# 2021 Alberta Wage and Salary Survey

Professional, scientific & technical services industry summary report

#### Overview

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.

#### **Survey results**

The survey was completed with 483 employers in the Professional scientific & technical services sector who provided information on over 14,443 employees in various occupational classifications<sup>1</sup>. Survey data were collected between January and August 2021. 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 <a href="https://www.alis.alberta.ca/occinfo">www.alis.alberta.ca/occinfo</a>

## 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.

<sup>&</sup>lt;sup>1</sup>The estimated sample error at the establishment level for overall results for this industry is estimated to be ±4.3% 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>&</sup>lt;sup>2</sup>Occupations 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 (4-Digit 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, Admini	strative, an	d Clerical O	ccupations				
001 Legislators and senior management	67	205	В	39.0	\$80.07	\$102.29	\$91.04
0013 Senior managers - financial, communications and other business services	56	181	В	38.6	\$83.58	\$106.30	\$95.38
011 Administrative services managers	105	281	Α	37.8	\$42.83	\$62.58	\$53.15
0111 Financial managers	66	140	В	38.6	\$44.64	\$65.31	\$55.02
0112 Human resources managers	29	41	В	36.8	\$46.00	\$60.54	\$53.16
0114 Other administrative services managers	43	96	В	37.2	\$38.80	\$59.87	\$50.39
012 Managers in financial and business services	50	156	В	39.0	\$52.22	\$80.13	\$62.08
0124 Advertising, marketing and public relations managers	20	30	В	39.8	\$51.21	\$68.79	\$59.17
0125 Other business services managers	34	109	В	38.7	\$54.11	\$84.41	\$64.28
021 Managers in engineering, architecture, science and information systems	102	365	А	38.8	\$49.88	\$69.39	\$59.93
0211 Engineering managers	47	159	В	38.5	\$53.85	\$75.13	\$64.33
0212 Architecture and science managers	27	77	В	39.4	\$47.41	\$70.84	\$60.04

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
0213 Computer and information systems managers	43	129	В	38.8	\$46.23	\$61.02	\$54.53
062 Retail and wholesale trade managers	17	37	С	40.1	\$45.72	\$69.21	\$54.35
0621 Retail and wholesale trade managers	17	37	С	40.1	\$45.72	\$69.21	\$54.35
071 Managers in construction and facility operation and maintenance	17	88	С	39.4	\$39.30	\$56.72	\$47.10
0711 Construction managers	13	83	С	39.3	\$38.91	\$57.19	\$47.06
111 Auditors, accountants and investment professionals	105	560	А	37.8	\$30.96	\$51.38	\$39.22
1111 Financial auditors and accountants	99	511	Α	37.9	\$30.58	\$50.78	\$38.58
1112 Financial and investment analysts	9	38	D	37.5	\$34.54	\$62.48	\$48.50
112 Human resources and business service professionals	74	348	В	37.3	\$31.81	\$62.88	\$44.55
1121 Human resources professionals	25	72	В	37.6	\$31.07	\$49.12	\$38.38
1122 Professional occupations in business management consulting	16	131	С	38.0	\$35.74	\$86.64	\$58.67
1123 Professional occupations in advertising, marketing and public relations	53	145	В	36.6	\$28.89	\$51.65	\$36.85

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
121 Administrative services supervisors	25	63	В	39.8	\$35.05	\$54.77	\$40.14
1215 Supervisors, supply chain, tracking and scheduling co-ordination occupations	15	42	С	39.9	\$37.69	\$63.38	\$43.76
122 Administrative and regulatory occupations	150	468	В	37.5	\$26.70	\$51.01	\$37.81
1221 Administrative officers	127	313	В	36.9	\$25.78	\$51.47	\$36.77
1222 Executive assistants	12	25	С	38.9	\$29.76	\$38.74	\$34.20
1223 Human resources and recruitment officers	8	19	D	38.9	\$31.16	\$44.50	\$37.74
1225 Purchasing agents and officers	21	106	В	38.7	\$27.82	\$53.89	\$41.46
124 Office administrative assistants - general, legal and medical	173	1,298	А	35.9	\$22.86	\$38.28	\$29.63
1241 Administrative assistants	110	427	Α	37.2	\$22.82	\$35.39	\$28.36
1242 Legal administrative assistants	69	871	В	35.4	\$22.88	\$39.44	\$30.15
125 Court reporters, transcriptionists, records management technicians and statistical officers	11	18	С	35.7	\$28.56	\$42.32	\$35.42
1253 Records management technicians	11	18	С	35.7	\$28.56	\$42.32	\$35.42

