

# Alberta Ministry of Labour

## 2017 Alberta Wage and Salary Survey

*The Alberta Wage and Salary Survey is undertaken by the Alberta Ministry of Labour to provide current wage rates and skill shortage information on various occupations in Alberta, and in specific industries and Economic Regions. This labour market information helps Alberta employers to fine tune their compensation and recruitment strategies, helps individuals make career and education choices, and aids the provincial government in developing effective policies and providing services.*

### Professional, Scientific & Technical Services Industry Summary Report

#### SURVEY RESULTS

The survey was completed with 456 employers in the Professional, Scientific & Technical Services industry sector who provided information on over 20,075 employees in various occupational classifications<sup>1</sup>. Survey data were collected between February and July 2017. Alberta Wage and Salary Survey results by Four-Digit National Occupational Classification (NOC) for all of Alberta, by industry group, and by geographic area can be found at [www.alis.alberta.ca/wageinfo](http://www.alis.alberta.ca/wageinfo)

#### WAGES FOR SELECTED OCCUPATIONS

The following table illustrates the wage survey results associated with some common occupations within this industry<sup>2</sup>. The tables below present results for three-digit NOC minor groups and for four-digit NOCs.

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b># of Employees</b>	<b>Data Reliability Code</b>	<b>Avg. Hours Worked per Week</b>	<b>Avg. Starting Pay</b>	<b>Avg. Top Pay</b>	<b>Overall Average Pay for All Employees</b>
<b>Common Business, Managerial, Administrative, and Clerical Occupations</b>							
001 Legislators and senior management	65	170	B	39.3	\$70.46	\$94.07	\$81.23
0013 Senior managers - financial, communications and other business services	35	94	C	38.8	\$65.29	\$86.82	\$75.58
0016 Senior managers - construction, transportation, production and utilities	20	41	B	41.1	\$91.25	\$112.82	\$99.60
011 Administrative services managers	71	215	B	39.1	\$47.41	\$65.57	\$54.94
0111 Financial managers	41	139	B	39	\$42.82	\$65.51	\$52.12
0112 Human resources managers	23	34	B	39.2	\$50.61	\$61.84	\$55.14
0114 Other administrative services managers	25	36	B	39.4	\$57.18	\$66.43	\$61.77

<sup>1</sup> The estimated sample error at the establishment level for overall results for this industry is estimated to be  $\pm 3.5\%$  at a 95% confidence level (i.e., 19 times out of 20) taking into account the sample design effect associated with over/under sampling and data weighting.

<sup>2</sup> Occupations were selected as the top occupations in terms of number of employees as per Statistics Canada 2011 National Household Survey data for this industry and supplemented by other occupations frequently reported by industry employers. Only occupations with a minimum number of reportable observations were selected. Some occupations common to this industry may not be listed if sufficient reliable data were not available.

