

Understanding Residents' Social Return on Investment From Hosting a Major Sport Event: The  
Case of the 2010 Vancouver Olympic Winter Games

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## Abstract

Hosting major sport events is a large and complex endeavour entangled with various stakeholders, investments, outcomes, resources, and exchanges. Hosting major sport events has often relied on residents' public funding, with the promise that hosting will create a positive social return on investment (SROI) for residents. However, not only has no empirical research to date determined residents' SROI from hosting a major sport event, SROI sport research often fails to apply necessary monetary valuation methods and follow an appropriate framework underpinned by relevant economic and social concepts. Thus, the purpose of this dissertation was to understand residents' SROI from hosting a publicly-funded major sport event.

To address this purpose, four research questions were presented, each answered through one of four articles: (1) what theoretical concepts have been used to underscore residents' socio-economic exchanges when hosting a publicly-funded major sport event?; (2) which monetary valuation method(s) is(are) best to examine residents' SROI from hosting a publicly-funded major sport event?; (3) what factors predict residents' SROI from hosting a publicly-funded major sport event?; and (4) why did residents evaluate their SROI the way they did? To answer these questions, this dissertation first conducted a systematic review of relevant sport management literature and then followed a three-phase sequential mixed methods design which included pre-questionnaire semi-structured interviews with Metro Vancouver Regional District residents ( $n = 14$ ), a self-administered online questionnaire with Canadian residents ( $n = 1901$ ), and post-questionnaire semi-structured interviews with Canadian residents ( $n = 21$ ).

In the first article, the systematic review revealed the importance of transparency, economic indicators, and affinity with sport factors when understanding residents' SROI, but also revealed the lack of research focused on understanding residents' SROI or the factors

concepts associated with it. In the second article, semi-structured interviews were used to understand Vancouver residents' experiences and desires with hosting the Games. Then 13 monetary valuation methods were evaluated with two monetary valuation methods (i.e., reverse contingent valuation method and opportunity cost approach) considered to be most appropriate to determine SROI based on specific selection criteria and used to examine Vancouver residents' SROI. Quantitative analyses from the questionnaire findings indicated the reverse contingent valuation method to be best for studying this phenomenon. Through a regression analysis, the third article stressed the importance of financial investments and event outcomes to determine SROI, and predicted SROI based on social experience outcomes, affinity with sport factors, and economic factors. Finally, the fourth article investigated Canadian residents' post-exchange SROI evaluation through semi-structured interviews and elicited how residents' perspectives were formulated. Interviewees highlighted the importance of social norms, residents' identity, and time, and the benefits of having a reflective opportunity to evaluate the exchange itself.

Consequently, this dissertation offers four concepts (i.e., structure, norms, time, experience) which collectively creates a comprehensive understanding of residents' SROI from hosting a major sport event. This collection of concepts is presented in a conceptual framework with insight into its development, presentation, and potential construct relationships. The conceptual framework presents how and why residents who publicly fund major sport events evaluate their SROI. Specifically, this framework outlines the importance of the temporal effects of social outcomes while considering the power and control of government representatives, the alignment of pre-event desires and post-event outcomes, residents' societal and hosting identities, their positive and negative experiences from hosting, and their affinity with sport and income. These findings highlight that hosting publicly-funded major sport events can produce

positive SROI from residents. To do so, scholars, practitioners, and residents need to work harmoniously and transparently. Concurrently, the findings offer a path for scholars to explain this SROI phenomenon and produce better desired positive exchanges for residents and practitioners in the context of publicly-funded sport events.

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### **Statement of Author Contributions and Originality**

The author acknowledges that he was solely responsible for the development and execution of this research project. He was responsible for all phases of the research project, including: the conceptualization of the project; development of research questions and purpose; conducting the literature review; collecting the research data, including the recruitment of participants, conducting interviews, analyzing all data; and completing the write-up of the final dissertation. The supervisors' contributions included helping form the dissertation idea; inform the development of data collection tools (i.e., interview guides and questionnaire); review necessary records for the systematic review as outlined by the appraisal process applied; refine each chapter through reviewing language and providing feedback on the developed arguments and ideas; prepare the dissertation articles for submission to peer-reviewed journal outlets; and addressing reviewer comments through the respective peer-reviewed journal processes. The author declares this document is original and has not been submitted for any other degree at another institution.

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**List of Abbreviations**

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Abbreviation	Full Name
IOC	International Olympic Committee
OG	Olympic Games
OWG	Olympic Winter Games
SROI	Social Return on Investment
VANOC	Vancouver Organizing Committee

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## Chapter I: Introduction

The sights, the sounds, and the pageantry of live sport can create a euphoric experience for individuals; however, major sport event experiences stretch far beyond the live sport event experience, itself. Major sport events can have positive social (e.g., Balduck et al., 2011; Inoue & Havard, 2014; Mourão et al., 2022), economic (e.g., Preuß, 2004; Kobeirecki & Pierzgalski, 2022; Tien et al., 2011), tourism (e.g., Gibson et al., 2009; Kaplanidou et al., 2012), and environmental impacts (e.g., Jin et al., 2011; McCullough & Kellison, 2017); they can be used as a catalyst to leverage community and practitioner desires (e.g., Chen et al., 2022); motivate individuals towards future positive behaviours (e.g., Potwarka et al., 2018; Weed et al., 2015); shape the future of youth sport development (e.g., Kristiansen et al., 2018; MacIntosh, 2015); and bridge communities together (e.g., Byun et al., 2019; Lee, 2021). Although poised with positive potentials, major sport events are a double-edged sword, which include great costs, challenges, and the equal potential for negative event outcomes like financial burden, environmental destruction, political corruption, resident displacement, and community carnage (Byers et al., 2021; Leopkey & Parent, 2012; Parent & Ruetsch, 2021; Preuß, 2015).

Over time, major sport events have expanded in size, impact, and ultimately, cost (Preuß et al., 2019). Given the costs and potential benefits hosting major sport events can have on host communities and their members (i.e., residents), event stakeholders often justify using public funding to host major sport events because of the public benefit these events can create (Bakhsh et al., 2018; Oja et al., 2018; Park et al., 2019). In other words, event stakeholders claim that hosting a major sport event will create a positive social return on investment (SROI) for residents (i.e., social value which exceeds their public funding investment; Preuß & Hong, 2021).

Although a positive SROI is (potentially) possible from hosting a publicly-funded major sport event, the dearth of evidence revealing such resident outcomes has created resistance to hosting (Königstorfer & Preuß, 2019; Parent, 2013). Given the need to determine public value when hosting a major sport event (Girginov & Hills, 2009; Sam & Rongland, 2018), it is important to measure these socio-economic outcomes (i.e., SROI; Attwell et al., 2019; Davies et al., 2019, 2021; Preuß & Hong, 2021). Measuring residents' SROI from hosting a previous major sport event, like the 2010 Vancouver Olympic Winter Games (OWG), would provide answers to this social matter.

However, current conceptual and methodological challenges are present when attempting to value social outcomes of publicly-funded major sport events (Orlowski & Wicker, 2019; Preuß, 2007, 2019). First, regarding the conceptual challenges, in the context of publicly-funded major sport events, resident stakeholder groups inherently enter an exchange with the event. This exchange is where residents contribute by giving tax dollars and anticipate receiving positive event outcomes like increased social capital (Preuß & Hong, 2021). Thus, unlike stakeholder exchanges conceptualized in current exchange theories (e.g., social exchange theory: Cropanzano et al., 2017), residents do not control the exchange of their tax dollars. Rather, government representatives (e.g., municipal) exchange residents' tax dollars on their behalf with other event stakeholders (e.g., organizing committee). This complexity challenges the applicability of current theories to underpin this exchange analysis. Therefore, a framework needs to be developed which combines important concepts of exchanges, stakeholders, and public value.

Second, regarding the methodological challenges, to appropriately conduct a SROI analyses, both the investment (e.g., public funding) and return (e.g., event outcomes) must be

measured in the same unit (King, 2014; Oshimi et al., 2022). In the case of publicly-funded major sport events, public funding is offered in monetary units, consequently, their outcomes must also be examined in monetary units. To monetize social experience outcomes (e.g., social capital and feel good factor; Taks et al., 2020), a plethora of monetary valuation methods have been used by previous scholars to capture the value of sport programs, facilities, and outcomes (e.g., travel cost method and opportunity cost approach; Orłowski & Wicker, 2019). Although the use of these methods was a good first step, critiques are present within each method's ability to effectively monetize social outcomes (Orłowski & Wicker, 2019). Moreover, scholars applying monetary valuation methods often exclusively use one method (e.g., Boronczyk & Zairns, 2020; Funahashi et al., 2020), challenging our ability to compare these methods and determine which is most appropriate for monetizing residents' social outcomes from hosting a major sport event. Therefore, in methodological discussions, there is a need to determine which method(s) are most appropriate to use when monetizing social experience outcomes from a publicly-funded major sport event.

In sum, although there is an identified need to measure residents' SROI from hosting a publicly-funded major sport event, little is understood on how to conceptualize and operationalize this analysis. To do so, concepts which explain this exchange phenomena must be elicited; monetary valuation method(s) appropriate to conduct this analysis must be determined; and residents' SROI must be examined and explained. By doing so, this dissertation will aid stakeholders to make evidence-based decisions regarding the use of public funding to bid for, and host, future major sport events which seek to generate a positive SROI for residents.

Thus, the purpose of this dissertation was to understand residents' SROI from hosting a publicly-funded major sport event. Specifically, this dissertation advances conceptual,

methodological, and empirical objectives for understanding residents' SROI from hosting the 2010 Vancouver OWG by: (1) determining what network of individual concepts formulate to provide a comprehensive understanding of the exchange in question; (2) identifying which monetary valuation method(s) are most appropriate to analyse this exchange; and (3) examining residents' SROI from hosting a major sport event. To achieve these objectives, this dissertation offers four articles (Chapters II, III, IV, and V) which sequentially build to answer these dissertation objectives.

In the remainder of this chapter, I first present my overview of SROI literature and theory, with emphasis on the conceptual underpinnings and methodological considerations needed to apply the SROI framework. Then I outline the research context and explain my overall methodology, including my ontological and epistemological approach, and research design. Finally, I outline the dissertation's structure aligned with the subsequent chapters.

### **Overview of Literature & Theory**

This section provides an overview of SROI and a critical review of the SROI framework and its application within sport management research. From this critical review, benefits of the framework are presented, along with key conceptual and methodological challenges within the framework and empirical gaps within the literature. This section finishes by reviewing current exchange theories to offer additional concepts to consider before examining residents' SROI.

### **Social Return on Investment (SROI)**

Grounded at the intersection of sociology and economics, SROI is a framework used to measure and report the social value created by an intervention, policy, programme, or organization (Nicholls, 2017). Used to examine stakeholder's socio-economic exchange of utility, SROI can be used for a variety of sport and non-sport related evaluations. There are two

types of SROI analyses: evaluative and forecast (Gosselin et al., 2020; Keane et al., 2019; King, 2014). Evaluative SROI analyses examine social value of an exchange after the exchange has happened (i.e., when all outputs have been completed and outcomes can be evaluated). Forecast SROI analyses examine the anticipated social value of an exchange, before that exchange has happened (i.e., prior to any exchange investment or input). Regardless of the SROI type, to conduct any SROI analysis, four main elements must be included: (1) stakeholders (e.g., residents, event organizers, government representatives; Bakhsh et al., 2021; Parent, 2008); (2) utility (i.e., an individual's value of a particular good/service; Fishburn, 1968; Stigler, 1950a, 1950b); (3) the monetary value of said stakeholder's utility (e.g., monetary value of pride in athlete's success; Humphreys et al., 2018); and (4) the actual calculation of that exchange.

Because of SROI's broad nature, these evaluations have increasingly been used by scholars, public agencies, and private organisations to measure the value of social impacts and justify public investment within (e.g., de Boer et al., 2019; Davies et al., 2019, 2021; Humphreys et al., 2018; Lombardo et al., 2019; Fujiwara, 2014; Oshimi et al., 2022) and outside of sport scholarship (e.g., Arvidson et al., 2013; Banke-Thomas et al., 2015; Millar & Hall, 2013). Social impact is a widely used term within academic literature, and government and practitioner policy that encompasses social benefits (e.g., social capital; Oja et al., 2018) and social costs (e.g., feelings of unsafety; Heere et al., 2013). Often determined through a monetary valuation method (i.e., the practice of converting something intangible into a monetary unit; Walker & Mondello, 2007), monetizing social impacts allows one to determine their social value in monetary terms (i.e., monetized social value) and subsequently, can allow for their SROI to be determined when that monetized social value is compared to the individual (or group's) financial investment. These calculations are presented through the following equations:

$$\textit{Social Value} = \textit{Social Benefits} - \textit{Social Costs}$$

$$\textit{Monetized Social Value} = \textit{Monetary Assessment of Social Value}$$

$$\textit{SROI} = \textit{Monetized Social Value} - \textit{Financial Costs}$$

An advantage of conducting SROI is it affords stakeholders to understand what activities are creating social value and when (Davies et al., 2019; Lombardo et al., 2019; Oshimi et al., 2022). Linked to the resident and major sport event context of this dissertation, this understanding can be extremely fruitful for event stakeholders to understand not only what it is about hosting major sport events that creates (potentially) positive social value, but at what point in time such value can be created and for which residents (or resident groups).

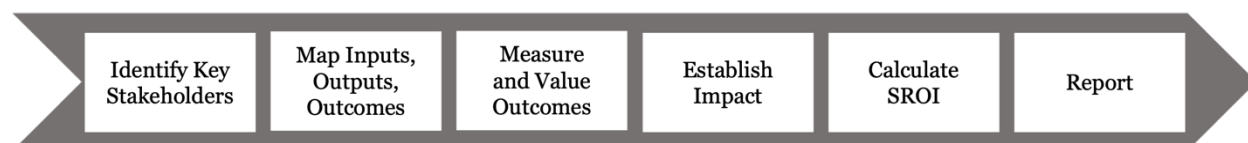
To conduct a SROI analysis, scholars have put forth a group of guiding principles to help researchers and practitioners work through the various stages and judgements. Specifically, Nicholls et al. (2012) offered seven guiding principles which have been used within sport management SROI scholarship (e.g., Davies et al., 2019): (1) involve stakeholders; (2) understand what changes; (3) value things that matter; (4) include what is material; (5) do not over-claim; (6) be transparent; and (7) verify the result (Nicholls et al., 2012). At the core, these principles highlight the importance of identifying stakeholders, their utility, the monetary value of that utility, and the key concept of transparency required to accurately calculate SROI. Of course, these principles may be more challenging to apply in practice, as monetizing social experiences is no easy task (Orlowski & Wicker, 2019) and offering transparency of major sport event socio-economic exchanges is not common within our academic and practical world (VanWynsberghe, 2016). Nevertheless, when conducting SROI evaluations, these principles can be used as a guide for scholars to work through the SROI framework.

## Social Return on Investment (SROI) Framework

Developed from a theory of change and cost-benefit analysis concept, the SROI framework is a “transparent and conservative approach” to measuring social impact (Davies et al., 2021, p. 98). This framework purposefully only includes outcomes which would affect the respective stakeholder’s decision and therefore allows the application to be catered towards select stakeholder perspectives and exchanges (Davies et al., 2021; Gosselin et al., 2020; Keane et al., 2019; Lombardo et al., 2019; Oshimi et al., 2022). The SROI framework is the culmination of a six-step process: (1) identify key stakeholders; (2) map inputs, outputs, and outcomes; (3) measure and value outcomes; (4) establish impact; (5) calculate SROI; and (6) report (Davies et al., 2019; Oshimi et al., 2022).

### Figure 1.1

*SROI Framework (adapted from Davies et al., 2019)*



#### ***Step One: Identify Key Stakeholders***

Sport events of all levels involve a variety of stakeholders who can be involved or impacted during any stage of the event’s life cycle (Bakhsh et al., 2021; Parent & Ruetsch, 2021). Such stakeholders can include sport organisations (e.g., national; Slack & Hinings, 1992; Naraine & Parent, 2016), event organizing committees (e.g., Leopkey & Parent, 2009; Parent & Séguin, 2007), sport participants (e.g., Kristiansen et al., 2018; MacIntosh, 2015), and residents (e.g., Duan et al., 2021; Johnston et al., 2021). Linked to stakeholder theory (i.e., Freeman,

1984), the success of sport events largely depends on the extent to which stakeholder needs are satisfied (Parent & Deephouse, 2007). In addition, the success using a SROI framework largely depends on identifying the stakeholder whom the SROI framework is being applied to and ensuring their perspective is the evaluative lens being used (Davies et al., 2019). Aligned with the importance of identifying stakeholders, it is equally important to understand their perspective (Davies et al., 2019; Gosselin et al., 2020; Keane et al., 2019; King, 2014). Thus, before engaging in a SROI evaluation, it is advantageous to learn the identified stakeholder's perspective through an interview or focus group process.

### ***Step Two: Map Inputs, Outputs, and Outcomes***

The importance of the initial first step cannot be overstated, as it allows scholars and practitioners to determine what material inputs, outputs, and outcomes are to be considered and what in fact is considered an outcome to that stakeholder (Davies et al., 2021). *Inputs* are understood as the investment a stakeholder makes, or what utility they are giving up engaging in the exchange (Davies et al., 2019). For residents hosting a publicly-funded major sport event, their input would be the public funding contributed to host the event; for other stakeholders this may include their time spent volunteering or physical resources provided like a stadium or facility. *Outputs* are understood as the actions or items which contribute to achieving a measured outcome (Davies et al., 2019). Although outputs are not necessarily needed to calculate a stakeholder's SROI, they can be an important element towards understanding that social value. For instance, some residents may feel a positive social experience from hosting a major sport event because of event or athlete success (e.g., Humphreys et al., 2018). Finally, outcomes are what the stakeholder receives from engaging in the exchange (Davies et al., 2019). *Outcomes* can be intangible (e.g., social experiences) or tangible (e.g., infrastructure) and in relation to hosting

major sport events, outcomes can come to fruition pre-hosting, during the hosting, immediately post-hosting, and/or far after hosting, depending on the outcome in question. For example, a popular focus for sport event scholars has been to examine residents' immediate social impacts from hosting major sport events (e.g., Wallstam & Kronenberg, 2022).

### ***Step Three: Measure and Value Outcomes***

To conduct a SROI analysis, stakeholders' outcomes must be measured in the same unit as their input (King, 2014; Oshimi et al., 2022). If this is not done, calculating SROI is not possible as comparing these different units of measure does not allow for one overall calculation or value to be determined (Davies et al., 2019, 2021). Given the broad inputs that stakeholders can give to engage in an exchange (e.g., money, time, physical resources, human resources, etc.), an equally broad calculation of outputs can occur. Linked to the context of this study, since resident stakeholder inputs of a publicly-funded major sport event is public funding in a monetary unit (e.g., taxpayer contributions; Sant & Mason, 2015; VanWynsberghe, 2016), measuring residents' outcomes must be done in a monetary unit (e.g., monetized social value). To do so, several monetary valuation methods exist which can aid scholars and practitioners to monetize intangible outcomes (Orlowski & Wicker, 2019) and provide the ability to conduct a SROI calculation.

### ***Step Four: Establish Impact***

To establish the identified key stakeholder's impact, scholars and practitioners take the cumulative outcome measured (i.e., social value = social benefits – social costs). Depending on the nuances of the study this can be done in one of two ways. First, if various outcomes are measured individually, they must be combined to create one overall measure. In this instance, negative and positive measures would be combined to learn how negative outcomes take away

value from positive outcomes. An important caveat when establishing total impact in this manner is to ensure that outcomes (positive or negative) are not being double counted or overlapped (Lingane & Olsen, 2004), as this not only violates the key principles of SROI research but will also skew the established impact and subsequent SROI calculation. Consequently, it is advantageous for scholars and practitioners to avoid measuring compartmentalized outcomes and to follow the second method: one overall measure. If only one outcome measure was established (e.g., overall value of the experience) then that measure itself is the established impact for the identified stakeholder. It is important to have one overall outcome figure as the SROI framework outlines having one overall input figure (e.g., residents' public funding contribution) (Davies et al., 2019). Doing so will allow for step five to be a simple SROI calculation (Oshimi et al., 2022).

#### ***Step Five: Calculate SROI***

To calculate the identified stakeholder's SROI the following equation is applied:

$$SROI = Monetized\ Social\ Value - Financial\ Costs$$

From the previous four steps, the framework presents two overall numbers: monetized social value and financial costs. These numbers can then be placed into the equation and through a simple calculation to determine the stakeholder's SROI. Based on this calculation two key elements can be learned. First, this calculation allows scholars and practitioners to determine if the identified stakeholder's SROI was positive (i.e., monetized social value > financial costs), negative (i.e., monetized social value < financial costs), or neutral (i.e., monetized social value = financial costs). Second, for positive and negative SROI evaluations, this calculation reveals the difference between impacts and inputs. Although an arbitrary positive or negative finding has its

merits, revealing how much positive or negative value was created offers greater levels of insight and understandings towards the efficacy of the stakeholder's exchange.

### ***Step Six: Report***

Aligned with the practitioner focus of conducting a SROI evaluation and the inclusion of practitioner stakeholders to benefit the process, the final step of the framework is to disseminate the findings to necessary stakeholders. Based on the study this may include, but is not limited to, event organizing committees, a country's Olympic committee, community practitioners or public officials. What is perhaps most important about this step is that the process should be guided by the principles previously outlined and focused on including the practitioner (Davies et al., 2021), specifically, to be transparent and not over-claim. Although SROI evaluations can answer important research queries, its purpose is grounded in aiding and addressing practitioner queries (King, 2014; Davies et al., 2021). Thus, this final stage is critical as proper transfer of knowledge needs to occur from the scholar to the practitioners who the research was intended to aid.

### **Missing From the Framework**

Despite the strengths of the SROI framework outlined and the practicality of its six steps, there is a lack of conceptual understanding and underpinnings, an uncertainty around which monetary valuation method to apply to monetize social value, and distinct empirical gaps within this body of literature (Gosselin et al., 2020; Keane et al., 2019). Through the following subsections I discuss what is missing from this framework in depth to position the conceptual, methodological, and empirical challenges I have identified and aim to answer throughout the remainder of this dissertation.

### *Conceptual Challenges*

The reality of this SROI framework is it can provide the answer to a simple equation but does not provide the conceptual understanding needed for scholars to adequately examine stakeholders' SROI. This framework lacks the underlying concepts which allow scholars and practitioners to understand when and why stakeholders would exchange and how they would evaluate that exchange, or more specific nuances like how to calculate group SROI vs. individual SROI when their desired outcomes may differ. In other words, the SROI framework is limited by only being able to provide a surface level SROI calculation (i.e., stakeholder's inputs vs. outputs) with limited understanding to the underlying mechanisms and relationships which led to that calculation. Consequently, SROI research to date has remained fixed on the tip of the iceberg (i.e., calculation), providing SROI calculations which do not offer any explanation into the exchange or potential relationships within this phenomenon (Davies et al., 2019, 2021; Gosselin et al., 2020; Keane et al., 2019). To move beyond simply calculating stakeholder's SROI and toward understanding stakeholder's SROI, a conceptual framework needs to be developed which considers variations in users and user groups, and can underpin SROI analyses.

Aligned with the principles and steps of conducting SROI evaluations, an underpinning conceptual framework must be able to encompass: (1) social and economic utility; (2) the socio-economic exchange of this utility; (3) exchange stakeholders; and (4) stakeholder's control of utility (Davies et al., 2021; King, 2014; Nicholls et al., 2012). Within sport management research, scholars have employed a plethora of theories and frameworks to investigate, analyze, and/or discuss major sport event social outcomes (e.g., self-efficacy theory, leveraging framework, theory of reasoned action, theory of planned behavior). However, the most popular

approach to theoretically inform an individual's utility exchange from a major sport event has been social exchange theory (Thomson et al., 2020).

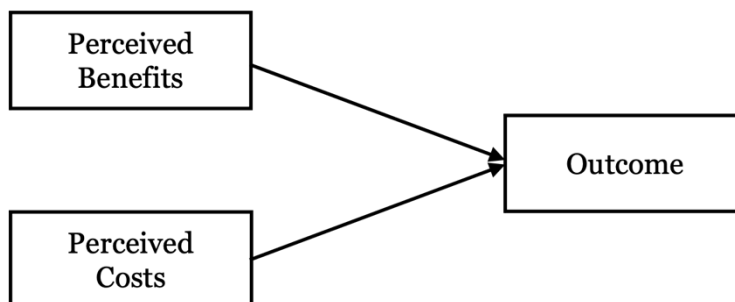
**Social Exchange Theory.** This theory argues that individuals enter a relationship with other individuals (or institutions) where they believe they will receive greater benefits than incurred costs (see Figure 1.2; Homans, 1958). These social benefits and costs can include tangible (e.g., infrastructure) and intangible components (e.g., social capital; Doherty, 2009). The value of these components is determined through an individual's perception (Gursoy & Kendall, 2006). As such, residents evaluate the costs and benefits of a potential exchange, and their overall perception is the result of their internal cost-benefit analysis (Fredline, 2005).

Although social exchange theory has been employed to address residents and social legacies, critiques exist which challenge its theoretical precision and applicability for a SROI analysis (Cropanzano et al., 2016). First, while this theory can distinctly label an individual's costs and benefits, when used to examine multiple individuals' perceptions, costs and benefits can overlap amongst individuals. This is problematic when combining individuals' preferences to evaluate a group's exchange, as some individuals within the group would engage while others would not engage with the exchange due to opposing perceptions of benefits and costs. Second, social exchange theory positions events to take place in an ideal scenario, one where reciprocity is viable for every option. While providing opposite responses is preferred, when applied to real world events, situational constraints can prevent this ideal and challenge the theories applicability. This pitfall is understood as the "Kansas is not Oz" metaphor in Nardinelli's (2018) work, which highlights opposite responses are not always possible not because they cannot be conceptualized, but because it requires the world (i.e., market, government, and individual) to be a world of perfect information, competition, government, and behavior. In reality, our world is

ripe with market (e.g., imperfect market), government (e.g., bureaucratic inefficiency), and individual behaviour imperfections (e.g., projection bias). Thus, in theory we can always provide opposite ideal responses, but in practicality, these options may not be applicable or even realistic with select markets, governments, and for select individuals (Nardinelli, 2018). Finally, social exchange theory posits that residents have control of their exchange. However, aligned with this research project, in major sport event exchanges, residents do not have this control as government officials control the exchange of their public funding.

**Figure 1.2**

*Social Exchange Theory Model (adapted from Homans, 1958)*



The combination of these concerns challenges the theoretical precision of social exchange theory’s behavioural predictions and its evaluative efficacy (Cropanzano et al., 2016). Although these critiques challenge this theory’s complete applicability to underpin a SROI analysis, three components of social exchange theory can help conceptually inform a SROI analysis. First, both benefits and costs are present. Although this may be intuitive, researchers often focus on positive perceptions and seeking positive outcomes of sport events, with less research addressing the negative outcomes and “losers” of hosting (Késenne, 2012; Taks et al., 2020). Second, how to value benefits and costs. Benefits and costs have often been determined

by individual perceptions, rather than experiences. By asking after the event, this can be more accurately addressed. This supports the potential effectiveness of evaluative SROI analyses, suggesting individuals can ascribe subjective value to social legacies based on experiences rather than perceptions. Finally, when understanding a SROI analysis, social exchange theory helps address potential findings relevant to why residents did (or not) wish to host a major sport event. For instance, behaviour can be labelled as rational or irrational based on if the resident(s) benefits outweighed (or not) their respective costs. Rational behaviour would be found if (1) support to host was found and benefits were perceived to outweigh costs; or (2) support to host was not found and costs were perceived to outweigh benefits. Irrational behaviour would be found if any other scenario as present, for instance, costs outweighing benefits but support to host was found, or if benefits and costs were equal and support to host was found.

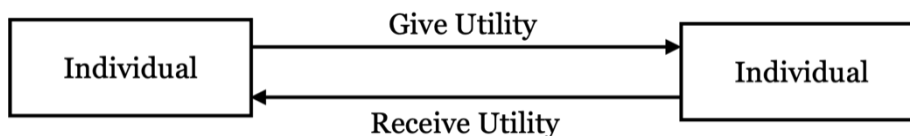
Therefore, although social exchange theory cannot directly be applied to understand a SROI analysis, it presents several attributes which should be considered when conducting a SROI analysis. Beyond social exchange theory, the study of economics offers a seminal theory in individual exchanges which should be considered: game theory.

**Game Theory.** This theory is the study of how individuals produce outcomes in relation to their utility and the utility of those they are interacting with (see Figure 1.3; von Neumann & Morgenstern, 1944). This theory categorizes an individual's outcome options by either the decision to cooperate or defect with the proposed exchange, and positions that the individual will always act rationally and engage in a decision where they can maximise their utility. Although game theory originated within economics, it has since become a popular theory in the social sciences (Heap & Varoufakis, 1995). Despite its popular use, an appropriate SROI conceptual

underpinning must address group optimization, which game theory does not; however, satisficing game theory extends game theory's individual principles to a group dynamic.

**Figure 1.3**

*Game Theory Model (adapted from von Neumann & Morgenstern, 1944)*



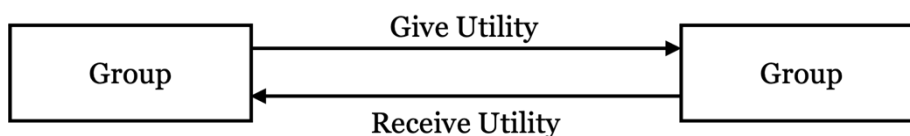
**Satisficing Game Theory.** This theory follows the guiding principles of game theory but focuses on the utility exchange of two groups rather than individuals (see Figure 1.4; Stirling & Goodrich, 1999). However, unlike game theory and its principle of optimizing an individual's utility, satisficing game theory aims to “satisfice” individuals' utility within a group, as the more individuals which make up a group, the more challenging it becomes to optimize each individual's utility (Stirling & Goodrich, 1999). This principle poses that a group will accept an exchange if the exchange satisfices a minimum utility level for all individuals within the group (e.g., a positive SROI). This principle helps combat an issue within social exchange theory (i.e., combining individual preferences). Therefore, the principle of satisficing everyone's needs (rather than optimizing) can help understand group exchanges.

Although this principle can help understand group exchanges (e.g., satisficing group utility), these exchange theories position each individual/group with control over the exchange of their own utility. However, when understanding residents' exchanges for a publicly-funded major sport event in Canada, residents' supply public funding to a government representative (e.g., municipal) but do not control the exchange of that public funding (see Figure 1.5). Rather,

while several other event stakeholders have direct exchanges with the event itself (e.g., sponsors, media), residents do not control their own utility exchange. Therefore, the assumptions of rationality and satisficing group utility may not be met when examining a SROI analysis. As a result, outcomes may occur which satisficing game theory cannot explain. Although satisficing game theory cannot directly be applied to understand a SROI analysis, it presents a key attribute which should be considered when conducting a SROI analysis, namely: for an exchange to occur, should all residents of a group receive their minimum satisfied utility?

**Figure 1.4**

*Satisficing Game Theory Model (adapted from Stirling & Goodrich, 1999)*

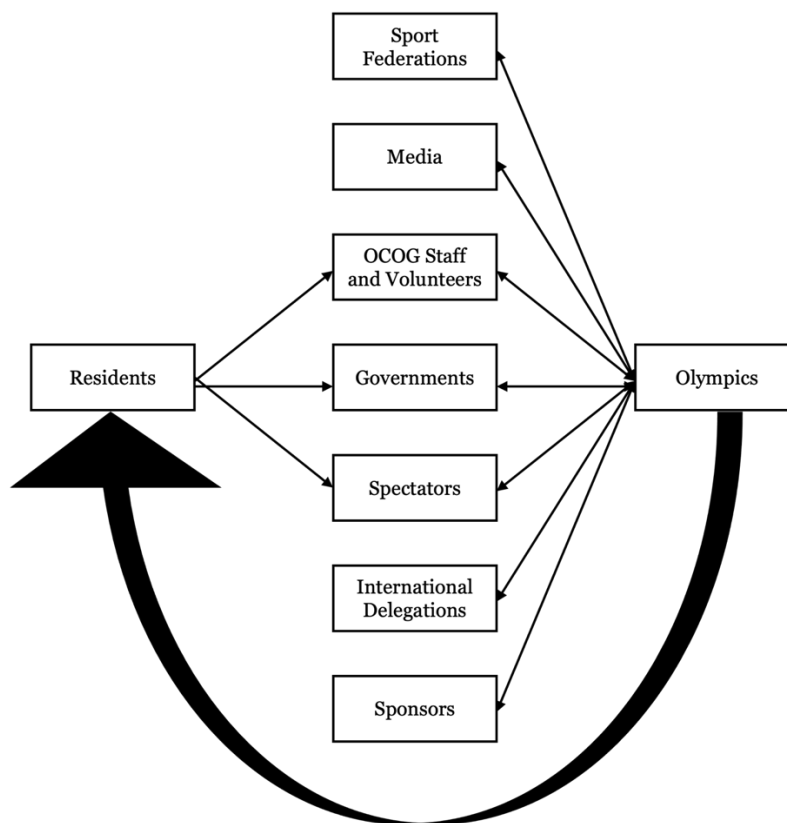


Despite that social exchange theory, game theory, and satisficing game theory offer select dynamics which can help understand residents' SROI exchange, these exchange theories each position the actor in the exchange (e.g., resident) to have control over the exchange of their utility. Consequently, these theories on their own cannot be applied to understand residents' SROI from hosting a major sport event. Moreover, this crucial element of control (or lack of control) is not discussed at all within the SROI framework or within current sport SROI investigations (cf. Davies et al., 2019, 2021; Lombardo et al., 2019; Oshimi et al., 2022). However, within the broader management studies, this lack of control in an exchange is central to mergers and acquisitions which occur in common management practices (Kesner et al., 1994)

or select management services like purchasing investment banking services (Valley et al., 1992) or realtor services (Bazerman et al., 1992).

**Figure 1.5**

*Canadian Major Sport Event Exchange Model (adapted from Parent, 2013)*



**Mergers & Acquisitions.** It is common practice within the management world for entities to rely on external representatives or agents for solutions and practices (Kesner et al., 1994). No different in the publicly-funded major sport event world, where residents rely on government officials to make positive choices with their public funding. However, although viewed as customary amongst investment banking, real estate, and merging firms, the control one affords the individual acting on their behalf in this type of exchange can be riddled with

complexities and challenges (McLaughlin, 1990; Valley et al., 1992). On the one hand, positive elements can exist, such as outsourcing expert opinions and relationships which can create outcomes the client would not be able to on their own (Kesner et al., 1994). On the other hand, negative elements can exist like the inherent inclusion of that representative's own agenda and interests (Kesner et al., 1994). Encouraged by self-interest, scholars have often found when given control to make decisions for a client, a representative (e.g., investment banker, agent) often manipulates the situation by disregarding the client's desires (McLaughlin, 1990) to obtain an exchange which benefits the representative (Bazerman et al., 1992).

This control aspect highlights the importance of understanding each party's power (Bacharach & Lawler, 1981), accountability (Ben-Yoav & Pruitt, 1984), and surveillance (Carnveale et al., 1979) within the exchange. As the negotiator's power relative to the other parties often affects the exchange outcome (Bacharach & Lawker, 1981); the negotiator's (e.g., government representative) accountability often relies on the extent to which the client (e.g., residents) can reward or punish them for their exchange performance (Ben-Yoav & Pruitt, 1984); and negotiators are less likely to push their client's desires to the side when their actions are under surveillance (i.e., when exchange transparency is present; Carnveal et al., 1979).

Although the insight garnered from mergers and acquisitions within the broader management literature does not offer a conceptual framework to investigate residents' SROI from hosting a major sport event, it does offer additional concepts to consider linked to control (i.e., power, accountability, surveillance) and supports the importance of transparency and stakeholder perspective echoed by the SROI framework and exchange theories (e.g., social exchange theory). Nevertheless, an explanatory theoretical understanding is still missing. As such, there is a clear need to determine what conceptual elements scholars have relied on when

examining residents' socio-economic exchanges from hosting a major sport event, and if available, what theoretical or conceptual model or framework has been applied. To do this, and akin to previous sport management scholars (e.g., Orłowski & Wicker, 2019; Weed et al., 2015), a review and critical analysis can be a pertinent means to this end. Thus, to answer this conceptual challenge and provide the first key pillar to understanding residents' SROI from hosting a major sport event, this dissertation needs to determine which concepts to consider for a SROI evaluation. To do so, the first article (i.e., Chapter II) is guided by the following research question:

**RQ1:** *What theoretical concepts have been used to underscore residents' socio-economic exchanges when hosting a publicly-funded major sport event?*

### ***Methodological Challenges***

The challenge of monetizing social impacts, perceptions, and/or experiences cannot be overstated, as converting something intangible (e.g., social experience) to something tangible (e.g., monetary unit) is no easy transformation (King, 2014; Orłowski & Wicker, 2019). However, to monetize social experiences, several monetary evaluation methods exist (Orłowski & Wicker, 2019) which may be ideal for evaluating residents' SROI from hosting a major sport event. Specific to the resident and hosting major sport event context of this dissertation, monetary valuation methods can be implemented if they include two characteristics: (1) a method that can be implemented post-exchange (i.e., after the identified key stakeholder has provided their exchange input[s] and received their exchange output[s]); and (2) a method that can monetize a complete social experience without relying on market values/prices (i.e., price of a good/service) (Keane et al., 2019).

Although monetary valuation methods meeting these criteria are ideal for conducting SROI evaluations, few studies have applied such methods (Davies et al., 2021; Keane et al., 2019). Rather, most studies have substituted monetary valuation methods for the direct use of market values (e.g., Butler & Leathem, 2014; Bradley et al., 2013; Davies et al., 2019). For instance, Bradley et al. (2013) conducted a SROI evaluation of citywide services for recovering alcohol and drug dependence individuals. Instead of monetizing these individual's value of independence, they determined the number of times an individual would be required to go to counselling services to find that independence, then determined the market value of those counselling services and used that figure as the value.

Using market values like this is riddled with challenges. For instance, Bradley et al.'s (2013) use of market values assumes that value is consistent across individuals, that individuals would take the same length of time (i.e., number of sessions) to reach a state of independence, that individuals can and would go to a counselling service, and that individuals can and would go to a counselling service of the market value selected. The reality of SROI evaluations is there is a subjective nature to everyone's evaluation, whether that be why, when, or what they value (Davies et al., 2019). Using market values is not only misaligned with the SROI principles but it can create misleading interpretations which cause more harm than good for practitioners looking to use that information for decision making.

Thus, it is critical that scholars and practitioners conducting SROI evaluations do not rely on market values and use monetary valuation methods which allow for each stakeholder to make their own subjective valuation (Keane et al., 2019). Unfortunately, given the infancy of SROI evaluations, only two sport management studies have applied such a monetary valuation method to do so (i.e., Davies et al., 2021; Humphreys et al., 2018). Davies and colleagues (2021) applied

a willingness-to-pay or contingent valuation method (Bennett, 1996; Ciriacy-Wantrup, 1944) to determine members' value of a community sport facility after using it (i.e., reverse contingent valuation method), while Humphreys et al. (2018) applied the same method to determine Canadian residents' value of the Own the Podium program used to support Olympic athletes. In doing so, both Davies et al. (2021) and Humphreys et al. (2018) applied the reverse contingent valuation method, suggesting it may be ideal from a methodological perspective but given that neither of these studies applied the method to a stakeholder's entire hosting experience, the literature leaves more methodological questions than answers. Consequently, it is imperative that this dissertation investigates monetary valuation methods available to determine which method(s) is(are) best to analyse this exchange. Thus, to answer this methodological challenge and provide the second key pillar to understanding residents' SROI from hosting a major sport event, this dissertation needs to determine which monetary valuation method(s) to apply. To do so, the second article (i.e., Chapter III) is guided by the following research question:

**RQ2:** *Which monetary valuation method(s) is(are) best to examine residents' SROI from hosting a publicly-funded major sport event?*

### ***Empirical Challenges***

Although calculating an identified stakeholder's SROI is done through a simple equation (i.e.,  $SROI = \text{monetized social value} - \text{financial costs}$ ), the rigor of transparently presenting financial costs combined with the challenge of monetizing stakeholder's intangible outcomes has created several challenges for sport management scholars (Gosselin et al., 2020). Despite the need to conduct a SROI evaluation on residents' major sport event hosting experiences (Attwell et al., 2019; Davies et al., 2019, 2021; Preuß & Hong, 2021) to date, no SROI study has done so.

Conducting such an evaluation is entangled with socio-economic, contextual, and conceptual complexities. To undertake such an examination requires the inclusion of all resident groups (VanWynsberge, 2016). For instance, when hosting a publicly-funded major sport event, host and non-host residents often provide public funding (e.g., Sant & Mason, 2015; VanWynsebrghe, 2016), however, most resident outcome studies have exclusively focused on host city residents (Thomson et al., 2019, 2020). From a resident stakeholder perspective alone, no study to date has attempted to examine all necessary residents' SROI from hosting a major sport event. Although this is alarming given the identified researcher and practitioner need to do so, no study to date has even attempted to evaluate a stakeholder's SROI from an entire major sport event (Gosseline et al., 2020; Keane et al., 2019). Rather, studies have focused on event microcosms like select sport outcomes (e.g., Humphreys et al., 2018; Mutter & Pawlowski, 2014) or sport facilities and programs (e.g., Davies et al., 2019, 2021). Thus, based on the current research available, scholars and practitioners are left at a standstill, uncertain as to residents' SROI from hosting major sport events and unarmed with no previous empirical data to refer to for future hosting decisions. Given these alarming realities, and the continual drive for countries to host such major sport events based on the claim that they produce positive SROI for residents (Byers et al., 2021; Preuß & Hong, 2021), there is a need to calculate residents' SROI from hosting a previous major sport event. Thus, to answer this empirical challenge and provide the final key pillar to understanding residents' SROI from hosting a major sport event, this dissertation needs to determine what factors predict residents' SROI. To do so, the third article (i.e., Chapter IV) predicts residents' SROI and the fourth article (i.e., Chapter V) investigates residents' SROI evaluation, these articles are guided by the following research questions, respectively:

**RQ3:** *What factors predict residents' SROI from hosting a publicly-funded major sport event?*

**RQ4:** *Why did residents evaluate their SROI the way they did?*

### **Summary**

Overall, the SROI framework and literature presents conceptual, methodological, and empirical challenges to conduct a SROI evaluation. From a conceptual perspective, the SROI framework does present some concepts which can help understand residents' SROI from hosting a major sport event (e.g., importance of transparency; Davies et al., 2019). However, the current SROI framework lacks concepts and relationships which can guide how, when, and why evaluations are made. Consequently, a review of which concepts have been used and can be beneficial should occur and ultimately, a conceptually grounded SROI framework should be put forward which combines concepts from the current SROI framework (e.g., importance of transparency; Davies et al., 2019), current exchange theories (e.g., group vs. individual; Stirling & Goodrich, 1999), and new concepts learned through a review.

From a methodological perspective, although numerous scholars have identified the need to apply monetary valuation methods when evaluating SROI (e.g., Arvidson et al., 2013; Banke-Thoms et al., 2015; Davies et al., 2021), scholarship, to date, has rarely applied a monetary valuation method (Gosselin et al., 2020; Keane et al., 2019). Given the plethora of monetary valuation methods available (Orlowski & Wicker, 2019), before conducting an examination of residents' SROI from hosting a major sport event, which method(s) is(are) best to apply must first be determined. Consequently, an investigative review which compares all available monetary valuation methods characteristics to necessary selection criteria and then applies all acceptable methods to the same event and resident context should occur. Doing so would provide

a comparative analysis to learn which method is best or which combination of methods provides the best hybrid method to evaluate residents' SROI from hosting a major sport event.

