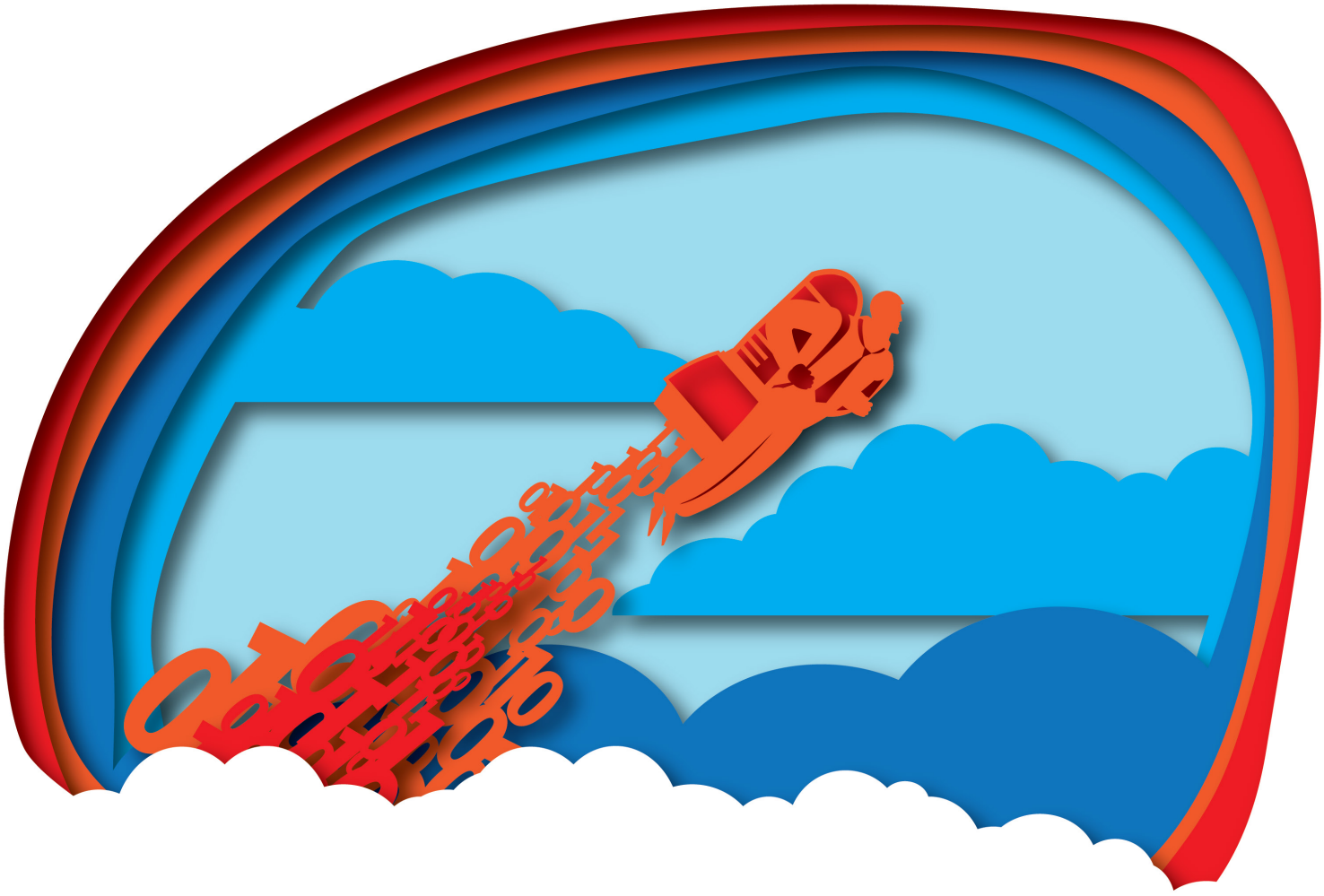
ACCELERATE OKANAGAN

Entrepreneurs • Technology • Community



ECONOMIC IMPACT OF THE OKANAGAN TECH SECTOR: 2015 EDITION

Prepared for Accelerate Okanagan by Small Business BC | Released September 2016

EXECUTIVE SUMMARY

As part of an ongoing mission to support and develop new and growing technology-driven businesses in the Okanagan, Accelerate Okanagan (AO) has conducted a second survey to gauge the economic impact of the sector and highlight its growth since 2013.

Accelerate Okanagan commissioned this updated study conducted by a third party researcher through Small Business BC to quantify the tech sector's contribution to the local economy in 2015. The goal of the study was to ultimately assist in attracting new talent, companies, and potential investors to the Okanagan, as well as inform policy makers and the media.

$1.30 BILLION ECONOMIC IMPACT

$1.02 BILLION*
DIRECT IMPACT

Representing the total output (revenues) directly generated by companies in the sector

$284 MILLION*
THE INDIRECT IMPACT

Representing the impact of those businesses who supply inputs to the technology sector

$1.30 BILLION*
COMBINED

The total economic impact of the technology sector within the Okanagan region

* *estimated*

ACCELERATE OKANAGAN

ECONOMIC IMPACT ASSESSMENT

The 2014 edition of the Profile of British Columbia's High Technology Sector shows that the high technology sector is vital part of the BC economy. High technology firms tend to be innovative and efficient, creating goods and services that confer benefits on other parts of the economy by improving productivity and profitability, while at the same time providing relatively high-wage employment.

The direct impact - representing the total output (revenues) directly generated by companies in the sector – is estimated at $1.02 billion.

The indirect impact - representing the impact of those businesses who supply inputs to the technology sector – is estimated at $284 million.

Combined, the total economic impact of the technology sector within the Okanagan region is estimated to be $1.30 billion.

Provincial high tech sector revenues increased by 5.2% to $23.3 billion

The number of BC businesses in the high sector grew by 8.1% to 9,738 businesses

BC's High tech sector GDP followed the provincial economy's growth with an increase of 2.2% for 2013.

