



In the Shadow of the Hills: Socio-Economic Struggles in Kamloops

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Forewords

Socio-economic issues are a staple for politicians and journalists. As a newspaper editor and sometime civic politician, I've written about them and helped set public policies on them throughout my life. Urban planning, street conflict, housing, healthcare, crime – you name it, they all appear in media headlines, editorials and thick files on the desks and shelves of policy influencers. So when Dr. Peter Tsigaris asked me to read and comment on a book compiled by his students on socio-economic issues in Kamloops, I was delighted at the opportunity. I've had the pleasure of working with Peter on other projects and am well aware of the respect in which he's held at Thompson Rivers University and of the thoroughness and expertise with which he approaches his subject matter, so I expected this one to be of high quality. I wasn't disappointed. The aptly named *In the Shadow of the Hills – Socio-economic Struggles in Kamloops* tackles several key challenges facing this city we know and love as Canada's Tournament Capital.

Some chapters offer new insights into long-standing issues; others break new ground. All make us think about the socio-economics of Kamloops in new ways. At a time when a plethora of such issues confronts the resources of the community, often evading solutions, and as denizens grapple with decisions on new amenities and constructing a vision for the future, this work is especially opportune. Communities like ours carry a heavy burden of problems to solve and

opportunities to meet. Many of them will never be completely solved or seized. Like the old game of whack-a-mole, or bobbing for apples, just as progress is being made on one, another pops up. And improvement is often superficial. When we wrestle with such issues, of course, we look for benefits. But getting there takes money. The availability of that capital depends on the economic health of the community, so the local economy is a major influence on how we prioritize and approach our challenges.

The students of Peter Tsigaris' class clearly identify their choices to represent the environment in which we live, then basically ask, "What if we tried this option? What would it accomplish? What would it cost?" Whether it be hot-button topics or riding the bus every day, the students put them under a microscope — from healthcare to the economic impact of COVID and neighbourhood unemployment.

They're undeterred by what we'd call traditional thinking. For example, it's long been common wisdom that while there might be certain benefits to Kamloops having its own municipal police force instead of contracting the job to the RCMP, it would be much too costly. One student does a thoughtful cost-benefit analysis that challenges that assumption. Another takes on the highly current, and divisive, question of a new performing arts centre, delving into how much taxpayers of varying incomes would be willing to pay in annual taxation. Yet another examines the disparity in performance between public and private schools and the role played by low-income neighbourhoods. In fact, throughout the book, the authors typically take things right down to the

neighbourhood level and onto the kitchen table. Without the resources that would be available to governments, funded agencies or corporate experts to accomplish their work, the students make ample use of existing studies, statistics and interviews with people involved in the issues. The chapter on homelessness sums up the general approach very well, referencing “a synthesis of empirical research, policy analysis and firsthand narratives.”

I hope those involved in the varied socio-economic issues raised in “Shadow of the Hills” – be they community advocacy groups and their leaders, chamber of commerce and business improvement associations, the many boards, committees and agencies tasked with finding answers, but especially civic lawmakers – read this book and take it to heart.

– Mel Rothenburger.

Mel Rothenburger, a distinguished resident of Kamloops, British Columbia, has made lasting contributions in journalism and local politics. Arriving in 1970, he dedicated decades to shaping the community as the editor of the Kamloops Daily News, where his insightful editorials garnered wide respect. Beyond journalism, Rothenburger’s tenure as mayor of Kamloops was marked by significant civic improvements, including the construction of the Tournament Capital Centre, a key facility that highlights his vision and commitment to enhancing

sports and recreational infrastructure to the community. The Centre to this date provides a vibrant, high quality of life to an inclusive, healthy, and a diverse community. The project not only boosted local sports but also positioned Kamloops as a prime location for hosting sporting events, contributing greatly to the local economy and community spirit. After his mayoral term and his retirement from The Kamloops Daily News, he wrote commentary for CBC and CFJC-TV for several years, and continues to publish his blog, “The Armchair Mayor,” which tackles issues pertinent to Kamloops residents, such as those in this book. Rothenburger’s service has earned him several honours, such as the Jack Webster Foundation Award, the Queen’s Golden Jubilee Medal, the Rotary International Paul Harris Fellowship and the Heritage Society of BC Award for Outstanding Achievement, recognizing his profound influence on journalism and community development in Kamloops. His legacy continues to shape the community positively to this date.” More information can be found at: <https://armchairmayor.ca/about/>

Kamloops, British Columbia is a mid-sized Canadian city that faces challenges common to many other similar communities across Canada, but one very positive attribute of this interior community is the presence of a highly regarded centre of post secondary learning – Thompson Rivers University. As a former faculty member that went on to become councillor then

mayor of Kamloops followed by eight years as a provincial member of the Legislative Assembly and cabinet minister, I feel honoured to write the forward for this collection of studies in economics.

From public transit and homelessness, to policing and the importance of culture, these analyses plumb the depths of the issues facing many modern cities and provide students with an insight into the complexities of the intersection of economics, politics and sociology. In my public service I tried to tackle many of the subject covered here and I find these works thoughtful and insightful, and perhaps even a good start for current elected representatives to follow.

Congratulations to Dr. Tsigaris and his students for taking this project on and contributing to the very community that has seen so many other benefits from TRU.

— Terry Lake.

Dr. Terry Lake began his career as an elected representative after working as a veterinarian and teaching animal health technology. In 2009, he was elected as a member of the British Columbia legislature for the Kamloops North Thompson riding after serving as a council member and mayor of Kamloops. From 2011 to 2013, he was the Environment Minister of British Columbia, and from 2013 to 2017, he was the Minister of Health. The Canadian Public

Health Association recognized him with the Public Health Hero Award in 2017 in recognition of his innovative research on the opioid overdose epidemic. He is the winner of the British Columbia Veterinary Medical Association Award of Merit as well as the University of Saskatchewan Alumni Achievement Award. From 2017 to 2019, Terry served as Vice President of Corporate Social Responsibility at Hexo Corporation, one of the biggest cannabis producers in Canada. Terry is currently the chief executive officer of the B.C. Care Providers Association. Terry and his wife, Lisa, reside in Kamloops, British Columbia, and have three grown daughters.

Accessibility

The web version of *In the Shadow of the Hills: Socioeconomic Struggles in Kamloops* by Tsigaris et al., has been designed to meet Web Content Accessibility Guidelines 2.0, level AA. In addition, it follows all guidelines in Appendix A: Checklist for Accessibility of the Accessibility Toolkit – 2nd Edition.

Includes:

- **Easy navigation.** This resource has a linked table of contents and uses headings in each chapter to make navigation easy.
- **Accessible videos.** All videos in this resource have captions.
- **Accessible images.** All images in this resource that convey information have alternative text. Images that are decorative have empty alternative text.
- **Accessible links.** All links use descriptive link text.

Accessibility Checklist

Element	Requirements	Pass
Headings	Content is organized under headings and subheadings that are used sequentially.	Yes
Images	Images that convey information include alternative text descriptions. These descriptions are provided in the alt text field, in the surrounding text, or linked to as a long description.	Yes
Images	Images and text do not rely on colour to convey information.	Yes
Images	Images that are purely decorative or are already described in the surrounding text contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information.)	Yes
Tables	Tables include row and/or column headers with the correct scope assigned.	Yes
Tables	Tables include a title or caption.	Yes
Tables	Tables do not have merged or split cells.	Yes
Tables	Tables have adequate cell padding.	Yes
Links	The link text describes the destination of the link.	Yes
Links	Links do not open new windows or tabs. If they do, a textual reference is included in the link text.	Yes
Links	Links to files include the file type in the link text.	Yes
Video	All videos include high-quality (i.e., not machine generated) captions of all speech content and relevant non-speech content.	Yes
Video	All videos with contextual visuals (graphs, charts, etc.) are described audibly in the video.	Yes
H5P	All H5P activities have been tested for accessibility by the H5P team and have passed their testing.	Yes
H5P	All H5P activities that include images, videos, and/or audio content meet the accessibility requirements for those media types.	Yes
Font	Font size is 12 point or higher for body text.	Yes
Font	Font size is 9 point for footnotes or endnotes.	Yes
Font	Font size can be zoomed to 200% in the webbook or eBook formats.	Yes

Known Accessibility Issues and Areas for Improvement

Some tables may use merged cells, but they have been structured to work properly with screen readers.

Adapted from the Accessibility Toolkit – 2nd Edition by BCcampus, licensed under CC-BY.

Other Formats Available:

In addition to the web version, this book is available in a number of file formats, including PDF, EPUB (for eReaders), and various editable files. The Digital PDF has passed the Adobe Accessibility Check.

Acknowledgments

The Open Press



The Open Press combines TRU's open platforms and expertise in learning design and open resource development. TRU Open Press supports the creation and reuse of open educational resources, while encouraging open scholarship and research.

Land Acknowledgement

Thompson Rivers University (TRU) campuses are situated on the traditional lands of the Tk'emlúps te Secwépemc (Kamloops) and the T'exelc (Williams Lake) within Secwepemcúl'ecw, the traditional and unceded territory of the Secwépemc. The rich tapestry of this land also encompasses the territories of the St'át'imc, Nlaka'pamux, T̓silhqot'in, Nuxalk, and Dakelh. Recognizing the deep histories and ongoing presence of these Indigenous peoples, we express gratitude for the wisdom held by this land. TRU is dedicated to fostering an inclusive and respectful environment, valuing education as a shared journey. The TRU Open Press, inspired by collaborative learning on this land, upholds open access principles, and freely accessible education for all.

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OER Adoption Form

Please consider filling out a survey about this textbook to help us better understand how it's used and fits with the needs of our readers.

Dedication

To all my students over the past 35 years,

This book is dedicated to each of you who have journeyed through the fascinating world of economics with me. Your curiosity, diligence, and enthusiasm have not only enriched our classroom but have also profoundly impacted my career and thinking. Thank you for being a part of my academic voyage, for sharing your insights, and for continuing to inspire the work that goes into these pages.

With gratitude and admiration,

Panagiotis (Peter) Tsigaris

Introduction to the Book

This is the first book I am writing jointly with my undergraduate students in the 2024 Winter/Spring semester. It is about socioeconomic issues in Kamloops. This book evolved from a fourth-year undergraduate capstone course, ECON 4980, at Thompson Rivers University (TRU), which was assigned suddenly by my Chair. It was also cross-listed as a political studies course, POLI 4980. The course is entitled “Capstone.” There were eight students registered in the course. These are Alaa Award, Colin Forbes, Patrick Izzet, Kris Kadaleevanam, Garima Mehta, Samreena Noor, Olivia Simms, and Ashley Thomson.

I was unsure how to teach this course since the topics covered were not defined. I was given the general description of what capstone means and the course description in the calendar.

Capstone at TRU means that graduates are expected to reflect on their academic experiences, integrate their learning, and apply it to their lives outside the classroom, such as graduate school or work, in the capstone course. Capstone courses are supposed to be taken in a baccalaureate student’s final 30 credits. Students must synthesize, integrate, demonstrate, and expand on TRU knowledge in a capstone course. In addition to program learning outcomes, students must reflect on their learning related to the four general education themes (Connection, Engagement, Exploration, and Local-to-Global) and their degree/major.

The course description states that students must synthesize, sharpen, and apply their studies to investigate an issue. Students are expected to create a final project that reflects their personal and professional goals, social responsibility, and intercultural awareness of political and economic issues, relations, and tensions. In their project presentations, students must collaborate and communicate effectively to propose interdisciplinary solutions to political and economic issues. Students must consider how to integrate and use their knowledge of political, international, and economic issues to promote human security, global prosperity, and justice and peace when studying economics and politics today.

I altered the learning outcomes to be related to the research we undertook. It stated that students should be able to use a variety of skills and knowledge after this course. They will contextualize local issues using relevant theoretical frameworks, concepts, theories, philosophies, and frameworks. Students will hypothesize and solve local problems using theoretical, ethical, and communicative knowledge. Community partnerships and primary and secondary data will help solve these issues. Solutions will be assessed for immediate and long-term feasibility, focusing on learning and social responsibility. Self-directed research will help students synthesize program knowledge and communicate their findings. Presentation, justification, and demonstration of results in a professionally standard report or presentation are expected, along with professional communication and collaboration skills with peers, faculty, and experts. Finally, students will evaluate their progress in

TRU's educational pillars — Connection, Engagement, Exploration, and Local-to-Global.

During the first day of classes, I met with the students and discussed with them what they would like to investigate. I suggested to them to write a book together about the socioeconomic challenges our community faces, and they all agreed it was a great idea. Hence, we agreed that the course will focus on research of their choice about a local issue of importance to the city of Kamloops and its residents. Each of the eight students and I were to complete a chapter in a Pressbook within the semester and present our findings at the undergraduate research conference held in March 2024, which we did. The course was in seminar format, featuring a combination of brief lectures, mainly class discussions, helping students with inquiries, and student presentations showing their progress. We even went several times to the Den, a pub on campus, to discuss our research progress! My students submitted drafts throughout the semester, and I provided feedback to improve their research. This review process improves their research and the final output. The product is this book featuring issues our community faces and potential solutions.

During the second lecture day, we brainstormed issues that Kamloops is facing and came up with a preliminary list that included the shortage of family doctors, school infrastructure and capacity issues, homelessness, sports facilities, performance arts centre, housing affordability, crime, air quality, wildfires, the value of trees, drought-water scarcity, hospital cancer centre, walk-in clinics and sidewalks in the

north shore (see **Figure 1**). As we continued the discussion, each one of us selected one issue to explore:

- I decided to explore the factors that influence unemployment in the 25 neighbourhoods.
- Alaa was interested in doing research on the factors that influence the quality of elementary schools.
- Colin rides the public bus and was interested in examining the challenges of the public transportation system in Kamloops.
- Patrick wanted to compare RCMP police versus municipal police and hybrid systems.
- Kris examined the housing affordability of international students and the importance of the homestay program.
- Garima took on the challenge of looking into homelessness.
- Sam took on the contentious issue of the performance arts centre.
- Olivia explored the employment income inequality during the 2020 COVID-19 relative to the 2019 year to examine if transfer payments impacted the income distribution.
- Ashley examined the economic cost of waiting times for surgery in Kamloops.

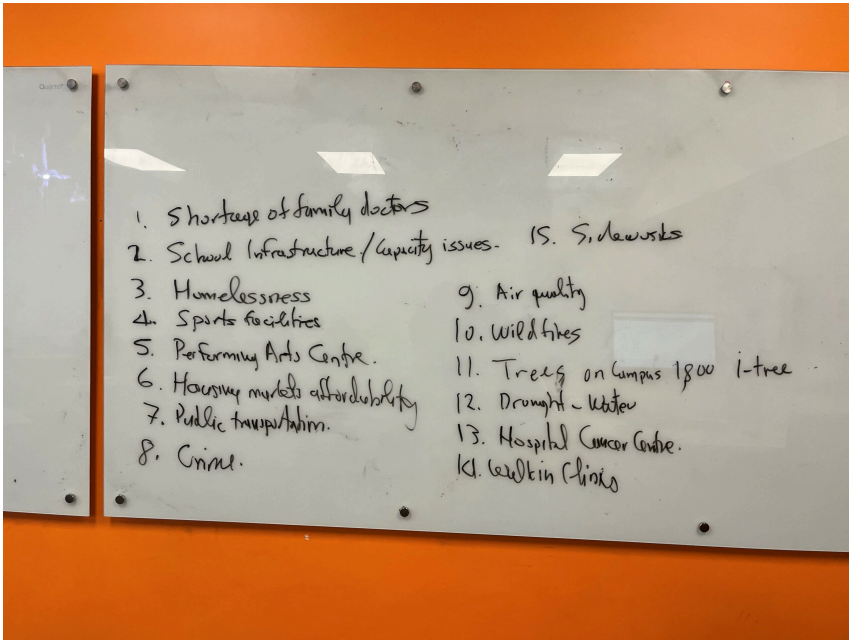


Figure 1: Brainstorming issues to research in class. CC BY-NC-SA 4.0

We used primary and secondary data we received from TRU ethics approval to carry out our research. The application file is No: 103773, and the project title is *Insights and Solutions for Local Contemporary Issues*. To get ethics approval, we all successfully completed the course on research ethics based on the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2: CORE 2022).

The 19th annual TRU Undergraduate Research & Innovation Conference took place on March 25–28, 2024. We all presented our preliminary findings and received great feedback from other participants. Students from all programs and undergraduate stages present their work at the

conference for the TRU and Kamloops community. The conference, organized by Elizabeth Rennie and her team, features poster sessions and lectures.



Figure 2: From left to right: Kris Kadaleevanam, Peter Tsigaris, Olivia Simms, Colin Forbes, Alaa Awad, Garima Mehta, Patrick Izzet, Ashley Thomson, and Samreena Noor. CC BY-NC-SA 4.0

I hope you will find the book fascinating, and it will help our community assess and deal with these important socioeconomic issues and struggles.

Dr. Panagiotis (Peter) Tsigaris, May 15th
2024



Media Attributions

Figure 1: “Brainstorming issues to research in class” by the author is under a CC BY-NC-SA 4.0 license.

Figure 2: “From left to right: Kris Kadaleevanam, Peter Tsigaris, Olivia Simms, Colin Forbes, Alaa Awad, Garima Mehta, Patrick Izzet, Ashley Thomson, and Samreena Noor” by the author is under a CC BY-NC-SA 4.0 license.

I. Introduction

The city of Kamloops, like many communities, faces numerous socioeconomic challenges that affect various aspects of its residents' lives. This book, *In the Shadow of the Hills: Socioeconomic Struggles in Kamloops* presents a comprehensive examination of these challenges, exploring their origins, impacts, and potential solutions across ten detailed chapters.



Figure 1: Sundown on the city of Kamloops (Alan Levine/Flickr) CC BY 2.0

Each chapter explores a specific aspect of Kamloops' socioeconomic environment, providing insights and analyses

to foster a deeper understanding of the city's unique situation.

Inclusive Education: Ensuring Equal Opportunities for All Students in Kamloops

Alaa Awad explores the factors that influence the quality of elementary schools and the role of parental involvement in such education within Kamloops. It quantifies the economic value of parents' contributions to their children's schooling and discusses the challenges and successes of ensuring equal educational opportunities for all students.

Route Optimization: Enhancing Efficiency, Reliability, & Accessibility

Colin Forbes conducts a comprehensive analysis of the public transportation system in Kamloops, discussing its current inefficiencies, the economic benefits of improving the system, and the various challenges it faces. It aims to offer insights into how enhancing public transit can lead to better environmental outcomes, economic gains, and improved quality of life for residents.

Transitioning to Local Authority: Practical Steps & Challenges

Patrick Izzet explores and compares the economic implications of different policing models for Kamloops, focusing on the transition from the RCMP to a local police force, and explores a hybrid system. It evaluates the cost-effectiveness, community engagement, and potential long-term benefits of establishing a municipal police authority.

A Home Away from Home: Exploring Accommodation Challenges for International Students

Kris Kadaleevanam examines the accommodation

challenges faced by international students in Kamloops, particularly at Thompson Rivers University. It discusses the impact of housing instability on students' academic performance and well-being and considers the effectiveness of homestay programs as a potential solution.

Surviving the Streets: Unpacking the Economics of

Homelessness

Garima Mehta analyzes the contemporary issue of homelessness in Kamloops. It explores the root causes, societal impacts, and potential solutions to reduce homelessness, including policy recommendations and community initiatives aimed at supporting vulnerable populations.

Cultural Alchemy: Navigating the Economic Challenges in the Performing Arts Arena

Samreena Noor examines the economic and cultural impacts of the proposed performing arts center in Kamloops. It discusses the potential benefits of the center on the local economy and community life, emphasizing the role of philanthropy and public support in cultural development.

Lorenz Curve Analysis for Income Inequality in Kamloops

Olivia Simms scrutinizes inequality in Kamloops by investigating changes in income distribution and the role of government transfer payments, in the context of pre- and during the COVID-19 pandemic in 2020. This chapter provides a critical look at the impact of transfer payments on economic disparities during the 2020 COVID-19 pandemic relative to the 2019 calendar year.

The Price of Patience: Examining Healthcare Waiting Times in

Kamloops

Ashley Thomson addresses the pressing issue of healthcare wait times in Kamloops, exacerbated by the COVID-19 pandemic. The analysis focuses on measuring the economic cost of waiting time and the strain it has on the local hospital, highlighting the broader implications for public health and economic productivity.

Dividing Lines: Understanding Kamloops Neighbourhood Unemployment Rates

Panagiotis Tsigaris provides an in-depth analysis of unemployment rates across 25 neighborhoods in Kamloops. The chapter explores the socioeconomic and demographic factors affecting these rates and offers policy recommendations aimed at reducing high unemployment areas. Factors such as educational attainment, family demographics, ethnic diversity, and public transportation availability are shown to significantly impact unemployment. This chapter concludes by discussing the importance of addressing these socioeconomic variables to improve employment opportunities across Kamloops.



Figure 2: City of Kamloops panorama from Mount Dufferin (Murray Foubister/Flickr) CC BY-SA 2.0

Each chapter of *In the Shadow of the Hills: Socioeconomic*

Struggles in Kamloops not only highlights specific challenges but also serves as a call to action for policymakers, community leaders, and residents. By providing a detailed exploration of economic issues, this book aims to inspire informed decision-making and proactive community involvement to address and overcome the economic struggles of Kamloops.

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Figure 2: “0I7A2448-Pano.jpg” by Murray Foubister (2016), via Flickr, is used under a CC BY-SA 2.0 license.

2. Bridging the Gap: Ensuring Equal Opportunities for All Students in Kamloops

ALAA AWAD

Introduction

In the scenic city of Kamloops, nestled in the heart of British Columbia, the community's vibrancy is mirrored in its diverse educational landscape of elementary schools. This chapter explores the disparities in elementary education across the city, aiming to engage community members and spark meaningful dialogue. This investigation is driven by a critical question: Does the type and location of a school within different neighbourhoods influence the educational opportunities available to its students? Given Canada's commitment to equitable access to quality education, this inquiry is not only relevant but essential.

Literature Review

Quality education, particularly within elementary schools, provides benefits that ripple through secondary and eventually post-secondary or vocational schools, enhancing not just academic outcomes but the community at large (Patrinos, 2016). Investing in educational quality, both in public and independent schools, not only fosters better student performance but also cultivates civic engagement, reduces crime rates, and strengthens the local economy (Breton, 2008; Patrinos, 2016). This exemplifies the concept of positive externalities, where the benefits of education extend far beyond the classroom. These external benefits are not captured by the market, and education would be severely under-provided without government interference, which supports the sector through subsidies and mandates that all children receive elementary (primary) schooling.

Furthermore, educational researchers like Ansari and Pianta (2018) have demonstrated that high-quality school environments are crucial for sustaining the benefits of early educational investments. This highlights the importance of maintaining exemplary educational settings throughout elementary schooling. Kamloops is host to several elementary education options managed by School District 73, encompassing 29 unique schools (British Columbia Government, 2024). These range from traditional English neighbourhood public schools (19) to specialized 'public schools of choice' (5) that focus on arts, science, French immersion, and Montessori methods. Studies, including those

by the Heritage Foundation and the Cato Institute, suggest that these specialized programs significantly enhance student outcomes (Schwalbach, 2019; DeAngelis. 2018). This chapter seeks to understand how these findings translate into the educational landscape of Kamloops, examining if such specialized education systems can truly level the playing field across diverse neighbourhoods.

Moreover, the presence of independent schools (5) – private, non-public schools that are not part of the public school district – adds another layer to the study. Despite their lower numbers, these schools have a high success rate in educational outcomes, as discussed by research from Lefebvre & Merrigan (2022) and Hazeltine and Hernandez (2015). This aspect of the research will explore whether the perceived academic advantages of private schooling hold true in the context of Kamloops, providing a comprehensive view of the educational dynamics at play. The primary tool for this exploration is the Fraser Institute School Scores, which incorporates results of the Grade 4 and 7 Foundation Skills Assessment (FSA) (Fraser Institute, 2022). This annual evaluation offers insights into student abilities across the province in key areas such as numeracy and literacy. Alongside these scores, we will consider socioeconomic factors like parental involvement and household income, which have been extensively shown to influence educational success (American Psychological Association, 2010; Li et al., 2019; Simard-Duplain & St-Denis, 2020; Sartor, 2022).

This research aims to bridge the educational divide in Kamloops by suggesting strategies that counteract

socioeconomic disparities and promote educational excellence across all schools. By examining the interplay between demographic characteristics, socioeconomic status, and educational quality, we seek to develop recommendations that ensure equitable educational opportunities for every child in the community. The success of this endeavour will require the dedicated commitment of local leaders, educators, and policymakers to champion and implement community school strategies, turning schools into centres of community life that support student and community well-being.

Methodology

We obtained school performance scores from the Fraser Institute's 2022 report for this study (Fraser Institute, 2022). These scores provided a quantitative measure of school effectiveness across Kamloops, serving as a foundational component of the analysis. To enrich the understanding of the factors influencing these scores, we examined a variety of school population and neighbourhood characteristics. This included a focus on the percentage of English Language Learners (ELL) and the percentage of students with special needs, aimed at understanding how educational strategies and resources support their learning and enhance school performance. Additionally, we utilized the 2021 Population Census data, which offered a detailed breakdown of neighbourhood demographics across Kamloops (Statistics Canada, 2023). This allowed us to analyze key socioeconomic indicators, focusing on the median after-tax income of

economic families with children. Such metrics are vital for understanding the broader socioeconomic environment in which students and their families reside.

The school district's website proved to be a valuable resource in classifying educational establishments into three categories: public schools, schools of choice, and independent schools (British Columbia Government, 2024). This classification helped in further segmenting the analysis, enabling an exploration of educational diversity within the community. To deepen the insights into the educational experiences within these schools, we conducted a personal interview with the principal of the highest-performing school, as ranked by the Fraser Institute (2022). This conversation was pivotal in uncovering the unique challenges and successes encountered by the school, providing firsthand perspectives on operational excellence and areas ripe for community support. Complementing this, we engaged directly with the community through a parent perspectives survey. This survey was designed to gauge parental involvement and gather their concerns regarding their children's education. Distributed via social media platforms such as Facebook and specifically targeting neighbourhood groups across Kamloops, the survey reached a broad audience and gathered 260 responses with 222 complete responses.

By synthesizing data from these diverse sources, our methodology not only quantifies school performance but also integrates community and administrative insights, ensuring a well-rounded analysis of the educational landscape in Kamloops. This approach allows us to identify leverage points

where interventions could be most effective, paving the way for targeted recommendations that address both observed disparities and community concerns.

Results & Discussion

In the examination of the elementary education landscape in Kamloops, we discovered a notable interplay among socioeconomic status, neighbourhood demographics, and community engagement, all of which significantly influence educational outcomes. The analysis of the 2022 Fraser Institute scores revealed variations in performance among different types of schools: public, public schools of choice, and independent (Fraser Institute, 2022). However, these variations were not statistically significant. In contrast, a more detailed analysis revealed that the variations in school performance by type were particularly pronounced and significant in neighbourhoods with lower median incomes, as detailed in **Table 1**.

Table 1: Average 2022 Fraser Institute Score in Kamloops, BC by Neighbourhood

Schools	All Schools	Excluding Schools of Choice	Excluding Schools of Choice and Independent Schools
Aberdeen	7.15	7.50	7.50
Barnhartvale	6.70	6.70	6.70
Batchelor	6.80	6.80	6.80

Heights			
Brock	5.00	5.00	5.00
City Centre	6.55	—	—
Dallas	5.20	5.20	5.20
Dufferin	5.50	5.50	5.50
Juniper	6.00	6.00	6.00
North Shore	5.38	5.63	2.5
Rayleigh	5.40	5.40	5.40
Sa-Hali	6.26	6.30	6.03
Westsyde	5.40	5.40	5.40
Average	5.96	5.78	5.80

Note. Kamloops has 19 traditional English neighbourhood public schools, five specialized ‘public schools of choice’ focusing on arts, science, French immersion, and Montessori methods, and five independent schools that are private, non-public schools and not part of the public school district. Data from Fraser Institute (2022).

Furthermore, the analysis revealed a moderate negative correlation between the percentage of English Language Learners (ELL) at schools and their performance scores. This suggests that language barriers may be subtly undermining academic success, highlighting the need for enhanced language support in these schools. Additionally, in the survey of parents’ perspectives, 25% of respondents expressed concerns about the insufficient resources available to ELLs. Another notable result from this study was the relationship between the median after-tax income of families and the educational performance across Kamloops. Schools located in higher-income areas consistently showed better performance scores, highlighting the strong link between economic stability and educational success. This correlation indicates

the significant role of socioeconomic factors in shaping educational outcomes. Interestingly, independent schools appear to be an exception to this trend (see **Figure 1**).

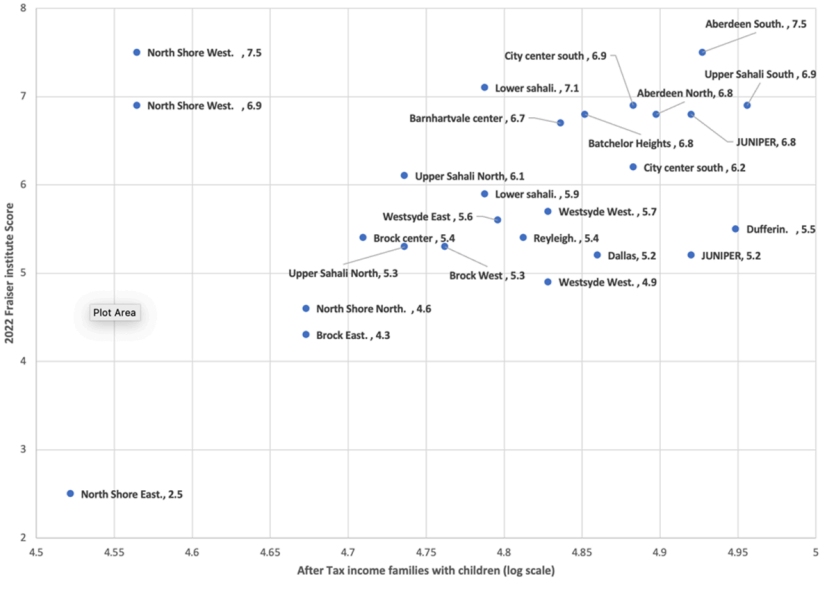


Figure 1: Average 2022 Fraser Institute Score in Kamloops, BC by neighbourhood (Fraser Institute, 2022). CC BY-NC-SA 4.0

In the interview, Karen Currie, the principal of the currently highest performing school (located on the North Shore), which happens to be an independent school – Kamloops Christian School – highlighted the distinctive nature of their institution, saying, “Our school is faith-based and does not cater to a certain socioeconomic class” (K. Currie, personal communication, March 11, 2024) She further explained the broad catchment area of their school, noting, “There are students from all around Kamloops and even outside

Kamloops. Some families drive 45 minutes to bring their kids to this school.” This suggests that independent schools, such as the one led by Principal Currie, manage to draw a diverse student body, transcending the typical boundaries set by neighbourhood economic statuses.

Parental Involvement

Building on the diverse student body attracted by schools, such as the one led by Principal Currie, another critical factor that enhances educational quality is parental involvement (K. Currie, personal communication, March 11, 2024). At her school, parents are described as “highly motivated” and play significant roles not just in classroom activities but also in governance, serving on the “Board of Directors” and “Parent Advisory Council.” Importantly, this pattern of involvement extends beyond just independent schools; the survey reflects widespread parental engagement across all Kamloops’ elementary schools. According to the findings, 53% of respondents volunteer at their child’s elementary school, with the commitment averaging 7.4 hours per month and ranging from one to 60 hours. Additionally, parents across the district spend an average of 4.7 hours per week helping with homework, with time spent ranging from 0.25 to 25 hours per week.

To further understand the impact of this involvement, we quantified the economic value of parental contributions. The term economic value here refers to the monetary equivalent

of the time parents dedicate to school-related activities based on average wage rates. This calculation helps illustrate the substantial financial equivalent of voluntary efforts. Parents' efforts in homework assistance are estimated to have an economic value of approximately \$273 per week (i.e., ~\$9,828 per school year) while volunteering at school events translates to an economic value of about \$429 per month (i.e., ~\$4,290 per school year). These figures not only highlight the tangible financial aspect of parental involvement but also the depth of commitment that parents across Kamloops are willing to make to enhance their children's educational experiences (see **Table 2**). This substantial investment in time and resources across the city demonstrates a community-wide dedication to supporting education, showing how vital family engagement is to fostering successful educational outcomes.

Table 2: Parent's Level of Involvement in Their Child's Education

Involvement Type	Average	Economic Value
Homework Help	4.7 hrs/week (Range: 0.25-25 hrs)	\$273/week (Range: \$14.5-\$1,450/week)
Volunteering at the School	7.4 hrs/month (Range: 1-60 hrs)	\$429 /month (Range: \$58-\$3,480/month)

Community Communication

Following the economic valuation of parental involvement

across Kamloops' schools, the interview with Principal Currie gave depth to these statistics. The principal emphasized the importance of a united community working toward the shared goal of educational excellence. One of the reasons behind the success of their school, she detailed, is rooted in parental engagement and a strong community ethos. Effective communication was identified as a crucial strategy to enrich the educational environment. The school employs several communication tools, including a “school-wide app,” “Seesaw,” a classroom-specific app, and an “engagement coordinator” tasked with ensuring that parents stay well-informed and involved.

The parent perspective survey – drawing on responses from a broad cross-section of parents and guardians from every corner of Kamloops, not solely the independent school – echoed the importance of communication, revealing that ~63% of respondents had concerns about the quality of communication between them and the school. Moreover, communication was one of the primary concerns in the open-ended survey comments.

Students With Special Needs or Diverse Abilities

Another main concern was the need for attention to students with special needs or diverse abilities. Concerns were raised about resources being “stretched too thin” and funding for special needs students entering a “melting pot” rather than

being appropriately allocated. Indeed, 63% of survey respondents voiced concern over the availability of resources for students with special needs. Addressing these needs, Principal Currie described how independent schools like hers uniquely manage such considerations:

“As an individual independent school, we have more flexibility in allocating special needs funds to support children directly within the classroom, such as through certified educational assistants, whereas public schools within the district may not have individual control of special needs funding for children within their school.”

