

The Economic and Social Impact of B.C. Lottery Corporation's Head Office on the Kamloops Area

Prepared for: **B.C. Lottery Corporation (BCLC)**

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The views expressed in this study are those of the author and should not be taken to represent the position of Thompson Rivers University. The author thanks TRU student Keenan Ratushniak for his research assistance and BCLC staff for providing the data necessary to conduct the study.

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I. Executive Summary

The report describes the economic and social impact of B.C. Lottery Corporation's (BCLC) head office on the census agglomeration of Kamloops. The study was conducted by Dr. Laura Lamb of the School of Business and Economics at Thompson Rivers University. The economic impacts are estimated with BCLC expenditure data using input-output analysis which is based on methods of regional economics. The social impacts are assessed qualitatively with survey data and information provided by BCLC, Statistics Canada and members of the Kamloops community. The impact analysis is conducted for the fiscal year 2013-14 and for the 30-year period 1985–2015.

Employment

In 2013-14, BCLC directly employed 443 employees in Kamloops, making it the eighth largest employer in Kamloops. Over 60% of the jobs are classified as professional, less than one-fifth as managerial, and close to one-fifth provide administrative and support functions. The average BCLC salary is \$64,541 compared to the average Kamloops income of \$38,689, with the difference largely explained by the high level skill sets required by many of the BCLC positions.

The BCLC workforce in Kamloops is relatively educated with 96% of the employees having at least some post-secondary education, 63% having completed post-secondary and 16% with a post-graduate degree. BCLC contributes towards a more educated Kamloops population which is associated with economic benefits such as greater spending in the economy and less demand for social safety net programs. BCLC indirectly contributes to the socio-economic benefits accruing to Kamloops associated with a higher proportion of post-secondary educated residents such as a safer and more attractive community, residents with better physical and mental health, and greater participation in societal activities such as volunteering, charitable giving, and voting participation.

BCLC's Local Expenditures: The Direct Impact

- In 2013-14, BCLC spent an estimated \$43.3 million on goods and services to support its business activities at the head office location in Kamloops.
- Over \$37 million, the largest component of the \$43.3 million was spent on salaries and benefits to its Kamloops employees in 2013-14.
- The direct impact (or direct local income generated) of BCLC on the Kamloops economy is an estimated \$33.8 million, which represents the portion of BCLC's spending on goods and services from businesses in Kamloops.

Total Economic Impact of BCLC: 2013-14

- BCLC's total economic impact on Kamloops is estimated at \$47.3 million in 2013-14, consisting of \$33.8 million in BCLC spending and the multiplier effect of \$13.5 million in local income resulting from BCLC spending.
- BCLC's \$33.8 million in spending on goods and services from businesses in Kamloops created employment opportunities for other Kamloops businesses through the multiplier

effect as BCLC's suppliers increased their employment and output. The multiplier effect also includes the induced impact which is the spending by BCLC employees and workers of direct and indirect suppliers in Kamloops.

- BCLC's Kamloops employment multiplier was 1.5 implying that for every two jobs created by BCLC, approximately one was created in the Kamloops economy in 2013-14.
- BCLC's total employment impact in terms of job creation is estimated at 639 jobs in the Kamloops area, representing the sum of direct employment of 426 full-time equivalents (FTE) at BCLC and indirect employment of 213 additional jobs created through the employment multiplier effect.

Connections to Thompson Rivers University

BCLC and its employees have connections with the local Thompson Rivers University (TRU). For instance, an estimated 66% of BCLC employees received at least some of their post-secondary education at TRU. In addition, BCLC employees participate in value-added activities for TRU students including speaking engagements on topics such as leadership in marketing and product development and career path information sessions.

Social and Cultural Contributions

BCLC sponsorship and participation in the community has a significant impact on the cultural and social aspects of Kamloops society. Over the past 10 years, BCLC has provided community support in the range of \$50,000 to \$75,000 annually. For example, BCLC has co-sponsored Music in the Park since 1993, the longest running free music event in North America. BCLC has also been a long time sponsor of the Kamloops Symphony, Kamloops Art Gallery, and Western Canada Theatre. Additionally, BCLC sponsors one-time events such as the 2014 Tim Hortons Brier curling event held in Kamloops.

Contribution to the Social Economy

The generosity of BCLC employees has made a notable impact on the social economy in the Kamloops area. Close to 47% of BCLC employees volunteered an estimated 16,800 personal hours to non-profit and charitable activities in the Kamloops area in 2013. And an estimated 80% of BCLC employees contributed close to \$164,000 to non-profits and charities in the Kamloops area in 2013.

BCLC's 30-Year Impact

The year 2015 marks the 30th anniversary of BCLC. The cumulative impact of BCLC's head office in Kamloops has been substantial.

- An estimated \$1.1 billion dollars is the total cumulative economic impact in the Kamloops economy from 1985 to 2015.
- The total cumulative economic impact is the sum of an estimated \$805 million of total spending, including salaries and benefits, on goods and services from local businesses, and a cumulative multiplier effect of \$322 million over the 30-year period.
- The total cumulative economic impact, measured in terms of employment, is an estimated 11,906 FTE worker years.

II. Introduction

Kamloops has been home to British Columbia Lottery Corporation's (BCLC) head office since the corporation's inception in 1985. The corporation's presence has had a substantial impact on the economies of both the Province and the City of Kamloops. In 2013-14, BCLC generated \$1.175 billion in net income for the province of BC and employed close to 900 people in its head office in Kamloops, their Vancouver office and in the field across B.C. Approximately 37,000 people are directly or indirectly employed through BC's gambling industry. There are 31 communities that have a casino or community gaming center bringing them host local government payments totalling \$86.9 million in 2013-14. In addition, close to 5,000 charitable and community organizations benefit from approximately \$135 million in gaming grants each year. While there are many streams of impacts to the Province of BC, the current analysis focuses on the economic and social impacts of BCLC's head office on the Kamloops area.