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b># of Employees</b>	<b>Data Reliability Code</b>	<b>Avg. Hours Worked per Week</b>	<b>Avg. Starting Pay</b>	<b>Avg. Top Pay</b>	<b>Overall Average Pay for All Employees</b>
012 Managers in financial and business services	51	167	B	38	\$41.79	\$67.08	\$51.37
0124 Advertising, marketing and public relations managers	24	57	B	37.2	\$47.42	\$65.89	\$59.23
0125 Other business services managers	26	101	C	38.8	\$38.78	\$67.00	\$46.80
021 Managers in engineering architecture science and information systems	84	334	A	39.9	\$50.51	\$71.55	\$60.90
0211 Engineering managers	32	133	A	39	\$54.87	\$82.01	\$67.36
0212 Architecture and science managers	37	105	B	41.6	\$44.58	\$62.48	\$53.76
0213 Computer and information systems managers	30	96	B	39.5	\$50.36	\$66.45	\$59.17
071 Managers in construction and facility operation and maintenance	16	107	C	40	\$48.63	\$90.18	\$61.02
0711 Construction managers	12	92	C	40	\$47.06	\$93.63	\$60.84
091 Managers in manufacturing and utilities	12	41	C	38.6	\$34.10	\$64.50	\$47.92
111 Auditors accountants and investment professionals	117	808	A	38.4	\$27.66	\$42.36	\$33.41
1111 Financial auditors and accountants	114	785	A	38.4	\$27.33	\$42.08	\$33.01
112 Human resources and business service professionals	42	156	B	37.5	\$36.15	\$49.23	\$41.50
1121 Human resources professionals	15	23	C	37.9	\$33.77	\$47.62	\$40.73
1123 Professional occupations in advertising, marketing and public relations	30	88	B	37.4	\$28.23	\$40.05	\$33.09
121 Administrative services supervisors	22	90	C	39.4	\$26.88	\$37.70	\$32.05
122 Administrative and regulatory occupations	96	215	A	35.8	\$25.88	\$44.06	\$33.22
1221 Administrative officers	80	152	B	35.5	\$22.93	\$38.65	\$28.82
1225 Purchasing agents and officers	16	47	C	36.1	\$34.38	\$60.07	\$46.64
124 Office administrative assistants - General legal and medical	127	1081	B	36	\$20.67	\$38.42	\$29.46
1241 Administrative assistants	66	284	B	37.7	\$21.95	\$34.45	\$27.09
1242 Legal administrative assistants	63	797	A	35.4	\$20.21	\$39.84	\$30.37
131 Finance insurance and related business administrative occupations	85	378	B	36.1	\$21.27	\$34.83	\$27.03
1311 Accounting technicians and bookkeepers	80	355	B	35.9	\$20.66	\$34.23	\$26.39
141 General office workers	199	564	A	36.4	\$20.30	\$30.79	\$25.12
1411 General office support workers	80	310	B	36.7	\$21.40	\$34.71	\$27.30
1414 Receptionists	128	247	A	35.8	\$18.24	\$23.66	\$21.14

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b># of Employees</b>	<b>Data Reliability Code</b>	<b>Avg. Hours Worked per Week</b>	<b>Avg. Starting Pay</b>	<b>Avg. Top Pay</b>	<b>Overall Average Pay for All Employees</b>
143 Financial insurance and related administrative support workers	97	8,324	C	31.1	\$14.93	\$20.19	\$16.85
1431 Accounting and related clerks	91	276	A	37.5	\$22.51	\$32.20	\$26.68
152 Supply chain logistics tracking and scheduling co-ordination occupations	24	74	B	38.9	\$23.99	\$44.98	\$32.06
<b>Common Professional, Technical, Skilled, and Labour Occupations</b>							
211 Physical science professionals	14	150	C	38.7	\$28.64	\$52.91	\$39.76
212 Life science professionals	20	275	C	41.8	\$26.41	\$58.21	\$39.67
2121 Biologists and related scientists	12	176	C	39.5	\$27.36	\$54.24	\$38.87
213 Civil mechanical electrical and chemical engineers	52	501	A	38.7	\$34.28	\$64.00	\$47.07
2131 Civil engineers	32	310	B	38.5	\$32.39	\$62.49	\$45.02
2132 Mechanical engineers	22	90	B	39.2	\$41.32	\$67.79	\$53.33
2133 Electrical and electronics engineers	17	84	C	38.3	\$36.50	\$65.28	\$50.05
214 Other engineers	38	294	B	39	\$35.10	\$72.95	\$49.70
2144 Geological engineers	14	95	C	39	\$32.13	\$81.36	\$48.83
215 Architects urban planners and land surveyors	43	308	B	39.6	\$31.35	\$49.03	\$39.59
2154 Land surveyors	29	237	B	40.1	\$31.56	\$48.66	\$38.80
217 Computer and information systems professionals	52	522	A	39.5	\$30.92	\$49.26	\$39.05
2171 Information systems analysts and consultants	15	158	C	39.3	\$32.91	\$51.27	\$41.59
2173 Software engineers and designers	10	145	C	39.8	\$33.49	\$50.21	\$40.54
2174 Computer programmers and interactive media developers	26	174	B	39.7	\$26.62	\$48.13	\$35.69
221 Technical occupations in physical sciences	24	271	B	40.3	\$24.36	\$53.02	\$35.15
2212 Geological and mineral technologists and technicians	17	162	C	40.6	\$32.64	\$55.88	\$43.40
223 Technical occupations in civil mechanical and industrial engineering	34	295	B	39	\$26.98	\$45.96	\$33.86
2231 Civil engineering technologists and technicians	27	280	B	39	\$26.98	\$46.34	\$33.86
224 Technical occupations in electronics and electrical engineering	15	76	C	39.5	\$38.98	\$47.18	\$43.64
225 Technical occupations in architecture drafting surveying geomatics and meteorology	79	812	A	35.7	\$29.82	\$48.78	\$37.26