Based on the methodology used for Profile of British Columbia's High Technology Sector report, as well as the previous survey undertaken by Accelerate Okanagan, the overall contribution of the technology sector to the Okanagan economy is estimated as follows:

The majority of the companies in the Okanagan tech sector were private corporations (75%) and relatively young in their stage of development. Forty-two percent of the responding companies have been in business between one to five years, while an additional 18% were start-ups, less than a year of operation, for a total of 60% with less than 5 years of operation. On the other hand, 26% of the businesses responding were older than ten years.

Growth of the Okanagan tech workforce since 2013

It is important to know the type of industry Okanagan tech businesses operate in for development of this sector. As in previous surveys, the dominant business type is in the technology software and services business where 46% of those responding were active. Software and application development, data processing/management, and IT consulting services, were the most popular business types responding to this question.

Revenues are an important measure for the economic impact of a sector on a community. The average revenue for tech companies responding to the survey was $763,504, an average annual increase from the previous survey results of 14%. Owners continued this optimism for the future with and expected $1,002,324. This reinforces that the Okanagan tech sector is getting stronger every year.

When Okanagan tech businesses were asked how many workers they had within their company, a total of 1,190 workers were reported for 2015. This works out to be an average of 8 workers per business. The majority of tech workers in this region continue to be younger male workers, seventy-five percent male and forty-five percent under the age of 35 years of age, compared to 15% for those 45-54 years of age. Regarding tech business outlook for hiring, 71% of the businesses responding indicated they would be increasing their staff over the next year. This is higher than previous survey value of 67%.

Knowing the advantages that tech businesses attribute specifically to the Okanagan is helpful in developing the future of this region's economy. The top three advantages are innate to the region and would be difficult to create anywhere else. The number one choice of those responding to this question is lifestyle at 41%, while "It's where I live" followed closely at 39%, and climate at 34%. The "tech community" and "commute time" were also chosen as advantages for the Okanagan (25%).

With the advantages come challenges. Similar to the previous survey, "lack of talent" is still the number one constraint (32%). As a result of the "Lifestyle" advantage, comes with a cost of "Distance to Clients" and "Small Client Base" (22%). "Travel Costs" and "Cost of living" were also selected as challenges of operating a tech business in the Okanagan.

The Okanagan tech community is an important part of the economic viability of the Okanagan's prosperity for the future. Globalization and technological change are important trends facing today's economies and this region appears to be ready with companies positioned to benefit from these changes. Businesses in data processing, application development, mobile applications, new media, and internet technology can take advantage of global trends. Continued efforts to raise awareness of this region's tech capabilities will be crucial to its future success.

633 TECH BUSINESSES IN THE OKANAGAN

TECH BUSINESSES IN THE OKANAGAN

Central Okanagan	355
North Okanagan	117
South Okanagan-Similkameen	98
Columbia-Shuswap	63
Total Okanagan Tech Business	633

ACCELERATE OKANAGAN

ECONOMIC IMPACT

AVERAGE ANNUAL REVENUE

In calculating the economic impact of the tech community on the Okanagan economy, the average tech business revenue must be calculated for the region. Respondents were asked to provide their 2015 revenues. Some businesses did not respond to the question, while others entered zero, and some branch locations entered their total company's revenue, not just the branches revenue, and there were some extremely high revenues, or outliers, in the responses, these entries had to be removed to get a more accurate picture of average revenue for tech businesses in the Okanagan region.

In the end, 56 responses were used to calculate the average 2015 revenue of $749,869. This is significantly lower than the provincial average of $2,392,688 and is consistent with the previous survey estimate.

This discrepancy has been attributed to the scale of operation of high tech businesses in the Metro Vancouver area. A further calculation was made to determine the average annual revenue of those businesses that had no employees, which was $48,500, an increase from 2013's survey.

BUSINESS COUNTS

Once the average revenue has been calculated, the number of tech businesses needs to be determined to be able to multiply the average revenue by the number of businesses to get an estimate of total revenue generated. A tech business can have employees, or no employees, just the owner. For businesses with employees, Statistics Canada's statistics on high-tech businesses by region was used for June 2016. The table below indicates the number of tech businesses with employees, which grew by a healthy 13% between 2012 and 2016. Next is calculating the number of businesses with no employees. The Profile of British Columbia's High Technology Sector (2014) provides the ratio of tech businesses without employees to those with employees as 3.37 times. If there are 633 tech businesses with employees, there would be an estimated additional 2,133 without employees for a total of 2,766 for the latest information available.

DIRECT IMPACT CALCULATION

Using the average revenues for tech businesses with and without employees mentioned above and the counts for each of these groups, the direct impact of those Okanagan tech businesses for 2015 is estimated to be $1,023,317,898.

Type of Business	*Economic Impact*
Businesses With Employees	$919,867,398
Businesses Without Employees	$103,450,500
Total Direct Impact	$1,023,317,898

INDIRECT IMPACT

The indirect impact is the effect that a sector has on other sectors as it buys inputs to produce its outputs. Multipliers are used to calculate this and can vary in their value depending on the type of sector that's involved. The latest multipliers are from Statistics Canada's input-output model for 2010. The method used in this report is taken from BC Stats' guide British Columbia Provincial Economic Multipliers and How to Use Them (March 2008). Following industry practice, the multipliers used for the tech sector include those from manufacturing and services. Each of these multipliers have different values, medium aggregation for manufacturing is .25, while small aggregation for services is .28.