The consideration of both social and economic impacts allows for a more comprehensive examination of the contributions of the BCLC's head office location to Kamloops society. The social impact is described qualitatively using a combination of survey data, information collected from various BCLC documents and employees, and information gathered from members of the Kamloops community. Economic impacts are described quantitatively using methods described below.

It is becoming increasingly common for organizations to estimate the economic impact of their existence on a region using analytical methods of regional economics. An economic impact study estimates the additional economic activity created by the existence of a particular entity, such as BCLC. In this case, the question being addressed is how much has the dollar value of the Kamloops economy increased as a result of BCLC's head office being located in Kamloops? This study assesses the economic and social impacts of BCLC's head office on the local economy, defined as the census agglomeration of Kamloops with a population of 96,605 (2011 census).

This economic impact study makes use of input-output analysis to examine the economic impact of BCLC's expenditures related to the operation of its head office in Kamloops on the local economy. The economic impacts in this study are estimated for the fiscal year 2013-2014 with expenditure data from that fiscal year.

Measuring economic impacts involves input-output analysis which typically considers the following three types of impacts:

- **Direct impact:** a measure of the impact on local industries supplying the goods and services directly used by BCLC. Also known as the direct local income generated.

- **Indirect impact:** a measure of the impact on industries further back in the supply chain. This is a cumulative impact in that it goes back all the way to the beginning of the supply chain.
- **Induced impact:** a measure of the effect of spending by workers on the economy. This effect refers to spending by BCLC employees and workers of direct and indirect supplier industries.

Input-output analysis is grounded in the following assumptions, which can be viewed as limitations of the analysis:

- Input-output models are linear, suggesting that a change in the demand for output of a given industry will translate into a proportional change in production.
- Economic adjustments from a change in demand occur immediately. They do not take into account the time needed for changes to happen.
- No capacity constraints exist. For instance, an increase in the demand for labour will result in an increase in employment.
- Consumers spend 80% of their personal income, on average, on goods and services with the remaining 20% going to either taxes or savings.

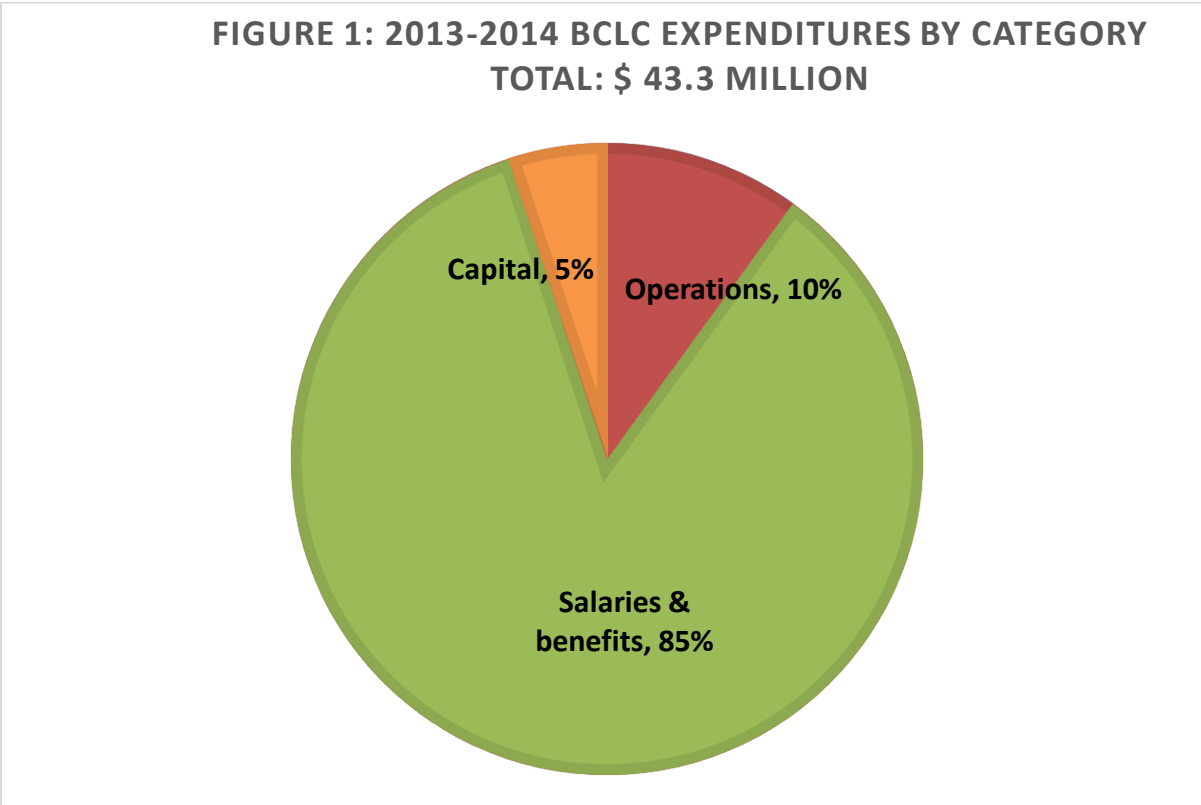
The analysis is based on statistical information about the flow of goods and services among different sectors of the economy. While the impacts can be assessed using many measures, in this analysis expenditure/income and employment multipliers are used to describe the magnitude of the economic impact. To appreciate how multipliers work, consider the expenditure of ten dollars at a local Kamloops café. The café will use the ten dollars to purchase necessary inputs, primarily food and labour. Services will be required from perhaps another local business to deliver food items to the café. In turn each business supporting the increase in production will have to buy a wide range of inputs, which will initiate further rounds of transactions between the businesses. In addition to these reverberations of inter-company sales and purchases is the increased consumption of households resulting from the increased wage payments in the economy. Eventually these reverberations, or rounds of spending, attributable to the original expenditure of ten dollars, will end because in each round portions of the money circulating will flow out of Kamloops as leakages in the form of import purchases, savings, and taxes. In sum, each purchase from a particular industry sector by a company or by a final consumer initiates a chain reaction throughout the economyⁱ.