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b># of Employees</b>	<b>Data Reliability Code</b>	<b>Avg. Hours Worked per Week</b>	<b>Avg. Starting Pay</b>	<b>Avg. Top Pay</b>	<b>Overall Average Pay for All Employees</b>
2251 Architectural technologists and technicians	14	156	C	37.6	\$24.03	\$46.51	\$33.34
2253 Drafting technologists and technicians	51	301	B	37.7	\$26.26	\$42.36	\$33.76
2254 Land survey technologists and technicians	19	280	C	32.2	\$36.60	\$55.25	\$43.71
2255 Technical occupations in geomatics and meteorology	13	56	C	38.9	\$25.69	\$43.60	\$30.61
226 Other technical inspectors and regulatory officers	44	897	B	42.4	\$27.87	\$45.90	\$35.40
2261 Non-destructive testers and inspection technicians	18	773	B	42.9	\$26.82	\$44.78	\$32.85
2263 Inspectors in public and environmental health and occupational health and safety	23	57	B	39.6	\$35.46	\$55.34	\$46.63
228 Technical occupations in computer and information systems	47	271	A	39.5	\$27.13	\$42.89	\$35.02
2281 Computer network technicians	25	95	B	39.1	\$30.61	\$50.89	\$41.93
2282 User support technicians	22	127	B	39.7	\$25.57	\$37.02	\$30.76
311 Physicians dentists and veterinarians	40	170	B	37.9	\$38.99	\$73.05	\$52.31
3114 Veterinarians	40	170	B	37.9	\$38.99	\$73.05	\$52.32
321 Medical technologists and technicians (except dental health)	38	218	A	37.9	\$18.56	\$25.67	\$21.57
3213 Animal health technologists and veterinary technicians	38	218	A	37.9	\$18.56	\$25.67	\$21.56
411 Judges lawyers and Quebec notaries	47	348	C	37.8	\$37.57	\$117.75	\$68.34
4112 Lawyers and Quebec notaries	47	348	C	37.8	\$37.57	\$117.75	\$68.34
416 Policy and program researchers consultants and officers	25	146	C	46.4	\$22.78	\$49.54	\$34.00
4161 Natural and applied science policy researchers, consultants and program officers	10	104	C	49.1	\$21.12	\$49.27	\$32.47
4163 Business development officers and marketing researchers and consultants	12	26	C	37.5	\$29.76	\$55.22	\$41.53
421 Paraprofessional occupations in legal social community and education services	29	166	B	34.8	\$26.18	\$40.17	\$32.30
4211 Paralegal and related occupations	23	130	B	34.5	\$26.52	\$42.75	\$33.71
524 Creative designers and craftspersons	18	67	C	38.6	\$25.44	\$43.10	\$36.56
5241 Graphic designers and illustrators	12	32	C	38.2	\$26.18	\$43.85	\$36.48
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	28	142	B	39.7	\$30.78	\$63.61	\$41.47

