 | \$180,000 | 1.7%        |
| 1995          | 30    | \$117,972 | \$81,000  | \$91,000  | \$112,500 | \$150,000 | \$170,000 | 1.8%        |
| 1996          | 41    | \$118,081 | \$75,000  | \$97,000  | \$120,000 | \$135,500 | \$168,000 | 2.4%        |
| 1997          | 45    | \$114,082 | \$70,000  | \$90,000  | \$110,000 | \$128,410 | \$180,000 | 2.7%        |
| 1998          | 34    | \$112,492 | \$64,100  | \$89,000  | \$110,000 | \$126,000 | \$200,000 | 2.0%        |
| 1999          | 42    | \$104,515 | \$70,000  | \$82,500  | \$100,000 | \$115,000 | \$148,000 | 2.5%        |
| 2000          | 51    | \$105,706 | \$72,000  | \$89,500  | \$104,220 | \$120,000 | \$134,400 | 3.0%        |
| 2001          | 67    | \$104,681 | \$78,000  | \$92,000  | \$101,000 | \$114,396 | \$146,000 | 4.0%        |
| 2002          | 55    | \$103,250 | \$74,000  | \$92,000  | \$100,000 | \$114,000 | \$135,000 | 3.3%        |
| 2003          | 59    | \$98,041  | \$60,000  | \$87,000  | \$95,000  | \$110,000 | \$143,000 | 3.5%        |
| 2004          | 65    | \$94,306  | \$65,500  | \$78,500  | \$90,000  | \$101,000 | \$138,000 | 3.9%        |
| 2005          | 72    | \$92,314  | \$57,000  | \$81,750  | \$90,683  | \$103,000 | \$120,000 | 4.3%        |
| 2006          | 72    | \$89,720  | \$62,000  | \$76,500  | \$87,183  | \$96,757  | \$132,200 | 4.3%        |
| 2007          | 94    | \$82,707  | \$58,000  | \$72,000  | \$81,000  | \$92,000  | \$114,000 | 5.6%        |
| 2008          | 113   | \$79,085  | \$60,000  | \$71,000  | \$78,000  | \$85,000  | \$103,000 | 6.7%        |
| 2009          | 115   | \$75,503  | \$60,000  | \$67,000  | \$72,000  | \$81,000  | \$95,233  | 6.8%        |
| 2010          | 112   | \$69,203  | \$54,080  | \$61,825  | \$67,950  | \$75,138  | \$85,000  | 6.7%        |
| 2011          | 123   | \$65,751  | \$53,000  | \$60,000  | \$63,000  | \$72,000  | \$86,500  | 7.3%        |
| 2012          | 93    | \$61,881  | \$48,000  | \$57,200  | \$60,000  | \$65,000  | \$80,640  | 5.5%        |
| <b>1680</b>   |       |           |           |           |           |           |           | <b>100%</b> |

## Annual Salary by Designation

| DESIGNATION              | COUNT       | MEAN      | 5        | 25        | MEDIAN    | 75        | 95        | %           |
|--------------------------|-------------|-----------|----------|-----------|-----------|-----------|-----------|-------------|
| P.Eng.                   | 971         | \$113,674 | \$73,000 | \$90,000  | \$105,000 | \$128,412 | \$180,000 | 56.6%       |
| P.Geo.                   | 76          | \$120,662 | \$81,500 | \$95,000  | \$110,300 | \$147,500 | \$180,000 | 4.4%        |
| P.Eng. and P.Geo         | 14          | \$148,852 | \$83,982 | \$128,000 | \$152,500 | \$165,000 | \$260,000 | .8%         |
| Engineering Licencee     | 5           | NA        | NA       | NA        | NA        | NA        | NA        | .3%         |
| Engineer-in-Training     | 616         | \$70,480  | \$52,000 | \$60,000  | \$67,781  | \$78,910  | \$95,233  | 35.9%       |
| Geoscience Licencee      | 1           | NA        | NA       | NA        | NA        | NA        | NA        | 0.1         |
| Geoscientist-in-Training | 33          | \$78,937  | \$60,000 | \$68,000  | \$78,000  | \$85,000  | \$110,000 | 1.9         |
|                          | <b>1716</b> |           |          |           |           |           |           | <b>100%</b> |