From an empirical perspective, no study to date has attempted to examine residents' SROI from hosting a major sport event. Consequently, not only are we, as sport management scholars, unable to answer if hosting a publicly-funded major sport event can in fact create a positive SROI for residents, we do not know what factors lead to the prediction and understanding of that evaluation (Gosselin et al., 2020; Keane et al., 2019). Thus, not only does a SROI calculation need to occur for residents' major sport event hosting experiences, but one which simultaneously attempts to predict that evaluation from various social, economic, and contextual factors, and understand why these evaluations came to fruition (Davies et al., 2021).

Consequently, this dissertation aims to answer each of these challenges, ultimately, by reviewing literature to elicit which conceptual elements can guide residents' SROI evaluation (i.e., conceptual answer); determining which monetary valuation method(s) to use when examining residents' SROI from hosting a major sport event (i.e., methodological answer); applying said method(s) and predicting residents' SROI from hosting a major sport event (i.e., empirical answer); and investigating why residents' evaluated their SROI the way they did.

### **Research Context**

The major sport event used for this research project was the 2010 Vancouver OWG. Following a positive referendum on February 24<sup>th</sup>, 2003, where 64% of voting Vancouver residents supported a bid for the 2010 OWG, the City of Vancouver and the Resort Municipality of Whistler put forth a formal joint bid to host the 2010 OWG (IOC, 2014). Determined in July of 2003, after a series of International Olympic Committee (IOC) votes, Vancouver and Whistler were awarded hosting rights of the 2010 OWG (IOC, 2014).

Orchestrated by the Vancouver Organizing Committee (VANOC), to host the event, various cities within the Metro Vancouver Regional District (e.g., West Vancouver, Richmond, Squamish) were used to stage official events of the OWG (IOC, 2020). In total, the event hosted 2,566 athletes and ran 86 different events (e.g., ice hockey, luge, speed skating, cross country skiing; IOC, 2020) from February 12 to 28, 2010. The 2010 OWG was arguably Canada's most successful Olympic event, as the host country won the most gold medals (i.e., 14) – concluding the Games with Canada's Men's Hockey Team besting the United States of America. In total, Canada won 26 medals, which placed them third on the overall medal count behind the United States of America (37) and Germany (30).

To host the 2010 OWG, a combination of IOC, public funding (i.e., \$2 to \$4b in taxpayer contributions via municipal, provincial, and federal governments), sponsorship, and ticketing revenues were used (see Figure 1.6; VANOC, 2010). Much of these revenues were used to cover the cost of building infrastructure needed for the event (e.g., Richmond Olympic Oval), upgrading existing infrastructure to be used for events (e.g., Cypress Mountain and BC Place Stadium), as well as upgrading existing transportation infrastructure (e.g., Sea-to-Sky Highway). Construction and labour costs shifted over the course of the decade as the turn of the 21<sup>st</sup> century saw an economic boom, but quickly, a financial crisis and economic recession swept the continent. Beyond these economic costs, political challenges were present through the build-up and hosting of the 2010 OWG. The 2010 OWG was the first Olympic event to be bid for following the 9/11 terrorist attacks on September 11, 2002. These political concerns stimulated a tremendous financial expectation upon VANOC to invest in event security. Moreover, although Indigenous groups signed a protocol for the event to be hosted on their land, several Indigenous groups did not support the hosting of the 2010 OWG and created a challenging opposition for the

event and its stakeholders to navigate pre-, during, and post-event. Finally, much conflict was also found internal to the residents of British Columbia, as several riots occurred throughout, most notably the week-long Anti-Olympic Convergence occurred during the initial week of the Games, where protestors were remembered for smashing windows of the Hudson's Bay Downtown Vancouver location – the official apparel sponsor of Team Canada (Dyck & Gauvin, 2012).

Consequently, the combination of the 2010 OWG's timeframe, positive public referendum revealing resident support pre-event, use of public funding, and event dynamics of costs and benefits make this event an ideal context to examine residents' SROI from hosting a major sport event. Figure 1.6 depicts which stakeholders financially invests in a major Canadian sport event (e.g., residents, sponsors) and the arrows indicate how that money flows between stakeholders in-and-out of the major sport event.

Regarding a SROI perspective, this event offers five distinct resident groups which each engaged in their own socio-economic exchange by hosting the 2010 OWG. From an economic (or input) side of the equation, three distinct groups were present: (1) Vancouver and Whistler; (2) British Columbia; and (3) Canada. Where *Vancouver* and *Whistler* residents provided municipal, provincial, and federal funding; *British Columbia* residents (outside of Vancouver and *Whistler*) provided provincial and federal funding; and *Canada* residents (outside of British Columbia) provided federal funding. From a social experience (or output) side of the equation, four distinct groups are present: (1) Vancouver; (2) Whistler; (3) Venue; and (4) Non-Hosting. Where *Vancouver* residents were an official host of the OWG, hosted events on the official days, housed facilities, and hosted the coveted opening and closing ceremonies; *Whistler* residents held the same responsibilities minus hosting the opening and closing ceremonies; *Venue* residents

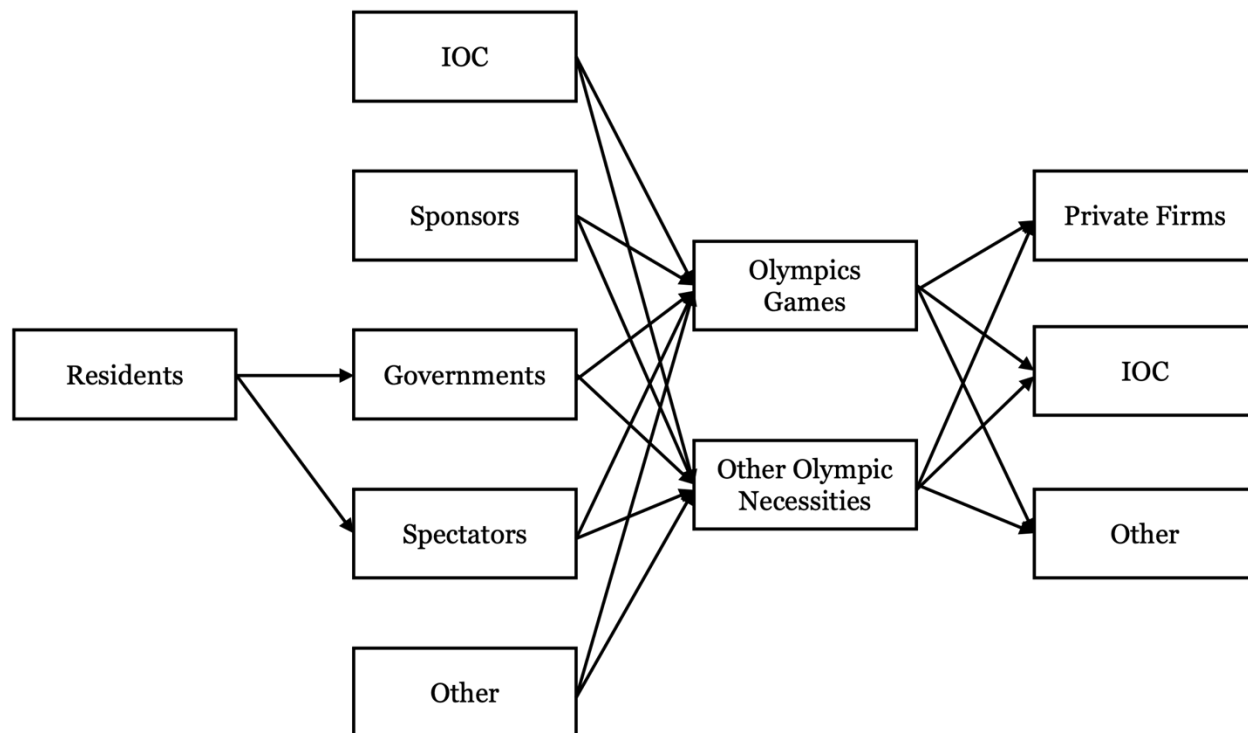
lived in British Columbia cities which hosted official OWG events but were not an official host city (e.g., West Vancouver, Richmond, Squamish); *Non-Hosting* residents lived in Canadian cities which did not host any official OWG events during February 12<sup>th</sup> to 28<sup>th</sup>, 2010. The combination of these resident group characteristics creates five distinct groups to be examined to conduct a complete analysis of residents' SROI from hosting the 2010 OWG: (1) Vancouver; (2) Whistler; (3) Venue; (4) British Columbia; and (5) Canada. The economic and social experience characteristics of each of these groups is presented in Table 1.1.

Given the importance of contextual elements when hosting major sport events (Parent & Ruetsch, 2021), there are three contextual elements to discuss about the 2010 OWG which may help shape the interpretation of this dissertation's findings. First, prior to the 2010 OWG, Canada had hosted two Olympic events (i.e., the 1976 OG in Montréal and 1988 OWG in Calgary). In response to being one of "only two nations not to win a gold medal at its own Olympics," the *Own the Podium* program was created in 2005 to amplify athletes training and (hopefully) create gold medal success on home soil (Humphreys et al., 2018, p. 399). The success of this program catapulted Canadian athletes to earn 14 gold medals, four more than any other participating country (Donnelly, 2010; Dowling & Smith, 2016). Second, although Canadian athletes have had much success in both the OG and OWG (Green, 2007), the Canadian sport identity is very much linked to winter athletics (Robidoux, 2002); consequently, Canadian residents may feel especially passionate and supportive of hosting the OWG. Finally, not only is the concept of paying taxes formalized and normalized in Canadian society, but so, too, is the concept of using those tax contributions to promote physical activity (e.g., Von Tigerstrom et al., 2001) and major sport events (e.g., VanWynsberghe, 2016). The importance of these elements creates a filter for this dissertation's subsequent chapters, as not only does it distinguish Canadian residents' routine

public contribution to support sport, but also positive affirmations which may come from medal success and sporting identity.

**Figure 1.6**

*Canadian Major Sport Event Money Streams (adapted from VANOC, 2010)*



## Methodology

### Ontology & Epistemology

A researcher's paradigm is based on their own ontological and epistemological assumptions (Scotland, 2012). Ontology is "the study of being" (Crotty, 1998, p. 10) or "the nature of reality" (Lincoln & Guba, 1985, p. 37). An ontological stance implies a particular epistemological view (Crotty, 1998). Epistemology is about how we believe to know what we know (Crotty, 1998) or "the nature of the relationship between the knower or would-be knower

and what can be known” (Guba & Lincoln, 1989, p. 201). Epistemology is concerned with providing a philosophical grounding for deciding what kind of knowledge is possible and how we ensure it is adequate and legitimate (Maynard, 1994).

**Table 1.1**

*Residents’ Socio-Economic Exchange Characteristics by Resident Group*

Resident Group	Location	Hosting Experience/Role	Public Funding Investment
Vancouver	City of Vancouver	Official Host City Hosted Opening & Closing Ceremonies Event Host	Municipal Funding Provincial Funding Federal Funding
Whistler	Resort Municipality of Whistler	Official Host City Event Host	Municipal Funding Provincial Funding Federal Funding
Venue	West Vancouver, Richmond, Squamish	Event Host	Provincial Funding Federal Funding
Provincial	British Columbia cities with no hosting (e.g., Kelowna)	No Hosting	Provincial Funding Federal Funding
Federal	Canadian cities outside British Columbia (e.g., Toronto)	No Hosting	Federal Funding

For this dissertation, I position myself within a pragmatic research paradigm. Pragmatism is not committed to any one system or boundary of philosophy and reality (e.g., positivism; Creswell, 2010). Rather, pragmatism is problem-centered and pluralistic, using all approaches available to understand and address the problem (Creswell, 2010; Patton, 1990). This paradigm aligns with the use of mixed methods research, as a researcher does not confine (or limit) themselves to the use of one approach to collect and analyze data (e.g., exclusive use of

quantitative or qualitative approaches), rather, subscribing to the use and mixing of both as needed to address the research problem, question, and/or purpose sought.

## **Method**

Mixed methods research, known as the *third methodological movement*, was designed to synthesize quantitative and qualitative approaches; to draw from their respective strengths and minimize their respective weaknesses into one research methodology (Johnson & Turner, 2003). This methodology is defined as the “type of research in which a researcher...combines elements of qualitative and quantitative research approaches...for the broad purposes of breadth and depth of understanding and corroboration” (Johnson et al., 2007, p. 123). Thus, mixed methods is positioned between quantitative and qualitative research on a continuum (Creswell et al., 2003) and is underpinned by the philosophical paradigm of pragmatism (Denzin, 2012).

To effectively conduct mixed methods research, four criteria must be met (Tashakkori & Creswell, 2007). First, *justification* “demonstrate[s] the need for mixed methods” research (p. 207). Second, *mixed method type* presents the type of mixed methods design applied (i.e., triangulation, embedded, explanatory, or exploratory) and the quantitative and qualitative instruments used. Third, *distinct results* must be presented for each quantitative and qualitative approach(es) used. Finally, *mixing* is the presentation of the integrated quantitative and qualitative results into a coherent conclusion.

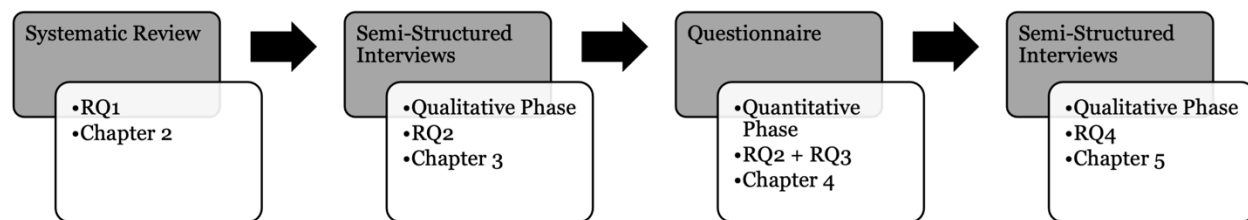
## **Research Design**

Mixed methods research designs can be formulated through the combination of three features: (1) *paradigm(s)*; (2) *timing*, sequential or concurrent; and (3) *weight/priority* of quantitative versus qualitative approaches (Johnson & Onwuegbuzie, 2004). To understand the SROI phenomena, this dissertation must both explore and explain. To do so, a sequential mixed

methods design was used which moves from qualitative approach to quantitative approach to qualitative approach. Although most sequential mixed methods designs are either exclusively exploratory (i.e., qualitative then quantitative) or explanatory (i.e., quantitative then qualitative), there is no limit on the number of phases a sequential design can have (Creswell, 2010). Thus, this mixed methods design combines an exploratory (i.e., qualitative then quantitative phases) and explanatory (i.e., quantitative then qualitative phases) sequential design.

By combining exploratory and explanatory elements for this dissertation, benefits from both are offered to understand residents' SROI more comprehensively from hosting the 2010 Vancouver OWG. The initial exploratory mixed methods design links the first qualitative phase to the quantitative phase, with priority of data given to the qualitative phase which informs the quantitative data phase (Creswell et al., 2003). This design is advantageous when testing and/or building a research instrument/tool (Creswell, 2010; Morgan, 1998). The later explanatory mixed methods design links the quantitative phase to the final qualitative phase, with priority of data given to the quantitative phase, which then informs the qualitative data phase (Creswell, 2010).

Accordingly, this dissertation has four stages: a systematic review followed by a three-step mixed methods design. First, Chapter II conducts a systematic review to answer RQ1. Second, Chapter III includes the first two steps of the mixed methods design (i.e., semi-structured interviews and questionnaire) to answer RQ2. Third, Chapter IV uses the quantitative middle step in the mixed methods design (i.e., questionnaire) to answer RQ3. Finally, Chapter V applies the final step of the mixed methods design (i.e., semi-structured interviews) to answer RQ4. Figure 1.7 depicts the four stages of the dissertation.

**Figure 1.7***Dissertation Stages***Research Quality**

Although each article presents its own specific method section, there are four important elements to discuss about the research of this dissertation which are not presented in-depth in the following chapters: (1) quantitative data checking; (2) qualitative data checking; (3) government stakeholder relationship; and (4) pilot study. First, as part of the quantitative data checking for the questionnaire data in Chapter III, *data quality checking* was completed. Quantitative data quality checking is a process where the researcher (typically) randomly selects complete participant responses in the data set and confirms them with the actual questionnaire data (George & Mallery, 2019). This data checking was done for the questionnaire data by logging into my *Qualtrics* account which held all questionnaire responses and randomly selecting 19 (1%) of the completed questionnaires. These individual responses were then compared to the data responses provided by *Qualtrics* in the overall dataset using unique responded codes. All 19 randomly selected questionnaire responses aligned with the responses found in the dataset, confirming the dataset was accurate (George & Mallery, 2019).

Second, as part of the qualitative data checking for the pre-questionnaire and post-questionnaire semi-structured interviews, member checking was done to ensure trustworthiness. *Trustworthiness* is a term coined by Lincoln and Guba (1985) which encompasses the rigor of

high quality qualitative work developed through credibility, transferability, dependability, and confirmability. Credibility provides the researcher confidence in the “truth” of their findings; transferability shows how the findings are applicable to various contexts; dependability shows the findings are consistent if need be; and confirmability indicates that the findings were shaped by the participants not by the researcher (Lincoln & Guba, 1985). To ensure trustworthiness, *member checking* was completed for each interview ( $n = 35$ ) which included three steps. First, after completing the audio recorded interview, I let interviewees know their interview will be transcribed verbatim, sent to them for checking, and any changes they feel need to be made will be done to ensure they feel their voice is being represented accurately. Second, verbatim transcripts were sent to the interviewees where they reviewed the transcript and provided any changes they felt needed to be made. Finally, if any changes were requested, I made those changes and provided the revised transcript to the participant for confirmation. This process continued until the interviewee was satisfied their responses and voice was depicted appropriately. This process resulted in five interviewees requesting changes to their transcripts with all five interviewees confirming transcript revisions after the first round of revisions. For example, one interviewee couldn't remember the name of the “house” they went to during an Olympic event. Following the interview, the interviewee remembered and requested the name be added in. This member checking process adheres to the level of trustworthiness outlined by Lincoln and Guba (1985) and creates a strong layer of trustworthiness between the participant and the researcher: that the researcher is attempting to present the interviewee's voice as genuinely as possible (i.e., confirmability; Amankwaa, 2016).

Third, and aligned with the importance of stakeholder relationships, in order to appropriately understand how the Canadian government was using residents' public funding to

host the 2010 OWG and the desires from this exchange, I engaged in communication with James Allen, the Manager of Major Sport Event Coordination at Sport Canada. Through virtual communication with James Allen (i.e., Zoom meeting which lasted 57 minutes), I was able to confirm the use of residents' public funding and the intent of hosting the 2010 OWG for Canadian residents. This information helped shape the questions developed for the questionnaire scenarios (i.e., reverse contingent valuation method and opportunity cost approach scenarios) and the post-questionnaire interview guide.

Finally, after developing the questionnaire through various stages of reviewing literature, discussions with supervisors, analysis of initial qualitative data, and discussion with the aforementioned event expert, I first piloted the questionnaire on Canadian residents. In total, 10 individuals (i.e., three residing in the British Columbia region, three residing in the Vancouver region, and four residing in the Canada region) piloted the questionnaire. The piloting phase elicited questionnaire flow/aesthetic changes to consider, an average time it took for pilot participants to complete, and confirmation if any items were confusing to pilot participants or pilot participants felt they were not applicable. The pilot questionnaire results provided minor changes to improve the flow of the self-administered online questionnaire (e.g., number of items on a page for mobile platform vs. desktop platform); confirmed that the range of time to complete the survey was seven minutes to 15 minutes with an average of 11-minutes; and confirmed no items were deemed confusing or unapplicable for pilot participants. From this step, small revisions were made to the visual and flow elements of the questionnaire before disseminating the questionnaire to *Qualtrics* panel members and a time quality control was added where responses completed in less than five minutes were automatically deleted from the data set. Moreover, once disseminated to *Qualtrics* panel members, a soft launch occurred where

after 50 *Qualtrics* responses were complete the dataset was reviewed to ensure no responses were missing and all items were collecting data as expected (e.g., for a 7-point item ranging from one to seven the item eight was not being reported in the data set). After confirming the data for these 50 initial *Qualtrics* respondents, the questionnaire was distributed to the remainder of the eligible panel members until completed questionnaires from the desired number of participants was collected.

### **Dissertation Outline**

To address the purpose of this dissertation and the four research questions, my dissertation is organized into five remaining chapters. Chapters II, III, IV, and V adhere to the article-based format of this dissertation and present research articles one, two, three, and four which each individually answer a research question, contribute to the field of sport management, and were written considering the standard guidelines and expectations of the selected peer-reviewed outlets. The journal and stage of submission each article is identified in a citation-type format on the first page of each chapter. Following the four articles, in pursuit of answering this dissertation's purpose, I conclude by discussing the overall findings and contributions of the dissertation, provide structure to the collected concepts and offer a conceptual framework which answer's this dissertation's purpose, as well as important limitations to unpack and areas of future research for scholars and practitioners to pursue. Below is a brief overview of each subsequent chapter.

#### **Chapter II Summary**

Chapter II offers a review of theoretical elements used to underpin residents' socio-economic exchanges from hosting major sport events. This first article depicts our field's lack of uptake towards understanding residents' SROI from hosting major sport events and highlights

the outcome-centric focus we as scholars and practitioners have had. In doing so, Chapter II identifies the need for a SROI conceptual framework to be built and elicits conceptual elements to be included from previous studies.

### **Chapter III Summary**

Chapter III offers the first empirical work of this dissertation by presenting an exploratory mixed methods research paper that determines which monetary valuation methods to examine residents' SROI with and then applies that method to examine Vancouver residents' SROI. This second article provides the methodological contribution needed to understand residents' SROI, as it weaves through 12 monetary valuation methods to determine the subjective importance of micro and macro-level perspectives. From here, Vancouver residents' SROI from hosting the 2010 OWG was examined using the select monetary valuation method.

### **Chapter IV Summary**

Chapter IV examines residents' SROI from hosting the 2010 OWG but moves beyond the input-outcome calculation offered in Chapter III and identifies socio-economic factors which predict residents' SROI. This third article reveals the importance of social experience outcomes, affinity with sport factors, and economic factors when modelling residents' SROI from hosting a publicly-funded major sport event. This article reveals how a positive SROI for residents is possible and offers insight into the temporal reality of social experience outcomes and the significance of economic factors within this socio-economic exchange.

### **Chapter V Summary**

From these three articles, conceptual, methodological, and empirical contributions have been made. However, although these contributions offer building blocks to answer this dissertation's overall purpose, an understanding of residents' SROI has not yet been understood.

Consequently, Chapter V aims to learn what other concepts may be important when understanding this phenomenon by engaging in interviews to reflect on residents' SROI evaluation. During these semi-structured interviews, I engage with residents from each resident group, provide them with their estimated taxpayer contributions, and aim to understand their SROI evaluation and why they value their experience the way they did. This chapter elicits important new conceptual elements like the unknown value in the exchange, residents' hosting identity, and the importance of one's societal norms.

### **Chapter VI Summary**

Chapter VI is the pinnacle of this dissertation, as it answers this dissertation's purpose by providing a conceptual framework to comprehensively understand residents' SROI from hosting a publicly-funded major sport event. The concepts learned through Chapter I, II, III, IV, and V are collectively positioned into a framework and their importance and (potential) affects are discussed. This conceptual framework not only answers this dissertation's purpose, but provides the initial building blocks in theory development and offers the conceptual contribution this dissertation originally set out to accomplish. The concluding chapter also summarizes the findings of Chapters II to V and provides a critical discussion of residents' SROI from hosting publicly-funded major sport events. Specifically, this chapter focuses on how these dissertation findings offer knowledge to help answer important scholarship queries; connect to and answer gaps within the sport management literature; and arms sport management practitioners to better garner positive SROI for their own community members. Finally, this dissertation concludes with a discussion of limitations and future directions for scholars and practitioners to pursue with particular focus on applying and developing the conceptual framework offered.

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## **Chapter II: The Investment Side of the Equation: A Systematic Review of Residents’ Public Funding Exchanges When Hosting Major Sport Events**

### **Abstract**

Although scholars have reviewed residents’ outcomes of publicly-funded major sport events, these reviews did not include the investment side of the equation (i.e., public funding investment). Given the importance of justifying public funding to host major sport events, investigating the input side of the equation is critical. This systematic review includes the input side of the equation to identify, evaluate, and summarize how and why residents value publicly-funded major sport event outcomes. Following the search, we screened 934 records, of which 19 met the inclusion/exclusion criteria. Findings revealed the importance of residents’ affinity with sport, income, and exchange transparency. Findings also revealed the paucity of studies acknowledge residents’ exchange but fail to examine event outcomes in relation to investments, revealing an outcome-centric focus and disconnect from residents’ actual event exchanges. Future scholarship should investigate event outcomes by including both, the investment and outcome sides of the equation.

*Keywords:* sport event; legacy; public relations; sports value; social return on investment

Bakhsh, J. T., Taks, M., & Parent, M. M. (under review). The investment side of the equation: A systematic review of residents’ public funding exchanges when hosting major sport events. *Event Management*.

## Introduction

Examining major sport event outcomes has become a popular focus for event scholars (e.g., Gripsrud et al., 2010; Lachance et al., 2021, 2022; Taylor & Toohey, 2006) with such research advancing our understanding of stakeholders' perspectives and experiences linked to sport event outcomes (e.g., Goodwin et al., 2017; Inoue & Havard, 2014; Li et al., 2018). Consequently, a large body of literature has developed, where scholars have attempted to take stock of the available information via broad major sport event outcome reviews (e.g., Köenigstorfer et al., 2019; Scheu et al., 2019; Thomson et al., 2019, 2020). These reviews offer insights into what outcomes are most examined (i.e., economic and social) and what theoretical frameworks are most often used to analyze how residents evaluate event outcomes (e.g., social exchange theory and stakeholder theory; Thomson et al., 2020).

Just as understanding major sport event outcomes are important, equally important is understanding major sport event investments (Preuß & Hong, 2021). This is especially important given that sport stakeholders have long justified using public funding to host major sport events to mobilize desired social outcomes for community residents (Doyle et al., 2021; Oja et al., 2018). In other words, stakeholders claim that hosting publicly-funded major sport events will create positive social outcomes for residents that outweigh residents' public funding investment (i.e., positive social return on investment; Preuß & Hong, 2021). Not only is understanding major sport event stakeholders' investments important on its own (e.g., residents' public funding), but this understanding is necessary to appropriately evaluate event outcomes.

However, despite the importance of understanding residents' major sport event investments (Preuß & Hong, 2021) and scholars' justification to study event outcomes because of residents' major sport event investments (e.g., Oja et al., 2018; Park et al., 2019), current

reviews remain siloed from the investment side of the equation and exclusively focus on residents' event outcomes. To gain a stronger understanding of the meaning and value of event outcomes, we must consider and interpret outcomes related to their event investment (Preuß & Hong, 2021).

Since much publicly-funded major sport event scholarship has already been conducted (e.g., Köenigstorfer et al., 2019; Scheu et al., 2019; Thomson et al., 2019, 2020), one means to garner this understanding is by conducting a systematic review (Grant & Booth, 2009). A systematic review affords scholars the opportunity to pursue a specific research gap and produce a comprehensive overview of that research topic. Thus, this systematic review identifies, evaluates, and summarizes the findings and theoretical concepts of studies that evaluate both residents' investments and outcomes when hosting a publicly-funded major sport event. Providing this synthesis will offer clarity to practitioners and academics regarding what scholarship (if any) can theoretically explain (i.e., how and why) residents value the exchange process of publicly-funded major sport events. In turn, this allows for a more comprehensive understanding of publicly-funded major sport event outcome perceptions and the processes which lead to residents' event valuations. This will ultimately inform event stakeholders and decision-makers about the realities of hosting major sport events and their ability to mobilize desired outcomes for residents.

### **Materials & Methods**

Understood from Grant and Booth's (2009) typology of reviews, a plethora of reviews are readily available for scholars to address academic queries. Within sport management, popular types of reviews have been applied, including scoping reviews (e.g., Backman, 2018), critical reviews (e.g., Keane et al., 2019), literature reviews (e.g., Park & Park, 2016), and systematic

reviews (e.g., Parent & Hoye, 2018). These reviews can be categorized by their inclusion of a formal quality appraisal or not (Grant & Booth, 2009). Most review types do not follow a formal quality appraisal (e.g., scoping review) and thus, are best used to garner a broad scope or grasp of a select body of literature (Grant & Booth, 2009; Teare & Taks, 2020). For reviews which do follow a formal quality appraisal (e.g., systematic reviews), they are best used to answer a specific research query or target a previously identified research gap (Grant & Booth, 2009).

Given the specific research query of this study and the gap it pursues understood from previous broad reviews (i.e., the input side of the equation; Köenigstorfer et al., 2019; Scheu et al., 2019; Thomson et al., 2019, 2020), conducting a systematic review may be advantageous, as it can build off previous broad reviews and follow a formal appraisal process. To conduct a systematic review, scholars use the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis; Moher et al., 2009) protocol. Developed by an international group of scholarly authors and methodologists, the PRISMA protocol is a systematic procedure that guides researchers to conduct and report reviews of inquiry to a specific research question (Moher et al., 2009). Systematic reviews “aim to identify, evaluate, and summarize the findings of all relevant individual studies” of a particular query sought (Gopalakrishnan & Ganeshkumar, 2013, p. 9). They can deliver a comprehensive overview of research on a given topic, highlight methodological or conceptual gaps, and provide the starting point for future research (Chalmers & Galsziou, 2009; Eagly & Wood, 1994).

Originally designed to aid scholars in the health field (Moher et al., 2009), using systematic reviews to answer select research questions has gained traction amongst sport management scholars. For instance, sport management scholars have used systematic reviews to investigate research questions linked to sport for development (e.g., Whitley et al., 2019), sport

organizations (e.g., Parent & Hoye, 2018), sport participation (e.g., Tacon & Vainker, 2017), and sport governance (e.g., Thompson et al., 2022). Although the PRISMA protocol allows researchers to formally appraise empirical components of studies, it does not help them formally appraise the conceptual components of studies (Welty Peachey et al., 2020).

To conduct reviews which include conceptual components, scholars often rely on broad reviews like scoping reviews (Arskey & O'Malley, 2005). A scoping review offers an overview of a research query, including the size of available literature, scope of studies available, and potential gaps within a select literature (Grant & Booth, 2009), and is often a preliminary step to conducting a systematic review (Arksey & O'Malley, 2005). However, unlike systematic reviews, a scoping review does not appraise or synthesize the findings of the studies reviewed (Grant & Booth, 2009). Given that this study's research query was built from gaps identified by reviewing previous sport event management reviews (i.e., Köenigstorfer et al., 2019; Scheu et al., 2019; Thomson et al., 2019, 2020), conducting a scoping review would repeat much of what scholars have previously done. Thus, given this study's need to synthesize conceptual and empirical elements of included records, conducting a scoping review would not answer this study's research purpose. Rather, a systematic review needs to occur which: (1) builds off previous broad reviews conducted, (2) is complemented by an approach that allows for the analysis of conceptual elements, and (3) follows a formal quality appraisal guide to answer this study's research purpose.

Thus, this systematic review followed Votruba et al.'s (2018) inductive quality appraisal approach to systematically review elements from conceptual and empirical studies, which aligns with previous systematic reviews linked to conceptual concepts (i.e., Campbell et al., 2014). This type of systematic review can be built from previous reviews or scholarship gaps to answer a

specific research query, follows a formal appraisal process, and allows scholars to synthesize their findings of both empirical and conceptual research (Votruba et al., 2018). In addition to following Votruba et al.'s (2018) approach, this systematic review was guided by the University of Warwick (n.d.) protocol to describe the rationale for the review, objectives, research question, search strategy, and inclusion/exclusion criteria.

### **Search Strategy**

Following Votruba et al.'s (2018) systematic review and akin to previous systematic reviews in sport management scholarship (e.g., Parent & Hoye, 2018), before the research team conducted its records search, a university librarian expert in reviews independently peer-reviewed the Warwick protocol using the PRESS (Peer Review of Electronic Search Strategies) approach. This included reviewing the rationale for the review, objectives of the review, research question sought to address, search strategy, and inclusion/exclusion criteria. In addition, the initial test of search term criteria in SPORTDiscus was conducted by the first author and university librarian expert together to ensure suitable types of publications were found.

The initial search terms included *resident* or *stakeholder*; *investment*; *sport event* or *organization*; *theoretical* or *conceptual*; and *outcome* or *impact*. However, when reviewing initial search record results, select anticipated records were not found (i.e., records which report residents' event investment and monetized outcomes; e.g., Humphreys et al., 2018). Per Votruba et al.'s (2018) formal appraisal process, the *resident* and *investment* search terms were removed and a new search test was conducted. This test included the select anticipated records. Consequently, to ensure the broadest capture of publications the following search terms were decided upon, where TI = title, AB = abstract, KW = keyword, and SU = subject.

((TI sport\* event\* OR AB sport\* event\* OR KW sport\* event\* OR SU sport\* event\*)  
OR (TI sport\* org\* OR AB sport\* org\* OR KW sport\* org\* OR SU sport\* org\*))

AND

((TI theor\* OR conceptual\* OR framework\* OR model\*) OR (AB theor\* OR  
conceptual\* OR framework\* OR model\*) OR (KW theor\* OR conceptual\* OR framework\* OR  
model\*) OR (SU theor\* OR conceptual\* OR framework\* OR model\*))

AND

((TI outcome\* OR impact\* OR legac\* OR lever\*) OR (AB outcome\* OR impact\* OR  
legac\* OR lever\*) OR (KW outcome\* OR impact\* OR legac\* OR lever\*) OR (SU outcome\*  
OR impact\* OR legac\* OR lever\*))

On September 21, 2020, the first author conducted a search of academic literature and theses in sport and broader social sciences and humanities databases, specifically: SPORTDiscuss, SCOPUS, ABI Global (ProQuest), Business Source Complete, Google Scholar, Theses Canada (ProQuest Theses Global), and Web of Science. On the same day, akin to previous sport management systematic reviews (e.g., Parent & Hoye, 2018), the first author searched publisher websites for sport event-related books and chapters from SAGE, Routledge/Taylor & Francis, Human Kinetics, Oxford University Press, Elsevier, Sagamore Publishing, Palgrave Macmillan, and Holcomb Hathaway. All records' citations were imported into Zotero and duplicates removed. The resulting reference list of 934 records was uploaded into the Covidence software for screening by the first author for title/abstract only and then for the full text (see Figure 2.1 for screening outcomes). Table 2.1 provides the inclusion and exclusion selection criteria used throughout the screening process.

## Quality Assessment

Per Votruba et al. (2018), the first author was responsible for the initial quality assessment, assessing abstracts based on the pre-identified inclusion/exclusion criteria (see Table 2.1). Examples leading to exclusion included: the event studied was not a publicly-funded major sport event or a select stakeholder was not identified to investigate the exchange. Next, the full-text documents were obtained and assessed for the content which met inclusion criteria in the previous stage. Following the full-text review, the remaining records were assessed for quality. To assess the quality of the records for final inclusion, analysis and synthesis, the authors followed Votruba et al.'s (2018) inductive quality appraisal approach, which has been grounded in previous research on conducting systematic reviews linked to theory (i.e., Campbell et al., 2014). Table 2.1 outlines the practical quality assessment prompts which were used by the research team.

First, following Votruba et al.'s (2018) appraisal process, 1068 records were identified through database searching ( $n = 1027$ ) and other sources (i.e., publishers' websites;  $n = 41$ ). After removing duplicates, 934 records remained, and their abstracts were screened to meet the inclusion/exclusion criteria. In total, 847 records were excluded based on their abstract because the event studied was not a publicly-funded major sport event, a theoretical or conceptual framework or model was not identified in the abstract, or the abstract did not identify a stakeholder being examined.

## Results

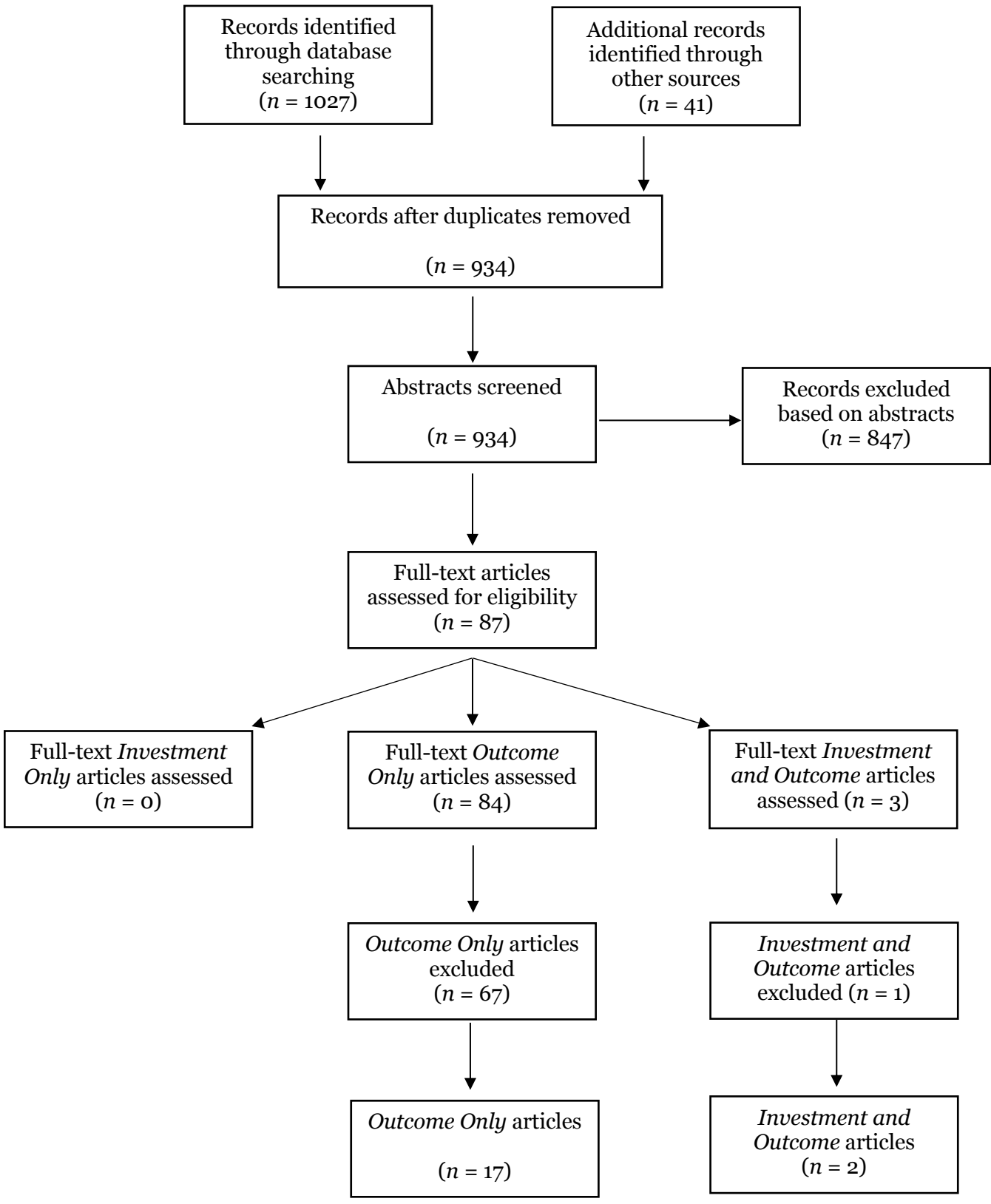
Following the abstract screening, 87 records remained which were full-text reviewed. These 87 records were then categorized into one of three categories: (1) *investment only* (i.e., records which only examined a stakeholders' event investments); (2) *outcome only* (i.e., records

**Table 2.1***Inclusion and Exclusion Selection Criteria*

Selection Criteria	Inclusion Criteria	Exclusion Criteria
Major sport events that are publicly funded	National and International individual and multi-sport events which use public funds to host	Local or Community level sport events or events that do not report using public funds to host.
Theory, Theoretical/Conceptual Framework or Model	Clearly describes the process, determinants, and rationale/logic of the relationships	No clear description of theory/framework/model, only mentions the name or only describes elements/parts
Exchange	Clearly describes both sides of the exchange equation (i.e., public funding investment and event outcomes)	Does not describe both sides of the exchange equation (i.e., only describes public funding investments or only describes event outcomes)
Stakeholder Perspective	Discusses the theoretical/conceptual understanding of utility exchanges from an identified stakeholder group(s)	Does not discuss exchanges from an identified stakeholder group(s) perspective
Other publication criteria	No start date until the date of search In English Up to and including the day of the search Peer reviewed journal articles and review articles Academic books and book chapters Conference abstracts and proceedings Theses	

**Figure 2.1**

*Review Flow Diagram*



which only examined stakeholders' event outcomes); and (3) *investment and outcome* (i.e., records which examined stakeholders' event investments and outcomes). In total, zero records evaluated *investment only*, 84 records evaluated *outcome only*, and three records evaluated both *investment and outcome*. The following sections review the records for *outcome only* and *investment and outcome*.

### **Outcome Only Records**

Of the 84 records which only evaluated residents event outcomes, upon the full-text review, we learned five studies did not meet the publicly-funded context criteria for this review (exclusion criteria 1; e.g., Ma & Rotherham, 2016; Yao & Schwarz, 2018). In addition, although 62 studies examined residents' perceived or experienced event outcomes, these records did not discuss residents' event investment (exclusion criterion 3; e.g., Lockstone-Binney et al., 2020; Ma & Kaplanidou, 2017). As a result of these exclusions, 17 studies remained which examined outcomes only, like social experience outcomes (e.g., psychic income; Oja et al., 2018) or residents' support to host a publicly-funded major sport event (e.g., Bakhsh et al., 2018).

More importantly, for the context of this study, the overwhelming finding of these 17 records was that each study acknowledged residents' public funding investment either through explicitly stating residents as event investors (e.g., Oja et al., 2018; Park et al., 2019) or noting the funding provided by local governments to host the event in question (e.g., Ho et al., 2017; Owen, 2005). Moreover, some of these records even used this information about resident investments as the crux of their argument to justify studying residents event outcome perceptions (e.g., Bakhsh et al., 2018). However, none of these 17 records showed any conceptual or empirical effort to investigate the investment for outcome exchange their study notes. Rather, after acknowledging the event investment residents make, these studies exclusively focused on

evaluating residents' social (e.g., Bakhsh et al., 2018; Oja et al., 2018; Park et al., 2019), economic (e.g., Owen, 2005; Preuß, 2004), or social and economic outcomes (e.g., Ho et al., 2017; Perić, 2018), not event exchanges.

Although these studies do acknowledge event investments and examine event outcomes, these studies did not evaluate event investments, meaning the actual or estimated public funding figures for these events were not determined. Rather, the general premise that public funding was contributed to the event was made and then only event outcomes were examined. Of course, doing so was not the purpose of these records; however, this does build a narrative of much major sport event research and its outcome-centric agenda. For instance, despite all these records acknowledging the monetary investment residents make, none of these records aimed to monetize their social outcomes and present the opportunity for an investment to outcome evaluation to be made. Consequently, these 17 records confirm the importance of understanding residents' event investments and outcomes, but these records outline an outcome-centric agenda, which uses event investment knowledge to propel the study's argument and then disregards its importance when evaluating event outcomes.

### **Investment and Outcome Records**

Of the three records which evaluated both residents investments and outcomes, although one record (i.e., Humphreys et al., 2018) did meet all four inclusion criteria, it did not pass the quality assessment phase after full-text review. We excluded Humphreys et al. (2018) because the method of analysis included measuring errors (i.e., different response options for pre- and post-event) which made their empirical work methodologically inaccurate. Specifically, this study measured residents' value of an event outcome through a willingness-to-pay method. During the pre-event questionnaire, response options included \$5, \$10, \$20, \$30 \$35, \$50, and

\$65 (CAD), while the post-event questionnaire “were adjusted upward to \$15, \$25, \$35, \$50, \$65, \$75, \$100, and \$150 [(CAD)] because early responses indicated an apparently much higher WTP than before the Olympics” (p. 407). When asking a willingness-to-pay question, you must first ask if the respondent is willing to pay, then for those who responded yes, how much they are willing to pay. Thus, when individuals respond yes to the first proposition (i.e., they are willing to pay), they are doing so under the assumption that the lowest possible dollar amount will be available in proposition two (i.e., \$1, as the concept of willing to pay does not specify a particular dollar amount). If a higher dollar amount is the lowest available in proposition two (e.g., \$5), the first proposition becomes inappropriate, as the second proposition should allow the respondent to select the lowest dollar amount previously available (i.e., \$1). Not only was this not offered in the Humphreys et al. (2018) study, the lowest available dollar amount changed from pre-event (i.e., \$5) to post-event (i.e., \$15). By increasing the value of the response options (i.e., lowest option pre-event was \$5 and the lowest option post-event was \$15), the authors thereby biased their findings and force us to exclude it from this review.