The organization of this report is as follows. BCLC's expenditures and employment are described in section III, followed by an explanation of the economic impact of expenditures and employment in section IV. In section V, the social and cultural contributions of BCLC are discussed along with the contribution to the social economy in section VI. In section VII,

estimations of the 30 year impact of BCLC on the Kamloops economy are described, followed by conclusions in section VIII.

III. BCLC Expenditures & Employment

BCLC’s total spending in 2013-14 on activities associated with its head office location in Kamloops is an estimated \$43 million. As is illustrated in Figure 1, the largest expenditure component is salaries and benefits (85%), followed by operational spending (10%) and capital spending (5%). The non-salary operational expenses include such items as travel, accounting and legal fees, repairs and maintenance, utilities, office supplies, food services, and corporate sponsorship. Capital expenditures include such items as major repairs, computers, software, telephones, and furniture. These figures exclude taxes which would be remitted to the provincial and federal governments. These figures also exclude the host local government share of casino and community gaming centre revenue of over \$1.7 million which is not specifically tied to BCLC Kamloops offices.



The expenditures included in this analysis meet at least one or more of the following criteria: 1. the costs are specifically attributable to the BCLC Kamloops offices, 2. the costs are specifically incurred because the offices are located in Kamloops, and 3. the engagement of the specific vendor is related to the location of the BCLC Kamloops location. Other expenditures have been omitted from the analysis.

Many of the non-salary operational expenditures are made directly to businesses in Kamloops. Over \$2 million in 2013-14 spending was on goods and services provided by suppliers in Kamloops. These include goods and services such as auditing and legal services, food, staff training, rent, off-site storage, data transmission, and memberships, to name a few. Capital expenditures on goods and services from Kamloops suppliers totalled over \$1.9 million. In addition, a grant of over \$380,000 was paid to the City of Kamloops in lieu of taxes. It is reasonable to state that none of these expenditures would have been made in Kamloops if the BCLC offices were not located in Kamloops.

Many Kamloops businesses directly benefit from BCLC's head office location in Kamloops by bringing in higher revenues resultant from BCLC expenditures. BCLC's expenditures result in additional revenues and subsequent job creation for these businesses. The additional workers spend their income in the local economy leading to further additional revenues for Kamloops firms and more job creation, and so on down the supply chain.

Air travel on the part of BCLC employees and its contractors contribute to the revenues of the Kamloops Airport. It is estimated that approximately 300 round trips from Kamloops were made by Kamloops employees in 2013-14, excluding travel by contractors. A significant portion of contractor travel expenses which has been conservatively estimated at \$230,000 in 2013-14 was spent at hotels, restaurants, and taxis in Kamloops as well as on air travel to and from Kamloops.

BCLC employed 443 staff (approximately 426 FTEs) in Kamloops at the end of the 2014 fiscal year comprised of 374 permanent and 69 who were either temporary or on-call, as illustrated in Figure 2. BCLC is the eighth largest employer in Kamloops, moving up from eleventh in 1995, indicating the significance of the Kamloops location to the local economyⁱⁱ, as illustrated in Table 1.