	Business Counts	*% of Businesses*	*Multiplier*
Manufacturing	52	8%	0.25
Services	581	92%	0.28
Total	619		

Weighted average multiplier = (8%*0.25) + (92%*0.28)

	Direct Impact	*Multiplier*	*Indirect Impact*
Total Revenues	$1,23,317,898	0.28	$284,073,048

TOTAL IMPACT

Type of Economic Impact	*Economic Impact*
Estimated Direct Impact	$1,023,317,898
Estimated Indirect Impact	$284,073,048
Total Economic Impact	$1,307,390,946

TECH SECTOR PROFILE

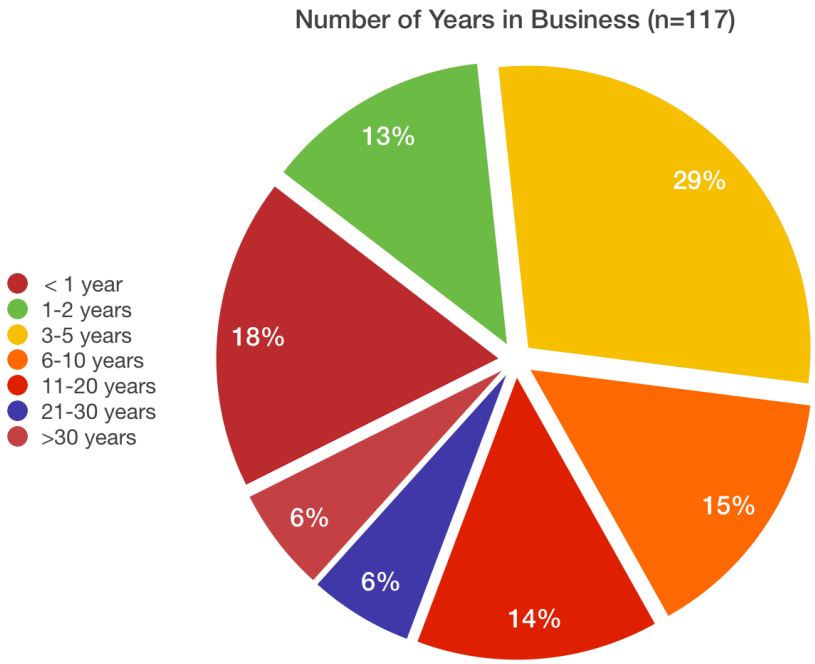
BUSINESS STRUCTURE

How does the Okanagan tech sector compare to the rest of the region's economy? Tech businesses are younger than the average business for all age groups. For example, in the 3-5 years of age group the tech's share of business is ten percent more than the overall economy in the Okanagan region (29% vs 19%).

This trend of younger business is continuing in this sector from 2013 survey. The percentage of startups increased from 14% to 18%, while those between 3-5 years of age increased from 22% to 29%. Six to ten year olds and eleven to twenty year olds dropped by 3 and 6 percent respectively from a previous survey.

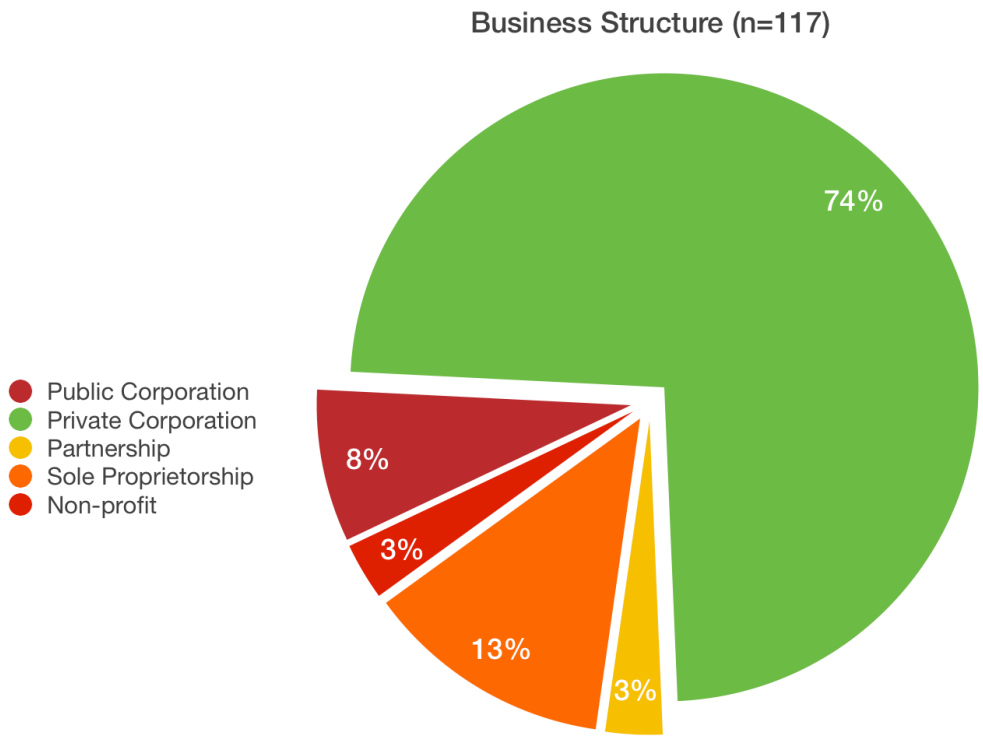
Number of Years in Business

< 1 year	18%
1-2 years	13%
3-5 years	29%
6-10 years	15%
11-20 years	14%
21-30 years	6%
>30 years	6%