Although scarce, the two retained *investment and outcome* records offer insights into the underpinnings used to explain residents’ major sport event outcomes related to their investment. First, VanWynsberghe (2016) investigated event leveraging linked to the publicly-funded 2010 Olympic and Paralympic Winter Games hosted in Vancouver, Canada. Using Olympic Games Impact study evidence, VanWynsberghe aimed to create a more applicable conceptual model of event leveraging by focusing on its process and outcomes. Although scholars before had focused on event leveraging processes (e.g., Bakhsh & Potwarka, 2020; Goodwin et al., 2017; Potwarka et al., 2020), VanWynsberghe’s study highlights the critical importance of transparently presenting the input side of the equation. In doing so, VanWynsberghe considered both

stakeholders' event investments and outcomes, which consequently allowed consideration of the event exchange. In discussing empirical components, VanWynsberghe addressed residents' event investment via taxpayer contributions for infrastructure developments (i.e., Canada Line, Sea-to-Sky Highway, and Vancouver Convention Centre) – acknowledging and providing evidence of residents' monetary event investment. Although an evaluation of residents' event outcomes, and a subsequent exchange evaluation, was not empirically offered in this study, VanWynsberghe did offer conceptual considerations to this exchange. Specifically, VanWynsberghe underscored the importance of transparently presenting the investment side of the equation (i.e., residents' financial investment), without such transparency an exchange is not possible. In addition, VanWynsberghe emphasized the importance of having alignment between the rationale of investment and perception of return. VanWynsberghe indicated that residents would have a positive valuation of the event exchange when two things occur. First, residents must show support for the event's desired outcomes from the outset (e.g., pre-bid referendum). Second, residents must perceive that the desired outcomes came to fruition post-event. Consequently, this would create a subjective evaluation of the event and exchange, steered by residents' perceived financial support, outcomes, and affinity with the event. Unfortunately, although VanWynsberghe's presents residents' investments and these two exchange evaluation elements, conceptual considerations towards the exchange evaluation linked to residents' investments are scarce. This may be because VanWynsberghe's study did not empirically examine residents' exchange or because of the timing of this post-event study relevant to financial figures determined pre-event. Nonetheless, we do learn that having transparency of investment (should) allow for a more genuine and ethical decision-making process. However, we are left to assume that residents who agree to investing public funds from the outset, expect a

positive evaluation of the exchange. Consequently, VanWynsberghe's study highlights the importance of transparently presenting residents' investments but falls short at explaining how such transparency may (or not) affect residents' exchange evaluation.

Second, Barros (2006) empirically examined residents' willingness to pay for the publicly-funded 2004 Euro Cup hosted in Portugal based on several predictive characteristics (e.g., sociodemographic factors) and then related those characteristics to residents' actual investment. A key feature of examining residents' willingness to pay for hosting a publicly-funded major sport event is the consideration of various decisions respondents will make. Inherently, a two-step decision process occurs. First, the individual must decide if they want to pay for the event (i.e., financial support or no financial support). Second, for individuals who choose to offer financial support to host the event, their degree of willingness to pay can vary by the amount (e.g., \$1, \$10, \$100). Accordingly, Barros used a Tobit regression model to explain residents' decision to offer financial support to host the event (i.e., decision one) and how much residents would pay to host the event (i.e., decision two). While sport management scholars have critiqued the use of Tobit models to evaluate two-step decisions, as Tobit models assume both decisions are subject to the same effects when they should be examined as separate decisions (Xing et al., 2020). Consequently, Barros's findings take the willingness-to-pay score determined through the Tobit regression and compares it to residents estimated financial investment to empirically examine their major sport event exchange. Barros's (2006) findings revealed how one's affinity with the sport (i.e., sport fan identity and previous sport event attendance) predicted both positive and negative outcomes to residents' willingness to pay and how one's household income negatively related to their willingness to pay for the event. Overall, the results revealed the aggregated willingness to pay amount from respondents, generalized to the resident

population, was lower than the estimated cost to host the event. Table 2.2 synthesizes the two studies.

### **Discussion**

We conducted this review to identify, evaluate, and summarize the findings and theoretical concepts of studies that evaluate both residents' investments and outcomes when hosting a publicly-funded major sport event. Of the 934 records screened, 19 records met the inclusion/exclusion criteria with 17 records acknowledging residents' event investment but only examining residents' event outcomes and two records examining residents' event investments and outcomes. Although the 17 *outcome only* records did meet the inclusion/exclusion criteria, they did not examine the actual investment for outcome exchange that residents engaged in. Of the *investment and outcome* records, although three met the inclusion/exclusion criteria, one record did not pass the quality assessment (i.e., Humphreys et al., 2018), thereby leaving two records examining residents' major sport event exchange from hosting a publicly-funded major sport event. These records indicated one's affinity with sport, income, and the exchange transparency with the event's desired outcomes to be important attributes of how and why residents value sport event outcomes related to their public funding investment.

Specifically, the two records indicated residents' affinity with the sport event can amplify their exchange valuation in a positive or negative direction. Residents with positive event experiences or who identify as fans of the event would have a more favourable valuation of the exchange; in contrast, a negative valuation would occur for residents with negative experiences or who do not identify as fans of the event (Shibli et al., 2021). In addition, we must consider residents' relative income, as the value of money can differ for individuals (Pigou, 1917). The trade-off individuals face becomes a key component to consider, as the invested money for one

individual may result in a different trade-off value for another individual. For instance, one individual may not be able to pay necessary expenses because of the tax contribution, while another individual may just see a decrease in their disposable income. Of course, an integral part of one's ability to make a valuation is the communication of the exchange (Lubatkin, 1983; Nahavandi & Malekzadeh, 1988). When investments, anticipated outcomes, and actual outcomes are transparently communicated to residents, we can conceptualize residents' ability to make clear decisions from the outset and evaluate the exchange accordingly (van der Roest & Dijk, 2021). When transparency is not offered, however, residents will be challenged to value their exchange and can become resistant rather than supportive (Bakhsh et al., 2018) or potentially create unjustified valuations of the event (e.g., under- or over-valuing the exchange because there was a lack of communicated event-induced outcomes).

Although these records offer some understanding of how and why residents value their publicly-funded major sport event exchanges, the paucity of studies detailing these explanations is perhaps the most powerful finding from this review. Of the 19 records from this systematic review which indicated the importance of residents' event investments and outcomes, only two records actually evaluated or conceptually considered residents' event outcomes in relation to their event investment. Consequently, this systematic review shows that, although the importance of residents' event investments and outcomes are acknowledged (Preuß & Hong, 2021), and investments are often even used as justification for evaluating outcomes (e.g., Oja et al., 2018; Park et al., 2019), we lack empirical and conceptual consideration for residents' major sport event outcomes regarding their event investment. From a conceptual perspective, we lack an understanding as to why residents, as event investors, perceive and evaluate event outcomes the way they do. From an empirical perspective, we lack data on residents' monetary investments in

**Table 2.2***Studies Included in Synthesis*

<b>Author</b>	VanWynsberghe (2016)	Barros (2006)
<b>Title</b>	Applying event leveraging using OGI data: A case study of Vancouver 2010	Evaluating sport events at European level: The Euro 2004
<b>Source</b>	Leisure Studies	International Journal of Sport Management and Marketing
<b>Event</b>	2010 Vancouver Olympic Winter Games (Canada)	2004 Euro Soccer Championship (Portugal)
<b>Aim</b>	To develop a conceptual model of event leveraging based on processes and outcomes and from evidence on residents' event investment	Estimate residents' willingness to pay (WTP) for the sporting event and compare this amount to their actual monetary investment
<b>Empirical or Conceptual Work</b>	Used data from the Olympic Games Impact study to determine residents' investment to host the event  Developed a conceptual model for event leveraging based on stakeholders, investments, objectives, and outcomes	Conducted a Tobit regression to determine what predicted residents' (1) WTP to host the event; and (2) how much they would be willing to pay related to their event investment
<b>Findings for Review</b>	Importance of alignment between support for the investment and outcomes desired from the onset	Residents' affinity with sport created positive and negative prediction of WTP  WTP was negatively predicted by household income
<b>Limitations</b>	Investments were only discussed related to key infrastructure built and not discussed related to other outcomes (e.g., intangible outcomes)	Tobit models assume both decisions examined are subject to the same effects, but this is not the case for support and degree of support

major sport events, thereby impeding the possibility to value major sport event outcomes for residents in terms of their financial input (i.e., the exchange process).

This scarcity suggests event management scholars have perpetuated an outcome-centric agenda. Although focusing on outcomes has its conceptual and empirical merits, researchers are missing the mark by not examining outcomes in relation to residents' investments. Considering the investment of an exchange is integral for evaluating the outcome(s) of said exchange (Macneil, 1986). Consequently, we first discuss the problematic shortcomings from this lack of research on residents' publicly-funded major sport event exchanges. Then, we take advantage of this opportunity by indulging in a larger discussion and advocating a path forward for sport management scholars to embark on.

### **Missing the Mark: Research Shortcomings**

Despite major sport event impacts, outcomes, and legacies constituting a large body of literature within event management (Königstorfer et al., 2019), much of our understanding of these concepts related to publicly-funded major sport events is based on a disconnected approach. This disconnected approach acknowledges residents' event investments (Preuß & Hong, 2021) and examines event outcomes (Scheu et al., 2019), but does not consider residents' investments in the outcome evaluation (e.g., Bakhsh et al., 2018; Oja et al., 2018; Park et al., 2019). In doing so, our understanding of residents' major sport event outcome evaluations/perceptions are (mostly) disconnected from their event investment(s) which stimulated those outcomes. Thus, rather than understanding outcomes in relation to their investments, previous research has developed an understanding of residents' outcome evaluations/perceptions disconnected from their investment. This disconnect challenges previous empirical findings, which did not consider residents' investment in the exchange. To

appropriately evaluate the outcomes of an exchange, what residents gave up for the outcome must be considered (Macneil, 1986). Therefore, it is possible that previous empirical findings indicating positive, negative, and indifferent perceptions of major sport event outcomes, were in fact, not appropriately identified. To determine whether residents' event outcomes are positive, negative, or indifferent, we must consider them in relation to residents' event investment.

Therefore, when our examinations lack a barometer to contextualize perception-based findings, conceptually, we are forced into a fallacy of relying on relative comparisons. Relative comparisons occur when outcomes become labelled or viewed as positive or negative in relation to each other, rather than in relation to a benchmark or objective standard (e.g., event investment). This can perpetuate misleading narratives about event outcomes but also misinform event stakeholders and decision-makers about the realities of hosting major sport events and their ability to mobilize valued outcomes for community residents.

This forced fallacy is further developed from our widespread use of social exchange theory when studying major sport event outcomes (i.e., the most used theory when examining residents' major sport event outcomes; Thomson et al., 2020) and one used by several of the 17 records which acknowledged residents' investments but do not evaluate their investments (e.g., Bakhsh et al., 2018). Based on an analysis of the present review's excluded records, scholars often use social exchange theory to examine residents' value of a major sport event by comparing their perceptions of pre-determined positive and negative outcomes (e.g., Zhang et al., 2019). If residents collectively perceive greater positive outcomes than negative outcomes, the theory indicates residents perceive positive value from hosting the event in question. However, this exchange does not consider what the stakeholder is exchanging (i.e., investment; Cropanzano et al., 2017). Valuing an exchange is not a balancing act of perceived (and often

hypothetical) outcomes; valuing an exchange is evaluating the outcome perceived/experienced in relation to the investment made for that outcome (Cropanzano et al., 2017; Macneil, 1986).

Conceptually, social exchange theory does not consider stakeholders' investment (Cropanzano et al., 2017). Thus, while its name may seem appropriate, its widespread use by sport management scholars (Thompson et al., 2020) has perpetuated understandings of residents' major sport event outcomes which are disconnected to the actual exchange residents engaged in.

### **A Path Forward**

Our review's findings, coupled with the preceding discussion, indicate the need for sport event management scholars to move beyond current practices and examine residents' major sport event exchanges in terms of their public-funding investment and event-related outcomes. If not, we will continue to fall victim to the fallacy of examining outcomes disconnected from their investment. Outcome examinations which lack substance to the exchange reality, lack transferability to benefit event practitioners and stakeholders. Thus, researchers need to shift away from this fallacy towards a new position, one which conceptually and empirically considers both investments and outcomes when understanding the meaning and value of residents' publicly-funded major sport event exchanges. To do so, we advocate for the following methodological and conceptual considerations.

### ***Methodological Considerations***

Methodologically, researchers should examine residents' outcomes from publicly-funded major sport events in monetary value and compare that monetary value to their actual investment (Atkinson, 2008; Barros, 2002). While most scholars examining residents' major sport event outcomes have not examined their monetary value (e.g., Bakhsh et al., 2018; Oja et al., 2018), if we are to continue justifying these examinations because of their monetary investment,

methodologically, it is necessary for us to measure such outcomes monetarily (Preuß & Hong, 2021). Thus, it is necessary to: (1) accurately measure residents' monetary investment, and (2) value residents' event outcomes in monetary terms.

To accurately measure residents' monetary investment, scholars can learn from VanWynsberghe's (2016) study in this review and seek to find event-related documents which offer these financial figures (e.g., publicly available government audit documents). Still, scholars will be bound by the transparency and availability of such documents, as varying event, political, and economic ecosystems may impact one's ability to determine accurate investment figures. Although this is a necessary part of the exchange equation, scholars should understand that determining accurate figures of public funding for a major sport event can be challenging when conducting an exchange compared to public funding for smaller events (e.g., professional All-Star Game; Oja et al., 2018) or event facilities (e.g., Davies et al., 2021) (Preuß et al., 2019).

To value residents' event outcomes in monetary terms, several monetary valuation methods are available for sport event management scholars to apply (e.g., reverse contingent valuation method and opportunity cost approach; Orłowski, & Wicker, 2019). For example, Barros (2006) determined residents' willingness to pay post-event through a reverse contingent valuation method. Another example could be using an opportunity cost approach to determine residents' foregone alternatives and the opportunity costs associated with hosting major sport events (Taks et al., 2011). Using a monetary valuation method to value perceived major sport event outcomes would allow scholars to take event outcome findings and develop a more value-based understanding of that outcome. Moreover, when used in conjunction with determining residents' actual event investment, it would afford scholars the opportunity to interpret these

outcomes in relation to their actual investment and offer a more comprehensive understanding of residents' exchanges beyond their perceived outcomes.

To wit, scholars could conduct social return on investment analyses of major sport events, an emerging approach some sport management scholars have already applied in other contexts (Gosselin et al., 2020; Keane et al., 2019). Social return on investment is the social value created from an intervention (e.g., program, policy, event; King, 2014). A social return of investment analysis can be used post-hoc to evaluate outcomes, or it can be used ex-ante to forecast how much social value may be created and if that value is worth the anticipated investment (Gosselin et al., 2020). Within local/community sport contexts, scholars have begun examining stakeholders' social return on investment of sport programs (e.g., Davies et al., 2019) and services/facilities (e.g., Davies et al., 2021; King, 2014). However, this area of inquiry has not yet extended to major sport events, hence their exclusion from this review.

Most of these social return on investment studies have not used a monetary valuation method that elicits stakeholders' value of intangible outcomes (Gosselin et al., 2020; Keane et al., 2019). Thus, like the two records included in this review (i.e., Barros, 2006; VanWynsberghe, 2016), we champion two methodological paths forwards. First, we encourage the use of appropriate estimations of residents' investments in major sport event outcome evaluations and advocate for the use of monetary valuation methods (Orlowski & Wicker, 2019). Second, we recommend scholars should implement social return on investment analyses (Gosselin et al., 2020; Keane et al., 2019) within future major sport event studies. By doing so, we can elicit residents' major sport event outcomes in relation to their investment and provide a greater understanding of residents' major sport event exchange process and associated value, which will greatly serve both scholars and practitioners.

### *Conceptual Considerations*

Conceptually, researchers should move beyond using exchange theories that only consider residents' event outcomes (e.g., social exchange theory; Cropanzano et al., 2017) and move towards using conceptual underpinnings which include both residents' investment and event outcomes in the exchange process. To conceptualize this exchange process from a resident perspective, three elements must be considered: (1) what residents are giving up in the exchange; (2) what residents are receiving from the exchange; and (3) the result of the exchange (Macneil, 1986). Most records reviewed in this paper acknowledge the first two elements (i.e., what residents are giving up and receiving by hosting a major sport event). For instance, residents can contribute tax dollars (i.e., what they are giving up) in anticipation for positive event experiences and/or outcomes (i.e., what they receive) (Preuß & Hong, 2021). However, identifying these two elements alone does not establish the third element (i.e., result of the exchange; Macneil, 1986). Rather, what residents are giving up and receiving must both be measured and then compared to establish the result of the exchange (Macneil, 1986). For instance, knowing why residents gave up public funding to receive social outcomes is not enough, we must measure the value of that public funding and those social outcomes, and in the same unit of measure so a comparison can be made. This is where social return on investment-type examinations can pave the way for future scholarship, by offering a guide that considers both residents' investments and outcomes when measuring the value of sport interventions (Davies et al., 2019). However, there is an additional complexity when conceptually considering residents' exchanges of publicly-funded major sport events: residents have no (or limited) control in the exchange.

When residents supply public funding in exchange for event outcomes (e.g., social capital), residents often do not control the exchange of their public funding. Instead, government

representatives (e.g., municipal) exchange residents' public funding with other event stakeholders (e.g., bid committee) on their behalf. This complexity further challenges the applicability of exchange theories, like social exchange theory, and other popular exchange theories, like game theory and satisficing game theory (Stirling & Goodrich, 1999), as they assume/rationalize the stakeholder has control in their exchange. Consequently, an uncontrolled exchange occurs, like other representative exchanges (e.g., mergers; Lubatkin, 1983; Nahavandi & Malekzadeh, 1988), one with complexities and dynamics that current exchange theories may not be able to explain comprehensively.

As such, not only are researchers disconnected from an empirical understanding of residents' publicly-funded major sport event exchanges, but also from a conceptual perspective of the exchange itself. Thus, researchers must work towards more detailed and compelling conceptual explanations (Fink, 2013; Sutton & Staw, 1995), which elucidate this complex exchange – the stakeholders involved, the utility within, and the dynamics controlling this uncontrolled exchange. One way to do so is by developing a comprehensive conceptual framework. As the first building block in theory development (Suddaby, 2014), conceptual frameworks present a network of individual phenomena or concepts that intersect to form a more comprehensive understanding of a particular phenomenon than their siloed selves (Jabareen, 2009). In doing so, developing a conceptual framework for this phenomenon would help advance our knowledge on these exchanges and begin to unravel their greater complexities that researchers have only begun to scratch the surface of. Although this review lays the building blocks for developing such a conceptual framework, there are many additional concepts to consider within this complex exchange beyond the findings of these two records (i.e., sport affinity, income, exchange transparency). Some concepts to consider should include residents'

trust in the actor exchanging on their behalf (e.g., government representative; Beccerra & Gupta, 1999; Mason & Slack, 2005), the expectation for athlete and event success (Humphreys et al., 2018), and institutional beliefs and support for their social (tax-paying) ecosystem (Meyer & Rowan, 1977). Therefore, while the concepts gleaned in this review lay a foundation, scholars interested in this area of research should work towards understanding what other concepts, like the ones suggested here, can comprise an appropriate conceptual framework.

Event management scholars have done well to highlight the need to understand and evaluate major sport event outcomes. We have learned and acknowledged important concepts like sport affinity (e.g., Barros, 2006), examined a plethora of event outcomes (Königstorfer et al., 2019), and attempted to conceptualize these evaluations using various valuation methods (Orlowski & Wicker, 2019) and social theories (Thomson et al., 2019). It is now time for us to equally recognize the understandings we have garnered and the disconnects present. To advance, we must be critical of what we do (not) know about this exchange phenomenon and build on our justification for these studies by investigating residents' monetary investment, monetizing their non-monetary outcomes, examining that exchange, and understanding the concepts which explain this phenomenon.

### **Study Limitations**

Although we have spent much of this discussion uncovering the limitations of previous studies and their subsequent exchange challenges, we would be remiss not to discuss our own study limitations. First and foremost, by applying Votruba et al.'s (2018) quality appraisal approach, we experienced benefits and challenges. This approach allowed us to systematically review the theoretical elements of empirical and conceptual work; however, this process also resulted in a large portion of records removed during abstract screening ( $n = 847$ ). Although

abstract screening is a common step for systematic reviews and other standardised review processes (Grant & Booth, 2009), there can be benefits to moving beyond abstract only searches (Teare & Taks, 2020). Given the infancy of this quality appraisal approach, we encourage future scholars to be cognizant of how this process can be improved, whether through including hand search methods (e.g., Teare & Taks, 2020) or reviewing the full text of all documents, which would, however, take time to do.

An important benefit of conducting a review is the structure it affords scholars, like those from the PRISMA protocol used to systematically review empirical components of studies. This structure allows scholars to conduct systematic reviews in a comprehensive, objective, and reproducible manner (Moher et al., 2009). Although using Votruba et al.'s (2018) inductive quality appraisal approach allowed us to formally appraise conceptual and empirical studies' theoretical and conceptual components, using this appraisal challenges scholars' ability to create an objective and reproducible system which matches the PRISMA protocol (Votruba et al., 2018). For instance, reviewing the discussion and applying theory is not as "black and white" as examining empirical components of studies (Votruba et al., 2018). Instead, there are shades of grey when reviewing theoretical and conceptual components that researchers must work through and infer. These shades of grey leave the research team to infer the discussion and application of theory and create reviews that are more likely to be biased by the researchers' philosophical perspectives (i.e., how we know what we know; Crotty, 1998).

Consequently, this review is inherently limited by the potential for researcher biases to be present compared to a more objective system like the PRISMA protocol (Votruba et al., 2018). While this does not discount the main findings of this review, readers should be cautioned to understand the potentially greater level of researcher bias and inference present in this type of

review compared to that of a systematic review. As such, research teams should consider two filters which can help mitigate these issues. First, unlike the procedure suggested by Votruba et al. (2018), we recommend multiple research team members assess the quality of all records identified as eligible for the full-text review stage. Second, when possible, research teams should include different philosophical perspectives. Given the importance of interpreting (1) theory application and (2) theory interpretations, when conducting a review of theoretical and conceptual components, having a research team comprised of similar philosophical perspectives/paradigms may perpetuate these bias issues. To mitigate these bias issues, we recommend scholars build a research team that includes a diversity of philosophical perspectives. This would be particularly helpful when conducting reviews in the social sciences, as the theoretical queries, methodologies and methods considered, and philosophical perspectives underpinning the records reviewed can be quite diverse (Crotty, 1998). We tried to mitigate these issues by having a team of researchers with a mixture of philosophical perspectives who have independently and collectively worked on quantitative, qualitative, and mixed methods research studies. Thus, having multiple research team members assess the records with their different philosophical perspectives could help work through these bias issues and help alleviate biased inferences caused by research team members with similar perspectives.

### **Conclusion**

This review demonstrated that, despite a growing consideration for residents' major sport event investments, there is a disconnect between the conceptual and methodological approaches used to understand this exchange. In the vast landscape of publicly-funded major sport events, this review suggests event management scholars may be missing the mark on this salient and complex phenomenon. Although 19 records from this review met the inclusion/exclusion

criteria, 17 of those records only acknowledged residents' event investment but did not consider them in their event outcome evaluation; only two records did examine residents' event investments and outcomes. Thus, although this systematic review confirmed the importance of including investments and outcomes when examining residents' major sport event exchanges, it revealed that we have rarely examined the investment side of the equation. Consequently, event management scholars should begin examining residents' valuation of event outcomes in relation to their event investment (e.g., social return on investment analyses; Gosselin et al., 2020). To do so, we suggest two paths forward. First, scholars should use methods that can elicit accurate measurements and evaluations of these utility exchanges considering residents' investments (e.g., document analysis; Barros, 2006; VanWynsberghe, 2016) and event outcomes (e.g., monetary valuation methods; Orłowski & Wicker, 2019). Second, scholars should build a conceptual framework to guide these scholarly quests, which seek to untangle and understand the complexities of this uncontrolled exchange. These methodological and conceptual considerations will help advance our understanding of this exchange phenomenon and help both scholars and practitioners better mobilize desired outcomes of major sport events for residents.

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### **Chapter III: Examining Monetary Valuation Methods to Analyze Residents' Social Value from Hosting a Publicly-Funded Major Sport Event**

#### **Abstract**

Measuring residents' social value from hosting major sport events has become a popular practitioner and researcher focus. However, researchers have used a plethora of monetary valuation methods to measure social value on an equally diverse set of events. Rather than being applied to major sport events, the use of these methods in sport research has been limited to smaller events, programs, or facilities. Consequently, investigating monetary valuation methods for major sport events is necessary to inform practitioners and researchers of these types of events as to which tool(s) to use. Thus, the purpose of this study was to investigate various monetary valuation methods to determine which method(s) is(are) best to examine residents' social value in a post-event context and test the selected method(s) for the 2010 Olympic Winter Games in Vancouver, Canada. After reviewing monetary valuation methods found in the sport management literature, two methods were deemed suitable avenues to pursue: the reverse contingent valuation method and the opportunity cost approach. This study employed an exploratory sequential mixed methods design to derive a conceptual and empirical analysis. Interviews were conducted with 14 Vancouver residents and supplemented with document analysis; as well, 525 Vancouver residents completed a self-administered online survey. Findings highlighted the importance of using both the reverse contingent valuation method and opportunity cost approach given their complementary nature. The reverse contingent valuation method allowed residents to select how much they valued their experience. This individual or micro-economic perspective is a necessary prerequisite for residents to adequately determine their value of hosting in relation to other options (e.g., building hospitals, having professional

sport teams) when applying the opportunity cost approach, which asks residents to reflect at societal or macro-economic level. This synergistic approach demonstrates the importance of addressing both perspectives: the micro (i.e., individual exchange) and the macro (i.e., event exchange) aspect. In doing so, this approach offers researchers and practitioners avenues forward to examine the social value of publicly-funded major sport events exclusively through a direct, an indirect, and a synergistic method to advance the examination of major sport events' social value.

*Keywords:* outcomes; legacy; mixed methods; social return on investment; social value

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## Introduction

Gone are the days of organizations justifying the value of their activities solely through financial proxies (Norman & MacDonald, 2004). As the desires of consumers and investors have evolved, so too has the need for organizations to show how their organizational activities create social value (Maldonado & Corbey, 2016). This focus on social value is no different with sport events (e.g., Misener & Schulenkorf, 2016), as sport is believed to have an inherent social value (Slack, 1998) that should be measured but is a challenging endeavour (Sam & Rongland, 2018). Nevertheless, this inherent belief has propelled sport stakeholders to claim that hosting major sport events, like the Olympic Games, can create social value for communities that justify their public economic investment (Doyle et al., 2021; Solberg et al., 2016).

Social value is the value that individuals attribute to experiences (Schumpeter, 1909) and includes a combination of market and non-market goods (Orlowski & Wicker, 2019). As important as social value is, equally important is how social value is produced and measured (O'Flynn, 2007). To appropriately measure social value, one's experiential changes (i.e., outcomes) must be measured in the same unit as their inputs (King, 2014). Thus, in the case of publicly-funded major sport events, taxpayers' money (i.e., input) is used to stage the event; hence residents' social outcomes should be monetized. While market goods and services (i.e., prices at which a good/service is being sold/bought; Orlowski & Wicker, 2019) are available in monetary units, non-market goods/services, like consumer surplus (Brynjolfsson et al., 2003) and public good value (Brookshire & Coursey, 1987), have no price, making it more difficult to measure. This challenge often excludes these important non-tangible outcomes from social value analyses (Gosselin et al., 2020; Keane et al., 2019; Maldonado & Corbey, 2016).

A popular process to monetize these non-market values is through using a monetary valuation method: the practice of converting something intangible (e.g., experience) into a monetary unit (Walker & Mondello, 2007). Done through a monetary valuation method (e.g., contingent valuation method; Funahashi et al., 2020), a common unit of measure (i.e., money) is created, which can then facilitate objective evidence-based decision-making (Clark & Oswald, 2002). However, based on our current knowledge, a series of gaps exist when applying monetary valuation methods to understand residents' social value from hosting major sport events.

First, scholars examining the monetary value of major sport events have exclusively focused on event microcosms like event volunteers (e.g., Downward & Dawson, 2016), sport outcomes (e.g., Humphreys et al., 2018; Mutter & Pawlowski, 2014), recreation facilities (e.g., Davies et al., 2021), and recreation programs (e.g., Davies et al., 2019). Although these were good initial steps, a monetary valuation of residents' major sport event social perspectives (i.e., experiences, perceptions, and insights) is noticeably missing (Gosselin et al., 2020; Keane et al., 2019). Although researchers and practitioners can certainly learn from these initial studies, we cannot amalgamate these microcosms to form an understanding of the event's overall social value. Doing so can create measuring challenges since multiple event aspects contribute to social value, and it is difficult for researchers and respondents to compartmentalize these aspects and their specific social value when examining overall social value (Lingane & Olsen, 2004).

Second, although a variety of monetary valuation methods have been used to address sport event queries (Orlowski & Wicker, 2019), major sport events include a variety of contextual characteristics which differ between events (e.g., culture, public perception, politics; Parent & Ruetsch, 2021). These varying characteristics challenge our ability to compare event projects, as a comparison must occur on the same target market (Maldonado & Corbey, 2016).

Since scholars have often exclusively used one method (e.g., Boronczyk & Zarins, 2020; Funahashi et al., 2020), a rich landscape of varying methods applied to different event contexts have been created. Consequently, as sport management scholars, although many tools may be used to measure the overall social value from hosting a major sport event, we do not know which tool(s) is(are) best for examining residents' social value from hosting a major sport event.

This lack of a major sport event's monetary valuation and the lack of any cross-method comparison amongst sport event studies leaves researchers and practitioners at a standstill, uncertain as to which method(s) is(are) best to address these stakeholder claims and examine the social value from hosting a major sport event (Davies et al., 2021; Orłowski & Wicker, 2019). Consequently, a comparative examination should occur to determine which monetary valuation method(s) is(are) best for examining the social value of a major sport event. Reviewing monetary valuation methods and empirically testing various monetary valuation methods will offer researchers the opportunity to better understand and evaluate social value from major sport events. It presents practitioners and residents with more transparency and assists in making more informed decisions around hosting publicly-funded major sport events. Therefore, the purpose of this study was to investigate various monetary valuation methods to determine which method(s) is(are) best to examine residents' social value in a post-event context and test the selected method(s) for the 2010 OWG.

### **Literature Review**

This section provides a broad overview of monetary valuation methods. By reviewing the various types of monetary valuation methods used within sport management scholarship, this section offers insights into which methods can be applied to analyze residents' monetary valuation from hosting the 2010 OWG based on specific selection criteria.

## Monetary Valuation

Individuals use monetary valuation with daily activities, from store transactions (i.e., product for currency) to allocating time and resources (e.g., time spent working out versus time spent working; Downward et al., 2009). Rooted in welfare economic theory, monetary valuation defines value as the trade-off individuals are willing to make between two or more goods/services (Segerson, 2017). This notion is connected to the concept of utility, which is concerned with one's choices, decisions, and value (Fishburn, 1968). The driving principle of utility is to analyze one's value and choice based on their actions and preferences (Rothburn, 1956). Within economic theory, there are two dominant perspectives: *micro* and *macro*. The micro perspective focuses on the decisions, values, and exchanges of individuals, or in the case of major sport events, event stakeholders (e.g., residents; Wicker et al., 2012). In contrast, the macro perspective focuses on the decisions, values, and exchanges of countries, governments, or in the case of major sport events, the event itself (Wicker et al., 2012). Scholars can measure micro and macro perspectives of social value through market or non-market prices and appropriate hypothetical scenarios (Orlowski & Wicker, 2019).

Scholars have applied monetary valuation methods to measure one's social utility or social value (Orlowski & Wicker, 2019). Given the universal value monetary units hold for individuals and organizations (Lapvitas, 2005), one may think to measure the monetary value of a good/service by (simply) using market prices. For instance, when an individual purchases a fitness membership, the individual's intangible value is reflected by the cost of that membership. However, this does not comprehensively reflect an individuals' actual value of their exchange, as both monetary and non-monetary units (i.e., market prices and non-market prices; Becker, 1965) can be involved in the exchange, which can result in notions of consumer surplus (Brynjolfsson

et al., 2003). Moreover, when purchasing and using a fitness membership, additional complexities like the individual's experience, nature of the market, relationships fostered in this space, opportunities foregone (e.g., time spent working; Becker, 1965), and much more are not considered within these valuations (Orlowski & Wicker, 2019). Thus, a key challenge of traditional valuations for sport contexts, like major sport events, is individuals do not need to consume the good/event to receive utility from it (Carson, 2000).

Orlowski and Wicker (2019) critically assessed 113 articles which provided a comprehensive overview of multiple valuation approaches. From this analysis, the authors identified 12 valuation methods which can be categorized into three types: (1) revealed preferences; (2) stated preferences; and (3) hybrid methods. To serve the purpose of this study, namely determining residents' social value from hosting an event many years after it occurred, a monetary valuation method needs to meet various criteria. First, the method must be able to conduct a post-event valuation. Second, since social experiences do not have a market price (i.e., are not a product for purchase: Orlowski & Wicker, 2019) the method cannot rely on market values. Finally, since social experiences are a holistic concept and not necessarily one niche aspect (Lingane & Olsen, 2004), the method must be able to value the entire experience, rather than multiple individual aspects combined. In the following section, the applicability of the valuation methods presented by Orlowski and Wicker (2019) will be evaluated-based on the three identified selection criteria: (1) ability to conduct a post-event evaluation; (2) not requiring market values; and (3) providing a monetary value of social experiences.

### ***Revealed Preferences***

The central tenet of monetary valuation revealed preference methods is that individuals reveal their true preferences through action (Orlowski & Wicker, 2019). Therefore, data on

individuals' behaviour/actions are collected and analyzed to understand their preferences. Sport management researchers have used various types of revealed preference methods, including *compensating variation approach* (e.g., Downward & Dawson, 2016), *hedonic pricing* (e.g., Feng & Humphreys, 2018), *opportunity cost* (e.g., Salamon et al., 2011), *replacement cost approach* (e.g., Vos et al., 2012), and *travel cost method* (e.g., Melstrom et al., 2017).

*Hedonic pricing, replacement cost approach, and travel cost method* rely on the direct association of use-values or market pricing (e.g., cost of a plane ticket or hotel accommodations; Orłowski & Wicker, 2019). This aspect challenges their applicability for this study's major sport event valuation because not all aspects of such exchange can be connected to market prices (e.g., psychic income; Oja et al., 2018). For instance, *hedonic pricing* can only assign monetary values to non-market goods directly associated with use-values (e.g., real estate; Orłowski & Wicker, 2019). This aspect challenges the ability for non-use values (e.g., social value) to be considered, which are inherent to residents of a major sport event – regardless of their chosen consumption of the event, they are directly and indirectly affected by its presence (Bakhsh et al., 2018; Karadakis & Kaplanidou, 2012). Consequently, monetary valuation methods that rely on such market prices do not meet the criteria needed to be included in this study. Despite the challenges present amongst these revealed preference methods, the *compensating variation approach* and *opportunity cost approach* are not subject to these difficulties and are thus potential methods to examine the value of a major sport event.

**Compensating Variation Approach.** This approach estimates the amount of income an individual is willing to forego to consume a greater amount of a certain good/service while maintaining their utility level (Powdthavee, 2008). In other words, how much one is willing to pay to increase one's experiential aspect while maintaining their utility (Downward & Dawson,

2016; Orłowski & Wicker, 2018). For example, Downward and Dawson (2016) tested this in a study on 16,627 individuals' sport participation choices and well-being. Data were first determined by individuals behaviour and experience scores and self-reported subjective well-being or quality of life type metrics (e.g., Downward & Rasciute, 2011). Then, individuals were asked to evaluate the change in their subjective well-being from participation experiences. These changes were then expressed in monetary terms and various value options were provided.

Consequently, when monetary values are not readily available (e.g., hypothetical scenarios), applying this method can lead to hypothetical decisions that diminish the tangible goal of applying monetary valuation methods. Often used in relation to positive sport participation outcomes (e.g., Downward & Dawson, 2016; Orłowski & Wicker, 2018), there is a lack of negative outcomes monetized by sport management scholars (Orłowski & Wicker, 2019). However, beyond sport management scholarship, negative outcomes like noise have also been studied using a compensating variation approach (e.g., Van Praag & Baarsma, 2005). For instance, Van Praag and Baarsma (2005) investigated the monetary value of noise damage on housing costs caused by aircraft noise of residents living beside an airport.

A conceptual challenge with the *compensating variation approach* is the assumption that individuals can compartmentalize their experiential aspects (e.g., social outcomes) when, in reality, social experiential aspects (e.g., social capital, psychic income; Oja et al., 2018) are challenging to untangle and to evaluate objectively (Taks et al., 2020). Moreover, untangling these experiential event aspects would not allow for the macro monetary valuation of a major sport event sought in this study. Instead, it offers insight into the value of event microcosms which have been the focus of major sport event monetary valuations to date (e.g., Downward & Dawson, 2016; Humphreys et al., 2018). Therefore, obtaining measures for a major sport event

with this method would be riddled with issues, as aspects of social experiences cannot easily be pulled apart like bricks of a building – the experience is inclusive to all aspects, and the entire experience itself must be considered (Lingane & Olsen, 2004). Consequently, although *compensating variation approach* meets the first two criteria required for this study (i.e., post-event and does not rely on market values), it does not evaluate an entire social experience and does not meet the final criteria needed to be applied in this study.

**Opportunity Cost Approach.** This approach examines the cost of the best but not chosen alternative option, to evaluate the value of a particular course of action (i.e., opportunity cost; Késenne, 2012). In principle, this method can be used in any exchange where an alternative option can be posed. For example, within sport management research, scholars have used this method to consider the value of volunteer work, with the opportunity cost being the salary/income foregone in exchange for the individual's voluntary service (e.g., Orłowski & Wicker, 2015; Salamon et al., 2011). Although applicable in principle, two challenges are present when applying this method. First, the most common concerns focus on potential variations within the alternative option. For instance, when using time spent working as the alternative to time spent volunteering, the same voluntary act can yield different monetary values depending on the individual being analyzed (e.g., lawyer or student). Although this concern holds merit, alternatives (e.g., providing individuals with a hypothetical set income) pose challenges to value authenticity, as individuals in a hypothetical situation are inherently making hypothetical decisions that diminish the tangible goal of applying monetary valuation methods. Second, the ability to confirm a monetary value for the best alternative option poses a challenge when applying this method. Depending on the scenario, the best alternative option of the non-use value may be another non-use value, challenging the tangibility of the findings. Despite these

(inherent) limitations to applying the *opportunity cost approach* to sport contexts, the principles of this method can provide insightful understandings of an individual's value and relative value (Orlowski & Wicker, 2019). For example, from evaluating the foregone option(s) of residents' public funding, in relation to other use and non-use values, a greater understanding of the relative value of a major sport event can be learned. Consequently, beyond evaluating values of the best alternative option forgone, the notion of preferences cannot be denied and is an important aspect to consider with this macro valuation. Thus, the *opportunity cost approach* meets the three criteria needed to be applied in this study and will be retained to analyzing residents' monetary value of hosting a major sport event at a macro level.

### ***Stated Preferences***

Unlike revealed preference methods, stated preference methods address the monetary valuation of future or hypothetical behaviours (Orlowski & Wicker, 2019). In this case, data were collected by presenting individuals with a hypothetical future scenario and recording their willingness to pay for this scenario (e.g., Johnson & Whitehead, 2000). Sport management scholars have used various types of stated preference methods, including *choice modelling* (e.g., Bertram et al., 2017), *contingent behaviour method* (e.g., Whitehead et al., 2013), and *contingent valuation method* (e.g., Boronczyk & Zarins, 2021).

Although these methods have been applied in sport-related studies because of their hypothetical/future scenario nature, they are limited to evaluating an event's potential or expected monetary value rather than offering insights on a post-event value. This hypothetical nature is problematic for the present study's context, as each method is challenged to offer a value of a major sport event post-hoc. However, this does not discount the insight they can provide for other contexts, as understanding the potential value of a major sport event can be an

insightful tool to garner resident support and effectively plan the allocation of public funding to host. Nonetheless, the hypothetical bias present in these methods (Orlowski & Wicker, 2019) challenges their applicability for analyzing residents' post-event monetary value of hosting a major sport event. Despite the ex-ante and post-hoc challenges present in stated preference methods, an innovative approach to contingent valuation, *reverse contingent valuation* (e.g., Humphreys et al., 2018), offers a stated preference method that allows post-hoc analysis.

**Reverse Contingent Valuation Method.** This method follows the same principles as contingent valuation method; however, while those methods are conducted pre-event and do not meet the criteria for this study, reverse contingent valuation method determines individuals' preferences post-experience rather than pre-experience (Humphreys et al., 2018). *Reverse contingent valuation method* is a survey-based method used to directly elicit individuals' willingness to pay for non-market goods/services (Carson, 2000) after the fact. A value expressed through this method blends social and economic attributes from experience consumption (Ciriacy-Wantrup, 1947). Using this method provides a relatively high level of flexibility with (a) timeframe (e.g., one-time or aggregate evaluations); (b) payment vehicle (e.g., voluntary donations, annual taxes); and (c) response formats (e.g., dichotomous choice, open question; Frick & Wicker, 2018). A *reverse contingent valuation method* allows individuals to determine their event value after having the opportunity to experience/host the event, which makes it advantageous for researchers looking to directly examine residents' investment in and outcomes from major sport events at a macro level. Thus, the *reverse contingent valuation method* meets the three criteria needed to be applied in this study and will be retained to analyzing residents' monetary value of hosting a major sport event at a macro level.

### ***Hybrid Methods***

Hybrid methods combine revealed and stated preference monetary valuation methods. The combination of two (or more) methods is used to combat select weaknesses of one method with select strengths of another approach (Whitehead et al., 2013). Within sport management research, three types of hybrid methods have been used, all in combination with the *travel cost method*: (1) *contingent valuation method* (e.g., Vial & Barget, 2021); (2) *contingent behaviour method* (e.g., Wicker et al., 2017); and (3) *choice modelling* (e.g., Paulrud & Laitila, 2004; Orłowski & Wicker, 2019). However, since the individual methods which comprise present hybrid methods did not meet the selection criteria needed for the present study (i.e., *travel cost method*, *contingent valuation method*, *contingent behaviour method*, *choice modelling*), their combination would also not meet the selection criteria needed. Thus, none of these three hybrid methods can be applied in this study to analyze residents' monetary value of hosting a major sport event at a macro level post-event. Table 3.1 summarizes the selection criteria of the revealed preferences, stated preferences, and hybrid monetary valuation methods investigated. Although these hybrid methods are not applicable for this study, the idea of a hybrid method (i.e., combining monetary methods) could still be used to effectively measure residents' social value from hosting a major sport event. To do so, combining the methods which meet the selection criteria (i.e., *opportunity cost approach* and *reverse contingent valuation method*) could prove to be an adequate tool for researchers and practitioners. The combination of the *reverse contingent valuation method* and *opportunity cost approach* has not been used by scholars to date, but the conceptual underpinnings can be linked to the complementary micro and macro economic theory perspectives. On the one hand, the micro perspective is offered by the *reverse contingent valuation method*, as this method allows individuals to make their individual (i.e., micro) decisions and value regarding their taxpayer contributions within this socio-economic

exchange. On the other hand, the macro perspective is offered by the *opportunity cost approach*, as this method allows individuals to evaluate the choice to use the overall public funding to host the 2010 OWG in relation to foregone alternatives. By concurrently examining both perspectives (i.e., micro then macro), researchers and practitioners can understand the importance of each method and their (potential) complimentary nature when examining residents' social value from hosting a major sport event can be understood. Although in theory, micro and macro perspectives are complimentary, the following empirical analysis may reveal if one or the other is more important to determine social value of events post-hoc, or whether a combination of both is more beneficial.