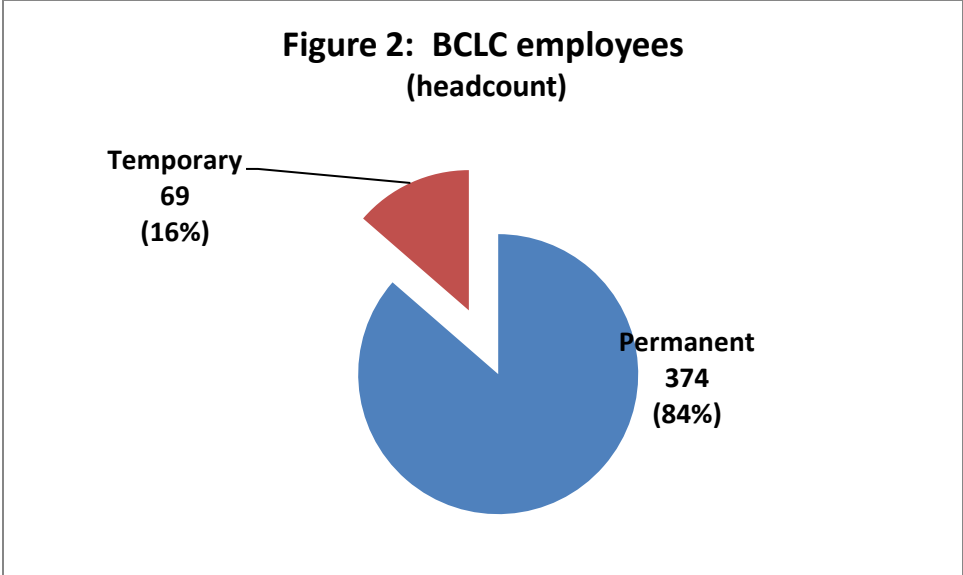


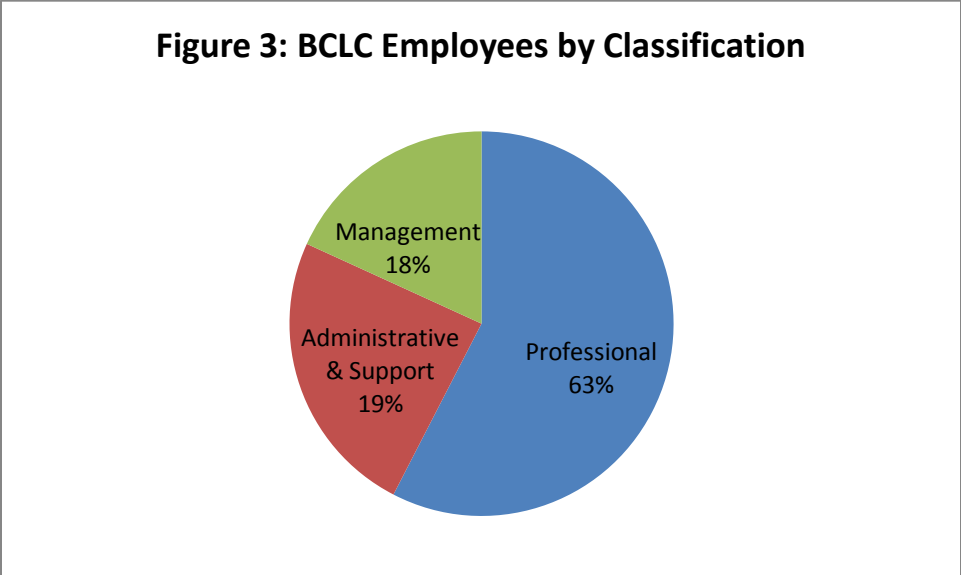
Table 1: Top Ten Employers in Kamloops

Employers	# employees (headcount)
1. Interior Health Authority	3,398
2. School District #73	1,636
3. Highland Valley Copper	1,380
4. New Gold	1,273
5. Thompson Rivers University	1,165
6. City of Kamloops	750
7. Horizon North	632
8. BC Lottery Corporation	443
9. CN Rail	378
10. Domtar	316

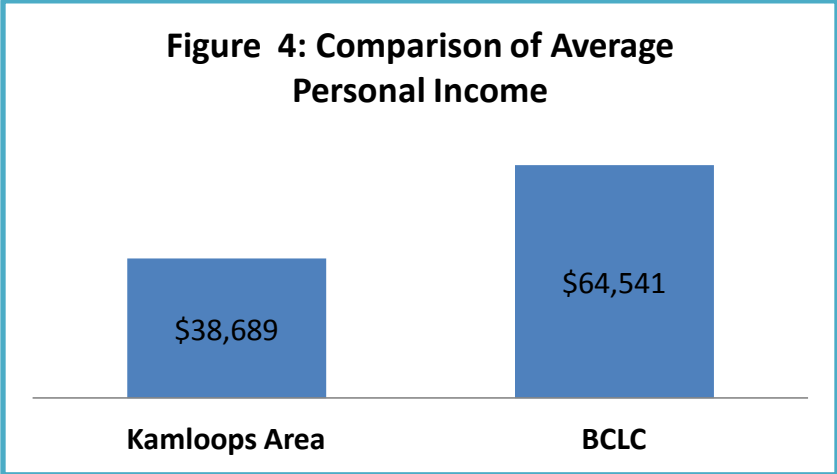
Sources: Venture Kamloops, 2014; BCLC

Close to two-thirds (63%) of the jobs are classified as professional which include, but are not limited to, the following positions: benefits analyst, data analyst, information and privacy analyst, internal auditor, knowledge specialist, legal services coordinator, quality assurance analyst, business analyst, database administrator, financial analyst, human resources analyst, operations specialist, procurement specialist, information security architect, solutions architect, and technology architect. As shown in Figure 3, almost one-fifth (19%) of the employees

provide administrative and support functions and less than one-fifth (18%) consist of managers, directors and a vice president. BCLC's presence in Kamloops has led to a rise in the diversity of employment opportunities in the area.



The total payroll including salaries and benefits for BCLC's Kamloops employees amounted to approximately \$37 million in 2013-14. The salaries of BCLC employees tend to be above the average incomes in Kamloops, as shown in Figure 4. The average salary (excluding benefits) of a BCLC employee in Kamloops is \$64,541 (2013-2014), compared to the average income of \$38,689ⁱⁱⁱ (2010) for a resident in the Kamloops area. Being the eighth largest employer in the city, BCLC's Kamloops location brings up the average income level in the area.



Many of the jobs at BCLC require skill sets necessitating post-secondary education. It is estimated that close to 96% of employees have at least some post-secondary education with 63% having a college or university degree, diploma, or certificate and 16% with a post-graduate degree such as a masters or doctorate. Comparing these to similar statistics for Kamloops where 57% of the population have a college or university degree, diploma, or certificate and 3.6% of the population have a post-graduate degree, it can be stated that BCLC's presence increases the average educational attainment levels in Kamloops^{iv}.

By increasing the average education levels in the local area, BCLC's Kamloops location indirectly contributes to the societal benefits of higher education. Some of the benefits of post-secondary education include greater net assets, higher growth in earnings, higher income during retirement, less reliance on Old Age Security benefits in retirement, a lower risk of experiencing low income, and a lower risk of unemployment^v. These benefits associated with higher education translate to positive returns to the Kamloops economy in terms of higher incomes leading to greater spending, higher government revenue from income and consumption taxes, and a lower demand for social safety net programs.

