

2019 Alberta Wage and Salary Survey

The Alberta Wage and Salary Survey is undertaken by the Alberta Government 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 519 employers in the Professional Scientific & Technical Services industry sector who provided information on over 18,160 employees in various occupational classifications¹. Survey data were collected between January and July 2019. 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/occinfo

WAGES FOR SELECTED OCCUPATIONS

The following table illustrates the wage survey results associated with some common occupations within this industry². The tables below present results for three-digit NOC minor groups and for four-digit NOCs.

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)	Employers Reporting (n)	# of Employees	Data Reliability Code	Avg. Hours Worked per Week	Avg. Starting Pay	Avg. Top Pay	Overall Average Pay for All Employees
Common Business, Managerial, Administrative, and Clerical Occupations							
001 Legislators and senior management	75	245	B	39.4	\$77.46	\$95.53	\$90.76
0013 Senior managers - financial, communications and other business services	37	126	B	38.5	\$80.27	\$100.39	\$94.85
0016 Senior managers - construction, transportation, production and utilities	25	97	B	41.1	\$81.80	\$96.30	\$93.17
011 Administrative services managers	118	437	A	38.7	\$39.97	\$62.87	\$49.99
0111 Financial managers	72	223	A	38.7	\$40.14	\$62.56	\$50.32

¹The estimated sample error at the establishment level for overall results for this industry is estimated to be $\pm 4.1\%$ 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.

²Occupations were selected as the top occupations in terms of number of employees as per Statistics Canada 2016 Census 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.

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)	Employers Reporting (n)	# of Employees	Data Reliability Code	Avg. Hours Worked per Week	Avg. Starting Pay	Avg. Top Pay	Overall Average Pay for All Employees
0112 Human resources managers	45	67	A	37.5	\$38.63	\$56.53	\$47.39
0114 Other administrative services managers	34	95	B	39.7	\$42.82	\$61.01	\$50.96
012 Managers in financial and business services	65	213	A	38.9	\$46.07	\$63.78	\$55.05
0124 Advertising, marketing and public relations managers	33	93	B	39.5	\$37.83	\$52.16	\$44.55
0125 Other business services managers	42	117	B	38.5	\$51.54	\$72.39	\$62.56
021 Managers in engineering, architecture, science and information systems	105	623	A	39.2	\$49.43	\$72.67	\$60.14
0211 Engineering managers	43	329	A	39.4	\$52.22	\$81.54	\$64.20
0212 Architecture and science managers	39	143	B	38.8	\$48.91	\$69.65	\$57.40
0213 Computer and information systems managers	48	151	A	39.1	\$46.26	\$64.59	\$57.62
062 Retail and wholesale trade managers	22	39	B	41.4	\$36.88	\$53.19	\$43.27
0621 Retail and wholesale trade managers	22	39	B	41.4	\$36.88	\$53.19	\$43.27
071 Managers in construction and facility operation and maintenance	27	261	B	39.2	\$39.62	\$77.23	\$54.62
0711 Construction managers	23	248	B	39.2	\$39.08	\$78.54	\$54.77
111 Auditors, accountants and investment professionals	142	699	A	38.0	\$28.30	\$48.93	\$36.12
1111 Financial auditors and accountants	135	620	A	38.0	\$28.15	\$47.59	\$35.61
112 Human resources and business service professionals	75	510	B	38.2	\$31.61	\$53.98	\$39.82
1121 Human resources professionals	27	107	B	38.3	\$31.91	\$49.77	\$38.99
1122 Professional occupations in business management consulting	19	164	C	37.4	\$41.03	\$68.19	\$53.90
1123 Professional occupations in advertising, marketing and public relations	51	239	B	38.6	\$27.29	\$48.58	\$33.81
122 Administrative and regulatory occupations	139	462	B	37.7	\$27.44	\$49.07	\$35.99
1221 Administrative officers	124	319	B	37.7	\$26.87	\$50.39	\$35.24