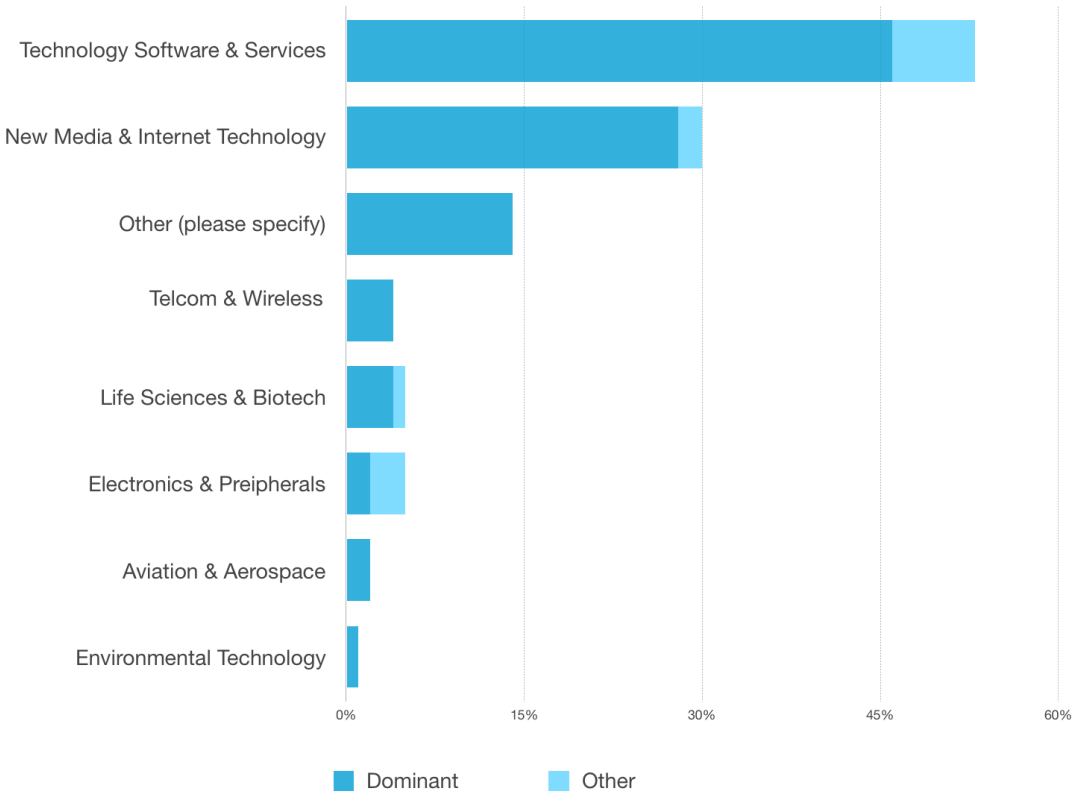
The majority of the companies responding to the survey were from Kelowna (77%), while Penticton, Osoyoos, Peachland, and Salmon Arm made up 13%. In keeping with the legal nature of a tech company, three quarters of the survey respondents were incorporated, while 13% were sole proprietorships.

Business Structure	
Public Corporation	8%
Private Corporation	75%
Partnership	3%
Sole Proprietorship	13%
Non-profit	3%



BUSINESS SECTORS

Like the previous survey, the Software and Service sector dominated the other sectors indicated by survey respondents. This year's survey, however, revealed an increasing popularity of this sector, 46% this survey vs 36% last survey. An additional 7% indicated that their primary revenues came from related activities for this sector such as education around technology, finance, and augmented reality. This brings the sector to 53% of the types of business deriving their primary revenue from Software and Services. New Media and Internet Technology was the next most popular activity for Okanagan tech businesses at 28%, including the related activities of this sector brings this group to 30%, much lower than the previous survey where the total was 44% for this group. Respondents reported few of the remaining tech categories such as Life Sciences and Biotech (4%), Telecom and Wireless (4%), Electronics and Aviation both reported 2%.



Each respondent was also asked to indicate the sub-sector they were involved in. A company can be active in many subsectors so the numbers will not sum to 100%.
In the Technology Software and Services sector, the Software and Application Development sub-sector was the largest reported activity with 27%, more than double Data Processing/Management and IT Consulting.

Technology Software & Services	*Count*	*% of Primary Sector*	*% of overall*
Software and Application Development	25	27%	21%
Data Processing and Management	12	13%	10%
IT Consulting Services	11	12%	9%
Mobile Application Development	9	10%	8%
Other (please specify)	9	10%	8%
IT Services	6	6%	5%
Engineering Design/Services	4	4%	3%
GIS/Mapping	4	4%	3%
IT Training	4	4%	3%
Security and Protection Services	4	4%	3%
Public Sector (defence, oil, gas)	3	3%	3%
Graphic Design	2	2%	2%

The second most popular primary sector is New Media and Internet Technology where 30% of the survey respondents placed themselves. The activities within this sector were more evenly distributed than the Technology Software and Services industry.

New Media & Internet Technology	*Count*	*% of Primary Sector*	*% of overall*
Other Media/Online Services	13	14%	11%
E-commerce	12	13%	10%
Web Design and Development	12	13%	10%
Advertising Services	10	11%	8%
Consulting Services (including Social Media)	9	9%	8%
Interactive Media	7	7%	6%
Animation	6	6%	5%
Gaming	6	6%	5%
Web Hosting Services	6	6%	5%
Social Media Platform Development	5	5%	4%
E-Learning	4	4%	3%
Other (branding, mobile/online marketing,)	4	4%	3%
Event Media Services	1	1%	1%