– **Karen Currie**, K-12 Principal and Head of Kamloops Christian School (personal communication, March 11, 2024)

She noted that approximately 20% of their student population have diverse abilities or special needs, underscoring their capability to effectively provide necessary resources to these students at the school level. Despite the advantage of autonomy, however, she also noted that such autonomy comes with its limitations, such as not being able to directly hire a psychologist – a cost that falls to parents, unlike in the district where funds are combined to cover such positions.

The parent feedback is represented in **Figure 2** as a word cloud capturing the most frequently mentioned concepts and concerns from the survey comments. The prominent words in

this visualization reflect the community’s collective voice on the integral role of communication and the need for well-distributed resources to support all students, including those with special needs.

Extracurricular Activities

Alongside the critical role of communication and resource allocation highlighted in

Figure 2, extracurricular activities emerge as another pivotal aspect of the

educational experience. The survey, reflecting sentiments from parents and guardians across the entire Kamloops district, revealed that ~44% had concerns about the scarcity of extracurricular opportunities. Although activities are available for students in Grades 4 to 7, the competitive nature and limited availability of these programs restrict many students from participating. This concern contrasts with the offerings at the high-performing independent school we studied.

During the interview, the principal detailed their rich extracurricular programs, noting, “the school has specialized physical education teachers, music teachers, [and] art teachers,” all contributing to a well-rounded educational experience. The school’s “outdoor learning program,” which



Figure 2: Word Cloud from survey.
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collaborates with city and district coordinators, exemplifies their commitment to an education that extends beyond the traditional classroom setting. This approach not only enhances students' physical and artistic development but also fosters a connection with the broader Kamloops community, further solidifying the shared pursuit of educational excellence that resonates throughout the district.

Interestingly, the district's spirit of inclusivity also extends to these independent institutions as well. The principal shared that independent schools are often invited to participate in district-wide extracurricular events when space allows, providing students with additional avenues to broaden their experiences and skills. This gesture of collaboration demonstrates a commitment to an educational environment where opportunities for enrichment are as widely accessible as possible, bridging the gap between different school types and reinforcing the unity within Kamloops' educational community.

With the diverse extracurricular opportunities highlighted previously, community engagement stands out as a key contributor to the educational success in Kamloops. The independent school we engaged with demonstrates this through its students' involvement in community service initiatives like supporting the Salvation Army, providing Christmas hampers to community members in need, and visiting seniors' homes. Similar initiatives are echoed throughout the public school district, fostering a culture of civic engagement and responsibility. Many schools encourage student leadership programs, where students spearhead

community charity fundraising, participate in school spirit days, and lead recycling and healthy-living events. It is important to note that such programs, often orchestrated by volunteer teachers, rely on the availability of time and resources, which may not be uniformly possible across all schools.

At the independent school, the commitment to community extends beyond current students and teachers to its alumni network, which actively contributes to the school's continuous improvement through roles such as guest speakers and donors. The school's investment in a community coordinator also illustrates the value placed on sustained community relationships. In addition, the survey highlighted the impact of these community links, revealing a strong correlation between a sense of belonging to the school community and satisfaction with the quality of the school. This data not only reflected satisfaction with the schools but also speaks volumes about the power of community engagement in enriching the educational experience and fostering satisfaction among families.

Through this detailed exploration of Kamloops' educational landscape, we have pinpointed critical areas where targeted interventions can significantly influence outcomes. **Table 3** provides a summary of the recommendations to improve the quality of education across all neighbourhoods.

Artificial Intelligence and educational disparities

Artificial Intelligence (AI) can be used as a tool for addressing educational disparities. AI-driven educational technologies have the potential to personalize learning experiences and cater to the diverse needs of students who may not have access to quality education resources. For instance, adaptive learning platforms utilize AI algorithms to assess individual student performance and tailor instruction, accordingly, enabling students to learn at their own pace and level (Gligorea et al., 2023). Furthermore, AI-powered tutoring systems can provide immediate feedback and support, which is especially valuable in underfunded schools where teacher-student ratios are high. Additionally, AI can facilitate access to a wealth of educational content and resources, from online courses to interactive simulations, thereby democratizing learning opportunities for all students, regardless of their socioeconomic background (Ayeni et al., 2024). AI can create immersive experiences. For example, AI-generated art, virtual reality sports training, and AI-based extracurricular clubs can offer students new avenues for creativity, competition, and personal growth. These AI-enhanced extracurricular activities can make learning more engaging and accessible, providing students with opportunities to explore their interests and talents beyond the classroom. By incorporating AI into extracurricular programs, schools can further support the holistic development of students and foster a sense of community and belonging. An important step in leveraging AI effectively is ensuring that all schools are equipped with

productivity devices such as iPads, Chromebooks, or laptops, allowing students to access these online resources and educational technologies. There is no doubt that AI tools, if available to all, will reduce the gap between the students that have learning disabilities and those that excel at learning.

While ethical concerns about AI persist, British Columbia has proactively developed resources to guide school boards, district leaders, teachers, and support staff in crafting policies for the effective, safe, and equitable use of AI in K-12 education. These guidelines emphasize a human-centered approach, underlining the value of human connections and meaningful learning experiences, while positioning AI tools as supportive complements rather than replacements for human interaction. This ensures that technology enhances, rather than undermines, the relationships crucial to educational success (Digital literacy and the use of AI in education, n.d.).

Additionally, the province has provided resources for parents and caregivers to deepen their understanding of AI's role in education and to foster digital literacy at home. British Columbia has also created student-focused materials to promote the responsible and safe use of AI, supporting students' educational journeys. Taking these steps further and ensuring that AI is effectively leveraged in schools not only addresses immediate learning needs but also paves the way for a future that is more inclusive and technologically equipped.

Table 3: Summary of the Recommendations to Improve the Quality of Education Across All Neighbourhoods in Kamloops, B.C.

Area of Focus	Specific Recommendations
Parental involvement	Encourage active participation and investment by parents in both time and resources.
Resource distribution	Ensure equitable distribution of resources, especially in underfunded areas.
Support for diverse needs	Address the needs of students with special requirements and English Language Learners.
Family engagement	Increase parent engagement in schools to provide resources as these are voluntary contributions to the schools success
Policy action	Implement targeted policies to address educational inequalities.
AI in Education	Implement AI-driven educational technologies to personalize students learning experience.
Community resources	Channel resources into low-income neighbourhoods to lessen public and independent schools performance disparity.
Societal investment	Advocate for increased funding and community support for education as it benefits society at large.
Extra curriculum activities	Public funds to support extra curriculum activities for students to broaden their perspectives on social, cultural, environmental and economic issues.
Comprehensive policies	Develop policies that tackle the root causes of educational inequality.
Educational initiatives	Promote early intervention programs, community engagement efforts, and a curriculum tailored to diverse student needs.

Note. Data compiled by author.

Limitations

The Fraser Institute (2022) generates overall ratings for schools on a scale of one to ten by combining and weighting multiple indicators, including large-scale provincially-

administered test scores (such as Foundation Skills Assessments in British Columbia at Grades 4 and 7), the difference between male and female students' scores on assessments like literacy and numeracy, the percentage of test outcomes that fell below provincially acceptable norms, and the percentage of tests that were not written by eligible students or did not receive a "meaningful" response (Raptis, 2012). While the Fraser Institute's methodology for evaluating elementary schools has faced criticism for potentially oversimplifying the complex nature of education and focusing predominantly on academic performance (Whitcombe, 2023), it remains a valuable tool for several reasons. Primarily, these Fraser Institute scores emphasize literacy and numeracy – crucial skills that are foundational to student success across various aspects of education and life. By providing standardized metrics on these skills, the school evaluation report cards enable parents, educators, and policymakers to assess and compare the academic quality of schools in a consistent manner. This comparison can foster a competitive environment that motivates schools to strive for excellence and improvement in these fundamental areas.

The importance of literacy and numeracy was also underscored in our survey, where 53% of respondents expressed concerns about numeracy skills, and 49% indicated concerns about weak literacy skills. Furthermore, in our interview with Principal Currie, she highlighted that the COVID-19 pandemic has significantly impacted these skills, emphasizing the need for a focused approach to enhance literacy and numeracy education (personal communication, March 11, 2024). In addition, our survey of parents'

perspectives provided further insights, revealing a strong correlation (0.67 correlation coefficient) between the Fraser Institute scores and parents’ satisfaction with the quality of education their children receive. This finding implies that the quality of schools, as rated by the Fraser Institute, aligns with the quality of education from the parents’ perspective, affirming the value of these scores as a measure of educational quality as perceived by parents (see **Table 4**). This alignment suggests that the Fraser Institute’s evaluations resonate with the experiences and observations of parents regarding their children’s schools. It is important to note, however, that the relatively low response rates from some neighbourhoods may affect the robustness of this correlation. Overall, despite their limitations, these evaluations play a significant role in shaping public opinion and influencing policy decisions concerning educational practices and resource allocation, making it essential to acknowledge their value while considering their shortcomings.

Table 4: Satisfaction With the Quality of Education.

In Which Neighbourhood Is (Or Was) Your Child’s School Located?	Responses	How Satisfied Are You With the Quality of Education Your Child Receives (Or Received)?
Aberdeen	22	3.5
Barnhartvale	12	3.4
Batchelor Heights	10	3.3
Brocklehurst	16	3.2
City Centre	15	3.9

Dallas	14	2.7
Dufferin	14	2.9
Juniper/valleyviw	39	3.8
North Shore	25	2.4
Sa-Hali	37	3.4
Westsyde	14	3.2
Total	218	3.2

Note: Juniper and Valleyview were grouped together as this is how the census categorizes them. Data compiled from survey by author.

Conclusion

This study highlights the important impact of socioeconomic status on educational outcomes within Kamloops. A clear pattern has emerged: the Fraser Institute scores correlate positively with the median after-tax income of families, pointing to an intrinsic link between financial well-being and academic performance across various school types. From the insights gathered at a top-performing school and from parents district-wide, it is evident that educational success is a complex tapestry woven from various threads that surpass mere economic considerations. Our findings advocate a comprehensive strategy that prioritizes parental involvement, ensures equitable resource distribution, especially in underfunded areas, and supports the diverse needs of students, including those with special requirements and English Language Learners.

The parent survey conducted across the district has shed

light on the spectrum of family engagement. It is clear that the investment of time and money by parents is more than just support – it creates a network that strengthens the educational community, contributing significantly to high-performing schools. We have drawn a narrative that interlinks economic, communal, and educational factors, all pivotal to student success in Kamloops. The dedication of parents reflects the economic sacrifices they are willing to make to ensure quality education for their children. These sacrifices should not be borne by families alone; they underscore the need for targeted policy action to address the inequities present, affirming the right of every Kamloops child to high-quality education and equal opportunity. The disparity in performance between public and independent schools becomes most pronounced in low-income neighbourhoods, signalling a pressing need to channel community resources into these areas.

Education acts as a positive externality: investing in it benefits not only individual students or schools but society at large. Each child in Kamloops is a facet of our collective human capital and deserves every opportunity for success. Whether it's advocating for increased funding or mobilizing community support, our goal should be to provide equitable educational opportunities for all. Ultimately, this research calls for comprehensive policies that tackle the root causes of educational inequality in Kamloops head-on. Policymakers and educators must strive to cultivate an inclusive educational landscape, one that provides equal opportunities for every student, independent of their socioeconomic standing. Initiatives may include early intervention programs,

community engagement efforts, and a curriculum tailored to the diverse tapestry of student needs. By embracing such initiatives, Kamloops can progress towards the Canadian ideal of universally accessible, high-quality education.

Media Attributions

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3. Route Optimization: Enhancing Efficiency, Reliability, & Accessibility

COLIN FORBES

Introduction

A strong public transit system creates many benefits, such as lower congestion, faster commutes, higher productivity, and lower emissions (Federation of Canadian Municipalities, 2019). A reliable transit system prevents road congestion by reducing the number of cars on the road. With fewer cars on the road, we can lower carbon emissions and help mitigate climate change. Many people believe that public transit should be an essential service and, by the Government of British Columbia's own definition, it should be (Emergency Management BC, 2020). The definition provided by the BC government is "services essential to preserving life, health, public safety, and basic societal functioning. They are the services British Columbians come to rely on in their daily lives." Public transit very much helps basic societal functions. So, to say that public transit, which people have come to rely on, is not an essential service is strange. This chapter will discuss the benefits of public transit, why it is important, and why we need to make sure it functions efficiently and reliably.

However, Kamloops public transit contains many problems that prevent it from being reliable, efficient, and a cost-effective alternative to cars. This chapter will explore all the challenges and issues affecting the public transit system in Kamloops. These problems include driver shortages and poor management, which contribute to delays and cancellations. There is a lot of research on how to make transit systems efficient and reliable and meet the diverse needs of the public to enhance urban mobility (Nwachukwu, 2014). For transit systems to achieve this, there must be a focus on service quality, passenger satisfaction, and the integration of modern transportation systems (Handajani et al., 2020). In Kamloops' particular case, however, to make the system more efficient, the driver shortage must be addressed.

This chapter will go into depth about this issue and investigate easy-to-implement solutions and changes that need to be made for public transit to be efficient and reliable. The chapter will also explore how fixing these issues can make public transit more attractive and be a cost-effective alternative to cars. However, a better public transit system requires the companies and government to make changes. The changes that the companies and the government could implement range from small, quick, and easy changes, such as making sure buses run on time, to large changes to the entire system, such as changing company structure to allow for more full-time bus drivers and allocating more funding for the public transit system. These changes would help the system be reliable, efficient, and accessible. The end of the chapter will discuss these changes in more detail.

Methodology

This chapter will primarily use news articles, reports, and academic research to explore and assess the public transit system in the city of Kamloops. This assessment looks at how reliable, efficient, and accessible the system is. The public transit system will also be assessed to see how it can benefit the environment, economy, and society. This chapter will use reports and articles to explore how the public transit system can be a cost-effective alternative to cars.

Cost of Car Ownership Versus Public Transportation

There is a lot of information and research that proves public transit can be a cost-effective alternative to cars. In a Toronto Star article, Alsharif (2024) discusses a report from Ratehub.ca about the average cost of car ownership in Canada in 2024 (see **Table 1**). The cost of car ownership in Canada is very high due to the rise in costs related to gas, parking, insurance, and car maintenance. According to the report, the monthly cost is \$1,387, and the annual cost is \$16,644 on average. The report found that Canadians lose about \$600 per year from depreciation and spend a monthly average of \$200 on gas, \$200 on parking, \$111 on car insurance, \$79 on vehicle maintenance, and \$195 on interest payments. On the other hand, a monthly bus pass for a single person costs \$50 per

month, totalling \$600 a year, very cheap relative to car ownership. Car ownership is almost 28 times more expensive relative to the monthly pass for transit use and seven times more expensive for a family of four with two teenagers (see **Table 1**). When car owners save their money, they can shift it to other household expenses, which can add “3.6 jobs for every \$1 million shifted” (Lawong, 2015).

Table 1: Average Cost of Car Ownership vs. Public Transportation

Factors	Monthly Cost (CAD)	Annual Cost (CAD)
Depreciation	\$600	\$7,200
Gas	\$200	\$2,400
Parking	\$200	\$2,400
Car Insurance	\$200	\$1,332
Vehicle Maintenance	\$79	\$948
Interest Payments	\$195	\$2,340
Total	\$1,387	\$16,644

Note. Data from Lavin (2020).

Household Size	Monthly Cost (CAD)	Annual Cost (CAD)	Notes
A single person	\$50	\$600	One monthly pass.
Two family members	\$100	\$1,200	Assuming both use monthly passes.
A family of four with two teenagers	\$200	\$2,400	Public transit can be significantly cheaper than car ownership for transportation.

Note. Data from BC Transit (n.d.a)

If there was better public transit in Canada and Kamloops, car owners would be able to reduce their costs by taking public transit more often.

Benefits of a Strong Public Transit System

Public transit provides a very important service to the public of a city. There are many benefits to public transit, such as less traffic congestion, lower carbon emissions from cars, better productivity, and a cost-effective alternative to cars. Less traffic congestion can lead to greener cities. According to Smart City (n.d.), public transit systems can carry large amounts of people, which reduces the number of cars on the road. Fewer cars on the road lead to a reduction in carbon emissions. According to the United States Environmental Protection Agency (2023), a typical combustion engine car emits 4.6 metric tonnes of carbon a year. Switching to public transportation or other non-polluting transportation modes would reduce emissions by 4.6 tonnes in a year.

This reduction would translate to social benefits equal to USD 1,380 per year, using a \$300 per ton measure for the social cost of carbon, as was assessed by climate scientists, or \$460 if a more conservative estimate to account for outliers and experts who were confident of their estimation that the social cost of carbon drops to \$100 per ton (Pindyck, 2019). In other words, if this single person is commuting with a combustion engine car instead of taking public transportation, they are causing damages equal to \$460 per year up to \$1,380.

Switching to electric vehicles, public transportation, bicycles, or walking would also reduce such damage. However, congestion costs would remain with electric vehicles. **Table 2** shows the social costs of driving a car from a study by Gössling et al. (2022).

Table 2: Social Costs of Driving

Parameter	Social Cost (€ / km)
Uncompensated crash damages	0.01
Air pollution	0.1
Noise	0.01

Parameter	Social Cost (€ / km)
Land use and infrastructure	0.08
Traffic infrastructure maintenance	0
Barrier effects	0.02
Curbside parking	0.07
Resource requirements	0.01
Congestion costs	0.04

Parameter	Social Cost (€ / km)
Subsidies	0
Climate change	0.03

Category	Cost
Total social cost in €/km	0.37
Total social cost in CAD/km (April 2024)	0.1776
Social cost of a vehicle 20K per year	\$3,552
Social cost of vehicle per year in Kamloops (in millions of CND\$)	126.6

Per person (100,000 population)	1,266
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Note. Data for Tables 2A–2D from Gössling et al. (2022)

The Kansas City Area Transportation Authority (n.d.) mentions how the U.S. public transportation system saves 37 million metric tons of carbon dioxide a year. These numbers prove that public transportation can help mitigate climate change and create greener cities. Another benefit of public transportation is an increase in productivity. When public transit is efficient and reliable, it can, in theory, enhance an employer’s access to a larger labour pool (Drennan & Brecher, 2012). Transportation systems can have a positive impact on productivity ratios if they are efficient and reliable (Weisbrod, 2016). Strong public transit can increase access to labour, supplier, and customer markets, which enables greater productivity for producers of goods and services and even for transportation service operators (Weisbrod, 2016). This increase in productivity can benefit the economy, which is why public transport needs to be well-funded. In the past, some cities, like Athens in Greece, made public transportation free from 5:00 am to 9:00 am and again from 3:00 pm to 5:00 pm so workers could take public transportation to and from work, reducing congestion and pollution. This is a good idea to implement because the times people will head to work are mostly between 5:00 am and 9:00 am (see **Table 3**).

Table 3: Times People Leave for Work

Time leaving for work	Number of People
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Between 5 a.m. and 5:59 a.m.	2,935
Between 6 a.m. and 6:59 a.m.	7,385
Between 7 a.m. and 7:59 a.m.	11,015
Between 8 a.m. and 8:59 a.m.	8,575
Between 9 a.m. and 11:59 a.m.	4,555
Between 12 p.m. and 4:59 a.m.	6,330
Total	40,800

Note. Total – Time leaving for work for the employed labour force aged 15 years and over with a usual place of work or no fixed workplace address – 25% sample data. Source: (Government of Canada, 2022)

If public transit was made free from 5:00 am to 9:00 am, it could possibly reduce the number of cars on the road between those times. According to Lawong (2015), “for every \$1 invested in public transit, there are about \$4 in economic returns.” Also, investing in public transit can create more jobs per dollar than other infrastructure projects such as “energy, water, public facilities, or any other mode of transportation” (Lawong, 2015). However, when it comes to providing funding, the province tends to favour auto-mobility more than public transit. A Victoria City councillor was quoted in an Infotel article saying that the “budget is allocated [to] overwhelming [favour] auto-mobility” (Munro, 2022). The reason auto-mobility is favoured is because of auto dependence within cities. Most people rely on cars to get to work, but there can be a cost benefit to car owners by taking public transit instead. If there was better public transit in Kamloops, car owners would be able to reduce their costs by taking public transit more often.

The Economics of Positive Externalities of a Robust Transit System

Economists view positive externalities as benefits that accrue to individuals or society because of an economic activity that is not captured by the market price. In simpler terms, a positive externality occurs when personal actions benefit bystanders without receiving compensation for these benefits. Examples abound, such as education, beekeeping and pollination, research, vaccinations, poverty reduction, and public transportation. This concept is fundamental to understanding the challenges and opportunities in public policy, especially in sectors like public transportation.

Community Well-Being in Urban Environments

Strong public transit systems generate significant positive externalities that enrich community well-being and urban environments. Reduced congestion benefits not only the transit users but also others that transport with other vehicles. Reduced emissions benefit current and future generations. Cities with robust transit systems improve public health by encouraging more walking and cycling, reducing obesity rates and associated health care costs. The availability of reliable public transportation also enhances inclusivity by providing mobility to those without access to a private vehicle, including people who are elderly, disabled, or poor.

This inclusivity fosters a sense of community and belonging, as well as equal opportunities for all residents to participate in economic and social activities. Moreover, public transit contributes to urban revitalization by supporting higher-density development, which makes more efficient use of land and resources. This, in turn, can lead to the preservation of green spaces and the reduction of urban sprawl. In essence, the positive externalities of public transit extend far beyond the immediate impacts on traffic and emissions, touching every aspect of urban life and contributing to more livable, equitable, and sustainable cities. Such comprehensive benefits highlight the importance of investing in and prioritizing public transit infrastructure as a cornerstone of urban planning and policy.

Under Provision

One issue related to positive externalities is under provision. If the government fails to fully recognize the above external benefits, the provision occurs where the social benefit from public transit exceeds the private benefits accruing to the existing transit users, leading to a lower-than-socially-optimal level of transit users. Public goods, an extreme form of a positive externality, such as cleaning our air, reducing poverty, and mitigating climate change, also suffer from under-provision.

Especially in an inefficient public transit system, the under-provision problem is exaggerated since the marginal cost of

using the system is higher than it could be under an efficient system, which will be discussed in the next section. If the system is inefficient — plagued by delays, insufficient coverage, or inadequate infrastructure — potential riders may opt for alternative modes of transportation, like personal vehicles, that don't offer the same societal benefits. These inefficiencies not only exacerbate issues like urban congestion and environmental degradation but also mean that the social benefits of reduced emissions, better air quality, and increased economic activity from more accessible public services are not fully realized. The failure to capture these external benefits in the price of public transit leads to its underuse.

Cost of Public Transit

The policy implications are significant. To address the underprovision and encourage more usage of the system, a subsidy for public transit is required to lower the cost for users and incentivize its use. Furthermore, investment in infrastructure to improve efficiency and coverage and regulations that limit the use of alternatives with negative externalities (e.g., congestion charges for personal vehicles in city centers, carbon taxes) will bring in new public transit users. By implementing policies that recognize and aim to internalize the positive externalities of public transit, municipal, provincial and federal governments can help ensure that these benefits are more fully reflected. This could lead to a

more optimal allocation of resources that aligns closer with societal welfare.

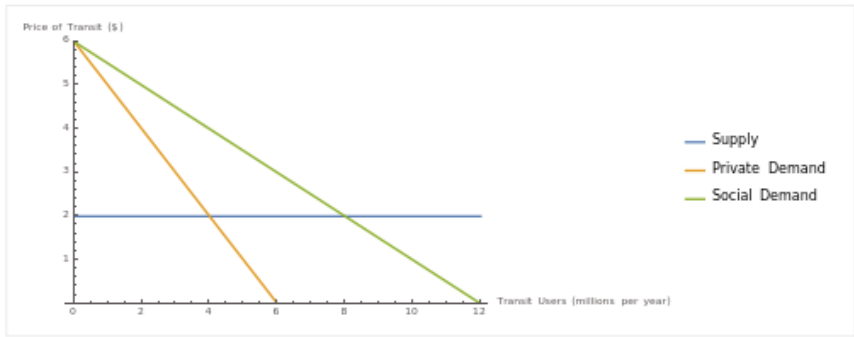


Figure 1: The transit market in Kamloops CC BY-NC-SA 4.0

To illustrate the issue at play, consider **Figure 1**, which shows a hypothetical construct of the transit market in Kamloops. It is assumed that the marginal cost of additional users into the transit system is \$2.50 to pay for some of the cost of resources used to provide the transit service. The price charged is lower at \$2 per user; others use a \$50 monthly pass, a 4-month pass costs \$100, and children under 12 are free. **Table 4** shows the current pricing system (as of May 2024).

Table 4: Kamloops Public Transport Fares

Type	Fare	Notes
All	\$2.00	Available on board with cash or Umo Cash Balance Fare Product. Drivers do not carry change.
10 tickets	\$18.00	Available for purchase at a vendor location.

Child (6-12)	Free	Children aged 6 to 12 can now ride conventional and handyDART buses for free, unaccompanied and without requiring a fare product or identification.
Child (5 and under)	Free	When accompanied by an attendant 12 years or older.

Type	Fare	Notes
Digital Daypass	\$4.00	Automatically applied after the second Umo Cash Balance payment of the day.
Paper Daypass	\$4.00	Available on board from driver with cash or two tickets. Drivers do not carry change.

Type	Fare	Notes
Adult 30-Day Pass/Monthly Pass	\$50.00	Available for purchase via Umo or at a vendor location.
Concession 30-Day Pass/Monthly Pass	\$30.00	For persons 65 or over and high school students with valid I.D. only. Available for purchase via Umo or at a vendor location.
Semester Pass	\$100.00	For high school students only. Valid for four months.
U-Pass	\$55.48	Gives Thompson Rivers University students unlimited access on all Kamloops Transit routes during a four-month semester. Cost breakdown: \$13.81 per month, included in student fees.

Type	Fare	Notes
Pass Holder	\$2.00	—
Family / Friend	\$2.00	—
Attendant	Free	An Attendant is someone the Pass Holder might require for assistance.

Note. Data for Tables 3A–3D from BC Transit (n.d.a)

Number of Transit Users

The private demand shows that as the price of transit decreases, the number of transit users increases. Due to the above-mentioned positive externalities, the social demand curve lies above the private demand curve. This curve

represents the social valuation of transit, including the marginal external benefits not captured by the private demand. These benefits accrue to the community but are not directly factored into the private demand for transit. This justifies government intervention, such as subsidies, to increase transit use to the socially optimal level. In this hypothetical example, the optimal amount of ridership should be doubled to 8 million users per year from 4 million users; the latter is the actual user rate of the public transportation system (City of Kamloops, 2020). If public transit was made free to users, then users would increase by 2 million, totalling 6 million.

People With Lower Incomes

Prices of a bus pass or a train ticket are often cited as the biggest reason by motorists for not choosing to use public transit (Fearnley, 2013). Free public transit would also benefit people with lower incomes. According to Blair (2023), “people on lower incomes relied more on public transit, with 23% of workers in the lowest decile using it to commute to work.” Also, Kilani et al. (2022) found that free public transit decreased the number of car use by 9% overall, with car use amongst low-income people decreasing by 18.62%. Most people use their cars as their main mode of transportation. Comparing this with the 2016 Census Profile, the total number of commuters in 2015 was 42,000, a decline of 1,200, even though the population in the city of Kamloops increased from 90,280 to 97,902 (Statistics Canada, 2023). However, the

year 2020 was the year of COVID-19, which would have impacted the decline in total commuters shown in the table. Note that public transportation was one of the smallest decline in terms of modes of transportation from pre-COVID-19 to COVID-19 year. **Table 5** shows the difference in modes of transportation between 2015 and 2020.

Table 5: Mode of Transportation, 2015 vs. 2020

Main Mode of Commuting	2015	2020	Difference
Car, truck, or van	36,385	35,645	-740
Car, truck, or van – as a driver	33,615	33,190	-425
Car, truck, or van – as a passenger	2,770	2,455	-315
Public transit	1,895	1,840	-55
Walked	2,320	2,075	-245
Bicycle	515	385	-130
Other method	885	855	-30
Total commuters	42,000	40,800	-1,200

Note. Total – Main mode of commuting for the employed labour force aged 15 years and over with a usual place of work or no fixed workplace address – 25% sample data200. Data from Statistics Canada (2023).

Cars vs. Public Transit

Making public transit free would reduce the number of cars

on the road and benefit the environment and other social costs, as mentioned above. A lot of people might use their cars because it is a force of habit, and if they were given an incentive to take public transit instead, they would use public transit. Thøgersen and Møller (2008) found that when people were given a free travel card, it reduced the influence of the habit of car drivers to use their cars. Free public transit will increase demand, which, in turn, will increase the frequency of departures, which makes it more attractive and user-friendly (Fearnley, 2013). In the *City of Kamloops Transportation Master Plan*, 47% of survey participants said that the bus service was too infrequent, and that was why they were less likely to use public transit (City of Kamloops, 2018). Free public transit can create a more efficient, reliable, frequent, and accessible public transit system. The following quote is from a Victoria city councillor who wants public transit to be free:

“I think by eliminating fares we will substantially increase the constituency and, as a result, there’ll be more political pressure for a high-quality transit system including more frequent buses and better routes,” Isitt told iNFOnews.ca. “(The goal is) to remove barriers to mobility for low-income people and to remove barriers to people getting around in a low carbon, climate-friendly way. Both those objectives, the central justice one and the environmental one, are essential.”

– **Ben Isitt**, City Council of Victoria, (Munro, 2022)

The funds for subsidizing would have to come from property taxes, fees, utility rates, sale of services, grants from the province, investment income, sale of capital goods, and private contributions.

Challenges Facing Public Transit

Public transit not only faces funding challenges but also suffers from layers of red tape between BC Transit, First Transit, and the province. This causes problems such as driver shortages and bad morale within the companies. Public transit tends to be underfunded and does not expand to the needs of the city fast enough. Looking particularly at the Kamloops public transit system, we see a lot of these challenges.

Reliance on Casual Bus Drivers

In British Columbia, First Transit oversees hiring the drivers and the office staff and operating the city’s transit (Landry, 2022). But First Transit’s corporate structure only allows for a set number of

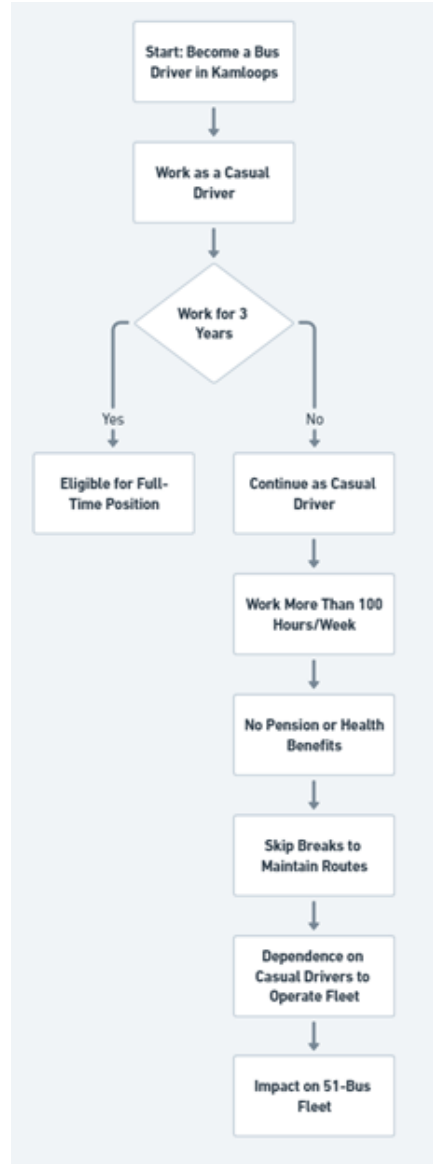


Figure 2: Experience of a full-time vs. part-time bus driver in Kamloops CC BY-NC-SA 4.0

full-time employees. To become a full-time driver, a driver needs to have worked for the company for three years. This timing has caused there to be a reliance on casual drivers. There are about 20 casually-scheduled bus drivers in Kamloops for its 51-bus fleet. These casual bus drivers tend to end up working more than 100 hours per week. These casual drivers also are “left without pension or health benefits” because they are casual (Landry, 2022). These drivers make up for the lack of drivers by working more and skipping their breaks to keep routes running.

This bad morale also causes new drivers in training to quit after a “few weeks” from when they start. However, bus drivers are not the only ones quitting; even the office staff and management are leaving. According to Landry (2022), a bus driver he interviewed said that one morning “there was no one in the office when operation[s] began in the morning.” This makes it difficult for bus drivers to report problems when they happen because it is up to the office staff to make a change on the fly. These problems cause a driver shortage, which leads to delays and cancellations. This is the biggest issue facing public transit in Kamloops.

Transit Strikes

Bus drivers are also unionized, which can cause other problems. Recently, transit strikes caused service to halt for a few days. This prevented riders from getting to school, work, and elsewhere. These strikes sparked the conversation that

public transit should be an essential service. But politicians in this province believe that bargaining should be worked out at the table (Paterson, 2024). If public transit was deemed an essential service, it would prevent strikes from disrupting service because “full-scale strikes...would not be possible by law” (CBC News, 2019). Union bargaining also involves talking about providing more funding to the public transit system, and the lack of funding is a major issue for public transit.

Funding

In Kamloops, like in many other cities, public transit is funded mostly through the province but also receives funding from the city and the riders. **Table 6** shows public transit expenditures at about \$20 million per year, constituting 11% of the budget over the 2022–2026 period. In contrast, police service expenditures are \$31.8 million in 2022, or 18.6% of the total expenditures, increasing to \$37.3 million in 2026, or 19.4% of the spending.

Table 6: Public Transit Expenditure, 2022–2026 (in millions of \$)

Expenditure	2022	2023	2024	2025	2026
Public Transit System	19.0	19.4	19.9	20.4	20.9
Total General Expenditures	170.9	175.9	181.5	187.3	192.3
Percentage	11.1%	11.0%	11.0%	10.9%	10.9%

Note. Data from City of Kamloops (2022a)

The province in 2018/19 provided 48.3% of the funding to public transit, while local governments provided 22.9%, and the fares from riders made up the remaining 28.7% (Munro, 2022). In 2018/19, the Kamloops bus system “cost \$15.9 million with riders paying \$4.3 million in fares” (Munro, 2022). In 2022, the city of Kamloops paid \$10.1 million to BC Transit (City of Kamloops, 2022). These numbers show that there is a lack of funding for public transit and that the local taxpayers are footing the bill to make up for it. Due to the lack of funding, the system is unable to grow and add routes to support a growing city. The Kamloops Transit Future Plan lays out the plan to expand and improve transit service in the city. However, improvements have been slow, which can be attributed to a lack of funding and bureaucratic red tape.