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b># of Employees</b>	<b>Data Reliability Code</b>	<b>Avg. Hours Worked per Week</b>	<b>Avg. Starting Pay</b>	<b>Avg. Top Pay</b>	<b>Overall Average Pay for All Employees</b>
6221 Technical sales specialists - wholesale trade	27	141	B	39.7	\$30.80	\$63.80	\$41.54
641 Sales and account representatives - Wholesale trade (non-technical)	12	50	C	37.1	\$21.04	\$33.58	\$27.24
6411 Sales and account representatives - wholesale trade (non-technical)	12	50	C	37.1	\$21.04	\$33.58	\$27.24
656 Other occupations in personal service	17	57	B	31.8	\$15.82	\$19.98	\$17.84
6563 Pet groomers and animal care workers	17	57	B	31.8	\$15.82	\$19.98	\$17.84
673 Cleaners	14	22	C	31.7	\$19.60	\$21.82	\$20.72

“n” in the above table represents the number of employers who indicated at least one employee in an occupation. For example, 14 employers combined reported wages for 22 Cleaners - (NOC 673).

Averages are calculated using data weighted by establishment to account for survey non-response (stratified by region, industry group and employer size) and by number of employees reported.

“n/a” indicates that results have been suppressed due to missing data for some employers or due to calculation anomalies.

Data Reliability Codes are based on coefficient of variation as an indicator of general reliability: “A”: coefficient of variation of less than or equal to  $\pm 6.00\%$ , “B”: from  $\pm 6.01\%$  to  $\pm 15.00\%$ , “C”: from  $\pm 15.01\%$  to  $\pm 33.00\%$ , “D”: more than  $\pm 33.01\%$ .

## JOB VACANCIES & HIRING DIFFICULTIES – SELECTED OCCUPATIONS

The following table illustrates the job vacancy survey results associated with some common occupations within the Professional, Scientific & Technical Services industry as cited by survey respondents and confirmed through review of the data.

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY</b> Selected Occupations (NOC)	Employers Reporting (n)	% of Employers that Hired for this Occupation within the Last 2 Years	% of Employers Experiencing Hiring Difficulties (out of those hiring)	% of Employers with Vacancies of Greater than 4 Months	Job Vacancy Rate
<b>Common Business, Managerial, Administrative, and Clerical Occupations</b>					
001 Legislators and senior management	65	7%	10%	1%	n/a
0013 Senior managers - financial, communications and other business services	35	9%	17%	1%	n/a
0016 Senior managers - construction, transportation, production and utilities	20	6%	n/a	0%	0.0%
011 Administrative services managers	70-71	25%	13%	0%	n/a
0111 Financial managers	40-41	20%	25%	0%	n/a
0112 Human resources managers	23	28%	16%	0%	n/a
0114 Other administrative services managers	25	32%	0%	0%	n/a
012 Managers in financial and business services	51	34%	31%	4%	1.6%
0124 Advertising, marketing and public relations managers	24	40%	25%	8%	4.7%
0125 Other business services managers	26	24%	36%	0%	n/a
021 Managers in engineering architecture science and information systems	83	10%	12%	1%	n/a
0211 Engineering managers	31	9%	0%	0%	n/a
0212 Architecture and science managers	36 - 36	10%	n/a	4%	2.6%
0213 Computer and information systems managers	50 - 49	45%	28%	8%	2.5%
071 Managers in construction and facility operation and maintenance	14	44%	14%	5%	1.4%
0711 Construction managers	10	34%	n/a	8%	1.9%
091 Managers in manufacturing and utilities	12	5%	n/a	0%	n/a
111 Auditors accountants and investment professionals	116	39%	24%	6%	1.5%
1111 Financial auditors and accountants	113	37%	23%	6%	1.4%
112 Human resources and business service professionals	41	45%	13%	5%	2.0%
1121 Human resources professionals	15	21%	n/a	0%	n/a

