

# WORKBC INDUSTRY OUTLOOK PROFILE

## COMPUTER SYSTEMS DESIGN AND RELATED SERVICES (NAICS<sup>1</sup> 5415)

### *About this report*

This is a summary of forecast information available about this industry in the B.C. Labour Market Outlook 2019 edition forecast. An overview of this forecast is provided in the main report which is available at: [www.workbc.ca/labourmarketoutlook](http://www.workbc.ca/labourmarketoutlook). The raw data is available at: [BC Data Catalogue](#).

### **1. Outlook Highlights**

The Computer Systems Design and Related Services industry comprises establishments primarily engaged in providing expertise in the field of information technologies through one or more activities, such as writing, modifying, testing and supporting software to meet the needs of a particular customer, including the creation of internet home pages; planning and designing computer systems that integrate hardware, software and communication technologies; on-site management and operation of clients' computer and data processing facilities; providing advice in the field of information technologies; and other professional and technical computer-related services.

As an important component of the Professional, Scientific and Technical Services sector, the Computer Systems Design and Related Services industry has experienced healthy growth through its value-added activities in recent years. The industry is sensitive to public and private investment in computers and software and also exports its services outside the province.

The industry is expected to expand its workforce at a much faster pace than all industries as a whole over the next ten years up to 2029. The industry is projected to have approximately 29,400 job openings over the 10-year period. The majority of those job openings (55 percent) are a result of industry growth rather than replacement demand.

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## 1.1 B.C. industry employment and job openings

Industry	Employment		Employment Growth			Job Openings		Replacement Share
	Number of Workers	Share of B.C.	(Average Annual Rate)			Number of Openings	Share of B.C.	(Share of Openings)
	2019	2019	2019-2024	2024-2029	2019-2029	2019-2029	2019-2029	2019-2029
<b>This Industry</b>	53,746	2.1%	1.6%	3.7%	2.6%	29,424	3.4%	44.8%
<b>All Industries</b>	2,521,389	100.0%	1.0%	1.0%	1.0%	861,143	100.0%	69.5%

## 1.2 B.C. industry job openings by type

Job Openings	2019-2024	2024-2029	2019-2029
<b>Total Job Openings</b>	10,345	19,078	29,423
<b>Expansion Demand</b>	4,481	11,753	16,234
<b>Replacement Demand</b>	5,864	7,326	13,189

*2019-2029 total job openings<sup>2</sup>: the total job openings in the 10 years between 2019 and 2029*

<sup>1</sup> NAICS: North American Industry Classification System Canada 2012

<sup>2</sup> Total job openings: the sum of expansion and replacement job openings over the period. A job opening is the addition of a new job through economic growth (expansion) or a job that needs to be filled due to someone exiting the labour force permanently as a result of retirement, death or other reasons (replacement).

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## 1.3 B.C. industry employment growth and job openings by development region

Region	Employment	Employment Growth (Average Annual Rate)			Job Openings		
	2019	2019-2024	2024-2029	2019-2029	2019-2024	2024-2029	2019-2029
<b>British Columbia</b>	53,746	1.6%	3.7%	2.6%	10,345	19,078	29,423
<b>Vancouver Island/Coast</b>	7,619	3.3%	4.4%	3.9%	2,434	3,481	5,915
<b>Mainland/Southwest</b>	42,413	1.5%	3.5%	2.5%	7,738	14,302	22,040
<b>Thompson-Okanagan</b>	2,692	-3.2%	4.5%	0.6%	-106	908	803
<b>Kootenay</b>	578	2.6%	4.1%	3.3%	169	252	421
<b>Cariboo</b>	165	5.8%	4.7%	5.3%	74	83	156
<b>North Coast &amp; Nechako</b>	102	-1.5%	0.9%	-0.3%	1	13	14
<b>Northeast</b>	177	2.0%	1.9%	1.9%	35	40	75