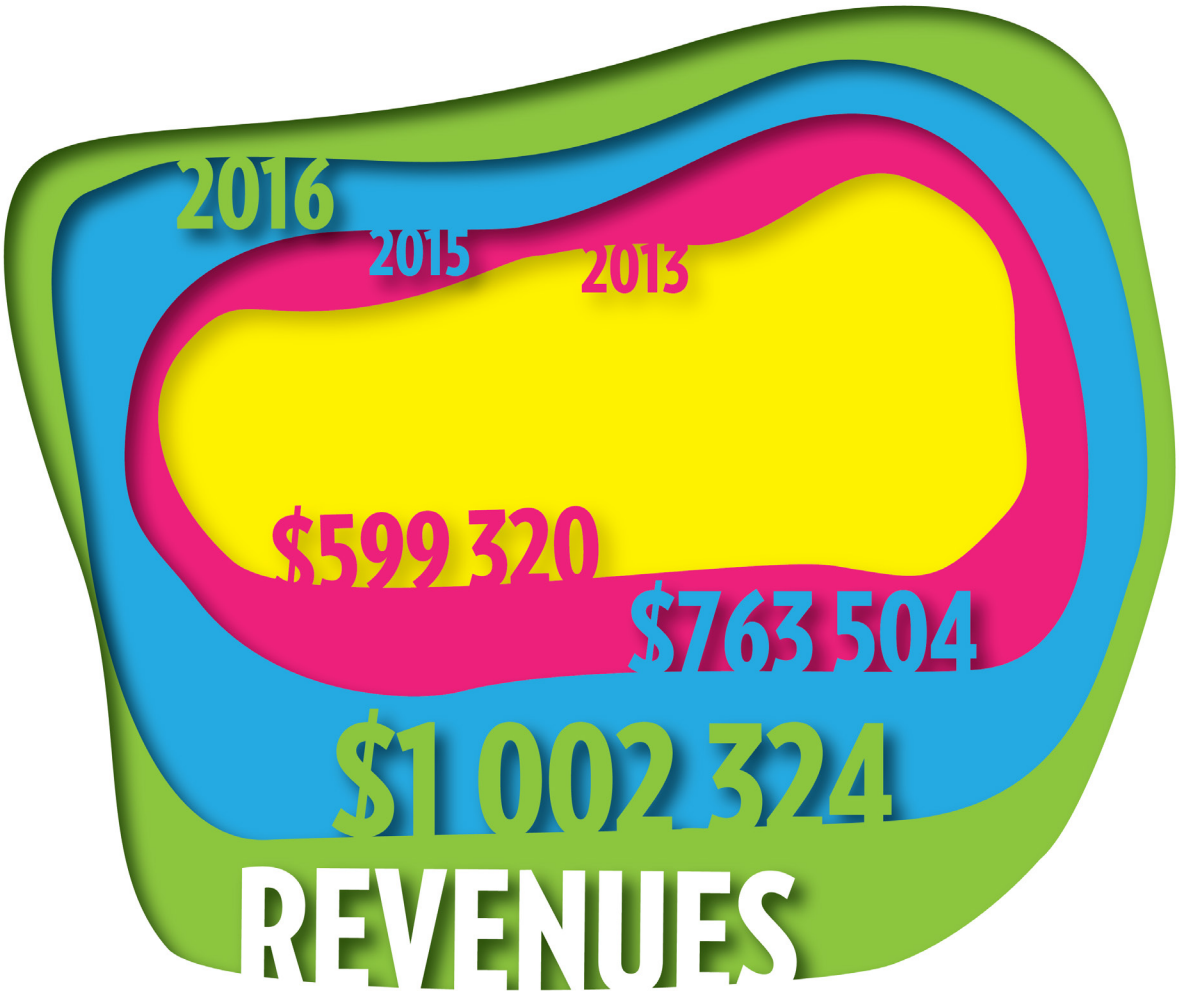
Only 4 companies indicated they were in the Telecom and Wireless sector and a corresponding few related activities for this sector, including “Network Service Providers”, and “Communication Resellers”.

Telcom & Wireless	*Count*	*% of Primary Sector*	*% of overall*
Communications Resellers	2	22%	2%
Mobile Communications	0	0%	0%
Network Service Provider	3	33%	3%
Radio Communications	1	11%	1%
Telecommunications Network Integration	1	11%	1%
Web/Audio/Video Conferencing	0	0%	0%
Other Communication Services	2	22%	2%
Other (please specify)	0	0%	5%

REVENUES AND EXPENDITURES

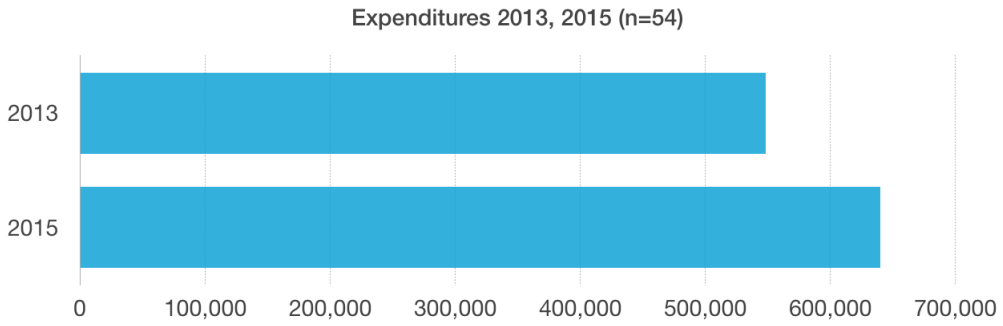
Responding companies were asked to provide actual revenues for 2015 and to project revenues for 2016. Using an established method of removing extreme values, both large and small, averages were calculated for 2015 and 2016 and the average from 2013 was used as a base year.

The 2015 average was used to calculate the current economic impact. Fifty-four responses were used to calculate the averages from this survey. The increase from 2013 to 2015 was 28%, while the projected increase for 2016 was a healthy 31%.

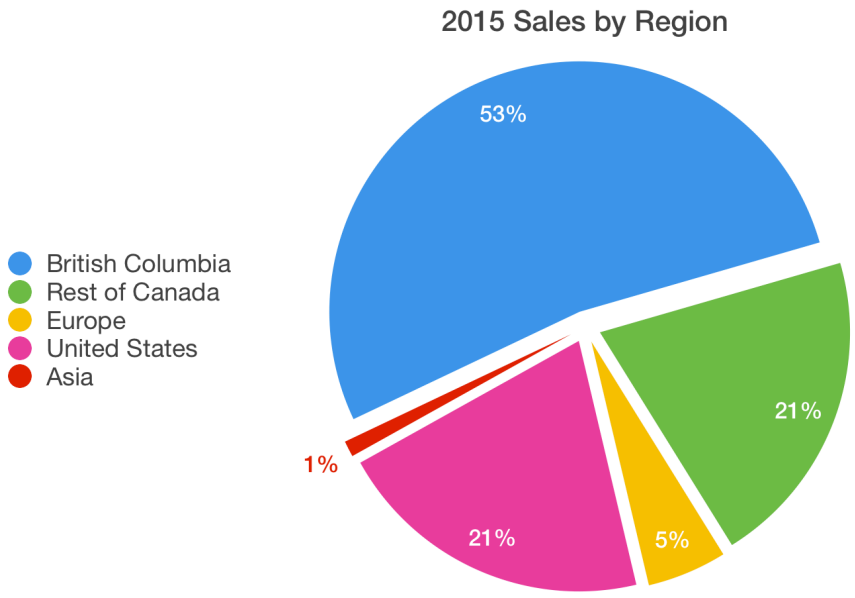


Actual & Projected Revenues 2013 -2016 n = (54)

Looking at average expenditures, they increased by almost 17% over the two years, resulting in an annual average of approximately 8.5%. This left a healthy profit for tech, on average $123,506 for 2015. Close to 51% of tech companies spending went to payroll for 2015, down slightly from 2013's survey of 54%.