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)	Employers Reporting (n)	# of Employees	Data Reliability Code	Avg. Hours Worked per Week	Avg. Starting Pay	Avg. Top Pay	Overall Average Pay for All Employees
1225 Purchasing agents and officers	18	90	C	38.5	\$29.58	\$52.17	\$40.70
124 Office administrative assistants - general, legal and medical	181	1,605	A	35.9	\$21.86	\$39.19	\$29.28
1241 Administrative assistants	122	673	A	37.0	\$21.71	\$33.02	\$26.69
1242 Legal administrative assistants	66	932	A	35.3	\$21.95	\$42.42	\$30.54
131 Finance, insurance and related business administrative occupations	104	433	A	36.9	\$21.62	\$35.46	\$27.72
1311 Accounting technicians and bookkeepers	99	404	A	36.4	\$21.07	\$34.57	\$26.80
141 General office workers	154	358	A	36.1	\$18.87	\$24.83	\$21.71
1411 General office support workers	52	140	A	36.4	\$20.72	\$28.03	\$24.04
1414 Receptionists	109	218	A	35.9	\$17.71	\$22.76	\$20.22
143 Financial, insurance and related administrative support workers	93	404	A	37.1	\$23.19	\$35.01	\$28.28
1431 Accounting and related clerks	84	355	A	37.2	\$22.58	\$34.92	\$27.67
1432 Payroll administrators	19	46	C	35.7	\$28.73	\$36.44	\$33.36
Common Professional, Technical, Skilled, and Labour Occupations							
211 Physical science professionals	20	162	B	38.4	\$34.38	\$58.19	\$45.67
2113 Geoscientists and oceanographers	16	153	C	38.4	\$33.78	\$57.86	\$45.22
213 Civil, mechanical, electrical and chemical engineers	65	1,696	A	38.4	\$35.78	\$75.64	\$51.49
2131 Civil engineers	42	1,138	B	38.2	\$35.98	\$76.89	\$49.53
2132 Mechanical engineers	21	188	B	39.3	\$38.48	\$64.42	\$53.45
2133 Electrical and electronics engineers	22	277	B	39.0	\$35.16	\$73.69	\$55.55
215 Architects, urban planners and land surveyors	44	622	B	39.5	\$29.39	\$54.89	\$39.38
2151 Architects	15	142	C	39.1	\$31.23	\$73.13	\$46.97

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)	Employers Reporting (n)	# of Employees	Data Reliability Code	Avg. Hours Worked per Week	Avg. Starting Pay	Avg. Top Pay	Overall Average Pay for All Employees
2154 Land surveyors	27	400	B	39.9	\$27.54	\$45.30	\$34.44
217 Computer and information systems professionals	87	1,117	B	39.5	\$31.65	\$60.56	\$44.91
2171 Information systems analysts and consultants	47	448	B	39.6	\$29.28	\$63.74	\$47.13
2172 Database analysts and data administrators	17	160	C	39.6	\$28.82	\$50.86	\$37.38
2173 Software engineers and designers	21	203	B	39.4	\$40.36	\$67.47	\$51.14
2174 Computer programmers and interactive media developers	32	242	B	39.4	\$30.23	\$59.40	\$42.73
2175 Web designers and developers	16	64	C	39.6	\$22.70	\$37.77	\$31.00
221 Technical occupations in physical sciences	32	366	C	38.4	\$26.16	\$59.39	\$36.76
2211 Chemical technologists and technicians	13	72	C	38.7	\$20.07	\$28.63	\$23.80
2212 Geological and mineral technologists and technicians	21	294	C	38.4	\$27.40	\$65.38	\$39.38
223 Technical occupations in civil, mechanical and industrial engineering	52	1,061	A	38.2	\$27.10	\$51.76	\$37.54
2231 Civil engineering technologists and technicians	33	848	B	37.9	\$26.11	\$52.17	\$36.97
225 Technical occupations in architecture, drafting, surveying, geomatics and meteorology	85	1,197	A	38.6	\$24.70	\$51.47	\$35.32
2251 Architectural technologists and technicians	21	324	B	38.6	\$22.57	\$56.29	\$35.32
2253 Drafting technologists and technicians	62	623	A	38.3	\$26.35	\$52.17	\$36.91
226 Other technical inspectors and regulatory officers	44	310	B	39.9	\$24.77	\$50.04	\$39.33
2263 Inspectors in public and environmental health and occupational health and safety	22	49	B	39.3	\$35.19	\$47.01	\$42.94
228 Technical occupations in computer and information systems	49	284	A	38.6	\$25.89	\$41.35	\$32.63
2281 Computer network technicians	28	133	B	38.5	\$24.10	\$42.11	\$31.24
2282 User support technicians	23	122	B	38.4	\$26.22	\$36.61	\$31.57