Thus, conducting a study that applies a *reverse contingent valuation method* and *opportunity cost approach* to examine residents' social value from hosting a major sport event would provide valuable information toward the applicability of each method, their (potential) complementary results, and their ability to be incorporated (or not) into a hybrid method. In addition, evidence-based justifications could be made toward developing a method to more effectively examine residents' monetized social value from hosting a major sport event.

## **Method**

### **Research Context**

This study's major sport event context was the 2010 OWG hosted in Vancouver and Whistler, Canada. Following a positive public referendum, where City of Vancouver residents voted in favour of hosting (i.e., 64%; VANOC, 2009), the City of Vancouver and the Resort Municipality of Whistler were successfully awarded the hosting rights in 2003 to organize the 2010 OWG (IOC, 2014, 2020). To operationalize the hosting of the 2010 OWG, a combination

of IOC contributions, public funds (i.e., taxpayer contributions via government[s]), sponsorship, and ticketing revenues were used (VanWynsberghe, 2016).

**Table 3.1**

*Review of Monetary Valuation Methods*

Method	Selection Criterion		
	1: Ability to conduct post-event evaluation (yes/no)	2: Does not require market values (yes/no)	3: Can provide monetary value of social experiences (yes/no)
<b>Revealed Preferences</b>			
Hedonic Pricing	Yes	No	No
Replacement Cost Approach	Yes	No	No
Travel Cost Method	Yes	No	No
Compensating Variation Approach	Yes	Yes	No
<b>Opportunity Cost Approach</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>Stated Preferences</b>			
Choice Modeling	No	Yes	Yes
Contingent Behaviour Model	No	Yes	Yes
Contingent Valuation Method	No	Yes	Yes
<b>Reverse Contingent Valuation Method</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>Hybrid Methods</b>			
Travel Cost Method + Contingent Valuation Method	No	No	Yes
Travel Cost Method + Contingent Behaviour Model	No	No	Yes
Travel Cost Method + Choice Modelling	No	No	Yes

As a result, residents became engaged in a socio-economic exchange where residents provided public funding in the form of tax dollars to host the 2010 OWG in exchange for social experiences (i.e., intangible outcomes)<sup>1</sup>. Now, more than 11 years post-event, residents are afforded the ability to evaluate the event based on actual lived experiences rather than perceptions and reflect on its social value post-hoc. The combination of these key elements – (1) positive public referendum; (2) use of public funding; and (3) post-event experiential evaluations – makes examining residents’ social value from hosting the 2010 OWG an ideal case to identify and compare monetary valuation methods for the application of major sport events.

### **Mixed Methods Design**

We applied an exploratory sequential mixed methods design to compare the two identified monetary valuation methods (i.e., *opportunity cost approach* and *reverse contingent valuation method*) (Creswell et al., 2003). This exploratory sequential design links a qualitative phase to a subsequent quantitative phase, prioritizing data given to the qualitative phase, which informs the quantitative phase (Creswell et al., 2003). Therefore, this design is advantageous when testing new elements of theory and building or testing a new instrument/tool, as is the case in the present study (Creswell, 2010; Morgan, 1998).

According to the seminal mixed methods scholars, Tashakkori and Creswell (2007), four criteria must be met to effectively conduct mixed methods research: (1) *justification*; (2) *mixed method type*; (3) *distinct results*; and (4) *mixing*. Consequently, the following steps were taken. First, *justification*, to best compare monetary valuation methods, we first explored what inputs and outcomes were experienced by the transaction members and what options were foregone because of funding the major sport event. This knowledge was necessary to accurately depict

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<sup>1</sup> All monetary values presented in this study are in Canadian currency (i.e., CAD).

willingness-to-pay metrics and opportunity cost in the quantitative phase. While some of these foregone options, inputs, and outcomes can be understood through document analysis (e.g., residents provided public funding for the event), there is a need to explore residents' perspectives of the event to inform how the monetary valuation methods can best be presented and disseminated in the next phase. Second, *mixed method type*, we applied an exploratory sequential mixed methods design which included semi-structured interviews (i.e., qualitative instrument) and a self-administered questionnaire (i.e., quantitative instrument). Finally, aligned with Tashakkori and Creswell's (2007) third and fourth criteria (i.e., *distinct results* and *mixing*), the following sections present the qualitative and quantitative data methods, results, and discussion, with the overall mixed methods discussion presented thereafter.

## **Qualitative Method**

### **Qualitative Data Collection**

Upon receiving ethical approval from the university's research ethics board, data were collected from October 2020 to November 2020 through semi-structured interviews (hereafter referred to as interviews) and documents (e.g., financial documents and bid reports). Interviews were an appropriate data collection method as this study sought to understand residents' perspectives about the 2010 OWG and gauge the social value of their experience and potential foregone opportunities from hosting the major sport event (Smith & Sparkes, 2016). In addition, documents were collected as a source of triangulation, thereby increasing the trustworthiness of the research findings (Burke, 2016; Edwards & Skinner, 2009).

Through a purposeful sample and snowball sampling strategy (Edwards & Skinner, 2009), we conducted 14 interviews with residents, as no new element arose during the last couple of interviews and theoretical saturation was reached (Rowlands et al., 2016). All residents

were 18 years of age or older during the event's 2003 referendum and confirmed living in the Metro Vancouver Regional District from the referendum to the interview (i.e., 17 years). This ensured all participants were of legal voting age during the referendum and could reflect on their experiences as a host resident of the 2010 OWG. Interviews ranged from 37 to 93 minutes in length and were all conducted via Zoom. The interview guide for these resident interviews included questions about event legacies, perceptions, experiences, and opportunities (potentially foregone from hosting). The interview guide asked questions pertaining to event legacies, experiences, and social value from hosting the 2010 OWG. Questions were built from previous sport management scholarship which has examined residents' experiences from hosting major sport events (e.g., Bakhsh et al., 2018; De Rycke et al., 2019; Oja et al., 2018). Refer to Appendix A for the interview guide.

As a means of corroborating the findings from the semi-structured interviews (Yin, 2018), 2010 OWG archival records and documentation were used for data source triangulation (Lincoln & Guba, 1985). Specifically, the first author collected three formal documents through publicly available sources on the 2010 OWG. They included the event's formal Bid Report (54 pages; VANOC, 2009), Consolidated Financial Statements (28 pages; VANOC, 2010), and the Review of Games Estimates audit by the province of British Columbia (76 pages; BC Auditor, 2002). This document analysis was strategically executed to provide an in-depth understanding of the event's outreach, goals, use of public funding from the event's perspective, and confirmed that Vancouver residents contributed on average an estimated \$75 to \$175 each year for seven years prior to hosting the event, in present value, per taxpaying individual. This calculation was determined by taking the overall City of Vancouver public funding contribution and dividing it by the number of residents during the Games.

## **Qualitative Data Analysis**

Interviews were audio-recorded, transcribed verbatim, and sent back to participants for member checking to ensure the transcripts accurately represented their experiences (Burke, 2016). Once participants approved their transcript, data were uploaded to the qualitative data analysis software NVivo 11 Plus and analyzed thematically following Braun and Clarke's (2022) six steps: (1) *familiarization with data*; (2) *generating initial codes*, including deductive and inductive; (3) *searching for themes*; (4) *reviewing themes (refinement)*; (5) *defining and naming themes*, where the researchers develop descriptive and analytical interpretations of the data; and (6) *producing the report*, which detailed the interview findings.

## **Qualitative Results & Discussion**

### **Residents' Event Perspectives**

Residents' event perspectives (i.e., perceptions, experiences, and insights) were discussed twofold: in relation to micro (i.e., residents' individual perspectives from the event) and macro perspectives (i.e., the use of tax dollars). First, we elicited residents' perceptions to understand how individuals felt Canadian tax dollars were being used. On one hand, the 14 residents unanimously echoed that public funding was used to host the event (i.e., the actual act of hosting competitions, housing athletes and fans) and build infrastructure throughout the province, such as the Sea-to-Sky Highway, which runs from Vancouver to Whistler (Sant & Mason, 2015; VanWynsberghe, 2016). On the other hand, and again unanimously, residents did not discuss the use of Canadian tax dollars linked to other anticipated outcomes from the event, such as promoting Canadian industries abroad. In contrast, the documents analyzed indicated how Canadian tax dollars were used to promote Canadian industries domestically and abroad; to promote Indigenous communities, a key stakeholder in the Vancouver event; to foster social

programs; to invest in arts and culture; and to invest in Canadian innovation and business. These public funding targeted outcomes were all confirmed through the document analysis conducted for this study (i.e., BC Auditor, 2002; VANOC, 2009, 2010).

Second, all residents discussed their event experiences beyond the link to public funding contributions. These discussions resulted in three themes: (1) *time*; (2) *outcomes*; and (3) *want versus need*. For *time*, residents regularly discussed their perspectives of the event's value and how this value shifted over time from pre-event, to during the event, to post-event. These changes were not unidimensional, as individuals noted how perceived value may have been negative pre-event – some displayed by select residents voting no in the public referendum to host the 2010 event – then moved toward a positively perceived value post-event because of the positive experience they had during and after the Games.

*I was strongly against hosting the Games beforehand. I even voted no in the referendum, I was one of the only people I knew against it. It created quite the conversational piece at the dinner table and when we [my partner and I] were with friends/family... I really did enjoy it... it was a good use of money. If I could go back, I would vote yes now. (Resident 5)*

Conversely, the opposite pattern was also found, as some individuals moved from a positive value pre-event to a less positive value post-event. For instance, one individual discussed their strong support of the event by hosting international visitors; this individual repeatedly mentioned how enjoyable it was to meet new people, be an ambassador, and experience the event. Although the Games had an overtly positive impact for this resident leading up to and during the event, as the following quotation indicates, it quickly dropped off post-event: *"I don't think I walked around with my Canada hat and mittens on long after the Games"* (Resident 2).

For *outcomes*, residents' perspectives could be linked to positive and negative outcomes, as well as tangible and intangible outcomes. Although all participants reminisced on tangible and intangible outcomes (e.g., infrastructure and feelings of pride when Canada won its first gold medal), distinct nuances were found between their positive and negative memories. For example, almost all participants did not hesitate to discuss positive tangible outcomes like infrastructure (e.g., Richmond Oval and Sea-to-Sky Highway) or negative tangible outcomes like damage caused by riots and the economic costs that could burden them:

*The [Richmond] Oval is one of the best things to come from the Games. It's the pinnacle of Richmond and it still gives me goosebumps driving by and seeing it. It's beautiful inside and out. I actually have my name in there three times. It's a special place to a lot of people. (Resident 8)*

*Unfortunately, we do have a reputation for damaging things. The Stanley Cup series was one occasion; the Olympics is another. The riots that happened...it's a shame that people feel the need to do that. That's not right and it's not what we want the world to see. It's not who we are as Vancouverites. (Resident 3)*

However, in discussing intangible outcomes, while participants could almost automatically discuss positive outcomes like the connection they felt to Vancouver, other residents, and Canada as a whole, or the sense of accomplishment and ambassadorship they felt from hosting, participants struggled to identify negative intangible impacts that occurred, demonstrating an overtly positive perception towards the event. For example, multiple individuals openly stated how they couldn't remember any heartache from hosting and explicitly said they did not remember any damage to the athletes or poor image to the event: "*Honestly, no. I don't remember anything bad happening. The event was a great time! There weren't any issues*

*I remember... it's not like anyone was harmed. No harm to any athletes during the Games"*

(Resident 2). Despite this residents' response, the reality of the 2010 OWG is that resident riots occurred during the opening days of the competition and an athlete, unfortunately, passed away during a pre-competition practice run (IOC, 2014).

The third theme was linked to the narrative of "the rich get richer, while the poor get poorer" and the concept of *want versus need*, which several participants voiced throughout the interviews. As one resident stated, "*the Olympics was a nice want and was not something we needed, but something we, and politicians, wanted – so that's what we got*" (Resident 9). Several residents mentioned how the event created a faster production of infrastructure projects in development, such as the Sea-to-Sky Highway and Canada Line. Linked to much urbanization literature (e.g., Essex & Chalkley, 1998), the OWG was viewed by residents as a catalyst to improving (much needed) transportation and infrastructure within the Metro Vancouver Regional District (Sant & Mason, 2015; VanWynsberghe, 2016). Nonetheless, almost all participants recognized the concept of privilege and their position to have these discussions, conscious that not all individuals were afforded the same experiences, which further marginalized some. Although displacement was not a central result of the 2010 OWG (c.f. Sant & Mason, 2015; VanWynsberghe, 2016), present issues in the city, like the economic polarization between the poverty of the downtown east area and the wealth of West Vancouver, were voiced by many participants. Specifically, several participants felt "*more could have been done*" (Resident 12) to alleviate the challenges residents in Vancouver's downtown east area face on a day-to-day basis. Moreover, summarized nicely by one participant, the Olympics, to some extent, distracted from these city issues, "*even though we have all the infrastructure... it just seems like this big, huge,*

*waste of money. There's just so many other priorities. I don't see the return on it for everyone"*  
(Resident 9).

### **Foregone Opportunities**

In discussing the foregone opportunities residents faced from hosting the 2010 OWG, residents provided a broad list of examples. Upon analysis, this list was compartmentalized into seven individual themes: (1) economic; (2) environment; (3) sport events; (4) professional sport franchises; (5) education; (6) healthcare; and (7) low-income housing.

Aligned with the interview guide and the monetary value exploration of this line of inquiry, all individuals noted the tax dollars could be used for purely economic ventures elsewhere (e.g., paying national debt).

*We didn't need the event. Sure, it was nice to have, but that money could have been used elsewhere. Our debt for one thing, we could have used that money to reduce the debt and maybe reduce the need for the increase in taxes we've seen.* (Resident 14)

Moreover, individuals echoed the strong environmental focus of the event and felt a possible way to use public funding would be to improve the city's (and country's) ecological footprint. Thus, rather than hosting a large event that comes with environmental challenges (Collins et al., 2009; Preuß, 2007), government officials could have used residents' public funding investment purely towards improving the ecological footprint.

*Listen, it's [British Columbia]. We are supposed to be the green capital of the country and hosting a major event like this has to come with some environmental...issues. I'm not saying it was a bad idea, but there are things we seem to care a lot about, environmental things, that don't align with this spending.* (Resident 4)

In addition, several sport options were suggested by the resident interviewees. This was done in one of two ways, either by having multiple smaller events – *“it would be nice to take the money and use it for events all over [British Columbia], or even Canada. Rather than one big event just for Vancouverites”* said Resident 7 – or by bringing back beloved professional sport teams (e.g., Vancouver Grizzlies, NBA Franchise based in Vancouver until 2001; Chiba, 2012).

*If we’re choosing how to spend money on sport, sport teams would be great, not just youth options but bringing back pro teams. The city was a buzz during the [Toronto] Raptor’s playoff run, it would be really fun having the [Vancouver] Grizzlies’ back.*  
(Resident 7).

Moreover, residents suggested both education (e.g., greater public-school funding) and healthcare opportunities (e.g., build more hospitals) could be alternative options for their taxpayer contributions, often linked to the present need for education and health surrounding the COVID-19 Pandemic during the time of these interviews. While multiple interviewees discussed these foregone opportunities at large, perhaps the forgone opportunity voiced most loudly was linked to Vancouver’s downtown east side and the need for low-income housing.

*It’s a need we’ve always had and it’s a need we still have. We struggle every day and it’s hard to think about all that money and how it went towards hosting an event rather than helping Vancouverites in need.* (Resident 12).

These seven foregone opportunities mentioned by the interviewees align with those identified by sport management scholars (e.g., Karadakis et al., 2010; Preuß, 2009; Taks et al., 2011) who proposed alternative options encompassing various economic, tourism, environmental, social, cultural, psychological, and political foregone opportunities.

These findings highlight the temporal nature of residents' major sport event perspectives and the reality of host city residents' post-event perspectives. While residents revealed positive event perspectives, like previous research on residents' referendum perceptions (i.e., Johnston, Naylor, Dickson et al., 2021; Johnston, Naylor, Dickson, & Kellison, 2021; Scheu & Preuß, 2018), interviewees voiced negative event legacy perspectives and concerns around using public funding to host the major sport event. Consequently, these findings not only revealed the complex entanglement of positive and negative perspectives scholars know host city residents hold (e.g., Karadakis & Kaplanidou, 2012; Johnston, Naylor, & Dickson, 2021) but revealed that positively perceived events may still lack a positive social value for such residents.

This alarming finding not only further advances the need to answer this study's overall purpose but also challenges the practical applicability of previous sport management research, which has exclusively focused on residents' intangible perceptions (e.g., Bakhsh et al., 2018; Oja et al., 2018; Park et al. 2019) or experiences (e.g., Taks et al., 2020; Oshimi et al, 2021) and not on a more tangible monetary valuation (Preuß & Hong, 2021). Based on our findings, as positive event perspectives do not necessarily indicate positive event valuations, more tangible valuations should be conducted on major sport event host city residents. Ultimately, these interviewee responses and document analysis informed the questionnaire's development (discussed in the following section) and anticipated findings from the *reverse contingent valuation method* metrics and *opportunity cost approach* selections.

## **Quantitative Method**

### **Quantitative Data Collection**

Using the *Qualtrics* platform, Vancouver residents were invited to participate in an online self-administered questionnaire. The research team received ethics approval from their university

ethics board (#H-01-21-6508) for this step. Qualtrics first screened all participants to ensure they knew the City of Vancouver hosted the 2010 OWG, born in 1984 or earlier, and were residents of the City of Vancouver. Like the interview selection criteria, this ensured all participants were of legal voting age during the referendum and could reflect on their hosting experience as a Vancouver resident.

The questionnaire was distributed on February 15, 2021, with all participants completing the questionnaire by February 24, 2021. Using statistical power analysis with confidence levels at 95%, a margin of error at 5%, and a 610,000 population size for the City of Vancouver, a minimum sample size of 385 randomly selected residents was needed ( $n = 385$ ; Cohen, 1988). To ensure this minimum threshold, a quota sample of 525 Vancouver residents was targeted and collected through Qualtrics panel data members who identified as being Vancouver residents and born in 1984 or earlier, with no respondents having previously participated in the study's interviews. All Qualtrics panel members had the choice to participate or not participate in the study. At no point did the research team have access to contact participants directly, the questionnaire was built on the Qualtrics platform and then the Qualtrics team disseminated the questionnaire to these participants and provided the raw data set to the research team.

The sample showed an even divide between genders; 52.6% identified as female ( $n = 276$ ) and 46.7% identified as male ( $n = 245$ ), while four individuals identified as non-cis (0.8%). Participants were born between 1935 to 1984, with an average birth year of 1963.83 ( $SD = 12.14$ ). Most participants identified as Caucasian ( $n = 291$ ; 55.4%) with a high proportion of participants identifying as Chinese ( $n = 113$ ; 21.5%). Most participants also identified as having completed either a university bachelor's degree or college diploma ( $n=268$ ; 51.0%) and being employed to some degree (e.g., full-time, part-time, self-employed;  $n = 348$ ; 66.3%) with the

remaining 33.7% of participants identified being unemployed, retired, on a government assistance program, or a full-time student. In addition, respondents' average income was \$76,700 CAD ( $SD = \$55,560$ ). Finally, an important step when using panel data, these socio-demographic variables were confirmed with Canadian census data on the City of Vancouver by showing linearity across all metrics except income, where study participants revealed an average income approximately \$15,000 higher than the Census report (Statistics Canada, 2017). This is important to understand upfront, as this higher average income may be an underpinning factor in creating a positive social value for residents.

## **Questionnaire Scenarios and Measures**

### ***Reverse Contingent Valuation Method***

Two elements are required to apply a *reverse contingent valuation method* (Humphreys et al., 2018; Orłowski & Wicker, 2019): a scenario and an associated evaluation. The scenario informs respondents of the necessary information needed to make their valuation (e.g., impacts of the event, event investment). The scenario built for this questionnaire was informed from Vancouver residents' perspectives understood in the previous qualitative phase and supplemented by the insights learned from the document analysis. The evaluation was asked in a two-part fashion, as determining a *reverse contingent valuation method* metric is a two-part consumption decision. In decision one, the participant was asked if they would use (or not) public funding to host the 2010 OWG. Following this scenario, participants were provided the options of *yes* (i.e., they do support having used tax dollars to host the 2010 OWG) or *no* (i.e., they do not). Finally, those who answered yes and indicated support to the first decision were asked how much they would be willing to provide to host the 2010 OWG (i.e., decision two).

For this second decision response, respondents answered on a scale ranging from \$1 to \$250, where individuals could select any whole dollar figure (e.g., \$1, \$2, \$3). This scale was chosen for two reasons. First, aligned with appropriate *reverse contingent valuation method* measures, the lowest option for the consumption decision must be offered to the respondents. Since the initial decision asked if individuals would support using tax dollars, not a specific amount of tax dollars, the minimum assumed must be \$1. Second, through the previous document analysis, Vancouver's taxpayers estimated actual tax dollars would have been between \$75 and \$175 per year. With the middle point of this estimation being \$125, that point was used as the middle point of the scale, creating a \$250 extremity. Refer to Appendix B for the *reverse contingent valuation method* survey item.

### ***Opportunity Cost Approach***

To apply an opportunity cost approach monetary valuation method, respondents must be presented with a sound depiction of the non-market value they received (e.g., hosting the 2010 OWG) and opportunities foregone. Informed from the resident interviews in the previous data phase, survey participants were presented with a scenario detailing the taxpayer contributions, event impacts, and foregone opportunities. Following this scenario, participants were provided the options of *yes* (i.e., they do support having used \$2b to \$4b of Canadian tax dollars to host the 2010 Games) or *no* (i.e., they do not).

First, for those who said *no* to the initial item, they were provided with the seven alternative options suggested by the results from the previous phase: (1) decrease national debt; (2) improve Canada's ecological footprint; (3) fund other major sport events; (4) bring back Canadian professional sport teams; (5) increase Canada's post-secondary education opportunities; (6) build more hospitals and medical buildings; and (7) develop low-income

housing. In addition to these seven options, which are also endorsed by previous studies, an eighth option was offered (i.e., other), where respondents could enter their own alternative if the list of seven options did not represent all alternatives they deemed important.

From these eight options, participants were asked to rank their top three choices in order of what they would select as better alternatives to allocate that funding than for hosting the 2010 OWG. This data is reported in Table 2 and outlines the eight options based on the percentage of *non-supporting residents* ( $n=184$ : those who said no to the initial *opportunity cost approach* item) who selected each option in their top three preferences. For example, *hospitals* (69.0%) indicates that 69.0% of the *non-supporting residents* ( $n = 127$ ) selected *hospitals* as one of their top three alternatives to allocate better the public funding than hosting the 2010 OWG.

Second, all individuals – regardless of responding yes or no to the initial *opportunity cost approach* item – were presented a new *opportunity cost approach* item which first depicted their estimated taxpayer contributions (i.e., \$75 to \$175 each year for seven years, in present value), and then offered the same eight options with the addition of still funding the 2010 OWG as a ninth option. Refer to Appendix C for the *opportunity cost approach* scenario. This second *opportunity cost approach* evaluation allowed us to examine residents' hosting preferences in relation to other preferences (i.e., alternative options), which was done for both *non-supporting residents* ( $n = 184$ : those who said no to the initial *opportunity cost approach* item) and *supporting residents* ( $n = 341$ : those who said yes to the initial *opportunity cost approach* item). In doing so, the same preference percentage findings outlined above for *non-supporting residents* are reported in Table 2 for *supporting residents*. For example, *Olympics* (75.7%) indicates that 75.7% of the *supporting residents* ( $n = 285$ ) selected *Olympics* as one of their top three choices for the public funding used to host the 2010 OWG. Moreover, the preference percentage findings

for *non-supporting residents* are also outlined in Table 2 when the additional option of hosting the OWG was included (i.e., with the *Olympic* option). This sequence allowed us to check the congruency and changes of *non-supporting residents*' top three funding choices when presented and not presented the option to host the 2010 OWG.

## **Quantitative Results & Discussion**

### **Micro-level Perspective: Reverse Contingent Valuation Method**

Of the 525 Vancouver residents who completed the questionnaire, the willingness-to-pay metric (see Appendix B) indicated most respondents supported using public funding to host the 2010 OWG (77.9%,  $n = 409$ ). Of these 409 individuals, the average willingness-to-pay metric was \$86.39 ( $SD = \$62.19$ ) each year for the seven years, establishing the average total contribution individuals were willing to pay to host the 2010 OWG as \$604.73. These contribution findings reveal four distinct groups linked to the estimated taxpayer contributions outlined in the *opportunity cost approach* item. First, 22.1% ( $n = 116$ ) individuals indicated they would not be willing to pay to host the 2010 OWG. Second, 36.4% ( $n = 191$ ) individuals indicated they would be willing to pay less than \$75 each year, which falls short of the estimated taxpayer contribution of \$75 to \$175 Vancouver residents made. Third, 33.9% ( $n = 178$ ) individuals indicated they would be willing to pay between \$75 and \$175 each year, which falls within the estimated parameters of Vancouver residents' actual taxpayer contributions. Finally, the remaining 7.6% ( $n = 40$ ) individuals indicated they would be willing to pay more than their estimated taxpayer contributions (i.e., more than \$175 a year). These initial findings suggest that, while most respondents were willing to pay to host the 2010 OWG (i.e., 77.7%,  $n = 409$ ), what they were willing to invest post-hoc did not exceed that investment. See Table 3.2 for percentage breakdowns of the total sample and willingness-to-pay sample.

These initial findings indicate that Vancouver residents' social value does not equate the actual monetary value contributed. Thus, hosting the 2010 OWG may not have been a positive investment for Vancouver residents and offers support to previous scholarship which suggests hosting major sport events may not provide the best value for money, namely a high enough positive social value for host city residents (e.g., Barros, 2006). In total, 485 (92.4%) of respondents indicated they would not be willing to pay more than the maximum estimated contribution of \$175. This finding challenges the claimed belief that hosting major sport events will bring positive social experiences which outweigh their financial costs (Doyle et al., 2021). Moreover, these findings reveal that a post-event willingness-to-pay method (or *reverse contingent valuation method*) is a suitable and practical tool to directly elicit residents' monetary value of major sport event social perspectives. Ultimately, applying this reverse contingent valuation method revealed the usefulness of this method to garner a micro-level perspective of residents' social value and indicated that Vancouverites supported the notion of publicly funding the 2010 OWG, but the social value they garnered from that hosting experience did not match their estimated taxpayer contribution.

**Table 3.2**

*Micro-level Social Value Perspective: Reverse Contingent Valuation Method*

	Total Sample ( <i>n</i> = 525)	Willingness to Pay Sample ( <i>n</i> = 409)
	%	%
Not willing to pay	22.1	-
Willing to Pay <\$75	36.4	46.7
Willing to Pay \$75-\$175	33.9	43.5
Willing to Pay >\$175	7.6	9.8

### Macro-level Perspective: Opportunity Cost Approach

When presented with the initial *opportunity cost approach* item (refer to Appendix C), 65.0% of Vancouver residents ( $n = 341$ ) indicated they would support using the \$75 to \$175 yearly taxpayers' contributions for seven years as public funding to host the 2010 OWG. However, of the individuals who did not support using this public funding to host the event ( $n = 184$ ), the most popular alternatives respondents ranked in their top three choices were *hospitals* (69.0%), *national debt* (65.2%), and *housing* (57.6%). Next, when asked to rank the same options with the additional choice of still funding the 2010 OWG, these 184 individuals' responses showed consistency, as *hospitals* (60.9%), *national debt* (60.3%), and *housing* (51.6%) maintained their status as the top three selections. However, in this particular group, the *Olympic* option did now appear for 44 respondents who put it in their top three choice selections (23.9% of individuals). This suggests that, while 184 respondents did not support using public funding to host the Games initially when provided with alternative options, it is possible they felt hosting the Olympics was as good an alternative option as the others offered. This finding supports and magnifies much of the tension residents indicate around hosting publicly funded major sport events: while both positive and negative perspectives exist (Bakhsh et al., 2018; Johnston, Naylor, & Dickson, 2021), residents are often left uncertain of what option to support (Johnston, Naylor, Dickson, & Kellison, 2021).

Conversely, for the 341 individuals who did support using public funding to host the 2010 OWG, the *Olympics* (75.7%) was the overwhelming top three selection by respondents, with *national debt* (51.0%) and *environment* (45.2%) rounding out the top three selections. Moreover, to further amplify this top three preference finding, the *Olympics* received 173 first selection votes (50.7%). In other words, most respondents who supported using the estimated

public funding to host the 2010 OWG still selected to use that funding to host the event over alternative options like increasing hospitals and medical buildings, improving the ecological footprint, and decreasing national debt. Table 3.3 presents the complete alternative rankings provided for residents who did and did not support using public funding to host the 2010 OWG. Unlike the tensions revealed for the *non-supporting residents*, those who supported hosting the 2010 OWG from the outset of the *opportunity cost approach* item (i.e., *supporting residents*) did not waver in their decision when presented alternative options. However, when comparing macro and micro perspectives, the disparity is revealed. From a macro perspective, 173 individuals (33.0% of the total sample) selected the *Olympic* as their first choice in the *opportunity cost approach* item after being presented their estimated taxpayer contributions (i.e., \$75 to \$175 each year for seven years). From a micro perspective, 191 individuals (36.4% of the total sample) revealed they would willingly contribute the same amount or more (> \$75 each year for seven years) in the *reverse contingent valuation method* item. Although close, this change suggests that hosting a major sport event may receive less support when residents are presented with alternative options or more information about the choices at hand (Johnston, Naylor, Dickson, & Kellison, 2021). This finding reveals the importance of providing transparency to help residents make informed decisions regarding the use of their taxpayer contributions (Davies et al., 2019, 2021); it also illustrates that the way in which a survey is framed affects the results (Lumsdaine & Exterkate, 2013). Ultimately, applying this opportunity cost approach revealed the usefulness of this method to garner a macro-level perspective of residents' social value.

**Table 3.3***Macro-level Social Value Perspective: Opportunity Cost Approach*

Ranking	Non-Supporting Residents (n = 184)				Supporting Residents (n = 341)	
	Without Olympic Option		With Olympic Option		With Olympic Option	
		%		%		%
1	Hospitals	69.0	Hospitals	60.9	Olympics	75.7
2	National Debt	65.2	National Debt	60.3	National Debt	51.0
3	Housing	57.6	Housing	51.6	Environment	45.2
4	Environment	46.7	Environment	47.8	Hospitals	42.8
5	Education	39.7	Education	29.9	Housing	42.5
6	Other	9.2	Olympics	29.3	Education	23.5
7	Sport Events	7.6	Other	10.9	Sport Events	10.3
8	Pro Sport Teams	4.9	Sport Events	6.0	Pro Sport Teams	5.6
9	-	-	Pro Sport Teams	3.3	Other	3.5

*Notes.* Respondents' main options for 'other' included tax reductions, infrastructure, and poverty/homelessness. Percentage indicates the number of respondents who placed the option as one of their top three selections.

### Overall Discussion

This study sought to investigate various monetary valuation methods that could be used to analyze residents' social value in a post-event context and tested the selected methods to determine residents' social value from hosting the 2010 OWG. First, our qualitative findings revealed host city residents' positive hosting perspectives and highlighted their concerns of a positive monetary event valuation (i.e., positive social value). This finding was then confirmed through both monetary valuation methods used in the quantitative part of the study. The *reverse contingent valuation method* indicated most individuals attributed a lower monetary value to their social experiences and insights 11 years post-event compared to their estimated taxpayer contribution; the *opportunity cost approach* revealed fewer compared to their monetary investments and challenge whether this event in particular left legacies worth the investment and if these public funds were efficiently used (Barros, 2006; Scheu & Preuß, 2018).

Second, after conducting this mixed methods study, our findings revealed that both monetary valuation methods have benefits, and their complementary micro and macro-level perspectives can be advantageous. Specifically, as both methods have benefits and challenges to measuring social value, combining these methods may offer a valuable tool to measure the social value of a major sport event. From a conceptual perspective, this synergy offers a holistic approach, whereby the micro-level perspective serves as a prerequisite to make a better-informed decision, or generate a better-informed macro-level perspective, thereby more accurately estimating residents' social value. On the one hand, the *reverse contingent valuation method* provided a direct measure of residents' social value at the individual level (i.e., micro perspective; Humphreys et al., 2018), while on the other hand, the *opportunity cost approach* helped frame that social value amongst other valued opportunities/scenarios at the societal level (i.e., macro perspective; Orłowski & Wicker, 2015; Salamon et al., 2011). From an empirical view, the micro perspective allowed for a tangible monetary value compared to residents' actual taxpayer contributions, while the macro perspective adds depth to the analysis by further explaining the value of hosting in relation to other contextual ventures (e.g., decrease national debt, improve ecological footprint; Preuß et al., 2007).

The combination of these methods thus provides an answer to which tool(s) to use and provides insight into the unique contribution of each monetary valuation method to elicit social value. Although both methods have their respective merits when measuring the social value of a major sport event (Orłowski & Wicker, 2019), the findings from this study indicate the *opportunity cost approach* (i.e., macro perspective) is a complementary addition to the necessary micro perspective offered by the *reverse contingent valuation method*. Consequently, we first

discuss the merits of the individual methods from this study and then conclude with how the two methods can best be used together to measure social value.

### **Micro-level Perspective: Reverse Contingent Valuation Method**

As a stated preference monetary valuation method (Orlowski & Wicker, 2019), the *reverse contingent valuation method* allowed us to determine residents' value of hosting the 2010 OWG after having already experienced the referendum, pre-event build-up, the event itself, and immediate 11 years post-event. In doing so, this method provides the key to determining social value for individuals – the monetary value of a social experience (Humphreys et al., 2018; Preuß & Hong, 2021). By using this method, we can evaluate residents' monetary value of their hosting experience as a direct individual-level measure, and this measure can then be compared to residents' estimated taxpayer contributions to determine how the perceived social value compares to the monetary investment (e.g., positive, negative, or equal).

Although this method provides the necessary tool to measuring social value (i.e., direct measure), discussing and selecting social value numbers for large amounts (e.g., overall event funding) is still a challenge for two reasons. First, macro valuations of major sport events are often extreme monetary values residents are disconnected from in their daily lives (Keane et al., 2019). Because of this disparity, it is helpful to examine the individual level first so that residents can gauge a better understanding of the larger (i.e., macro) picture. Second, from a contextual perspective, the tangibility of a billion-dollar valuation is out of reach for most individuals and may perpetuate an intangible understanding. In this study, we attempted to mitigate this challenge by scaling the valuation for residents to elicit their individual contributions (i.e., micro perspective) instead of only fixating on the overall societal contribution (i.e., macro perspective). Nonetheless, when used on its own, the *reverse contingent valuation method* lacks contextual

depth, and although it produces a direct measure at the individual level, it is challenged to measure social value at the societal/macro level.

### **Macro-level Perspective: Opportunity Cost Approach**

As a revealed preference monetary valuation method (Orlowski & Wicker, 2019), the *opportunity cost approach* allowed us to examine the priority of residents' alternative options to hosting the 2010 OWG without needing the monetary value of those options. Instead, by having the monetary value of taxpayer contributions to host, we could use this method to determine which alternatives (e.g., decrease national debt, build more hospitals) were or were not a higher priority to residents. As discussing macro-level perspectives (e.g., overall event funding) can be challenging for individuals, offering priority choices through the *opportunity cost approach*, while not a direct measure, can provide great depth to understanding individuals' perspectives of the social value of sport events at the society level.

However, the *opportunity cost approach* alone does not offer a solution to measuring social value. Although it provides contextual understandings and elicits preferences, it is bound by the alternative options presented (Orlowski & Wicker, 2019). Consequently, it cannot offer a social value measure beyond simply stating if it is or is not a greater value than a select forgone alternative option. In the present study, because all alternative options were intangible to some degree (e.g., bring back professional sport teams), the *opportunity cost approach* could not offer a tangible measure needed to determine a major sport event's social value.

### **Hybrid Method**

Our findings indicate benefits from examining both residents' micro- and macro-level perspectives. Social value is a complex concept, one ripe with entangled aspects and perspectives (Davies et al., 2021; Preuß & Hong, 2021; Ziakis, 2016). Consequently, solely determining

micro (e.g., individual's willingness-to-pay) or macro perspectives (e.g., foregone opportunities) may not always provide the in-depth analysis needed to match the complexities of social value. Depending on the context of the study, combining both may be most fruitful for researchers and practitioners. Demonstrated in this study, there were benefits to combining the micro and macro perspectives. On the one hand, the micro perspective provided us the ability to make social value evaluations at the individual level and help individuals generate a more informed opinion of an event's social value at the societal level. On the other hand, the macro perspective provided a depth of understanding which moved the evaluation from a mere number to an understanding of residents' perspective of the event's social value at the societal level.

Our support for this hybrid method does not discount the importance of each method (i.e., *reverse contingent valuation method* and *opportunity cost approach*) being examined individually. Although this study benefited from including both the micro and macro perspectives, this may not be the best option for all future studies. It is clear from these findings that there is a benefit to conducting studies using each of the individual methods, specifically based on which level is most important for the research purpose. For some studies, this may be a micro only perspective, a macro only perspective, or a micro and macro perspective. Much of this decision may be central to the data researchers have available to them. For instance, in the present study, although data were available for both the micro and macro level perspectives, the estimated taxpayer contributions and individual experiences examined at the micro level appeared more tangible than the estimated taxpayer contributions and hypothetical alternatives to hosting at the macro level. Understanding that the micro level data was more tangible than the macro level data for this study may be largely why the micro perspective was the key driver of examining residents' social value while the macro perspective was an additional layer of

knowledge. Consequently, although the hybrid method used in this study to examine residents' social value was advantageous, it is clear that the micro perspective examination was more relevant in the context of residents' social value. This does not mean micro perspectives are more important than macro, nor that this hybrid method should always be used moving forward. Rather, it is necessary to examine residents' social value aligned with the perspectives of the participants, the event context, and based on the data available.

### **Implications**

Regarding theoretical implications, researchers should consider both micro and macro perspectives when examining major sport events' social value. Aligned with the preferences and exchanges individuals and groups endure when hosting a publicly-funded major sport event, this study highlights how eliciting a micro and macro perspective to measure residents' major sport event social value can be advantageous. Scholars interested in examining the social value of major sport events need to understand the complexity of public funding, anticipated outcomes, stakeholder perspectives, and micro and macro social value evaluations. Consequently, they should justify why a micro or macro only perspective is beneficial or why a hybrid method is most fruitful for the study in question. Our findings highlighted the benefit of adding the macro perspective to the micro perspective which allowed us to understand residents' social value at greater depths. This deeper focus on the how and why aspects of social value will allow us as researchers to better address stakeholder claims, accurately measure social value, and ultimately improve the social value generated by major sport events.

Regarding practical implications, this study offers practitioners a tool to monetarily value residents' social experiences from hosting a major sport event. Determining such social value alone can allow practitioners to make evidence-based decisions circled around public funding in

one of two ways. On one hand, like the post-event evaluation conducted in this study, practitioners can evaluate residents' experience in relation to their actual taxpayer contributions. On the other hand, practitioners can use this hybrid-type method pre-event or during the bid phase to determine what amount of public funding would or would not be an efficient and supported use by residents. However, although these benefits are certainly present, understanding a major sport event's social value is in its infancy. Thus, practitioners should be cautioned that we have only scratched the surface of understanding these numbers.

### **Study Limitations & Future Research Directions**

First, methodological challenges were present when attempting to garner accurate public funding estimations. As these are necessary metrics for conducting social value studies, we encourage scholars and practitioners to triangulate their data through event experts, official financial and event documents, and official event auditing documents, as we have done in this study. This combination proved fruitful in garnering estimating realistic numbers and developing a greater understanding of the overall event funding.

Second, examining social value 11 years post-event means there may be memory reliance challenges and experiential biases. As our interviews demonstrated, the inability to recall negative intangible outcomes was present. This limitation is not necessarily one that researchers and practitioners can correct. Rather, it is an important underpinning reality scholars and practitioners must be conscious of when conducting extensive post-event evaluations.

Third, the residents' selected for this study were only those of the Vancouver region (i.e., host region). However, residents internal and external to the Vancouver region were affected socially and economically from hosting the 2010 OWG (Humphreys et al., 2018; Karadakis & Kaplanidou, 2012; Sant & Mason, 2015; VanWynseberghe, 2016). Although investigating

Vancouver residents' social value, this study does not provide insight into other important (and investing) residents (e.g., residents in cities like Whistler and Richmond which hosted official OWG events). Given that federal public funding was used to host the event and all Canadians were impacted from hosting, future scholars should aim to conduct social value studies which encompass all affected residents or resident groups involved in this socio-economic exchange.

Finally, although much scholarship is centralized around the positive perception of hosting major sport events, our findings indicate positive perceptions do not necessarily result in a social value that outweighs the financial investment (i.e., taxpayer dollars). However, with the identification of this hybrid monetary valuation method, researchers and practitioners are now equipped with the tools to examine and understand the social value major sport events can create. Thus, we encourage all stakeholders to shift away from perception-centric conversations, apply appropriate monetary valuation methods, and move toward examining the social value of hosting major sport events through residents' perspectives at the individual (i.e., micro) and societal (i.e., macro) levels.

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## Chapter IV: Residents' Social Return on Investment Eleven Years Post Olympic Winter Games

### Abstract

**Research Question:** This study examined residents' social return on investment from hosting the publicly-funded 2010 Olympic Winter Games and identified which socio-economic factors predicted their social return on investment.

**Research Methods:** Using panel data, 1901 Canadian residents completed an online self-administered questionnaire. Residents were categorized into four groups (i.e., host, venue, provincial, federal) based on their hosting roles and public funding investment.

**Results and Findings:** Findings revealed that residents' social return on investment varied according to residents' geographic location, and that social experience outcomes, affinity with sport factors, and economic factors significantly predicted residents' social return on investment.

**Implications:** Scholars should be aware of the importance of residents' geographic location to understand their investments, experiences and associated outcomes, and evaluations. By shifting allocations in public funding, event organizers could garner positive social return on investment for future events for more people nation-wide; but, practitioners should be cognisant of social experience outcomes' minimal presence long-after hosting.

*Keywords:* sport event, legacy, socio-economic impacts, stakeholder, Olympic Games

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## Introduction

Hosting major sport events are complex tasks entangled with various stakeholder exchanges (Parent & Ruetsch, 2021). To host major sport events, organizers often use public funding, justified by claims that residents (e.g., host and non-host) experience event-induced social outcomes which outweigh their public funding (Preuß & Hong, 2021). In other words, that hosting a publicly-funded major sport event will create a positive social return on investment (SROI) for host and non-host residents (Bakhsh et al., 2022).

SROI is the social value created for a stakeholder from an intervention (e.g., hosting a major sport event) (King, 2014). A SROI analysis is conducted by mapping a chosen stakeholder's (e.g., residents) inputs (i.e., exchange investment), outputs (i.e., acts creating outcomes), and outcomes (e.g., hosting experience) (Davies et al., 2019). Given the need to value stakeholders' social experiences (Preuß & Hong, 2021), and the opportunity that SROI analyses affords scholars and practitioners to do so, the use of SROI analyses to determine stakeholders' social value from sport interventions has gained traction (Gosselin et al., 2020).