Another important topic for developing the Okanagan tech community is what destinations are sales located. Eighty-six companies responded to this question on the survey and like results from 2013, the dominant market was BC, 51%. This is up from the last survey where 41% focused on BC, an indication of BC's strengthening economy. It was also noted that there was an 11% decrease in the US market which fell from 31% in 2013 to 20% in this survey.

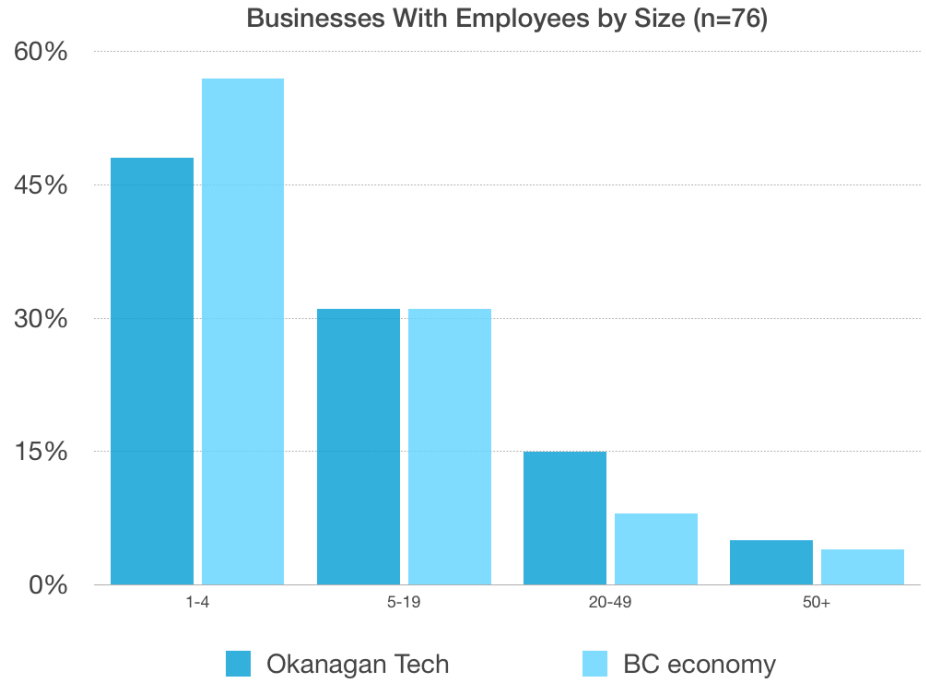


WORKFORCE COMPOSITION

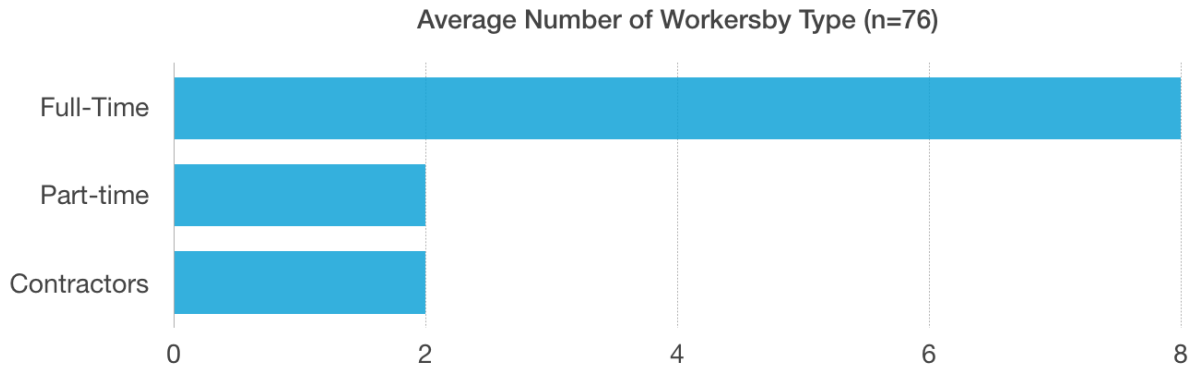
The survey asked a series of questions on the employment characteristics of Okanagan tech businesses. From how many employees, to percentage of male and female workers, age of workers, roles of workers, and projections for the future. The following results are based on data where extreme values have been removed.

Looking at the workforce by size of business, the tech economy in the Okanagan has a similar distribution as the rest of the BC economy. The province, however, has a higher proportion of micro businesses (1-4 employees) while Okanagan tech businesses have a higher percentage of 20 to 49 employee firms. Okanagan tech businesses and the province have the same share for 5-19 employee firms, according to the latest BC Small Business Profile.