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
131 Finance, insurance and related business administrative occupations	125	735	В	37.4	\$24.71	\$40.12	\$28.90
1311 Accounting technicians and bookkeepers	119	472	А	36.3	\$22.70	\$35.90	\$28.02
141 General office workers	150	364	А	35.4	\$18.89	\$25.85	\$22.27
1411 General office support workers	24	70	В	36.1	\$20.12	\$34.40	\$27.18
1414 Receptionists	129	292	Α	35.2	\$18.47	\$23.41	\$20.85
143 Financial, insurance and related administrative support workers	88	292	А	37.1	\$24.77	\$33.67	\$29.12
1431 Accounting and related clerks	81	247	А	37.2	\$23.40	\$32.25	\$27.79
1432 Payroll administrators	17	43	С	36.4	\$32.38	\$42.05	\$36.65
152 Supply chain logistics, tracking and scheduling co-ordination occupations	15	23	С	38.9	\$27.17	\$38.79	\$35.53
Common Professional, Technical, Skille	ed, and Lab	our Occupa	tions				
211 Physical science professionals	17	133	С	38.4	\$34.90	\$65.39	\$47.40
2113 Geoscientists and oceanographers	13	94	С	38.2	\$38.74	\$66.53	\$51.15
212 Life science professionals	18	218	С	39.5	\$30.23	\$63.86	\$42.57

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
2121 Biologists and related scientists	13	164	С	39.2	\$31.25	\$64.89	\$43.24
213 Civil, mechanical, electrical and chemical engineers	52	1,141	В	38.0	\$40.06	\$75.21	\$53.81
2131 Civil engineers	35	715	В	39.2	\$38.54	\$74.81	\$51.02
2132 Mechanical engineers	18	136	С	37.0	\$36.81	\$69.73	\$49.62
2133 Electrical and electronics engineers	18	193	С	38.4	\$40.53	\$66.38	\$52.49
214 Other engineers	38	513	В	38.9	\$35.71	\$75.69	\$52.94
2141 Industrial and manufacturing engineers	8	75	D	39.6	\$43.41	\$61.62	\$53.08
2144 Geological engineers	10	102	С	39.1	\$32.98	\$102.60	\$57.38
2145 Petroleum engineers	14	234	С	38.5	\$34.71	\$69.62	\$51.90
215 Architects, urban planners and land surveyors	43	421	С	39.4	\$30.54	\$55.57	\$41.05
2151 Architects	16	107	С	38.3	\$33.98	\$75.92	\$52.39
2154 Land surveyors	23	224	В	40.2	\$27.72	\$44.74	\$35.35
217 Computer and information systems professionals	72	1,023	А	39.3	\$33.61	\$57.68	\$43.03

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
2171 Information systems analysts and consultants	34	456	В	39.1	\$33.07	\$58.19	\$43.81
2172 Database analysts and data administrators	8	54	D	37.2	\$37.01	\$57.27	\$46.42
2174 Computer programmers and interactive media developers	40	347	В	39.5	\$32.63	\$62.07	\$42.86
2175 Web designers and developers	12	45	С	39.5	\$24.68	\$34.83	\$28.95
221 Technical occupations in physical sciences	23	215	В	37.9	\$29.82	\$45.30	\$37.59
2211 Chemical technologists and technicians	9	52	D	36.8	\$33.36	\$44.63	\$41.22
2212 Geological and mineral technologists and technicians	18	163	В	38.3	\$28.57	\$45.54	\$36.29
222 Technical occupations in life sciences	17	108	В	39.7	\$24.08	\$35.69	\$27.67
2221 Biological technologists and technicians	13	71	В	39.8	\$24.48	\$34.40	\$28.48
223 Technical occupations in civil, mechanical and industrial engineering	39	617	В	38.8	\$27.15	\$68.75	\$43.08
2231 Civil engineering technologists and technicians	29	468	В	38.7	\$27.20	\$58.92	\$39.85