A recent Castanet article talking about expanding transit service to Ord Road mentioned that getting such a proposal approved would require the Ministry of Transportation’s approval (Dawson, 2024). The article also discussed that Ord Road is one of the fastest-growing areas in the Brocklehurst neighbourhood, so a new route along that road would help get people living in the area to work, school, or elsewhere (Dawson, 2024). In the *Kamloops Transit Future Plan*, the Ord Road route is considered “a long-range planning item” (Dawson, 2024). It is also important to note that adding a route along this road would also help connect the airport to the rest of the city’s transit system.

All these challenges prevent the Kamloops transit system

from functioning reliably and efficiently, but changes can be made to improve the system.

Solutions & Improvements

Many of the challenges discussed can be fixed, but whether they get implemented is up to BC Transit, First Transit, the Government of British Columbia, and the City of Kamloops. Here are some solutions and improvements that should be made. These solutions can help make the public transit system efficient, reliable, and accessible. Some of these solutions proposed can be implemented rather quickly. Other solutions will take time; public transit is mostly a provincial issue, but the city can still make changes “on fares, routes, and service levels” (City of Kamloops, 2018). If these solutions and improvements are made, they will lead to the benefits mentioned above and create a strong, efficient, reliable, and accessible public transit system.

BC Transit

First, BC Transit needs to fix the card readers in the buses, as the card readers only work a quarter of the time. However, with the new Umo system, the need for fixing them does decrease, but the physical BC Transit cards are still likely to be used. So, fixing them should still be a priority. Second, the Umo and the Transit apps should be combined into one app.

Having two different apps means two different teams developing the app, which seems inefficient from a monetary standpoint. Third, improving the maintenance of the buses to avoid mechanical failures. It is always unfortunate to see that a bus has been suddenly cancelled due to a mechanical failure, which causes riders to have to change travel plans at the last minute. This maintenance should also make sure that the tech in the buses is functioning properly, including the GPSs and bus stop monitors. Finally, abolish seasonal service changes and keep service constant all year. Seasonal service changes were cited in the Kamloops Transit Master Plan as one of the reasons the public will drive their cars rather than use public transit (City of Kamloops, 2018).

First Transit

First Transit should remove the limit on full-time positions and introduce part-time positions. First Transit drivers should also be immediately eligible to work full-time and should not need to be with the company for three years. This will allow First Transit to hire more bus drivers and be less reliant on casual drivers. Their current system leads to a reliance on casual drivers, a high turnover rate, and bad morale, which leads to cancellations and delays. This is why it is important to change this so that there are enough drivers to keep the system running efficiently, reliably, and frequently. This decreases the reliance on casual drivers who work long shifts and skip breaks just to keep the system running. This will allow for better benefit eligibility from the union, which will

make it so that being a bus driver is more attractive. These changes are the most important and would help reduce the number of delays and cancellations.

British Columbia

Increase funding for public transit. The lack of funding prevents the system from being efficient, reliable, and accessible. The current amount of funds that the provincial government is providing is far too little. In 2023, the provincial government provided the entire system with \$170,853 in funding (BC Transit, 2023). The province should make Public Transit an essential service. If public transit is an essential service, it can help prevent strikes that cause disruptions to the public transit service. Make Public Transportation free to increase efficiency, frequency, and accessibility.

City of Kamloops

Advocate on behalf of the rider so that the province, BC Transit, and First Transit implement the solutions. The riders do not have as much sway in making the companies and the province implement changes as the city does. So, the city should add pressure to these calls for change. Increase funding for public transit and make public transit free for everyone due to the positive externalities. Continue to

maintain routes, stops, and exchanges. Add lighting, benches, and weather covers to the stops. Also, some bus stops have a time list for when the buses are set to arrive. However, these are subject to vandalism and are spray painted and graffitied, which makes them hard to read. Improve security at both the Lansdowne and North Shore exchanges. Increase service levels during the Summer, weekends, and during the middle of the day.

Conclusion

Public transit provides a necessary and essential service for lots of people in Kamloops. Public transit can help lower congestion, create faster commutes, contribute to higher productivity, lower emissions, and be affordable to poor people (Federation of Canadian Municipalities, 2019). Public transit can be a cost-effective alternative to cars and can save car owners money, which can help boost the economy by creating jobs (Lawong, 2015). While public transit faces many challenges, these challenges can be overcome. The solutions and improvements can fix the issues and create an efficient, reliable, and accessible public transit system.

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4. Transitioning to Local Authority: Practical Steps & Challenges

PATRICK IZETT

Abstract

This chapter compares the economic implications of the Royal Canadian Mounted Police versus municipal police forces and examines how they might affect Kamloops' long-term prospects. Comparative analysis and secondary data will be used to assess the economic effects of both police methods. This study looks at cost-effectiveness, community involvement, and resource sharing to consider which police plan might work best for Kamloops in the long run. Researchers have found that each police choice may have pros and cons for the city's economy. This will help lawmakers and other interested parties make better decisions about the city's long-term growth.

Introduction

As Kamloops considers transitioning from the Royal Canadian

Mounted Police (RCMP) to a municipal police force, it is crucial to thoroughly analyze the socioeconomic impacts of both policing models. This chapter examines the implications of retaining the RCMP versus establishing a local police authority versus moving towards a regionalized hybrid model by evaluating key issues, such as resource allocation, crime prevention, community engagement, and cost-effectiveness. This study aims to provide better insight into making an informed decision to support the long-term prosperity of Kamloops. Building upon existing literature and utilizing a variety of primary and secondary data sources, this analysis will explore how each method of policing influences the socioeconomic outcomes in Kamloops.

Through analyzing public perception, budget trade-offs, interagency collaboration, and more, this chapter seeks to uncover the significant socioeconomic effects each policing option could offer Kamloops' society. The goal is to not only highlight practical steps and challenges of making the transition to a municipal police department but also deliver actionable insights to policymakers, law enforcement, and stakeholders invested in the future of Kamloops. Having a better understanding of the socioeconomic implications of these policing models will allow the city to make a more informed decision that works toward improved safety and a more resilient and economically vibrant future for Kamloops and its residents.

This chapter explores the benefits of a different policing method in Kamloops, analyzing primary and secondary data and existing literature to examine its long-term prospects. It

highlights the practical steps and challenges of transitioning to a new policing model that positively impacts the city. The research provides a comprehensive overview of the socioeconomic implications of employing the RCMP as a municipal police force or a hybrid model in Kamloops. The chapter also summarizes findings from sources, highlighting the pros and cons of employing the RCMP or a municipal police force. The goal is to provide practical steps and challenges to transitioning to a policing model that addresses Kamloops' needs.

Literature Review

Studies on the RCMP and municipal police forces in Canada uncover various strategies and obstacles in crime prevention. Murphy (1998) presents alterations in well-established policing structures, ideologies, and operational practices, connecting them to changes in the economy and culture of governance and law enforcement. Griffiths (2019) emphasizes the significance of specialized units and adaptations in northern community policing. On the other hand, Demers (2019) and Slotwinski (2010) explore the diverse effects of police staffing and funding on reducing crime rates. Kitchen's (2007) research revealed a robust correlation between crime rates and socioeconomic status in Canadian urban areas. Canadian police oversight has experienced a surge in the past decade as a result of notable instances of police misconduct and public discontent with internal police investigations. Supervision enhances the level of responsibility of the police,

fosters trust from the public, and influences conduct (Stelkia, 2020).

Griffiths et al. (2014) examine the lack of utilization by Canadian police services, governments, research institutions, and other police stakeholders of the numerous opportunities for enhanced collaboration on policing research matters. With rare deviations, Canadian police services have not made significant investments in cultivating the ability to carry out policing research that emphasizes outcomes rather than outputs. According to Griffiths et al. (2014), establishing a national policing research center that is credible, comprehensive, and representative is considered essential for addressing the various challenges identified. Sytsma and Laming (2018) emphasize the obstacles and constraints involved in researching the economics of policing in Canada. In addition, how the police behave, and the level of public safety are significantly influenced by governance and institutional factors, such as judicial supervision and financial mechanisms, as highlighted by Goldstein et al. (2018) and Cyr et al. (2020).

To reduce crime effectively, a comprehensive approach that considers factors such as organizational structure, funding, community engagement, and officer well-being is necessary.

Methodology

Literature has been found using academic databases, such as Thompson Rivers University Libraries, University of British

Columbia Library, Google Scholar, and JSTOR, and by conducting two interviews with police officers. Finding sources in the databases involved searching for specific keywords or terms such as “RCMP,” “municipal police,” “policing and its economic impact,” “policing models in Canada,” and “transitioning from RCMP.” Additional sources were found using citation chaining and reference lists of relevant articles. Sources found were critically evaluated for their relevance to the topic and credibility. Sources focused on the economic implications of the RCMP and municipal policing were prioritized. Finally, the two interviews focused on the perspectives of a local police officer in Kamloops and a municipal officer from B.C.’s Lower Mainland. These interviews gave insight and a better understanding of the operations of both the RCMP and municipal policing.

Furthermore, this study focused on the city of Kamloops and compared it to the cities of Delta, Saanich, and New Westminister. These additional cities were chosen due to their similar population size to Kamloops and their use of a municipal policing model. All sources used in the literature review are accurately cited and referenced according to current APA citation guidelines.

Comparing Policing & Crime in Four Cities

Under British Columbia’s *Police Act* (1996), the provincial government is responsible for policing and law enforcement in unincorporated and rural areas and municipalities with a

population under 5,000 (Government of British Columbia, 2022). Furthermore, a city with a population of over 5,000 is responsible for providing and bearing the necessary expenses of policing and law enforcement within its municipal boundaries. These municipalities may do so by forming their municipal department and contracting the RCMP municipal police services. Kamloops is currently one of 68 municipalities that are policed by the RCMP (Government of British Columbia, 2021). In 2012, the provincial government signed a 20-year Provincial Police Service Agreement (PPSA) with the federal government to contract the RCMP as B.C.'s Provincial Police Service. Under the terms of the PPSA and the Police Act (1996), municipalities with a population of 15,000 or larger pay 90% of the cost base, with the federal government paying 10% of the cost base. These municipalities are responsible for 100% of certain costs, such as accommodation and support staff (Government of British Columbia, 2021). Thus, Kamloops pays 90% of the cost base, and the federal government contributes 10% of the cost base. The city is still responsible for additional accommodation costs and support staff.

Currently, 12 municipalities in British Columbia have municipal policing services. For this chapter, we will compare the City of Delta, New Westminster, and Saanich; the two former are in British Columbia's Lower Mainland, while the latter is on Vancouver Island. The municipality's police board governs these municipal police departments. The role of the police board is to provide direction to the department under legislation and in response to the community's needs (Ministry of Public Safety and Solicitor General Policing and Security Branch, 2023). Board members are civilians, and their

departments are responsible for 100% of their policing costs (Government of British Columbia, 2021). Kamloops expenditures are ~18%, Delta’s are ~21%, Saanich’s are almost 30% of its total operating budget, and New Westminster’s are ~16%, the lowest of all four (see **Figure 1**).

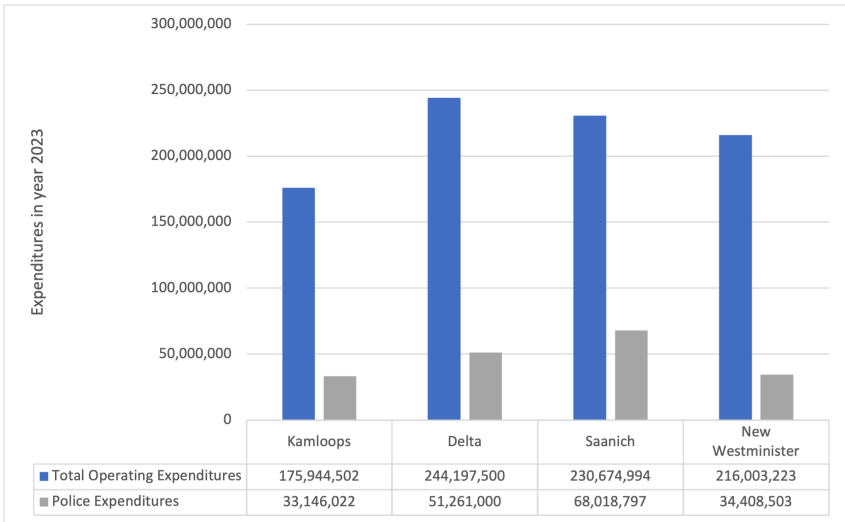


Figure 1: Each city’s Total operating expenditures and police expenditures in CAD (City of Delta, 2023; City of Kamloops, 2023b; Corporation of the District of Saanich, 2023; Corporation of the City of New Westminister, 2023) CC BY-NC-SA 4.0

Table 1 provides a comprehensive overview of each city being studied and compares it to the provinces of British Columbia and Canada. Comparing the population, median after-tax income, crime severity index, and the number of sworn officers. This table provides data that allows us to further analyze Kamloops compared to other cities and against the

provincial or national averages. The Crime Severity Index (CSI) considers the volume and seriousness of crimes. In the calculation of the CSI, each offence is assigned a weight derived from average sentences handed down by criminal courts. All police-reported Criminal Code offences, including traffic offences and other federal statute offences, are included in the CSI.

Kamloops household median after-tax income for 2020 was \$78,000, similar to the B.C. and Canadian average. Delta and Saanich have a higher household income than Kamloops, and New Westminster has the lowest household income at \$72,500. Kamloops has the highest CSI amongst the four cities at 156.7. Next is New Westminster at 84.7, Delta at ~60, and Saanich, the lowest, at 51.3 CSI. Thus, the association, not causation, is that the municipal type of policing has a lower crime severity index relative to the RCMP type.

There are 689 people for each sworn officer in Kamloops, while Saanich has 714 people for each. Delta has 559 people for each sworn officer. A higher number suggests that each officer is responsible for a more significant segment of the population, which can impact response times, crime rates, community policing effectiveness, and the overall burden on the police force. Conversely, a lower number indicates a higher ratio of officers to civilians, which might imply better coverage and potentially more effective law enforcement. Hence, Delta has the best coverage, while Kamloops, Saanich and New Westminster might need more officers for potentially more effective coverage and enforcement. A similar indicator is the number of sworn officers per 1,000

people, but this time, a more significant number indicates a better coverage of 1,000 people (Delta).

Table 1: Crime & Policing in Kamloops vs. Other Places

City/Area	Population (2021 Census)	Median After-Tax Income of Households (2020)	Crime Severity Index (CSI)	Type	Sworn Officers	Population per Sworn Officer	Sworn Officers per 1,000 People
Kamloops	97,902	78,000	156.70	RCMP	142	689	1.45
Delta	108,455	95,000	59.98	MP	194	559	1.79
Saanich	117,735	83,000	51.32	MP	165	714	1.40
New Westminster	78,916	72,500	84.73	MP	114	692	1.44
British Columbia	5,581,127	76,000	100.37	MP/RCMP	7,609	733	1.36
Canada	36,991,981	73,000	78.10	MP/RCMP	70,566	524	1.90

Note. Population data from Statistics Canada (2023b), Sworn officer’s data from the Ministry of Public Safety and Solicitor General Policing and Security Branch (2023), Crime severity index from Statistics Canada (2023c), and Number of police officers in Canada from a Statista graph using Statistics Canada (2024) data.

Comparing RCMP and Municipal Police across Municipalities

Table 2 highlights that municipalities policed by the RCMP

have much higher crime rates than municipalities policed by their municipal police force, regardless of population size. Although this may not be a cause-and-effect, municipal police are allocated to safer communities with a lower crime rate. Further studies will be needed to determine if there is a cause-and-effect. Future research should examine the city of Surrey as it transitions slowly from the RCMP to the municipal police system.

With a much higher crime rate in the municipalities policed by RCMP, there is also a higher workload per officer than that of the municipal police due to their lower crime rate. The RCMP-policed municipalities also suffer from a higher crime severity index (CSI). However, the RCMP has, on average, kept up with the population growth rate within British Columbia, whereas the municipal police have not. In the long run, this could cause some concerns as population density grows, and the ability to combat crime could become increasingly difficult without the appropriate resources for these municipal police forces. Additionally, it is essential to stress the benefits correlated to a higher cost per person to ensure a lower crime rate and CSI. This is further highlighted by Brand, Sam and Price, Richard (2000), Hassett, Shapiro (2012), and Welsh, Brandon & Farrington, David. (2018).

The cost per person in **Table 2** represents the cost of servicing the police system in a community and does not include the true cost of crime. The cost of crime consists of the victim's direct economic losses and intangible costs such as pain and suffering to the victim and family. Moreover, there are costs associated with operating the criminal justice

system (i.e., policing, courts, prosecution, legal aid, correctional services) as well as the cost to society for someone pursuing a criminal career rather than pursuing a marketplace career (i.e., lost productivity, wages, and tax revenue). In Canada, the cost of crime is estimated at \$100 billion. When including tangible and intangible costs to victims, the cost of operating the Canadian criminal justice system was estimated at \$12.5 billion in 2014 and the cost of people pursuing a criminal career (MacKay, 2015). Given that in 2021, there were over 2 million police-reported Criminal Code incidents (excluding traffic) in Canada. The average cost per incident is estimated at \$50,000 (Moreau & Canadian Centre for Justice and Community Safety Statistics, 2022).

Kamloops' police expenditures in 2023 were estimated at \$33.14 million (City of Kamloops, 2023a). The 2022 crime rate in Kamloops was 144 per 1,000 people, much higher than the averages shown in **Table 2**, and the caseload was 104 crimes per officer. Police expenditures in 2022 were \$20 million lower than in 2023 at \$31,14 million. Reducing the crime rate in Kamloops to 90 from 144 per 1000 people can yield significant benefits in terms of society costs avoided. This reduction is 54 fewer crimes per 1000 people or 5,400 fewer crimes in a city of 100,000 like Kamloops. Assuming it costs 50,000 per incident, the benefit of 5,400 fewer crimes is 270 million per year, or the benefits are five times more than the operating municipal cost of \$51.26 million. If a transition to municipal police or a hybrid system can lower the crime rate, to say 50 per 1000 people, then the benefits would be 9,400 fewer crimes for a benefit of \$470 million per year.

Table 2: Police and Crime Indicators Across Municipalities (Average)

Policing System Type	# of Municipalities	Crime Rate per 1000 People, 2022	CSI, 2022	Workload per Police Officer, 2022	Cost per Person, 2022	Growth Rate of Police Officers, 2013-2022	Population Growth Rate, 2011-2021
RCMP Population 15,000 & Over	32	94	111	73	281	17	19
RCMP Population Less Than 15,000	35	92	110	63	240	11	10
Municipal Police	11	51	70	32	386	4	9

Note. Data from Statistics Canada (2023a, 2023c) and the Ministry of Public Safety and Solicitor General Policing and Security Branch (2023)

Examining the costs of crime allows for comparing the comparative burden of different crimes on society. Information on the costs of crime, the cost of policies designed to reduce crime, and the effectiveness of various policies can be used in resource allocation decisions. Ultimately, the bottom-line question is: Which programs and policy options will yield the most significant reductions in crime at the lowest cost? Some crime prevention programs, for example, have produced reductions in crime, criminal justice, and mental health costs that are many times the amounts invested. It has been estimated that the cost per crime incident is over one million dollars.

Police Interviews

RCMP Officer

The interview with the RCMP officer from Kamloops highlighted several key issues facing the force as it adapts to growing population demands and evolving crime trends (RCMP Officer, personal communication, April 1, 2024).

Challenges — Funding

The officer emphasized the consistent need for more resources, particularly staffing, to enhance their presence and response times in the community. Despite increased resources over the past six years, the officer felt it was still insufficient to meet demands. On average, only about 14 officers are available daily, contingent on total attendance.

The Car 40 mental health program, pairing officers with mental health nurses, is praised but limited by the capacity to staff one nurse at a time, pointing again to funding constraints (RCMP Officer, personal communication, April 1, 2024). The officer suggested that more effective change could be realized with better budget allocation.

Challenges — Lack of Police Resources

Since 2012, Kamloops has seen quite a bit of growth, with the population growing from 88,523 to an estimated 108,551 in 2024 (Statistics Canada, 2023b). The RCMP has also seen a reasonable amount from 2013–2022 of growth from 124 to 142 sworn-in officers (Ministry of Public Safety and Solicitor General Policing and Security Branch, 2023). These statistics provided in the interview show that while Kamloops' population has grown by 22.6% from 2012 to 2024, the number of sworn officers has only increased by 14.5% from 2013 to 2022, indicating a lag in police force growth compared to population growth. This discrepancy suggests a need for a significant increase in police resources to keep pace with demographic changes. “Having a presence makes the biggest difference,” said the RCMP officer when asked about effective methods of preventing crime (RCMP Officer, personal communication, April 1, 2024).

Challenges — Recruitment

Additionally, the officer touched on challenges in recruitment, citing a negative stigma towards policing as a barrier, and outlined efforts to engage youth through informational sessions and educational programs (RCMP Officer, personal communication, April 1, 2024). The RCMP officer noted that “during the March break camp for high school students, they are eligible to earn a credit for completion of the camp put on by the RCMP.” Finally, the officer noted that the RCMP does do

monthly reports that are presented to the city council members and the mayor, which could impact resource allocation and operational effectiveness. However, unlike the municipal police, the RCMP does not have the same vested interest from the city as they are contracted out and not the city's entity.

Municipal Police Officer

The interview with a municipal police officer from B.C.'s Lower Mainland shed light on municipal policing, emphasizing its strengths and the obstacles it faces today (Municipal Police [MP] Officer, personal communication, April 3, 2024).

Advantage — Local Control Over Police Forces

One significant advantage of municipal policing is the greater control local authorities have over their police forces. This direct oversight allows for more targeted responses to specific community needs supported by a commitment from mayors and councils who directly oversee and invest in police infrastructure, personnel, and resources, including equipment, buildings, staff, logistics, and vehicles. This model supports a philosophy deeply rooted in the idea that officers and the community they serve are inherently linked, enhancing mutual respect and cooperation for public safety. The municipal officer stated the following principle, “The

police are the people, and the people are the police.” Having civilians turn into sworn officers from within their community continues to amplify that vested interest in the betterment of their community.

Advantage — Active in Communities

What makes municipal policing models so effective? First and foremost, they try to be proactive by being highly active in communities. “During peak crime times, typically the evening, boots on the ground in trending areas are key to being proactive at policing or eradicating crime,” the municipal officer stated (MP Officer, personal communication, April 3, 2024). While the officer interviewed could not speak to what makes New Westminster or Saanich so effective, the officer again mentioned that Delta’s Police Department is known for having exceptional community relationships. In the city of Delta, their police force has an exceptionally good reputation. However, the officer also outlined several significant challenges. Like the RCMP, one of the biggest challenges is managing the cost budget, as emergency services share many of the costs. Municipalities rely heavily on local taxation without substantial federal or provincial support.

Challenges — Staffing

Another challenge municipal forces face is staffing. Questions are raised about how to connect to this generation of

workforce. The officer again highlighted that “following the pandemic, a lot of people want to have work-from-home jobs or highly flexible schedules, which is challenging to attract” (MP Officer, personal communication, April 3, 2024).

Attracting recruits in a post-pandemic world, where potential candidates often seek jobs with remote work possibilities and flexible schedules, is a critical issue for policing as they cannot typically offer these options. Additionally, there is an ongoing need for specialized staff, such as crime analysts, who play a crucial role in assessing crime patterns and helping to allocate resources more effectively.

Challenges — Training

The officer also highlighted the high costs of training recruits (MP Officer, personal communication, April 3, 2024). As tuition fees continue to rise, there is a push towards more sustainable and cost-effective training models. Currently, municipal police forces train out of the Justice Institute in New Westminster, which comes at a considerable cost to departments. In December 2022, an email from Superintendent Jennifer Keyes, Director of the Police Academy, sent an email to Chief Constable Dave Jansen of the New Westminster Police Department stating that the tuition cost for training a recruit would go up 5% from \$22,110 to \$23,215, effective April 1, 2023.

One proposed solution is for municipal police departments to develop training programs that could be tailored more closely to their specific needs and potentially be less costly than

current centralized training systems. However, it could be challenging to fund such initiatives with a lack of government funding other than provincial or city taxes. There may also be a lack of community support. This municipal officer believes that their model is the preferred method of policing due to having access to better equipment, better resources, and better-quality officers who are highly selected and trained (personal communication, April 3, 2024). Other municipal police departments opt for the Justice Institute of British Columbia's nine-month training program versus the RCMP's six-month militaristic style of training at their depot facility. In addition, this officer has witnessed many surveys conducted through their department that conclude that people have more of a personal connection to municipal officers than RCMP.

Suggestions for the Future

Toward the end of our interview, this municipal officer with over 20 years of experience left a few suggestions for the future. Different municipalities could share the financial burden and logistical responsibilities by regionalizing resources, fostering a more robust and economically viable policing network across regions. This could include shared emergency response teams and potentially integrating services like transit police into a broader cooperative framework. These strategies, while ambitious, could significantly enhance the efficacy and sustainability of

municipal policing in adapting to the evolving demands of public safety.

Table 3 summarizes information provided by both police officers interviewed for the study.

Table 3: Interview With RCMP vs Municipal Police

Aspect	RCMP Interview (Kamloops)	Municipal Police Interview
Funding & Resources	There is a constant need for more resources, especially staffing; funding is insufficient despite increases; one mental health nurse in Car 40.	Better equipment and resources due to local control and investment; high costs for training recruits. Proposed to develop their training programs due to high costs associated with centralized training.
Growth vs. Needs	Population has grown 22.6% since 2012, while officer numbers only grew by 14.5% from 2013–2022, suggesting a lag in force growth.	Emphasis on the ability of local governance to tailor resources effectively to community needs.
Community Relationship	The Car 40 program was praised; the city council's lack of sufficient community investment could affect operational effectiveness.	Strong community relationships are highlighted, emphasizing mutual respect and cooperation. The public feels a personal connection with municipal officers.
Recruitment Challenges	Recruitment challenges due to negative stigma; efforts to engage youth through educational programs.	Challenges in attracting recruits post-pandemic who seek flexible work arrangements. High costs of training and need for specialized staff like Crime Analysts.
Training	26-week Cadet Training Program at Depot in Regina, Saskatchewan.	Uses the Justice Institute for a 9-month training period, viewed as better quality than RCMP's shorter, militaristic style.
Strategic Approaches	Emphasis on the need for better budget allocation. Active during peak crime times, i.e., downtown nighttime. It is tough to accomplish with limited resources.	Proactive policing during peak crime times; suggestion for regionalization to share costs and resources.
Advantages	Mention of a mental health collaboration program. Shift pickup at different detachments. Flexibility to move around Canada.	Greater control over policing by local authorities allows for more targeted responses; local taxation supports direct investments.

Suggested Improvements	Better budget allocation to meet community demands. More staff allocated by RCMP.	Development of local training programs; regionalization of resources for economic viability.
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Note. Data was compiled from interviews with an RCMP Officer (personal communication, April 1st, 2024) and a Municipal Police Officer (personal communication, April 3rd, 2024).

The Role of AI and Robotics in Policing

As technology continues to evolve, integrating artificial intelligence (AI) and robotic tools into policing could provide Kamloops with new opportunities to enhance law enforcement efficiency. AI-driven predictive policing can analyze crime patterns and allocate resources more effectively, helping prevent incidents before they occur. Additionally, AI-assisted surveillance tools, including automated license plate recognition and facial recognition software, can improve investigative capabilities.

Robotic technologies, such as drones and autonomous vehicles, could assist in search-and-rescue operations, monitoring public spaces, and reducing risks for officers in hazardous situations. AI-powered chatbots and reporting systems could streamline non-emergency communications, reducing administrative burdens on police departments.

However, integrating AI and robotics into policing also presents challenges. Ethical concerns regarding data privacy, potential biases in AI algorithms, and the need for public trust in automated decision-making must be addressed.

Furthermore, implementing these technologies requires

significant investment, training, and regulatory oversight to ensure they are used responsibly and effectively. If Kamloops moves toward a more technologically advanced policing system, careful planning and public consultation will be necessary to balance innovation with community expectations.

Conclusion

Ultimately, the future of policing is dynamic and constantly adapting to the needs of cities in British Columbia and Canada. As the country grows so quickly and areas like B.C.'s Lower Mainland become denser, the possibility of regionalizing police is not far away. It would allow for combined resources and integration where needed and make police more efficient at combatting or being present in crime hot spots in different communities. This is not to slight the current RCMP in Kamloops, but being tied to such a decentralized government means they are at the mercy of a widespread budget and limited resources. The answer to a limited budget for Kamloops policing could be to regionalize itself in the Thompson-Nicola Police Service (or just known as the Kamloops Police Department), serving the communities of the Thompson-Nicola region, including Kamloops, Merritt, Chase, Clearwater, Logan Lake, Barriere, Ashcroft, Cache Creek, Clinton, Sun Peaks, and Lytton.

While there are the initial upfront costs of establishing a newly formed police department, a Thompson-Nicola police force could tie together methods used by the Surrey Police Service, which is currently transitioning from the RCMP to its city police. According to Solicitor General Mike Farnworth, in

July of 2023, Surrey's decision was made after the RCMP faced critical staffing shortages. He also stated that keeping Surrey on track for this transition was the "right thing for the people of Surrey and across our province (Meissner, 2023).

Additionally, a report from his office is said to have 842 RCMP members leaving or retiring and 638 recruits nationwide, while there are currently about 1,500 vacancies across the RCMP in B.C.

It is found that there is a correlation between having a lower socioeconomic status and crime rates. Higher population densities and specific land use patterns may increase the opportunity for crime; adding in the increasing homeless population in Kamloops only adds fuel to the fire. A Kitchen (2007) study for the Department of Justice Canada concluded that the geography of crime can also be expected to vary considerably, not only within cities but also between cities. Fully accounting for these differences is needed to develop appropriate strategies for crime prevention and social upgrading that deal specifically with local circumstances.

Therefore, as Kamloops and the Thompson-Nicola continue to combat the crime rate shorthandedly, it is time for the region to come together and address the rising crime rate and lack of resources. A Kamloops or Thompson-Nicola police service could be the answer to pulling together all funding available and starting to prevent crime rather than react to it with an insufficiently funded RCMP detachment. This solution may work if Canada's government needs help finding a better way to staff and fund the RCMP in addition to the funding already provided by the city of Kamloops. Many questions

need to be asked about how to improve the efficiency of the city's current policing model and how they can attract more people to the job.



Figure 2: Patrick Izett's poster presentation at the 19th TRU undergraduate conference in March 2024. CC BY-NC-SA 4.0

Media Attributions

Figure 1: "Total operating expenditures by each city as well as their police expenditures in CAD bar graph" [data source] by the author is under a CC BY-NC-SA 4.0 license.

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5. A Home Away from Home: Exploring Accommodation Challenges for International Students

KRIS KADALEEVANAM

Introduction

Accommodation problems among international students in Canadian universities affect their academic achievements and overall health. These challenges could be noticeable at Thompson Rivers University (TRU) in Kamloops, a city recognized for its varied population. This research investigates potential challenges international students encounter at TRU, including rental prices, limited housing options, and exploitation by landlords. These problems, if present in Kamloops, are indicative of larger systemic issues in Canadian student housing industries. The accommodation challenges faced by international students can cause stress, negatively affecting their academic performance and mental well-being. Challenges like sudden hikes in rent, unfair behaviour from landlords, and poor living conditions are

frequently encountered (Obeng-Odoom, 2012; Banjong, 2015). Homestay programs are now being seen as a viable solution to address these challenges. These initiatives provide a secure and cost-effective housing option that also promotes cultural interaction and assimilation, which are essential for improving the global student experience (Akbar et al., 2004). This paper will analyze these factors to assess how well TRU's homestay program helps alleviate accommodation challenges for international students and suggest ways to enhance it.

Literature Review

International students frequently struggle with expensive living expenses, substandard housing, and feelings of social isolation. Obeng-Odoom (2012) points out the worldwide difficulty of offering appropriate housing for international students, stressing that neglecting these requirements can negatively impact their academic experiences and health. Similarly, Banjong (2015) discusses the economic and language barriers experienced by international students in the U.S., highlighting how these difficulties can result in feelings of isolation and missing home, ultimately affecting their academic performance. Yildirim (2014) highlights that challenges arise from unfamiliar academic cultures, further increasing stress and anxiety among students.

The homestay option is seen as a remedy that provides more than just accommodation. It offers a family-friendly atmosphere to help with adjusting to life in a different

country. Homestays can reduce feelings of loneliness by immersing students in the host culture and providing them with direct support. This environment not only improves language abilities but also aids in grasping local traditions and academic standards, enhancing the overall student experience. Chennamsetti (2020) illustrates how homestay can help Indian students in the U.S. overcome academic and social hurdles by offering a supportive environment for their education. Homestay programs offer a budget-friendly option with a set price covering utilities and meals, making them a more economical choice than other accommodation options. This could greatly lessen the financial stress on international students, enabling them to concentrate more on their academics instead of on financial struggles. Akanwa (2015) backs this up by talking about how students' academic performance can be enhanced when they are not as pressured by their living situations. Furthermore, the structured support within homestays can contribute positively to the academic performance and well-being of students, offering a conducive environment for study and cultural exchange.

Background Information

The main focus of TRU's homestay program is to integrate international students into the Canadian lifestyle. This enhances their linguistic and cultural understanding. Under this program, the student would be paired with a local host family. The student would be receiving a private bedroom

complete with necessary furniture along with three daily meals and snacks provided by the host family. In addition to these essentials, students have access to household amenities and receive guidance from their hosts on understanding local traditions. The student is required to pay the host family a monthly fee of \$1,200 to participate in the program. This is to help pay for the cost of meals and accommodation. Students must also pay a \$600 refundable security deposit to cover any potential damages, in addition to a \$150 one-time, non-refundable placement charge for processing and administrative needs. Participation in the program requires the student to commit at least one semester to make sure that the student builds lasting relationships with host families for a meaningful cultural exchange. However, it must be noted that the student cannot directly choose the host family. The homestay supervisor will be selecting a family that aligns best with the preferences given by the student during the application process.