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b>% of Employers that Hired for this Occupation within the Last 2 Years</b>	<b>% of Employers Experiencing Hiring Difficulties (out of those hiring)</b>	<b>% of Employers with Vacancies of Greater than 4 Months</b>	<b>Job Vacancy Rate</b>
1123 Professional occupations in advertising, marketing and public relations	29	57%	16%	8%	3.5%
121 Administrative services supervisors	22	27%	22%	0%	n/a
122 Administrative and regulatory occupations	92-96	28%	11%	1%	n/a
1221 Administrative officers	76-80	21%	5%	1%	n/a
1225 Purchasing agents and officers	15	39%	n/a	0%	n/a
124 Office administrative assistants - General legal and medical	126-127	57%	16%	1%	n/a
1241 Administrative assistants	66	53%	10%	1%	n/a
1242 Legal administrative assistants	62-63	62%	22%	2%	n/a
131 Finance insurance and related business administrative occupations	84-85	44%	18%	3%	n/a
1311 Accounting technicians and bookkeepers	79-80	42%	21%	3%	n/a
141 General office workers	194-196	45%	12%	3%	1.5%
1411 General office support workers	76-78	48%	17%	5%	1.8%
1414 Receptionists	127	43%	8%	2%	1.2%
143 Financial insurance and related administrative support workers	96	39%	6%	3%	0.2%
1431 Accounting and related clerks	90	39%	7%	3%	1.6%
152 Supply chain logistics tracking and scheduling co-ordination occupations	22-23	32%	6%	8%	5.7%
<b>Common Professional, Technical, Skilled, and Labour Occupations</b>					
211 Physical science professionals	12	32%	15%	10%	2.6%
212 Life science professionals	19	44%	20%	7%	1.7%
2121 Biologists and related scientists	11	47%	25%	10%	2.6%
213 Civil mechanical electrical and chemical engineers	48-49	45%	28%	7%	2.4%
2131 Civil engineers	29	44%	31%	6%	1.8%
2132 Mechanical engineers	22	41%	32%	4%	1.5%
2133 Electrical and electronics engineers	17	50%	14%	7%	3.3%
214 Other engineers	36-37	38%	26%	9%	2.1%
2144 Geological engineers	14	53%	37%	18%	3.1%
215 Architects urban planners and land surveyors	41-42	37%	19%	4%	1.4%

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b>% of Employers that Hired for this Occupation within the Last 2 Years</b>	<b>% of Employers Experiencing Hiring Difficulties (out of those hiring)</b>	<b>% of Employers with Vacancies of Greater than 4 Months</b>	<b>Job Vacancy Rate</b>
2154 Land surveyors	29	24%	15%	0%	n/a
217 Computer and information systems professionals	52	45%	36%	15%	6.6%
2171 Information systems analysts and consultants	15	48%	24%	13%	6.3%
2173 Software engineers and designers	10	46%	44%	23%	n/a
2174 Computer programmers and interactive media developers	25-26	63%	57%	27%	6.0%
221 Technical occupations in physical sciences	21-23	33%	0%	6%	3.1%
2212 Geological and mineral technologists and technicians	15-16	25%	0%	2%	1.6%
223 Technical occupations in civil mechanical and industrial engineering	34	56%	22%	21%	4.7%
2231 Civil engineering technologists and technicians	27	63%	17%	21%	4.6%
224 Technical occupations in electronics and electrical engineering	15	59%	55%	7%	1.5%
225 Technical occupations in architecture drafting surveying geomatics and meteorology	78 - 77	45%	44%	5%	1.5%
2251 Architectural technologists and technicians	13-14	54%	39%	10%	1.9%
2253 Drafting technologists and technicians	51	32%	29%	0%	n/a
2254 Land survey technologists and technicians	19	63%	39%	12%	2.5%
2255 Technical occupations in geomatics and meteorology	13	57%	87%	7%	2.4%
226 Other technical inspectors and regulatory officers	42 - 42	44%	31%	6%	0.6%
2261 Non-destructive testers and inspection technicians	17	57%	53%	7%	0.2%
2263 Inspectors in public and environmental health and occupational health and safety	23	34%	0%	5%	2.1%
228 Technical occupations in computer and information systems	47	44%	36%	10%	3.9%
2281 Computer network technicians	25	32%	40%	10%	4.3%
2282 User support technicians	22	54%	35%	9%	4.6%
311 Physicians dentists and veterinarians	39-40	71%	43%	8%	1.8%
3114 Veterinarians	39-40	71%	43%	8%	1.8%