In addition, some socio-economic benefits are associated with communities with a higher proportion of post-secondary educated residents. For instance, higher education levels are associated with lower rates of crime leading to a safer and more attractive community^{vi}. Post-secondary education is also associated with better physical and mental health and greater longevity^{vii}. And higher education tends to lead to greater participation in society including such activities as volunteering, charitable giving, and voting participation^{viii}.

By providing quality employment in Kamloops, BCLC has played a role in building an economically sustainable community. It is estimated that 96% of Kamloops' BCLC employees live in the city of Kamloops while the remaining 4% live in nearby communities such as Sun Peaks and Chase. Over 80% of BCLC employees have lived in Kamloops for five years or more and close to 44% have lived in Kamloops for more than 20 years, lending to the stability of the population. The majority of employees have families who also work and live in Kamloops. The average household size of a BCLC employee is three. Approximately 87% of employees live in households with at least two people while over 60% live in households with more than two people.

Employee and Corporate Connections to Thompson Rivers University

It is estimated that approximately 66% of BCLC employees received at least some of their post-secondary education at Thompson Rivers University (TRU) in Kamloops or one of the institution's earlier identities, either University College of the Cariboo or Cariboo College^{ix}. Close to 28% received all their post-secondary education at Thompson Rivers University, including Thompson Rivers University's Open Learning division. These figures exemplify the strong relationship between BCLC and the Kamloops community. They also suggest that BCLC plays an important role by providing jobs for graduates of the local university.

BCLC participates in value-added activities for students. For instance, in 2013, Jim Lightbody, Interim President and CEO, participated in the School of Business and Economics' Business Kickstart 101 Dean's Speaker Series where he gave a talk to business students on leadership in marketing and product development. Vice-President Kevin Gass also gave a talk at the launch of the Business Kickstart 101 Series sharing his work experiences and knowledge with students. In the fall of 2013, eight BCLC professionals participated in a Career Path Information Session for students at TRU. In 2013-14 BCLC participated in TRU's coop program by providing practicum employment for three students. Jim Lightbody also devotes time as a member of the School of Business and Economics' Advisory Board to the Dean.

IV. Economic Impact of Expenditures and Employment

BCLC's total spending of \$43.3 million consists of operating expenditures and capital expenditures associated with business activities at their head office in Kamloops. The economic impact of these expenditures is estimated using an income multiplier and an employment multiplier. A discussion of the choice of multipliers precedes an explanation of the economic impacts.

The Multipliers

In determining an appropriate multiplier for this analysis, one must consider the leakages of spending from municipal regions the size of Kamloops. For this analysis, both an income multiplier and an employment multiplier will be used. Generally speaking, the smaller the population, the less diversified the economy and the greater the leakages or proportion of community purchases made outside the area. The degree of diversity of the Kamloops economy does not appear to have substantially changed since 1996, as indicated by little change in B.C. diversity indices^x, suggesting that the multiplier may not have changed significantly.

Given that 85% of spending is in the form of income to employees, it is appropriate to use income as the measurement of direct spending by BCLC in the Kamloops economy, thus we use an income multiplier^{xi}. The use of an income multiplier also signifies that most of local income is re-spent in the local economy.

Looking to past studies, the 1995 “The Economic Impact of the British Columbia Lottery Corporation on Kamloops and British Columbia” used an income multiplier of 1.4. More recent studies, such as the “Economic Impact Analysis: Thompson Rivers University” on the Kamloops region and “The Economic Impact of Thompson Rivers University’s International Students on the Kamloops Economy: 2012-13 Update” use income multipliers of 1.2^{xii} and 1.4^{xiii}, respectively. Based on this information, an income multiplier of 1.4 is considered appropriate for this analysis. As for the employment multiplier, both the past BCLC study and the recent TRU impact study use 1.5 which is also considered suitable for this analysis.

Economic Impact

Table 2 illustrates the impacts of BCLC expenditures on the Kamloops economy in 2013-14. Total expenditures of approximately \$43.3 million consist of salaries and benefits and other operational expenditures and capital expenditures in Kamloops. An estimated \$33.8 million of BCLC direct expenditures is purchased from direct suppliers in Kamloops and an estimated \$13.5 million is purchased from industries further back in the supply chain. The total income related to the existence of BCLC’s Kamloops offices is estimated at \$47.3 million in the local Kamloops economy, including the multiplier effect. The salaries and benefits of the employees is the most significant source of economic impact.

Table 2: Direct BCLC Expenditure in Local Economy in 2013-14

	Direct Expenditure	Local Expenditure	Direct Local Income generated	Total Income generated after multiplier
Salaries & Benefits	\$37,091,110	.80	\$29,672,888	\$41,542,043
Other Operational	\$4,323,014	.50	\$2,161,507	\$3,026,110
Capital	\$1,969,243	1.00	\$1,969,243	\$2,756,940
Total	\$43,383,367		\$33,803,638	\$47,325,093

The total employment impact of BCLC spending in Kamloops is an estimated 639 jobs consisting of 426 BCLC jobs and 213 indirect jobs, as shown in Table 3. The indirect jobs include those created as a result of BCLC spending in the local economy.