Methodology

This study used a mixed-method approach by integrating quantitative survey data collection with qualitative interviews to understand international students' accommodation experiences at TRU. The main purpose was to investigate the challenges these students faced regarding housing, the exploitation they may encounter, and their perception of the homestay program as a potential solution. Existing works were reviewed to find out the common difficulties and

exploitative practices affecting international student housing. The participants in this study were international students enrolled at TRU who voluntarily chose to participate in the survey. Additionally, the homestay supervisor of TRU was interviewed to gain more insights into the efficacy of this accommodation option.

The survey served as the primary instrument for data collection. The survey consisted of questions that provided information on different aspects of the students, such as their demographics, employment status, current housing arrangements, and other challenges and concerns they faced. Further, it also examined their awareness and perceptions of the homestay program. Participant recruitment and survey distribution were facilitated via email to the international students with the help of International Student Advisors (ISA) at TRU. Given that all international students have contact with their assigned ISAs, this method provided a reliable means of reaching a wide audience. The research ethics board at TRU granted ethical permission for the study prior to data collection, guaranteeing that the work compiled would follow ethical norms and requirements. Confidentiality was guaranteed to participants, and informed consent was acquired.

Analysis

A total of 309 responses were collected from the survey, providing a robust dataset for evaluating the housing

conditions of international students. The representativeness of the sample was determined by analyzing demographic data, specifically looking at gender and nationality. The gender distribution within the survey participants was nearly balanced among male and female respondents at 46.3% and 53%, respectively. The remaining 0.7% represented other genders, such as trans and non-binary. The demographic analysis also indicated a diverse international representation led by a significant proportion of Indian nationals and followed by varied nationalities, highlighting the global demographic makeup of the student body.

Monthly Income & Rent

Monthly income represents the total amount of money the student receives in a month from their part-time job. The mean monthly income of 110 students that reported was \$1,460 with a 95% CI [1,187,1,733]. The mean monthly is the total amount of money paid for renting a housing unit per month. This is the full rental price of an apartment, house, or other living space type, regardless of how many people live there. The mean monthly rent of 168 students is \$1,613 with a 95% CI [1,369,1,857] and hence no different than the monthly income they earn; however, to make ends meet, most students share the rent in shared housing situations, where multiple tenants split the cost of the rent. The average cost of renting is now lower at \$849 with a 95% CI [715,983]. Hence, the average shared rent captures 58% of the average monthly income of an international student. The monthly income and

expenses suggest that a significant portion of students' earnings is allocated towards housing, highlighting the lack of affordable housing options. Nearly 40% of students report spending above \$1,200 on rent and living expenses, indicating a potential for cost savings should these students switch to homestay programs, which average \$1,200 per month, including meals and utilities.

Table 1 summarizes the rent findings from the survey.

Table 1: Comparing Monthly Income vs. Monthly Rent vs. Share of Rent

Financial Category	Obs	Mean	St. Dev	St. Error	95% CI Lower Bound	95% CI Upper Bound	Max
Monthly Income	110	\$1,460	\$814	\$139	\$1,187	\$1,733	\$4,000
Monthly Rent	168	1,613	1,013	124	1,369	1,857	6,500
Share of Rent	155	849	421	68	715	983	2,400

Note. Data compiled from survey responses.

Housing Types

There are four types of housing available. First, the off-campus rental options are privately-owned housing options, such as apartments, houses, and shared residences located outside university grounds and managed independently from the educational institution. Second, the on-campus

residences are the housing options managed by the university. This includes North Tower, McGill Residence, East Village, Coyote Den | Skelepéllcw, and West Gate Dormitories. Third, homestay is a living arrangement where students reside with a host family, often including meals and a more integrated family experience. Finally, other types include housing arrangements such as living with family or relatives and staying in hotels or motels for short-term arrangements. Most international students, 61%, rent places off campus and share the rent, making it more affordable. The next most common accommodation is on-campus, with 31% of the respondents living on campus. Only 3% of the respondents live in a homestay type of accommodation.

Table 2 summarizes the housing type findings from the survey.

Table 2: Comparing Types of Housing

Housing Type	Count	%	Average # of Students Sharing	Average Rental Price From Survey
Off-Campus Rental	151	61	3.54	\$1,460
On-Campus Residence	77	31	2.78	\$943
Homestay	8	3	1.00	\$1,200
Other	12	5	N/A	N/A
Total	248	100	—	—

Note. Data compiled from survey responses.

On-Campus Housing

TRU offers a variety of on-campus housing options designed to accommodate the diverse needs of its student body (Thompson Rivers University, 2024). Each residence has unique characteristics that cater to different preferences and lifestyles.

- **West Gate Dormitories** – Economical, modular units providing private rooms, ideal for students seeking affordable, basic accommodations.
- **North Tower** – Private bedrooms within two-bedroom and four-bedroom suites. Suitable for students who prefer a blend of privacy and community living.
- **McGill Residence** – Four-bedroom units that share common areas. This residence fosters a strong sense of community and is great for students who enjoy social living environments.
- **East Village** – Targeting upper-year students, these apartment-style suites offer more amenities and greater independence.
- **Coyote Den | Skelepéllcw** – Private suites with self-contained amenities. Suitable for students valuing privacy and independence, providing comforts similar to off-campus living.

Cost Breakdown

All the residences at Thompson Rivers University include a \$100 application fee and a \$60 non-refundable residence life activity fee (Thompson Rivers University, 2024). Additionally, a

\$250 security deposit is required, which is refundable upon moving out, provided the room is left clean and undamaged. **Table 3** outlines the costs associated with each housing option for an eight-month academic year.

Table 3: TRU On-Campus Housing

Residence	# of Beds
West Gate	114
McGill Residence	302
East Village	450
Coyote Den	148
North Tower	570
Total	1,584

Room Type	Rent per Academic Year
West Gate – One bedroom dormitory	\$5,380
McGill Residence – One bedroom dormitory	\$6,075
East Village – Four-bedroom suite	\$6,465
Coyote Den – One bedroom suite	\$10,000
Coyote Den – Double room (shared)	4,388
North Tower – Two-bedroom suite	\$9,100
North Tower – Four-bedroom suite	\$9,100
North Tower – Deluxe suite	\$9,850
Average	\$7,574

Note. Data for Table 14A and 14B from Thompson Rivers University (2024).

While these residences offer convenient proximity to academic facilities and a variety of living arrangements, there are some drawbacks to be considered. The structured payment plans requiring substantial upfront or bi-annual

payments can be financially burdensome to the students. This challenge, coupled with the typical restrictions of on-campus housing, makes this option less attractive to students seeking flexibility and a more inclusive living experience.

Comparison With University of British Columbia's Model

In evaluating TRU's on-campus housing, insightful comparisons can be drawn with the University of British Columbia (UBC), an institution whose student housing strategy offers several exemplary practices. UBC's model, with a typical cost for a room and meal plan for new undergraduates ranging from \$12,000 to \$14,500 per year, includes not only comprehensive amenities but also meal plans essential for fostering student well-being and integration into university life (University of British Columbia, n.d.). However, the total fees can vary from \$10,300 to just over \$15,000 depending on the type of room and meal plan selected. This is critical in an area like Vancouver, where living costs are notably high. Moreover, UBC's flexible payment plans for Year-Round residences, which allow for monthly payments rather than demanding the full semester's fees upfront, significantly lessen the financial burden on students. This flexibility facilitates easier budget management and alleviates the stress of large upfront payments.

In contrast, TRU's on-campus housing option costs an average of \$7,574 per academic year, with the lowest and highest rent at \$4,388 for a double room (shared) and 10,000 for a one-bedroom suite at the new Coyote Den (Thompson Rivers

University, 2024). TRU's on-campus housing options do not offer meal plans and require students to pay a larger lump-sum amount in one or two installments. When students were asked, "How much do you typically spend on living expenses other than rent (food, utilities, personal care items, and other necessities) per month?" the average amount was \$564 per month or \$4,512 per academic year, which is lower than the \$6,960 obtained from EduCanada (2023). However, food and grocery expenses from EduCanada indicate an average of \$2,880, with a lower end at \$1,920 and an upper end at \$3,840 per academic year.

Hence, adding rent with food and groceries brings the total average expenses at TRU to \$10,454, with a lower end at \$6,308 and an upper end at \$13,840, making it compatible with UBC's model of \$10,000 to \$12,000.

Even though the TRU plan is more economical, the rigid payment structure can create financial stress. Reflecting on UBC's flexible payment option (i.e., monthly payments) would make housing fees more manageable, reflecting a more modern, student-centred approach to university housing. This enhancement would not only elevate the attractiveness of TRU's housing but also align with the university's broader goals of fostering an inclusive and supportive academic community. Enhancing student support services and amenities would further cultivate a supportive and engaging community environment at TRU, ensuring that the university offers more than just accommodation but a holistic environment that positively impacts students' educational journeys and personal growth.

Personal Impacts of Housing

This section investigates the personal impacts of housing for international students at Thompson Rivers University, focusing on costs, student experiences, and the potential of homestay programs. Most of the surveyed students (74%) reported that their housing situation had negatively impacted their academic performance and personal well-being. Factors contributing to this include high rent, poor maintenance, and unstable living conditions. The psychological stress associated with these factors can detract significantly from academic focus and overall student health. Further examination of the survey uncovers specific challenges that amplify the general concerns:

- **Unreasonable rent increases** – Reported by 35% of students, highlighting financial instability that can distract from academic focus.
- **Withholding of security deposits** – Experienced by ~26% of students, reflecting potential unfair practices in rental agreements.
- **Failure to provide necessary repairs or maintenance** – The most reported issue at ~39%, indicating that poor living conditions are a significant concern.
- **Discrimination Based on Nationality or Ethnicity** – Affecting ~12% of students, potentially leading to a hostile living environment.
- **Threats of Eviction or Lease Termination** – Reported by 7% of students, contributing to insecurity and stress.
- **Unauthorized Entry by Landlord/Property Manager** –

Reported by 21% of students, raising concerns about privacy and security.

- **Other Issues** — ~30% of students noted various other problems, suggesting there are additional unaddressed concerns.

The survey results offer an optimistic view of student engagement with the homestay program, highlighting a significant level of awareness and meaningful openness among students toward this accommodation option. The data reveal that a substantial ~68% of students (157 out of a total of 232 respondents) are aware of the homestay program. This figure indicates that information about the program is widely accessible and reaches a large portion of the student body. The extent of awareness demonstrates the program's visibility on campus.

Comfort With the Homestay Program

Importantly, more than a third of the students surveyed (79 out of 224 respondents) view the homestay program as an affordable and suitable option. This level of comfort is particularly noteworthy, reflecting a readiness among a significant segment of the student population to engage with the homestay program. It indicates that a considerable number of students recognize the potential advantages of homestay living, such as cost savings, a nurturing environment, and the chance for cultural exchange. These findings reflect a positive scenario for the homestay program

at TRU. With two-thirds of the students informed about the program and a substantial portion considering it a viable and attractive living arrangement, there is a clear indication of potential growth for homestay participation. This suggests that as students become more familiar with the benefits and practicalities of homestay, the program could see increased interest and engagement, enriching the university experience for many.

Difficulty in Finding Suitable Housing

The process of securing accommodation was also highlighted as a challenge, with the survey indicating that finding housing was rated as difficult (out of 248 responses), with a weighted average rating of 3.6 out of 5 (see **Figure 1**). This difficulty level signifies the competitive nature of the housing market in Kamloops.

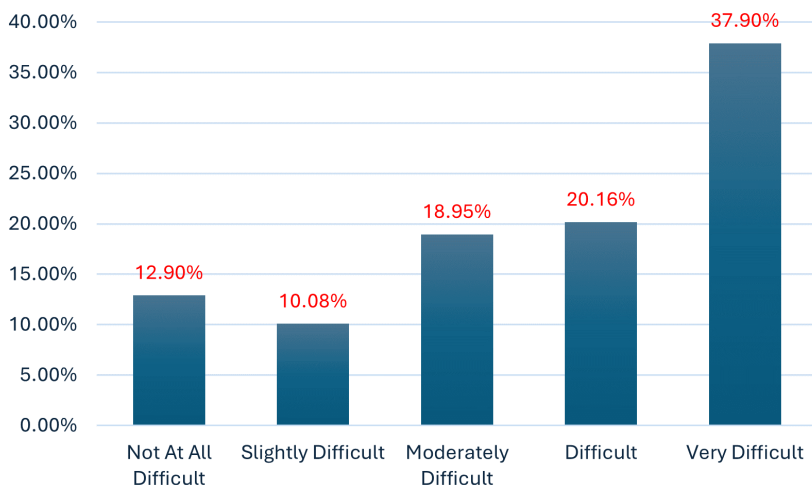


Figure 1: Responses to *difficulty of finding accommodation survey* CC BY-NC-SA 4.0

Homestay Supervisor Interview

Interviews with the homestay supervisor provided valuable insights into the operational dynamics and student engagement with the homestay program at TRU. The homestay supervisor indicated that enrolment in the program typically ranges between 150 to 200 students, though these numbers are subject to significant variability for each semester (Homestay Supervisor, personal communication, March 4, 2024). Predominantly, the program attracts English as a Second Language (ESL) students, suggesting its pivotal role in providing linguistic support. This demographic inclination highlights that the homestay option is particularly

favoured by those seeking to enhance their language skills rather than by the broader international student community.

While the homestay program is effectively supporting ESL students in their linguistic and cultural integration, it appears that there is a broader misconception among the international student community regarding the nature of homestay accommodations. Many perceive these arrangements as less independent and temporary solutions for initial settlement. Many international students initially choose homestays due to the challenges associated with securing on-campus or off-campus housing upon their arrival (Homestay Supervisor, personal communication, March 4, 2024). The homestay program offers a quick, reliable solution during this transitional phase when other accommodations may not be immediately available. However, as students settle into their new surroundings, their needs and preferences often evolve. Over time, the desire for greater privacy and independence leads many to seek alternatives that offer more autonomy than homestay arrangements. This view often overlooks the substantial cost savings that homestays can offer compared to other housing options.

Addressing these misconceptions is vital for encouraging a more diverse group of international students to consider homestays as a viable long-term housing option. Enhancing awareness about the financial and supportive benefits of homestays could significantly influence student housing choices, fostering a deeper appreciation for the unique advantages of this accommodation type.

Cost Savings Potential Through Homestay

Considering the economic analysis, transitioning to homestay could provide significant savings for students, particularly those currently burdened by high rental costs. Homestay programs, offering a fixed cost that includes utilities and meals, present an economically viable option for many students struggling with the financial demands of independent housing. The average off-campus rent is depicted at \$1,613; this cost is significantly higher than the \$1,200 monthly fee for the homestay program, which includes not just accommodation but also meals and utilities. Even the average shared rent captures 58% of the average monthly income, as indicated previously. This difference clearly points to the immediate financial relief that the homestay program can offer. It is crucial to note that the true savings could be even more substantial when considering additional expenses that off-campus students incur, such as utilities and groceries, which are absorbed within the homestay fee. However, the economic benefits outlined before also bring into question why the homestay program sees such low enrolment despite its apparent advantages. There are other factors at play – perhaps psychological or cultural – that deter students from opting for this seemingly beneficial arrangement. These might include students' preferences for independence, privacy, or possibly misconceptions about what life in a homestay entails.

Recommendations for Homestay Program

To optimize the effectiveness of homestay programs and enhance the housing experience for international students at TRU, the university should focus on some targeted strategies. TRU World should intensify its promotional activities by clearly communicating the financial and cultural benefits of the homestay program. This should include detailed information sessions, updated web content, and engaging social media posts that outline the cost benefits and immersive cultural experiences available through the homestay. They can also amplify the visibility of positive outcomes by sharing testimonials and case studies from both students and host families who have had rewarding experiences. This could be showcased in university newsletters, during orientation events, and on the university's housing portal.

Additionally, the university should implement a straightforward financial incentive for host families to effectively enhance the homestay program. Offering a fixed compensation would help cover the extra costs incurred from hosting a student, such as increased utility bills and food expenses. This direct financial support ensures that host families are adequately compensated for their contributions and encourages more local families to participate in the program, improving the availability of quality accommodations for international students.

Comparison of Different Housing Arrangements

In summary, the lowest cost is tied between the TRU homestay program and TRU’s off-campus housing shared rental (with an assumed two-person occupancy). TRU’s on-campus housing is third, although there is variation within TRU’s offerings. For example, Coyote Den’s double room (shared) costs \$4,388 to rent for a total of \$7,268, making it the cheapest option for students (Thompson Rivers University, 2024). UBC’s and TRU’s off-campus housing without sharing are the most expensive accommodations. **Table 4** compares the costs of different housing arrangements in detail.

Table 4: Costs of Different Housing Arrangements

Housing Type	Monthly Rent	Annual Rent (8 months)	Meal Costs (8 months)	Total Annual Cost
TRU Homestay	\$1,200	\$9,600	Included	\$9,600
TRU Off-Campus (Shared Rental)	\$849	\$6,792	\$2,880	\$9,672
TRU On-Campus (Average)	\$947	\$7,574	\$2,880	\$10,454
UBC	\$1,250	\$10,000	\$2,000	\$12,000
TRU Off-Campus (Average Rental)	\$1,613	\$12,904	\$2,880	\$15,784

Note. Data for Table 15 is from the survey, Thompson Rivers University (2024) and University of British Columbia (2024)

Conclusion

This research has brought attention to important obstacles experienced by international students at Thompson Rivers University when trying to find appropriate accommodation that promotes their academic and personal health. The results show that most students choose off-campus rentals because they cannot find their preferred options on campus; however, these rentals can be costly and do not offer a good environment for academic success. Although not fully utilized, homestay programs provide a promising option that can offer economic assistance and create a supportive environment for cultural integration and academic help. Nonetheless, in order for homestay programs to gain greater acceptance, TRU must confront the current gaps in understanding and attitudes toward these arrangements.

The Canadian government's recent budgetary announcements for 2024 positive signs and present strategic opportunities for TRU to capitalize on. The removal of GST on new student housing and the introduction of the Apartment Construction Loan program are pivotal initiatives that align with the housing challenges underscored in this study (Department of Finance Canada, 2024). TRU can leverage these initiatives to strengthen its housing infrastructure, particularly enhancing the homestay program, thereby rendering it a more viable and attractive proposition for students.

The recommendations offered are intended to improve the housing system at TRU by focusing on enhancing the quality, accessibility, and student satisfaction of both homestay and

off-campus housing choices. Executing these plans will need a collaborative approach from university officials, nearby housing landlords, and the wider community to guarantee the accommodation requirements of every international student are fulfilled, ultimately improving their educational journey and achievements at TRU.

A HOME AWAY FROM HOME: EXPLORING ACCOMMODATION CHALLENGES FOR INTERNATIONAL STUDENTS AT THOMPSON RIVERS UNIVERSITY

KRIS KADALEEVANAM
SUPERVISOR: DR. TSIGARIS

INTRODUCTION

International students at TRU, set within the diverse cityscape of Kamloops, encounter unique housing challenges reflective of broader issues within Canadian higher education. This study investigates these difficulties, critically examines the prevalence of exploitation and evaluates the potential of homestay programs to mitigate these experiences.

OBJECTIVE

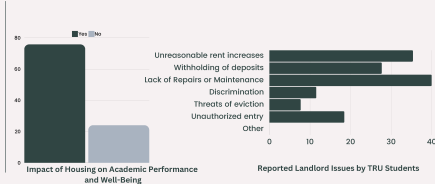
- Identify the housing landscape for TRU's international students.
- Highlight the prevalence and nature of housing exploitation faced by these students.
- Evaluate the homestay program's suitability and effectiveness for student integration.
- Seek to inform policy recommendations for improved accommodation practices.
- Call for a reevaluation of current accommodation practices.

METHODOLOGY

This investigation employed a comprehensive mixed-methods approach, blending a structured online survey with in-depth personal interviews to capture a multifaceted perspective of international student housing challenges at TRU. The quantitative component quantified housing conditions, while qualitative interviews with participants, including homestay supervisors, provided rich, narrative data, offering insights into personal experiences and the nuances of accommodation exploitation.

RESULTS

- A significant off-campus housing was observed, with 82.7% of students choosing this option, whereas only 2.0% were in homestay arrangements.
- The impact of housing on academic performance and well-being was notable, with 74.2% feeling affected.
- Finding housing was rated as difficult (weighted average of 3.6 out of 5).
- 92% are aware of TRU's homestay program, and only 38% are "not comfortable at all with the idea of living in a homestay".



ANALYSIS

Variable	Observation	Mean	Std. dev	Min	Max
Work hr/week	123	23	10	3	48
Monthly income	110	\$1460	\$814	\$100	\$4000
Monthly rent	168	\$1,613	\$1,013	\$10	\$ 6,500
Share of rent	155	\$849	\$421	\$10	\$ 2,400

Total Expenses Analysis

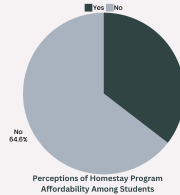
Expenses: Share of Rent + living expenses
Observations: 184
Average Monthly Expenses: \$1200
Median Monthly Expenses: \$1100
Students Spending Above \$1,300: 73 (40% of students)
Conclusion: 40% could save by switching to homestay
Recommendation: TRU should promote homestay for cost savings and other cultural benefits.
Issue identified: Supply issue although could also be preferences related.

Factors motivating students to consider a homestay

- Cultural immersion and exchange:** Frequently selected as a key motivator for choosing homestay.
- Affordability:** Many consider homestay more affordable than other housing options.
- Access to home-cooked meals and family atmosphere:** Often cited as a significant factor.
- Enhanced support and guidance from host family:** A common reason for preference towards homestay.
- Opportunities for language practice and skill development:** Regularly marked as a benefit of homestay arrangements.

CONCLUSION

- A significant portion of TRU international students stay in off-campus rentals.
- The homestay program is known to only half of the respondents, and only 28% are not comfortable with the idea of homestay.
- These findings suggest an opportunity for TRU to reevaluate and potentially enhance the homestay program, focusing on making it more appealing.



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6. Surviving the Streets: Unpacking the Economics of Homelessness

GARIMA MEHTA

Abstract

This chapter examines the significant issue of homelessness in Kamloops by utilizing primary and secondary data to offer a comprehensive understanding of the current situation and recommend solutions to the crises the community faces. It analyzes trends and demographics related to homelessness. A framework is constructed to illustrate the pathways through which individuals enter and exit the homeless community. The framework allows us to look at the problem holistically and arrive at short and long-term solutions. Additionally, the research evaluates government programs and policies aimed at addressing homelessness, determining their effectiveness by examining the inflows and outflows within the homelessness model. Furthermore, the study assesses the importance of community involvement, non-profit organizations, and government interventions in tackling homelessness. It discusses challenges such as insufficient funding and structural barriers. Additionally, the paper explores the impact of cultural stigma and societal beliefs on

socioeconomic status and homelessness. Overall, the research highlights the necessity for collaboration among various organizations to effectively address the homelessness issue in Kamloops.

Introduction

Home is not a place, it is a feeling. Those who can associate with that saying have the privilege of a stable and secure roof over their heads while being able to life live and not surviving it. Not everyone is blessed with the life circumstances resulting in secure housing. Homelessness is a pervasive issue that exists in the shadows of bustling cityscapes and among the tranquil corners of suburban neighbourhoods.

Homelessness isn't solely about lacking a physical home; it is determined by a combination of societal, economic, and personal elements. It symbolizes broader issues of inequality within society and the difficulties individuals face.

This paper attempts to search into the depths of understanding homelessness, examining its root causes, its diverse manifestations, and the various strategies employed to address it. This chapter aims to shed light on this often misunderstood and overlooked aspect of modern society through a synthesis of empirical research, policy analysis, and firsthand narratives. In the following sections, we will explore the complexities of homelessness, the structural inequities that underpin its prevalence, the challenges faced by those experiencing it, and the interventions proposed to alleviate its

burden. By fostering a deeper understanding of homelessness, the ambition is to inform and inspire action and empathy in the pursuit of a more just and compassionate society. As we embark on this journey of exploration, let us remember that behind every statistic lies a human story, behind every policy debate, a person in need. It is our collective responsibility to confront the issue of homelessness with empathy, insight, and a steadfast commitment to meaningful change.

Understanding Homelessness

It is vital to begin by understanding the term ‘homeless’ and the situations it encompasses when addressing this issue. The Canadian Observatory on Homelessness provides a widely accepted definition, stating it as “the situation of an individual, family or community without stable, safe, permanent, appropriate housing, or the immediate prospect, means and ability of acquiring it” (Gaetz et al., 2017).

Kamloops and other communities across Canada conduct a Point-in-Time Count that provides a snapshot of the number of people experiencing homelessness within a community in a 24-hour period. For this purpose, the definition is further refined to be, “an individual who does not have a place of their own where they can stay for more than 30 days, as well as if they do not pay rent,” (City Of Kamloops, 2023).

Four Main Types of Homelessness

Homelessness encompasses diverse experiences, affecting different groups in various ways. It is not voluntary, and its roots extend beyond housing instability, intertwining with societal, structural, and individual challenges such as unemployment, discrimination, domestic abuse, mental health issues, and addiction (Dionne et al., 2023). Despite its complexity, episodes of homelessness can generally be categorized into four main types: unsheltered, emergency sheltered, provisionally accommodated, and at risk of homelessness (Dionne et al., 2023).

Unsheltered homelessness involves living without consent in public or private spaces unfit for permanent habitation. Emergency-sheltered homelessness encompasses temporary accommodation in shelters for those without homes or at risk, including shelters for domestic violence victims or disaster victims. Provisionally-accommodated homelessness, commonly referred to as hidden homelessness, includes transitional housing, temporary stays with friends/family, living in hotels/motels, institutional care, or staying in facilities for recent immigrants/refugees. Those at risk of homelessness, although not currently unhoused, face imminent risks due to factors like unemployment or domestic violence, or they live in precariously housed situations, spending a significant portion of their income on housing or living in inadequate conditions (Dionne et al., 2023). The occurrence of events like eviction, job loss, or severe illness can act as tipping points that push individuals into

homelessness, especially when they have depleted their resources or lack community support (Lee et al., 2021). These circumstances emphasize how homelessness often results from a combination of unfortunate events occurring in the absence of effective, preventive social insurance (Lee et al., 2021). This highlights the importance of preventative measures that need to be employed along with strategies to help those already unhoused.

Nature of Homelessness

In addition to the previous categories, special attention needs to be paid to the episodic nature of homelessness.

Homelessness episodes are categorized into chronic, cyclical, or temporary types based on their duration. Chronic homelessness involves long-term or repeated episodes.

Individuals must have “spent a total of at least six months (180 days) as homeless over the past year or have had recurrent episodes in the past three years with a cumulative duration of at least 18 months staying in unsheltered locations, in emergency shelters, or staying temporarily with friends or family members” (Dionne et al., 2023). Cyclical or episodic homelessness refers to periods of moving in and out of homelessness due to changing circumstances like release from institutions, changes in employment or family dynamics, income loss, or unexpected housing changes. Temporary homelessness encompasses short, isolated episodes resulting from events such as natural disasters, sudden housing changes, or house fires (Dionne et al., 2023).

Indigenous homelessness, deeply rooted in colonization and trauma, goes beyond physical homelessness to encompass a lack of a meaningful home or identity (City of Kamloops, 2023). Addressing these distinctions is crucial in understanding and tackling homelessness challenges faced by Indigenous communities in Canada.

The Housing Continuum Model

It is useful to look at the different housing types using the CMHC framework in **Figure 1** to define homelessness.



Figure 1: The housing continuum (Dionne et al., 2023) Statistics Canada Open License

This model illustrates the progression of housing needs from homelessness to market home ownership, depicting the variety of affordable housing options available in Canada for individuals lacking the financial means to access the housing market (Dionne et al., 2023). It aims to demonstrate the diversity and fluidity of housing circumstances that

distinguish individuals facing homelessness from the general population (Dionne et al., 2023).

The housing continuum model presents eight categories of housing needs, ranging from less secure and shorter tenures to more secure and longer tenures. These categories are not strictly linear and may overlap. They include Homeless, Emergency Shelter, Transitional Housing, Social Housing, Affordable Rental Housing, Affordable Home Ownership, Market Rental Housing, and Market Home Ownership. There is no clear and rigid boundary that separates people who are securely housed and those who are not. Many people in Canada live in a wide, grey area between these extremes. They move within a continuum of housing options that include couch surfing, the use of homeless shelters, transitional housing and, if fortunate, low-priced rental accommodations. The common denominator for the largest part of this population is an income that is low relative to the cost of maintaining secure housing. Being Indigenous is also an important predictor of what one's experience with homelessness will be.

Background of the Unhoused in Kamloops

The Point-in-Time Count report by the City of Kamloops (2023) is one of the only resources available to gain insights into the dynamics and demographics of the unhoused population in Kamloops. This Point-in-Time Count offers insight into the extent of homelessness on a specific day,

serving as a baseline for understanding the visible and often highly vulnerable homeless population. Data was collected from eight shelters and through surveys conducted across different locations in the community (City of Kamloops, 2023). However, a 24-hour period is understandably not sufficient to provide accurate insights into the number of those unhoused and the other components studied, and hence, this report should be considered alongside other data sources for a comprehensive understanding of homelessness in the community. To begin with, between April 12 and 13, 2023, 312 individuals experienced homelessness (City of Kamloops, 2023). The data indicates a 51% increase in homelessness from 2021 and a surge of over 200% in the count of individuals identified as unhoused during Point-in-Time Counts over the last nine years (City of Kamloops, 2023).

Four Demographic Profiles

The Point-in-Time Count by the City of Kamloops (2023) also analyzes the survey data to better understand the groups of individuals comprising the homeless population in the city and the potential factors influencing the rise of homelessness locally. Four distinct groups surfaced that require focused policy interventions.

A substantial portion of respondents, representing more than half, consists of young adults who encountered homelessness during their formative years, with an average age of onset at 18 and current age averaging 34 (City of Kamloops, 2023).

Nearly half of this group has familial ties to the residential school system (City of Kamloops, 2023). The gender distribution within this cohort is relatively balanced (City of Kamloops, 2023). Their average duration of homelessness exceeds three years since their initial experience, with approximately nine months of unhoused living within the past year (City of Kamloops, 2023).

A secondary group comprises approximately 25% of middle-aged females who recently experienced homelessness, typically at the age of 39, now averaging 45 years old. Their housing instability predominantly stems from financial difficulties (City of Kamloops, 2023). In contrast, about 15% of respondents are older adults who have recently become homeless for the first time in the last 3–5 years (City of Kamloops, 2023).

Lastly, a minority, constituting 10%, consists of older males who endured a troubled youth, entering homelessness around the age of 16–17 (City of Kamloops, 2023). Now averaging 55 years old, this group faces chronic homelessness, indicative of a persistent cycle often initiated in early life (City of Kamloops, 2023).

A special note needs to be made for the 6% of the homeless population that are veterans and indicated that they had served in the Canadian Forces (City of Kamloops, 2023). Veterans experiencing homelessness issue is attributed to “the difficulty in transitioning to civilian life after returning from service” (Amon & McRae, 2021).

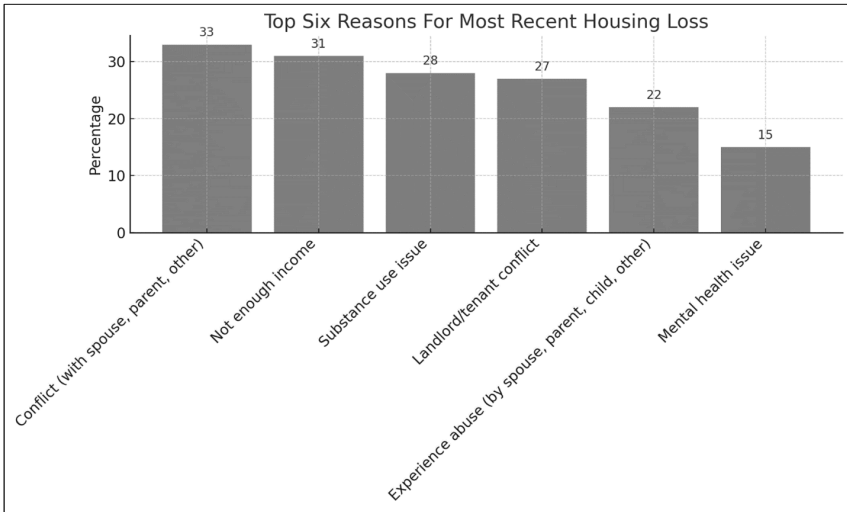


Figure 2: Top six reasons housing loss in Kamloops. Data from City of Kamloops (2023) CC BY-NC-SA 4.0

Critical Policy Attention Areas

This data reinforces three critical areas for policy attention. Firstly, it highlights the prevalence of youth homelessness and its potential link to long-term housing instability, particularly evident in Profiles 1 and 4 (City of Kamloops, 2023). Notably, a significant proportion of youth experiencing homelessness have also been involved in the foster care system (City of Kamloops, 2023). This emphasizes the need for comprehensive support services so the unhoused can successfully obtain secure housing and preventative measures targeting the vulnerable youth demographic. Secondly, the impact of historical trauma, particularly from the residential school system, is evident, with Indigenous Peoples

disproportionately represented, notably in Profile 1 (City of Kamloops, 2023). This emphasizes the need for culturally sensitive approaches to address the enduring repercussions of colonization. Lastly, the evolving nature of homelessness, influenced by housing shortages and economic uncertainties, disproportionately affects women and youth (City of Kamloops, 2023). Although women historically experienced hidden homelessness, there is a noticeable rise in instances of later-life homelessness, as seen in Profile 2, necessitating strategies to address hidden homelessness and mitigate its escalation (City of Kamloops, 2023).

Long-Term Homelessness

In analyzing the demographics and dynamics of homelessness in Kamloops, it is evident that a majority of respondents, comprising 59%, have either been long-term residents of the city or have resided there for five years or more (City of Kamloops, 2023). Notably, there has been a significant decrease in newcomers, with only 10% arriving within the past year, compared to 24% in the previous survey conducted in 2021 (City of Kamloops, 2023). Concurrently, there has been a rise in the number of individuals experiencing homelessness for durations ranging from one to five years, increasing from 20% to 31% (City of Kamloops, 2023). This shift may partly stem from individuals who arrived in 2021 or earlier and continue to face housing instability (City of Kamloops, 2023). This highlights the pressing need for sustainable, longer-term

housing solutions to address persistent homelessness in the community.