<b>PROFESSIONAL, SCIENTIFIC &amp; TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)</b>	<b>Employers Reporting (n)</b>	<b>% of Employers that Hired for this Occupation within the Last 2 Years</b>	<b>% of Employers Experiencing Hiring Difficulties (out of those hiring)</b>	<b>% of Employers with Vacancies of Greater than 4 Months</b>	<b>Job Vacancy Rate</b>
321 Medical technologists and technicians (except dental health)	38	78%	33%	6%	1.5%
3213 Animal health technologists and veterinary technicians	38	78%	33%	6%	1.5%
411 Judges lawyers and Quebec notaries	44-46	61%	12%	7%	1.0%
4112 Lawyers and Quebec notaries	44-46	61%	12%	7%	1.0%
416 Policy and program researchers consultants and officers	25	63%	18%	6%	n/a
4161 Natural and applied science policy researchers, consultants and program officers	10	60%	n/a	0%	n/a
4163 Business development officers and marketing researchers and consultants	12	76%	25%	12%	4.8%
421 Paraprofessional occupations in legal social community and education services	29	32%	10%	1%	n/a
4211 Paralegal and related occupations	23	23%	18%	0%	n/a
524 Creative designers and craftspersons	17-18	32%	35%	8%	2.7%
5241 Graphic designers and illustrators	12	28%	n/a	5%	2.0%
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	27	49%	25%	12%	5.6%
6221 Technical sales specialists - wholesale trade	26	50%	25%	12%	5.7%
641 Sales and account representatives - Wholesale trade (non-technical)	12	65%	19%	0%	n/a
6411 Sales and account representatives - wholesale trade (non-technical)	12	65%	19%	0%	n/a
656 Other occupations in personal service	17	29%	10%	0%	0.0%
6563 Pet groomers and animal care workers	17	29%	10%	0%	0.0%
673 Cleaners	14	33%	0%	0%	n/a

“n” in the above table represents the range of the number of employers who indicated at least one employee in an occupation and responded to individual questions about hiring difficulties and vacancies (not all employers responded to all questions).

“n/a” indicates that results have been suppressed due to missing data for some employers.

Statistics on hiring activity, hiring difficulties, and employers reporting vacancies were calculated based on *the number of employers responding* for each question, weighted by establishment for survey non-response (stratified by region, industry group and employer size).

Job Vacancy Rate for vacancies that had been unfilled for 4 months or more calculated as:  $\text{Sum of Unfilled Vacancies} / (\text{Sum of Current Employees} + \text{Sum of Unfilled Vacancies})$ , with data weighted by establishment for survey non-response (stratified by industry group and employer size).

**Industry Definition as per North American Industry Classification System (NAICS)  
Professional, Scientific & Technical Services (NAICS 54)**

This sector comprises establishments primarily engaged in activities in which human capital is the major input. These establishments make available the knowledge and skills of their employees, often on an assignment basis. The individual industries of this sector are defined on the basis of the particular expertise and training of the service provider.

The main components of this sector are legal services industries, accounting and related services industries, architectural, engineering and related services industries, surveying and mapping services industries, design services industries, management, scientific and technical consulting services industries, scientific research and development services industries, and advertising services industries.

The distinguishing feature of this sector is the fact that most of the industries grouped in it have production processes that are almost wholly dependent on worker skills. In most of these industries, equipment and materials are not of major importance. Thus, the establishments classified in this sector sell expertise. Much of the expertise requires a university or college education, though not in every case.

Establishments primarily engaged in providing instruction and training in a wide variety of subjects and those primarily engaged in providing health care by diagnosis and treatment are not included in this sector.

*Research conducted for the Alberta Ministry of Labour by R.A. Malatest & Associates Ltd.*