Table 3: Employment Impacts of BCLC

	Direct Employment (full-time-equivalents*)	Indirect Employment	Total Employment (including impact)
2013-14	426	213	639
* Direct FTEs are approximately 426 as of March 31, 2014			

V. Social and Cultural Contributions

BCLC has been as supporter of the arts community playing a pivotal role in the enrichment of the social and cultural life of the Kamloops community. Over \$50,000 in corporate sponsorship expenditures in 2013-14 are directly a result of BCLC’s head office location in Kamloops. These sponsorships are an important contribution to the Kamloops community and play a substantial role in the development and sustainability of vibrant cultural sector. Over the past 10 years, community support has been in the range of approximately \$50,000 to \$75,000 annually.

Along with the City of Kamloops, BCLC has co-sponsored Music in the Park since 1993. According to the City of Kamloops, Music in the Park is the longest running free music event in North America providing 60 nights of free concerts in Riverside Park every summer. BCLC’s contribution has allowed Music in the Park to raise the bar in terms of quality of entertainment. The free summer concerts are well attended and accessible to all with an average nightly attendance of 1,000 in the summer of 2013.

Other long time sponsorships include the Kamloops Art Gallery (KAG), the Kamloops Symphony, and Western Canada Theatre. BCLC has been providing support to the KAG for over 10 years. For the past five years, BCLC has sponsored “Free Thursdays” thereby increasing accessibility to the gallery as well as providing the gallery with an opportunity to increase memberships. According to the KAG, approximately 54% of monthly attendance occurs on “Free Thursdays” and many of the visitors are those who might not otherwise be able to afford an admission fee such as pre-school and day care groups, seniors groups, and university students. A rise in memberships at the KAG is, in part, attributable to BCLC’s support. The sponsorship support also allows the KAG to leverage support from other corporations in the community.

Sponsorship of the Kamloops Symphony has been on-going for over 20 years and has played a vital role in the sustainability of the symphony, which currently has a budget in the area of \$1 million. BCLC's sponsorship often supports a specific performance, but has supported various areas of need over the 20 plus years. The significance of BCLC's sponsorship is exemplified by the fact that there are not many large firms in Kamloops that can afford to provide support on a consistent basis. The Kamloops Symphony also leverages BCLC's contribution to obtain grants from other sources.

From time to time BCLC has also supported major sporting events in the city. For example, BCLC was a sponsor of the 2014 Tim Hortons Brier curling event held in Kamloops. In addition, fifteen BCLC staff volunteered their personal time at the Brier.

VI. Contribution to the Social Economy

BCLC employees actively support Kamloops' social economy through personal volunteer activities and charitable giving. An employee survey reveals that 47% of employees volunteered their personal time to non-profits and charitable organizations in Kamloops in 2013. While 31% of BCLC volunteers donated their time to one organization, 27% volunteered to two organizations and close to 42% to three or more organizations. These activities include unpaid help to schools, religious organizations, sports or community associations. Over 100 recipient organizations of employee volunteerism were identified in the Kamloops area, with the most frequently named being the Kamloops Minor Hockey Association, Kamloops Youth Soccer Association, the United Way and the Salvation Army. Those who volunteered devoted 80 hours, on average, in 2013. It is estimated that BCLC employees volunteered a total of 16, 800 hours to non-profit and charitable activities in Kamloops in 2013.

Close to 80% of BCLC employees make donations to non-profits and charitable organizations in Kamloops. In 2013, employee donors gave an average of \$463. It is estimated that BCLC employees contributed \$164,000 to non-profits and charities in Kamloops in 2013.

VII. An Estimation of the 30 Year Impact on the Kamloops Economy

The year 2015 marks the 30th anniversary of BCLC. The cumulative impact of BCLC's head office on Kamloops has been tremendous, both economically and socially. The cumulative impact can be described in terms of income and employment.

The total estimated impact of BCLC on the Kamloops economy in terms of income is \$1.1 billion over the 30 year period from 1985 to 2015. This 30-year total impact is a result of an estimated \$1.07 billion in total expenditures, including salaries and benefits, and \$322 million in direct local income generated in the Kamloops economy as a result of the multiplier effect. In terms of employment, BCLC's Kamloops' office has resulted in the creation of an estimated 3,969 additional worker years of employment in the local economy resulting in a total 30 year employment impact of an estimated 11, 906 worker years.

30 year income impact

Estimating the cumulative impact on the Kamloops economy involves making a number of assumptions about the relationship between the number of employees working in the Kamloops office, expenditures related to the operations of the Kamloops office, and the proportion of expenditures made in the local economy. Expenditure data for the first 10 years of operation (1985 to 1995) is taken from a previous impact report, "The Economic Impact of the British Columbia Lottery Corporation on Kamloops and British Columbia". It is assumed that, on average, 75% of expenditures of the Kamloops office were made in the local economy over the 30 year period. This estimation is considered conservative based on figures used in the present and past studies. First, 77% of the expenditures were made to local firms in 2013-14. Second, the 1995 impact study for the years 1985 to 1995 made the assumption that local expenditure was in the range of 70% to 90%. Next, expenditure data for the Kamloops office is estimated for the 18 years between 1995 and 2013 based on an assumption of linear trends in the ratio of expenditure to employee and using annual employment headcounts for every five year period. The expenditures in 2014-15 are forecasted using recent trends. The expenditure figures are adjusted for inflation by converting them to 2013 Canadian dollars using the Consumer Price Index^{xiv}. The multiplier of 1.4 is applied to all years, a reasonable assumption considering it is the multiplier used in the 1995 impact report and for the current 2013-14 data in section III of this report. Table 4 illustrates the calculation of the estimated total impact. For each of the 30 years, expenditures in 2013 dollars are shown in column 2, followed by the direct local income generated in column 3 (column 2 multiplied by 75%), and the multiplier effect in column 4 and finally, the total annual income generated impact in column 5. Over the thirty years in Kamloops, the total BCLC expenditures, including salaries and benefits, were comprised of an estimated \$1.07 billion, of which \$805 million were goods and services purchased from direct supplier industries in Kamloops, and an estimated \$322 million purchased from industries further back in the supply chain. The total impact is an estimated \$1.1 billion dollars in the Kamloops economy, as shown in Table 4.