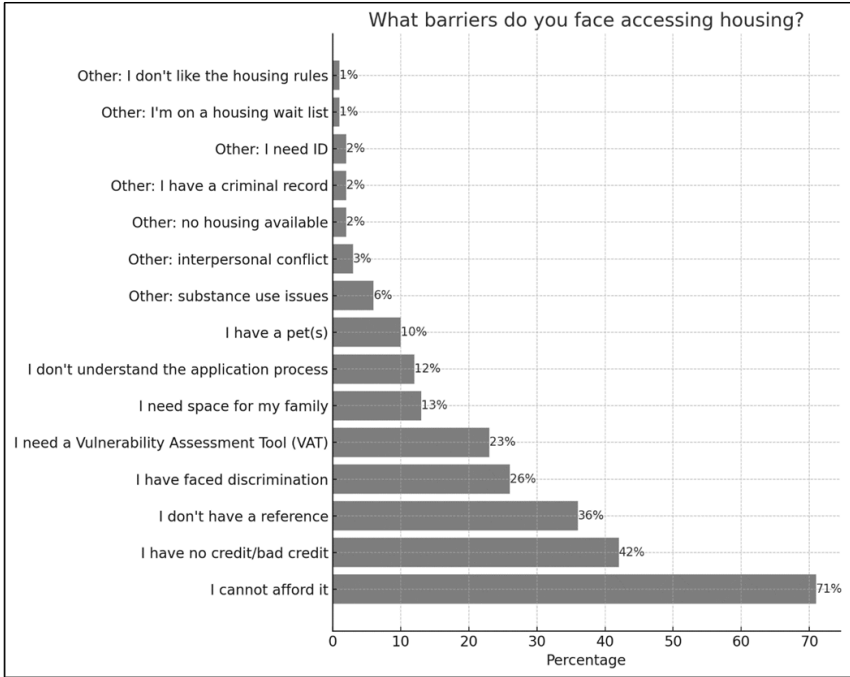


Figure 3: Barriers faced when accessing housing in Kamloops. Data from City of Kamloops (2023) CC BY-NC-SA 4.0

Homeless Individual Relocation

Moreover, insights into the relocation patterns of homeless individuals reveal various factors influencing their migration to Kamloops. A new inquiry in the 2023 survey examines whether respondents were evacuated from their home

communities, with 6% indicating that evacuation was their primary reason for relocating to Kamloops (City of Kamloops, 2023). When asked about reasons for staying, predominant factors include a lack of means to return home due to transportation constraints (80%), the presence of friends or family in Kamloops (80%), and the absence of housing options in their home communities (70%) (City of Kamloops, 2023). These findings clarify the complex interplay of social networks, economic constraints, and environmental factors shaping homelessness dynamics in Kamloops.

The Bathtub Model

The bathtub model is very useful in illustrating the pathways through which individuals enter and exit the homeless community. It will help us better understand the factors that push people into precarious housing situations and how to best target them before they enter the bathtub. It will also provide solutions to help those already in the bathtub.

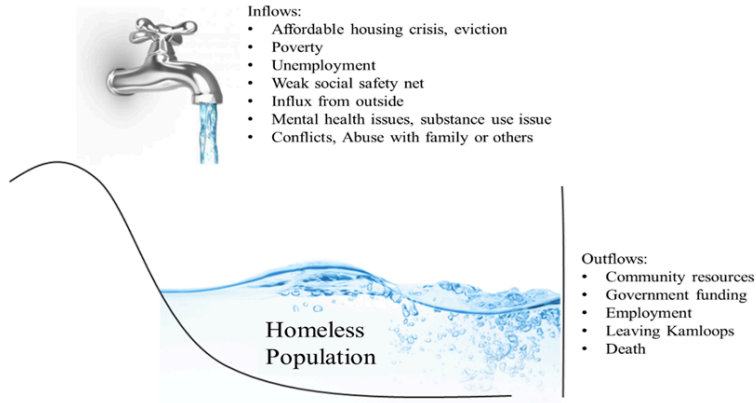


Figure 4: Bathtub model of homelessness CC BY-NC-SA 4.0

As stated earlier, there has been an increase in 2023 homelessness by 51% relative to 2021 and over 200% over the last nine years as unhoused during Point-in-Time Counts. This means that the inflows exceeded the outflows, and the water in the bathtub was rising during this decade. However, over time inflows will fall towards the outflows, eventually reaching a long-run equilibrium whereby the homeless population will be higher with the outflows equaling the inflows into the pool. To reduce the size of the homeless population the inflows will have to decrease and the outflows increase. The focus of policy-makers has been looking at increasing the outflows through increased community resources, government funding, retraining and re-employment; however, it has been very difficult to reduce the inflows via policies and regulations such as creating affordable housing and strengthening our social safety net. In

what follows, we expand on the causes and factors of homelessness in terms of inflows and outflows.

Inflows — Causes & Factors of Homelessness

Those at risk of homelessness are those who are at the tipping point, or the razor edge, of entering the homelessness pool and need particular attention to reduce the risks through policies. The causes of those at risk of homelessness are a combination of structural factors, systems failures, and individual circumstances. There is no one cause of homelessness, and there are typically compounding factors (Gaetz et al., 2016). People and families facing homelessness often have little in common except for their extreme vulnerability and insufficient access to housing, income, and the necessary support systems to maintain stable housing (“Causes of homelessness,” n.d).

Structural Factors

Structural factors encompass economic and societal issues that impact individuals’ opportunities and social conditions (“Causes of homelessness,” n.d). These factors may include insufficient income, limited access to affordable housing and healthcare, and experiences of discrimination. Changes in the national and local economy can pose challenges for

individuals to secure sufficient income and afford necessities, such as food and housing.

Population Increase

Understanding the population growth in Canada, British Columbia, and smaller municipalities like Kamloops is crucial to understanding the potential impact on homelessness (Presley, 2022). Population growth places upward pressure on demands for housing, especially in areas with limited housing options. Canada experienced an 18% population increase from 2005 to 2020, with a significant portion aged between 15 and 64 years. British Columbia saw a 23% growth during the same period, with notable migration patterns contributing to its population surge. Ensuring sufficient affordable housing is available becomes imperative to mitigate homelessness risks stemming from population growth.

Income

Between 2005 and 2018, the median income for economic families and individuals not in economic families in Canada and British Columbia experienced moderate growth, increasing by approximately 25% and 24.5%, respectively (Presley, 2022). However, individuals not in economic families typically face greater challenges in accessing affordable housing due to their lower median income compared to economic families. Moreover, despite these income increases,

the minimum wage in British Columbia has failed to keep pace with the rising cost of living, often forcing individuals to allocate more than 30% of their income toward housing expenses. This disparity between income and housing costs highlights the pressing need for policies that address income disparities to alleviate issues such as housing affordability, poverty, and homelessness.

Housing

In the 1990s, the Canadian government implemented substantial cuts to affordable housing programs, resulting in a decrease in available affordable housing and a significant rise in homelessness nationwide (Presley, 2022). During this time, the rental housing supply across Canada diminished as condominiums became more prevalent, prioritizing homeownership over rental options. These changes reduced the availability of housing for low-income individuals throughout the country, elevating the risk of homelessness.

Canada has not only experienced a decline in affordable, government-funded housing programs in recent decades but has also seen a surge in rental and housing prices in the private sector, surpassing the growth in household income (Presley, 2022). According to research by Dashora et al. (2018), there is a pressing need for supportive housing for those experiencing homelessness, a need that continues to escalate annually. Additionally, the lack of accessible affordable housing, coupled with limited housing options, has directly

contributed to the increasing rates of homelessness across Canada.

Policy

Policy plays a crucial role in addressing housing and homelessness issues, impacting the availability of services and resources for vulnerable populations. In Canada, federal policies have shifted towards promoting homeownership and privatizing affordable housing, leading to a rise in homelessness (Presley, 2022). Provincially, British Columbia aims to ensure access to affordable housing through policy and programs, but income assistance rates have not kept pace with rising housing costs. Overall, the disconnect between income and housing costs remains a significant challenge, contributing to homelessness and financial struggles across the province.

Systems Failures

Systems failures happen when various systems intended to provide care and support fail to meet the needs of vulnerable individuals, leading them to seek assistance from the homelessness sector (“Causes of homelessness,” n.d.). Instances of systems failures include challenging transitions from child welfare services, inadequate support for immigrants and refugees, and insufficient planning for

individuals being discharged from hospitals, correctional facilities, and mental health or addiction treatment centres (“Causes of homelessness,” n.d.).

Foster Care System

In the City of Kamloops (2023) Point-in-Time Count, 35% (60 individuals) acknowledged being involved in the foster care system, marking a decrease from 2021, when 50% (70 individuals) reported being part of the foster care system during their youth. Among those who encountered homelessness during their youth, 43% also had experience with foster care. This emphasizes the need for distinct prevention policies that target youth in foster care systems to ensure their smooth transition into adult life in society.

Veteran Transition to Civilian Lifestyle

Veteran homelessness is often attributed to the lack of structured transitional programs upon their return to civilian life. Many veterans express the need for comprehensive support services, including financial assistance, vocational training, mental health support, and substance abuse treatment (Amon & McRae, 2021). Studies indicate a high prevalence of addiction and mental illness among homeless veterans, with post-traumatic stress disorder (PTSD) affecting them. The absence of adequate support structures during the transition exacerbates mental health struggles and substance

abuse tendencies, perpetuating the cycle of veteran homelessness.

Personal Circumstances & Relational Problems

Individual and interpersonal factors contribute to the personal situations of individuals experiencing homelessness. These factors may encompass traumatic incidents (such as house fires or job loss), personal upheavals (such as family breakdowns or domestic violence), mental health issues (such as substance abuse), certain conditions (such as a brain injury or fetal alcohol syndrome, which can both lead to and result from homelessness), and physical health ailments or disabilities (“Causes of homelessness,” n.d.). Relational challenges may involve family violence, substance abuse, and mental health issues among other family members, as well as extreme poverty.

Abuse

The rise in family violence incidents in Canada, particularly affecting women and girls, has heightened concerns about the link between abusive home situations and homelessness (Dionne et al., 2023). Relationship issues and fleeing abuse are significant factors driving Canadians into homelessness, with women being four times more likely than men to experience

homelessness due to fleeing abuse (Dionne et al., 2023). Specifically, over two in five women have faced absolute homelessness at some point because of fleeing abuse, compared to a smaller percentage of men (Dionne et al., 2023).

The most common causes of homelessness in Kamloops are an interplay of the above reasons. Survey respondents from the Point-in-Time Count reported their reasons for their most recent housing loss, as shown in **Figure 2**. Once in the bathtub of experiencing homelessness, these reasons compound further and pose challenges and barriers to accessing housing and exiting the bathtub. Survey respondents' data for persisting homeless experience is shown in **Figure 3**.

Potential Inflows — Low-Income Families in Kamloops

The low-income cut-offs, after tax (LICO-AT) is a poverty threshold measure designed to identify individuals and families whose expenditure on necessities — food, shelter, and clothing — significantly exceeds the average proportion by 20 percentage points, thus indicating a higher economic burden. This measure is calculated based on detailed household expenditure data, allowing it to reflect the direct impact of necessary spending on overall financial well-being. LICO-AT values are also adjusted according to the size of the household and the population size of the area in which the

household resides, capturing the variance in the cost of living between different regions and community sizes (Statistics Canada, 2024). For example, the LICO-AT for communities with a population of 100,000 to 499,999 and a family size of 4 persons would be \$38,930 in 2022. LICO-AT can thus assess the risk of economic hardships and that of becoming homeless. By highlighting households that are under significant financial strain due to essential expenses, LICO-AT not only helps identify families at high risk of housing instability but also serves as a crucial determinant for eligibility in various social assistance programs aimed at mitigating poverty and preventing homelessness.

In 2021, Canadian households faced significant expenses across shelter, food, and transportation. The average annual costs were approximately \$15,256 for shelter among renters, \$33,118 for homeowners with mortgages, \$10,099 for transportation, and \$8,065 for food purchased from stores (Statistics Canada, 2023b). Using these figures to estimate a LICO-AT threshold, the calculated threshold would be around \$40,104 for renters and higher for homeowners with mortgages. This calculation serves as a rough indicator, suggesting that families earning less than this amount may experience financial strain significant enough to be considered low-income under the LICO-AT standard. This threshold helps in assessing the economic challenges that can impact housing stability and the potential risk of homelessness.

Table 1, using data obtained from Census Canada 2021, shows the distribution of the population by age group in Kamloops

and the number of people that are at the LICO-AT threshold. There are 3,625 people experiencing hardship, and thus, some are at risk of flowing into the homeless pool. The majority are in the 18–64 age range, followed by the youngest population. There are also 215 retired people having difficulties meeting their needs. Furthermore, 8,645 people are in the bottom decile of the adjusted after-tax economic family income for the population in private households. These are the poorest in terms of income in that 90% of the families make more family income than this group. They are in the bottom 10% of all families in Kamloops and are vulnerable to ending up homeless. The moral of this story is that we need stronger social security nets to reduce the inflow of people into the homeless bathtub.

Table 1: Distribution of LICO-AT Population

Population Category	# of People	Families in LICO-AT	% by Age Group in LICO-AT
Total Population	94,560	3,625	100.0%
0 to 17 years	17,800	500	13.8%
0 to 5 years	5,430	130	3.6%
18 to 64 years	59,085	2,915	80.4%
65 years and over	17,670	215	5.9%

Category	# of People	% of People Relative to Total Population
Families in LICO-AT	3,625	3.8%
Bottom Decile of the Adjusted After-Tax Economic Family Income for the Population in Private Households	8,645	9.1%

Note. Data for Table 16A and 16B from Statistics Canada (2023b).

The Health of the Homeless

So far, we have understood the complexities of homeless experiences and the multifaceted reasons that one may encounter such issues. Undoubtedly, losing the security and comfort of a house undoubtedly creates harsh conditions for individuals to survive in their day-to-day lives. It also makes them more prone to health challenges and substance use issues. It is essential to recognize that homelessness is not solely caused by substance use; instead, it is a multifaceted issue influenced by socioeconomic factors. Housing instability, often due to low income, heightens the risk of losing shelter for individuals who use substances, leading to a vicious cycle of homelessness and addiction (Homeless Hub, n.d.).

Substance Use Issues

Once on the streets, individuals facing substance use issues encounter barriers to accessing essential healthcare services, including substance use treatment and recovery support (Homeless Hub, n.d.). The lack of stable housing aggravates their vulnerability, inhibiting their ability to address underlying addiction issues effectively. Moreover, the environment of homelessness fosters a range of health risks, including deteriorating physical and mental health and accidental injuries. This is visible from the City of Kamloops (2023) Point-in-Time Count, where more than a third of

respondents identified as having either a medical condition (36%) or physical disability (34%). 25% of respondents identified as having a learning disability or cognitive limitation. It is important to understand that homelessness can worsen mental health issues and substance use (Homeless Hub, n.d.). Substance use was the most commonly cited health challenge (65%), closely followed by mental health issues (49%), aligning with existing research that indicates that substance use is disproportionately higher among individuals experiencing homelessness (City of Kamloops, 2023).

Increased Health Risks

Essentially, homeless individuals experience higher rates of premature death compared to those with stable housing, primarily due to factors such as injuries, accidental overdoses, and exposure to extreme weather conditions (Galea, 2016). A study on Canada's homelessness by Frankish et al. (2005) reports that homelessness impacts the health of individuals, with a multitude of factors contributing to increased health risks among this population. Homeless individuals are susceptible to a range of health issues, including mental illness, substance abuse, infectious diseases, such as tuberculosis and HIV/AIDS, injuries from assaults, chronic medical conditions, and poor oral health (Frankish et al., 2005). They face significant barriers to accessing healthcare, often lacking health insurance, facing challenges in making and keeping appointments, and experiencing transience

without a permanent address (Frankish et al., 2005). Despite high healthcare utilization rates, homeless individuals struggle to receive adequate medical care, resulting in frequent hospitalizations and prolonged stays (Frankish et al., 2005). This reports the urgent need for comprehensive support services and interventions tailored to address the complex health needs of the homeless population.

Outflows — How to End Homelessness?

The Canadian Observatory on Homelessness provides invaluable insights into the concept of ending homelessness and says that ending it goes beyond the mitigation of immediate crises; it entails a comprehensive task aimed at eradicating a pervasive social issue (“Defining end to homelessness,” n.d.). The Canadian ‘Definition of Homelessness’ offers a compelling framework, emphasizing the failure of society to provide adequate systems, funding, and support to ensure housing access for individuals, even in times of crisis that are beyond one’s control. At its core, ending homelessness entails facilitating housing stability, characterized by secure, appropriate, and supportive housing options that address individuals’ diverse needs. This paradigm shift requires a departure from the conventional reliance on emergency services towards proactive approaches that prioritize prevention and interventions leading to sustainable housing outcomes.

In this context, the term ‘outflows from homelessness’

encapsulates the strategies and initiatives aimed at transitioning individuals from homelessness to stable housing situations. These approaches encompass rapid rehousing initiatives and permanent supportive housing programs, all geared towards ensuring that homelessness is a temporary, not a chronic, condition. By embracing innovative strategies and reshaping societal attitudes towards homelessness, communities can work towards achieving a future where no individual is left without a stable place to call home.

Gaetz et al. (2014) reported that investing in affordable housing initiatives to address homelessness is not just a moral imperative but also a financially prudent decision. They stress that by allocating resources towards providing stable housing for the most vulnerable, we can mitigate the societal costs associated with homelessness, which currently amount to billions annually. Despite initial investment concerns, the long-term benefits of reducing homelessness far outweigh the economic burden of inaction, making it a cost-effective solution for both individuals and the economy as a whole.

Housing & Support Services in Kamloops

Even if, in an ideal world, there was no chronic homelessness, there would continue to be situations that would push people into precarious circumstances like “people who must leave home because of family conflict and violence, eviction or other emergencies, as well as those who simply face challenges in making the transition to independent living”

(“Defining end to homelessness,” n.d.). Therefore, we will always need some form of emergency services to support and guide people through these situations. This section discusses the different services available to ensure a roof over the heads of those facing homelessness and support to foster overall well-being and continued stability.

Emergency Shelters

Emergency shelters in Kamloops play a crucial role as an immediate response to homelessness, offering essential necessities and a temporary refuge for individuals in need. While shelters serve as a starting point for individuals to rebuild their lives, they also serve as a vital link to connect them with resources and support services. The Point-in-Time Count report studied shelter data from April 16, 2021, to April 12, 2023, which revealed an increase in both available beds and their utilization. In 2021, there were 180 shelter beds, while in 2023, there were 202 beds. The occupancy rates also rose, with 65% in 2021 and 95% in 2023, indicating that more people experiencing homelessness were accessing shelter services during the 2023 Point-In-Time Count. However, despite the availability of shelters, there are various reasons why some individuals may not access them, as shown in **Figure 5**, highlighting the need for further research and improvements in shelter accessibility.

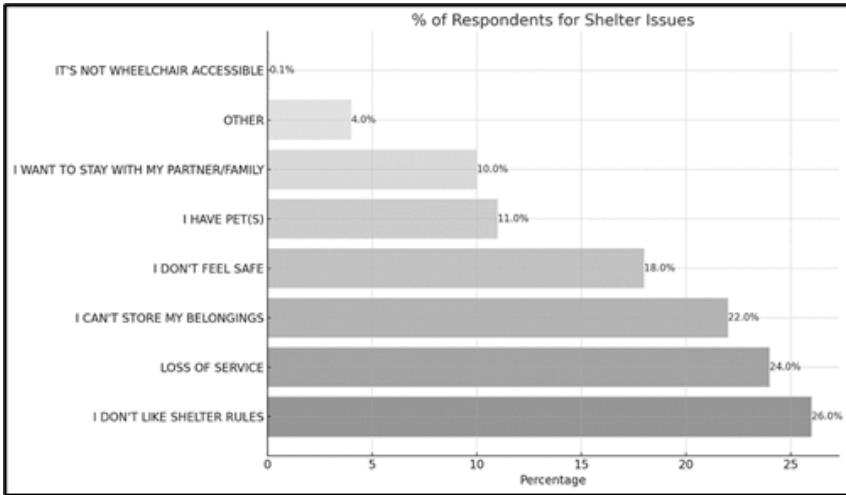


Figure 5: Reasons for not accessing shelters in Kamloops. Data from City of Kamloops (2023) CC BY-NC-SA 4.0

Stable Housing

Furthermore, supportive housing, transitional housing, and affordable housing programs offered by organizations like Ask Wellness, CMHA, and The Mustard Seed complement emergency shelter services by providing individuals with more stable and long-term housing solutions. Supportive housing, in particular, offers subsidized housing with on-site support for single adults, seniors, and people with disabilities, helping them find and maintain stable housing. Transitional housing programs cater to individuals who have achieved stability but still require some level of assistance as they transition to independent living. Affordable housing options provided by community resources like ASK Wellness and CMHA also play a crucial role in addressing the broader

housing crisis in Kamloops. Together, these housing options form a continuum of care, allowing individuals to progress toward greater housing stability and ultimately break the cycle of homelessness.

Recovery Centres

For homeless individuals grappling with mental health challenges, substance use issues, and the looming threat of overdose, comprehensive support services are essential for their well-being and recovery journey. Recovery centres equipped with trained professionals offer a safe haven where individuals can access specialized care tailored to their needs. These centres provide a range of support services, including counselling, therapy, medication management, and peer support groups, aimed at addressing mental health issues and substance use disorders concurrently. Moreover, they implement overdose response protocols and harm reduction strategies to mitigate the risks associated with opioid use, such as providing naloxone kits and overdose prevention education. By offering a holistic approach that addresses both mental health and substance use concerns, these support services empower homeless individuals to embark on a path toward recovery and long-term stability, fostering hope and resilience in the face of adversity. Other community groups offer such services, including Interior Health, Opioid Use Disorder Resources, Kamloops Aboriginal Friendship Society, and Interior Community Services.

Interviews

Interview With ASK Wellness COO — Kim Galloway

In an insightful interview, Kim Galloway, COO of ASK Wellness, shared her insights and experiences addressing the complex issue of homelessness (K. Galloway, personal communication, May 6, 2024). Drawing from her extensive experience in the field, Galloway emphasized the critical intersections between mental illness, substance abuse, and homelessness. She noted that addressing health needs is often a prerequisite for effective housing solutions. Kim also discussed the evolution of shelter policies over the years, noting a significant shift from short-term emergency stays to more sustainable, long-term housing solutions. Historically, shelters operated on strict time limits and required residents to have a plan for their future within days. However, ASK Wellness has been at the forefront of changing this paradigm by developing diverse housing options. These include low-barrier housing, which does not require sobriety for entry, supportive recovery housing for those working towards sobriety, and transitional housing that helps individuals move from homelessness to permanent housing. This diversity allows ASK Wellness to meet the varied needs of the homeless population more effectively.

Preventative Measures

Preventive measures are another critical aspect of ASK Wellness's strategy (K. Galloway, personal communication, May 6, 2024). Galloway underscored the importance of housing subsidies in keeping at-risk families in their homes, thus preventing homelessness before it starts. She described the organization's efforts to provide both short-term and long-term subsidies as essential components of their preventive services. Galloway also addressed common misconceptions about low-barrier housing, particularly the stigma associated with enabling substance use. She explained that these housing options are designed to provide a stable environment where individuals can begin to address their substance use issues with the support of staff and community partners.

Success Stories

The interview highlighted several success stories that illustrate the impact of ASK Wellness's programs (K. Galloway, personal communication, May 6, 2024). These ranged from individuals achieving sobriety and moving on to live independently to others stabilizing their mental health and reconnecting with their families. Galloway shared examples of residents who transitioned from supportive housing to living sober lifestyles, with some even gaining employment within the organization. She also recounted stories of individuals with severe mental illness who, through stable housing and

consistent support, managed to rebuild their lives and re-establish relationships with loved ones.

Future of ASK Wellness

Looking ahead, Galloway outlined ASK Wellness's ambitious plans for expansion (K. Galloway, personal communication, May 6, 2024). The organization is extending its reach to multiple cities, including Kamloops, Merritt, and Penticton. New projects are in development, such as family-specific housing and youth-specific units, which aim to address the needs of different demographic groups within the homeless population. For instance, a new family building with 80 units is expected to be ready next year, providing much-needed housing for families and older adults. Additionally, ASK Wellness is planning to enhance its supportive recovery housing in the Okanagan, offering abstinence-based living environments for those committed to sobriety.

Galloway also discussed the broader systemic challenges and the need for more integrated services (K. Galloway, personal communication, May 6, 2024). She advocated for an increase in outreach workers and portable medical services to meet individuals where they are. Galloway stressed that more resources are needed, including recovery beds, transitional housing, and low-barrier housing, to complement the efforts of outreach workers.

In conclusion, the interview with Kim Galloway provided a comprehensive overview of ASK Wellness's multifaceted

approach to addressing homelessness. By focusing on health needs, diversifying housing options, implementing preventive measures, and expanding services, ASK Wellness aims to create sustainable, community-based solutions. Galloway's insights highlight the importance of a holistic and compassionate approach to homelessness, one that recognizes the unique needs of each individual and strives to build a caring, inclusive community.

Interview With Mayor of Kamloops — Reid Hamer-Jackson

In a recent interview, the mayor shared his extensive experience and insights gained from spending four years engaging with the homeless population in Kamloops, often in the early hours of the morning (R. Hamer-Jackson, personal communication, April 25, 2024). His primary goal is to transition people from living on the streets and beaches into housing and support programs. He highlighted the intertwined issues of homelessness, mental health, and addiction, emphasizing the necessity for comprehensive solutions beyond harm reduction. While acknowledging the importance of harm reduction facilities, the mayor stressed the need for more robust recovery programs to help individuals overcome substance abuse and reintegrate into society. Before his tenure as mayor, he was involved in efforts to establish a recovery wellness ranch, reflecting his long-standing commitment to this cause.

Treatment for Substance Use Issues

The mayor shared anecdotes about individuals struggling with substance use who aspired to turn their lives around but tragically succumbed to overdoses (R. Hamer-Jackson, personal communication, April 25, 2024). He noted that Kamloops has significant potential due to the availability of numerous buildings, such as supportive housing facilities, motels, and shelters. However, he pointed out that most of these are harm reduction-focused. He advocated for creating diverse treatment options, separating those who wish to pursue sobriety from environments where drug consumption occurs. He emphasized the need for enhanced support and wrap-around services, which are essential for effective recovery. Additionally, the mayor called for a thorough review and clear metrics to assess the long-term efficacy of harm reduction and recovery programs. He highlighted the importance of programs that facilitate the return of non-local homeless individuals to their home communities, addressing a significant portion of the homeless population in Kamloops.

Community Support & Understanding

He also stressed the need for community support and understanding, emphasizing that homeless people are also citizens deserving of empathy and assistance (R. Hamer-Jackson, personal communication, April 25, 2024). Since 2020, he has been advocating for a review of existing services and reallocation of funding towards recovery initiatives. He

warned that without adequate support services to address addiction, newly-housed individuals risk repeated evictions. The mayor underscored the importance of listening to the homeless population's stories to foster a deeper understanding and create more effective, compassionate solutions to homelessness.

New Housing Initiatives

As of the time of writing of this chapter and the research that has been gathered to date, a new housing initiative was announced by British Columbia's Housing Minister Ravi Kahlon. There will 500 new homes and shelters built in Kamloops over the near future (Holliday, 2024). These projects will affect the inflows and outflows of the bathtub. Inflows will drop and outflows will increase from the homelessness pool controlling for all other factors. Inflows will fall due to the affordable new housing and outflows will increase due to the mission flats, shelter spaces and accommodating seniors that are in need or homeless.

The specific projects under this initiative include:

- **Mission Flats Road** — Two 98-unit modular housing projects to help the needy, replacing a 54-unit unit nearby.
- **Shelter Spaces** — Funding 100 new homeless shelters for immediate relief.
- **Columbia Precinct Lands** — Two 200-unit buildings near the courthouse for middle-income earners. This would help

prevent homelessness.

- **Lorne Street** — A 40-bed-round shelter for at-risk seniors and disabled people on the brink of homelessness. As mentioned, Kamloops has a senior homeless population, and this initiative should increase outflows.
- **Oak Road, North Shore** — A Connective Support Society Kamloops-led general housing project with 20 new homes.
- **Women's Housing Project** — A 22-unit women's transition housing project will be built with the Kamloops and District Elizabeth Fry Society to house women and children fleeing violence. An increasingly vulnerable demographic that needs special attention.

Conclusion

In conclusion, the issue of homelessness in Kamloops, as in many other communities, is complex and multifaceted, stemming from a combination of structural, systemic, and individual factors. As explored in this paper, understanding homelessness requires a comprehensive approach that considers not only the immediate challenges faced by individuals without stable housing but also the underlying root causes that perpetuate the cycle of homelessness. From economic disparities and housing shortages to systemic failures in social services and personal crises, the pathways to homelessness are diverse and interconnected.

Furthermore, the insights gleaned from data analysis and qualitative research underscore the urgent need for

sustainable, longer-term housing solutions to address persistent homelessness in the community. While emergency shelters and short-term interventions play a crucial role in providing immediate relief to those experiencing homelessness, they are not sufficient to address the underlying structural issues that perpetuate housing instability. Sustainable solutions must focus on increasing the availability of affordable housing, providing wraparound support services, and addressing systemic barriers that prevent individuals from accessing and maintaining stable housing.

Moreover, the findings highlight the importance of adopting a holistic and collaborative approach to addressing homelessness, involving multiple stakeholders, including government agencies, non-profit organizations, community groups, and individuals with lived experience. By working together to implement evidence-based policies and programs, communities can create a more supportive and inclusive environment that ensures all residents have access to safe, affordable housing and the support they need to thrive.

Moving forward, Kamloops and other communities must continue investing in supportive housing, recovery programs, and wrap-around services while also addressing systemic barriers and stigma associated with homelessness. By adopting a proactive approach that prioritizes prevention, intervention, and long-term solutions, communities can work towards ending homelessness and building a more equitable and inclusive society for all residents.

Ultimately, ending homelessness is not just a moral imperative

but also a practical investment in the well-being and prosperity of communities. By providing stable housing, comprehensive support services, and opportunities for individuals to rebuild their lives, communities like Kamloops can create a brighter future where everyone has a place to call home.

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7. Cultural Alchemy: Navigating the Economic Challenges in the Performing Arts Centre

SAMREENA NOOR

Introduction

This research study explores the socioeconomic and political factors around having a performing arts centre in Kamloops. Furthermore, the study will examine the potential of a subsidy through increased municipal taxes that allows for free entrance for citizens who do not have the means to pay, making the centre an inclusive place to enjoy. Performing arts centres contribute to their local communities' cultural and artistic development, ultimately enhancing civilians' quality of life (Kim & Seung-Hye, 2015). Performing arts centres are important in promoting cultural welfare, enhancing cultural vibrance, and improving morale. The outcome of whether to build the performing arts centre depends on philanthropy, tax, and policy recommendations made by the municipal government.

On February 6, 2024, the council approved the 7-million-

dollar architectural plan for a performing arts centre (Peters, 2024). The project will be built on city-based land on Seymour Street at Fourth Avenue in downtown Kamloops. The detailed design is expected to be completed around the end of 2025, with a two-year construction timeline plan for completion. The positive externalities of performing arts centres in cities are well-researched in academic literature, as showcased throughout the research paper. Positive externalities are benefits that accrue for the community members at large who do not participate in market transactions associated with the performing arts centre. Markets or public authorities will underprovide, or not even provide, such goods if they do not consider the external benefits of performing arts centres to their community.

As former Kamloops Mayor Ken Christian stated when asked what role the city sees the performing arts centre playing in enhancing the overall quality of life for the residents of Kamloops, he replied that there is an “underinvest[ment] into the culture of performing arts centre. We embarked on the path to fix that.”

The performing arts centre positively impacts the economic and cultural development of cities, and as research illustrates, it increases the attractiveness of cities to residents and non-residents (Pashkus et al., 2021; Ong & Deanna, 2022; Ardyanto & Rachman, 2022). Ken Christian was asked how the city of Kamloops envisions the performing arts centre contributing to economic development: he said that the performing arts centre in Kamloops not only serves as a regional facility but also significantly impacts the economy. According to the

former mayor and his team, each tourist contributes approximately \$140 to the local economy.

“There needs to be a recognition of people who love the arts. There are people who are employed in running the place, there are people who are living in the venue and there are employment opportunities. It gives people the opportunity to see themselves developing themselves in that profession. It is the same principle for seeing people for sports compared to performing arts.”

– **Ken Christian**, Former Kamloops Mayor (K. Christian, personal communication, March 26, 2024)

Methodology

This research study draws on primary and secondary sources to assess the impact of philanthropy and the role of positive externalities with the performance arts in Kamloops City. The primary sources are key interviews with the key stakeholders in Kamloops. This study also examines secondary data to assess the positive externalities of the performing arts centre and the role of philanthropists in supporting the provision of this centre. The qualitative research involves interviews with key stakeholders in semi-structured open-ended questions, including:

- How does the performing arts centre improve Kamloops' quality of life?

- Why approve the performing arts centre now after past rejections from referendums?
- How will the centre aid Kamloops' economic growth?
- Will the centre attract professionals, such as doctors?
- What are the costs and funding plans for the centre?
- How will the city make the centre accessible and inclusive?
- Will the centre be affordable for low-income individuals?

Additionally, information was analyzed from secondary sources, such as academic journals and industry publications. This study explores the literature about the role of philanthropy in supporting the performing arts centre, including donations, grants, sponsorships, and their time. Secondary sources examining the positive externalities include studies exploring community engagement, cultural benefits, and social capital. This methodology attempts to show the significance of positive externalities and philanthropy in building the performing arts centre in Kamloops. In summary, the purpose of this chapter is to accentuate how important a performance arts centre is by examining the positive externalities and philanthropy in supporting such a project.

Background Information

The discussion about building a performing arts centre in Kamloops appears to have started around 2004 and 2005. In 2015, a referendum was held on a proposal to borrow up to \$49 million to build a performing arts centre and an

underground parkade (CBC News, 2015). The referendum failed, with 53.7% of the voters voting against the proposal. The city had already purchased the former Kamloops Daily News building for \$4.8 million to use as the site for the centre.