\*NA=Not available due to reporting rules

## Annual Salary by Discipline

| DISCIPLINE                                | COUNT       | MEAN      | 5        | 25       | MEDIAN    | 75        | 95        | %           |
|---|-------------|-----------|----------|----------|-----------|-----------|-----------|-------------|
| Agriculture & Forestry                    | 39          | \$88,094  | \$60,000 | \$67,000 | \$84,000  | \$106,000 | \$137,000 | 2.3%        |
| Chemical, Ceramic & Metallurgical         | 81          | \$105,423 | \$60,144 | \$79,000 | \$90,000  | \$125,000 | \$180,000 | 4.7%        |
| Civil                                     | 352         | \$92,139  | \$57,400 | \$68,320 | \$81,822  | \$107,125 | \$165,000 | 20.5%       |
| Electrical & Engineering Physics          | 283         | \$99,768  | \$58,000 | \$73,000 | \$95,233  | \$115,000 | \$158,000 | 16.5%       |
| Environmental                             | 110         | \$91,827  | \$55,000 | \$70,000 | \$90,988  | \$103,500 | \$145,000 | 6.4%        |
| Geological, Mining, Petroleum Engineering | 150         | \$102,922 | \$60,000 | \$75,000 | \$94,700  | \$125,000 | \$178,000 | 8.7%        |
| Geosciences, Geology                      | 98          | \$108,019 | \$62,000 | \$81,500 | \$100,250 | \$130,000 | \$171,000 | 5.7%        |
| Mechanical & Industrial                   | 419         | \$95,820  | \$55,000 | \$71,556 | \$88,608  | \$115,000 | \$160,000 | 24.4%       |
| Software Engineering                      | 30          | \$92,879  | \$55,000 | \$64,350 | \$82,500  | \$106,000 | \$169,000 | 1.7%        |
| Other                                     | 154         | \$107,251 | \$55,000 | \$77,000 | \$98,000  | \$129,000 | \$200,000 | 9.0%        |
|   | <b>1716</b> |           |          |          |           |           |           | <b>100%</b> |

## Annual Salary by Function

| FUNCTION                                     | COUNT       | MEAN      | 5        | 25        | MEDIAN    | 75        | 95        | %           |
|--|-------------|-----------|----------|-----------|-----------|-----------|-----------|-------------|
| Corporate Management                         | 120         | \$146,971 | \$92,097 | \$116,800 | \$132,686 | \$165,000 | \$252,500 | 7.0%        |
| Design                                       | 432         | \$83,547  | \$53,000 | \$63,300  | \$77,464  | \$95,000  | \$135,000 | 25.2%       |
| Exploration                                  | 57          | \$100,322 | \$60,000 | \$79,550  | \$87,000  | \$118,000 | \$173,610 | 3.3%        |
| Inspection/Quality Control/Resident Services | 33          | \$68,948  | \$56,000 | \$60,000  | \$62,400  | \$75,500  | \$104,166 | 1.9%        |
| Marketing/Sales                              | 16          | \$82,920  | \$53,040 | \$61,800  | \$78,000  | \$107,008 | \$125,000 | 0.9%        |
| Operating or Maintenance                     | 136         | \$97,785  | \$60,000 | \$82,750  | \$93,950  | \$112,400 | \$143,000 | 7.9%        |
| Project Administration                       | 65          | \$89,398  | \$60,000 | \$69,735  | \$85,200  | \$108,198 | \$132,200 | 3.8%        |
| Project or Operations Management             | 614         | \$103,484 | \$60,000 | \$77,000  | \$95,000  | \$121,000 | \$171,000 | 35.8%       |
| Regulatory Approvals and/or Enforcement      | 55          | \$92,281  | \$60,000 | \$71,000  | \$90,000  | \$104,000 | \$129,000 | 3.2%        |
| Research/Planning                            | 118         | \$88,069  | \$52,000 | \$65,000  | \$87,445  | \$103,000 | \$140,250 | 6.9%        |
| Teaching                                     | 27          | \$121,087 | \$74,000 | \$102,000 | \$121,383 | \$145,000 | \$160,000 | 1.6%        |
| Other  | 43          | \$87,998  | \$52,000 | \$64,000  | \$84,000  | \$99,000  | \$148,000 | 2.5%        |
|  | <b>1716</b> |           |          |           |           |           |           | <b>100%</b> |