Table 4: Estimated 30 Year Economic Impact on the Kamloops Economy: 1985 – 2015 (2013 dollars)

Year	Direct Expenditure*	Direct Local Income generated	Multiplier effect	Total Impact generated after multiplier
1985-86	17,893,714	13,420,286	5,368,114	18,788,400
1986-87	17,289,341	12,967,006	5,186,802	18,153,809
1987-88	24,540,280	18,405,210	7,362,084	25,767,294
1988-89	28,921,814	21,691,361	8,676,544	30,367,905
1989-90	27,505,229	20,628,922	8,251,569	28,880,491
1990-91	29,133,673	21,850,255	8,740,102	30,590,357
1991-92	32,143,048	24,107,286	9,642,914	33,750,201
1992-93	27,198,738	20,399,054	8,159,621	28,558,675
1993-94	33,082,836	24,812,127	9,924,851	34,736,978
1994-95	33,244,840	24,933,630	9,973,452	34,907,082
1995-96	34,323,471	25,742,603	10,297,041	36,039,645
1996-97	35,402,102	26,551,577	10,620,631	37,172,207
1997-98	36,480,732	27,360,550	10,944,220	38,304,770
1998-99	37,559,363	28,169,523	11,267,809	39,437,332
1999-00	38,637,994	28,978,496	11,591,398	40,569,895
2000-01	38,754,030	29,065,523	11,626,209	40,691,732
2001-02	38,870,066	29,152,550	11,661,020	40,813,570
2002-03	38,986,102	29,239,577	11,695,831	40,935,408
2003-04	39,102,138	29,326,604	11,730,642	41,057,246
2004-05	39,218,175	29,413,631	11,765,453	41,179,084
2005-06	40,296,805	30,222,604	12,089,042	42,311,646
2006-07	41,137,917	30,853,438	12,341,375	43,194,813
2007-08	41,979,029	31,484,272	12,593,709	44,077,981
2008-09	42,820,140	32,115,106	12,846,042	44,961,148
2009-10	43,423,733	32,567,800	13,027,120	45,594,920
2010-11	43,413,641	32,560,231	13,024,093	45,584,324
2011-12	43,403,550	32,552,663	13,021,065	45,573,728
2012-13	43,39,3459	32,545,094	13,018,038	45,563,132
2013-14	43,383,368	32,537,526	13,015,010	45,552,536
2014-15	42,382,478	31,786,859	12,714,744	44,504,603
TOTAL	\$1,073,921,822	\$805,441,366	\$322,176,546	\$1,127,617,913

*Direct expenditure data is estimated

30 year employment impact

Over the 30 years in Kamloops, BCLC employees have spent a significant portion of their salaries in the Kamloops area. These expenditures resulted in revenues for Kamloops firms, thus increasing their income and creating employment for other workers. The additional workers subsequently spent their income in the local economy leading to additional revenues for Kamloops firms and more new employment, and so on down the supply chain. Subsequent spending leads to additional but ever-decreasing impacts on the local economy due to spending leakages outside the community limiting the multiplier impact.

An estimation of the 30-year employment impact is based on an employment multiplier of 1.5, the same employment multiplier used in section III and in the previous BCLC impact study in 1995. Table 5 shows the direct, indirect and total employment impact of BCLC activity in Kamloops over the 30-year period from 1985 to 2015. Direct employment in column 2 is headcount data for the end of each fiscal year over the 30-year period. The headcount data is then converted to full-time-equivalents (FTEs) based on the assumption that one headcount is equal to 0.94 full-time equivalent given that the vast majority of BCLC employment positions in the Kamloops office are full-time. Over the 30-year life span of BCLC, it is estimated that there have been a total of 7,937 full-time-equivalent worker years of Kamloops employment generated by the corporation. The employment has in turn resulted in the creation of approximately 3,969 additional worker years within the local economy yielding a total 30 year employment impact of an estimated 11, 906 worker years.

**Table 5: Estimated 30 Year Employment Impact on the Kamloops Economy: 1985 – 2015
(# worker years)**

Year	Direct Employment	Indirect Employment	Total Employment Impact
1985-86	117	59	176
1986-87	142	71	213
1987-88	158	79	237
1988-89	167	84	251
1989-90	176	88	264
1990-91	189	95	284
1991-92	203	102	305
1992-93	211	106	317
1993-94	219	110	329
1994-95	224	112	336
1995-96	221	111	332
1996-97	220	110	330
1997-98	237	119	356
1998-99	276	138	414
1999-00	290	145	435
2000-01	299	150	449
2001-02	323	162	485
2002-03	318	159	477
2003-04	294	147	441
2004-05	299	150	449
2005-06	289	145	434
2006-07	296	148	444
2007-08	339	170	509
2008-09	403	202	605
2009-10	424	212	636
2010-11	426	213	639
2011-12	411	206	617
2012-13	450	225	675
2013-14	443	222	665
2014-15	380	190	570
Total headcounts)	8,444	4,222	12,666
TOTAL (FTEs)	7,937	3,969	11,906

Note 1: Direct employment figures are headcounts as of March 31st for each fiscal year except for 2014-15 which is based on employment headcounts as of January 1, 2015.

Note 2: The total FTEs are estimated based on the assumption that one headcount is equal to 0.94 FTE.