Average employees per company

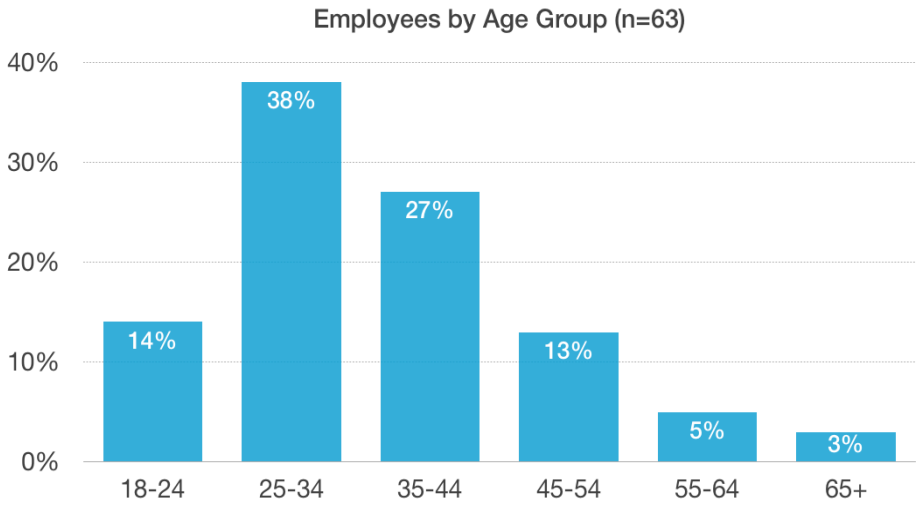


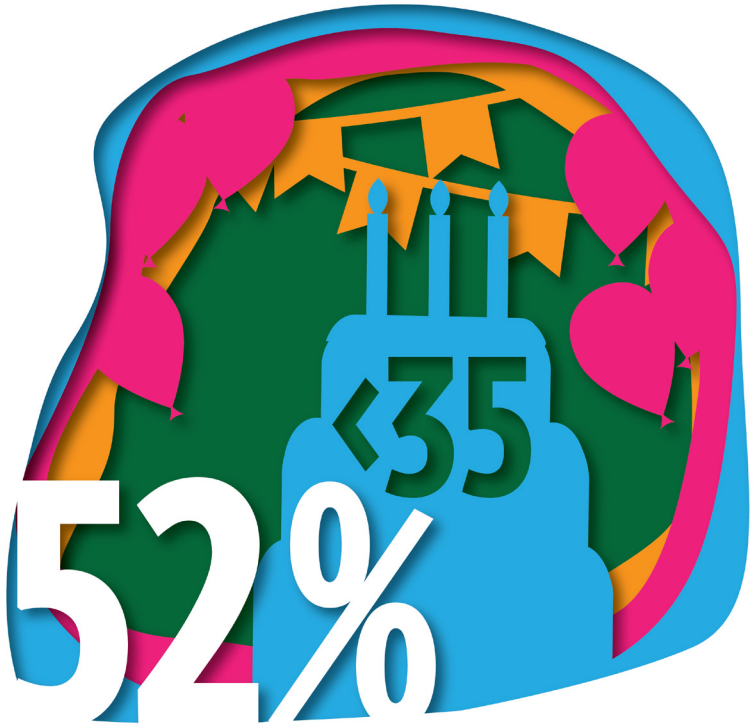
From the chart below, the average number of full-time, part-time employees, and contractors has remained the same from the previous survey at 8, 2, and 2. Based on these averages, Okanagan tech businesses employ over 5,000 full-time workers, approximately 1,266 part-time workers, and the same number of contractors for a total of 7,600 workers. On average, eighty percent of the employees are located in the Okanagan region.



SIZE OF THE OKANAGAN TECH WORKFORCE

Regarding the age composition of Okanagan tech companies, they have gotten younger since the last survey was conducted. The 25-34 year olds have increased their presence to 38% while the 35-45 year-old group has dropped to 27%. The remaining age groups over 44 years have also dropped from the previous survey while the youngest has stayed the same.