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
224 Technical occupations in electronics and electrical engineering	24	169	В	38.5	\$26.64	\$52.95	\$39.07
2241 Electrical and electronics engineering technologists and technicians	13	75	С	36.9	\$27.70	\$60.40	\$41.70
225 Technical occupations in architecture, drafting, surveying, geomatics and meteorology	82	874	В	38.6	\$25.17	\$51.80	\$36.83
2251 Architectural technologists and technicians	19	236	С	37.8	\$23.22	\$59.72	\$37.52
2253 Drafting technologists and technicians	50	451	В	38.7	\$26.22	\$51.64	\$38.12
2254 Land survey technologists and technicians	16	130	В	40.2	\$24.34	\$39.14	\$31.40
2255 Technical occupations in geomatics and meteorology	15	56	С	39.3	\$27.79	\$44.14	\$35.20
226 Other technical inspectors and regulatory officers	38	252	В	39.8	\$30.49	\$54.69	\$40.37
2261 Non-destructive testers and inspection technicians	11	94	С	38.6	\$23.71	\$57.79	\$36.43
2263 Inspectors in public and environmental health and occupational health and safety	19	46	С	42.2	\$31.95	\$48.04	\$38.53

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
2264 Construction inspectors	8	101	С	40.4	\$35.53	\$55.45	\$44.95
228 Technical occupations in computer and information systems	58	376	В	39.5	\$24.32	\$36.14	\$30.05
2281 Computer network technicians	33	75	А	38.6	\$30.85	\$46.44	\$37.12
2282 User support technicians	25	253	В	39.6	\$22.23	\$32.59	\$26.65
2283 Information systems testing technicians	11	48	С	39.9	\$27.83	\$43.20	\$38.68
311 Physicians, dentists and veterinarians	49	229	С	39.0	\$59.53	\$105.28	\$75.17
3114 Veterinarians	49	229	С	39.0	\$59.53	\$105.28	\$75.17
321 Medical technologists and technicians (except dental health)	53	362	А	37.8	\$19.28	\$26.45	\$22.30
3213 Animal health technologists and veterinary technicians	51	356	А	37.8	\$19.19	\$26.38	\$22.21
411 Judges, lawyers and Quebec notaries	55	498	С	37.3	\$41.07	\$115.39	\$77.49
4112 Lawyers and Quebec notaries	55	498	С	37.3	\$41.07	\$115.39	\$77.49
416 Policy and program researchers, consultants and officers	47	293	В	36.7	\$35.90	\$68.61	\$48.31

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
4161 Natural and applied science policy researchers, consultants and program officers	18	185	С	37.3	\$35.83	\$70.04	\$46.49
4163 Business development officers and marketing researchers and consultants	28	52	В	36.6	\$39.34	\$74.57	\$57.17
421 Paraprofessional occupations in legal, social, community and education services	22	282	С	35.4	\$30.38	\$52.74	\$38.40
4211 Paralegal and related occupations	16	245	С	35.3	\$30.68	\$53.51	\$38.82
512 Writing, translating and related communications professionals	13	25	С	38.5	\$28.59	\$36.23	\$33.84
5121 Authors and writers	12	24	С	38.5	\$28.32	\$36.36	\$33.84
524 Creative designers and craftspersons	26	74	В	37.4	\$26.90	\$47.04	\$32.86
5241 Graphic designers and illustrators	11	27	С	38.6	n/a	\$38.81	\$28.76
5242 Interior designers and interior decorators	15	46	С	37.0	\$25.67	\$51.74	\$35.81
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	23	92	В	39.4	\$26.91	\$52.01	\$37.20
6221 Technical sales specialists - wholesale trade	22	90	В	39.7	\$26.87	\$52.04	\$37.25

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
655 Customer and information services representatives	18	180	С	28.5	\$20.58	\$41.09	\$23.49
6552 Other customer and information services representatives	17	151	С	26.3	\$19.80	\$49.97	\$23.34
656 Other occupations in personal service	22	92	В	30.9	\$18.20	\$23.41	\$19.74
6563 Pet groomers and animal care workers	22	92	В	30.9	\$18.20	\$23.41	\$19.74
673 Cleaners	15	28	С	26.1	\$19.20	\$21.17	\$20.43
6733 Janitors, caretakers and building superintendents	11	22	С	27.0	\$20.81	\$22.36	\$21.73

"n" in the above table represents the number of employers who indicated at least one employee in an occupation. For example, 11 employers combined reported wages for 22 Janitors, caretakers and building superintendents (NOC 6733).

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 ±6.00%, "B": from ±6.01% to ±15.00%, "C": from ± 15.01% to ±33.00%, "D": more than ±33.01%.