It is worth considering that using referendums for projects such as a performing arts centre, which offers positive externalities and long-term economic and cultural benefits, may not always be effective. This is because the economic outcome and rationale for building such a centre may conflict with private interests that seek to use the centre. Public choices are made by evaluating the private benefits that one would receive from the project and the taxes that must be paid to finance the project. If the private benefits are less than the taxes the project requires, the company will vote against it, even if it benefits the community more than it costs. Therefore, the private interests dictate the outcome rather than the collective interest.

Hypothetical Referendum Example

The following hypothetical example in **Table 1** illustrates the issue. Suppose that 73,000 eligible voters have a distribution of valuation of the centre, as indicated in the first two columns. For example, 50,000 households are willing to pay a maximum of \$5 a year each for the city to have the centre, another thousand are willing to pay \$300 each, and so on. This is how much each person values the performance centre. The total valuation of the project would then yield ~\$1.5

million of benefits each year, not including the external benefits, and it exceeds the costs estimated at \$900,000 a year. If the city increases taxes, say property, per household of two people, to \$40 a year, the cost would be covered. But when the day to vote arrives, those whose maximum amount they are willing to pay is less than the tax will vote no, and those whose benefits exceed the taxes will vote yes. Counting the ballots shows that out of a total of 23,000 people who voted, 12,000 (52.8%) voted no and 11,000 (47.2%) voted yes. Accidentally, the outcome of this hypothetical example is very close to the actual outcome of the 2015 referendum. This hypothetical example shows that projects that are worth undertaking, even not accounting for the external benefits, should not be put to a referendum but have the demographically elected council and mayor decide whether to go ahead or not, as they represent the city's people.

Table 1: Hypothetical Referendum Outcome

People	Max WTP	Taxes per household per year	Total Max WTP	Total taxes	Referendum	No Vote	Yes Vote
50,000	5	40	250,000	500,000	Did not vote	0	0
1,000	10	40	10,000	20,000	No	1,000	0
2,000	20	40	40,000	40,000	No	2,000	0
4,000	30	40	120,000	80,000	No	4,000	0
5,000	35	40	175,000	100,000	No	5,000	0
5,000	40	40	200,000	100,000	Yes	0	5,000
3,000	80	40	240,000	60,000	Yes	0	3,000
2,000	100	40	200,000	40,000	Yes	0	2,000
1,000	200	40	200,000	20,000	Yes	0	1,000

73,000	–	–	1,435,000	960,000	–	12,000 (52.2%)	11,000 (47.8%)
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Note. Total taxes are computed assuming two people per households and that half of the households that did not vote will pay taxes.

See Kamloops This Week’s (2015) article comparing the operating costs of the performing arts centre with other city buildings for more background information.

2020 Referendum

In 2020, there were plans for another referendum on a \$70 million performing arts centre to be built at the site of the former Kamloops Daily News building. However, this referendum was cancelled due to the COVID-19 pandemic (Petruk, 2023). Pre-pandemic time, on April 4, 2020, the Kamloops residents were preparing to vote in a second referendum held on a performing arts centre (Petruk, 2023). However, the vote on the centre planned for a property on Seymour Street, Fourth Avenue, and St. Paul Street was postponed due to the pandemic (Petruk, 2023). A ‘yes’ vote would have allowed the City of Kamloops to borrow up to \$45 million for the \$70 million project, almost double the amount planned during the 2015 referendum at \$45 million (CFJC, 2022). This second referendum failed because the pandemic created socioeconomic turmoil, and the performing arts centre was not a priority. It is not a fair analysis to put this project up for a referendum because the public voters base their vote on their private benefits and private costs that

accrue for their individual needs and not the community at large, as illustrated previously. The referendums are biased toward the voters' tastes and preferences and do not look at the economic benefit in the long term.

What motivated the city to approve the performing arts centre this time, given that the plan has been rejected before in referendums?

“The pandemic caused a huge impact. The arts were cancelled, everything stopped, the uncertainty from the pandemic – the job loss, the government Municipal of Affairs cancelled the performing arts centre. The performing arts is in the works for 20 years and there was one referendum that had been failed. A change in the design, the security in the location, and a better financing – a benefactor have brought it now to the forefront. Regarding parking, high-income families are the ones with cars. Look at the hockey, there will be parking spaces and parking from away. The latest plan for the performing arts will satisfy the parking concern – parking for people who work there. There needs to be a look after all the people.”

– **Ken Christian**, Former Kamloops Mayor (K. Christian, personal communication, March 26, 2024)

The performing arts project is again at the forefront of the planning process now that the pandemic is over. There were rumours that a referendum on the performing arts centre could be held again in the fall of 2023, but the mayor stated he had “no idea” if this would happen.

In 2024, the City of Kamloops council agreed to allocate \$7

million to complete the design phase for the long-proposed performing arts centre, which would cost \$120 million (Holliday, 2024a). The council approved the initial plan on February 6, 2024, and discussed the funding recommendations. Counsellor O'Reilly states “we believe this is the right project, in the right place, at the right time.” This showcases how Kamloops is ready for a performing arts centre after slowly recovering from the COVID-19 pandemic. The recommendation was approved by an 8-1 vote, and the project is now underway. Current estimated cost is \$154 million of which up to \$140 million will come from local taxpayers (Rothenburger, 2024b).

An Alternative Approval Process?

Currently there is an alternative approval process (i.e., a counter petition) for the PAC. To oppose the approval, 10% of the electorate would have to petition against the process. The AAP was selected by city council as a preferred method of community engagement relative to another referendum and was used in the past to vote for the state-of-the-art water filtration system. The AAP assumes that the electorate has opted-in, except if they decide to opt-out by filling out a form opposing the approval. This opt-out system is similar to organ donations. An opt-out system assumes everyone initially is a donor (i.e., everyone wants the PAC) unless they specifically decline, and it results in higher donor rates (i.e., higher acceptance rates) relative to an opt-in system which requires people to actively register as donors (i.e., actively vote in

favour of the PAC). The opt-in often leads to lower donor rates (Shepherd et al., 2014). Opting-in leads to a lower acceptance rate of the PAC.

The voting started on Aug 6, 2024, and ends on September 13, 2024, with forms available from City Hall, can be found online or requested by email. The form states:

I am OPPOSED to the City of Kamloops proceeding with adopting Kamloops Centre for the Arts Loan Authorization Bylaw No. 57-1, 2024, authorizing borrowing \$140,000,000 to be repaid over a period not exceeding thirty (30) years, to finance the Kamloops Centre for the Arts, described on Page 2 of this form, unless a referendum vote is held.

(Rothenburger, 2024a)

To oppose the City of Kamloops to proceed with the borrowing, it would require 8,713 votes out of 87,131 eligible voters. Rothenburger (2024a) is in favour of the PAC but believes that for such mega projects a referendum is appropriate relative to the AAP because it leaves no doubt as to what people want relative to AAP which assumes initially that all 87,131 eligible voters want the project except if at least 8,713 vote against the project during the AAP. In 2003 a referendum instead of an AAP was held for the Tournament Capital Centre with 54% of voters in favour of the project (Holliday, August 22). The results of the AAP, announced on

September 23, 2024, revealed that the plans for a performing arts centre and iceplex would proceed after the opposition fell short of the 10% threshold (Rothenburger, 2024b).

Although referendums are an effective way to vote for public projects there is a problem in that people vote based on the maximum amount, they are willing to pay (i.e., their private valuation) relative to the taxes they are expected to pay for the project (i.e., their costs) and do not take into account the external benefits of the project. As the hypothetical example showed by Table 17 even if the private benefits exceed the costs of the project, a referendum may result in the project being defeated. Hence, a referendum also may not be an ideal process for voting on mega projects as each individual voter looks at their own private benefit and cost ignoring the collective benefits of a major project. How can then mega projects be undertaken if a referendum does not materialize in the collective good of a community? There is not a right answer or solution to this dilemma. However, perhaps members of the Kamloops Council during their campaign elections with their platform can illuminate the potential external benefits of such projects?

“MIXED EMOTIONS’ might be a good way to describe the outcome of the alternative approval process on borrowing for a new performing arts centre and an arena. I’ve been clear about my support for building a PAC. I wasn’t invested in the iceplex project but I’ve backed the PAC since 2003 when it was put into our cultural strategic plan. As mayor at the time, I tried very hard to get it built long ago but didn’t get it done. At long last, it will become a reality.....The PAC will do much to repair the imbalance between sports and the arts in Kamloops. It’s going to be beautiful. It’s going to be a place that brings together all Kamloops residents, not just the “elite” as some claim.”

– **Mel Rothenburger**, The Armchair Mayor (2024c)

Public Concerns About the Performing Arts Centre

In 2015, members of the public were concerned with the costs of building the performing arts centre and how the funds could be used on other projects (Reynolds, 2015). Since the centre is a largely publicly funded project, the majority of the votes showcased ‘no’ as the public wanted a more improved project. The referendum was unclear and left numerous unanswered questions for the taxpayers to help support this project. Therefore, the city staff believed that the result of the

performing arts centre project would allow the city to focus on more important projects. It is important to note that during this time, a portion of the performing arts centre's funding would come through the Gas Tax and Gaming Fund Reserve. This money is collected from the sales of fuel, lottery tickets, and the city's savings account (Reynolds, 2015). The PAC Not Yet campaign argues that these funds should be focused on infrastructure, such as fixing the roads, upgrading the water systems, and improving accessibility throughout the city.

This research acknowledges the public's concerns about the funding for the performing arts centre, as the referendum may not have enough information about the full purpose and importance of having an arts centre. This research will delve deeper into the positive benefits of having a performing arts centre as well as utilizing the possibility of philanthropy to alleviate the cost concerns.

How to Make the Performing Arts Centre More Inclusive

Making the performing arts centre more inclusive would reduce public concerns and increase the demand for such a project. The increased demand would increase the value people place on the centre and make the voters who voted no in the past referendum change their minds and support it, provided the higher private benefits exceed the taxes to partially finance the operation of the centre. Also, finding

philanthropists to finance the project would reduce the taxes that people would need to pay. One of the main reasons people voted in favour of the Tournament Capital Centre in the referendum was that they saw it as being inclusive. Suggestions and calls to action to make the performing arts centre more inclusive include:

- **Diverse and a wide range of performances celebrating different cultures** – This will touch various cultural, socioeconomic, and age groups. It may include different genres of music, theatre, dance art, and more. These performances celebrate different cultures and traditions and can make the members of the community feel represented. For example, months that celebrate history and holidays (such as Black History Month and Holi), Indigenous storytelling sessions, and much more can enhance community vibrancy and the use of the performing arts centre. The performing arts centre’s committee can partner with local cultural organizations (e.g. the Kamloops Multicultural Society, Kamloops Hindu Cultural Society, Sikh Cultural Society, and Kamloops Aboriginal Friendship Society) to co-produce events and ensure the authenticity of the events and wide local support.
- **Affordable pricing system** – The performing arts centre can implement a pricing system including discounts for children under 12, students, and seniors to ensure that the financial constraints do not prevent members of the community from attending shows. The centre can introduce a tiered ticket system for seats and additional perks; for example, the seats closer to the stage cost more compared to the seats at the back.
- **Outreach programs for local schools** – Elementary and

secondary students could use the performing arts centre for their performances, plays, and music practice space. There could be after-school programs with local schools to use the space, which will help nurture young talent and interest in the arts.

- **Partnerships with local artists and groups** – The performing arts centre can collaborate with local artists to create performances that showcase their work on a larger platform. For example, there can be a local artist program that supports local artists and helps integrate their work into the community, which strengthens community engagement. The centre can dedicate certain dates to showcase local artists' projects and include community-based work in the performances.
- **Accessibility measures** – The facility needs to be physically accessible to individuals with disabilities. This includes wheelchair access, sign language interpretation, and sensory-friendly performances for individuals with sensory processing disorders. An action that could be implemented by the centre is providing performances where the lighting and sounds are adjusted for sensory-sensitive individuals.

Positive Externalities From the Performing Arts Centre

It is important to note that consumers have different tastes and cultural preferences but do not consider the benefits the community receives when they make choices. The performing arts centre is known in economics as a private good with characteristics of rivalry and excludability. Rivalry

demonstrates how the consumption of the good by one person reduces the amount available for others. For instance, if someone occupies a seat in a show at the centre, nobody else can occupy that same seat. If a good is excludable, it prevents people who have not paid for it from accessing it. The centre can prevent people who have not bought a ticket from entering the centre. However, a performing arts centre yields numerous positive externalities which may not be captured in the ticket price of performing arts shows and exclude many low-income people from attending. For example, if a person purchases a ticket, then the good is available to them. However, if an individual does not purchase a ticket, then they cannot watch a show at the performing arts centre.

A positive externality, also known as external benefits, is the economic activities that positively impact a third party. In the environment of cultural economics, there would be positive externalities from the performing arts, which would require some form of subsidy to internalize these external benefits. There needs to be a subsidy because markets or municipal authorities will produce a level of output that balances and equates the marginal benefits to the consumer of the good and the marginal costs to suppliers but may not consider the external benefits the good provides to the community. With the presence of positive externalities, the marginal social benefit of the performing art centre will exceed the private marginal cost, and hence, all benefits that accrue for the community are not captured, leading to a level of output that is too little relative to the socially optimal level. Providing a subsidy will increase the usage of the centre by more people,

especially low-income families that cannot afford to go to the centre. Hence, a solution to capture the external benefits would be to provide a subsidy to increase attendance and make it inclusive for all communities.

The graph below illustrates an economic representation of the social and private benefits and costs associated with attending the performance art centre. The marginal private benefits are the benefits that those who attend the centre receive. Each point on the curve represents the maximum amount the consumers are willing to pay (MaxWTP) to attend and enjoy shows over a given period of time. The marginal external benefit (MEB) is the benefit that people other than the consumers receive from having the centre. These are the positive externalities of having the centre operate and includes things like education, public health improvements, and cultural enrichment that the community gains when more people attend an event at the centre. This external benefit is represented by the vertical distance between the marginal social benefits (MSB) curve and the marginal private benefit curve. The marginal social benefit represents the total benefit to the community from increasing attendance by one more person. It is the sum of the MPB and MEB representing the maximum amount of willingness to pay (MaxWTP) from the whole community, even though many community members are not participating but get external benefits for an extra person attending the centre shows. The marginal cost (MC) is the additional cost of providing the event to one more person. QM is the number of people attending without any intervention, where only private benefits are considered. It is

the equilibrium point where the MPB equals the Marginal Cost.

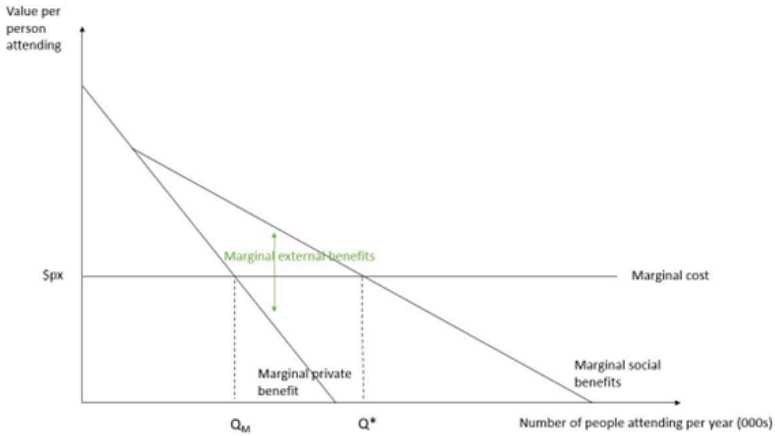


Figure 1: The demand for a hypothetical performance arts show. CC BY-NC-SA 4.0

However, Q^* is the socially optimal level that considers both the private and external benefits. It is the point where the MSB equals the MC. This quantity is higher than Q_M , indicating that from a community perspective, it would be beneficial to increase the number of people attending beyond what the private market would provide. $\$P_x$ represents the price per unit at Q_M . The gap between Q_M and Q^* represents a failure; specifically, the positive externality is not captured in full. The analysis suggests that some form of intervention, like a subsidy or public provision, could be used to increase the number of people attending from Q_M to Q^* to achieve the maximum social welfare. In addition, since the people who are

excluded from attending the arts event are most likely low-income families that have a low MaxWTP due to their low income, the subsidy will increase attendance to shows and become a more inclusive provision of arts by attracting people from various socioeconomic statuses.

Performing Arts

The potential positive externalities of the performing arts for the communities and performing arts centre itself. The arts make society and communities more culturally empathetic and allow people to immerse themselves in a rich understanding of many different viewpoints and cultures. Radbourne et al. (2009) illuminate how the arts bring a combined response drawing from emotions, senses, and imagination (p. 18). This invoked a physical reaction and allowed the audience to immerse themselves in the experience. It allowed people to awaken their cognitive development and enjoy their experience. The performance arts create a better life, allowing them to appreciate the fine arts while building a culturally empathetic community. Radbourne et al. (2009) demonstrate how the performance arts create 'collective engagement' in which the audience members are engaged with the performers and discuss the performance with other audience members (p. 21). This showcases how a rich discussion allows the audience to interact and listen to each other and gain knowledge from others. Performance arts take risks and break down barriers that engage people to be enthralled fully and trigger their

cognitive abilities. Hence, providing a subsidy will bring in low-income families that can enjoy these rich experiences.

What strategies does the city plan to implement to make the performing arts centre a more accessible and inclusive environment?

“There is a program called Jumpstart to help low-income families to help their kids get into the hockey team. For any kind of community recreation, all the policies are subsidized. The arts can be subsidized in the arts such as activity guides, more focused on acts. Other cultures have subsidized the arts better. Why is there not one for the performing arts centre? I have learned that there needs to be a kinder gentler society. There is a calmness that comes from the performing arts centre, having this facility of nurturing this. You do not know what you’re missing until you have it. Having the performance arts will allow people to be exposed to more cultural entities.”

and

“The celebration of Indigenous culture is a must. The inclusivity in terms of access, the opportunity to be more open for the LGTBQ inclusivity”

— **Ken Christian**, Former Kamloops Mayor (K. Christian, personal communication, March 26, 2024)

Ong and Deanne (2022) illustrate a case study of how the arts positively impacted Malaysia during the COVID-19 pandemic.

In 2019, the World Health Organization (WHO) reviewed over 900 publications, analyzing over 4,000 studies that show positive externalities of arts in promoting health and preventing illness (Ong & Deanne, 2022). This showcases how the arts are a powerful visual tool to promote and communicate important messages to the public. The arts utilize aesthetic engagement, such as the imagination, promoting emotional and cognitive stimulation. The pandemic created intense social isolation that made many individuals feel depressed and negatively impacted their mental health. The arts include social interaction and physical activity, which stimulate psychological, social, and behavioural responses between the audience and performers. Ong and Deanne's (2022) research showcases that the health outcomes are better quality of life and psychological well-being and thus lower healthcare costs which accrue to the community at large.

Effectiveness of Philanthropists for the Performing Arts Centre

Philanthropists devote their time, energy, and monetary funds as donations to help create a better life for people. Liu and Baker (2016) illustrate how philanthropists are perceived as moral and ethical leaders who are concerned with helping others with no personal rewards (p. 262). The non-profit arts and culture sector in Canada relies on public, private, and earned revenues (Trent, 2019). The public funders rely on strict rules regarding public accountability, making sure there

is fair and inclusive access to public funds (Trent, 2019). This showcases how philanthropy fills the gap by providing funds and access to opportunities. The foundations, in return, take risks by investing in the projects and helping create the model within their vision. In Kamloops, there is a wide range of approaches to decolonization and addressing issues of accessibility, equity, reconciliation, and inclusiveness.

The celebration of Indigenous culture is a must. The inclusivity in terms of access, the opportunity to be more open for the LGBTQIA+ inclusivity. Trent (2019) demonstrates how Canadian philanthropists are turning their attention to consider their equity-seeking and Indigenous communities and helping them with their needs in the world. The performance arts centre in Kamloops would create a platform for the Indigenous communities to break down barriers, tell their stories, and enrich the communities' culture through their storytelling and music. It will cultivate inclusiveness and cultural empathy and allow philanthropists to open doors for many individuals and receive a good name in return.

Philanthropists in Kamloops

Philanthropy itself can be viewed as a gift, and there are a few important philanthropists here in Kamloops, including Ron Fawcett, Dr. Ken Lepin, Law of Foundation BC, and Patricia Wolfram Selmer. Research shows how performing arts centres are most successful when philanthropists are more invested in the art creation and performing side than the building. For

example, Sperling and Hall (2007) illuminated how philanthropists play a crucial role in constructing successful performing arts centres. For example, the Vancouver Opera had a dedicated supporter of the arts, Martha Lou Henley, who donated funds and their time to the opera (p. 13). Furthermore, the art philanthropist Roger Moore was also a dedicated supporter and was recognized for his time and investment in living artists (p. 13). He provided jobs and allowed dedicated time and space for creatives to explore their process and learn from each other. The Kamloops Performing Arts Centre can benefit from philanthropists' donations to help fund the project and alleviate cost pressures.

Former Kamloops Mayor Ken Christian is very active in the campaign – the politician can see the private sector contributing to the performing arts centre (K. Christian, personal communication, March 26, 2024). There is a cost-share that appeals to people's economy. The private sector will push it over the top, and he wants to see more of a showcase and make a statement in Kamloops. The virtue of the architecture and seeing the building is an important statement. According to Christian, putting it into a warehouse will not be in the best interest of the project. It will be a tourist attraction. In terms of affordability, the city will get grants from the provincial and federal governments.

What are the anticipated costs of constructing and

maintaining the performance arts centre? How does the city plan to fund these expenses?

“The performing arts centre is going to be \$74 million, utilizing philanthropic donations and tax, to be able to offset the operating costs. Ron Fawcett donated 10 million dollars, to help with the funds. Air Canada, and West Jet, Kruger, High Valley Copper can be philanthropists. It is the commitment from the people who donate and smaller contributions from people who believe in the project.”

— **Ken Christian**, Former Kamloops Mayor (K. Christian, personal communication, March 26, 2024)

Encapsulation of Ken Christian’s Viewpoint

Overall, Christian, had unique and informative insights into the importance of having a performing arts centre in Kamloops (personal communication, March 26, 2024). He envisions the performing arts centre will enhance the city’s cultural landscape and overall quality of life for the citizens of Kamloops. He envisions that the performing arts centre encapsulates a sense of calmness, empathy, and kindness and that the performing arts centre will nurture this. Despite previous setbacks with the referendum in 2020, with polls showing a rejection of 70-30 and the economic uncertainty

from the pandemic, the performing arts centre plan did not progress. Christian illustrates that since post-pandemic economic levels have settled, the performing arts centre plans have changed designs, the security of location has improved, and a more efficient financing system is in place. A generous philanthropist, Ron Fawcett, has donated ten million dollars to help fund the performing arts centre. Many internal and external stakeholders will be able to help with the funds, but it is a commitment for those who only believe in the project.

Christian illuminates that just as sports are beloved in Kamloops, the performing arts centre will touch those who love the fine arts. It'll be able to provide employment opportunities and give people the opportunity to see themselves in this profession. It'll be a tourist attraction celebrating and exposing individuals to many cultural entities and allowing a space for creativity to grow. In summary, the former Mayor views the performing arts centre as playing a significant role in enhancing the quality of life for Kamloops residents, similar to the role of sports facilities. There is an acknowledgment that there has been underinvestment in the cultural sector, particularly in the performing arts, and are being taken to address this.

- **Motivation for Approval** – Changes in design, improved security, better financing, and pandemic-driven cultural needs helped gain approval for the performing arts centre after previous referendum rejections.
- **Economic Contribution** – The centre is expected to boost the local economy by attracting visitors and creating jobs, serving as a regional hub for professional development in the arts.

- **Attraction for Professionals** – While amenities like golf courses may be more influential, the fully booked Sagebrush Theatre indicates strong local demand for arts spaces.
- **Funding and Costs** – The performing arts centre will cost \$74 million, funded through donations, taxes, and potential government grants, emphasizing significant private sector involvement.
- **Accessibility and Inclusion** – Plans are in place to ensure the centre is accessible to all, with special programs for Indigenous and LGBTQ communities and efforts similar to sports subsidies for low-income families.
- **Support for Low-Income Access** – The centre will offer ticket subsidies and partnerships with organizations like Big Brother to make arts accessible to low-income individuals.

Conclusion

In conclusion, the journey toward building a performing arts centre in Kamloops will illuminate the city's commitment to cultural enrichment and community development. The research analysis of socioeconomic and political factors and the role of key stakeholders showcases the performing arts centre will provide positive benefits in the present and future for Kamloops. The decision to approve the architectural plan and allocate resources for the performing arts centre acknowledges the importance of nurturing cultural richness in the city. The positive externalities of the performing arts centre recognize the barriers to accessibility and promote equity, inclusion, and cultural diversity. Former Mayor Ken

Christian's vision for the centre is an inspirational space of cultural empathy, inclusivity, and diversity where members of the public can grow and appreciate creativity. The role of philanthropy illustrates this vision, with financial contributions from philanthropists such as Ron Fawcett illuminating the power of community investment in the arts. Philanthropists not only provide financial support but also embody the commitment to fostering creativity and social inspiration within Kamloops.

Cultural Alchemy: Navigating the Economic Challenges in the Performing Arts Centre



Sam reena Noor
 Supervisor: Dr. Peter Tsigaris
 Thompson Rivers University

Introduction

This research study explores the economic factors that influence the positive externalities and benefit-cost analysis of having a performing arts centre in Kamloops. Specifically, this study looks at secondary data to assess the positive externalities and the benefits of philanthropists.

The study will examine what political and socioeconomic factors impact the performing arts centre. Furthermore, the study will examine whether taxpayers would pay a subsidy through municipal taxes for free entrance for citizens. Besides, depending on the outcome of the tax and policy recommendations made by the municipal government to see how to raise money to build the performing arts centre.

Theory

The Performing Arts Centre is a private good with characteristics of a rival and excludable.

Rival: The consumption of the good by one person reduces the amount available for others. For instance, if someone occupies a sit in a show at the centre, nobody else can occupy that same spot.

Excludable: A good is excludable if it's possible to prevent people who have not paid for it from having access to it. The centre can prevent people who haven't bought a ticket from entering the centre.

However, a performing arts centre yields numerous positive externalities which are not captured in the ticket price of performing arts shows and excludes many low income people from attending.

Solution: Provide a subsidy to increase attendance making it inclusive



Results and Discussion

The arts elicit a holistic response involving emotions, senses, and imaginations, leading to physical engagement and full immersion for the audience.

Research indicates performing arts are key in cultural and artistic development, improving community life quality.

The art center will attract professionals such as family doctors to move and live in Kamloops.

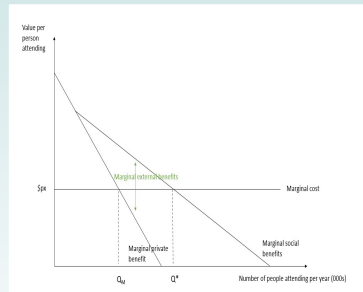


Philanthropists may fund the Arts Centre without personal gain, seen as moral and ethical leaders.

The Performing Arts Centre will give a voice to indigenous communities, allowing cultural storytelling and musical expression.

The Arts Centre will promote inclusiveness and cultural enrichment

Council approved a \$7 million plan for a new center at Seymour Street and Fourth Avenue, aiming for a detailed design by end of 2025 and a two-year build.



Methodology

Uses secondary and primary sources to assess the Kamloops' performing arts.

Primary Data Sources: Interviews of key stakeholders

Secondary Data Sources: Includes academic journals and industry publications.

Positive Externalities: Explores community engagement, cultural benefits, and social capital from studies.

Philanthropy's Role: Analyzes donations, grants, sponsorships, and volunteer time from philanthropists.

Qualitative Research: Interviews key stakeholders in a semi-structured open-ended questions

- How does the performing arts center improve Kamloops' quality of life?
- Why approve the performing arts center now after past rejections?
- How will the center aid Kamloops' economic growth?
- Will the center attract professionals, such as doctors?
- What are the costs and funding plans for the center?
- How will the city make the center accessible and inclusive?
- Will the center be affordable for low-income individuals?



Photo: © 2024, February 6/10 Image Credits: Shutterstock

Conclusion and future work

The research of this study showcases that there are social, cultural, and economic benefits of having a Performance Arts Centre. City officials, the Kamloops Council, art organizations, and philanthropic entities should collaborate to internalize the positive externalities and the economic potential benefits created by a performing arts centre. In this way, the city can utilize a more vibrant and culturally enriched community that strengthens its socio-economic activity.

Future work includes interviewing key stakeholders and assessing the public interest in the performance arts centre and measuring the external benefits from having the performance arts centre.

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Figure 2: Sam Noor's poster presentation at the 190th Undergraduate Research Conference during March 2024. CC BY-NC-SA 4.0

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and-culture-in-canada/

8. Lorenz Curve Analysis for Income Inequality in Kamloops

OLIVIA SIMMS

Introduction

As wealth continues to concentrate in the upper percentile of Canadian households, economic inequality is an increasingly relevant metric for citizens and policymakers to consider. In Kamloops, one does not have to travel far from the more affluent areas of Aberdeen and Upper Sahali to find neighbourhoods where residents struggle with unemployment, housing unavailability, and other socioeconomic challenges that contribute negatively to their well-being (as my fellow authors have noted).

Perhaps the most obvious component of this disparity is income inequality. Naturally, a higher income yields more opportunity, access to goods and services, and a higher overall quality of life. However, it is not clear exactly what the optimal income distribution is. You might expect (and have no quarrel with the fact) that a neurosurgeon is able to afford a nicer house than a Starbucks barista. In addition to generational wealth, one's income can be impacted by their

level of education, where they choose to live, and what type of work they choose to pursue. The degree of income inequality that our society finds tolerable is, therefore, a question of normative economics – a matter of opinion and beyond the scope of this empirical research.

It is also worth noting that comparing incomes is just one measure of economic inequality. For example, one can easily point to disparities in inherited wealth and real estate ownership. The dubious use of stratified social connections, such as nepotism and insider trading, also merits discussion. While these are salient factors to examine, they are complex to parse out, and each deserves focused research. Given that there has been very little research whatsoever on economic inequality in the Thompson-Nicola region, this study focuses solely on income inequality.

On its face, the income distribution is a function of innumerable private exchanges of labour between citizens and firms. However, the public sector is also heavily involved in the distribution of income, primarily through taxation and transfer payments. In the wake of the COVID-19 pandemic, the Government of Canada implemented a drastic expansionary fiscal policy in an attempt to soften the economic blow of shutdowns (Gatehouse, 2020). From March to November 2020 alone, the federal government spent an estimated \$154.9 billion on transfer payments, such as the Canada Emergency Response Benefit (CERB), Canada Emergency Wage Subsidy (CEWS), and the Canada Recovery Benefit (CRB). The CERB and CRB provided direct payments to traditionally-employed and self-employed Canadians to

account for lost employment income, while the CEWS was given to help businesses cover the wages of employees in the wake of shutdowns.

Given the gargantuan scope of pandemic spending, it is worth exploring the direct money-in-pocket impact this had on Canadians. To that end, this study aims to measure the effect of COVID-19 transfer payments on income inequality in Kamloops, British Columbia.

Government Transfers in Kamloops During COVID-19

The 2021 Canadian census, conducted by Statistics Canada (2023), contains an abundance of data regarding transfer payments in Kamloops. This census notably included data from both 2019 and 2020 to provide information relating to the pandemic. In the wake of the pandemic, 12,105 more Kamloops residents received government transfer payments than in the year prior. Over the same time frame, the median transfer amount per recipient increased by \$2,450, from \$7,750 in 2019 to \$10,200 in 2020. Similarly, the number of people on employment insurance increased by 24%, with the median employment benefits increasing marginally from \$5,400 to \$5,520 per recipient. As expected, the biggest change during this time was due to COVID-19 recovery benefits. Out of Kamloops' 66,390+ working-age population, 19,155 received some form of COVID-19 pandemic relief.

Additional noteworthy figures regarding transfer payments from the 2021 Kamloops census are detailed below in **Table 1**.

Table 1: Government Transfer Payments, Kamloops, BC

Transfer payments	2019	2020	Difference
Number of government transfers recipients aged 15 years and over in private households - 100% data	51,945	64,050	12,105
Median government transfers among recipients (\$)	7,750	10,200	2,450
Number of employment insurance benefits recipients aged 15 years and over in private households -100% data	6,300	7,810	1,510
Median employment insurance benefits among recipients (\$)	5,400	5,520	120
Number of COVID-19 emergency and recovery benefits recipients aged 15 years and over in private households in 2020 - 100% data	0	19,155	19,155
Median COVID-19 emergency and recovery benefits in 2020 among recipients (\$)	0	8,000	8,000

Note. Data from Statistics Canada (2023).

In this time frame, COVID-19 government income support and benefits comprised almost 10% of the total income of the population aged 15+. In terms of composition of total income, from 2019 to 2020, government transfers as a proportion of private household income increased by 5%, the same magnitude with which employment income decreased. It is important to note that COVID-19 government income support and benefits, as well as emergency and recovery benefits, made up almost 10% of the total income of the population aged 15+. **Table 2** includes more income information related to this population group. This may be interpreted as a successful allocation of public funds since it provided a social safety net

to the people. Therefore, some may interpret the federal fiscal response to COVID-19 as a success since the transfer payments seem to broadly “make up” for lost employment income. However, the question of the appropriate allocation of public funds requires a more granular and qualitative lens than a sliver of census data generally allows for.

Table 2: Kamloops Income & Transfers

Composition of Total Income of the Population Aged 15 Years and Over in Private Households (%) – 25% Sample Data	2019	2020	Difference
Market income (%)	87.8	82.6	-5.2
Employment income (%)	71.8	66.8	-5.0
Government transfers (%)	12.3	17.5	5.2
Employment insurance benefits (%)	1.2	1.3	0.1
COVID-19 – Government income support and benefits (%)	0.0	5.0	5.0
COVID-19 – Emergency and recovery benefits (%)	0.0	4.0	4.0

Note. Data from Statistics Canada (2023)

We can expect this swath of transfer payments to affect the income distribution in Kamloops. This chapter aims to quantify any such impact for the knowledge of all taxpayers.

Literature Review

Classical economists primarily concerned themselves with the apportionment of income based on various factors of production (land, labour, and capital), as opposed to the

distribution of household income. Nonetheless, there is a growing body of literature on income inequality and its multitudinous implications. The relationship between income inequality and poverty, economic growth, health, happiness, social cohesion, and many other variables has been examined at length (Kuznets, 1985; Shin, 2012; Subramanian & Kawachi, 2004; Oishi, 2011; Wilkinson, 1999).