## Annual Salary by Industry

| INDUSTRY                            | COUNT       | MEAN      | 5        | 25       | MEDIAN    | 75        | 95        | %           |
|-------------------------------------|-------------|-----------|----------|----------|-----------|-----------|-----------|-------------|
| Agriculture and Forestry            | 8           | \$82,845  | \$62,976 | \$67,500 | \$77,391  | \$97,500  | \$115,000 | 0.5%        |
| Consulting                          | 502         | \$93,183  | \$56,500 | \$65,000 | \$83,000  | \$110,000 | \$176,000 | 29.3%       |
| Educational Services                | 57          | \$109,342 | \$52,000 | \$82,000 | \$106,905 | \$140,000 | \$169,000 | 3.3%        |
| Manufacturing Durables              | 161         | \$84,643  | \$51,000 | \$64,500 | \$77,170  | \$100,000 | \$140,000 | 9.4%        |
| Manufacturing Non-Durables          | 43          | \$104,774 | \$64,000 | \$85,000 | \$96,000  | \$122,500 | \$150,000 | 2.5%        |
| Procurement and Construction        | 119         | \$93,756  | \$57,200 | \$66,000 | \$78,719  | \$104,680 | \$197,600 | 6.9%        |
| Resource Industry Oil & Gas         | 62          | \$99,416  | \$60,000 | \$77,200 | \$88,250  | \$115,000 | \$160,000 | 3.6%        |
| Resource Industry without Oil & Gas | 304         | \$111,597 | \$71,000 | \$84,550 | \$101,500 | \$133,500 | \$170,000 | 17.7%       |
| Service For Profit                  | 20          | \$81,119  | \$47,828 | \$58,000 | \$73,500  | \$96,000  | \$165,000 | 1.2%        |
| Service Not For Profit              | 134         | \$92,967  | \$57,077 | \$72,000 | \$90,000  | \$107,000 | \$155,000 | 7.8%        |
| Utilities                           | 242         | \$103,519 | \$62,000 | \$82,000 | \$99,716  | \$120,000 | \$164,000 | 14.1%       |
| Other                               | 64          | \$94,300  | \$55,000 | \$69,000 | \$90,000  | \$116,000 | \$145,000 | 3.7%        |
|                                     | <b>1716</b> |           |          |          |           |           |           | <b>100%</b> |

## Annual Salary by Degrees

| DEGREES                            | COUNT       | MEAN      | 5        | 25       | MEDIAN    | 75        | 95        | %           |
|------------------------------------|-------------|-----------|----------|----------|-----------|-----------|-----------|-------------|
| Bachelor's/academically qualified  | 1195        | \$95,251  | \$57,348 | \$69,700 | \$86,500  | \$110,000 | \$165,000 | 69.6%       |
| Between Bachelor & Master's Degree | 180         | \$100,707 | \$58,000 | \$76,900 | \$93,500  | \$120,000 | \$154,500 | 10.5%       |
| Master's Degree                    | 240         | \$103,986 | \$56,000 | \$81,000 | \$93,883  | \$122,000 | \$172,305 | 14.0%       |
| Between Master's & Doctorate       | 35          | \$102,808 | \$18,000 | \$73,345 | \$92,000  | \$130,000 | \$180,000 | 2.0%        |
| Doctorate Degree                   | 66          | \$116,850 | \$66,187 | \$96,000 | \$120,000 | \$140,250 | \$160,000 | 3.8%        |
|                                    | <b>1716</b> |           |          |          |           |           |           | <b>100%</b> |