VIII. Conclusion

The activities associated with BCLC and its employees in 2013-14 have had a significant positive impact on the local economy as well as on the social economy and social and cultural life in the community. The presence of BCLC in Kamloops had an economic impact of \$47.3 million in the local economy in 2013-14. In terms of job creation, it is estimated that for every two jobs created at BCLC, one additional job is created in the Kamloops area. BCLC is the eighth largest employer in Kamloops, pays above average salaries, and creates employment opportunities for professionals including graduates from Thompson Rivers University.

BCLC employees are active members in the Kamloops community donating an estimated 16,800 personal volunteer hours and \$164,000 to local non-profits and charities in 2013-14. Through corporate sponsorship BCLC has raised the bar of the arts community by contributing to the quality and accessibility of performances. For instance, BCLC sponsorship has allowed the annual Music in the Park event to increase the quality of entertainment and has permitted the Kamloops Art Gallery to offer “Free Thursdays”, making the gallery more accessible to the public.

Going into its 30th year of operation in Kamloops leads to reflections on the cumulative impacts of BCLC on Kamloops society. For the 30-year period from 1985 to 2015, the total cumulative economic impact is estimated at \$1.1 billion. The cumulative impact over the same 30-year period in terms of employment is estimated at 11,906 worker years of employment. Although many other socio-economic and cultural impacts are not easily quantifiable, qualitative information suggests the cumulative impact is substantial.

IX. References

Androkovich, R., R. Olesen, J.R. Seldon, and G. Tarzwell (1995). The Economic Impact of the British Columbia Lottery Corporation on Kamloops and British Columbia.

Bekkers, R.(2005). Participation in Voluntary Associations: Relations with Resources, Personality, and Political Values, *Political Psychology*, 26(3),439-454.

Berger, Barbara. City of Kamloops – personal communication (December, 2014)

British Columbia Local Area Economic Dependencies 2006.

BCLC 2013-2014 Annual Service Plan Report. http://issuu.com/bclc-onlinelibrary/docs/bclc_2013-14_annual_report?e=1760950/8584471

BC Statistics (2013). BC Input-Output Model Report: Operating, Capital, Student and Visitor Expenditures at Thompson Rivers University.

Chrumka, Margaret. Kamloops Art Gallery – personal communication (November, 2014)

Davis, H.C. (1993). *Regional Economic Impact Analysis and Project Evaluation*. Vancouver: UBC Press.

Fellows, C.M., G. Flanagan, and S. Shedd (1997). *Economic Issues: A Canadian Perspective*. Toronto: McGraw-Hill.

Hossain, B. & L. Lamb (2012). Price Elasticities of Charitable Giving across Donation Sectors in Canada? *ISRN Economics*, vol. 2012, article ID 421789.

Human Resources and Social Development Canada (2007). “What difference does learning make to financial security?” Retrieved from http://www4.hrsdc.gc.ca/rappports-reports/s1_eng.pdf.

Humphreys, Kathy. Kamloops Symphony – personal communication (November, 2014)

Lamb, Laura (2007). “Towards an Economic Theory of Community Economic Development” In J. Loxley. (Ed.), *Transforming or Reforming Capitalism: Towards a Theory of Community Economic Development* (57-86). Winnipeg: Fernwood Publishing.

Levin, Henry, C. Belfield, P, Muennig, and C. Rousse (2006). The Costs and Benefits of an Excellent Education for All of America’s Children, Institute for Research and Reform in Education. Retrieved from <http://www.irre.org/publications/costs-and-benefits-excellent-education-all-americas-children>.

Murray, Joy (2009). The wider social benefits of higher education: What do we know about them? , *Australian Journal of Education*, 53 (3) , 230-244.

Riddell, W.C. (2006).The Impact of Education on Economic and Social Outcomes: An Overview of Recent Advances in Economics, Canadian Policy Research Network.

Seldon, Zena A. (2013). Economic Impact of Thompson Rivers University's International Students on the Kamloops Economy: 2012-2103 Update.

Sironi, Maria (2012). Education and Mental Health in Europe, *International Journal of Mental Health*, 41(3), 79-105.

Statistics Canada, Cansim Table 326-0021.

Statistics Canada, National Household Survey 2011.

Sudmant, Walter (2009). The Economic Impact of the University of British Columbia.

Venture Kamloops, 2014, retrieved from website December, 2014.
<http://venturekamloops.com/labour-force/major-employers/>

ⁱ Lamb, 2007; Davis, 1993

ⁱⁱ Venture Kamloops website, October 2014; Androkovich, Olesen, Seldon, and Tarzwell, 1995

ⁱⁱⁱ 2011 National Household Survey, Statistics Canada.

^{iv} 2011 National Household Survey, Statistics Canada.

^v Human Resources and Social Development Canada (2007): "What difference does learning make to financial security"

^{vi} Murray, 2009; Levin, Belfield, Muennig & Rousse, 2006

^{vii} Sironi, 2012; Murray, 2009; Riddell, 2006

^{viii} Murray, 2009; Bekkers, 2005; Hossain & Lamb, 2012; Riddell, 2006; Fellows, Flanagan & Shedd, 1997.

^{ix} Estimation is based on BCLC employee survey data collected in 2013.

^x British Columbia Local Area Economic Dependencies 2006.

^{xi} As described in "The Economic Impact of the University of British Columbia by W. Sudmant 2009

^{xii} A multiplier of 1.2 is derived from custom input-output analysis results from BC Statistics.

^{xiii} A multiplier of 1.4 is used for international student spending excluding tuition.

^{xiv} Statistics Canada. Cansim Table 326-0021