In recent years, economists have added the pandemic as another key variable to be examined alongside inequality. Numerous studies use inequality as the predictor variable, measuring health and social outcomes in response. A smaller body of research exists on the effect of the pandemic and pandemic policies (Clark et al., 2021; Deaton, 2021; Elgar et al., 2020; Bonacini et al., 2021; Su et al., 2022). This study draws on some of the existing COVID-19 inequality research, but with a focus on the effect of pandemic transfer payments on income inequality.

The subject has been studied in regions of varying sizes across different lengths of time. There is a growing literature focused on income inequality in Canada and its massive regional variances (House of Canada, 2013; Marchand et al., 2020; McLeod et al., 2003). The province of British Columbia has received some research attention, particularly regarding the disparities between the wealth concentrated in Metro Vancouver as compared to rural, interior, and coastal communities (Cunningham et al., 2011; Wallis, 2006; Veenstra, 2002). However, there is virtually no existing research focused on economic inequality in the interior, especially not in the Thompson-Nicola Regional District. This study attempts to

address that gap, as there is merit in examining income distribution at the municipal level, even for smaller communities.

Among numerous methods used to measure income inequality, by far most popular and widely cited is the Lorenz curve. Introduced by the economist Max Lorenz in his 1905 paper “Methods of Measuring the Concentration of Wealth,” this tool allows researchers to compare and graphically display income inequality across time and place. Each cumulative percentage of the population is plotted against its share of the total income earned. Albeit simple, the Lorenz curve is both useful and well-known in the study of wealth distribution.

Dividing the area between the line of perfect equality and the Lorenz curve by the total area gives a value known as the Gini coefficient (Gini, 1912). The value of the Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality). For context, according to the latest figures from Our World in Data, the global Gini values range from approximately 0.28 (in Finland, Norway, and Poland) to approximately 0.55 (Brazil, Columbia, and Zimbabwe) (World Bank Poverty and Inequality Platform & Our World in Data, 2024). Finally, it is important to note that the Gini coefficient, just like the Lorenz curve, is a narrow tool that gives a small but important piece of the picture.

Methodology

Income data was pulled from the 2021 Kamloops Census to

generate original Lorenz curves (Statistics Canada, 2023). Due to the pandemic, the 2021 census included responses from both 2019 and 2020. To isolate the effects of transfer payments, two different income datasets were analyzed: employment income (EI) and labour-market-related income (LMRI). The former is self-explanatory – income gained through wages, salaries, and tips. The latter includes employment income but is also comprised of other benefits, such as employment insurance and pandemic relief. Transfer payments are only included in the LMRI, so analyzing the employment income allows partial control for the numerous labour market changes caused by the pandemic. From these two datasets and two years' worth of data, it is possible to generate four unique Lorenz curves and Gini indices. Since no regression is possible with this limited data set, significance and conclusions will be drawn from any disparities in the Gini coefficients.

Results

Figure 1 shows the employment income analysis (without transfer payments) from 2019 to 2020. The second figure shows the change in the labour market relative income from 2019 to 2020. For employment income, the Gini coefficient increased significantly from 0.473 to 0.492, an amount of 4%. This change is from year to year and does not take into account the dynamic changes that happened in the early stages of COVID-19 and the shutdown of the Canadian economy. The increase is mainly due to 2010 employed people

in the employment pool in 2020 relative to 2019. When examining the labour-market-related income, we see the Gini index moving towards more equality in 2020 relative to 2019. The Gini index decreased from 0.467 to 0.440, or a 4.8% decrease in the Gini Index.

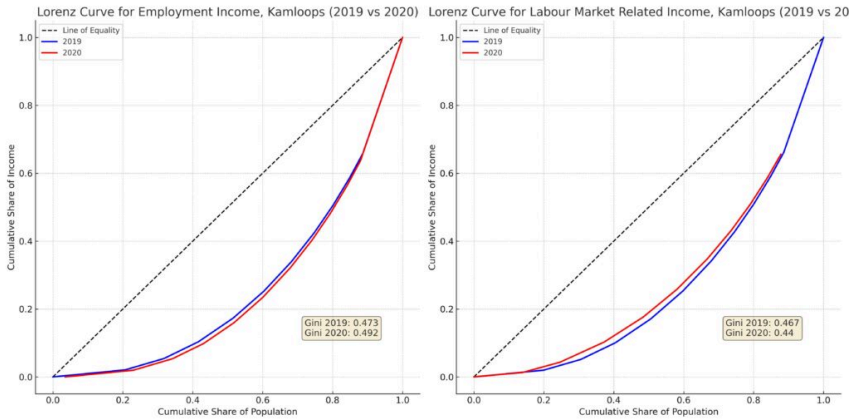


Figure 1: Lorenz curves for employment and labour-market-related income (2019 vs. 2020). CC BY-NC-SA 4.0

Figure 2 shows the results of comparing employment income and labour-market-related income (with transfer payments) for 2019 and 2020, respectively. For 2019, the year with no pandemic, there was a decrease in the Gini coefficient from 0.473 with employment income to 0.467 with transfers or a 1.3% decrease, which shows that transfers in normal periods bring more equality to the community. Examining the difference between employment income (without transfers) and labour-market-related income for 2020 shows a large decrease in inequality. The Gini index measured with

employment income is 0.492 while the labour-market related income (with transfers) reduces to 0.440 or ~11% decrease.

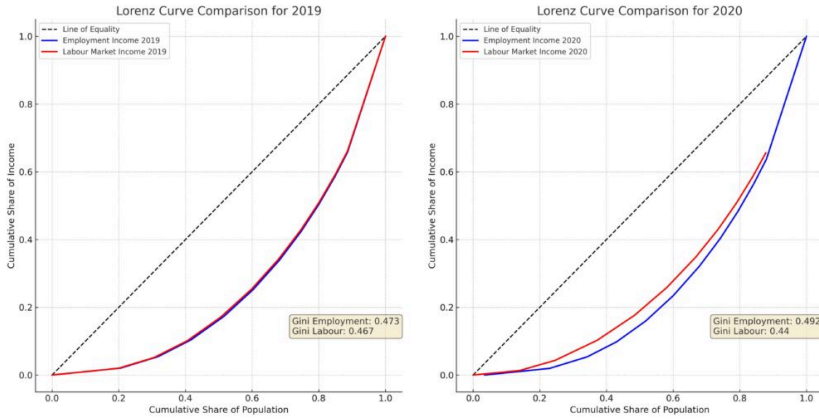


Figure 2: Lorenz curve employment and labour-market-related income comparisons for 2019 and 2020 . CC BY-NC-SA 4.0

Table 3 provides a summary of the Gini index and how it changes over time and across income types. As stated above, the Gini index for employment income changed by a minuscule amount from 2019 to 2020. But for employment income after including transfer payments, the Gini index fell by 6.4%, indicating

a reduction in inequality. Also, examining the role of transfer payments in 2019 and 2020 shows that in 2019, transfer payments reduced the Gini index by 1.3%, but in 2020, transfer payments reduced the Gini index by 7.6%.

Table 3: Gini Index and Transfer Payments Pre- and During COVID-19 Years

Variable of Interest	2019	2020	Change in Gini Index
Employment Income	0.473	0.492	-4%
Labour-Market-Related Income	0.467	0.440	-5.8%
Change in Gini Index	-1.3%	-11%	—

Discussion

From 2019 to 2020, employment income inequality in Kamloops increased by 4%. Keynes’ theory of sticky wages – that employees’ compensation remains fixed or “sticky” in times of economic hardship rather than falling – suggests that layoffs will occur as a result (Keynes, 1936). According to the Labour Force Survey conducted by Statistics Canada, nearly two million Canadians were furloughed or laid off in April 2020 alone (Statistics Canada, 2020). Of course, this amounts to approximately two million fewer employment income earners. If the displaced two million employment income earners were distributed evenly across the income distribution, the Gini index (and hence, inequality) would not have changed. However, the pandemic primarily disrupted lower-income wage jobs (in hospitality, retail, food and beverage, etc.) as opposed to salaried positions (Blum, 2021; Gould & Kassa, 2021), one might predict an increase in income inequality.

Employment Income

For the sake of this research, there were 2,010 fewer people in the employment pool; when the income distribution is adjusted for the loss of employment income of the 2,010 workers, inequality as measured by the Gini index increases by 4% from 0.473 in 2019 to 0.492 in 2020. It could be possible that the distribution within an income range may have changed from 2019 to 2020, making inequality even more severe as measured without transfer payments. **Table 4** shows fewer people at the bottom decile of the income distribution relative to the top half of the income distribution from 2019 to 2020, supporting the proposition that the lower-income wage jobs were affected more severely. Not accounting for the 2,010 people who withdrew, 2,200 fewer people are working from the bottom half of the distribution, and 190 more people in the upper half of the income distribution. There was a notably increase in those who earn over \$100,000: 380 more people during COVID-19 relative to 2019.

Labour-Market-Related Income

Looking at labour market income, we observe almost the same participants in 2019 and 2020. There are 3,480 fewer people earning under \$10,000 in 2020 relative to 2019 and more people earning in the higher income groups. We also observe a 5.8% decrease in inequality, which is expected due to significant government spending on transfer payments to

mostly the unemployed with low-income wage jobs. The impact of transfer payments can also be seen in 2020, where transfer payments decreased the Gini index by 11% relative to 2019, which decreased the Gini index by 1.3%. Table 21 shows the change in the number of people in the different income groups.

Table 4: Distribution of Income in Kamloops, 2019 & 2020

Income Group	Mid Point Income	2019	2020	Difference
Under \$10,000	5,000	11,930	11,255	-675
\$10,000 to \$19,999	15,000	6,435	6,510	75
\$20,000 to \$29,999	25,000	5,715	5,125	-590
\$30,000 to \$39,999	35,000	5,725	5,040	-685
\$40,000 to \$49,999	45,000	5,090	4,765	-325
\$50,000 to \$59,999	55,000	4,540	4,545	5
\$60,000 to \$69,999	65,000	3,790	3,620	-170
\$70,000 to \$79,999	75,000	3,095	3,040	-55
\$80,000 to \$89,999	85,000	2,775	2,740	-35
\$90,000 to \$99,999	95,000	2,155	2,220	65
\$100,000 and over	150,000	6,575	6,955	380
Total	—	57,825	55,815	-2,010

Income Group	Mid Point Income	2019	2020	difference
Under \$10,000	5,000	11555	8075	-3480
\$10,000 to \$19,999	15,000	6205	6205	0
\$20,000 to \$29,999	25,000	5745	7320	1575
\$30,000 to \$39,999	35,000	5855	6475	620
\$40,000 to \$49,999	45,000	5390	5665	275
\$50,000 to \$59,999	55,000	4710	5010	300

\$60,000 to \$69,999	65,000	3870	3930	60
\$70,000 to \$79,999	75,000	3185	3190	5
\$80,000 to \$89,999	85,000	2820	2840	20
\$90,000 to \$99,999	95,000	2165	2245	80
\$100,000 and over	150,000	6610	7085	475
Total	—	58110	58040	-70

Note. Data from Statistics Canada (2023)

Conclusions, Limitations, & Future Research

While employment income inequality increased by 4% from 2019 to 2020, reflecting the disproportionate impact of the pandemic on lower-wage earners, the inclusion of government transfer payments reversed this trend. Labour-market-related income, which includes transfers, saw a 5.8% reduction in inequality, and the Gini index for 2020 fell by 11% when factoring in the pandemic-related benefits. These results indicate that the government’s fiscal response, including programs like CERB and CEWS, somewhat successfully reduced income disparities in Kamloops and provided financial relief to those most affected by job losses. The reduction in the Gini coefficient with transfer payments shows the effectiveness of these measures in counteracting the pandemic’s economic fallout.

Any economist worth her salt acknowledges trade-offs where they exist. While Lorenz curve analysis is relatively straightforward to conduct and intuitive to analyze, it is limited in scope. The findings of this study give little

information about well-being, population growth, or other complex factors. In order to be concise and impactful, it focuses on the sole dimension of income inequality. Furthermore, in the absence of more detailed individual income data, cumulative earnings and population values had to be estimated rather than exact. The author acknowledges this may have resulted in some inaccuracies, especially on the upper end of the distribution. For example, Statistics Canada (2023) simply denotes the highest income bracket as \$150,000+, meaning it is difficult to identify how extremely high-income individuals would affect the distribution. Finally, it is important to recognize that the Lorenz curves and Gini coefficients found serve as just one measure of a complex issue. As improperly allocated COVID-19 benefits continue to be recalled, the true state of income inequality in Kamloops ought to be investigated.

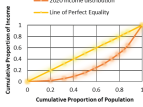
MIND THE GAP:

Mapping Income Inequality in Kamloops Post COVID-19

Olivia Simms (Supervisor: Dr. Panagiotis Tsigaris)

METHODOLOGY

Kamloops Income Distribution



Lorenz curve analysis is a widely-used method to compare and graphically display income inequality across time and place. Each cumulative percentage of population is plotted against its share of the total income earned. Dividing the area between the line of perfect equality and the Lorenz curve by the total area gives a value known as the Gini coefficient. The Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality). In order to create Lorenz curves, income data from 2019 and 2020 was pulled from the 2021 Kamloops Census. Employment income (EI) and labour market related income (LMRI) were selected in order to isolate for the effects of the transfer payments (from the numerous labour market changes caused by the pandemic). Since no regression is possible with this limited data set, the results will be drawn from disparities in the respective Gini coefficients.

RESEARCH QUESTION

To what extent did COVID-19 transfer payments affect income inequality in Kamloops, BC?

BACKGROUND

The severity of income inequality is a critical indicator of a society's socioeconomic equity and mobility. A region's history, economic system, and government policies can all influence the level of income inequality. In 2020, the Government of Canada implemented drastic expansionary fiscal policy in an attempt to soften the economic blow of the pandemic – primarily through transfer payments including CERB, CEWS, and the CRB. This study aims to measure the impact of these transfer payments on income inequality in Kamloops, British Columbia.

\$154.93 B

Estimated federal spending on transfer payments from March to November 2020 (CBC, 2020)

6.38% DECREASE

Total change in Kamloops labour market related income inequality from 2019 to 2020

17.5%

Transfer payments as a percentage of total private household income, 2020. This is a 21% increase from 2019 (Statistics Canada, 2021).

RESULTS

	2019	2020
Overall Gini Coefficient for Kamloops, BC		
Employment Income	0.473268	0.473205
Labour Market Related Income	0.466856	0.437096

DISCUSSION

From 2019 to 2020, employment income inequality remains virtually unchanged (a decrease of 0.01%). The change is expectedly negligible as Keynesian theory tells us that wages and salaries are sticky even in times of economic hardship. Those who lost their jobs or were furloughed were largely no longer counted in the census as employment income earners. Thus, while the economic impacts of the pandemic primarily targeted lower-income wage jobs (as opposed to salaried positions), that factor is not represented in this particular dataset. To this end, further exploration of the 2021 Census data is encouraged. Looking to labour market income, we observe a 5.5% decrease in income inequality, which is reflective of significant government spending on transfer payments. However, it is important to recognize that this figure is just one measure of a complex issue. As improperly-collected COVID-19 benefits continue to be recalled, the true state of income inequality in Kamloops ought to be investigated.

Figure 3: Olivia Simms' poster presentation at the 19th TRU Undergraduate Research Conference in March of 2024. CC BY-NC-SA 4.0

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Media Attributions

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Figure 3: “Olivia Simms’ poster presentation at the 19th TRU Undergraduate Research Conference in March of 2024” by the author is under a CC BY-NC-SA 4.0 license.

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9. The Price of Patience: Examining Healthcare Waiting Times in Kamloops

*The Economic and Social Cost of Wait times for
Healthcare in Kamloops*

ASHLEY THOMSON

Introduction

Access to timely and efficient healthcare services is a cornerstone of a well-functioning society. However, the city of Kamloops in British Columbia faces a critical healthcare challenge. As of December 12, 2023, a staggering 22,376 Kamloops residents, representing nearly 20% of Kamloops' population, find themselves on wait lists for family doctors (Munro, 2023). Notably, this does not include people who are not on a waiting list and do not have a family doctor.

When people do not have a family doctor or primary care provider, they often rely on urgent and primary care clinics and hospital emergency rooms to receive the care that would otherwise be provided (Our Care, 2024). These types of spaces

are generally designed for emergencies and one-time, quick care. However, many people require ongoing care for a variety of different medical needs, such as diabetes or chronic illnesses. This type of care generally cannot be provided as effectively in these spaces.

Additionally, when these spaces are full of people who require ongoing care, this creates barriers to treating those requiring emergency care (Our Care, 2024). Kamloops currently only has one urgent and primary care clinic and one hospital, making the strain on the local healthcare system substantial. Without access to primary care, Kamloops patients are experiencing significant barriers to treatment. The lack of access to primary care also exacerbates inequalities, as some may be able to afford to pay to travel for care to a place where wait times are shorter. However, this is not an option for many people who require local care. Evidently, the costs of healthcare in Kamloops would be lower if everyone had access to primary care providers and these inefficiencies were avoided.

Past Plan to Address Doctor Shortage

Kamloops residents have long been demanding action be taken to bring more doctors to the city. In the fall of 2022, a group called the Thompson Region Division of Family Practice created a campaign to attract more family doctors to Kamloops. They launched “Champions for Family Medicine,” using financial support from local businesses. The program

was forced to end earlier than planned due to a lack of support (Reeve, 2023). The executive director, Tim Shoultz, said the group “fell short [in] engaging the business community and getting those cash sponsorships.” Kamloops MLA Peter Milobar emphasized that the government and health authorities should provide proper resources for recruiting and keeping doctors in Kamloops and nearby areas. The failure of this project highlights the need for funding in the process of attracting doctors to Kamloops.

Canada-Wide Healthcare Challenge

Unfortunately, this problem is not unique to Kamloops. All of Canada is facing healthcare challenges. Our Care (2024) reports that about 6.5 million, or 22% of Canadian adults, were without a family doctor as of 2022. They also note an estimated 27% of B.C. adults were without a family doctor (Our Care, 2024). Furthermore, Dandurand et al. (2023) report that “43% of Canadian spine surgeons have noted a wait of over six months for surgery”. With nationwide doctor shortages, national as well as local action must be taken to solve these problems. This commentary will focus on an analysis of Kamloops-specific healthcare wait times and provide suggestions for local action.

Surgery Wait Times

One significant form of treatment Kamloops residents need to access is surgery. Surgery often provides life-altering intervention, improving the quality of life of recipients. A certain amount of waiting time for surgery is necessary, but this waiting time does not come without costs. Furthermore, if wait times become excessive, there are significant negative implications (Landi et al., 2019). Discomfort due to waiting for treatment for a painful condition is just one effect. When wait times are long, outcomes of treatment can be less effective (Ribera et al., 2017). There is a possibility of not qualifying for treatment anymore because of the deterioration of the condition due to the excessive wait time. Most detrimentally, there are links between mortality rates and long waiting times for surgery (Barua et al., 2014; Shojaei et al., 2023). Excessive wait times for surgery may also contribute to negative mental health effects and worse perceptions of health. Mental health effects may include anxiety, depression, and mental isolation. (Barua et al., 2014; Oudhoff et al., 2007; Gagliardi et al., 2021). Additionally, Gagliardi et al. (2021) highlight that excessive waiting may cause distrust in the healthcare system.

Economic Cost

Another significant impact of waiting for surgery is the economic cost. Excessive wait times impose costs on the individual who is waiting as well as on society (Dandurand et

al., 2023). One of these costs is the productivity lost when individuals are unable to work while waiting for surgery. Studies, such as Barua and Moir (2023) and Dandurand et al. (2023), have estimated a numerical value for the cost of waiting times for surgery. Barua and Moir (2023) found that waiting for treatment in 2022 costs Canadians an estimated total of \$3.6 billion, with an estimated \$2,925 per person waiting. This commentary will focus on estimating the cost of the lost productivity of individuals waiting for surgery in Kamloops.

There is a cost associated with any surgery. Some productivity loss, along with other losses, is inevitable. However, excess waiting creates additional costs on top of the costs with a reasonable wait time. Further productivity is lost with a longer wait time, and other additional costs may include increased direct healthcare costs, such as the costs of caring for the waiting person (Fielden et al., 2003). Increased indirect costs, such as the likelihood of more temporary disability benefits needed for the waiting individual, also impose a societal economic cost. The risk of surgery complications becomes higher with a longer wait time, as surgery may be less effective (Ribera et al., 2017). Surgery complications, such as the cost of an additional procedure, would lead to much higher costs. A summary of the economic costs and risks of waiting times, compared to costs and risks without wait times, is presented in **Table 1**.

Table 1: Other Economic Costs of Surgery With Waiting and No Waiting Time

Cost Type	No Waiting Time	With Waiting Time
Direct Medical Costs	<ul style="list-style-type: none"> • Costs of surgery • Immediate postoperative care 	<ul style="list-style-type: none"> • Costs of surgery • Pre-surgery care (possibly more visits, tests) • Postponed postoperative care
Indirect Costs	<ul style="list-style-type: none"> • Short-term productivity loss • Less need for temporary disability benefits 	<ul style="list-style-type: none"> • Extended productivity loss due to prolonged wait • Increased temporary disability benefits
Other Costs	<ul style="list-style-type: none"> • Psychological benefit of immediate treatment • Lower risk of complications from prompt treatment • Lower overall cost due to avoidance of complications 	<ul style="list-style-type: none"> • Psychological stress from waiting • Higher risk of complications from delayed treatment • Higher overall cost from potential complications

Note. Summary of data from Barua and Moir (2023), Dandurand et al. (2023), Fielden et al. (2003), and Ribera, et al. (2017).

COVID-19 Impact

The COVID-19 pandemic placed immense strain on healthcare systems worldwide. In Canada, hospitals had to adapt to the changing conditions. Between March 2020 and June 2021, 11% fewer patients were admitted compared to pre-pandemic levels (Gagliardi et al., 2021). Many non-emergency surgical procedures were put on hold due to the influx of COVID-19 patients. This created huge waiting lists for these procedures.

A 2020 study by COVIDSurg Collaborative (2020) estimated that over the most disruptive 12 weeks of the COVID-19 pandemic, approximately 28 million surgeries were delayed worldwide. The Canadian Institute for Health Information (2021) estimates that from March 2020 to June 2021, 560,000 fewer surgeries were performed in Canada compared to pre-pandemic levels.

According to the president of the British Columbia Orthopaedic Association, Dr. Lane Dielwart (2022), 1,803 hours, or approximately 900 orthopaedic surgeries, have been lost in Kamloops since the start of the pandemic. Additionally, Kamloops Orthopaedic Surgeon Dr. Scott Hughes stated that 200 surgeries at RIH were cancelled in the two weeks leading up to August 21, 2021 (Mineer, 2021). As we examine the surgery wait times in Kamloops, it is imperative to consider that COVID-19 may still have an impact on the waiting times seen for surgeries today.

Methodology

Surgery Wait Time Data

Surgery wait time data was collected using the British Columbia Ministry of Health's Surgery Wait Times: Procedures A-Z database (2023). The database lists estimated wait times for each procedure as well as number of people waiting. The data is broken down by health authority and hospital. For this

study, data was collected for the Royal Inland Hospital (RIH), which is the only hospital in Kamloops. Data was also collected for wait times across British Columbia. All available procedures for the RIH were included in the analysis. Procedures that listed “N/A” for the wait time at the RIH were excluded from the analysis of B.C. and RIH wait times to allow for direct comparison of procedure wait times. Data that listed “less than 5” people waiting was approximated at two people waiting. Wait times are listed in number of weeks and broken into two categories: “50% of cases completed within,” representing the median wait time for procedures, and “90% of cases completed within,” representing the wait time for 90% of procedures to be completed. The wait times were collected over a three-month period, from August 1, 2023, to October 31, 2023. This date range was used because it was the most recent available data at the time of collection. The number of people waiting for each procedure was reported on October 31, 2023.

Procedure Categories

Wait times were calculated for 23 categories of procedures as well as for all procedures. A breakdown of the categories is listed in **Table A4** in the Appendix. The average wait time for 50% of procedures to be completed at RIH was 8.83 weeks, or approximately two months, using 4.33 weeks per month, with a 95% confidence interval [CI] between 6.95 weeks (1.6 months) and 10.72 weeks (2.5 months). This means that half of the surgical procedures took less than two months, and the

other half more than two months. B.C.-wide, the average wait time for 50% of procedures to be completed was 7.73 weeks (1.79 months). The average wait time for 90% of procedures to be completed was 24.95 weeks (5.76 months) at RIH, with a 95% CI between 19.73 weeks (4.56 months) and 30.17 weeks (seven months). This means that 90% of the procedures took less than half a year approximately, but 10% of the procedures took more than half a year of waiting time. B.C.-wide, the average wait time for 90% of procedures to be completed was 29.39 weeks (6.79 months).

Income Data

Income data was collected from Statistics Canada's 2021 Census Profile (Statistics Canada, 2023). The average gross income in Kamloops in 2020 among recipients was \$53,700. The average gross income in B.C. in 2020 among recipients was \$54,450 (Statistics Canada, 2023). To calculate average weekly income, 50 weeks per year was estimated to account for two weeks' vacation. Average weekly income was estimated to be \$1,074 in Kamloops and \$1,089 in B.C. The time unproductive while waiting for surgery was calculated by multiplying wait times by 13.2%. This is the percentage of time rendered unproductive when waiting for treatment, which was estimated by Barua & Ren (2017). The average unproductive time while waiting for 50% of cases to be completed at RIH was 1.17 weeks. The average unproductive time while waiting for 50% of cases to be completed in B.C. was 1.03 weeks. The average unproductive time while waiting

for 90% of cases to be completed at RIH was 3.29 weeks. The average unproductive time while waiting for 90% of cases to be completed in BC was 3.88 weeks. The average wait time was selected to analyze this data, but notably, the median produced very similar results.

Results

Multiplying the estimated unproductive time for all procedures with the average weekly salary gives the estimated cost of waiting for a procedure. For 50% of cases to be completed at RIH, the estimated cost of waiting per procedure was \$1,252. In B.C., the estimated cost of waiting per procedure was \$1,120. These costs were multiplied by the number of procedures waiting to find the approximate total cost of waiting for procedures. At RIH, 3,086 cases were waiting, and B.C.-wide, 79,635 cases were waiting on October 31, 2023. The estimated total cost of waiting at RIH on October 31, 2023, was \$3.9 million. The estimated total cost of waiting in B.C. on October 31, 2023, was \$89.2 million. When analyzing the wait times for 90% of procedures to be completed, the estimated cost of waiting per procedure at RIH was \$3,537. In B.C., the estimated cost of waiting per procedure was \$4,224. The estimated total cost of waiting for 90% of cases to be completed on October 31, 2023, was \$10.9 million at RIH and \$336.4 million in B.C. **Table 2** indicates results broken down by category of surgical procedure for 50% of cases to be completed.

Table 2: Cost of Waiting at RIH vs. BC for 50% of Cases to be Completed

Procedure Category	RIH Cases Waiting on Oct. 31, 2023	Average Weeks for 50% of Cases to Be Completed	Weeks Impacted	Cost of Waiting per Case RIH	Cost of Waiting per Case BC	RIH Cost of Waiting All Cases
Biopsy in OR	5	1.40	0.18	\$198	\$474	\$992
Breast	121	12.93	1.71	\$1,832	\$909	\$221,715
Cyst/Ganglion Removal	10	7.60	1.00	\$1,077	\$920	\$10,774
Dental Surgery	51	12.30	1.62	\$1,744	\$1,653	\$88,931
Ears	18	13.60	1.80	\$1,928	\$3,464	\$34,705
Excision Lesion/Tumour	26	2.90	0.38	\$411	\$647	\$10,689
Eyes	590	3.70	0.49	\$525	\$862	\$309,480
Gastrointestinal/Digestive System	79	10.93	1.44	\$1,550	\$839	\$122,450
Gynaecology	156	6.68	0.88	\$946	\$1,143	\$147,623
Head	69	10.63	1.40	\$1,507	\$1,461	\$104,015
Hernia	201	14.20	1.87	\$2,013	\$1,358	\$404,634
Joint/Muscle/Bone	1074	8.63	1.14	\$1,223	\$1,418	\$1,313,232
Liver/Pancreas	55	5.40	0.71	\$766	\$805	\$42,105
Nasal Surgery	40	23.30	3.08	\$3,303	\$3,177	\$132,128
Neck/Throat	46	14.95	1.97	\$2,119	\$1,747	\$97,494
Nerve Surgery	122	29.40	3.88	\$4,168	\$733	\$508,493
Prostate Surgery	129	9.90	1.31	\$1,404	\$862	\$181,052
Skin	18	4.10	0.54	\$581	\$589	\$10,462
Spinal/Back Surgery	124	7.40	0.98	\$1,049	\$862	\$130,086
Urinary Tract	97	8.40	1.11	\$1,191	\$594	\$115,513
Vascular System	8	1.18	0.16	\$167	\$474	\$1,333
Wound/Laceration Care	7	1.00	0.13	\$142	\$374	\$992
Other Procedures	40	3.65	0.48	\$517	\$668	\$20,698

Note. Calculations done using data from British Columbia Ministry of Health (2023) and Statistics Canada (2023).

Discussion & Comparison

On average, surgery wait time in Kamloops is about one week longer than the average BC wait time. Furthermore, the average cost of waiting per case in Kamloops is about \$132 higher than the B.C.-wide average cost of waiting per case. This may be attributed to the larger concentration of doctors and surgeons in the Vancouver Metropolitan area, where much of the population of BC is concentrated. Comparing the analysis in this study to a similar study conducted by Barua & Moir (2023) with the Fraser Institute, the latter produces a much higher cost of waiting. The estimated cost per procedure in BC in 2022 was \$2,363, according to Barua & Moir (2023). However, their result is based on the wait time from consultation with a specialist until the treatment is complete, while this study estimates wait time from when the surgery is booked until when it is complete.

Comparing this study to Dandurand et al. (2023), the latter included direct healthcare utilization costs and the indirect cost of lost work. The indirect cost of lost work was calculated using average income and the amount of work missed by each subject. Dandurand et al. (2023) used data on the actual missed work time for each subject, whereas this study used an average estimate of unproductive time.

To reduce the cost of waiting for surgery in Kamloops, the health authority may consider prioritizing reducing the wait lists for those procedures which have the most people waiting (cataract surgery, knee replacement, hernia repair) and those which have the longest wait times (nerve surgery, breast reduction, tonsillectomy/adenoidectomy). However, to effectively prioritize, the severity of each condition being treated should also be considered (Oudhoff et al., 2007). Attracting doctors to Kamloops, especially family doctors and surgeons, will also help alleviate the costs of long wait times. Prioritizing attracting surgeons who specialize in the procedures with the longest wait times may be an effective method of targeting those wait lists. Reducing the wait lists for family doctors will help reduce overall healthcare wait times in Kamloops and reduce the cost of waiting that takes place before a surgery is booked, which was not measured in this study but also poses an individual cost (Barua & Moir, 2023).

A Simple Model of Surgery Wait Times

This section illustrates how waiting times evolve in a public-provided healthcare system. For every surgery, there is a marginal benefit associated with or a maximum amount someone is willing to pay for surgery. It is assumed that the marginal benefit of an extra surgery to an extra person in each period decreases as the number of surgeries to people increases. The reduction in the maximum amount someone is willing to pay is driven by income, amongst other factors such

as the type of surgery (e.g. knee or hip replacement surgery, cosmetic). The marginal cost is upward-sloping. As the number of surgeries increases, it becomes more expensive to add an additional surgery.

In a perfectly competitive market, the outcome of providing surgeries is at level S^* , where the marginal cost is equal to the marginal benefit for the extra surgery. The market would find an equilibrium price of the surgery at P^* . At this level, many people want surgeries, but these surgeries will not be provided to them, nor will they be on a waiting list. Only those who value the surgeries more and are “willing to pay” more to have a surgery than the marginal cost of provision will be exchanged. However, if the market is not competitive, then the price will be even higher than P^* at PM, reducing the number of surgeries even further to SP and creating an inefficient healthcare system since mutually beneficial exchanges between patients and private health facilities are disallowed. Some patients who have income and cannot wait will pay PM to have the surgery, either in a private clinic in Canada or another country like the United States.

Canada has a public healthcare system that provides surgery to almost everyone who needs one within capacity constraints. In **Figure 1**, capacity constrain is reached at SC. However, the number of surgeries demanded is at SD in each period since the price per surgery is zero. Everyone who needs surgery will want one because the marginal benefit of surgery is positive, no matter how low it is. At this point, the quantity demanded for surgeries exceeds the capacity of the public health care system to provide surgeries, and an excess

burden evolves due to the public provision with people waiting to have surgery. Thus, the public healthcare system ends up with a high waiting list because of limited resources, resulting in capacity constraints, and the number of surgeries is less than SD in each period.

The difference between SD and SC is the amount of people on the waiting list. A private market would never operate in a region of more than S^* surgeries and more likely to operate in a region of less than S^* if firms had some monopoly power. The public healthcare sector should strive to increase surgeries by more than S^* in each period and attempt to reach capacity between SD and S^* . One serious problem with a market system allocation is that it depends on those who have the income to pay for the surgery and does not account for the severity of the situation, which is discussed in the next section. The public healthcare system can allocate surgeries to those who have a severe situation but cannot afford to pay a lot due to income constraints.

Rana et al. (2022). This prioritization system scores based on factors related to the procedure, disease, and patient (Rana et al., 2022). However, these methods may not reduce the waiting times.

Reducing Waiting Times

Public concern about wait times can prompt actions to improve timely access to healthcare services (Gregory et al., 2013; Segall et al., 2020). Studies like Saunders & Carter (2017) examine a public-private hospital partnership in New South Wales, finding that transferring 15% of public rehab bed days to private hospitals ensured timely elective surgeries for public patients. They advocate for a strategic, research-supported approach to manage hospital capacities and reduce wait times. Public waiting times can be reduced by effective demand-side policies that incentivize patients (e.g., providing subsidies) to opt out of the public system, shifting demand to the private market (Chen et al., 2015). This would allow for less strain on the public healthcare system and allow people who have the means to access the private system to do so.

Additionally, socioeconomic factors do not seem to influence surgical wait times in public systems significantly, indicating equitable access to surgical care across socioeconomic status (Law et al., 2022). A study advocates for adopting single-entry models and team-based care to manage waiting times, presenting these approaches as efficient, fair, and ethical solutions that improve care standardization and surgeons'

work environments. Despite some resistance from surgeons due to concerns about autonomy and financial security, the widespread adoption of these models for a broader transformation of the healthcare system is encouraged (Urbach, 2018; Urbach and Martin, 2020).