## Job vacancies and 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 (4-Digit 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, Admin	istrative, ar	nd Clerical Occup	pations		
001 Legislators and senior management	61	9%	30%	1%	n/a
0013 Senior managers - financial, communications and other business services	51	9%	23%	0%	n/a
011 Administrative services managers	100-101	21%	26%	1%	n/a
0111 Financial managers	62-63	25%	27%	1%	n/a
0112 Human resources managers	26	20%	22%	0%	n/a
0114 Other administrative services managers	40-41	18%	28%	3%	1.3%
012 Managers in financial and business services	45-46	27%	7%	3%	1.8%
0124 Advertising, marketing and public relations managers	18	31%	19%	10%	n/a
0125 Other business services managers	31-32	26%	0%	0%	n/a
021 Managers in engineering, architecture, science and information systems	94	19%	27%	4%	3.0%
0211 Engineering managers	41-43	14%	41%	5%	3.0%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
0212 Architecture and science managers	25	32%	29%	5%	4.1%
0213 Computer and information systems managers	38-40	19%	16%	3%	2.4%
062 Retail and wholesale trade managers	16	23%	n/a	4%	3.8%
0621 Retail and wholesale trade managers	16	23%	n/a	4%	3.8%
071 Managers in construction and facility operation and maintenance	13-14	16%	n/a	0%	n/a
0711 Construction managers	9-10	23%	n/a	0%	n/a
111 Auditors, accountants and investment professionals	97-98	35%	21%	1%	n/a
1111 Financial auditors and accountants	91-92	33%	24%	1%	n/a
1112 Financial and investment analysts	7	52%	n/a	0%	n/a
112 Human resources and business service professionals	69	32%	3%	2%	1.1%
1121 Human resources professionals	22	33%	0%	0%	n/a
1122 Professional occupations in business management consulting	13-14	54%	9%	0%	n/a

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
1123 Professional occupations in advertising, marketing and public relations	49-50	24%	2%	4%	2.3%
121 Administrative services supervisors	22	22%	0%	0%	n/a
1215 Supervisors, supply chain, tracking and scheduling co-ordination occupations	13	18%	n/a	0%	n/a
122 Administrative and regulatory occupations	140-141	23%	19%	1%	n/a
1221 Administrative officers	119-120	19%	13%	0%	n/a
1222 Executive assistants	10	57%	20%	0%	n/a
1223 Human resources and recruitment officers	6	43%	n/a	0%	n/a
1225 Purchasing agents and officers	18	26%	n/a	4%	1.2%
124 Office administrative assistants - general, legal and medical	161-163	51%	23%	5%	2.0%
1241 Administrative assistants	101-102	41%	9%	4%	1.5%
1242 Legal administrative assistants	66-67	67%	36%	7%	2.2%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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	
125 Court reporters, transcriptionists, records management technicians and statistical officers	11	53%	0%	0%	n/a	
1253 Records management technicians	11	53%	0%	0%	n/a	
131 Finance, insurance and related business administrative occupations	120	48%	41%	8%	2.9%	
1311 Accounting technicians and bookkeepers	115	50%	42%	9%	4.0%	
141 General office workers	144-146	49%	17%	1%	n/a	
1411 General office support workers	23	47%	40%	0%	n/a	
1414 Receptionists	123-125	51%	12%	1%	n/a	
143 Financial, insurance and related administrative support workers	85	40%	5%	0%	n/a	
1431 Accounting and related clerks	79	37%	6%	0%	n/a	
1432 Payroll administrators	15	55%	0%	0%	n/a	
152 Supply chain logistics, tracking and scheduling co-ordination occupations	15	30%	0%	6%	4.9%	
Common Professional, Technical, Skilled, and Labour Occupations						