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (NOC)	Employers Reporting (n)	# of Employees	Data Reliability Code	Avg. Hours Worked per Week	Avg. Starting Pay	Avg. Top Pay	Overall Average Pay for All Employees
311 Physicians, dentists and veterinarians	41	182	B	37.5	\$50.24	\$91.25	\$64.34
3114 Veterinarians	41	182	B	37.5	\$50.24	\$91.25	\$64.34
321 Medical technologists and technicians (except dental health)	45	221	A	36.8	\$18.54	\$25.10	\$21.52
3213 Animal health technologists and veterinary technicians	42	216	A	36.8	\$18.26	\$24.88	\$21.26
411 Judges, lawyers and Quebec notaries	58	661	C	37.4	\$39.13	\$109.24	\$71.73
4112 Lawyers and Quebec notaries	58	661	C	37.4	\$39.13	\$109.24	\$71.73
416 Policy and program researchers, consultants and officers	45	393	B	37.5	\$32.46	\$64.53	\$46.73
4161 Natural and applied science policy researchers, consultants and program officers	13	283	C	37.7	\$31.49	\$70.56	\$49.93
4163 Business development officers and marketing researchers and consultants	31	78	B	38.2	\$35.03	\$61.41	\$44.78
421 Paraprofessional occupations in legal, social, community and education services	27	214	B	35.8	\$27.64	\$48.25	\$37.31
4211 Paralegal and related occupations	24	205	B	35.7	\$27.74	\$48.71	\$37.58
524 Creative designers and craftspersons	32	186	B	38.8	\$24.10	\$43.49	\$32.71
5241 Graphic designers and illustrators	21	65	B	39.2	\$24.67	\$37.61	\$31.59
5242 Interior designers and interior decorators	15	121	C	38.6	\$23.81	\$46.58	\$33.31
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	18	88	C	37.0	\$29.86	\$45.44	\$35.82
6221 Technical sales specialists - wholesale trade	17	69	C	37.0	\$29.56	\$44.41	\$35.36
655 Customer and information services representatives	18	217	B	28.7	\$19.83	\$29.09	\$22.66
6552 Other customer and information services representatives	16	215	B	28.6	\$19.85	\$29.14	\$22.70
656 Other occupations in personal service	17	57	C	26.6	\$17.67	\$22.81	\$19.30
6563 Pet groomers and animal care workers	17	57	B	26.6	\$17.67	\$22.81	\$19.30

"n" in the above table represents the number of employers who indicated at least one employee in an occupation. For example, 32 employers combined reported wages for 186 Creative designers and craftspersons (NOC 524).

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.

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY 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
Common Business, Managerial, Administrative, and Clerical Occupations					
001 Legislators and senior management	73	13%	30%	2%	1.7%
0013 Senior managers - financial, communications and other business services	36	13%	15%	2%	1.5%
0016 Senior managers - construction, transportation, production and utilities	24	11%	n/a	0%	0.0%
011 Administrative services managers	111-115	33%	13%	3%	1.9%
0111 Financial managers	68-70	35%	11%	4%	2.1%
0112 Human resources managers	43-45	42%	19%	2%	1.8%
0114 Other administrative services managers	31-33	17%	0%	4%	2.0%
012 Managers in financial and business services	61-64	28%	6%	4%	2.3%
0124 Advertising, marketing and public relations managers	30-32	26%	5%	3%	2.1%
0125 Other business services managers	40-41	30%	7%	4%	2.5%
021 Managers in engineering, architecture, science and information systems	101-103	20%	29%	3%	2.0%
0211 Engineering managers	39-41	30%	29%	5%	3.5%
0212 Architecture and science managers	36-38	22%	26%	6%	2.7%
0213 Computer and information systems managers	46-47	12%	34%	0%	n/a
062 Retail and wholesale trade managers	22	40%	30%	6%	3.5%
0621 Retail and wholesale trade managers	22	40%	30%	6%	3.5%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY 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
071 Managers in construction and facility operation and maintenance	22-25	33%	12%	3%	1.0%
0711 Construction managers	18-21	44%	12%	4%	1.2%
111 Auditors, accountants and investment professionals	140	42%	19%	3%	1.5%
1111 Financial auditors and accountants	133	42%	21%	3%	1.7%
112 Human resources and business service professionals	71-73	60%	20%	7%	3.2%
1121 Human resources professionals	24-25	49%	0%	4%	6.4%
1122 Professional occupations in business management consulting	16-17	64%	32%	11%	2.6%
1123 Professional occupations in advertising, marketing and public relations	49-50	64%	24%	8%	2.7%
122 Administrative and regulatory occupations	133-137	41%	9%	2%	n/a
1221 Administrative officers	118-122	35%	6%	1%	n/a
1225 Purchasing agents and officers	17-18	54%	19%	5%	1.3%
124 Office administrative assistants - general, legal and medical	173-177	61%	17%	4%	n/a
1241 Administrative assistants	116-119	58%	13%	2%	n/a
1242 Legal administrative assistants	64-65	67%	23%	6%	n/a
131 Finance, insurance and related business administrative occupations	103-104	46%	42%	6%	2.2%
1311 Accounting technicians and bookkeepers	98-99	45%	42%	6%	2.3%
141 General office workers	151	45%	14%	3%	1.1%
1411 General office support workers	50	35%	1%	5%	1.9%
1414 Receptionists	107-108	51%	18%	1%	n/a