## 2. Occupations in the Industry

### 2.1 B.C. top occupations by skill level in the industry

Skill Level	NOC	Occupation	Employment	Job Openings	Replacement Rate (Annual)	Wage Rate Median	Wage Rate Low	Wage Rate High
			2019	2019-2029	2019-2029	2018	2018	2018
<b>LEVEL 0:</b> <i>Usually requiring combination of education and experience</i>	#0213	Computer and information systems managers	3,327	2,331	3.5%	26.44	43.27	67.69
	#0013	Senior managers - financial, communications and other business services	2,386	1,503	3.1%	20.00	52.45	96.15
	#0601	Corporate sales managers	624	432	3.7%	17.79	35.58	55.29
	#0124	Advertising, marketing and public relations managers	658	311	1.7%	20.13	40.87	62.50
	#0112	Human resources managers	227	147	3.0%	21.79	38.46	62.50
		Other occupations	1,089	775	-	-	-	-
	<b>Total</b>		<b>8,310</b>	<b>5,499</b>	-	-	-	-
<b>LEVEL A:</b> <i>Usually requiring a Bachelor's, Graduate or First Professional Degree</i>	#2174	Computer programmers and interactive media developers	8,804	4,322	1.6%	20.00	35.19	51.10
	#2171	Information systems analysts and consultants	7,376	4,173	2.2%	26.15	38.97	54.95
	#2173	Software engineers and designers	5,692	2,981	2.0%	24.36	38.46	60.00
	#2175	Web designers and developers	3,324	1,484	1.2%	15.00	26.32	47.69
	#4163	Business development officers and marketing researchers and consultants	948	455	1.7%	20.00	32.05	48.08
		Other occupations	5,404	2,966	-	-	-	-
	<b>Total</b>		<b>31,548</b>	<b>16,382</b>	-	-	-	-

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Skill Level	NOC	Occupation	Employment	Job Openings	Replacement Rate (Annual)	Wage Rate Median	Wage Rate Low	Wage Rate High
			2019	2019-2029	2019-2029	2018	2018	2018
<b>LEVEL B:</b> <i>Usually requiring diploma, certificate or apprenticeship training</i>	#2281	Computer network technicians	2,038	1,075	2.0%	17.31	30.00	52.75
	#2282	User support technicians	1,698	927	2.1%	18.00	29.00	50.00
	#6221	Technical sales specialists - wholesale trade	1,484	861	2.7%	13.27	23.50	42.97
	#5241	Graphic designers and illustrators	1,192	636	2.0%	15.87	24.50	40.87
	#1221	Administrative officers	762	497	3.3%	14.50	24.00	35.10
		Other occupations	4,175	2,204	-	-	-	-
	<b>Total</b>			<b>11,350</b>	<b>6,199</b>	-	-	-
<b>LEVEL C:</b> <i>Usually requiring secondary school and/or occupation-specific training</i>	#6552	Other customer and information services representatives	514	236	1.6%	12.65	19.85	30.00
	#1431	Accounting and related clerks	302	181	2.6%	15.00	21.00	30.93
	#1411	General office support workers	288	166	2.4%	13.00	21.00	30.00
	#1422	Data entry clerks	116	62	2.0%	12.65	18.00	28.85
	#6421	Retail salespersons	132	57	1.6%	12.65	13.00	23.08
		Other occupations	888	495	-	-	-	-
	<b>Total</b>			<b>2,240</b>	<b>1,197</b>	-	-	-
<b>LEVEL D:</b> <i>Usually requiring on-the-job training</i>	#6731	Light duty cleaners	55	32	2.3%	12.65	15.00	20.69
	#6623	Other sales related occupations	75	31	1.5%	12.65	13.10	17.50
	#6711	Food counter attendants, kitchen helpers and related support occupations	41	18	0.8%	12.65	12.65	17.00
	#7611	Construction trades helpers and labourers	23	11	1.6%	13.00	19.00	30.00
	#8612	Landscaping and grounds maintenance labourers	21	10	1.7%	12.65	16.00	27.00
		Other occupations	82	45	-	-	-	-
	<b>Total</b>			<b>298</b>	<b>147</b>	-	-	-