Despite the increased uptake of SROI research and scholars' stated need to understand residents' SROI from hosting a major sport event, little research has empirically done so (Gosselin et al., 2020; Keane et al., 2019). Rather, existing major sport event SROI contributions have measured the SROI of sport event elements (e.g., sport event programs; Humphreys et al., 2018) or exclusively examined host city residents' SROI (e.g., Barros, 2006; Bakhsh et al., 2022). Moreover, despite the call for investigations to determine the potential role various socio-economic factors play in predicting SROI (e.g., Davies et al., 2021; Hutchinson et al., 2019), to date, these calls remain unanswered.

Although current sport management research offers some insights into residents' SROI from hosting major sport events, this body of knowledge falls short of addressing event organizer claims that residents' positive social experiences from hosting a major sport event create a positive SROI. Consequently, researchers should measure host and non-host residents' SROI evaluation (i.e., investments and outcomes) from hosting a major sport event and examine what socio-economic factors lead to that evaluation. Conducting such a SROI analysis, which considers both sides of the equation (i.e., stakeholders' public funding and outcomes), offers sport management researchers a comprehensive understanding of stakeholders' socio-economic exchanges; arms event organizers with the knowledge to better garner and allocate public funding for future events; and presents residents with answers about if (and how) their public funding was used to create a positive SROI. Thus, the purpose of this study was to comprehensively examine residents' SROI from hosting a publicly-funded major sport event and identify which socio-economic factors predicted their SROI.

## **Literature Review**

### **Social Return on Investment (SROI)**

SROI is a framework used to understand, measure, and report the social value created by an intervention (Keane et al., 2019). Grounded in theory of change and economic evaluation (Gosselin et al., 2020), the purpose of using a SROI framework is to make the value of stakeholders' social experiences more tangible, which can then be used for stakeholders to make effective decisions in policy and management (King, 2014). Sport scholars have used SROI analyses to investigate several aspects, including sport participation (e.g., Davies et al., 2019), corporate social responsibility (e.g., Oshimi et al., 2022), or, in the context of sport events, on host-city residents (e.g., Bakhsh et al., 2022; Barros, 2006). SROI offers practitioners and

researchers the opportunity to identify the financial value of experiences where outcomes can be difficult to quantify, like social experiences (King, 2014).

There are two types of SROI analyses: *evaluative* and *forecast* (Gosselin et al., 2020). *Evaluative* analyses are conducted after an intervention and based on intervention outcomes (e.g., residents' post-event experiences) (Keane et al., 2019). Most SROI sport scholarship has used *evaluative* analyses, with assessments occurring within five years post-intervention (Gosselin et al., 2020). *Evaluative* assessments have relied on financial proxies (i.e., market values) to determine stakeholders' SROI (Keane et al., 2019). For example, Davies et al. (2019) calculated the number of program participants who experienced reduced health risks from their sport participation and multiplied that reduction by the average annual health cost per person diagnosed. *Forecast* analyses are conducted before an intervention takes place to predict how much social value will be created if the intended outcomes are met (Keane et al., 2019). This approach, while advantageous for those looking to forecast potential SROI metrics, has received little uptake in sport management (Gosselin et al., 2020).

Despite previous SROI analyses, SROI investigations are in their infancy, focusing on small-scale sport interventions, like programs (e.g., Davies et al., 2019) and professional sport teams' business activities (e.g., Lombardo et al., 2019). Understood through Gosselin et al.'s (2020) SROI systematic review, most knowledge comes from grey literature conducted by private firms. This uptake indicates a clear interest and practitioner need to examine the SROI of sport interventions and offers an opportunity for empirical research to take place and help address practitioner needs.

From the few sport studies incorporating SROI analyses (e.g., Barros, 2006; Humphreys et al., 2018), three challenges are commonly found (Gosselin et al., 2020). First, the value of

intangible outcomes (e.g., social experience outcomes) can be difficult to garner (Gosselin et al., 2020); as such, scholars have often relied on mapping tangible stakeholder outcomes (e.g., financial proxies like health care costs; Davies et al., 2019). Despite the necessity of monetizing social experience outcomes when conducting a SROI, most published SROI sport scholarship has not applied a monetary valuation method and relied on market values (e.g., changes in health insurance) as a substitute for monetized social experience outcomes (Gosselin et al., 2020). Second, an explanation into what factors predict stakeholders' social value is missing (Bakhsh et al., 2022). For instance, studies have focused on the general equation of SROI (i.e., invest vs. return) but have shied away from examining what factors predict stakeholders' SROI (Hutchinson et al., 2019). Finally, studies which have offered residents' investment figures (e.g., Barros, 2006; Humphreys et al., 2018) have merely provided a per capita figure, which does not delineate in any way the public funding variations which exist between resident groups. These rudimentary figures leave practitioners and researchers uncertain as to the (important) nuances which may affect residents' investment and SROI evaluations, particularly in the context of major sport events, which are generally publicly funded by residents country wide, but contribution brackets may vary according to where residents live. To advance our understanding of SROI, the lack of monetary valuation method applications and the omission of potentially important predictors (e.g., sport participation behaviour; Davies et al., 2021) and investment figure presentations must be addressed (Gosselin et al., 2020). Consequently, to garner evidence on residents' SROI from hosting a major sport event, a monetary valuation method needs to be applied and relevant (potential) predictors need to be examined.

### **Measuring Social Return on Investment (SROI)**

Monetary valuation methods provide a tool to evaluate the trade-off individuals are willing to make during a socio-economic exchange (Orlowski & Wicker, 2019). To determine residents' SROI from hosting a major sport event, evaluations must be done at the resident or micro level. This requires both monetary contributions (i.e., inputs) and social experience outcomes (i.e., outcomes) to be measured per person. Based on this study's need to examine the monetary value of residents' post-event social experience outcomes, a monetary valuation method which can be applied post-event to monetize individuals' social experience outcomes must be applied while simultaneously considering the investment side of the equation.

The reverse contingent valuation method elicits individuals' willingness-to-pay for a sport intervention post-experience (Humphreys et al., 2018). This method allows individuals to determine the monetary value of their individual social experience outcomes and formulates a tangible number for researchers and practitioners to then compare to residents' actual taxpayer contributions (Humphreys et al., 2018). Thus, applying a reverse contingent valuation method is an advantageous approach to examine residents' SROI from hosting a major sport event. However, this method has not yet been used to examine residents' SROI of individuals from multiple resident groups when hosting a major sport event (e.g., host and non-host city residents) (Bakhsh et al., 2022). Therefore, measuring the SROI for multiple resident groups involved in hosting a major sport event is an absent but necessary next step to offer sport management scholars the opportunity to assess residents' SROI and examine its contributing antecedents (Bakhsh et al., 2022). To do so, we review factors to consider when examining residents' SROI from hosting a major sport event, notably, social experience outcomes, affinity with sport, and sociodemographic characteristics.

### **Factors Affecting Residents' Social Return on Investment (SROI)**

### *Social Experience Outcomes*

Although social experience outcomes have not been used to predict one's willingness to pay to host a major sport event, clear evidence of a relationship between social experience outcomes and event support does exist (e.g., Oja et al., 2018). Social experience outcomes focus on intangibles relevant to host and non-host community regions (Taks et al., 2020). Based on various but commonly recurring positive and negative social impact factors, Taks and colleagues (2020) proposed six social experience outcomes from events. First, *social cohesion* represents an individual's perceptions of how connected individuals in the community are to each other because of the event (Inoue & Havard, 2014). Second, *feel-good factor* indicates an individual's feelings of pride and happiness from the event (Oja et al., 2018). Third, *social capital* refers to how the event affects the individual and their relationship to the community (Gibson et al., 2014). Fourth, *community involvement with the event* (hereafter, community event involvement) captures how engaged members in the community were with hosting the event based on their conversations about the event and whether their voice was valued (Kim et al., 2015). Fifth, *feelings of unsafety* reflect how (un)safe individuals felt because of the event (Kim et al., 2015). Finally, *conflict* gauges the degree to which the event disrupted one's daily life (Balduck et al., 2011).

Individually, these six factors offer insights into how residents' event evaluations can be shaped (Oshimi et al., 2022; Taks et al., 2020). From a positive perspective, previous scholarship has shown residents will positively evaluate the event if they perceive a sense of connection to the community (e.g., Bakhsh et al., 2018), and that positive community and tourism benefits can be created when social capital (e.g., Williams & Elkashab, 2012), feel-good factor (e.g., Oja et al., 2018), and social cohesion (e.g., Heere et al., 2013) are stimulated amongst residents. From a

negative perspective, previous scholarship has shown residents will negatively evaluate the event if they perceive threats to their safety or the event creates conflicts in their community or daily life (e.g., Taylor & Toohey, 2005). Based on this previous literature revealing the positive and negative impacts social experience outcomes can have on residents' evaluations from hosting major sport events, it is expected that similar impacts will occur when residents evaluate hosting a major sport event from a SROI perspective. Thus, this study hypothesizes:

- H<sub>1</sub> Social cohesion will have a direct positive relationship to residents' SROI
- H<sub>2</sub> Feel-good factor will have a direct positive relationship to residents' SROI
- H<sub>3</sub> Social capital will have a direct positive relationship to residents' SROI
- H<sub>4</sub> Community event involvement will have a direct positive relationship to residents' SROI
- H<sub>5</sub> Feelings of unsafety will have a direct negative relationship to residents' SROI
- H<sub>6</sub> Conflict will have a direct negative relationship to residents' SROI

### ***Affinity with Sport***

Studies examining residents' sport perceptions have often incorporated affect measures (e.g., Bakhsh et al., 2021). Affect refers to an individual's positive (e.g., excited and proud) or negative (e.g., fear and nervousness) emotional engagement and describes their broad experience with the phenomenon under investigation (e.g., event) as good or bad (Teare et al., 2021). As a sports fan, one can have all types of positive and negative emotional responses from their sport event experience and can predict an individual's behavioural response (Shank & Beasley, 1998). In addition, it is important to consider sport fandom (Tinson et al., 2017). Sport fandom indicates one's own perception as a sport fan (e.g., Olympic fan) rather than of a specific team or athlete (i.e., team identification; Wann, 2002). Individuals with high degrees of fandom tend to be

highly motivated, committed, and loyal fans to their sport, resulting in greater degrees of sports consumption, and ultimately a more positive perception towards sport experiences (Tinson et al., 2017). Finally, SROI sport studies (e.g., Davies et al., 2019) have identified the need to address how one's sport participation affects their SROI evaluation, as one's sport behaviour has been shown to predict one's subsequent sport evaluations (e.g., Dwyer & Drayer, 2010). Within sport participation, the context (organized vs. unorganized) and level (competitive vs. non-competitive) explain one's sporting experience (Warner & Dixon, 2015). Participating in organized sport at a competitive level aligns closer with major sport events than participation in unorganized sport at a non-competitive level.

As such, similar to how one's affinity with sport has been shown to affect how stakeholders' evaluate hosting major sport events, it is expected that similar impacts will occur when residents evaluate their SROI from hosting a major sport event. Thus, in discussing the relationship between affinity with sport and sport events, one's feelings of positive affect about the event, fandom, and level of sport participation, are likely to influence their SROI from hosting a major sport event. Aligned with these propositions, we hypothesize:

- H<sub>7</sub> Positive affect will have a direct positive relationship to residents' SROI
- H<sub>8</sub> Olympic fandom will have a direct positive relationship to residents' SROI
- H<sub>9</sub> Participation in organized sport will have a direct positive relationship to residents' SROI
- H<sub>10</sub> Competitive sport participation will have a direct positive relationship to residents' SROI

### ***Economic Factors***

Finally, the importance of economic factors cannot be overlooked, such as individual's income and their public funding investment; the latter is often linked to their geographic location (e.g., Bakhsh et al., 2022). With the central determinant of monetary valuation methods and SROI analyses being money, one's income is expected to influence their SROI evaluation (Barros, 2006). Although scholars attempting to predict residents' SROI from hosting a major sport event is rare, Barros's (2006) investigation revealed income directly impacted host city residents' willingness to pay to host the 2004 Euro Cup.

When discussing residents' geographic location, it is common practice for multiple resident groups (e.g., host city and non-host city) to contribute tax dollars of varying amounts based on their geographic location relative to the event (VanWynsberghe, 2016). For instance, major sport events are often publicly funded at the local (e.g., municipal/host-city), regional (e.g., provincial), and national (e.g., federal) levels (e.g., VanWynsberghe, 2016). Each governmental level injects different amounts of funding. As such, taxpayers' contributions (i.e., monetary input) differ according to residents' geographic location and residents' geographic location may affect how individuals evaluate their SROI. Thus, when discussing economic factors, one's geographic location and income are likely to influence their SROI from hosting a major sport event. Aligned with these propositions, we hypothesize:

H<sub>11</sub> Residents' geographic location will have a direct relationship to residents' SROI

H<sub>12</sub> Income will have a direct relationship to residents' SROI

## **Methods**

### **Study Context**

Following a positive public referendum of City of Vancouver residents (64% in favor), the Canadian cities of Vancouver and Whistler successfully completed a joint bid to host the

2010 Olympic Winter Games (OWG) from February 12 to 28, 2010 (VANOC, 2010). To host the event, other cities within the province of British Columbia agreed to house event facilities (e.g., West Vancouver, Richmond). To operationalize the hosting of the 2010 OWG, three forms of public funding were used: municipal, provincial, and federal (VANOC, 2010). Municipal funding was provided by taxpaying residents in the City of Vancouver and the Resort Municipality of Whistler, provincial funding was provided by residents in the province of British Columbia, and federal funding was provided by residents across Canada.

From a tax contribution perspective, this study creates four distinct resident groups: (1) Vancouver: contributed municipal, provincial, and federal tax dollars; (2) Whistler: contributed municipal, provincial, and federal tax dollars; (3) British Columbia residents outside of Vancouver and Whistler: contributed provincial and federal tax dollars; and (4) Canadian residents outside the province of British Columbia: contributed federal tax dollars only. However, from a hosting perspective, the 2010 OWG created four different resident groups: (1) Vancouver: an official host of the OWG which hosted events, the opening ceremony, and the closing ceremony; (2) Whistler: an official host of the OWG which hosted events, (3) Venue Cities: cities which hosted events (e.g., West Vancouver, Richmond); and (4) Other: cities within Canada which did not host any 2010 OWG events during February 12 to 28 (e.g., Toronto). The combination of these hosting roles and public funding groups, creates five resident groups with distinct public funding contributions (investment) and event experiences (outcomes): *Vancouver*; *Whistler*; *Venue*; *Provincial*; and *Federal*. Table 4.1 outlines the taxpayer contributions and hosting roles for each of the five distinct resident groups.

Distinctions between these regions was deemed essential to control for monetary inputs and social experience outcomes, and to evaluate the individual socio-economic exchanges

residents engaged in. Because of varying taxpayer contributions and hosting responsibilities, these five distinctive groups were formed to examine residents' SROI.

### **Data Collection**

Before any participant data were collected, residents' taxpayer funding was estimated through a combination of publicly available document analysis (i.e., BC Auditor, 2002; VANOC, 2010) and review of scholarship on the public funding of the 2010 OWG (i.e., Preuß et al., 2019; VanWynsberghe, 2016). In addition, the number of tax paying residents was determined through cross-referencing Canadian census (i.e., Statistics Canada, 2012) and Canadian Revenue Agency reports (i.e., Canada Revenue Agency, 2013) which outlined the total number of individuals who contributed to public funding in each of the five resident groups outlined. The estimated taxpayer funding minimum and maximum points were then divided by the number of taxpaying individuals to determine the estimated taxpayer funding range for an individual within each resident group.

### ***Study Sample***

Using the *Qualtrics* platform, Canadian residents were invited to participate in the study based on two selection criteria: (1) knowledge that the 2010 OWG were held in Vancouver; and (2) participants were born in 1984 or earlier, to ensure all participants were of legal voting age at the time of the event's public referendum. Using statistical power analysis with confidence levels at 95% and margin of error at 5% for each resident group population, a minimum sample size of 385 residents was desired for the *Federal* group with 300 desired for the remaining groups (George & Mallery, 2019).

**Table 4.1***Resident Groups' Socio-Economic Hosting Exchange*

Group	Input		Output
	Taxpayer Contribution Funding	Estimated Taxpayer Funding (per year for 7 years; total)	Hosting role/ Event Experience
Vancouver	Municipal	\$75 – \$175	Official host city Hosted opening and closing ceremonies Hosted events
	Provincial	\$525 – \$1225	
	Federal		
Whistler	Municipal	\$75 – \$175	Official host city Hosted events
	Provincial	\$525 – \$1225	
	Federal		
Venue	Provincial	\$65 – \$130	Hosted Olympic events
	Federal	\$455 – \$910	
Provincial	Provincial	\$65 – \$130	No hosting
	Federal	\$455 – \$910	
Federal	Federal	\$4 – \$7	No hosting
		\$28 – \$49	
Total		\$2b – \$4b total public funding	

Through this screening process, 1901 complete responses were confirmed through data cleaning. Respectively, 525 participants resided in *Vancouver* region (27.6%), 14 participants in *Whistler* region (0.7%), 312 participants in *Venue* region (13.5%), 525 participants in *Provincial* region (27.6%), and 525 residents in *Federal* region (27.6%). Due to low response by *Whistler* residents, this group was removed from the overall analysis.

Of the remaining 1887 respondents, respondents were approximately 36 to 90 years of age, most respondents identified as Caucasian ( $n = 1271$ , 67.4%); completed a post-secondary degree or diploma ( $n = 1252$ , 66.4%); employed full-time, part-time, or self-employed ( $n = 988$ ,

52.4%), with the remaining participants identifying as retired, unemployed, on government assistance, a student or housemaker; and had an average personal taxable income of \$72,000 ( $SD = \$49,960$ ). Finally, these socio-demographic variables were confirmed with Canadian census data by showing linearity across all metrics except taxable income, where the Canadian average taxable income is approximately \$20,000 less than the income mean in this study (Statistics Canada, 2012). Knowing this differentiation between the panel data and Canadian census data, it is possible residents' SROI may be perceived more positively in this study, an important caveat to know from the outset of the analysis.

### ***Questionnaire and Measurements***

The online self-administered questionnaire was disseminated between February 15 and May 3, 2021, and included four sections: (1) SROI; (2) social experience outcomes; (3) affinity with sport; and (4) economic factors.

To determine residents' SROI, a scenario was provided for participants along with a two-part question which aligns with the two-part public funding decision. After reading through the following scenario:

To host the **2010 Games** in the City of Vancouver, a large portion of funding was provided from Canadian, British Columbian, and Vancouver tax dollars. Some of these tax dollars were used specifically for hosting the event, while other tax dollars were used to promote Canada domestically and abroad, foster social programs, promote Indigenous communities, invest in arts and culture.

In addition, tax dollars were used to build infrastructure in British Columbia like improving the Sea-to-Sky Highway (the highway from Vancouver to Whistler) and accelerated construction of the Vancouver Convention Centre and Canada Line (infrastructure in British Columbia).

Many Canadians have voiced how the 2010 Games brought positive and negative social impacts to their lives, like community disruption, national pride, community displacement, and sport participation opportunities.

Respondents were asked if they “support having used tax dollars to host the 2010 Games?” with the response options of *yes/no*. For participants responding *yes*, they were then asked, “how much of your current tax dollars (in present value) would you support having been used to host the 2010 Games each year for 7 years?” with a scale ranging from \$1 to >\$250 dollars. This scale was informed by residents’ estimated taxpayer funding, where Vancouver residents’ estimated yearly taxpayer funding was \$75 to \$175. The middle point of this estimation was \$125, which was used as the middle point of the *willingness-to-pay* scale (i.e., \$1 to \$250). Accordingly, the mid-point for each resident group was used as the estimated taxpayer funding marker (i.e., \$125 for Vancouver residents; \$97.5 for Venue and Provincial residents; \$5.5 for Federal residents). Individuals’ *willingness-to-pay* metric was then subtracted from their estimated taxpayer funding to determine their SROI score using the following equation as proposed in the SROI framework (i.e., Davies et al., 2019):

$$\text{Individual's SROI} = \text{Individual's Willingness-to-Pay} - \text{Individual's Estimated Taxpayer Funding}$$

Following prior scholarship (e.g., Oshimi et al., 2022; Taks et al., 2020), *social cohesion* (Inoue & Havard, 2014), *feel-good factor* (Gibson et al., 2014), *social capital* (Gibson et al., 2014), *community event involvement* (Peterson et al., 2008), *feelings of unsafety* (Kim et al., 2015), and *conflict* (Balduck et al., 2011) were measured on seven-point Likert scales ranging from ‘1 strongly disagree’ to 7 ‘strongly agree’ using three items each. Item scores were averaged to form an aggregate measure for each social experience outcome.

Four *affinity with sport* constructs were measured: affect, OWG fandom, and two sport participation factors. *Affect* was measured using eight semantic differential items (Shank & Beasley, 1998), ranging from 1 (e.g., boring) to 7 (e.g., exciting) with the probe “Now, more than 10 years later, please indicate how you currently feel about the 2010 Games...” *OWG*

*fandom* was measured through five items related to being a fan of the OWG (Wann, 2002).

Respective item scores were averaged to form an aggregate measure of *affect* and *OWG fandom*.

*Sport participation* was measured through two factors which identified the context of respondents' sport participation (i.e., organized physical activity, unorganized physical activity, non-participant) and their level of participation (i.e., competitive sport participant or not).

*Economic factors* included residents' geographic location and income. Table 4.2 presents the study variables and their respective measures used in the study with reliability scores, which were acceptable ( $> .7$ ) per George and Mallery's (2019) standards.

### **Data Analysis**

Residents' SROI was determined by comparing residents' willingness-to-pay to their actual estimated taxpayer funding. For individuals who said they would not support publicly funding the 2010 OWG, \$0 was used to indicate their willingness-to-pay metric. It is important to include these \$0 evaluations to calculate residents' realistic SROI, as all taxpaying residents were required to contribute regardless of their support for the publicly-funded major sport event (VanWynsberghe, 2016). For all residents, both the minimum and maximum estimated taxpayer funding markers were considered when examining residents' SROI. Since determining the exact public funding for events of this magnitude is complex (Preuß et al., 2019), using a range helped confirm the SROI evaluation to a greater degree than just using one number. For example, if a SROI evaluation falls between the estimated taxpayer range, we cannot guarantee a positive SROI occurred, but could suggest the SROI was perceived neutral. SROI evaluations for each resident were labelled as either negative (i.e., SROI below minimum estimated taxpayer funding), positive (i.e., SROI above maximum estimated taxpayer funding), or neutral (i.e., SROI between minimum and maximum estimated taxpayer funding).

Then, to examine residents' SROI a two-step regression analysis was run to predict residents' *support* and *SROI*. A two-step regression analysis aligns with residents' two-step decision process. First, the individual must decide if they would be willing to financially support hosting the 2010 OWG. To analyze residents' support, a logistic regression was run from *social experience outcomes*, *affinity with sport factors*, and *economic factors*. Second, for individuals who chose to support hosting the event, and by doing so indicate a willingness to pay greater than \$0, a linear regression was run from *social experience outcomes*, *affinity with sport factors*, and *economic factors* to predict residents' SROI. Before running the analyses, regression analyses linearity, independence of residuals (Durbin-Watson statistics: 1.970), and homoscedasticity were assessed and passed, no evidence of multicollinearity was found and the normality, and assumption of normality was met.

## **Results**

### **Residents' Social Return on Investment (SROI)**

On average, residents reported a willingness to pay of \$447.96 ( $SD = \$446.65$ ) over seven years, with the estimated taxpayer funding ranging between \$355.68 and \$758.09. However, this overall neutral evaluation (i.e., between the minimum and maximum estimated taxpayer funding) is not consistent within resident groups, as residents experienced positive, negative, and neutral SROI evaluations. *Vancouver* residents ( $M = \$471.11$ ,  $SD = 458.92$ ) and *Provincial* residents ( $M = \$411.72$ ,  $SD = \$423.37$ ) revealed a negative SROI evaluation for individuals as their respective willingness-to-pay scores were lower than their respective minimum estimated taxpayer funding (\$525 for *Vancouver*, \$455 for *Provincial*). However, *Venue* residents ( $M = \$548.67$ ,  $SD = 480.57$ ) revealed a neutral and *Federal* residents ( $M = \$401.20$ ,  $SD = \$425.47$ ) revealed a positive SROI. Although *Vancouver* and *Provincial*

**Table 4.2***Description of Variables and Summary Statistics*

Variable	Description	<i>M</i>	<i>SD</i>	$\alpha$
SROI	Participant's willingness-to-pay subtracted from estimated taxpayer funding (in CAD)	-108.93	538.72	
Social Experience Outcomes	Each factor is an average of 3-items on 7-point Likert scale (1 = strongly disagree; 7 = strongly agree)			
<i>Social Cohesion</i>		3.87	1.49	.889
<i>Feel-Good Factor</i>		5.12	1.48	.888
<i>Social Capital</i>		4.03	1.48	.903
<i>Community Event Involvement</i>		4.03	1.35	.768
<i>Unsafety</i>		2.86	1.33	.779
<i>Conflict</i>		2.33	1.24	.780
Affinity with Sport				
<i>Positive Affect</i>	Average of 5-items on 7-point differential scale (1 = negative feeling; 7 = opposite positive feeling, e.g., unimportant vs. important)	5.50	1.40	.972
<i>Olympic Fandom</i>	Average of 5-items on 7-point Likert scales (1 = strongly disagree; 7 = strongly agree)	4.57	1.50	.935
<i>Participation Context</i>	Context (in %)			
	a = Organized	11.80	-	
	b = Unorganized	45.50	-	
	c = Non-Participant (ref.)	42.70	-	
<i>Competitive Sport Participation</i>	Participant a competitive sport participant? (0 = no; 1 = yes)	17.5	-	
Sociodemographic Characteristics				
<i>Geographic Location</i>	Resident Group (in%)			
	a = Vancouver (ref.)	27.80	-	
	b = Venue	16.50	-	
	c = Provincial	27.80	-	
	d = Federal	27.80	-	
<i>Taxable Income</i>	Participant's taxable income (in CAD) in increments of \$10,000	72,000	49,960	

resident groups indicated a negative SROI, overall SROI for residents was neutral. When comparing residents' average willingness to pay (\$447.96) to their estimated public funding, residents' willingness to pay was greater than residents' minimum estimated taxpayer funding ( $M = \$355.68$ ) but lesser than residents' maximum estimated taxpayer funding ( $M = \$758.09$ ). Thus, although the overall SROI was neutral, the geographic location of resident groups shows important variations: *Vancouver* and *Provincial* resident groups experienced a negative SROI and therefore provided more public funding than monetized social value received, while at the federal level, most residents perceived a positive SROI, providing less public funding than monetized social value received. Table 4.3 presents each resident groups' willingness-to-pay, estimated taxpayer funding, and SROI metrics.

**Table 4.3**

*Resident Groups' SROI from Hosting the 2010 OWG*

Resident Group ( <i>n</i> )	Willingness-to-Pay		Estimated Taxpayer Funding			SROI
	<i>M</i>	<i>SD</i>	Minimum	Maximum	Middle	
Vancouver (525)	471.11	458.92	525.00	1225.00	875.00	Negative
Venue (312)	548.67	480.57	455.00	910.00	682.50	Neutral
Provincial (525)	411.72	423.37	455.00	910.00	682.50	Negative
Federal (525)	401.20	425.47	28.00	49.00	38.50	Positive
Overall (1887)	447.96	446.65	355.68	758.09	556.88	Neutral

*Notes.* All metrics are over seven years at the individual level.

### **Predicting Residents' Social Return on Investment (SROI)**

First, a logistic regression was run to predict residents' support to publicly fund the 2010 OWG ( $n = 1887$ ). The logistic model accounted for a significant proportion of variance ( $(df = 15) = 403.299, p < .001, \text{Cox \& Snell pseudo } R^2 = .306$ ). Independent variables for *feel-good*

*factor, social capital, unsafety, positive affect, and Venue resident group* all significantly added to the predication of residents' hosting support ( $p < .05$ ).

Second, a linear regression was run to predict *SROI* for all residents who supported public funding the event ( $n = 1511$ ). The linear model results significantly predicted residents' SROI from hosting the 2010 OWG ( $F(15, 1496) = 59.839, p < .001, adj.R^2 = .459$ ). The independent variables of *feel-good factor, positive affect, competitive sport participant, residents' geographic location* (i.e., Venue, Provincial, and Federal), and *income* significantly added to the prediction of residents' SROI ( $p < .01$ ). Table 4.4 presents both model statistics.

These models indicate support and non-support for the hypotheses. For the binary model, H2 (i.e., *feel-good factor*), H3 (i.e., *social capital*), H7 (i.e., *positive affect*), and H11 (i.e., *residents' geographic location*) were all supported hypotheses. Although H5 (i.e., *unsafety*) was found to be a direct predictor of support, it was a positive predictor not a negative predictor. For the regression model, H2 (i.e., *feel-good factor*), H7 (i.e., *positive affect*), H10 (i.e., *competitive sport participation*), H11 (i.e., *resident group*), and H12 (i.e., *income*) were supported. These model results suggest *social experience outcomes, affinity with sport factors, and economic factors* were important predictors of both residents' support to publicly fund the 2010 OWG and residents' SROI from hosting. However, H1 (i.e., *social cohesion*), H4 (i.e., *community event involvement*), H6 (i.e., *conflict*), and H9 (i.e., *organized sport participation*) were not supported hypotheses for either model.

### **Discussion**

This study examined residents' SROI from hosting the publicly-funded 2010 Vancouver OWG, 11 years post-event. Overall, residents experienced a neutral SROI from hosting (i.e., residents' willingness to pay to host the 2010 OWG was within the range of their estimated

**Table 4.4***Predicting Residents' SROI: Logistic Regression and Linear Regression Models*

	Logistic (n = 1887)		Linear (n = 1511)	
	Wald	Adj.R <sup>2</sup>	$\beta$	Adj.R <sup>2</sup>
(Intercept/Constant)	23.083***			
Social Cohesion	.040		.080	
Feel-Good Factor	11.717***		.125**	
Social Capital	6.185*		.012	
Community Event Involvement	.347		-.053	
Unsafety	20.772***		.007	
Conflict	.249		.048	
Positive Affect	28.307***		.105**	
Olympic Fandom	2.550		.074	
Participation Type				
Organized	.854		.034	
Unorganized	.015		.033	
Non-Participant (ref.)				
Competitive Sport Participant	.871		.096**	
Resident Group				
Venue	5.459*		.148***	
Provincial	2.186		.142***	
Federal	.859		.665***	
Vancouver (ref.)				
Income	.063		.133***	
		.306***		.459***

*Note.* Probit model=willingness-to-pay (yes/no); Regression model=SROI.  
\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p > .001$ .

public funding). However, although the overall public funding provided was supported by residents, the allocation of that public funding was not an effective use from a SROI perspective (i.e., one where all resident groups should experience a positive SROI). When examining SROI further, findings first revealed the importance of considering residents' geographic location, as this affects the input (i.e., public funding investment) and outcome (i.e., experience) side of the equation, both key elements in estimating SROI (Davies et al., 2019; Humphreys et al., 2018). In addition, findings revealed the importance of *social experience outcomes, affinity with sport*

factors, and *economic factors* when predicting residents' support to publicly fund the 2010 OWG and SROI. Although similar on the surface, nuances were revealed: moving from predicting residents' hosting support to SROI indicated a shift in importance from social experience outcomes to economic factors. Given continuous event organizer claims that hosting publicly-funded major sport events will garner positive SROI for residents (Preuß & Hong, 2021), this SROI examination offers timely information to advance the theory and practice of sport management. This study does so by first discussing residents' SROI and then discussing the model findings when predicting residents' hosting support and SROI.

### **Residents' Social Return on Investment (SROI)**

Although a positive overall SROI was not found in this study, this finding does not dismiss event organizer claims that hosting major sport events can create positive SROI for residents. Rather, this study's findings indicate the potential of creating a positive overall SROI from hosting major sport events is present; but, in the case of the 2010 OWG, the allocation of funding was not effective for creating positive SROI. Depending on where residents live, their public funding contributions (i.e., VanWynsberghe, 2016) and hosting experiences (i.e., Schlegel et al., 2017) can differ. Findings revealed three insightful elements when comparing resident groups based on public funding contributions and hosting roles.

First, *Vancouver* residents invested the highest amount of public funding and despite having the most intense hosting experience (i.e., host city residents; Schlegel et al., 2017), collectively, they experienced a negative SROI. This finding supports Barros's (2006) results and suggests that even the benefits of being a host city resident may not outweigh the public funding costs host residents endure.

Second, *Federal* residents invested the lowest amount of public funding and had the least intense hosting experience (i.e., furthest from the hosting atmosphere; Chalip, 2006). This combination formulated a positive SROI evaluation which exceeds *Federal* residents' estimated investment by nine times the amount. This finding indicates that low investments can create a positive SROI evaluation, and that even the most distant and apathetic hosting experiences can still outweigh these low investments.

Finally, SROI variations can be formulated when residents have similar investments (e.g., *Venue* and *Provincial* region) or hosting experiences (e.g., *Vancouver* and *Venue* regions). Regarding investments, *Venue* and *Provincial* regions provided the same investment but had different degrees of hosting experiences, as the *Venue* region hosted official Games events. Consequently, *Venue* residents were willing to provide \$136.95 (or 20.1% of their investment) more than *Provincial* residents) and perceived a neutral SROI while *Provincial* residents perceived a negative SROI. Regarding hosting experiences, *Vancouver* and *Venue* residents both had formal hosting roles in the OWG events. However, *Venue* residents were willing to provide \$77.56 more than *Vancouver* residents and perceived a neutral SROI while *Vancouver* residents perceived a negative SROI. These SROI evaluation differences support previous researchers calling to extend narratives beyond host-city residents (e.g., Bakhsh et al., 2018; Byun et al., 2020) and highlight the importance of examining resident groups and hosting experience nuances (cf. Barros, 2006; Humphreys et al., 2018). In doing so, a greater understanding of residents' hosting decisions and efficacy was garnered, as an increase in public funding provided by *Canadian* residents and a decrease in public funding contributed by *Vancouver* residents would have created a positive SROI evaluation for more residents.

### **Predicting Residents' Support to Fund Hosting**

Much sport event outcome rhetoric has shifted from an economic to a social focus (Preuß, 2015). Although scholars have revealed the importance of individuals' social impacts when forecasting residents' support (e.g., Mao & Huang, 2016) and when evaluating residents' post-event experiences (e.g., Gibson et al., 2014; Oja et al., 2018), these post-event evaluations have remained siloed to short timeframes (Preuß, 2015). In contrast, this study revealed the potential lack of importance social experience outcomes can have when evaluating their long-term impact (e.g., Cleland et al., 2020).

Regarding residents' willingness to support (or not) the event financially, *social experience outcomes* played an important role as residents' *feel-good factor*, *social capital*, and low levels of *unsafety* were all significant predictors. In other words, residents who felt proud they hosted the 2010 OWG, for whom hosting positively affected relationships in their community, felt public funding decreased the feeling of unsafety, were more likely to financially support hosting. These findings support the importance of major sport events needing to stimulate pride and happiness (e.g., Gibson et al., 2014), connect community members (e.g., Mao & Huang, 2016), and doing so within a safe ecosystem (e.g., Kim et al., 2015). These notions of positive engagement with the event aligns with the significant finding of *positive affect* and previous research which has demonstrated the importance of a positive experiences to elicit positive evaluations (e.g., Bakhsh et al., 2021; Teare et al., 2021). Moreover, and linked to the overall SROI findings discussed above, *residents' geographic location* was found to impact residents' support to publicly funding a major sport event. Specifically, *Venue city* residents were more apt to support public funding than residents living in all other examined geographic locations. This finding echoes the above discussion around needing to move beyond a host-city resident fixation (cf. Bakhsh et al., 2022) and towards a resident investigation which

encompasses various resident groups affected by hosting events (Byun et al., 2020). In addition, these findings support the importance of social experience outcomes (e.g., Oja et al., 2018), affinity with sport factors (e.g., Teare et al., 2021), and economic factors (e.g., Kim et al., 2015) when predicting residents' support for funding to host a major sport event.

### **Predicting Residents' Social Return on Investment (SROI)**

Regarding residents' SROI, *feel-good factor* was the only significant *social experience outcome* predictor. Rather, multiple aspects of *affinity with sport* (i.e., positive affect and competitive sport participant) and *economic factors* (i.e., residents' geographic location and income) significantly predicted residents' SROI. This finding reveals two alarming realities: the importance of income and the lack of importance of social experience outcomes.

First, money is what matters. Although most research on these socio-economic exchanges have focused on the social side of the equation (e.g., Johnston et al., 2021; Oja et al., 2018), the overwhelming finding from this study is that one's income and resident's geographic location, which is connected to their taxpayer contributions, were the most important predictors in determining residents' SROI. The predictive importance of income supports previous SROI analyses (e.g., Barros, 2006) by revealing the importance of income when monetizing social experiences. Consequently, this paper's findings highlight the need to evaluate economic factors (e.g., income and public funding investment) within this socio-economic exchange. Coupled with the significant findings of all three non-host city resident groups (i.e., non-Vancouver residents), all factors which included economic variables in their calculation (i.e., residents' geographic location and income) were significant predictors of residents' SROI while only one of these was a significant predictor of residents' support. Consequently, although economics is

the latter element in socio-economic exchange, it may be most important when evaluating residents' SROI.

Second, although much sport event research has indicated the importance of social impacts for evaluations done within shorter post-event timeframes (cf. Inoue & Havard, 2014; Johnston et al., 2021), this study hypothesized social experience outcomes would be significant predictors 11 years post-event. However, like Kavetsos and Symanski's (2010) short-term post-event examination, only the feel-good factor social experience outcome significantly predicted SROI in this long-term post-event study. These findings support results that major sport events' social experience outcomes do not leave a lasting significant impact on residents (Cleland et al.'s, 2020), except for the short-lived feel-good factor which seems to stick, even 11 years post event. However, in general, major sport event social experience outcomes may not be as important when examining SROI 11 years post-event. Thus, social experience outcomes which are claimed to last well beyond the lifespan of the event (i.e., positive social legacies; Preuß, 2015), and are expected to influence one's SROI (i.e., Davies et al., 2021), may not. Rather, the impact of time may dissolve whatever social outcomes residents experienced and leave economic (i.e., tangible) outcomes as the only predictive factors in examining residents' SROI more than a decade post-event. Consequently, when examining residents' SROI from hosting a major sport event long-after hosting, these findings challenge the importance of social impacts which have long been the main foci for sport event scholars and their resident hosting pursuits (e.g., Johnston et al., 2021; Mao & Huang, 2016)

## **Implications**

### **Theoretical Implications**

First, the importance of examining various resident groups engaged in the socio-economic exchange to host a major sport event cannot be overlooked. Despite the plethora of previous research exclusively fixating on host-city residents or select resident groups (e.g., Barros, 2006; Bakhsh et al., 2022), conducting evaluations which encompass as many affected resident groups as possible is necessary. Since various resident groups engage differently in the exchange process (i.e., taxpayer contributions and [non-]hosting responsibilities) and have varying social experiences and economic contributions based on their geographic location, it is imperative to include all affected resident groups involved in the exchange. Exhibited in this study, doing so allowed for a more comprehensive understanding of residents' SROI and how these socio-economic exchanges can be improved upon to garner positive SROI for all residents involved in the exchange. Thus, not only is it imperative to conceptually examine individual residents' SROI, but to do so relative to all resident groups involved in the exchange.

Second, the importance of understanding the temporal nature of social experience outcomes and the reality of tangible versus intangible outcomes must be considered. Although scholarship have indicated the importance of social outcomes which can arise from sport events, conceptually, these outcomes appear to be finite. An alarming reality of this study's findings is that social experience outcomes, which are important drivers to support major sport events (e.g., Inoue & Havard, 2014; Johnston et al., 2021), may fade away and only tangible experiences like physical and digital memories (e.g., social media posts; Naraine & Bakhsh, 2022; Naraine et al., 2022; Yang et al., 2019) may hold value to residents, 11 years later. In other words, creating social outcomes which last long after the sport event experience (Preuß, 2015) may not be possible due to their temporal nature. Consequently, tangible elements of sport event experiences, may outweigh intangible elements like feel-good factor and social capital.

## **Practical Implications**

To create a positive SROI from hosting publicly-funded major sport events, it is imperative that all resident groups involved are considered and that information is provided and shared with them. This requires an understanding of each group's anticipated hosting role, social experience outcomes, and public funding invested. From having a solid foundation of these three elements, practitioners can work through their own matrix to determine how overall funding can be garnered which poses the best opportunity for each resident group to experience a positive SROI. For future events, this may result in injecting less public funding from one resident group with more public funding garnered from another resident group; this combination would create a similar overall funding scheme but with a better allocation of group funding aligned with residents' SROI. As shown by the findings of this study, a positive SROI for each resident group could have been possible if more funding was provided by Federal residents and less funding provided by Vancouver and Provincial residents. For instance, Federal residents revealed they received approximately \$350 more in social value than in their financial investment, while Vancouver residents received approximately \$300 less and Provincial residents received approximately \$200 less. Given the much larger population of the Federal group compared to Vancouver and Provincial (i.e., approximately 29m to 2.3m and 3m, respectively), funding could be reallocated so Federal residents provided approximately \$50 more than their estimated taxpayer contribution and alleviating \$50 directly from Vancouver and Provincial residents. In this case, all groups could have evaluated a positive SROI from hosting the 2010 OWG. Thus, these findings can help decision-makers to advance and refine public funding policies which more effectively allocate taxpayer contributions using empirical evidence to generate positive SROI for all resident groups involved in this hosting exchange.

Based on this study's findings, sport event practitioners may be better off focusing on the tangible outcomes they can create through major sport events and experiences. Although the temptation of intangible outcomes can certainly drive individuals to take action, this study reveals it is the tangible outcomes which stay with individuals far after the experience. To help guide practitioners to do so, we close this section with three key elements practitioners can take forward. First, event organizers should adequately inform residents of how much taxpayer dollars they will be contributing at the individual level to host a major sport event. Second, event organizers should adequately inform residents what (potential) experiences they may expect in return when hosting at the individual level based on their geographic location. Per the findings of this study, lasting social experience outcomes are not one of them, but other elements may be (e.g., tangible structures built to host like the Sea-to-Sky Highway). Finally, event organizers should adequately inform residents what alternatives could be put into place besides hosting (i.e., opportunity costs; Preuß, 2005). The combination of these elements would provide residents transparency around the major sport event socio-economic exchange they engage in when hosting. By providing these financial transparency and alternative options, it is possible residents may be less inclined to support publicly funding a major sport event. Despite this possibility, providing transparency to residents so they can make an informed decision should be priority one for practitioners.

### **Study Limitations & Future Research**

The quota desired for the *Whistler* resident group was not achieved and thus, Whistler data were not used in this study. As this was not ideal, future studies should aim to collect a participant quota which can be used to run independent statistical comparisons. Resident groups can be small and challenging to collect data from, even when using panel data like in this study.

To mitigate these challenges, researchers should attempt to use multiple data collection sources (e.g., in-person and online questionnaires) or allow for an extended period of time to collect data.

A second measuring limitation of this study is the willingness-to-pay scale used. For each resident group, despite having different public funding investments, each were presented with the same scale ranging from \$1 to \$250 that was based off *Vancouver* residents' estimated public funding of \$125. Although this scale could have been adjusted for each specific group to make their estimated public funding contribution the middle point of the scale, doing so would limit the potential responses from other groups. As no resident prior to completing the scale was aware of what their actual estimated public funding was, providing a scale that matched each resident group may have biased responses. This potential is demonstrated when reviewing the willingness-to-pay responses of *Federal* resident group members, as following the principle used to determine the \$1 to \$250 scale from *Vancouver* residents would create a scale of \$1 to \$11 for *Federal* residents. Based on the 426 *Federal* participants who answered this item, 361 (84.7%) would have been forced to provide a lower response than desired. Only 26 of all participants (1.4%) selected the \$250 option (i.e., nine *Vancouver*, eight *Provincial* and *Venue*, one *Federal*). Thus, although the present scale may skew higher responses for non-*Vancouver* respondents, our data reveal decreasing the scales for other participants may have created a greater bias in the opposite direction.