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY 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
143 Financial, insurance and related administrative support workers	89-90	38%	12%	5%	2.2%
1431 Accounting and related clerks	80-81	45%	13%	6%	2.1%
1432 Payroll administrators	18	10%	n/a	3%	2.6%
Common Professional, Technical, Skilled, and Labour Occupations					
211 Physical science professionals	18-19	33%	21%	10%	5.2%
2113 Geoscientists and oceanographers	14-15	36%	25%	12%	5.4%
213 Civil, mechanical, electrical and chemical engineers	61-63	48%	26%	10%	2.8%
2131 Civil engineers	38-40	50%	21%	19%	3.8%
2132 Mechanical engineers	20	39%	25%	4%	1.2%
2133 Electrical and electronics engineers	19-20	55%	35%	3%	n/a
215 Architects, urban planners and land surveyors	40-42	49%	14%	6%	1.1%
2151 Architects	13	50%	22%	18%	1.8%
2154 Land surveyors	24-26	38%	13%	4%	1.0%
217 Computer and information systems professionals	81-84	38%	31%	4%	1.8%
2171 Information systems analysts and consultants	42-44	34%	31%	2%	n/a
2172 Database analysts and data administrators	15	28%	20%	0%	n/a
2173 Software engineers and designers	20-21	39%	34%	5%	2.9%
2174 Computer programmers and interactive media developers	31	44%	39%	15%	3.5%
2175 Web designers and developers	16	46%	20%	0%	n/a

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY 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
221 Technical occupations in physical sciences	31	50%	9%	11%	6.4%
2211 Chemical technologists and technicians	11-12	53%	7%	9%	2.9%
2212 Geological and mineral technologists and technicians	20	49%	10%	13%	7.0%
223 Technical occupations in civil, mechanical and industrial engineering	47-50	58%	14%	19%	n/a
2231 Civil engineering technologists and technicians	29-32	64%	12%	25%	10.8%
225 Technical occupations in architecture, drafting, surveying, geomatics and meteorology	82-83	49%	22%	13%	4.1%
2251 Architectural technologists and technicians	20	76%	26%	23%	3.1%
2253 Drafting technologists and technicians	59-60	41%	19%	8%	4.4%
226 Other technical inspectors and regulatory officers	38-40	51%	27%	1%	n/a
2263 Inspectors in public and environmental health and occupational health and safety	19-20	32%	37%	0%	n/a
228 Technical occupations in computer and information systems	47-48	47%	24%	6%	2.1%
2281 Computer network technicians	28	38%	15%	3%	1.6%
2282 User support technicians	21-22	59%	26%	7%	2.2%
311 Physicians, dentists and veterinarians	39-40	76%	64%	30%	n/a
3114 Veterinarians	39-40	76%	64%	30%	n/a
321 Medical technologists and technicians (except dental health)	45	72%	51%	22%	6.9%
3213 Animal health technologists and veterinary technicians	42	72%	53%	22%	7.0%
411 Judges, lawyers and Quebec notaries	55-56	62%	23%	15%	5.4%
4112 Lawyers and Quebec notaries	55-56	62%	23%	15%	5.4%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY 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
416 Policy and program researchers, consultants and officers	42	53%	21%	15%	6.6%
4161 Natural and applied science policy researchers, consultants and program officers	11	85%	27%	20%	4.5%
4163 Business development officers and marketing researchers and consultants	29	40%	13%	14%	6.8%
421 Paraprofessional occupations in legal, social, community and education services	26	53%	27%	9%	1.5%
4211 Paralegal and related occupations	23	50%	30%	8%	1.3%
524 Creative designers and craftspersons	30-31	62%	18%	8%	2.0%
5241 Graphic designers and illustrators	19-20	52%	16%	9%	3.5%
5242 Interior designers and interior decorators	14	74%	19%	8%	1.2%
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	16-17	45%	28%	8%	7.8%
6221 Technical sales specialists - wholesale trade	16-17	45%	28%	8%	7.8%
655 Customer and information services representatives	18	79%	16%	0%	0.0%
6552 Other customer and information services representatives	16	79%	18%	0%	0.0%
656 Other occupations in personal service	17	60%	35%	12%	4.9%
6563 Pet groomers and animal care workers	17	60%	35%	12%	4.9%

"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.