## Annual Salary by Experience

| YEARS OF EXPERIENCE | COUNT       | MEAN      | 5        | 25        | MEDIAN    | 75        | 95        | %           |
|---------------------|-------------|-----------|----------|-----------|-----------|-----------|-----------|-------------|
| <1 year             | 94          | \$63,209  | \$43,656 | \$56,500  | \$60,000  | \$70,000  | \$85,219  | 5.5%        |
| 1 year              | 50          | \$66,894  | \$53,762 | \$58,240  | \$62,500  | \$72,000  | \$90,000  | 2.9%        |
| 1.5 years           | 108         | \$68,087  | \$52,000 | \$60,000  | \$65,000  | \$74,400  | \$89,400  | 6.3%        |
| 2 years             | 105         | \$69,882  | \$55,000 | \$60,000  | \$65,700  | \$75,000  | \$97,860  | 6.1%        |
| 3 years             | 127         | \$74,852  | \$60,000 | \$65,000  | \$70,128  | \$80,000  | \$103,000 | 7.4%        |
| 4 years             | 105         | \$78,020  | \$59,000 | \$70,000  | \$76,000  | \$83,500  | \$100,000 | 6.1%        |
| 5 years             | 133         | \$86,422  | \$65,690 | \$75,000  | \$85,000  | \$94,000  | \$115,000 | 7.8%        |
| 6 years             | 90          | \$91,205  | \$65,046 | \$78,200  | \$88,588  | \$104,000 | \$120,000 | 5.2%        |
| 7-8 years           | 151         | \$94,962  | \$66,000 | \$82,000  | \$92,088  | \$103,000 | \$130,000 | 8.8%        |
| 9-10 years          | 115         | \$102,982 | \$75,000 | \$90,000  | \$98,000  | \$114,000 | \$143,000 | 6.7%        |
| 11-12 years         | 119         | \$106,895 | \$71,556 | \$90,000  | \$104,000 | \$117,000 | \$155,000 | 6.9%        |
| 13-14 years         | 65          | \$115,203 | \$79,514 | \$96,000  | \$110,000 | \$129,000 | \$171,000 | 3.8%        |
| 15-17 years         | 104         | \$121,965 | \$84,240 | \$99,800  | \$120,892 | \$138,250 | \$180,000 | 6.1%        |
| 18-20 years         | 55          | \$124,523 | \$74,400 | \$100,224 | \$120,000 | \$151,000 | \$180,000 | 3.2%        |
| 21-24 years         | 80          | \$126,096 | \$81,000 | \$106,500 | \$124,417 | \$145,000 | \$179,500 | 4.7%        |
| 25+ years           | 215         | \$143,390 | \$85,000 | \$113,500 | \$135,000 | \$165,000 | \$234,000 | 12.5%       |
|                     | <b>1716</b> |           |          |           |           |           |           | <b>100%</b> |

## Annual Salary by Sector

| SECTOR         | COUNT       | MEAN      | 5        | 25       | MEDIAN   | 75        | 95        | %           |
|----------------|-------------|-----------|----------|----------|----------|-----------|-----------|-------------|
| Public Sector  | 527         | \$100,579 | \$60,000 | \$78,216 | \$96,000 | \$118,000 | \$160,000 | 31.0%       |
| Private Sector | 1175        | \$96,712  | \$57,000 | \$70,000 | \$87,000 | \$115,000 | \$170,000 | 69.0%       |
|                | <b>1702</b> |           |          |          |          |           |           | <b>100%</b> |

## Total Salary

| SALARY                 | COUNT | MEAN      | 5        | 25       | MEDIAN   | 75        | 95        | %    |
|------------------------|-------|-----------|----------|----------|----------|-----------|-----------|------|
| Base Salary            | 1716  | \$98,030  | \$57,200 | \$72,000 | \$90,000 | \$115,000 | \$167,000 | 100% |
| Salary including bonus | 1716  | \$113,010 | \$60,000 | \$78,163 | \$99,028 | \$132,150 | \$212,000 | 100% |

## Salary Changes - Full-Time Positions

| YEAR | MEDIAN SALARY | % INCREASE | AVERAGE SALARY | % INCREASE |
|------|---------------|------------|----------------|------------|
| 1988 | \$48,000      |            | \$49,269       |            |
| 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%      |

## Regression Analysis (Modified September 2013)

Stepwise linear regression was used to find the best model for estimating salaries. The formula produced explains over 60% of the variance in salary (61.4%). Any model explaining at least 50% 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.sk.ca](http://www.apegs.sk.ca), to determine the values for each factor.

| FACTOR                              | B (COEFFICIENT) | BETA (RELATIVE IMPORTANCE) |
|-------------------------------------|-----------------|----------------------------|
| Absence From Base of Operations (J) | 416             | 0.047                      |
| Duties (A)                          | 171             | 0.274                      |
| Experience (C)                      | 315             | 0.322                      |
| Leadership Authority (F)            | 148             | 0.113                      |
| Supervision Scope (E)               | 428             | 0.122                      |
| Receipt of professional designation | 9,906           | 0.128                      |
| <b>(Constant)</b>                   | <b>49248</b>    |                            |

### Formula for expected salary (SE) without bonus:

$$SE = 49248 + 416 \times (J) + 171 \times (A) + 315 \times (C) + 148 \times (F) + 428 \times (E)$$

Add 9,906 if you have acquired professional status within your field (P.Eng. or P.Geo.)