Finally, despite the knowledge garnered from this study, this study does not help us understand why these evaluations, relationships, and resident experiences occurred. Thus, there is a need for future scholarship to conceptualize a framework of residents' SROI when hosting a publicly-funded major sport event that combines future answers with knowledge from this study and studies like it (e.g., Bakhsh et al., 2022; Barros, 2006; Humphreys et al., 2018).

## Conclusion

This study showed that hosting a publicly-funded major sport event can create a positive SROI for residents. However, the formula used by the 2010 Vancouver OWG revealed an ineffective system where positive SROI was only created for residents living within the *Federal* region (i.e., outside British Columbia). When studying SROI, it is imperative for scholars and practitioners to move beyond host city residents and toward understanding the public funding investment, needs, and experiences of all resident groups involved. In doing so, the desire of creating a positive SROI for residents can become a reality.

Although this study has answered event organizer claims, practitioner questions, and scholarly queries by examining residents' SROI from hosting a publicly-funded major sport event, it is only a beginning. Whilst it is a strong initial step on the tenuous path to understanding residents' SROI from hosting publicly-funded major sport events, we encourage scholars and practitioners to continue these evaluations, be transparent about public funding, examine residents' social value, and understand how we as sport event managers and scholars can better create positive SROI. From this examination, a strong advancement on the methodological and empirical fronts have been made. It is time to continue these examinations to further understand what predicts SROI, how resident groups may differ in their social value examinations, and ultimately, push towards the development of a conceptual framework to understanding residents' SROI.

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## Chapter V: Was It Worth It? An Evaluation of Residents' Post-Exchange Perceptions from Hosting a Major Sport Event

### Abstract

It is common to examine residents' socio-economic event exchanges post-event. However, not all pre-event anticipated outcomes may come to fruition immediately post-event. Rather, to appropriately examine this exchange, perceptions must be investigated post-exchange (i.e., when anticipated event outcomes have come to fruition or are confirmed not to). Thus, the purpose of this study was to investigate residents' socio-economic event exchange of a publicly-funded major sport event, post-exchange. To examine this exchange, Canadian residents ( $n = 21$ ) were interviewed 11 years following the 2010 Olympic Winter Games. Interviewees were asked to monetize their event experience and were presented with estimated taxpayer contributions. Interviews elicited that societal norms, residents' perceived hosting identity, and temporal effects were important theoretical concepts to understand residents' socio-economic event evaluations. Findings revealed future evaluations need to be conducted post-exchange not post-event and by transparently presenting estimated public funding contributions, event experiences, and anticipated and actual event outcomes.

*Keywords:* social exchange; valuation; public administration; stakeholding; management

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## Introduction

Hosting major sport events are large endeavours which can take years to plan, billions of taxpayer contributions to fund, and affect numerous residents both positively and negatively (Dionisio et al., 2022; Parent & Ruetsch, 2021). For cities hoping to host major sport events, like the Olympic Winter Games (OWG), resident support is vital, as to host such events, bid cities often rely on public funding and must provide evidence of resident support to successfully be awarded hosting rights (Bakhsh et al., 2018). To garner resident support, event stakeholders often claim that hosting publicly-funded major sport events will create positive outcomes for residents which outweigh residents' public funding investment. In other words, by exchanging residents' public funding for event-induced social outcomes a positive social return on investment (SROI) for residents will be created (Bakhsh et al., 2022; Preuß & Hong, 2021).

Given the need for event organizers to confirm resident support and justify public funding, scholars have investigated residents' post-event perceptions (Polcsik & Perényi, 2022) and social value from hosting major sport events (e.g., Atkinson et al., 2008; Barros, 2006; Humphreys et al., 2018). This body of literature has shown both positive and negative resident perceptions from hosting major sport events (e.g., Inoue & Havard, 2014; Liu et al., 2014) and that hosting major sport events can create positive social value for residents (e.g., Bakhsh et al., 2022; Zawadski, 2022).

However, current investigations on residents' major sport event perceptions and SROI have remained disconnected from one another. Rather than investigating residents' post-exchange perceptions (i.e., when anticipated event outcomes have come to fruition or are confirmed not to), scholars have focused on examining residents' post-event perceptions (i.e., immediately after hosting a major sport event but before SROI can be calculated;

Köenigstorfer et al., 2019; Polcsik & Perényi, 2022). Although there are benefits to post-event perception research, doing so offers insights on residents' perceptions without considering residents' SROI and possibly before resident exchanges have been completed. These disconnections leave practitioners and scholars at a standstill, uncertain as to how residents perceive their SROI created from hosting a publicly-funded major sport event – residents' post-exchange perceptions.

Thus, the purpose of this study was to investigate residents' post-exchange perceptions from hosting a publicly-funded major sport event. In doing so, this study considers residents' major sport event perceptions, their SROI, and taxpayers' contributions to better understand why residents do (or not) support publicly funding major sport events and why (or not) hosting publicly-funded major sport events creates positive SROI for residents. In short, was hosting a major sport event worth it? Consequently, this study provides necessary conceptual underpinnings needed to understand residents' SROI evaluations from hosting publicly-funded major sport events and offers scholars and practitioners insights into how they can use SROI evaluations to formulate more effective and efficient publicly-funded major sport event outcomes in the future. In addition, by investigating post-exchange perceptions, we offer residents the opportunity to reflect on the actual socio-economic exchange they experienced, the outcomes that did or did not occur, and ultimately, make informed decisions regarding their own event evaluation.

### **Literature Review**

This section first reviews literature on residents' perceptions from hosting major sport events and then reviews literature on SROI. Next, the key gap of residents' perceptions of SROI evaluations is highlighted to position the importance of this study.

## **Residents' Perceptions from Hosting Major Sport Events**

The study of major sport events and its various stakeholders has become a popular focus for event scholars (Bakhsh et al., 2021a; Parent & Ruetsch, 2021), focusing on various stakeholders like event organising committees (e.g., Hoff et al., 2020), volunteers (e.g., Bakhsh et al., 2021b; Lachance et al., 2021), spectators (e.g., Bakhsh et al., 2019; Potwarka 2015), and residents (e.g., Zawadzki, 2022). Given the event organizing committee's need to garner positive resident support (Bakhsh et al., 2018), investigating residents' perceptions from hosting major sport events has become an important research objective (Polcsik & Perényi, 2022). Specifically, scholars have investigated a plethora of resident perceptions, including host city residents (e.g., Ma & Rotherham, 2016; Yao & Schwarz, 2018), non-host city residents (e.g., Ritchie et al., 2009), bid city residents (e.g., Scheu & Preuß, 2018), and residents part of joint-bids (e.g., Bakhsh et al., 2018). A criticism of these studies is that the perceptions are often based on assumed outcomes, and not on actual lived experiences of residents (Taks et al., 2020; Oshimi et al., 2021). Collectively, this research has shown that residents perceive a variety of positive and negative outcomes over time, often linked to socio-economic aspects of events (Polcsik & Perényi, 2022).

Regarding positive perceptions, residents with greater financial means and who are involved in sport, or the sport event, tend to hold positive perceptions from hosting (Barros, 2006; Ma & Rotherham, 2016). Previous research has shown positive perceptions can be stimulated through intangible outcomes, as events which create the appearance of positive intangible effects are valued by residents (Zawadzki, 2022). Such intangible effects can be created through connecting individuals to the event (i.e., community event involvement; Taks et al., 2020), leveraging the event to increase sport participation behaviours (e.g., Potwarka et al.,

2020; Teare et al., 2021), and instilling a positive sense of belonging or feel good factor (e.g., Ma & Rotherham, 2016; Oja et al., 2018). In addition, positive perceptions can be stimulated through tangible outcomes, often linked to economic and infrastructure development (VanWynseberghe, 2016). For instance, using the event as a catalyst to develop needed infrastructure for communities (VanWynsberghe, 2016) or increasing the local economy through visitor spending and employment opportunities (Huang et al., 2014).

Regarding negative perceptions, residents who feel disconnected from the event or feel the event has not benefited them tend to hold negative perceptions from hosting (Scheu & Preuß, 2018). For instance, residents can establish negative perceptions of an anticipated event because they do not see how hosting the event is a positive use of their public funding (e.g., Bakhsh et al., 2018; Scheu & Preuß, 2018), which can lead to a negative perception of the actual event and potential event legacies. These negative perceptions often stem from economic factors like the excessive spending residents can experience from hosting major sport events (e.g., Balduck et al., 2011); the reality of public funding being invested into a major sport event that could have been invested elsewhere (i.e., opportunity costs; Crompton & Howard, 2013); tourism impact not materializing (Solberg & Preuss, 2007), and unemployment created long after the event (Tien et al., 2011). Beyond economic factors, social factors have also been shown to stimulate negative resident perceptions from hosting major sport events. For Instance, the disruption to daily routines residents can face from event elements taking over the city (Huang et al., 2016) or residents concerns of safety within their community because of increased conflict often found when hosting major sport events (Balduck et al., 2011; Kim et al., 2015).

To examine residents' perceptions, scholars have applied various theoretical frameworks (Thompson et al., 2019), namely social exchange theory (e.g., Bakhsh et al., 2018; Ma &

Rotherham, 2016; Yao & Schwarz, 2018) and institutional theory (e.g., Nite & Edwards, 2021; Robertson et al., 2021). This body of literature has revealed the importance of understanding residents' social norms as these normative beliefs can have impactful positive and negative effects on residents' event perceptions (e.g., Bakhsh et al., 2018; Gursoy & Kendall, 2006). Moreover, overall perceptions are often determined through a perceived benefit and cost internal evaluation linked to social exchange theory (e.g., Scheu & Preuß, 2018), where residents who perceive positive legacies to outweigh negative legacies will have a positive perception of the overall event. Here, residents weigh social costs and benefits based on perceived outcomes (i.e., outputs), without considering the actual financial cost of hosting (i.e., taxpayer contributions or input).

### **Residents' Major Sport Event Social Return on Investment (SROI) Perceptions**

SROI is understood through examining a select stakeholder's socio-economic exchange (King, 2014). Specific to sport practices, scholars have investigated residents SROI from funding athlete programs (e.g., Own the Podium; Humphreys et al., 2018), community members SROI from participating in new sport programs or facilities (e.g., Davies et al., 2019, 2021), the SROI for corporate social responsibility practices by professional sport teams (e.g., Lombardo et al., 2019; Oshimi et al., 2022), or residents SROI from hosting a major sport event (e.g., Bakhsh et al., 2022; Barros, 2006).

Studies focussing on SROI in major sport events revealed hosting can create positive, negative, and neutral SROI evaluations for residents (Bakhsh et al., 2022; Barros, 2006; Humphreys et al., 2018; Zawadzki, 2022). More specifically, residents' SROI evaluations can differ based on their event investment (i.e., taxpayer contributions) and hosting experiences/roles (Bakhsh et al., 2022). Regardless of similar taxpayer contributions and hosting experiences, these

investigations have found resident evaluations can differ for residents within the same investment-to-experience exchange. Consequently, scholars have called for future studies to elicit the underlying concepts of how and why residents evaluate their SROI exchange (i.e., Bakhsh et al., 2022; Davies et al., 2019, 2022).

Although previous work offers a variety of SROI calculations, what each of these studies fails to do, is investigate residents' SROI evaluation perceptions. Rather, current SROI scholarship has remained fixated on providing SROI calculations with no calculation reflections (cf. Bakhsh et al., 2022; Barros, 2006; Davies et al., 2019, 2021; Humphreys et al., 2018). Consequently, we, as socio-economic scholars and practitioners are left unaware of why residents perceive positive, negative, or neutral SROI evaluations from hosting a major sport event and what underlying concepts formed these perceptions. Thus, this study seeks to ultimately answer the following research question: was hosting worth it and why?

## **Method**

### **Research Context**

From February 12<sup>th</sup> to 28<sup>th</sup>, 2010, Canada and the host cities of Vancouver and Whistler welcomed 2,566 athletes to compete in the OWG. Like any major sport event, residents are a key stakeholder to consider in the event planning, implementation, and wrap-up stages (Parent & Ruetsch, 2021). The 2010 OWG is no exception, with the importance of resident support highlighted by Vancouver residents' initial positive referendum vote (i.e., 64% voted yes to bid for the 2010 OWG). In addition, after successfully being awarded hosting rights to the 2010 OWG, residents contributed public funding at the municipal, provincial, and federal government levels to host the major sport event (Bakhsh et al., 2022; VanWynsberghe, 2016).

Specifically, public funding was garnered from three resident groups: (1) host city residents of Vancouver and Whistler residents who provided municipal, provincial, and federal funding; (2) British Columbia residents outside Vancouver and Whistler, who provided provincial and federal funding; and (3) Canadian residents outside British Columbia, who provided federal funding only. Determined from a combination of financial reports (i.e., VANOC, 2009) and researcher findings (i.e., Bakhsh et al., 2022; VanWynsberghe, 2016; Preuß et al., 2019), Canadian residents contributed approximately \$4b (CAD) in public funding between 2003 and 2010 to host the 2010 OWG.

Beyond the financial investment residents made to host, residents “received” hosting experiences as part of this socio-economic event exchange. In the context of the 2010 OWG, residents’ hosting experiences can be categorized into one of three groups, residents living in: (1) *Official Host Cities* (i.e., Vancouver and Whistler, hosting official events, as well as the Opening and Closing Games Ceremonies); (2) *Hosting Venue Cities* (i.e., Richmond, West Vancouver, and Squamish (British Columbia), hosting official Games events); and (3) *Non-Hosting Cities* (all other cities, not hosting any official Games events; VANOC, 2009). Residents’ hosting experiences differ according to these group. When considering these variations in hosting experiences with the associated taxpayer contributions, four resident groups are distinguished: (1) *Host*, residents who lived in Vancouver or Whistler, and provided municipal, provincial, and federal funding; (2) *Venue*, residents who lived in Richmond, West Vancouver, or Squamish, and provided provincial and federal funding; (3) *Provincial*, residents who lived in British Columbia outside the aforementioned cities, and provided provincial and federal funding; and (4) *Federal*, residents who lived in Canada but outside British Columbia and provided federal funding.

## **Data Collection**

Upon receiving ethical approval from the university's research ethics board (#H-04-21-6783), data were collected from April 2021 to May 2021 through semi-structured interviews. Interviews were an appropriate data collection method as this study sought to evaluate residents' perceptions about their major sport event SROI (Smith & Sparkes, 2016). Through a purposeful sample and snowball sampling strategy (Skinner et al., 2020), the first author conducted 21 resident interviews. A purposeful sample was used to specifically target residents of the respective geographic regions and then through those initial contacts, snowball sampling was used to garner additional participants across the geographic regions. All residents were 18 years of age or older during the event's 2003 referendum and confirmed living in one of the four resident groups outlined (i.e., *Host*, *Venue*, *Provincial*, and *Federal*). Of the 21 interviewees, five belonged to each of the following resident groups: *Host*, *Venue*, and *Provincial*, while six belonged to the *Federal* group. Data saturation was reached for all groups during the fifth interview but pre-confirmed interviews with participants still occurred following data saturation. Interviews ranged from 21 to 43 minutes in length and, due to COVID-19 restrictions, were all conducted via Zoom. The interview guide included questions about the Games and the value of hosting (see Appendix H for the interview guide). In addition, each resident was presented with the following question:

As a [\_\_\_\_\_] resident, your tax dollars were used to host the Games in 2010. This money was spent over a 7 year timeframe, meaning an allocated amount of your tax dollars was given each year for 7 years to host the Games. Having experienced the event, how much of your current tax dollars would you give each year for 7 years, to host the Games?

After the interviewee provided their response, the first author calculated this for the 7-year total to confirm with the interviewee. For instance, if the interviewee said \$100, the first author confirmed they would give \$700 in total to the event. After confirmation, each interviewee was presented with the estimated taxpayer contributions for all resident groups (see Table 5.1), which allowed their own interpretation to be garnered and was used as a discussion piece to elicit their beliefs around and rationale for their own evaluation, their own region's evaluation, and these evaluations in relation to the other regions.

**Table 5.1**

*Resident Groups' Estimated Taxpayer Contributions*

Resident Group	Estimated Taxpayer Contributions (\$CAD)		
	Minimum	Middle	Maximum
Host	525.00	875.00	1225.00
Venue	455.00	682.50	910.00
Provincial	455.00	682.50	910.00
Federal	28.00	38.50	49.00

*Notes.* All financial figures are presented in present value (2022) Canadian dollars.

Residents' estimated taxpayer contributions were determined from previous scholarship (i.e., Preuß et al., 2019), formal Games reports (i.e., VANOC, 2009), and publicly available financial documents (i.e., BC Auditor, 2002). The combination of these documents confirmed public funding and also provided insight into the nuances of such public funding. For instance, some public funding was used to develop infrastructure for the event. However, such infrastructure was already planned to be developed regardless of hosting the 2010 OWG; hosting simply sped up the timeline of planned publicly funded infrastructure. Thus, although the use of public funding was confirmed for such infrastructure, the amount of public funding used to meet the deadline of the Games cannot be confirmed. This led us to determine ranges of public funding that offer the

minimum estimated funding that could have been used to host the Games specifically to the maximum estimated funding. The total estimated government funding used for municipal, provincial, and federal levels were divided by the taxpayers' proportion of the population of that area based on 2010 Canadian Census data (Statistics Canada, 2012) and are presented in Table 5.1.

### **Data Analysis**

Interviews were audio-recorded, transcribed verbatim, and sent back to participants for member checking to ensure the transcripts accurately represented their experiences (Burke, 2016). Once participants approved their transcript, data were uploaded to the qualitative data analysis software NVivo 11 Plus and analyzed thematically following Braun and Clarke's (2022) six steps. First, *familiarization with the data* was completed by the first author reviewing the audio recorded and transcribed interviews. Second, *generating initial codes* through deductive and inductive approaches, began by determining codes based on the interviewees responses and then independently determining codes based positive and negative perceptions understood through the reviewed literature (e.g., community event involvement and economic costs). Third, *searching for themes* was done through a pattern-based analysis discussed by Braun and Clarke (2022) which allowed the first author to identify important features of the data that help answer the overall research question (e.g., societal norms and support of funding). Fourth, *reviewing themes (refinement)* helped confirm the themes from the data and connect individual themes that fit better together to interpret the data in relation to the research question. Fifth, *defining and naming themes* saw the researchers develop descriptive and analytical interpretations of the data. Finally, *producing the report* comprises the present paper detailing the interview findings.

Throughout the findings and discussion section, interviewee quotations are presented using pseudonyms (e.g., Host Resident 1; Venue Resident 4) to represent the resident group and resident number of the interviewee. For instance, “Host Resident 1” indicates the first resident interviewed from the *Host* resident group, and “Venue Resident 4” indicates the fourth resident interviewed from the *Venue* resident group.

### **Findings & Discussion**

Four themes emerged from the dataset: (1) the Canadian way of doing things; (2) allocation of funding; (3) Canada’s Games; and (4) unknown values. We describe and discuss each theme below.

#### **The Canadian Way of Doing Things**

This theme was discussed by most residents in relation to how Canadians pay taxes and how “paying taxes is the Canadian way of doing things” (Provincial Resident 1). This resident belief positions the ideology of all individuals to contribute for society’s benefit (Macrae, 1963; Torgler & Schneider, 2007) and elicits the manifestation of how one’s socio-economic environment can impact their desire to support publicly-funded major sport events. Despite Vancouver and Whistler being the official host cities, all interviewees, regardless of resident group, acknowledged Canadians should be “pitching in” to host, as Federal Resident 2 stated: “it only makes sense that we all pay... we all benefit from it in some way, we should all pay in some way, we should all be pitching in.”

This interviewee’s response summarizes much of the interview rhetoric around why residents supported publicly funding the 2010 OWG. In fact, regardless of individuals’ support or non-support for hosting the event, not a single interviewee questioned if public funding was the appropriate means of funding. Moreover, interviewees never suggested private sources as a

funding alternative option. Although this may be due to the framing of the question, as the interviewer told participants the event was publicly funded and asked if they supported this or not, no interviewee suggested that private funding should occur instead of public funding. This private funding point also reveals a (possible) assumption residents made, that there was no private funding provided and the event is entirely funded by taxpayer contributions. However, this was not the case, as most operational costs were covered by private funding (i.e., ticket sales, TV rights, sponsorship) while the capital costs were largely covered by public funding (Preuß et al., 2019; VANOC, 2010). Linked to much SROI literature (e.g., Bakhsh et al., 2022; Davies et al., 2019, 2021), this public/private funding element connects to the importance of transparency for residents to make informed decisions about their SROI.

This interpretation links to the institutional norm that Canadian society lays over its residents of using public funding to produce sport (Slack & Hinings, 1992; Washington & Patterson, 2011). Much of the interviewees' acceptance to contributing public funding to host major sport events can be linked to the nature of Canadian society and the inherent public funding Canadians are used to providing for sport (VanWynsberghe, 2016; Von Tigerstrom et al., 2011). Hosting major sport events is not new to Canada (e.g., 1988 Olympic Winter Games in Calgary, 1976 Olympic Games in Montréal) and publicly funding sport from the grassroots (e.g., Green, 2007) to the elite level (e.g., Dowling & Smith, 2016; Humphreys et al., 2018; VanWynsberghe, 2016) has become a norm for Canadians. This public funding norm has become more present leading up to and following the 2010 OWG, as athlete funding programs have increased (e.g., Own the Podium; Humphreys et al., 2018) as well as overall federal funding for sport events and opportunities (e.g., KidSport; Clark et al., 2019). As a result, much of the acceptance and support for publicly funding major sport events found may be connected to the

institutional elements of Canadian society and its residents. This finding outlines the importance of having residents' investments aligning with societal values when hosting publicly-funded major sport events. Thus, when understanding residents' SROI from hosting a major sport event, a key underlying concept is residents' societal norms in relation to publicly-funding sport. Based on these findings, congruency between residents' exchange and social norms must be aligned.

### **Allocation of Funding**

Discussed throughout the interviews was how the funding of the 2010 OWG should be allocated. Residents were unanimously in agreement that hosting a major sport event in Canada should, in part, be publicly funded. However, the nuances of these discussions led to understandings of how residents felt the funding should be allocated across different resident groups and why each group should provide funding relative to the other groups. The first theme flows seamlessly into the second, exemplified by Provincial Resident 1's quotation that leads into the discussion of funding allocation:

Paying taxes is the Canadian way of doing things. It only makes sense that we all pay... we all benefit from it in some way, we should all pay in some way, we should all be pitching in. Sure, I think the host city should pay more. More dollars for people that are immediately affected by the event. Not just host city, but region. When people spend in Vancouver that money goes to local business which pay taxes that go through the province. So, things like that are why Vancouver residents should pay more. (Provincial Resident 1)

Although residents' supported publicly funding the 2010 OWG, the allocation of that funding did not result in a positive SROI for all resident groups. This was expressed by numerous interviewees, as Federal Resident 1 expressed, "I'm shocked at how little we pay as

Canadians not living in British Columbia... that's probably less money than I paid for cable to watch the Games." The response expressed by this interviewee was echoed by many of the residents in- and outside the Federal region, as those from *Host*, *Venue*, and *Provincial* regions also commented about how low the Federal group's funding was. In addition, most residents felt that *Venue* and *Provincial* group residents shouldn't have provided the same funding as they didn't have the same Games hosting experience<sup>2</sup>:

I don't think we [Provincial group resident] should be paying what people in Richmond paid. They got the Oval, they got a train line going into downtown, they hosted events. They received much more than we did out here in [British Columbia city] so why are we paying the same price?... It needs to be a hierarchy where we still pay, but an amount that matches what we got for paying. (Provincial Resident 5)

This hierarchy concept was echoed throughout many resident interviews, as residents believed the host city or region should provide the most public funding and then it should be filtered down from there.

I think the host city should pay the most. They receive the most benefit, they receive the spotlight, they get the bulk of the tourism, the capital, the intrigue, everything. Then from there, the rest of the country works its way down based on whatever factors are important. Whether that be proximity to the host city or buildings like what Richmond received. Those things matter. But the host is the most and then it funnels from there. (Host Resident 2)

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<sup>2</sup> Venue city tax changes over the course of the Games were checked. This showed that taxes were not affected in the years leading up to the Games, but there was a moderate increase post-Games (i.e., Richmond, 2022).

After being presented the four resident groups of *Host*, *Venue*, *Provincial*, and *Federal*, no interviewee suggested a different resident group breakdown. For instance, an alternative option could have seen the *Provincial* region included with the *Federal* region as neither hosted any official Games venues or events. This combination may have been more fitting as several individuals living in Alberta (i.e., the province adjacent to British Columbia) live closer to the *Venue* region than several British Columbia residents living in the northern part of the province. However, all interviewees suggested *Provincial* residents should pay more than *Federal* residents. Consequently, the interviewees' comments suggest a support for the regional breakdown (i.e., *Host*, *Venue*, *Provincial*, and *Federal*) and offer a potential framework for future events to use when allocating funding for Canadian major sport events and provide implications for event practitioners within Canadian contexts. Related to the first theme (i.e., the Canadian way of doing things), the support for this hierarchy may too be linked to the institutional aspects of the Canadian tax system where individuals pay hierarchical taxes based on region and service (i.e., Boadway, 2019).

### **Canada's Games**

The reflection of *Federal* and non-Federal resident groups suggested *Federal* residents felt the event was Canada's Games and Canada was in fact hosting the Games. This theme fits the messaging developed by VANOC and the federal government and relayed to Canadian residents: this is Canada's Games (VANOC, 2010). By following this narrative around Canada's Games and not Vancouver's or British Columbia's, Federal residents felt a greater sense of connection to the event and desire to support hosting.

It was definitely Canada's Games. Vancouver was the host, but all of us Canadian's are proud to be hosting, to be welcoming the world in. It's not just that city which funds the

event, it's not just athletes or coaches or volunteers from that city. There are people from all over helping create this event in one way or another. (Federal Resident, 3)

However, although this messaging was advantageous to create support for the Games from *Federal* residents, several *Provincial*, *Venue*, and *Host* residents noted the media may have portrayed it that way but that was not in fact their perception of hosting. Rather, the event was a Vancouver or British Columbia event:

No, the event wasn't Canada's Games. It might seem like that on the coverage or I'm sure people in Toronto like to think that.... but this event was Vancouver's. You could call it Vancouver region like the Metro Regional District of Vancouver, maybe even British Columbia...honestly, not even British Columbia. We live out here in [British Columbia City] and I wouldn't even say the event was ours. We provided money, we were close enough to watch, but it wasn't in our hometown. It wasn't our Games, not Canada's. (Provincial Resident 5)

The contrast in these event perceptions highlights an important narrative woven throughout the interviews: the reality of hosting experiences. Although this study makes a decisive step into the scholarship of event experiences not exclusively pre- or post-event perceptions (cf. Gursoy & Kendall, 2006; Ribeiro & Almeida, 2020), findings suggest much of the evaluation which residents do is still largely based on event perceptions. In other words, many of the factors which residents assess in their overall SROI exchange are based on perceptions and experiences, not exclusively one or the other. Consequently, when understanding residents' SROI from hosting a publicly funded major sport event, it is imperative to decipher residents' experiences and perceptions and understand where these experiences and perceptions evolved from.

### **Unknown Values**

Linked to the concept that there is value in the act of an exchange alone and much of that value is unrealized until the exchange parties complete the exchange (Walsh, 1901), this theme amplifies two important characteristics: the (1) value of hosting; and (2) importance of conducting post-exchange evaluations rather than post-event evaluations.

When discussing the *value of hosting*, several interviewees mentioned an appreciation they had from hosting: “*it makes you realize how much work goes into it and you take pride in that... but also respect [previous] hosts*” (Resident 8). Connected to findings from the pre-questionnaire interviews, where residents felt pride when taking on an ambassador role for out-of-town guests, that positive value of hosting was unknown until completing the actual act of hosting. This finding supports conducting post-exchange research when examining intangible or social outcomes from hosting, as the lack of tangibility is a key challenge, hence the importance of considering the lived experience (Oshimi et al., 2021) when measuring intangible outcomes. By allowing individuals to have their hosting experience, some of that challenge can be mitigated.

Although post-exchange investigations are ideal for reflecting on residents’ SROI exchange, this is not to say ex-ante investigations do not have their place. As discussed in previous SROI scholarship (Bakhsh et al., 2022; Keane et al., 2019), there are benefits to conducting ex-ante or forecast SROI investigations, as these investigations can yield important insights regarding whether positive SROI is possible for the event in question. Nonetheless, if the goal is to reflect on residents’ SROI and evaluate their SROI, these examinations must be conducted post-exchange.

Multiple *Host* residents noted during their interviews that residents living in host cities felt a positive sense of being an informal event ambassador, that is, someone who could provide

visitors information, share experiences, stories, and some of their favourite activities to do and places to see in the host city. Beyond these informal elements, some interviewees shared their experiences and city knowledge through more formal ambassadors roles, like official volunteer or work positions at the 2010 OWG.

I had an extreme sense of pride in what I was doing. Not only did I meet people and have these incredible experiences which I never would have had if I wasn't volunteering for the event, but I was able to represent my Country, my community, and my people in everything I did. Having that opportunity and taking advantage of it, sitting here now, I would never have known the value that had to me before the event. It was something I had to experience. (Host Resident 4)

These interviewee experiences help untangle a complex narrative around the importance of conducting post-exchange examinations and not just post-event examinations (cf. Chen & Henry, 2016; Jin et al., 2011; Ma et al., 2013). Aligned with the expectation of legacies to last beyond the timespan of the event itself (Preuß, 2007), to properly evaluate residents' SROI an evaluation must occur at a point when all anticipated legacies from the outset of the event exchange have come to maturation (i.e., post-exchange). Conducting an evaluation prior to this point (e.g., post-event) will not allow residents to make informed evaluations about their event exchange nor will provide answers to event organizer claims. Since much event organizers' justification for hosting events is that hosting will create positive social legacies far beyond the event itself (Bakhsh et al., 2022), this means evaluations cannot simply happen immediately post-event. Rather, evaluations of any resident perceptions, experiences, or SROI evaluations must be done after the exchange has been complete (i.e., when investment and anticipated return are complete). Thus, these findings indicate the need to move beyond simply evaluating post-event resident

perceptions to evaluating residents' post-exchange perceptions, that is when anticipated exchange outcomes have come to maturation and by also properly informing residents about their actual taxpayers' contributions, to better understand residents' hosting experiences, exchanges, and overall SROI.

## Implications

### Theoretical Implications

These interview findings highlight the importance of three underlying theoretical elements to help understand residents' SROI evaluations from hosting a publicly-funded major sport event. First, it is imperative to investigate the societal norms of that resident ecosystem. This must be done not only on a population level (i.e., macro perspective) but also within sub-populations which are relevant to the event's structure. For instance, with the 2010 OWG, a specific discussion around public funding at the population level and a nuanced discussion related to various resident groups helped understand why residents experienced the SROI they way they did. These findings helped explain that hosting responsibilities (i.e., hosting official Games events vs. not) was an important factor in residents' SROI as British Columbia residents provided the same public funding as *Venue* residents but did not feel they received the same return.

Second, one's perceived identity of, and involvement with, the event cannot be overlooked. Although *Provincial*, *Venue*, and *Host* residents felt that the Games was not Canada's Games, rather Vancouver's Games, this narrative was not perceived by individuals in the *Federal* resident group. Consequently, all residents felt a strong sense of pride in hosting their Games, whether they perceived that as Vancouver's Games, British Columbia's Games, or Canada's Games. The importance of this perception links to the findings in Chapter V's analysis

about the need to galvanize residents and form community camaraderie. Regardless of residents' perceptions on whose event it was, what matters when understanding residents' SROI is what their individual perspective is relative to pride in hosting. Those who felt they were part of the host community (e.g., Canada for Canada's Games or Vancouver for Vancouver's Games) would be more supportive of the evaluation.

Finally, the concept of time was an important element when understanding residents' SROI as for not only scholars to evaluate residents' SROI but for residents to evaluate their own SROI, the exchange, or at least anticipated exchange, must have been completed. This empirical data alone takes a step outside the traditional scholarship on examining residents' experiences from hosting major sport events, as it aimed to examine residents' post-exchange perceptions rather than post-event perceptions (cf. Chen & Henry, 2016; Jin et al., 2011; Ma et al., 2013). In doing so, the concept of unknown values was discovered and echoed throughout the interviews, as residents routinely exemplified how their appreciation for the event was not cemented until well after. Regardless of hosting roles and experiences, being 11 years post-event, residents now had the opportunity to genuinely evaluate their experience, the temporal effects which have happened to that experience, and the prominence of legacies which were or were not present for residents' this far post-event. Ultimately, this post-exchange timeframe presents the canvas for examining and understanding residents' SROI, as conducting these evaluations pre-exchange completion creates pre-mature evaluations as well as the risk of not allowing anticipated outcomes to occur. Given the time social legacies and other intangible outcomes can take to come to fruition (Preuß, 2007), it is necessary for SROI evaluations to happen at a point post-event when the anticipated exchange is completed: post-exchange. Regardless of the positive or negative realities of these post-exchange evaluations, conducting anything before then does not

offer the opportunity to appropriately understand residents' SROI from hosting a major sport event.

### **Practical Implications**

These findings present insights for host practitioners to examine residents' SROI evaluations of a publicly-funded major sport event. Specifically, three elements should be considered: (1) population and sub-population data; (2) post-exchange timeframe; and (3) degree of transparency. First, this study emphasizes how practitioners should garner data from residents at various population levels. The populations practitioners seek should be based on distinct event investment and experience differences. For instance, if a major sport event only relies on one resident group for public funding, inherently, only that group should be considered in the SROI evaluation as in order to evaluate an exchange you must have invested in the exchange (King, 2014). However, if a major sport event relies on multiple resident groups to publicly fund the event, each group needs to be considered and respectively evaluated. Moreover, for major sport events which extract the same investment from residents but provide them different event experiences (e.g., same public funding invested for host and non-host residents), these individual groups need to be respectively examined to appropriately evaluate residents' SROI.

Second, practitioners would benefit from conducting SROI evaluations post-exchange. When residents have entered a post-exchange time frame, practitioners need to consider all anticipated outcomes pre-exchange (e.g., developed infrastructure, the implementation of sport programs). Then, practitioners need to determine if these anticipated outcomes have come to maturation. This does not necessarily mean the outcome has come to fruition as intended, rather, that the anticipated outcome has become a reality which can be evaluated. For some anticipated outcomes, practitioners will have to acknowledge that these outcomes did not mature as

anticipated (e.g., developing a sport building to be used for the event and future events, but no future events have been hosted). In addition, practitioners will also have to determine if anticipated outcomes which have not yet come to fruition can, or if that potential value has been lost. By gauging this anticipated vs. real outcome landscape, practitioners will be able to justify when a post-exchange evaluation can be made. What this practice also offers managers is the ability to transparently present taxpayers' contributions, and thus the exchange to residents.

Finally, the importance of transparency must be at the forefront when conducting SROI examinations and specifically when providing residents the necessary information to evaluate their SROI (cf. Bakhsh et al., 2022; Davies et al., 2019, Davies et al., 2021; King, 2014; Nicholls et al., 2012). Through the previous practices of understanding residents' various investments and experiences, and from determining the state of anticipated and real event outcomes, practitioners can be transparent with residents about the event exchange. To be able to be transparent, practitioners should aim to communicate the positives and negatives of the exchange including monetary figures for all resident groups, experiences for all resident groups, the state of all anticipated outcomes specific to each resident group, and done so in a non-biased manner. Of course, all stakeholders involved (e.g., residents, event organizers, scholars, government representatives) may have biases when trying to be transparent. Thus, practitioners should engage with multiple stakeholder groups to elicit their narratives, figures, positives, and negatives to develop a holistic and transparent presentation of the exchange to residents. In doing so, residents will be able to make informed evaluations regarding their investments, outcomes, anticipations, and realities from this event exchange.

### **Study Limitations & Future Directions**

This study used an innovative tactic to present residents' public funding investment by first asking interviewees to provide their own willingness-to-pay for the 2010 OWG and then presenting them with the estimated taxpayer contribution of each resident group. Given that this study is the first of its kind to investigate residents' SROI exchange perceptions, this tactic simultaneously offers limitations and future directions for scholars to investigate and consider. Regarding limitations, it is possible that presenting the estimated taxpayer contributions created bias in the following interviewee responses. For instance, interviewees who stated they would contribute more than they actually did may have skewed their following responses to present a more favorable perception that aligned with their monetary answer. In contrast, not providing these figures would have created responses which were not grounded in the socio-economic exchange. Consequently, this study offers a tactic for future scholars to apply when investigating residents' SROI perceptions but recommends that scholars and practitioners consider how best to present these figures and when best to do so. Based on the application in this study, it may be most suitable to present these numbers in a sequence that begins with the interviewee's personal monetary evaluation and presents questions aligned with that evaluation; then the interviewer can present the estimated taxpayer contribution for that resident group and questions aligned with those figures and monetary comparisons. This would be followed by the remaining groups' estimated taxpayer contributions and respective questions. Doing so may help avoid potential response bias and also allow for the interviewee to better digest the information provided to them.

Although this study has taken an initial step to understand residents' SROI exchange evaluations and determine underlying concepts that help explain these evaluations, this investigation is of only one major sport event. Researchers would benefit from investigating

residents' post-exchange perceptions of different major sport events in varying contexts to unravel perception nuances that might exist, like western and eastern social norms. In doing so, scholars and practitioners can garner a greater understanding of residents' post-exchange perceptions and make informed evidence-based to create greater SROI for residents in the future.

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## Chapter VI: Discussion & Conclusion

The purpose of this dissertation was to understand residents' SROI from hosting a major sport event. To do so, four specific research questions were advanced: (1) what theoretical concepts have been used to underscore residents' socio-economic exchanges when hosting a publicly-funded major sport event?; (2) which monetary valuation method(s) is(are) best to examine residents' SROI from hosting a publicly-funded major sport event?; (3) what factors predict residents' SROI from hosting a publicly-funded major sport event?; and (4) why do residents evaluate their SROI the way they do? Each question was answered through one of four research articles and collectively offer conceptual, methodological, and empirical contributions towards understanding residents' SROI from hosting a publicly-funded major sport event. Consequently, the findings from the four research articles (i.e., Chapters II, III, IV, and V) collectively present four concepts (i.e., structure, norms, experience, time) which when combined into a conceptual framework offers a comprehensive understanding to the phenomenon sought and ultimately, answers this dissertation's purpose.

The remainder of this chapter provides a summary of each article. Then, this chapter presents the cumulative discussion of findings related to this dissertation's purpose by presenting a developed conceptual framework to understand residents' SROI. Finally, this chapter offers contributions for scholars and practitioners, discusses the limitations and challenges presented during the research process, and offers opportunities for future research.

### Summary of Findings

#### *Article One*

The purpose of the first research article (i.e., Chapter II) was to identify, evaluate, and summarize the findings and theoretical concepts of studies that address both residents'

investments and outcomes when hosting a publicly-funded major sport event. This article reviewed 934 records to determine that only two records offered concepts which can help explain residents' socio-economic exchange when publicly-funding a major sport event (i.e., Barros, 2006; VanWynsberghe, 2016). Upon synthesizing these records, this article revealed the importance of one's affinity with sport and income (Barros, 2006), and transparency (VanWynsberghe, 2016) within the exchange.

The findings from this first article suggest that one's affinity with sport (or involvement with sport) and their income would directly impact their SROI evaluation (Barros, 2006). In addition, VanWynsberghe (2016) advised that transparency and alignment throughout the exchange would impact how residents perceive their social value. If transparency was not offered through the process this would create tension between residents and the event, often leading to negative evaluations. In addition, if pre-exchange anticipated outcomes did not align with post-exchange outcomes, a negative evaluation would occur as event outcomes are (in part) being compared to pre-exchange desires. These concepts aligned with the stages and principles of the SROI framework, indicate the importance of transparency throughout the process and the impact that residents' perspective can have (e.g., their affinity with sport and income characteristics).

Although three concepts were identified through this review, perhaps the largest takeaway from this article was the lack of studies which have considered the input side of the SROI equation (i.e., tax payers' contribution). Beyond highlighting the outcome-centric focus sport event scholarship has had, this created a new path for the dissertation, namely to focus on the socio-economic exchange. Initially, I believed by conducting this review, enough theoretical understanding would be created to position a conceptual framework which could guide the following two articles. However, to this point, little conceptual knowledge had been garnered

and a conceptual framework could not yet be built which could comprehensively understand residents' SROI from hosting a publicly-funded major sport event. Rather, subsequent research would need to be conducted without a conceptual framework and a more exploratory empirical analysis would occur which (hopefully) would garner additional concepts to then offer a conceptual framework from this dissertation's overall findings. Consequently, this first article equally presented greater understanding about the state of SROI examinations within sport management and little understanding about the concepts which underpin this socio-economic exchange. Thus, a lack of conceptual understanding was elicited, a disconnect between practitioner desires and scholarly answers was magnified, and the need to develop a conceptual framework was further supported.

### *Article Two*

Article two (i.e., Chapter III) investigated various monetary valuation methods to determine which method(s) is(are) best to examine residents' social value in a post-event context and test the selected method(s) for the 2010 OWG. This article concluded that the reverse contingent valuation method and opportunity cost approach were advantageous methods but for different perspectives (i.e., micro and macro perspectives, respectively). Aligned with the individual (or micro) perspective of this dissertation and the SROI framework, the reverse contingent valuation method was advanced as the ideal monetary valuation method to examine residents' SROI from hosting a major sport event.

This second article first reviewed 12 monetary valuation methods which have been used in sport management research. After comparing each method to specific selection criteria relevant to the major sport event context of this study, two methods remained. To test these two methods, I applied an exploratory sequential mixed methods design which included semi-

structured interviews and a self-administered online questionnaire. Interviews were conducted with 14 Vancouver residents to learn about their socio-economic exchange, foregone alternatives from hosting, and anticipated outcomes from hosting the 2010 OWG. Questionnaire responses were collected from 525 Vancouver residents to determine their willingness-to-pay to host the 2010 OWG and their respective value of various foregone alternatives from hosting (e.g., build more hospitals). The findings revealed the importance of considering both micro and macro perspectives and how their (potentially) complimentary relationship can provide additional layers of understanding.

The results generated in this second article determined one monetary valuation method best lends itself to examine residents' SROI from hosting a publicly-funded major sport event: the reverse contingent valuation method. By using this method, scholars and practitioners can rely on post-exchange experiences, not pre-exchange hypothetical scenarios, and can monetize hosting experiences without relying on market values/prices and without worrying about compartmentalizing various outcomes and potentially creating overlap. Moreover, by creating one overall monetized outcome measure, this method offers the outcome side of the SROI equation needed when calculating residents' SROI (e.g., Davies et al., 2019, 2021; Lombardo et al., 2019; Oshimi et al., 2022). Thus, this second article presents the monetary valuation method to use for future individual SROI investigations and builds the platform for article three, which looks to predict residents' SROI.

### ***Article Three***

Article three (i.e., Chapter IV) examined residents' SROI from hosting the 2010 OWG using the reverse contingent valuation method and identified which socio-economic factors predicted residents' SROI. Understood from residents' financial investment and hosting role, this

article determined that some social experience outcomes, affinity with sport, and economic factors were important predictors in modelling residents' SROI. These findings provided support to previously identified factors that underpin this SROI phenomenon (i.e., affinity with sport and income) and offer a new concept to include within a conceptual framework, namely social experience outcomes.