Limitations & Conclusion

This research determines the cost of waiting for surgery based on an approach that places a value on the lost productivity of individuals unable to work. An estimate of an average work week was used, and income data is from 2020. Data for the study was collected for the Royal Inland Hospital and may include patients who do not reside in Kamloops but who travelled to receive their care. Because estimates were used in calculating the lost productivity, these results should be interpreted with caution. The economic cost of surgery wait time in this study is based on the wait time from when a surgery is scheduled until the procedure is complete. Dr. Jill Calder, former Director of Rehabilitation Services at the Royal Inland Hospital, states that “the real wait times are from the moment the patient is recognized to need surgery, which is way before the “waitlist” from the hospital perspective” (J. Calder, personal communication, April 20, 2024). When including the wait from when a patient is recognized to need surgery, costs would likely be much higher. Time for scheduling doctor’s appointments and any other appointments needed before surgery would add significant waiting time and would increase costs.

In addition to not capturing the entire length of waiting time, this valuation cannot account for the cost of lost homemaking work, lost productivity due to family care, or the lost leisure and social time due to waiting for surgery. Additionally, this study does not include the direct costs of healthcare, such as treatment and surgery costs. Therefore, the true cost of waiting for surgery in Kamloops is likely much higher than the estimated value in this chapter. With such a high estimated economic cost of waiting for surgery in Kamloops, it would be very beneficial for the community to have better access to family doctors, more surgeons, and shorter wait lists.

The Price of Patience: Examining Healthcare Waiting Times in Kamloops

By Ashley Thomson
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Introduction

- As of Dec. 12, 2023, 22,373 Kamloops residents, about 20% of the population, are on a wait list for family doctors (Murray, 2023).
- Wait lists do not include people who are on the waiting list and do not have family doctors.
- There is a high cost of delayed Urgent and Primary Care clinic in Kamloops.
- Health Insurance Premiums are the most direct step in receiving medical care.
- Surveys often provide misleading information & depress the quality of BC's healthcare.
- Waiting lists for surgery are necessary, but waiting times cause serious issues.



Costs of Waiting for Surgery

Physical, Mental and Social Costs

- Discussion of treatment cost for a patient/caregiver.
- Discussion of treatment cost to be relevant (Boren et al., 2017).
- Healthcare is not profitable in treatment systems.
- Increased risk of mortality (Boren et al., 2013; Nijman et al., 2021).
- Worse prognosis of health.
- Mental health effects such as anxiety, depression, and social isolation.
- Discussion of the healthcare system.

Economic Costs

- Productivity loss when individuals are unable to work while waiting for surgery.
- Methods such as Boren & Mair (2021) and Davidson et al. (2021), have estimated a total value for the cost of waiting times.
- By 2022, waiting for treatment cost Canadians an estimated total of \$17.6 billion (Boren & Mair, 2021).
- Healthcare represented 17.1% of the total waiting for treatment in Davidson (Boren & Mair, 2021).
- This study aims to place a value on the lost productivity from the surgery wait lists in Kamloops, as opposed to just a scope of how much is being lost by the people on waiting.

Methodology

- BC Gov. Surgery Wait Times (Procedures All Dept)
- Methodology was done for Royal Inland Hospital (RIH) for 2023, procedure code "92" checked.
- "Less than 17" represented to be people waiting.
- Median was zero collected from Aug 1, 2023, to Oct 31, 2023.
- Number of people waiting reported as 16, 10, 10, 11.
- Average wait time calculated.
- Revenue data from Health Canada 2021 Census Profile.
- Kamloops reported weekly income \$1.71.
- BC returned weekly income \$1,009.
- 12% of population was able to wait, indicated from Boren & Mair (2021) using British Columbia Community Health Survey Health Service Access Subsampled Data.
- Method=Median & Mair (2021).

Results

- The average wait time for 50% of procedures to be completed in Kamloops was 14.1 weeks.
- 97.7% of wait times were 0 to 16.75 weeks.
- Cost of waiting time was estimated at \$1.71 higher than BC's wait time.
- Cost of waiting time is calculated using the average population rate, which is calculated by the average weekly sales in Kamloops, and the BC's.
- The estimated cost of waiting for an individual procedure in BC was \$1,104.
- RIH's 1,081 people waiting, estimated cost of \$1,206,121.
- BC's 70,743 people waiting, estimated cost of \$95,256,106.

Discussion & Recommendations

- This research reduces the cost of the wait time from being too long to receiving the procedure. The cost could be much higher if including the cost of lost productivity and social time (Boren, 2021).
- Wait lists in Kamloops are not just for people on the BC's wait time.
- Average cost of waiting per year in Kamloops is about \$112 higher than BC's wait time.
- Other people waiting (Urgent Surgery, Home Repairs, Home Maintenance, Home Repair, Automobile, Big Repairs, etc.)
- Longer wait times (Urgent Surgery, Home Repairs, Home Maintenance, Automobile, Big Repairs, etc.)
- Priority of waiting was not the same as in BC's wait time, since wait time is long.
- Reducing the wait time for family doctors will help reduce overall healthcare costs in Kamloops and other areas of waiting for other jobs before a surgery is needed, as Boren & Mair (2021) have estimated.
- Average doctors in Kamloops, especially family doctors and surgeons, will be difficult to find in the cost of long wait times.

Results

Category	Wait List Length	Revenue (in Aug 2023 to Oct 2023)	Average Revenue (per week) for patients to be completed within	BC Gov. Cost of Waiting per year	BC Gov. Cost of Waiting per year	BC Gov. Cost of Waiting per patient
Urgent Surgery	16	1,710,000	106,875	1,104	1,206,121	1,206,121
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
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Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
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Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Primary Care	10	1,009,000	100,900	1,104	1,104,000	1,104,000
Urgent Surgery	10					

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Appendix

Skip Appendix Tables

Skip Table A1				
Category	BC Cases Waiting on Oct.	Average Weeks for 50% of Cases to Be Completed	Unproductive Weeks	Cost of Waiting per Case

	31, 2023			
Biopsy in OR	390	3.30	0.44	\$474
Breast	2921	6.33	0.83	\$909
Cyst/Ganglion Removal	381	6.40	0.84	\$920
Dental Surgery	1252	11.50	1.52	\$1,653
Ears	622	24.10	3.18	\$3,464
Excision Lesion/Tumour	768	4.50	0.59	\$647
Eyes	17776	6.00	0.79	\$862
Gastrointestinal/Digestive System	1536	5.83	0.77	\$839
Gynaecology	7546	7.95	1.05	\$1,143
Head	1913	10.17	1.34	\$1,461
Hernia	5171	9.45	1.25	\$1,358
Joint/Muscle/Bone	22976	9.87	1.30	\$1,418
Liver/Pancreas	1519	5.60	0.74	\$805
Nasal Surgery	3044	22.10	2.92	\$3,177
Neck/Throat	1333	12.15	1.60	\$1,747
Nerve Surgery	340	5.10	0.67	\$733
Prostate Surgery	1697	6.00	0.79	\$862
Skin	1336	4.10	0.54	\$589
Spinal/Back Surgery	1540	6.00	0.79	\$862
Urinary Tract	2510	4.13	0.55	\$594
Vascular System	539	3.30	0.44	\$474
Wound/Laceration Care	262	2.60	0.34	\$374
Other Procedures	2263	4.65	0.61	\$668
Total Cases In B.C.	79635	7.79	1.03	\$1,120

Note. Calculations done using data from British Columbia Ministry of Health (2023) and Statistics Canada (2023).

Skip Table A2					
Category	RIH Cases Waiting	Average Weeks for 90% of Cases to Be Completed	Unproductive Weeks	Cost of Waiting per Case	RIH Cost of Waiting for All Cases

	on Oct. 31, 2023				
Biopsy in OR	5	17.90	2.36	\$2,538	\$12,688
Breast	121	5.10	0.67	\$723	\$87,485
Cyst/Ganglion Removal	10	33.15	4.38	\$4,700	\$46,996
Dental Surgery	51	11.40	1.50	\$1,616	\$82,424
Ears	18	23.70	3.13	\$3,360	\$60,478
Excision Lesion/ Tumour	26	27.60	3.64	\$3,913	\$101,733
Eyes	590	7.90	1.04	\$1,120	\$660,781
Gastrointestinal/ Digestive System	79	17.90	2.36	\$2,538	\$200,474
Gynaecology	156	45.37	5.99	\$6,432	\$1,003,320
Head	69	22.43	2.96	\$3,179	\$219,361
Hernia	201	20.17	2.66	\$2,859	\$574,657
Joint/Muscle/ Bone	1074	40.70	5.37	\$5,770	\$6,196,934
Liver/Pancreas	55	30.98	4.09	\$4,392	\$241,584
Nasal Surgery	40	24.00	3.17	\$3,402	\$136,097
Neck/Throat	46	40.10	5.29	\$5,685	\$261,505
Nerve Surgery	122	24.45	3.23	\$3,466	\$422,880
Prostate Surgery	129	41.80	5.52	\$5,926	\$764,441
Skin	18	37.90	5.00	\$5,373	\$96,714
Spinal/Back Surgery	124	8.05	1.06	\$1,141	\$141,513
Urinary Tract	97	17.80	2.35	\$2,523	\$244,777
Vascular System	8	25.20	3.33	\$3,573	\$28,580
Wound/ Laceration Care	7	3.65	0.48	\$517	\$3,622
Other Procedures	40	3.90	0.51	\$553	\$22,116
Total Cases	3086	24.95	3.29	\$3,537	\$10,914,288

Note. Calculations done using data from British Columbia Ministry of Health (2023) and Statistics Canada (2023).

Skip Table A3

Category	BC Cases Waiting on Oct. 31, 2023	Average Weeks for 90% of Cases to Be Completed	Unproductive Weeks	Cost of Waiting per Case
Biopsy in OR	390	20.70	2.73	\$2,976
Breast	2921	13.50	1.78	\$1,941
Cyst/Ganglion Removal	381	28.25	3.73	\$4,061
Dental Surgery	1252	26.70	3.52	\$3,838
Ears	622	76.50	10.10	\$10,997
Excision Lesion/Tumour	768	17.10	2.26	\$2,458
Eyes	1776	22.70	3.00	\$3,263
Gastrointestinal/Digestive System	1536	22.20	2.93	\$3,191
Gynaecology	7546	28.43	3.75	\$4,086
Head	1913	34.93	4.61	\$5,022
Hernia	5171	42.65	5.63	\$6,131
Joint/Muscle/Bone	22976	34.99	4.62	\$5,030
Liver/Pancreas	1519	20.10	2.65	\$2,889
Nasal Surgery	3044	24.00	3.17	\$3,450
Neck/Throat	1333	36.55	4.82	\$5,254
Nerve Surgery	340	37.60	4.96	\$5,405
Prostate Surgery	1697	38.20	5.04	\$5,491
Skin	1336	48.10	6.35	\$6,914
Spinal/Back Surgery	1540	28.25	3.73	\$4,061
Urinary Tract	2510	34.40	4.54	\$4,945
Vascular System	539	15.23	2.01	\$2,190
Wound/Laceration Care	262	15.63	2.06	\$2,246
Other Procedures	2263	16.10	2.13	\$2,314
Total Cases In BC	79635	29.39	3.88	\$4,224

Note. Calculations done using data from British Columbia Ministry of Health (2023) and Statistics Canada (2023).

Skip Table A4

Category	Procedure Types
Other Procedures	All other procedures; Laparoscopy
Biopsy in OR	Biopsy in OR
Breast	Breast biopsy; Breast reconstruction; Breast reduction; Mastectomy
Cyst/Ganglion Removal	Cyst/Ganglion removal
Dental Surgery	Dental surgery
Ears	Tympanoplasty
Excision Lesion/ Tumour	Excision lesion/Tumour
Eyes	Cataract surgery
Gastrointestinal/ Digestive System	Bowel resection; Colostomy/Ileostomy; Rectal surgery
Gynaecology	D&C and related surgery; Fallopian tube/Ovarian surgery; Uterine surgery; Vaginal Repair
Head	Cranial surgery; Parotidectomy; Sinus surgery
Hernia	Hernia repair – Abdominal; Hernia repair – Hiatal
Joint/Muscle/ Bone	Foot/Ankle surgery; Fracture repair; Hand/Wrist surgery; Hip replacement; Knee – ACL Repair; Knee – Meniscectomy; Knee arthroscopy; Knee replacement; Other joint reconstruction; Other orthopaedic surgery; Shoulder surgery; Tendon surgery
Liver/Pancreas	Cholecystectomy
Nasal Surgery	Nasal surgery
Neck/Throat	Thyroidectomy; Tonsillectomy/Adenoidectomy
Nerve Surgery	Nerve surgery
Prostate Surgery	Prostate surgery
Skin	Skin surgery; Skin tumour removal
Spine/Nerves	Spinal/Back surgery
Urinary Tract	Bladder surgery; Kidney/Bladder stone removal; Other urology surgery
Vascular System	Aortic aneurysm repair; Endarterectomy; Vascular bypass graft – Non Cardiac; Vascular surgery – Other
Wound/ Laceration Care	Wound/Laceration care

Note. Data from British Columbia Ministry of Health (2023).

10. Dividing Lines: Understanding Kamloops Neighbourhood Unemployment Rates

PANAGIOTIS TSIGARIS

Introduction

This research studies the unemployment rates across 24 neighbourhoods in Kamloops. It provides a lens through which we can understand the socioeconomic and demographic dynamics of the region. Kamloops, a city with a 100,000 population in the interior of British Columbia and with diverse neighbourhoods, may also have a divergence in the unemployment rates across the neighbourhoods that depend on socioeconomic and demographic characteristics (Wheeler, 2007). This research examines the unemployment rates across these distinct neighbourhoods in Kamloops, seeking to uncover the socioeconomic and demographic factors that influence these rates. Finally, recommendations to reduce the unemployment rate in high-unemployment regions are offered.

Literature Review

The demographic composition of each neighbourhood often plays a key role in shaping the unemployment rates (Vandecasteele & Fasang, 2020; Schachner, 2021). Age demographics, educational attainment, family status, ethnic diversity, and immigration are key demographic factors that may significantly impact employment opportunities (DeLamatre, 1996; Vandecasteele & Fasang, 2020). For example, areas with a higher concentration of young adults might experience different unemployment trends compared to neighbourhoods predominantly inhabited by retirees or families (Dujardin et al., 2008).

Evidence consistently shows that lower educational attainments (e.g., not completing high school) correlate with higher unemployment rates (Daly et al., 2007; Butkus et al., 2020; McDonnall & Tatch, 2021). Butkus et al. (2020) highlight that individuals with lower educational levels are more vulnerable to economic downturns, leading to increased unemployment rates during such periods. Wheeler's (2007) evidence indicates that regionalization of unemployed people in U.S. cities increased from 1980 to 2000, even while the national unemployment rate declined. Residential communities in urban areas nationwide were segregated by the unemployment rate. Economic and educational social stratification within a city may explain this tendency. These studies imply that preventing high school dropouts through better educational infrastructure could lower unemployment.

Giorgio and Habibis (2018) find that Indigenous

unemployment is three times greater than non-Indigenous unemployment. Ethnic minorities have a greater unemployment rate than white British people (Longhi, 2018). Frictional markets and ethnic unemployment rates have also been studied, showing that geographical mismatch affects ethnic unemployment (Gobillon et al., 2013). Research has shown a higher rate of unemployment for single-parent households in London (Stafford, 2004). Additionally, adverse childhood experiences, including single parenthood, have been significantly associated with unemployment among adults (Liu et al., 2012). Furthermore, economic security among working households, particularly single-parent households, shows a slower economic recovery from the 2008 recession in the U.S. (Chang, 2020).

Furthermore, local industry and employment opportunities available in each neighbourhood are important determinants. The presence of major employers, the diversity of industries, and the availability of jobs within commuting distance can greatly influence the unemployment rate. Some neighbourhoods may benefit from proximity to industrial hubs or commercial centres (Alva et al., 2021; Sonn & Kim, 2020). Socioeconomic factors such as income segregation, housing affordability, and access to transportation can also affect unemployment rates. Neighbourhoods segregated by income and inadequate public transportation can face higher unemployment due to the difficulty residents face in accessing job markets' employment opportunities.

Areas with inadequate public transportation may limit the mobility of workers to find jobs in other jurisdictions. Public

transportation decreases neighbourhood unemployment as users need access to search for jobs in other city regions (Tyndall, 2017; Yi, 2006). Ong and Houston (2002) found that transportation somewhat enhances job chances for single women on assistance in Los Angeles County. Boschmann (2011) highlighted poor public transit affects poor workers' mobility and employment across regions. These findings suggest that transportation policy should be adapted to different population segments' mobility demands to improve work accessibility and eliminate employment disparities.

In this chapter, we use the census databases to explore the neighbourhood unemployment rate in Kamloops, a city in the interior of British Columbia, and the factors that influence the divergence in unemployment rates based on the above literature review. The next section presents the methodology followed by results and ends with a discussion and conclusion.

Theory

Being unemployed means a person does not have a job or formal employment but is actively seeking work. It is a state in which individuals who are capable and willing to work cannot find job opportunities. Unemployment can affect one's financial stability and emotional well-being, often leading to stress and a sense of uncertainty about the future. The reasons for unemployment can vary widely, including economic downturns, industry shifts, technological changes,

or personal circumstances. Beyond its economic impact, unemployment can also influence social relations and self-esteem, as work often provides a sense of purpose and identity.

Bathtub Model of Unemployment

The “bathtub analogy” offers a clear visualization of the dynamics within the labour market and the unemployed. In this analogy, the unemployed population is likened to the water in a bathtub. The inflows — such as layoffs, voluntary quitting, new entrants into the workforce, the end of seasonal employment, and the expiration of temporary contracts — act like water flowing from a faucet, increasing the level of water in the tub. Conversely, the outflows include finding employment, leaving the labour force often due to discouragement, entering into entrepreneurship, and obtaining seasonal re-employment, which are akin to the water draining out, reducing the level of water in the tub (see **Figure 1**).

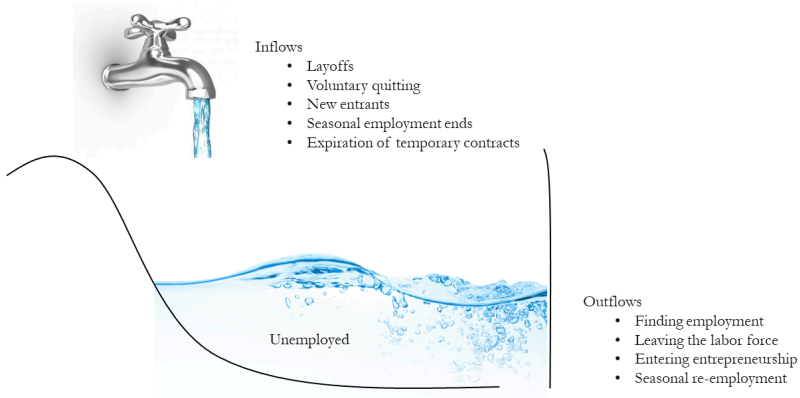


Figure 1: *The unemployment bathtub analogy* CC BY-NC-SA 4.0

An equilibrium unemployment rate occurs when the volume of inflows is equal to the volume of outflows. If inflows exceed outflows, the water level – or the number of unemployed – rises, leading to a higher unemployment rate. Over time, the unemployment rate will find a new equilibrium at an elevated level when the inflows and outflows eventually balance each other once more. Conversely, if outflows exceed inflows, the unemployment rate decreases as more individuals leave the unemployment pool than enter it. This dynamic visualization helps in understanding how various factors contribute to changes in the unemployment rate over time.

Divergence From Theoretical Model

In an ideal world with a labour market that is fully integrated, unemployment rates will be similar across different regions. In areas where unemployment is high, individuals would relocate to regions with better employment opportunities. This migration would naturally lead to a long-term convergence of unemployment rates, as high-unemployment regions would see a decrease due to out-migration, and low-unemployment areas would experience a slight increase due to an influx of new labour. However, reality often diverges from this theoretical model. Instead of moving to areas with better job prospects, individuals in high-unemployment regions might not be able to migrate, preventing the anticipated equilibrium. This suggests that there are underlying causes and barriers – possibly including socioeconomic conditions and systemic segregation – that inhibit the free movement of labour and the equalization of unemployment rates across regions. Such factors highlight the complexity of labour market dynamics and the challenges in achieving truly integrated employment sectors (see **Figure 2**).

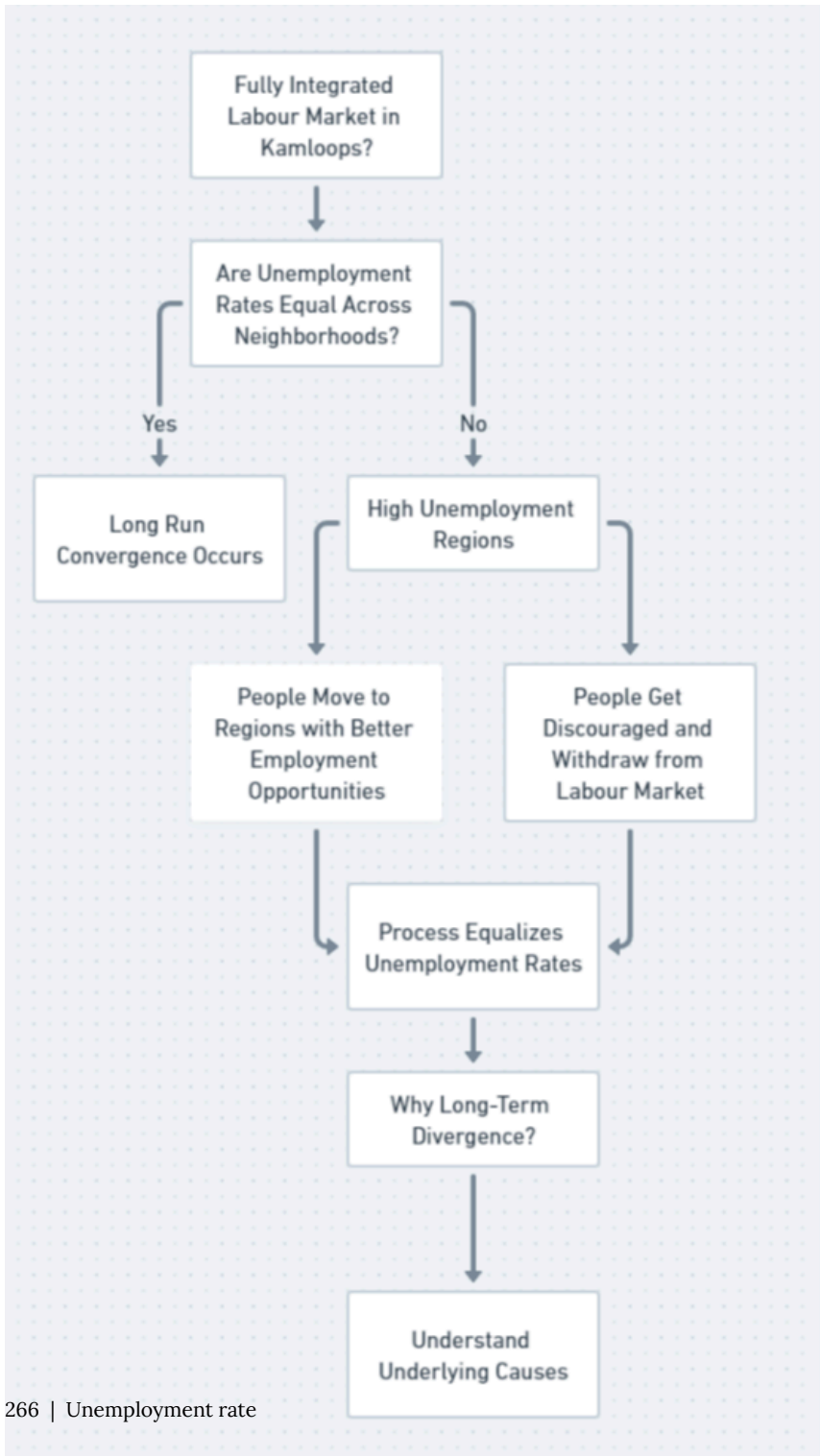


Figure 2: Convergence versus divergence of unemployment rates in the neighbourhoods of Kamloops. CC BY-NC-SA 4.0

Methodology

Data was obtained from the City of Kamloops Open Data Catalog. Census tracks 2011, 2016, and 2021 were used to study the factors that influence neighbourhood unemployment rates across 24 districts in Kamloops. These neighbourhoods are Aberdeen (north and south), Barnhartvale (centre and east), Barthelor Heights/Tranquille, Brocklehurst (centre, east and west), City Centre (north and south), Dallas, Heffley Creek, Lower Sahali, Mount Dufferin/Mission Flats, North Shore (east, north and west), Rayleigh, Upper Sahali (north and south), Valleyview/Juniper Ridge/Rose hill, West End, and Westsyde (east and west). **Figure 2** shows all Kamloops neighbourhoods on a map.

Determining Neighbourhood Socioeconomic Status

The socioeconomic status of the 24 districts was determined by five different factors. The variables give information about each neighbourhood's socioeconomic condition. The variables selected for this study are the median after-tax income per person adjusted for inflation (RINC). This is used to indicate

the standard of living of the district. The other variables are the percentage of students not completing high school in the district (NOEDU12), the percentage of single-parent families (FAM1PKIDS), and the employment rate of the district (EMPL). Since these variables were found to be highly correlated, they tend to move together; for example, neighbourhoods with a higher percentage of single-parent families might also have lower median income or higher percentages of the population without a high school diploma. Because these variables are so intertwined, the study uses the principal component analysis (PCA). The principal component was created using the inverse of RINC and that of EMPL (i.e., $1/\text{RINC}$, $1/\text{EMPL}$) with NOEDU12, FAM1PKIDS to convert all the correlations to be positive.

PCA helps by combining these variables into a smaller number of 'components.' These components are like new, simplified variables that still carry most of the important information from the original five. It is like creating a summary of a long story – but keeps the key points and leaves out the repetitive details. From PCA, one principal component was created since it contained a significant amount of information about the neighbourhood. This new variable is a mix of the original variables but in a way that captures the most important information from all of them. Finally, the unemployment rate of each district is linked to the socioeconomic state of the neighbourhood as per the PCA to make policy recommendations to reduce the unemployment rate in regions with high unemployment.

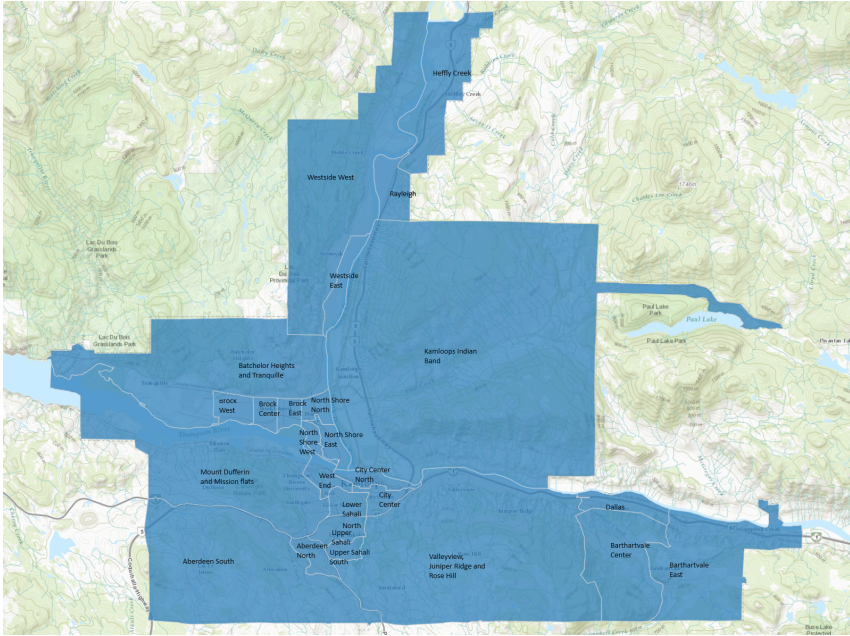


Figure 3: 25 Neighbourhoods in Kamloops. (City of Kamloops, n.d.) Open Government Licence – Kamloops

Results & Discussion

Table 1 shows the key variables. The average annual unemployment rate across the 24 neighbourhoods from 2010 to 2020 was 8%, with a high variability ranging from the lowest unemployment at 2.6% and highest at 19%. The employment rate averaged 60% of the population aged 15 plus also shows a significant variability, as a significant number of

single parents average 15.8% across all neighbourhoods, with the highest level at 33% of all parents with children. Students that have not completed high school are also significantly high, averaging 16% across all neighbourhoods for the decade, with some neighbourhoods having a dropout rate of 30%. The median after-tax income of a person also shows a wide variation whereby the richest neighbourhood has a standard of living of \$50,105, which is twice as much as the poorest neighbourhood living at \$23,877. These preliminary results show evidence that the community is highly segregated.

Table 1: Descriptive Statistics of Socioeconomic & Demographic Variables From Kamloops' 24 Neighbourhoods

Variable	Mean	Standard Deviation	Min	Max
Unemployment Rate (%)	8.0	2.8	2.6	19
Employment Rate (%)	58.9	6.4	40	71
Single Parent (%)	15.8	6.6	0	33
Less Than Grade 12 Education (%)	16.0	5.0	8	30
After Tax Median Income (\$)	\$38,716	\$6,088	\$23,877	\$50,105

Table 2 shows the correlation matrix of the main variables that characterize a neighbourhood. All correlations are very high. Correlation does not show causation. However, it makes it very difficult to determine the individual impact these variables have on the unemployment rates of the 25 neighbourhoods. Hence, the aggregation of these variables into one variable, namely a principal component. The highest

correlation is between income and employment rates of the neighbourhoods at 0.70 however, income is also highly negatively correlated with the dropout rate from high school and the percentage rate of single parents in the neighbourhoods.

Table 2: Pearson Correlation Matrix, 2010–2015–2020

Variables	RINC	EDULESS12	PIKIDS	EMLP	UN
RINC	1.000	–	–	–	–
EDULESS12	-0.685	1.000	–	–	–
PIKIDS	-0.685	0.695	1.000	–	–
EMLP	0.703	-0.653	-0.483	1.000	–
UN	-0.577	0.433	0.439	-0.555	1.000

Note: All correlations have p-values <0.001.

The principal component capturing all these socioeconomic characteristics of the neighbourhood ranged from the value of -4, showing poor socioeconomic neighbourhoods, to +4 with the more affluent neighbourhoods. **Figure 4** shows a strong negative association between the state of the neighbourhood and the unemployment rate of the region. In fact, a 1-unit improvement in the socioeconomic status of the neighbourhood will reduce the unemployment rate in the neighbourhood by 1%. Less affluent neighbourhoods like those on the North Shore have a persistent higher unemployment rate than those on the South Shore. Many unemployment rates are around the average of 8%. This is a

clear divide and a segregated community that requires attention by the municipal governance.

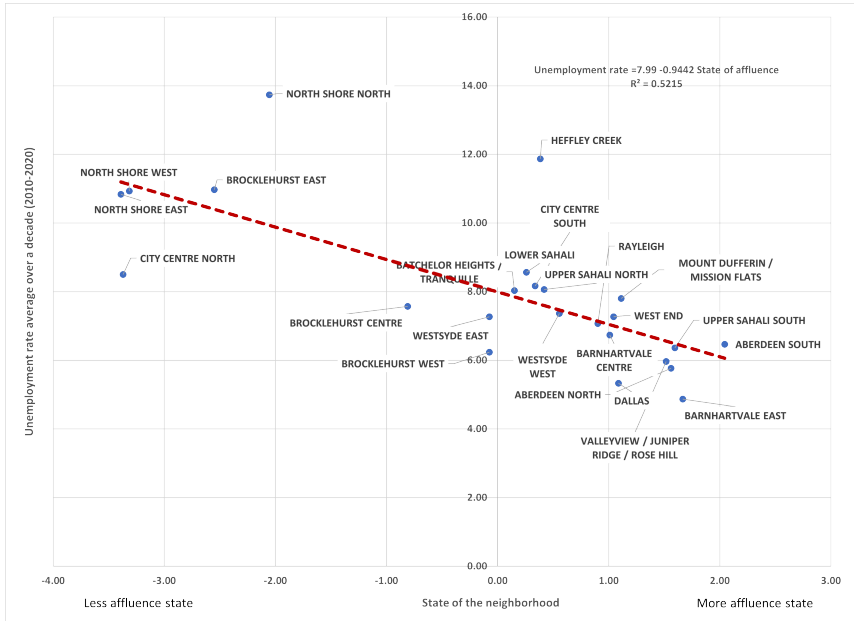


Figure 4: An association between the state of the neighbourhood and the unemployment rate in the various neighbourhoods in over a decade. CC BY-NC-SA 4.0

Conclusion

This longitudinal study investigates the unemployment rates across 24 neighbourhoods in Kamloops, employing census data from 2011, 2016, and 2021 to identify socioeconomic and demographic determinants. Key findings highlight the important role of educational attainment, family structure,

and transportation accessibility in influencing local unemployment dynamics. Notably, systemic barriers such as income segregation and inadequate public transportation exacerbate disparities, hindering the free movement of labour and perpetuating segmented labour markets contrary to theoretical expectations of an integrated labour market. The policy recommendations arising from this study include enhancing educational infrastructures to reduce high school dropout rates, improving public transportation systems to facilitate access to employment opportunities, allocating funds to build a better infrastructure which can accommodate more retail firms in the North Shore's business district where the unemployment rate is higher than other regions, and introduce targeted employment initiatives to support vulnerable groups such as single-parent households (i.e., free daycare), ethnic minorities and young Indigenous people looking for work. Such policies are aimed at fostering a more inclusive and integrated labour market.

Despite its comprehensive approach, this study has limitations inherent in analyzing complex socioeconomic interactions through principal component analysis, which might simplify the relationships between multiple factors and unemployment. Also, the study shows correlation and not cause and effect. Future research should continue to utilize longitudinal data to dissect these relationships more deeply, possibly incorporating more granular, neighbourhood-level economic and policy variables to further explore the causal pathways affecting unemployment trends in Kamloops.

Media Attributions

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