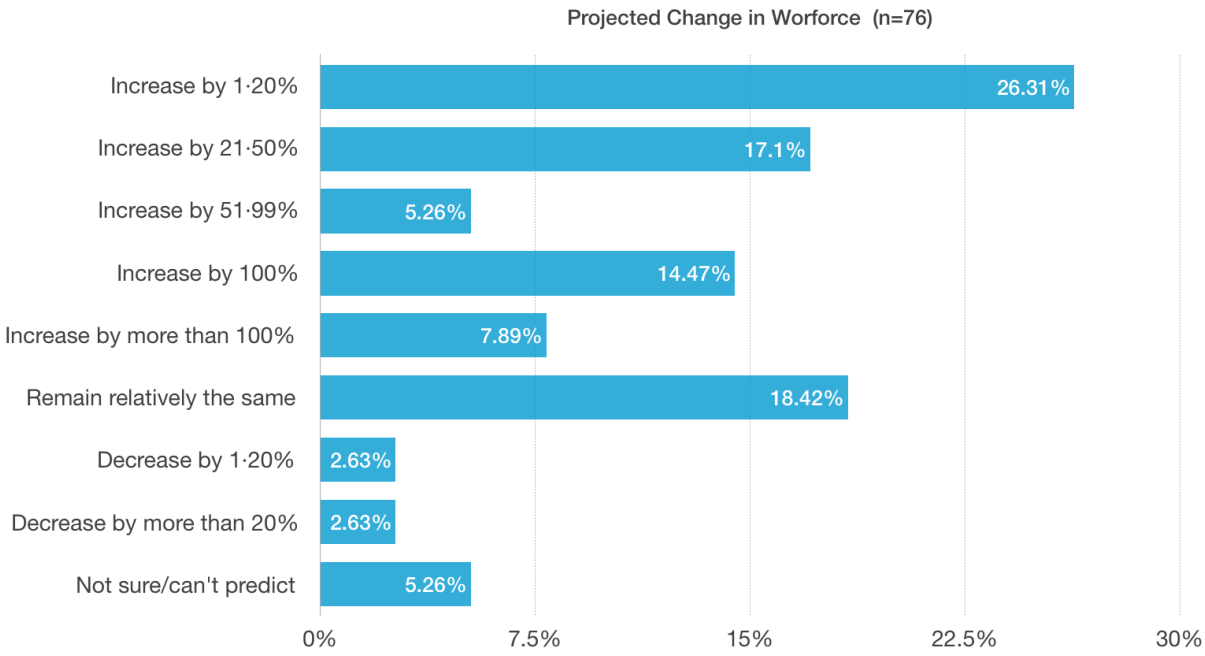




Percentage of employees under the age of 35

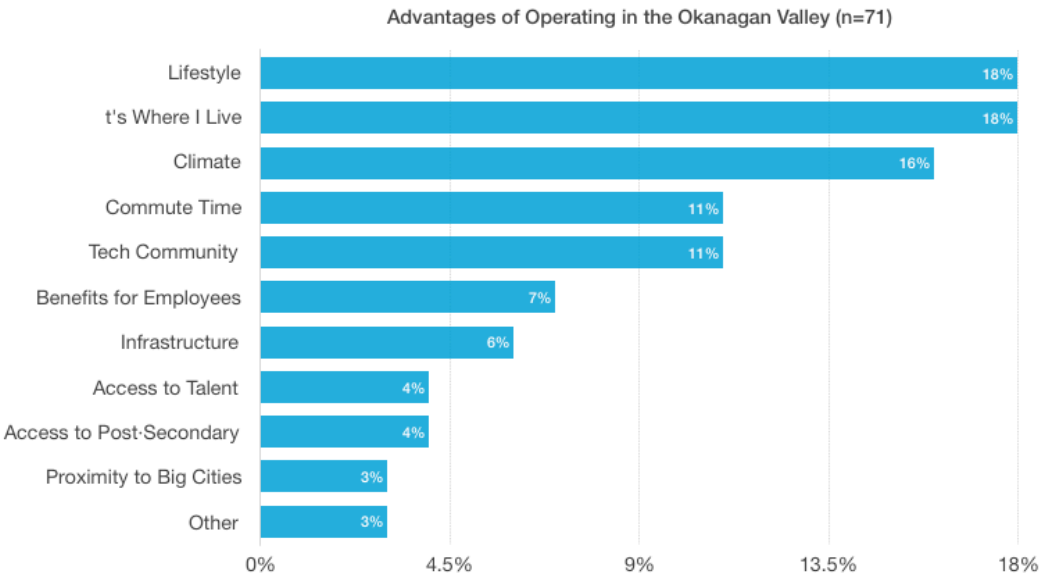
Other questions asked what role female workers play in the company, technical, non-technical, managerial, non-managerial. Twelve companies had no female workers while 44 did not respond to the question. The results are split for those companies having female workers. Forty-eight percent were in technical roles while 52% were in non-technical. The difference was much greater when it came to managerial positions. Forty-two percent were in management while 58% were not.

The outlook for tech business owners for hiring new employees was very strong when asked what are the expected changes coming in the next year. Seventy-one percent indicated they would be increasing their workforce in the coming year, up from 67% from the last survey. The largest group were those expecting their staff to increase by less than 20%.



of tech employees that are female

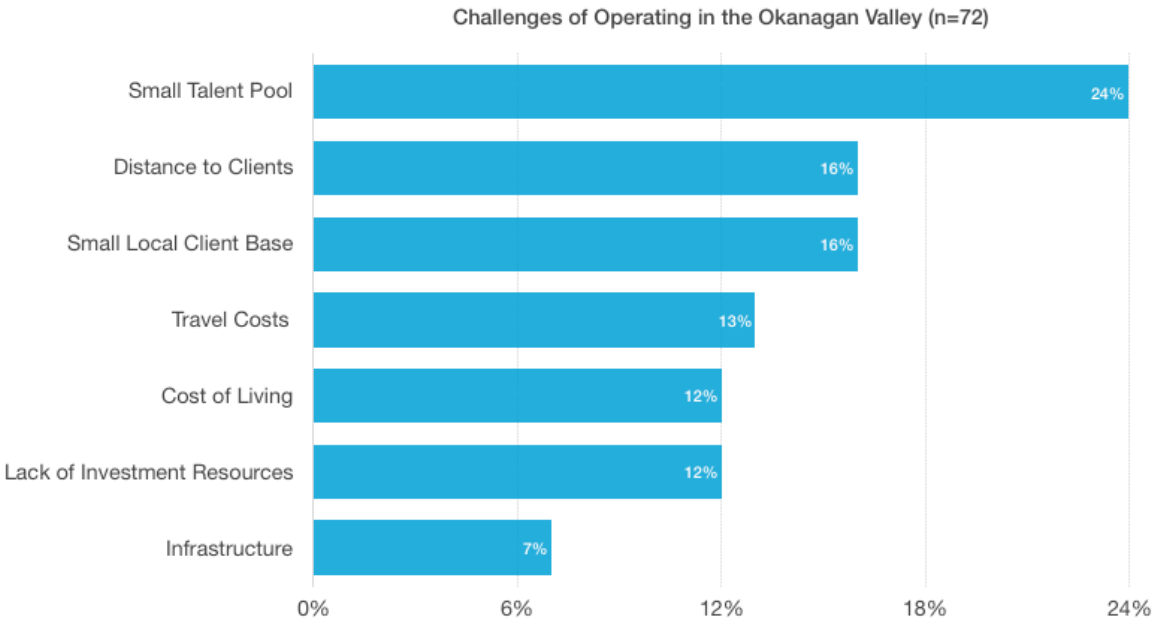
ADVANTAGES & CHALLENGES OF OPERATING A TECH BUSINESS IN THE OKANAGAN.



Companies were asked two questions on advantages and disadvantages for the Okanagan, and a third on general barriers for a tech business succeeding in BC.

The top 3 advantages that tech companies reported were particular to the region and are good to know when developing this sector. Lifestyle, “It’s where I live”, and climate, can be used to attract other tech companies to the Okanagan and could be examined further in future surveys. Comments on this question range from “Easy access to flights”, “Awesome people”, “Location to other Canadian markets”, and “tax incentives”.

Along with the benefits of an Okanagan lifestyle and climate are the associated challenges tech businesses face, primarily the small talent pool, distance to clients, and the small client base. Thirty-seven companies reported problems with a limited talent pool while 25 indicated distance from clients and small local client base as a challenge in the region. Comments from the survey on this topic include: “distant location for US markets”, “my company depends on the growth of other tech manufacturers”, “lack of direct flights makes it difficult to visit investors”.



Going beyond the advantages and disadvantages of operating an Okanagan tech company, the survey asked respondents what barriers they would like eliminated for their business to be successful over the next three years. The survey confirms the most often comment on the growth of the tech sector in BC, lack of qualified talent. Twenty-six or 37% of those responding reported this barrier. Lack of the right type of financing was the second most sited barrier for these companies. Other less-often-mention barriers include: "design maturity of the Okanagan tech market", "online distribution – getting the word out", "internet Walmarts", "regulations on the Money Service Business", and "better networking".

CLOSING REMARKS

It is clear when you compare 2015 Accelerator Okanagan survey results to the previous survey that the region's tech community is growing both in the number of tech companies and the dollar value they are generating, direct and indirect. The general commentary in the province that the Okanagan is "booming" is supported by the results of this survey.