This third article first determined that although a positive SROI was not found for all resident groups from hosting the 2010 OWG, with a change in allocation of funding, that could be possible. In other words, if this information was available prior to the exchange, practitioners could have injected more funding from Canadian residents and garnered less funding from Vancouver residents through municipal taxes, which would have been a more effective use of public funding relative to social value, and ultimately, could have created a positive SROI for more residents. Beyond the efficacy of garnering SROI, this article also revealed insightful differences between predicting residents' publicly-funded hosting support and SROI. Specifically, the results of the logistic regression to financially supporting the event (yes/no) revealed feel-good factor, feelings of (un)safety, positive affect, and the *Venue* resident geographic location as predictors. However, results from the linear regression indicated that SROI (monetized social value – taxpayers' contribution) was predicted by feel-good factor, positive affect, competitive sport participation, income, and all resident geographic locations tested. This shift suggests when evaluating a decision to financially support an event, social or intangible outcomes play a dominant role, but when evaluating SROI, economic or tangible outcomes become more prevalent.

The results generated in this third article answers the third research question and determined that positive SROI is possible for multiple resident groups and that some social

experience outcomes, affinity with sport factors, and various sociodemographic characteristics play an important role in predicting SROI. Consequently, this article offers empirical insight into understanding residents' SROI from hosting a publicly-funded major sport event and not only supports the inclusion of these concepts into a future conceptual framework, but provides understandings along their concept relationships. Thus, this final article gleans insight for scholars and practitioners about this phenomenon and provides an important step along the process of understanding it.

#### ***Article Four***

Article four (i.e., Chapter V) investigated residents' post-exchange perceptions from hosting the 2010 OWG through semi-structured interviews with *Host, Venue, Provincial,* and *Federal* residents. The interviews elicited four themes: (1) the Canadian way of doing things; (2) allocation of funding; (3) Canada's Games; and (4) unknown values, which provide important insights on residents' exchange reflections. These interviews highlighted how residents' perceived hosting identity can differ and affect their perceived hosting experience. There was an overarching consensus across interviewees that publicly-funding major sport events was acceptable; and individual interpretations on how to better allocate funding for future major sport events were discussed. In addition, the reflective opportunity these interviews offered created a concept in-and-of-itself: value in the exchange. As residents routinely discussed how there was a value to the exchange in general which they did not consider pre-exchange or even during the pre-questionnaire interviews.

Thus, the findings from these post-questionnaire interviews simultaneously supported previous concepts garnered (e.g., importance of transparency) and revealed new concepts to consider (e.g., value in the exchange). In doing so, it provided the final (necessary) step when

conducting a SROI evaluation: an opportunity for stakeholders to reflect on their exchange, post-exchange. Consequently, article four offers the last empirical insight of this dissertation and positions the final concepts to be included within a conceptual framework.

### **Understanding Residents' SROI**

To answer this dissertation's purpose (i.e., to understand residents' SROI from hosting a publicly-funded major sport event), I offer a conceptual framework. To do so, I first reflect on this dissertation's findings linked to the important conceptual elements of *who*, *what*, *where*, *when*, *why*, and *how* (i.e., Cunningham et al., 2015; van de Van, 1989; Whetten, 1989) that a positive SROI can occur for residents from hosting a publicly-funded major sport event. Then I work through the conceptual framework construction, which includes a discussion of theory and theory development, a presentation of concepts, and how these concepts appropriately form a conceptual framework that comprehensively explains this phenomenon. Throughout each concept's sub-section, I discuss the *when*, *how*, *why*, and under *what* conditions a positive SROI can occur for residents when hosting a publicly-funded major sport event. By collectively identifying these concepts, presenting how they advance our knowledge of this phenomenon, and offering this guide for future investigations, this discussion concludes by presenting the developed conceptual framework, thus answering how to understand residents' SROI from hosting a publicly-funded major sport event.

### ***The Who, What, Where, When, Why, and How***

The culmination of this dissertation answers important questions about major sport events and SROI and provides a greater understanding of residents' exchange process. Specifically, this dissertation helped answer the *who*, *what*, *where*, *when*, *why*, and *how* that a positive SROI can occur for residents from hosting a publicly-funded major sport event. Understood through

Chapter 1, previous SROI frameworks and principles (i.e., Davies et al., 2019; Nicholls et al., 2012) can help elicit understandings of *who* (i.e., residents), *what* (i.e., SROI from hosting a publicly-funded major sport event), *where* (i.e., hosting country), *when* (i.e., when the value of the experience is greater than the value of the input) and even *why* and *how* (i.e., social experience which value exceed public funding invested) of this exchange phenomenon. However, although these understandings exist, they do not provide the depth of knowledge needed to understand this phenomenon, specifically in understanding the *who*, *why*, and *how* (Davies et al., 2021; Gosselin et al., 2020; Keane et al., 2019).

Before delving into the nuances revealed from this dissertation's findings, it is first imperative to discuss that the phenomenon itself (i.e., a positive SROI for residents from hosting a publicly-funded major sport event) is possible. This alone is an important understanding and finding, as previous scholarship examining residents' SROI from sport interventions had not yet answered this important question (cf. Davies et al., 2019, 2021; Humphreys et al., 2018; Lombardo et al., 2019). The findings of this study revealed that positive SROI evaluations did occur for residents across Canada and even for the Federal resident group. Consequently, it is possible for positive SROI evaluations to occur, and this phenomenon is one which can be attained.

However, although a positive SROI did happen for some residents, it did not happen for all, as most residents and resident groups formulated a negative or neutral SROI evaluation. These resident group details elicit *who* or which residents experienced a positive SROI and *why*. Understood in Chapter IV, most residents who had a positive SROI evaluation were in the Federal resident group, which experienced the smallest taxpayer contributions; and understood through Chapter V, federal residents expressed how they benefited from being self-identified

hosting members able to enjoy the success of the event, the athletes, and the collective community with minimal in-person negative outcomes. These findings detailed how mainly positive intangible outcomes were present for Federal resident groups members. Speaking to the realities of longitudinal social impacts (e.g., Leopkey & Parent, 2012), these findings indicate what type of social outcomes can (and cannot) exist 11 years post-event and how they impacted residents' perceptions of the event, and ultimately, their SROI evaluation. Although no prior research has empirically examined residents' perspectives and social impacts to their respective SROI, much sport event management literature has found similar lineage when discussing social impacts and residents' perspectives effect on hosting support (e.g., Bakhsh et al., 2018; Gursoy & Kendall, 2006; Johnston et al., 2021; Ma & Rotherham, 2016). Beyond Federal residents, several residents in other groups determined a personal positive SROI evaluation. This positive evaluation was linked to residents' personal taxable income and public funding resident group (i.e., economic indicators; Barros, 2006), and their competitive participation in sport, distinguishing the importance of affinity with sport factors suggested by previous SROI scholarship (i.e., Davies et al., 2019). Thus, from a *who* perspective, residents who perceive enduring positive outcomes with minimal negative outcomes from hosting, have the financial means to invest in an event, and feel connected to the major sport event due to personal sport behaviour, will experience a positive SROI.

Beyond these understandings (i.e., social experienced outcomes, affinity with sport factors, economic factors), much of this dissertation presented conceptual understandings which further help to understand the *who*, *why*, and *how* residents formulate a positive SROI evaluation from hosting a major sport event. The following sub-sections work through these concepts and formulate the conceptual framework to answer this dissertation's purpose.

### ***Theory & Theory Development***

Theory is the foundation of research, practice, and teaching (Doherty, 2013). However, a conceptual framework is not theory. A conceptual framework is understood as the first building block in theory development and offers a direct contribution to theory-in-and-of-itself (Suddaby, 2018). Discussed at length across social science disciplines, theory is a way of “imposing conceptual order on the empirical complexity of the phenomenal world” (Suddaby, 2018, p. 407). In other words, theory is a collection of concepts and their respective relationships to one another that explains the *who, what, where, when, how, and why* of the phenomenon in question (Cunningham et al., 2015; van de Van, 1989; Whetten, 1989). As a theoretical building block, a conceptual framework presents a network of individual concepts that link together to form a comprehensive understanding of a particular phenomenon (Jabareen, 2009) and offers scholars and practitioners an approach to interpret the field of sport management (Fink, 2013), but does not provide a full explanatory model with all construct relationships (Mintzberg, 2005). Along Mintzberg’s (2005) theory continuum, a conceptual framework is positioned on the left side of the continuum while theory is positioned on the right side (see Figure 6.1) This continuum outlines how the collection of concepts formed in a conceptual framework differs from theory, which explains the relationships between concepts and their anticipated outcomes (i.e., causation and explanation) (Mintzberg, 2005; Suddaby, 2018).

The importance and complexity of theory development cannot be overstated within academic inquiry (Chelladurai, 2013; Cunningham, 2013). Although not yet theory, the development of a conceptual framework is theoretical in nature and should be grounded within the same confines of theory development (Jabareen, 2009). Thus, the goal of a conceptual framework is to form a collection of concepts that can help answer an important problem which

can evolve into theory (Cunningham et al., 2015); it should advance knowledge and guide researchers to answer crucial practitioner questions (van de Ven, 1989); give meaning to empirical findings (Haveman et al., 2019; Mintzberg, 2005); and shape the conversation of both researchers and practitioners (Ployhart & Bartunek, 2019; Schwarz & Stensaker, 2016).

### Figure 6.1

*Theory Continuum (adapted from Mintzberg, 2005 and Fink, 2013)*



Simply put, and coined by several scholars before, there is nothing quite as practical as good theory (Bacharach, 1989; Cunningham, 2013; Lewin, 1952; Ployhart & Bartunek, 2019; van de Ven, 1989). To develop good theory, there is no one set way (Cunningham, 2013); in fact, *Sport Management Review's* scholarly exchange on theory and theory development beautifully articulates how each of the five scholars invited to engage in the scholarly exchange presented different approaches to their own theory development (i.e., Cunningham, 2013; Chelladurai, 2013; Doherty, 2013; Fink, 2013; Irwin & Ryan, 2013). However, commonalities were found, as the genesis of theory development was often linked to the need to solve a problem (Cunningham, 2013). For instance, the formation of the forthcoming conceptual framework can be traced to the need to answer the following question: how and why can hosting publicly-funded major sport events create positive SROI for residents?

### *Concepts*

Before diving into the nuances of the concepts, it is important to re-emphasise why a conceptual framework should be developed, especially given that a SROI framework exists (i.e., Davies et al., 2019). The purpose of Davies et al.'s (2019) SROI framework is to provide a practical tool to calculate an identified stakeholder's SROI from a select intervention (Davies et al., 2019, 2021; Oshimi et al., 2021). What Davies et al.'s (2019) framework does not do is provide a comprehensive understanding of the phenomenon or give meaning to the SROI calculation (i.e., how and why the identified stakeholder evaluated their SROI the way they did). Based on this dissertation's previous chapters, I juxtapose four broad concepts (i.e., structure, norms, experience, and time) which collectively offer a comprehensive understanding of residents' SROI from hosting a major sport event.

**Structure.** The concept of *structure* encompasses notions of *transparency* and *control* highlighted throughout this dissertation. Regarding *transparency*, Nicholls et al. (2012) identified how transparency is a key principle when applying the SROI framework and its prominence has been re-iterated by sport management scholars alike (e.g., Attwell et al., 2019; Davies et al., 2019, 2021; Leopkey & Parent, 2015; Lombardo et al., 2019; Oshimi et al., 2022; Preuß & Hong, 2021; VanWynsberghe, 2016). Transparency is important to allow residents to make informed evaluations about inputs, outputs, and outcomes. Researchers have noted how a lack of transparency has created friction between residents and hosting major sport events (e.g., Bakhsh et al., 2018) and often results in a lack of support to host or subsequent negative SROI evaluations. Beyond the transparency desired between residents and event stakeholders, it is also important between scholars and practitioners when conducting this research (Nicholls et al., 2012; Davies et al., 2019). Given the inherent purpose of SROI examinations to better the professional world, there is equally an importance of transparently presenting and

communicating SROI elements and evaluations between academic and industry stakeholders when conducting this research (Gosselin et al., 2020). This link forges a mutually beneficial relationship between scholarship and praxis and allows for knowledge transfer or knowledge production to occur (Cunningham, 2013; Sandberg & Tsoukas, 2011).

A main challenge of current exchange theories, like social exchange theory (Homans, 1958) and game theory (von Neumann & Morgenstern, 1944), is that residents are assumed to have *control* of their exchange. However, this is not necessarily the case for residents publicly-funding a major sport event, as learned through the interviews in this dissertation, residents are often unaware of how much funding was invested on a macro and micro scale. Although some major sport events, like the 2010 OWG, offer a public referendum to residents to vote on their support to host or not, with knowledge that public funding will be used to host a successful bid, details of this funding are not offered. Consequently, this creates a paradox when investigating exchanges, as the notions of power (Bacharach & Lawler, 1981), accountability (Ben-Yoav & Pruitt, 1984), and surveillance (Carnveale et al., 1979) intertwine to highlight the importance of *control* (or lack thereof) in this phenomenon. Understood from Chapter V, the amount of *control* (i.e., degree of power combined with degree of accountability and surveillance) can impact the likelihood of residents obtaining their desired outcomes. Because of the power dynamic government representatives have over residents, an opportunity is often presented for government representatives to pursue their own interests rather than the interests of residents (Bacharach & Lawker, 1981; Shapiro, 2005). When accountability and surveillance are not present, government representatives are given an opportunity to act upon their own desires with little (or no) consequences for not obtaining resident desires. Within the public funding exchange in the context of major sport events, there is an inherent lack of accountability and surveillance

as government representatives make decisions behind closed doors and can provide their own crafted narrative to the public. In addition, there is an inherent surplus of power afforded to government representatives or event organizers as hosting major sport events can be used to propel political and social agendas where again, negotiations are done out of the public eye (Cottrell & Nelson, 2010; Girginov & Hills, 2009). Consequently, surplus power and lack of accountability and surveillance become intertwined and can produce an environment which offers government representatives the opportunity to pursue desires which do not match residents' desires with little, to no, consequences.

**Norms.** Not uncommon to sport event and host resident research (e.g., Bakhsh et al., 2018; Gursoy & Kendall, 2006; Potwarka, 2015), one's norms, too, play a pivotal role in understanding residents' SROI from hosting a publicly-funded major sport. Specifically, the norms concept encompasses four elements: *hosting identity*, *societal norms*, *affinity with sport*, and *economic indicators*. First, *hosting identity* understood through the post-questionnaire interview theme *Canada's Games*, highlights the reality of hosting experiences that one's event identity (e.g., a host city resident) can not only create support to hosting but can even create disconnect with other residents and resident group. This element highlights how the identity one feels as a host, or event ambassador, will dictate the support they have to hosting the publicly-funded major sport event. Individuals who feel strongly that they are hosting the event (i.e., host resident) and feel pride by helping showcase the host country should evaluate their SROI positively.

Second, *societal norms*, understood through the theme *The Canadian Way of Doing Things* and linked to the principles of institutional theory (DiMaggio & Powell, 1983; Meyer & Rowan, 1977), positions the importance of learning the societal influence residents bring to their

SROI evaluation. Within Canadian society, a clear link is seen in the literature between Canada's norm to publicly-fund major sport events (Sant & Mason, 2015; VanWynsberghe, 2016; Von Tigerstrom et al., 2011) and thus, a clear societal norm was found with Canadian residents' voicing that publicly funding major sports events in Canada was the Canadian way of doing things. Consequently, a positive belief to publicly-fund major sport events may create a (biased) positive SROI evaluation. Thus, although this framework inherently positions residents' perspectives as the landscape for this SROI evaluation, it is important to understand the landscape that frames residents' perspectives through their own hosting norms, as such norms can positively or negatively affect their SROI evaluation.

Third, learned through records reviewed in Chapter II (i.e., Barros, 2006) and confirmed through Chapter IV's findings, *affinity with sport* is an important part in understanding residents' SROI and offers predictive relationships (e.g., positive affect will positively and directly predict residents' SROI). *Affinity with sport* refers to an individual's involvement (or lack of involvement) with sport behavior and can include positive and negative affect (Bakhsh et al., 2021; Shank & Beasley, 1998; Teare et al., 2021), fandom (Mansfield, 2021; Tinson et al., 2017), and participation (Dwyer & Drayer, 2010). These elements are similar to the societal norms discussed above, but related to sport. Findings from Chapter IV revealed that positive affect and sport participation had predictive importance when examining residents' SROI, positioning the direct relationship *affinity with sport* has with SROI. Thus, it is expected that those who have a strong affinity with sport are more likely to garner positive experiences from hosting the event and will evaluate a positive SROI.

Finally, learned through Barros's (2006) record reviewed in Chapter II and confirmed by the findings in Chapter IV, *economic indicators* must be considered as they are similar to the

societal norms discussed above, but related to economics. *Economic indicators* represent the tangible side of residents' socio-economic exchange and indicate the importance of residents' income when evaluating SROI. Barros' (2006) findings and the findings of Chapter IV revealed the predictive importance income had on residents' SROI. These findings support the importance of *economic indicators* when examining residents' SROI and the direct relationship it can have to SROI. Linked to the overarching concept of *norms*, these findings indicate the more income one has, or the less they are required to invest (e.g., based on their geographic location) to host the publicly-funded major sport event, the more inclined they will be to do so and resolve a positive SROI evaluation.

**Experience.** By developing a conceptual framework, concepts offer insight into what a framework can explain, but also, what a framework cannot explain (Jabareen, 2009). Within this conceptual framework, a challenging web exists between evaluating residents' SROI from their experiences but accepting that these evaluations will inherently be influenced by residents' perceptions of their own experiences and non-experiences. On the one hand, this can be caused by the subjective nature of these evaluations where individuals can perceive similar experiences differently, like how they can experience similar outcomes as positive or negative (Cropanzano et al., 2016). On the other hand, this can be caused by the reality of major sport events' magnitude. Because of the size and scope of major sport events, residents may not be able to experience all outputs and outcomes which impact their SROI evaluation (Bakhsh et al., 2021; Parent & Ruetsch, 2021). For instance, although British Columbia residents' public funding was in-part used towards constructing the Sea-to-Sky Highway (i.e., the highway built between Vancouver and Whistler; Sant & Mason, 2015; VanWynsberghe, 2016), this does not guarantee that all residents used the highway and can rely on such experience when evaluating their SROI.

Ultimately, experiences and perceptions highlight the importance of understanding what elements of a SROI are based on experiences or perceptions. Regardless, both will be used when conducting SROI calculations, but being aware of these differences will help interpret variation between residents' value of various outcomes, as experiences can provide a more factual understanding and perceptions may provide a more hypothetical understanding.

Confirmed by the findings in Chapter IV, *social experience outcomes* are not only an important concept in understanding residents' SROI but the findings offer insight into predictive relationships (i.e., explanation of concept relationships needed to establish theory; Mintzberg, 2005). *Social experience outcomes* are positive and negative intangible outcomes experienced by residents post-event (Mules & Dwyer, 2005; Taks et al., 2020). Findings from Chapter IV revealed that positive (e.g., feel good factor) and negative *social experience outcomes* (e.g., feelings of [un]safety) had predictive importance when examining residents' SROI, positioning the direct positive and negative relationship social experience outcomes have with SROI.

**Time.** Present throughout this entire dissertation's development, the concept of time has been an important element for each chapter. Regarding the development of this conceptual framework, time encompasses *alignment*, *value in the exchange*, and *temporal nature*. First, there is the *alignment*, between pre-exchange perceptions (i.e., expected outcomes) and post-exchange experiences. Understood through VanWynsberghe's (2016) work, alignment between pre-exchange perceptions and post-exchange experiences is believed to have a strong impact on residents' SROI evaluations. This notion was confirmed through the post-questionnaire interview conducted in Chapter V, as several residents who were interviewed both pre-questionnaire and post-questionnaire (i.e., answered questions about pre and post-exchange) indicated the more aligned expectations and experiences in these two time points are, the more neutral evaluations

can be; while the less aligned the more opportunity there is for extreme positive and negative evaluations to occur.

Second, within any exchange, there is value in the exchange in-and-of-itself (Homans, 1958; Stirling & Goodrich, 1999; von Neumann & Morgenstern, 1944; Walsh, 1901). No different than with residents' socio-economic exchange to host a publicly-funded major sport event, an unknown value was created through and experienced by participants which elicited a value they were unaware of until having experienced the exchange itself: *value in the exchange*. The challenging dynamic residents engage in when choosing to support or not support publicly-funding a major sport event pre-exchange is the uncertainty around what will or can happen (Bakhsh et al., 2018). Understood from Chapter V of this dissertation, although promises can be made by event organizers and experiences can be shared from previous events, there is an element of uniqueness to each experience and one which highlights an uncertainty in value until the exchange has been completed and an opportunity for reflection has been afforded. From a practical perspective, this positions the importance of conducting post-exchange SROI examinations as any prior examination may not allow for residents to value the complete exchange. From a theoretical perspective, the *value in the exchange* is one which is subjective in nature and was realized by participants upon their reflection of the event itself, not simply from a completion of the exchange. This concept suggests that a crucial aspect of SROI evaluations should be a post-calculation phase which allows residents to reflect upon the exchange, the exchange calculation, and the exchange experience. Rather than just working with a practitioner to understand SROI scenarios and conduct evaluations (cf. Davies et al., 2019), scholars should be simultaneously working with both practitioners and the identified key stakeholder. Doing so

would create a triadic harmony which offers multiple perspectives and specific perspectives linked to all the concepts within this dissertation's conceptual framework.

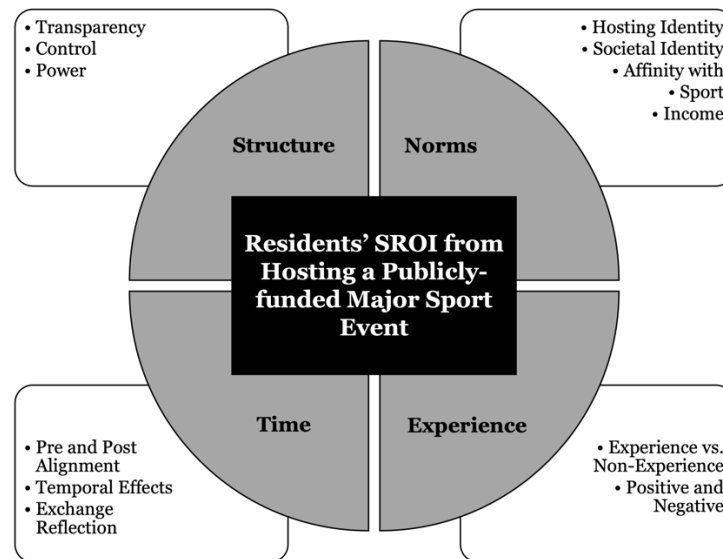
Finally, an important caveat understood from previous sport management social impact literature (e.g., Cleland et al., 2020; Ramchandani et al., 2015) and supported by Chapter IV's findings is that social impacts have a *temporal nature* and diminish over time. This temporal element makes it important for scholars and practitioners to be aware of time and when evaluations are being conducted, not only in relation to the event itself (e.g., 11 years post-event) but in relation to when event outcomes were anticipated to come to fruition. Not all event outcomes are the same nor do they follow the same timeline (Aizawa et al., 2018; Karadakis & Kaplanidou, 2012; Preuß, 2015, 2019). Consequently, investigating residents' SROI from hosting a major sport event at one point in time may not fully encapsulate the practical reality of event outcomes where some outcomes can come to fruition shortly following the event, and some may take years post-event (Preuß, 2015, 2019).

### ***Conceptual Framework***

This conceptual framework is the pinnacle of this dissertation, offering a comprehensive understanding of residents' SROI from hosting a publicly-funded major sport event. Presented in Figure 6.2, the conceptual framework displays the four distinct concepts in a circular fashion to present a consistent flow throughout. The framework is presented in this style to simultaneously highlight each concepts individual importance within the entire framework but also that the combination of all four concepts is needed to comprehensively understand the phenomenon.

**Figure 6.2**

*Residents' Publicly-Funded Major Sport Event Social Return on Investment Conceptual Framework*



The formation of these four concepts (i.e., structure, norms, experience, time) answers the important conceptual questions of *who*, *what*, *where*, *when*, *why*, and *how* positive SROI can occur for residents from hosting a publicly-funded major sport event. As previously stated, much of the *who*, *what*, *where*, and *when* were already known. However, these concepts do provide a more enhanced understanding of these elements. Regarding *who* will evaluate a positive SROI, host country residents who felt they played an important role in hosting the event; support societal norms of using public-funding to host major sport events; have a positive connection to sport; had a positive social experience from the event; and have the financial means to support. *What* needs to occur for a positive SROI evaluation is residents self-monetized social experiences need to outweigh their financial investments (i.e., taxpayers' contribution). From a

methodological perspective, this calculation cannot rely on market values to determine such social value and must present residents a gauge of the funding (e.g., range of scale) without providing the exact specifics until after the calculation has been made. *Where* a positive SROI evaluation takes place is wherever residents who invested in the event are. For the 2010 Vancouver OWG studied in this dissertation, that included taxpayers throughout the entire country, for other events this may be limited to host city residents, host region residents, or a combination of domestic and international residents when examining internationally co-hosted major sport events. *When* a positive SROI evaluation occurs in essence is whenever a positive calculation is formulated. However, for that calculation to be appropriate it must be done post-exchange: at a post-event point where residents have been given sufficient time to reflect on the entire exchange process, their actual financial investment, and the maturation or lack of event related socio-economic outcomes).

Thus far, this framework has enhanced Davies et al.'s (2019) existing SROI framework by enriching our understanding of the *who*, *what*, *where*, and *when* of residents' positive SROI from hosting a publicly-funded major sport event. Although these conceptual contributions are important, it was the dearth of knowledge linked to the *why* and *how* this phenomenon occurs which was so crucial in this dissertation. *Why* and *how* residents evaluate a positive SROI from hosting a publicly-funded major sport event can occur through a combination of the four concepts presented. Specifically, for residents to evaluate the event exchange positively the following elements were present: (1) felt alignment from pre-exchange anticipated outcomes and investments to post-exchange outcomes and investments were present; (2) found value in the exchange they were unaware of till their post-exchange reflections; (3) had social experiences that were positive; (4) felt funding the event was within their financial means; (5) held a strong

connection to sport and supporting sport; (6) supported using public funds to host major sport events; (7) felt government officials and event organizers acted on residents' behalf in a positive fashion; (8) believed they (or their region) were hosting the major sport event; and (9) felt transparency was provided throughout the entire exchange process. Although each of these elements do impact residents' SROI from hosting a publicly-funded major sport events, this conceptual framework is unable to explain how these concepts interact with each other, what each interaction can (or cannot) cause, and what each concepts overall relationship is to SROI when simultaneously tested. Thus, this conceptual framework, is exactly that, a collection of concepts which individually and collectively offer a comprehensive understanding of a phenomenon, but do not offer relationships, causations, or full explanations of how such concepts predict the phenomenon itself (Mintzberg, 2005).

Nevertheless, this conceptual framework presents a comprehensive understanding of this phenomenon and answer's this dissertation's purpose. This framework shifts our SROI knowledge away from rudimentary figures and step by step investigative processes, to focus on the conceptual underpinnings which impact stakeholders' evaluations of their SROI. In doing so, this dissertation offers an enhanced SROI framework that provides conceptual elements supported by current theories (e.g., Homans, 1958; Meyer & Rowan, 1977; Stirling & Goodrich, 1999; von Neumann & Morgernstern, 1944); understood from existing SROI literature (e.g., Davies et al., 2019, 2021; Humphreys et al., 2018; Lombardo et al., 2019; Oshimi et al., 2021); and determined by the findings of this dissertation. Consequently, this dissertation and its conceptual framework offers important contributions to theory and theory development, academic literature, and for the practice of sport management. In addition, like all research, there

are also important limitations and opportunities for future research to discuss. The following sections discuss these findings before concluding the dissertation.

### **Contribution to Theory**

Regarding theory and theory development, this dissertation's main contribution is the conceptual framework developed. This dissertation reviewed exchange theories, like social exchange theory (Homans, 1958) and game theory (von Neumann & Morgenstern, 1944), unpacked these theories' challenges (e.g., Cropanzano et al., 2016; Cropanzano & Mitchell, 2005), and reviewed the theoretical elements relevant sport management literature used to understand residents' SROI from hosting a publicly-funded major sport event (e.g., Barros, 2006; Humphreys et al., 2018; VanWynsberghe, 2016). Despite an existing SROI framework (i.e., Davies et al., 2019), an apparent gap was found: little to no theoretical understanding of this exchange phenomenon. Thus, this dissertation not only contributes to theory by offering a conceptual framework to understand this phenomenon, but it also presents an opportunity to shift away from the practical-based framework which was previously used for SROI examinations (i.e., Davies et al., 2019, 2021; Lombardo et al., 2019; Oshimi et al., 2022) towards a theory-based framework which can be used moving forward. This conceptual framework breaks away from a surface-level understanding of residents' SROI evaluations; an understanding where an overall figure is determined, but little to no insight is garnered about why residents evaluated their exchange the way they did, why nuances might be present from event to event, or from resident to resident within the same event.

SROI with sport interventions has become a popular practitioner and academic foci (Gosselin et al., 2020; Keane et al., 2019). However, to date, only a few academics have attempted to examine stakeholders' SROI from sport interventions. Rather, most SROI sport

intervention reports have been conducted by private firms (Gosselin et al., 2020). This practitioner uptake is not in any way negative; however, the lack of scholarly uptake is alarming given the importance of academic and practitioner synergy when conducting SROI examinations (Davies et al., 2019, 2021; King, 2014; Oshimi et al., 2022). Thus, by offering a conceptual framework to engage with the more rigorous challenges of SROI examinations (i.e., the how and why), this dissertation contributes a much-needed tool to sport management academics which allows them to pursue SROI examinations.

This dissertation's conceptual framework contributes to theory in-and-of-itself through each of the elements which comprise it, in one of three ways. First, research highlighting the importance of elements like *transparency* and *alignment* (e.g., Freeman, 1984; VanWynsberghe, 2016), and *economic indicators* (e.g., Barros, 2006) were supported from the findings of this dissertation. Second, new theoretical elements which were not considered in previous SROI scholarship (cf. Barros, 2006; Davies et al., 2019, 2021; Humphreys et al., 2018; Lombardo et al., 2019; Oshimi et al., 2022) revealed importance when understanding residents' SROI from hosting a major sport event. These elements included *power/control*, which links to conceptual elements understood in merger and acquisition literature (e.g., Bacharach & Lawler, 1981; Ben-Yoav & Pruitt, 1984; Carnveale et al., 1979); *value in the exchange*, which could not be learned by previous examinations which conducted their SROI prior to the anticipated exchange being completed (e.g., Barros, 2006); *social experience outcomes* and *affinity with sport*, which although both were suggested as potential important elements when dissecting SROI sport evaluations (i.e., Davies et al., 2019, 2021) had not yet been empirically examined.

### **Contribution to Literature**

Beyond the specific literature contributions of each article and the contribution of the conceptual framework overall, two additional elements of this dissertation contribute to sport management literature: host resident focus and perception and experience complexities. First, although some research has examined non-host city residents' experiences and evaluations (e.g., Bakhsh et al., 2018; Ritchie et al., 2009) most research has focused on examining the host city residents of publicly-funded major sport events (e.g., Chen et al., 2018; Gursoy & Kendall, 2006; Johnston et al., 2021; Ma & Rotherham, 2016; Oja et al., 2018; Preuß & Solberg, 2006). By examining members of various resident groups that encompass the entire host country, this dissertation was able to elicit differences between their support to host the 2010 OWG and their SROI from hosting the 2010 OWG. Findings indicated how individuals of all Canadian resident groups were willing to publicly-fund hosting the 2010 OWG and not willing to, as well as experienced positive, neutral, and negative SROI. Perhaps unsurprising, the diversity of support and SROI findings mirrors that of residents' own diversity which highlights the need to conduct these all-encompassing resident examinations. When examining publicly-funded major sport events, it can no longer be rigorous enough to examine only host city residents if other residents are investing in and being affected by the event.

Second, sport management scholarship examining residents' perceptions (e.g., Johnston et al., 2021; Ma & Rotherham, 2016) has been criticized for focusing on event perceptions and not conducting much experiential research (Königstorfer et al., 2019). However, findings from this dissertation indicate the importance and need for both perceptions and experiences, and that simply because a post-event or post-exchange examination occurs, does not mean that perceptions do not influence one's event evaluation. Rather, due to the magnitude of major sport events and their hosting complexities (Parent & Ruetsch, 2021), several event elements

individuals evaluate may be based purely on event perception or media influence due to their inability to have experienced that. This was highlighted in Chapter V where post-questionnaire interviewee's responses indicated different perceptions of hosting identities but how those perceptions still influenced their evaluation despite having experienced the event.

### **Contribution to Practice**

The practical world and the importance of creating practical contributions for not only SROI examinations (Davies et al., 2019, 2021; King, 2014) but also within sport management itself (Cunningham, 2013; Chelladurai, 2013; Doherty, 2013; Fink, 2013; Irwin & Ryan, 2013), cannot be overstated. When investigating SROI there is an inherent link to answering practitioner queries and advancing the management of such stakeholders and their socio-economic exchange. The findings of this dissertation help practitioners to evaluate SROI, understand SROI, and generate positive SROI of future events. First, regarding evaluating SROI, this dissertation presents how to apply various monetary valuation methods which can monetize social experiences needed to evaluate residents' SROI. Practitioners can apply these same methods for their own evaluations by crafting a reverse contingent valuation method scenario and determining residents' estimated taxpayer contributions. By garnering these two numbers, practitioners are armed to evaluate SROI themselves and understand the social value their various sport interventions are creating.

However, conducting monetary valuation methods for practitioners may be much more challenging than in academic investigations. Thus, I present two options for collecting this data followed by a practical example of how a monetary valuation method could be applied. On the one hand, rigorous data collection methods can be used where specific values are collected like done in this dissertation, where an appropriate monetary scale is determined and an appropriate

scenario which encompasses all relevant information. For instance, a practitioner may determine all social experiences (e.g., community involvement) a typical fitness facility member endures with the purchase of their membership and asks members to value their social experience on a monetary scale. On the other hand, a simpler method may be to provide respondents with value options relevant to their membership fee (e.g., less than, about right, greater than). For instance, having (potential) members identify (potential) membership fees and then asking them if they felt those fees were of good value to them or not is one way this method could be applied. Beyond these two examples, non-traditional examples can be conducted where the monetary value is determined by individuals post-experience. For instance, the value of a round of golf could be determined by allowing individuals to play a round of golf with no set fee, then after completing their round, individuals would provide the payment they deemed appropriate for their experience. Of course, several factors would need to be considered by the practitioner in this instance, such as weather, course conditions, the individual's previous experience at the golf club (e.g., first time at the club) and socio-economic status. Each individual's payment figure could then be compared to the golf club's actual rates to determine if value is being created for the individual and for the practitioner.

Second, regarding understanding SROI, practitioners should be aware that creating a positive SROI from hosting a major sport event is possible. Although this dissertation's findings did not find a positive SROI for all residents and resident groups, through better understanding the anticipated outcomes and allocation of funding, changes could have been made which would have garnered a positive SROI for more residents. Thus, it is imperative practitioners aiming to create a positive SROI for stakeholders understand what the anticipated outcomes are for select groups based on specific investment characteristics. In this dissertation, those characteristics

were linked to the monetary investment, but other scenarios may require practitioners to think about different investment resources like time for volunteering. By having this greater understanding of what individuals are investing relative to other individuals, a matrix can be determined that allows practitioners to create (potentially) optimal exchanges for individuals. For instance, if planning to host a future major sport event, anticipated outcomes need to be determined relative to public funding groups. Based on what groups are anticipated to receive, practitioners should match their investment to those anticipation. Linked to the context of this dissertation, if we could go back to reallocate funding now knowing how residents evaluated their SROI, greater funding would be taken from Federal residents and Venue residents with less funding taken from Vancouver and Provincial residents. Doing so could create the same overall event budget, but allow for more residents to receive a positive SROI. Thus, this dissertation calls into question major sport event policies which determines a government's major sport event funding based on monetary breakdowns (e.g., percentage of overall funding) rather than in relation to social value. For instance, within Canada, the major sport event hosting policy (i.e., "Sound Use of Federal Funds"; Government of Canada, 2021) indicates federal funding should not exceed 50% of matching provincial funding. However, this dissertation highlights how funding should simply be provided based on a groups' social value created from hosting. For instance, linked to the current Canadian policies, this dissertaitons findings show that the federal contribution for future Canadian major sport events should be able to be higher than the 50% limit it currently is. Future policy can thus be shaped by the simple rule that government funding of a major sport event should only not exceed that groups' social value from hosting said event.

Finally, regarding how to generate a positive SROI for future events, as noted above, the allocation of funding must be less than the anticipated outcomes and experiences residents

endure. However, beyond allocation of funding, galvanizing a community, transparency of the hosting process, and understanding residents' perspective is of the utmost importance. By instilling pride in individuals and giving them the narrative of being global ambassadors, community leaders, and Olympic hosts, individuals across the country felt a compelling connection to the event which instilled positive perceptions and ultimately, were more inclined to evaluate their SROI positively. By providing transparency around public funding being invested, viable opportunity cost options (e.g., funding health care facilities), and what the use of that funding hopes to achieve, practitioners can create a stronger sense of support by residents as they will have knowledge of what is to happen. For practitioners engaging in public referendums, including these figures and anticipated outcomes may be beneficial to garner residents' support. Referendums often ask residents if they support hosting or not, but do not provide much detail related to public funding and/or anticipated outcomes. By providing these details in a simple and consumable way, residents would be able to make more transparent decisions which can strengthen their support to host and connection to the event.

Of course, to do both of these things (i.e., galvanize a community and provide transparency), practitioners must understand residents' perspective. Aligned with the conceptual framework developed in this dissertation and Davies et al.'s (2019) SROI framework, understanding residents' perspective is a crucial first step for practitioners as it allows them to know what is and is not an investment and outcome for those individuals; what those individuals prioritize and desire; and what needs those individuals have and are hoping to be filled by hosting (Misener & Mason, 2006). Compiling this extensive information through community interviews and focus groups can allow practitioners to understand residents' perspectives through their own words and conversations. Having this understanding can then allow them to

transparently map desired outcomes and determine appropriate public funding which can create positive support to host the major sport event. In addition, having this understanding then informs practitioners on how to create marketing and media narratives that have residents “buy into” the event, ultimately galvanizing their community. For example, if Vancouver wishes to re-host the OWG, the interviews in Chapter V elicit how residents want a better allocation of funding (i.e., optimizing the distribution of city, provincial and federal funding). Taking this one point, practitioners could devise a matrix which shows the same overall hosting budget but a better allocation of funding based on Canadian residents’ desires. This in turn would create more resident support overall, provide practitioners the opportunity to galvanize Canadians through country wide narratives, and ultimately, generate more positive SROI for residents.

### **Limitations of the Research Project**

As with all research projects, this dissertation is subject to important challenges and limitations to discuss. First, challenges were presented during data collection due to COVID-19 restrictions. The initial intent of the pre-questionnaire interviews was to connect with community centres in the Metro Vancouver Regional District and have them agree to post interview information posters on their community bulletin boards. Upon connecting with interested potential participants, I was then prepared to fly to Vancouver, Canada and conduct these semi-structured interviews in person. However, during communication with these community centres, I learned that they were closed due to the COVID-19 pandemic and British Columbia health restrictions. Consequently, community centres could not help me as desired, and an alternative plan needed to be determined. Thus, potential interviewees were contacted through friends, family, and colleagues who agreed to solicit individuals on my behalf (e.g., through Facebook posts or personal emails). All communication was approved by the University of Ottawa

Research Ethics Board and communication was controlled with pre-scripted emails and posts that were initially sent to the willing friends, family, and colleagues who would then send the pre-scripted emails to potential interviewees on my behalf, which then guided potential participants to contact myself directly. Despite the potential personal relationships that can come from this tactic, I did not know anyone I interviewed prior to interviewing them.

Second, this dissertation faced an additional challenge and subsequent limitation through data collection during the questionnaire phase. The original intent of the questionnaire was to collect enough participant data to generalize to all five resident geographic locations (i.e., Vancouver, Whistler, Venue, Provincial, Federal) and be able to statistically compare those groups. This required 385 individuals to complete the questionnaire within each respective region. However, this did not occur for the Whistler region ( $n = 14$ ) and resulted in the Whistler region being removed from any statistical analyses and the ability to compare regions being challenged. Although comparative analyses were not conducted for this dissertation, not being able to compare resident groups as desired limited this dissertation's ability to unpack the nuances between resident groups. These insights may have been extremely advantageous given the importance that residents' geographic location revealed within the regression model in Chapter IV as well as the size of the two host cities (i.e., Vancouver versus Whistler; Agha & Taks, 2015). As noted in Chapter IV, to combat these data collection issues, scholars and practitioners should attempt to use multiple sources of data collection, particularly for smaller or more exclusive communities (e.g., in-person and online panel data collection processes). In doing so, a greater opportunity to collect the volume of data needed to conduct comparative analyses may occur.

Beyond these two data collection challenges posed by external forces, this dissertation is bounded by five important limitations which each should be discussed in depth to provide transparency, help future scholarship learn from these limitations, and offer (potential) ways to combat these limitations now having experienced them. First, although scholars have popularly focused on measuring long term impacts from major sport events (e.g., Aizawa et al., 2018; Jin et al., 2011; Karadakis & Kaplanidou, 2012), measuring long term impacts can be challenging to untangle. Moreover, measuring these long term impacts at one point in time creates challenges as some impacts may have dissolved while others may still be developing. Thus, when attempting to understand long term social impacts, scholars and practitioners would benefit from conducting longitudinal investigations which allow for data to be collected at multiple points in time. For instance, conducting 10, 20, or even 30 year post-event examinations which measures social impacts over that time period (e.g., every two years post-event). Doing so allows us to map the ebbs and flows of social impacts and determine, relative to the event in question, the lifespan of each individual impact and how they differ between one another over time.

Second, although a necessity of measuring residents' SROI from hosting a publicly-funded major sport event is monetizing social experiences, monetizing social experiences is filled with challenges (Davies et al., 2019; Gosselin et al., 2020; Keane et al., 2019; King, 2014; Orłowski & Wicker, 2019). After working with and learning about monetary valuation methods, I found two conceptual challenges during this dissertation. First, although the act of monetizing intangibles can seem simple on the surface, the truth behind the final number, is you can never be as certain of its value as you can with real tangible units. Consequently, there may always be a degree of uncertainty with monetizing intangibles; this creates a challenge when relying on such data to make decisions. From a practical perspective, I would urge scholars and practitioners to

not make decisions based purely on monetary valuation method findings. Rather, to include other forms of data collection where possible, whether that be through reflective interviews like the ones conducted in Chapter V or through an attempted corroboration with tangible values.

Second, the characteristic of being intangible or tangible has a value to it, in-and-of-itself. When transforming a social experience to monetary unit (i.e., intangible to tangible), it is possible that the intangible value of that social experience is no longer present. Thus, the value of a social experience in tangible terms may be less than in intangible terms because there is a value to its intangibility which can no longer be accounted for. However, there is also value to something being tangible. When social experiences are transformed to monetary units, the value that is lost from no longer being intangible may be replaced by the value it gains from becoming tangible. This may create an instance where the tangible value is greater than, equal to, or less than intangible value. Nevertheless, these nuances to the value of intangibles and tangibles makes the ability to confirm their value a distinct limitation of any study using monetary valuation methods.

Third, this dissertation took a geographical segmentation approach which was an appropriate fit for the taxpayer's perspective in the current SROI analysis. However, an important critique on the monetary valuation methods is that outcomes are influenced/biased based on income (Orlowski & Wicker, 2019). Our taxpayer segmentation approach did not consider variations in income levels which exist within these geographical groups. By further segmenting these geographic groups based on income levels (e.g., high, medium, low), a deeper level of SROI understanding could be garnered in relation to the importance of income. Moving forward, SROI studies which are able to collect individual income levels for their study

participants should attempt to further segment groups not only based on their geographical segmentation but their individual income levels within those respective geographic groups.