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
211 Physical science professionals	14-15	58%	19%	11%	3.8%
2113 Geoscientists and oceanographers	11-12	45%	0%	8%	3.3%
212 Life science professionals	15	30%	54%	19%	7.4%
2121 Biologists and related scientists	10	32%	52%	21%	n/a
213 Civil, mechanical, electrical and chemical engineers	46	33%	8%	4%	n/a
2131 Civil engineers	32	40%	9%	3%	n/a
2132 Mechanical engineers	16	20%	n/a	0%	n/a
2133 Electrical and electronics engineers	14	25%	n/a	7%	2.6%
214 Other engineers	33	35%	9%	5%	1.4%
2141 Industrial and manufacturing engineers	5	31%	n/a	0%	n/a
2144 Geological engineers	9	34%	n/a	10%	3.0%
2145 Petroleum engineers	11	41%	n/a	0%	n/a
215 Architects, urban planners and land surveyors	40	31%	37%	10%	4.6%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
2151 Architects	14	25%	n/a	4%	2.3%
2154 Land surveyors	22	36%	26%	14%	6.2%
217 Computer and information systems professionals	66	49%	30%	11%	6.5%
2171 Information systems analysts and consultants	28-30	46%	12%	3%	1.4%
2172 Database analysts and data administrators	7	40%	n/a	0%	n/a
2174 Computer programmers and interactive media developers	38	63%	48%	17%	n/a
2175 Web designers and developers	11	40%	16%	6%	1.9%
221 Technical occupations in physical sciences	20-22	40%	19%	10%	3.2%
2211 Chemical technologists and technicians	6-8	21%	n/a	0%	n/a
2212 Geological and mineral technologists and technicians	17	46%	18%	13%	4.3%
222 Technical occupations in life sciences	13-15	89%	5%	8%	7.5%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
2221 Biological technologists and technicians	10-11	87%	6%	10%	n/a
223 Technical occupations in civil, mechanical and industrial engineering	36-37	40%	4%	5%	2.1%
2231 Civil engineering technologists and technicians	26-27	42%	5%	4%	2.4%
224 Technical occupations in electronics and electrical engineering	19	20%	n/a	0%	n/a
2241 Electrical and electronics engineering technologists and technicians	10	19%	n/a	0%	n/a
225 Technical occupations in architecture, drafting, surveying, geomatics and meteorology	75-76	40%	22%	7%	2.2%
2251 Architectural technologists and technicians	16-17	45%	43%	5%	1.1%
2253 Drafting technologists and technicians	46	39%	14%	9%	3.0%
2254 Land survey technologists and technicians	15	52%	36%	9%	2.3%
2255 Technical occupations in geomatics and meteorology	13	27%	n/a	0%	n/a

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
226 Other technical inspectors and regulatory officers	33	41%	15%	6%	n/a
2261 Non-destructive testers and inspection technicians	9-10	22%	n/a	0%	n/a
2263 Inspectors in public and environmental health and occupational health and safety	17	41%	15%	6%	n/a
2264 Construction inspectors	5	100%	25%	21%	3.2%
228 Technical occupations in computer and information systems	51-52	36%	24%	7%	1.4%
2281 Computer network technicians	29-30	19%	16%	0%	n/a
2282 User support technicians	22	47%	30%	8%	n/a
2283 Information systems testing technicians	8-10	52%	n/a	29%	6.3%
311 Physicians, dentists and veterinarians	47	77%	75%	42%	n/a
3114 Veterinarians	47	77%	75%	42%	n/a
321 Medical technologists and technicians (except dental health)	50	82%	62%	31%	6.8%
3213 Animal health technologists and veterinary technicians	49	82%	61%	31%	6.9%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
411 Judges, lawyers and Quebec notaries	52-53	42%	13%	3%	n/a
4112 Lawyers and Quebec notaries	52-53	42%	13%	3%	n/a
416 Policy and program researchers, consultants and officers	43	46%	13%	2%	1.2%
4161 Natural and applied science policy researchers, consultants and program officers	16	51%	0%	6%	2.2%
4163 Business development officers and marketing researchers and consultants	26-27	44%	21%	0%	n/a
421 Paraprofessional occupations in legal, social, community and education services	20-21	65%	45%	22%	5.9%
4211 Paralegal and related occupations	14-15	59%	43%	20%	5.8%
512 Writing, translating and related communications professionals	10-11	41%	n/a	0%	n/a
5121 Authors and writers	9-10	47%	n/a	0%	n/a
524 Creative designers and craftspersons	24-25	15%	n/a	10%	4.5%
5241 Graphic designers and illustrators	9-10	14%	n/a	12%	6.5%

PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES INDUSTRY Selected Occupations (4-Digit 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
5242 Interior designers and interior decorators	14	19%	n/a	8%	3.3%
622 Technical sales specialists in wholesale trade and retail and wholesale buyers	19-20	57%	17%	10%	3.0%
6221 Technical sales specialists - wholesale trade	18-19	63%	17%	10%	3.1%
655 Customer and information services representatives	16-17	73%	22%	10%	n/a
6552 Other customer and information services representatives	15-16	70%	25%	11%	n/a
656 Other occupations in personal service	21	79%	7%	3%	1.5%
6563 Pet groomers and animal care workers	21	79%	7%	3%	1.5%
673 Cleaners	15	22%	n/a	0%	n/a
6733 Janitors, caretakers and building superintendents	11	27%	n/a	0%	n/a

<sup>&</sup>quot;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).

<sup>&</sup>quot;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: Sum of Unfilled Vacancies / (Sum of Current Employees + 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 of 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 sub-sectors in this industry 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 Government by R.A. Malatest & Associates Ltd.