Fourth, inherent to a SROI analysis, the importance of transparency and correct public funding figures cannot be overstated. Noted by previous scholars (e.g., Preuß et al., 2019), presenting accurate numbers for OG and OWG hosting is full of complexities and challenges. To conduct any SROI-type analysis, monetary figures need to be presented within as much authenticity as possible and information for scholars and practitioners to determine how funding was used, where funding came from, and how these figures are connected to the key stakeholder identified. Although this dissertation was able to confirm numbers understood through official Games documents, official Canadian audits, and multiple academic sources, there will always be a degree of uncertainty linked to these figures. Whether these financial reports are presenting transparent and correct public funding information is not for this dissertation to say, rather, that this inherent degree of uncertainty will always be present within such investigations. Like the above limitations of long-term impacts and monetary valuation methods, these three elements will always challenge and limit one's ability to conduct SROI-type evaluations. Despite these inherent challenges, it is important to note that part of these challenges were mitigated by providing ranges to participants rather than one value. This tactic of providing ranges is something future scholars should aim to incorporate.

For scholars and practitioners to mitigate these challenges, they should attempt to triangulate data as much as possible, whether that be through multiple academic and practitioner documents, through understanding the contexts which may impact individuals' decisions over time, and/or confirming monetized data through other sources. However, it is imperative to understand that the greater the complexity with the event (e.g., major sport event vs. non-major

sport event) the greater these challenges will be and the more limiting their presence can become. These limitations are not discussed to deter future scholars and practitioners from examining future and past major sport events, rather, aligned with SROI framework concepts, to provide transparency around the rigorous and challenging process SROI-type examinations can be.

Beyond the above limitations a key contextual (de)limitation and conceptual consideration must be acknowledge. First, an important limitation of this dissertation is a (de)limitation connected to the context and residents of this dissertation. The findings of this dissertation from pre-questionnaire interviews to the construction of the conceptual framework were all determined through the analysis of the 2010 Vancouver OWG and the respective residents who participated in the various dissertation phases. Thus, these findings are bound to this context and should not be considered as generalizable to other resident groups of major sport events or of other sport events in general. However, given these initial findings, great opportunity is available to scholars and practitioners to conduct additional empirical studies, dive into conceptual considerations, and refine our understanding of residents' SROI from hosting a major sport event. These possibilities for future research are discussed next.

Finally, the SROI formula used in this study (i.e.,  $SROI = \text{social value} - \text{financial costs}$ ) did not consider financial benefits (i.e.,  $SROI = \text{social value} - \text{net financial costs}$ ). For this specific study, and aligned with the present claim of SROI garnered from hosting publicly-funded major sport events, taking individuals' social value and subtracting their financial costs (i.e., estimated taxpayer contributions) was appropriate because direct financial benefits for host residents were non-existent at the aggregate level. However, going forward, it is important to now consider potential financial benefits which may occur for residents in other contexts. For instance, in other sport events, tickets may be subsidized for host residents. This subsidization

would be a financial benefit to residents in-and-of itself, regardless of if residents choose to use these ticket opportunities are not. Regardless, if financial benefits are present for the entire population segment or not, considering the financial benefits in addition to the financial cost makes the formula more holistic for future SROI exchange evaluations.

### **Areas of Future Research**

Much of this dissertation has focused on answering conceptual, methodological, and empirical challenges and questions, and equally so, these answers are coupled with new questions and paths for future scholars and practitioners to embark on. Perhaps the most important path for scholars and practitioners to embark on is the continued development of this dissertation's conceptual framework. Understood through Chapter VI and Mintzberg's (2005) continuum, although much research went into creating this conceptual framework, much more research needs to occur to understand how these concepts interact with each other, what relationships (e.g., direct, mediation, moderation) exist between them, and how they (and possibly other concepts) situate into an explanatory model. In other words, much work is to be done to develop this conceptual framework into an explanatory theoretical model. To do so, we must conduct future studies which help us move through Mintzberg's theory continuum. Although possible, this is a challenging task which includes steps of further investigating the concepts presented to develop hypotheses, validating scales to measure factors, and testing these hypothesized relationships across a variety of major sport event contexts. Each of these steps is further discussed in the following paragraphs.

The first step to take is to further investigate the relationships amongst the presented concepts. This dissertation has done so for some factors (e.g., social outcomes experienced) but not all. Thus, future research must first conduct SROI examinations, like the one in this study, to

develop propositions or hypotheses of how these factors will or will not affect one another, and ultimately, residents' SROI from hosting a publicly-funded major sport event. These future studies should be done across a variety of major sport event contexts (e.g., western and non-western societies) to develop a stronger understanding of how these constructs may or may not relate to each other and what contextual boundaries this framework is limited by.

After taking this initial step, the four concepts presented need to be empirically measured and tested. To measure these concepts, scholars must engage with previous scales to determine if they can be adapted appropriately to measure the desired concept. In this study, economic indicators, social experience outcomes, and affinity with sport were measured using previously validated scales. However, this dissertation did not measure the remaining conceptual elements and leaves an opportunity for future scholars to determine if present scales can adequately measure these concepts. If they can, scholars and practitioners become armed with the opportunity to pursue concept and relationship testing. If they cannot, scholars and practitioners must work harmoniously to develop validated scales. Upon confirming scales which are suitable to investigate these concept relationships, testing empirical relationships can occur. Specifically, to test how these four concepts relate to each other and to a SROI dependent variable. This step is the beginning stages of modelling this phenomenon and doing so will provide a greater understanding towards how SROI evaluations are developed and what role these concepts play within this phenomenon.

Next, armed with hypotheses and validated scales, future research should test these relationships through quantitative analyses that measure the framework's concepts and hypothesized relationships. Specifically, future research should examine the developed hypotheses across a variety of sport event contexts. Sport events, major and minor, are entangled

with various stakeholders, sports, scales, and scopes (Parent & Ruetsch, 2021), and consequently, these tested relationships may differ across contexts. Differing findings is not necessarily an undesirable result, as although an important part of theory development is understanding what a theory can explain, equally important is deciphering what a theory cannot explain (Mintzberg, 2005; Sutton & Shaw, 1995; Van de Ven, 1989). This conceptual framework was developed within the context of a multisport, major sport event, 11 years post-event in North America; it is possible this framework may not translate to other geographic contexts (e.g., European), sport event scopes (e.g., single sport major sport events like the FIFA World Cup; Müller, 2015), city sizes (Agha & Taks, 2015), timeframes (e.g., within one year post-event; Gibson et al., 2014), cultures (e.g., western vs. eastern perspectives; Maharaj, 2015), government structures (e.g., democratic; Gao et al., 2022), or to non-major sport events. Consequently, testing these relationships across such contexts is imperative as not only will it garner a greater understanding of the phenomenon itself, but will garner the explanations needed to develop this dissertation's conceptual framework into an explanatory theoretical model.

To help the scholars and practitioners embark on these theory development tasks, I offer three investigative avenues to pursue SROI evaluations which concurrently may offer insight into the above theory development opportunities. First, to conduct additional evaluative examinations on residents' SROI from hosting a publicly-funded major sport. The reality of SROI investigations in sport is that this body of literature is in its infancy. Consequently, we are in an opportunistic stage, one where research may go in many directions. This dissertation offers one avenue for scholars to embark, by doing so, the empirical findings of this dissertation can be further developed through potential support found and challenges offered by future studies. Regardless of the findings of these future studies, what is most important is that these findings

advance our understanding of this phenomenon collectively. Whether future findings are similar or different to this dissertation is not what matters most, rather, why future findings are similar or different. A collective pursuit of previous SROI investigations, this dissertation, and future scholarship, ultimately, can build upon each other to galvanize a stronger understanding of this phenomenon and do what our field's main mission is: to aid and advance the practical world of sport management (Davies et al., 2019, 2021; King, 2014; Lombardo et al., 2019; Oshimi et al., 2022).

Second, although the pre-exchange nature of forecast SROI seems counterintuitive to SROI evaluations, conducting investigations which include both forecast (i.e., pre-exchange) and evaluative (i.e., post-exchange) SROI evaluations offers an opportunity to understand how SROI can change over time. Specifically, by mapping the ebbs and flows of anticipated and experienced SROI will help scholars and practitioners understand the potential differences between pre-exchange anticipations and post-exchange realities. This difference can help illuminate the importance of the value in the exchange concept, and further understand how perceptions and experiences are entangled. In addition, mapping these ebbs and flows can help scholars and practitioners understand the relative SROI importance of specific event outputs, as outputs and outcomes are not universal and come to fruition at different time points. Having such a longitudinal examination would glean insight into when the optimal post-exchange is to evaluate residents' SROI and when anticipated outcomes become fulfilled relative to the event itself. Despite the potential answers and understandings this type of research can produce, it is important to at least note the challenges of conducting such longitudinal research. For instance, taking the 2010 Vancouver OWG context of this study, this study conducted an evaluative SROI examination 11 years post-event in 2021, and the referendum (i.e., confirmation of exchange

happening) occurred in 2003. This means scholarship would have had to commence prior to 2003 to garner residents' forecasted evaluation before residents officially voted at the referendum. Nevertheless, this longitudinal opportunity offers great (potential) challenges and benefits to both scholars and practitioners.

Third, another opportunity to productively apply forecast SROI examinations is by posing multiple potential events to the same residents (e.g., major sport event and non-major sport event). In doing so, understanding residents' perceptions around SROI efficacy across events can be garnered. Within sport management literature, scholars (e.g., Bodin et al., 2022; Taks, 2013, 2016) have argued how hosting non-major sport events can be a greater benefit than major sport events, conducting these types of examinations would help unpack these possibilities further. By doing so, presenting stronger justification for practitioners to pursue select sport events and create benefits for their community members.

Fourth, to take empirical investigations a step further, an opportunity for scholars and practitioners to refine these SROI examinations is through applying appropriate tax rates or brackets to their analyses. Within the Canadian context, taxpaying residents pay differing tax rates based on their annual taxable income (Sillamaa & Veall, 2001). Given this hierarchical structure, not all residents contribute public funding to host major sport events in Canada (i.e., individuals whose annual taxable income is below the taxable rate of \$12,000). In addition, not all contributing residents provide the same amount as residents who pay higher taxes are providing a higher portion of tax dollars to host publicly-funded major sport events. These tax dynamics suggest multiple avenues for scholars and practitioners to consider. First, scholars should consider if residents who do not publicly-fund the event in question should have their SROI examined. Given that all residents are affected by the event and the allocation of public

funding to host the event, there is reason to believe they should be included. However, given that residents who do not publicly fund the event do not technically engage in the socio-economic exchange, it can be argued they should not be included. Second, should residents SROI be examined based on their hierarchical taxpayer contribution or using public funding estimates and ranges like the present study did. This conceptual consideration may differ across event and resident contexts, and is an important complexity for scholars and practitioners to unpack. Finally, if residents are to be examined by their hierarchical taxpayer power, how does this challenge the SROI conceptual framework proposed given that these individuals may still not have control over their exchange and public referendums, where all individuals receive the same voting right regardless of taxable income, create an equal control platform from the outset of the exchange. These final avenues for future research move beyond empirical only analyses and offer conceptual considerations for scholars and practitioners to unravel. Engaging with these tax and public funding complexities will only garner a greater understanding of key concepts, like residents' perspective, transparency and alignment, value in the exchange, control, and economic indicators.

Finally, and building off the previous limitation, missing from this dissertation is an understanding of government expenditures and the value of the public funding used relative to other (potential) public funding projects. Specifically, this dissertation elicits the public funding used to host the 2010 OWG but the relative proportion of that funding to other areas of government funding or what that funding could be used for if used differently, are absent. Learning the relativity of such public funding, through collaborating with public administration and public funding scholars and industry members, would only further our understanding of these publicly-funded major sport event exchanges. As a result of such future collaborative

investigations, we could garner a greater understanding of the opportunity cost of hosting major sport events. Moreover, since public funding can be used to invest in multiple projects (e.g., building hospitals, hosting a major sport event) and SROI can be evaluated in each of these projects, by having this understanding of relative public funding, we can actually compare the SROI evaluations of one publicly-funded project (e.g., major sport event) to another and determine what is the most efficient and effective means of public funding for a given population.

### **Conclusion**

This dissertation set out to accomplish a challenging task, to understand residents' SROI from hosting a publicly-funded major sport event. Forged from reviewing previous SROI investigations, appraising social science theories, and conducting a mixed methods empirical investigation, this dissertation answered four research questions, that: (1) one's affinity with sport, income, and the transparency of the exchange would impact residents' SROI evaluation; (2) the reverse contingent valuation method best lends itself to examine residents' SROI from hosting a publicly-funded major sport event; (3) social experience outcomes, affinity with sport, and economic factors predicted residents' SROI from hosting a publicly-funded major sport event; and (4) residents' evaluated their SROI the way they did because of their hosting identity, societal norms, and temporal elements. As a result, a collection of four concepts was determined and formulated into one conceptual framework. On the one hand, this collection of concepts is a large step forward. It shifts SROI research from a framework focused on rudimentary figures with no understanding of the why and how these figures were formulated, to a framework which offers a comprehensive understanding of why and how SROI evaluations are formulated and gifts preliminary insight into their explanatory relationships. On the other hand, this

dissertation's conceptual framework only provides a starting point for scholars and practitioners, as much work needs to be done to evolve this conceptual framework into a full explanatory model of the phenomenon. Nonetheless, this dissertation answered conceptual, methodological, and empirical challenges by determining a network of four individual concepts (i.e., structure, norms, time, experience) which provide a comprehensive understanding of the phenomenon; identifying that a reverse contingent valuation method is best for conducting these exchange analyses; and provided the first empirical examination of residents' SROI from hosting a publicly-funded major sport event. In doing so, this dissertation answers stakeholder questions about if and how this phenomenon can occur, it arms practitioners with the knowledge that positive SROI can be created from hosting publicly-funded major sport events, and it paints a path for scholars to embark on in the pursuit of working with practitioners and stakeholders to advance the field of sport management, garner positive SROI from residents, and understand this phenomenon.

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## Appendix A

### Pre-Questionnaire Interview Guide

#### Introduction

Thank you for participating in this study. Your involvement is greatly appreciated and will provide valuable insights for my research project.

Before we start, can you confirm you were born before 1984?

→ if yes, continue

→ if no, thank the participant for his/her willingness to participate

Can you confirm, you are a resident of [City]

→ if yes, continue

→ if no, thank the participant for his/her willingness to participate

To review with you again, the purpose of my research project is to discuss how residents experienced hosting the 2010 Olympic and Paralympic Winter Games.

In February 2010, the City of Vancouver hosted the 2010 Olympic and Paralympic Winter Games with some winter events being held in Richmond and Whistler (e.g., speed skating in Richmond and mountain sports in Whistler).

Please try to answer the questions to the best of your ability; there are no right or wrong answers. Everything you say will remain confidential. Do you have any questions before we begin the interview?

#### Demographic Information

Where do you currently live?

Where did you live at the time of the referendum (February 2003)?

Where did you live while the 2010 Games were being planned (between July 2003 and December 2009)

Where did you live at the time of the 2010 Games (February 2010)?

How old were you at the time of the referendum?

Did you vote in the referendum? If yes, can recall your vote? If no, why did you choose not to vote at the referendum?

Can you tell me about your experience with the referendum (e.g., was it something you would talk about with others; did you follow it in the media)?

Can you tell me about your experience leading up to hosting the Games (e.g., was it something you would talk about with others; did you follow it in the media)?

#### Legacies

As a [ \_\_\_\_\_ ] resident, what expectations did you have for the City of Vancouver from hosting the 2010 Games?

Were they positive? Negative?

Why did you have these expectations?

Community needs?

Resident needs?

Were any of these expectations fulfilled?

Which ones were?

Why do you think these expectations were fulfilled?

Are you able to place a timeline on when you feel this/these occurred?

Which ones were not?

Why do you think these expectations have not been fulfilled yet?

Will/can these expectations ever be fulfilled?

Why do you think Vancouver wanted to host the 2010 Olympic and Paralympic Winter Games?

Community

Economy

Political

Environmental

Infrastructure

Sport Participation

Do you feel that hosting the 2010 Games affected/changed your life personally or your life in the community, or the community at large? Please explain or give me some examples.

### Return on Investment

How important was hosting the 2010 Games event to you?

Did Vancouver need the Games?

Was it the right time to host?

Do you think the Games brought about change?

Positive change? Negative change? Needed change?

Do you think hosting the Games was a good use of public funding?

Why or why not?

How else could the money have been spent?

Looking back, was hosting the Games a good idea?

Would you host again?

Why or why not?

Should other Canadian communities host?

Why or why not?

Can you tell me a positive story from hosting the 2010 Games?

Can you tell me a negative story from hosting the 2010 Games?

Is there anything else you would like to mention regarding hosting the 2010 Games and its legacies?

Do you want to participate in a draw to win a \$50 gift certificate (chance of 1 in 15 to win)?

→ if yes: we will put your name in the draw, and draw the winner two weeks after completion of the last interview which will approximately *[date]*

Thank you for your time and valuable insight

→ if No: No problem, thank you for your time and valuable insight

Are you willing to participate in a follow-up interview at the end of the project?

Yes/No?

## Appendix B

### Pre-Questionnaire Interview Letter of Information

Date [INSERT DATE HERE]

Dear [INSERT NAME HERE],

My name is Jordan T. Bakhsh, and I am a doctoral student in the School of Human Kinetics at the University of Ottawa. As part of my doctoral dissertation I am interested in learning how residents experienced the 2010 Olympic and Paralympic Winter Games, and how they value having hosted the 2010 Games 10 years after the fact. I am looking for residents to help me with this study.

By participating, you can help policymakers make more informed decisions in terms of supporting (or not) major sport events in the future. It will also help future Canadian sport event organizations improve stimulating positive outcomes from hosting these events.

If you agree to participate in the study, you will be asked to take part in a 20- to 40-minute interview (face-to-face interview via virtual platform of the interviewees choice; e.g., Zoom, Microsoft Teams) about your experiences with the 2010 Games. Your participation is voluntary. At any point in the interview, you may stop your participation. You do not have to answer questions you do not wish to answer. The interview will be audio recorded. This recording will be transcribed and then sent back to you so you can verify it.

There are no known or anticipated risks if you participate in this study beyond what you face every day. I will guarantee your confidentiality by using a pseudonym. All hard copy materials will be stored in a locked cabinet in a locked office at the University of Ottawa campus for a period of 5 years, at which time they will be shredded. Further, all electronic data files will be kept in a shared, password protected file, accessible to myself and my supervisors (i.e., Dr. Marijke Taks and Dr. Milena Parent) during the time of analysis, after which they will be stored in a password-protected file on my password-protected computer. After 5 years, all electronic files will be securely destroyed.

The University of Ottawa Research Ethics Board has approved the ethical components of this research project Board. If you have any questions, comments or concerns, please contact the project supervisors, or the Office of Research Ethics and Integrity.

I hope that the results of my research project will be beneficial to you and other residents as well as to future major sport event host city residents. I very much look forward to speaking with you and thank you in advance for your assistance with this project.

Sincerely,

Jordan T. Bakhsh

## Appendix C

### Pre-Questionnaire Interview Consent Form

You are invited to participate in a research project titled “Examining Residents’ Social Return on Investment from Hosting Major Sport Events: The Case of the 2010 Olympic and Paralympic Winter Games.”. This study is conducted by Jordan T. Bakhsh from the School of Human Kinetics at the University of Ottawa, and supervised by Dr. Marijke Taks and Dr. Milena M. Parent.

PRINCIPAL INVESTIGATOR: Jordan T. Bakhsh

RESEARCH PROJECT SUPERVISORS: Dr. Marijke Taks and Dr. Milena M. Parent

**Purpose of the Study:** As part of my doctoral dissertation I am interested in learning how residents experienced the 2010 Olympic and Paralympic Winter Games, and how they value having hosted the 2010 Games 10 years after the fact.

**Participation:** Your participation will include one interview discussing how you experienced the 2010 Games. Participants may withdraw at any time without any negative consequences.

If you volunteer to participate in the interview process:

You will be interviewed by the principal investigator one-on-one with no one else present

Your name will not appear anywhere, but anonymity cannot be fully guaranteed

The interview will last about 20 to 40 minutes

Interviews will be on a virtual platform of the interviewee’s choice (e.g., Zoom, Microsoft Teams)

You consent to being audio recorded so that the principal investigator can transcribe and analyze information from the session

You will have the opportunity to review your interview transcript

You will be able to participate in a draw to win a \$50 gift certificate of your choice (with a 1 in 15 chance to win)

**Potential Risks and Discomforts:** There is no known or anticipated risks if you participate in this study beyond what you face every day. Your participation is voluntary. At any point in the interview you may stop your participation. You do not have to answer questions you do not wish to answer. Should a participant choose to withdraw, their data will be removed and not used in the study.

**Potential Benefits:** Your participation will help inform public officials and policy on how to more effectively invest taxpayers’ contributions to benefit Canadian communities.

**Compensation:** To thank you for your contribution to the research project, you will be given the option to enter your name in a draw to win a Visa gift certificate valued at \$50. The draw is open

to all research participants who enter their name in the draw, regardless of whether they decide to withdraw from further participating in the research project.

At the completion of the study, a name will be randomly selected amongst those who have entered, and the winner will be contacted. To win the prize, the person must correctly answer a skill testing question. If the winner cannot be reached within 14 days from the date of the draw, the prize will be awarded to the second name that is randomly selected and so on until the prize has been awarded. The odds of winning a prize are 1 in 15. The prize must be accepted as awarded or forfeited and cannot be redeemed for cash.

Your name and email address, that you provide when you enter the draw is collected for the purpose of contacting you if your name is selected in the draw. Your name and the contact information you have provided will be kept confidential and destroyed once the prizes have been awarded.

**Confidentiality and Anonymity:** The information you share during the interviews will remain strictly confidential. The contents of the interviews will only be used for this study and your confidentiality will be protected. Pseudonyms/codes will be used for all participants to guarantee full anonymity.

**Feedback of the Study Results to Participants:** If you wish, you can request a copy of the study's results.

**Conservation of Data:** Electronic data files will be kept in a shared, password protected file, accessible to myself and my supervisors during the time of analysis, after which they will be stored in a password-protected file on my password-protected computer. After 5 years, all electronic files will be securely destroyed. All hard copy materials from this study will be stored in a locked cabinet in a locked office at the University of Ottawa campus for a period of 5 years, at which time they will be shredded.

**Subsequent use of Data:** Data from this study may be used in subsequent academic studies, publications, and/or presentations.

**Acceptance:**

I, \_\_\_\_\_, hereby consent to participate in the above research study conducted by Jordan T. Bakhsh of the University of Ottawa and supervised by Prof. Marijke Taks and Prof. Milena M. Parent of the same affiliation.

If I have any questions about the study, I may contact the principal investigator or his supervisors.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, Ontario, K1N 6N5.

---

Participant's Signature

---

Date

---

Researcher's Signature

---

Date

There are two copies of this form, one of which is yours to keep

## Appendix D

### Pre-Questionnaire Interview Recruitment E-Mail

Email to “others” (sent by researcher)

Dear [other’s name],

I am a doctoral student at the University of Ottawa, School of Human Kinetics, and I am conducting a study entitled *Examining Residents’ Social Return on Investment from Hosting a Major Sport Event: The Case of the 2010 Vancouver Olympic and Paralympic Winter Games*, under the supervision of Dr. Marijke Taks and Dr. Milena M. Parent.

It was brought to my attention that you may know families with individuals who have lived in [name of city] since 2003, and were born in 1984 or earlier. I would like to reach out to such [name of city] residents for my study, and I kindly ask if you would be able to send the e-mail below – with a full explanation of the study – to your contacts. The attached Letter of Information should also be included when sent out with the template e-mail below.

Please do not hesitate to contact me if you have more questions.

Thank you so much for your collaboration with this study.

Sincerely,

Jordan

Jordan T. Bakhsh, M.A.  
University of Ottawa  
School of Human Kinetics, Faculty of Health Sciences

[Attach: Letter of Information]

Template e-mail to be added at the bottom of the “email to others” and sent to potential residents (sent by “others” above)

Dear [participant's name],

I was contacted by Jordan Bakhsh, a doctoral student at the University of Ottawa, School of Human Kinetics, who is conducting a study entitled *Examining Residents' Social Return on Investment from Hosting a Major Sport Event: The Case of the 2010 Vancouver Olympic and Paralympic Winter Games*, under the supervision of Dr. Marijke Taks and Dr. Milena M. Parent.

Jordan is interested in learning how [name of city] residents experienced the 2010 Olympic and Paralympic Winter Games, and how they valued hosting the 2010 Games 10 years later. Jordan is looking for [name of city] residents who want to participate in the study.

Participation will consist of one 20-40 minute interview during which you will be asked about your experiences with the 2010 Games. The interview will take place online, using your preferred platform (e.g., Zoom, TEAMS, Skype), and will take place at a time and date that is convenient for you.

In exchange for your time, your name will be entered into a draw for a \$50 Visa gift card, with a 1 in 15 chance of winning.

A comprehensive Letter of Information is also attached to this e-mail.

If you agree to participate in the study, please contact Jordan via the details below by [DATE]. You can also contact him if you have any questions about this study.

Jordan T. Bakhsh, PhD Candidate, School of Human Kinetics, University of Ottawa  
125 University Private (MNT 420A) Ottawa ON K1N 6N5 Canada

Thank you for your consideration

[SIGN OFF]

[Attach: Letter of Information]

## Appendix E

### Questionnaire

Invitation to participate in a research study on:

The Social Impact Experiences and Value of  
the 2010 Vancouver Olympic Winter Games

conducted by  
Jordan T. Bakhsh (University of Ottawa)

The purpose of this study is to better understand if and how the 2010 Vancouver Olympic Games generated social experiences for you, and how you value those social experiences.

For the purpose of this study the EVENT, the 2010 Games is defined as:

*the 2010 Games was hosted by the City of Vancouver from February 12<sup>th</sup> to 28<sup>th</sup>, 2010. To stage all events, venues were used in the cities of Vancouver, West Vancouver, Richmond, and Whistler, to host 2566 athletes from 82 countries across 86 events.*

Are you aware that the City of Vancouver hosted the 2010 Games?

Yes

No

*\*Sample Quality Check: respondents will not be allowed to continue if they select “No”*

What year were you born?

1920 to 2002 (drop down showing every year)

*\*Sample Quality Check: respondents will not be allowed to continue if they select “1985” or later (i.e., 1985 to 2002)*

### Invitation to Participate

This online survey consists of four parts:

Your involvement with the 2010 Games  
Your experiences from the 2010 Games  
How you valued your experiences from the 2010 Games  
Personal characteristics

The survey takes about 10 to 15 minutes to complete.

You must answer all questions.

Please use the following link to view the Information and Consent Letter

[Insert Consent and Information Letter Link here]

Thank you for your participation in this study

I have read through the Consent and Information Letter

Yes

No

*\*Sample Quality Check: respondents will not be allowed to continue if they select "No"*

Section 1: Your Involvement with the 2010 Games

Q1.a. Did you attend any live events during the 2010 Games?

Yes  
No

Q1.b. Did you volunteer at the 2010 Games?

Yes  
No

Q1.b.1 If yes, can you identify your volunteer role? (fill in the blank)

\_\_\_\_\_

Q1.c. Did you work at the 2010 Games?

Yes  
No

Q1.c.1. If yes, can you identify your working role? (fill in the blank)

\_\_\_\_\_

Q1.d. Answer each of the following questions to the best of your ability. There are no “right” or “wrong” answers – we simply want you to indicate the most appropriate answer for each item.

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

I consider myself to be a fan of the Olympic Winter Games  
 My friends see me as a fan of the Olympic Winter Games  
 I believe that the Olympic Winter Games is the most enjoyable form of entertainment  
 My life would be less enjoyable if I were not able to watch the Olympic Winter Games  
 Being a fan of the Olympic Winter Games is very important to me

Q1.e. How important was it to YOU that Canadian athletes had success in the 2010 Games?

Not Important 1    2    3    4    5    6    7    Very Important

Q1.f. How necessary was it to YOU that Canada was well represented by athletes at the 2010 Games?

Not Necessary    1    2    3    4    5    6    7    Very Necessary

Q1.g. How strongly do YOU see YOURSELF as a fan of Canadian Olympic Winter athletes?

Not at All a Fan      1      2      3      4      5      6      7      Very Much a Fan

Q1.h. Now, more than 10 years later, please indicate how you currently feel about the 2010 Games on each of the following dimensions. Mark your ratings by identifying the number closest to the way you feel. For example, if you currently feel like the 2010 Games were very exciting, circle the number 7 on the first dimension. If you think the 2010 Games were also uninteresting, circle the number 1 on the second dimension.

Boring	1	2	3	4	5	6	7	Exciting
Uninteresting	1	2	3	4	5	6	7	Interesting
Worthless		1	2	3	4	5	6	7 Valuable
Unappealing	1	2	3	4	5	6	7	Appealing
Useless		1	2	3	4	5	6	7 Useful
Not Needed	1	2	3	4	5	6	7	Needed
Irrelevant		1	2	3	4	5	6	7 Relevant
Unimportant	1	2	3	4	5	6	7	Important

## Section 2: Your Experiences from the 2010 Games

Q2. Rate your level of agreement with the following statements by indicating the appropriate answer for each item.

Strongly		Somewhat		Somewhat		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
1	2	3	4	5	6	7

### Social Cohesion

The 2010 Games strengthened my friendships/relationships in the community  
 I created new friendships/relationships in the community because of the 2010 Games  
 I felt a strong connection to others because of the 2010 Games

### Community Spirit and Pride/Psychological Feel Good Factor

I feel proud that Vancouver hosted the 2010 Games  
 The 2010 Games lifted my spirits  
 I celebrated with others due to the 2010 Games

### Social Capital and Community Engagement

The 2010 Games motivated me to more regularly attend community events after the Games  
 My feelings of trust in the community were enhanced because of the 2010 Games  
 The 2010 Games inspired me to become (more) engaged in the community in which I live

### Feelings of (Un)Safety

The 2010 Games made me feel unsafe because of potential terrorist attacks

The fact that the 2010 Games required a lot of security frightened me

I was worried because of city riots which happened during the 2010 Games

### Community Involvement Regarding the Event

I was able to express my opinion about the organization of the 2010 Games

I discussed the organization of the 2010 Games with other people in the community

I had conversations about the organization of the 2010 Games

### Disorder and Conflict

The 2010 Games disturbed my daily life (e.g., increase noise)

The 2010 Games caused friction between myself and people who surrounded me in my daily life

I had conflicts with people around me because of the 2010 Games

### Pollution

Hosting the 2010 Games made me more environmentally conscious

I noticed negative long-term environmental effects because of the 2010 Games

I improved my waste recycling because of the 2010 Games

### Overall Experience via Flow

I was so into the 2010 Games that I lost touch with what was happening around me

It felt as if time stood still during the 2010 Games because I was so focused on the event

I was so “zoned into” the 2010 Games that I lost track of time

Strongly

Disagree

1

Strongly

Agree

10

### Overall Value & Life Satisfaction

Overall, I am very satisfied with the social-based outcomes I received from Vancouver hosting the 2010 Games.

*As a Canadian resident, part of your tax dollars were used to host the 2010 Games. This means you exchanged your tax dollars for social-based outcomes from Vancouver hosting the 2010 Games.*

Overall, I am very satisfied with the social value I received from Vancouver hosting the 2010 Games.

Overall, taking everything into account more than 10 years after hosting the 2010 Games, I am very satisfied with my quality of life.

### Section 3: How You Valued Your Experience From the 2010 Games

#### Reverse Contingent Valuation Method

Q3.a. The following scenario and question ask about your willingness to pay for the 2010 Games having experienced the event more than 10 years ago.

To host the 2010 Games in the City of Vancouver, a large portion of funding was provided from Canadian, British Columbia, and Vancouver tax dollars. Some of these tax dollars were used specifically for hosting the event, while other tax dollars were used to advertise and market the event. In addition, tax dollars were used to build infrastructure in British Columbia like improving the Sea-to-Sky Highway (the highway from Vancouver to Whistler) and accelerated construction of the Vancouver Convention Centre and Canada Line (infrastructure in British Columbia).

Many Canadians have voiced how the 2010 Games brought positive and negative social impacts to their lives, like community disruption, national pride, community displacement, and sport participation opportunities.

Now, more than 10 years later, as a Canadian who experienced this event, do you support having used tax dollars to host the 2010 Games?

Yes

No

Q3.a.1. For those who answered “Yes” in Q3.a.

Canadians’ tax dollars were used each year for the 7 years leading up to the 2010 Games. Considering your current income, how much of your current tax dollars (in present value) would you support having been used to host the 2010 Games each year for 7 years?

For example, if you say \$10 on the following scale, that is \$10 a year for 7 years, a \$70 total; if you say \$100 a year for 7 years, that is a \$700 total.

\$25    \$50    \$75    \$100    \$125    \$150    \$175    \$200    \$225  
 \$1 -----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----- >\$250

Q3.a.2 For those who answered “No” in Q3.a.

Please explain why.

\_\_\_\_\_

Q3.b. The following scenario and question ask about your willingness to pay for the 2030 Games.

The City of Vancouver is considering bidding for the 2030 Games. But to do so, it would require using new tax dollars to host the event. Do you support the idea of using tax dollars to host the 2030 Games?

Yes  
No

Q3.b.1. For those who answered “Yes” in Q3.b.

Considering your current income, how much of your current tax dollars (in present value) would you be willing to provide overall to host the 2030 Games in the City of Vancouver (knowing that this amount may be spread over a certain number of years)?

\$150 \$300 \$450 \$600 \$750 \$900 \$1050 \$1200 \$1350  
 \$1 -----I-----I-----I-----I-----I-----I-----I-----I-----I-----I----- >\$1500

Q3.b.2 For those who answered “No” in Q3.a.

Please explain why.

\_\_\_\_\_

Opportunity Cost Approach

Q3.c. An estimated \$2 to \$4 billion (in present value) of Canadians’ taxes were spent over seven years to host the 2010 Games. First, \$2 billion (in present value) was used to host the event and develop the Sea-to-Sky Highway. In addition, \$2 billion (in present value) were used to develop the Vancouver Convention Centre and Canada Line (infrastructure already in development but fast-tracked to be ready for the 2010 Games).

In total, this creates a \$2-4 billion (in present value) estimated public investment, over a 7 year period to host the 2010 Games. It is possible some of this money could have been spent elsewhere (e.g., decrease national debt, improve Canada’s ecological footprint, develop low-income housing).

If Canada let another country host the 2010 Games, Canadians would still have been able to follow the event via television broadcast and used some of these tax dollars elsewhere. Also, infrastructure like the Vancouver Convention Centre, Sea-to-Sky Highway, and Canada Line in British Columbia may not have been completed or may have taken much longer to complete.

Now, more than 10 years later, as a person who experienced this event in your community, do you think it is okay \$2 to 4b billion (present value) of tax dollars were used over seven years to host the 2010 Games?

Yes

No

Q3.c.1. For those who answered “No” in Q3.c

From the following list, please rank your top 3 options in order of how you would feel this money could have been better used for instead of hosting the 2010 Games. (Rank your top 3)

You can also use the “other” option to identify additional alternatives for spending these tax dollars.

- I would decrease national debt
- I would improve Canada’s ecological footprint
- I would increase Canada’s post-secondary education opportunities
- I would fund other major sport events in Canada (e.g., Commonwealth Games)
- I would bring back Canadian professional sport teams (e.g., Vancouver Grizzlies, Québec Nordiques)
- I would develop low-income housing in Canada (e.g., downtown east Vancouver, downtown central Winnipeg)
- I would build more hospitals and medical buildings in Canada
- Other \_\_\_\_\_

Q3.d. The following is an estimated average for what each taxpaying Canadian would have paid in present (2021) value to host the 2010 Games.

Vancouver resident total)	\$75-\$175 per year, for 7 years (\$525-\$1225 total)
British Columbia resident (outside of Vancouver) total)	\$65-\$130 per year, for 7 years (\$455-\$910 total)
Canadian resident (outside of British Columbia)	\$4-\$7 per year, for 7 years (\$28-\$49 total)

Now that you know how much the 2010 Games approximately cost you, please rank your top 3 options in order of how you would allocate the overall \$2 to \$4 billion (present value) in tax dollars. (Rank your top 3)

You can also use the “other” option to identify additional alternatives for spending these tax dollars.

- I would still provide the funding to host the 2010 Games
- I would decrease national debt
- I would improve Canada’s ecological footprint
- I would increase Canada’s post-secondary education opportunities
- I would fund other major sport events in Canada (e.g., Commonwealth Games)
- I would bring back Canadian professional sport teams (e.g., Vancouver Grizzlies, Québec Nordiques)

\_\_\_ I would develop low-income housing in Canada (e.g., downtown east Vancouver, downtown central Winnipeg)

\_\_\_ I would build more hospitals and medical buildings in Canada

\_\_\_ Other \_\_\_\_\_

Section 4: Personal Characteristics

Q4.a For the purpose of this study, how would you like to be identified?

Male

Female

Transgender

Non-Binary

Two-Spirit

Genderqueer

Other

*\*Sample Quality Check: want as close to 50/50 gender split (male/female) as possible while allowing for all options to be included*

Q4.b Where do you currently live?

City of Vancouver (British Columbia)

Resort Municipality of Whistler (British Columbia)

City of Richmond (British Columbia)

District of West Vancouver (British Columbia)

British Columbia (but outside Vancouver, West Vancouver, Whistler, Richmond)

Canada (but outside British Columbia)

*\*Sample Quality Check: want 500 for each of the four options (Vancouver; Whistler, West Vancouver & Richmond; British Columbia; Outside British Columbia)*

For respondents answering Vancouver, Whistler, Richmond, or West Vancouver, to Q4.b. complete Q4.b.1 to Q4.b.2

Q4.b.1. How many properties do you currently own and/or rent in your community?

\_\_\_\_\_

Q4.b.2. How many individuals in your household currently contribute to your property tax?

\_\_\_\_\_

For respondents answering Canada (but outside British Columbia), complete Q4.b.3

Q4.b.3. For Canada (but outside British Columbia) residents, what province or territory do you currently live in?

Alberta  
 Manitoba  
 Ontario  
 Québec  
 Prince Edward Island  
 Saskatchewan  
 New Brunswick  
 Newfoundland & Labrador  
 Northwest Territories  
 Nova Scotia  
 Nunavut  
 Yukon

*\*A “prefer not to answer” option is not included because provincial/territory tax brackets differ, so identifying which province/territory the respondent lives in is necessary for the analysis*

Q4.c. How would you consider your ethnic background?

Non-Indigenous  
 Métis  
 First Nations  
 Inuit  
 Arab  
 Black  
 Chinese  
 Filipino  
 Japanese  
 Korean  
 Latin American  
 South Asian  
 Southeast Asian  
 West Asian  
 White  
 Other  
 Prefer not to Answer

Q4.d. What is your highest level of education earned?

Some high school, no degree  
 High school graduate  
 Some college or university, no degree  
 College diploma  
 Bachelor’s degree  
 Master’s degree

Professional degree (e.g., J.D., M.D., D.O., etc.)  
 Doctorate degree  
 Prefer not to Answer

Q4.e. What is your current employment status? (check all that apply)

Full-time  
 Part-time  
 Self-employed with salary  
 Self-employed without salary  
 Full-time student  
 Part-time student  
 Retired  
 Government Assistance Program (e.g., EI, DI, FBA)  
 Housemaker  
 Unemployed

*\*A “prefer not to answer” option is not included because employment status affects individuals’ taxes which is needed for the analysis*

Q4.f. What is your current personal annual taxable income?

\$0 to \$250000+ (in \$1000 increments)

*\*A “prefer not to answer” option is not included because knowing individuals income is necessary for the analysis*

Q4.g. In 2019, before the COVID-19 pandemic, did you practice any sport/physical activity in a normal week?

Yes  
 No

For respondents answering “Yes” to Q4.j. complete Q4.j.1 to Q4.j.4

Q4.g.1. In 2019, before the COVID-19 pandemic, how many times a week did you participate in sport/physical activity?

1 time  
 2 times  
 3 times  
 4 times  
 5 times  
 6 times  
 7 times  
 >7 times

Q4.g.2. In 2019, before the COVID-19 pandemic, what was the average length of a sport/physical activity session?

< 1 hour

1 hour

2 hours

3 hours

4 hours

5 hours

6 hours

7 hours

8 hours

9 hours

10 hours

> 10 hours

Prefer not to answer

Q4.g.3. In 2019, before the COVID-19 pandemic, during a typical week, what type of sport/physical activity do you regularly participate in? (check all that apply)

Registered in a sport club, association, or league (e.g., joined a recreational sport league)

Organized physical activity (e.g., fitness class)

Unorganized physical activity (e.g., run on your own)

Prefer not to Answer

Q4.g.4. In 2019, did you participate in a competition and/or tournament in any sport or physical activity?

Yes

No

THANK YOU FOR YOUR PARTICIPATION

## Appendix F

### Questionnaire Letter of Information

You are invited to participate in a study on the social impact experiences and value of the 2010 Vancouver Olympic Winter Games. THE EVENT, IS DEFINED AS:

The 2010 Games was hosted by the City of Vancouver from February 12<sup>th</sup> to 28<sup>th</sup>, 2010. To stage all events, venues were used in the cities of Vancouver, West Vancouver, Richmond, and Whistler. 2566 Athletes from 82 countries participated in 86 Olympic events.

The online survey consists of four sections: (1) your involvement with the 2010 Games; (2) your experiences from the 2010 Games; (3) how you value your experiences from the 2010 Games; and (4) personal characteristics. The survey takes about 10-15 minutes to complete and is only available in English.

**Benefits:** This survey allows you to reflect on your personal experiences and value of those experiences from the 2010 Games, which has generated a lot of attention in Canada over the most recent decade. It enhances our understanding to what extent hosting sport events, like the Olympic Winter Games, contributes to society. As well, it allows us to monetize your social experiences and examine society's social return on investment from hosting.

**Confidentiality and Anonymity:** Your personal information will remain strictly confidential with Qualtrics and will not be revealed to the researchers.

**Conservation of data:** The only people who will have access to the research data are research team members. Electronic data files will be kept in secure password-protected files which will be accessible to the members of the research team during data collection and the time of analysis. All physical data will be conserved by the principal investigator in a locked cabinet in the office on campus. All data will be retained for 5 five years by the principal investigator, after which they will be destroyed.

**Compensation:** This survey is part of your panel status with Qualtrics and you will be compensated accordingly.

**Voluntary Participation:** You are under no obligation to participate and if you choose to participate, you may withdraw from the study at any time. If you choose to withdraw, all data gathered until the time of withdrawal will be destroyed and not used for any research purpose.

If you have any questions or require more information about the study itself, you may contact the principal investigator Jordan Bakhsh, School of Human Kinetics, Faculty of Health Sciences, University of Ottawa, 125 University Private (MNT 420A) Ottawa ON K1N 6N5 Canada.

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5.

Thank you for your time and consideration.

Jordan T. Bakhsh  
Principal Investigator

## Appendix G

### Questionnaire Consent Form

**Invitation to Participate:** You are invited to participate in a research study entitled *Social Impact Experiences and Value of the 2010 Vancouver Olympic Winter Games* conducted by Jordan T. Bakhsh (University of Ottawa, ON) for his PhD research, and supervised by Dr. Marijke Taks and Dr. Milena M. Parent (University of Ottawa, ON)

**Purpose of the Study:** The purpose of the study is to better understand if and how the 2010 Vancouver Olympic Winter Games generated social experiences for you, and how you value those social experiences.

**Participation:** You are invited to fill out an online survey which consists of four sections: (1) your level of involvement with the 2010 Games; (2) your experiences from the 2010 Games; (3) how you valued your experiences from the 2010 Games; and (4) personal characteristics. The survey takes about 10 to 15 minutes to complete.

**Benefits:** This survey allows you to reflect on your personal experiences and value of those experiences from the 2010 Olympic Winter Games, which has generated a lot of attention in Canada over the most recent decade. It enhances our understanding to what extent hosting sport events, like the Olympic Winter Games, contributes to society. As well, it allows us to monetize your social experiences and examine society's social return on investment from hosting.

**Confidentiality and Anonymity:** Your personal information will remain strictly confidential with Qualtrics and will not be revealed to the researchers.

**Conservation of data:** The only people who will have access to the research data are research team members. Electronic data files will be kept in secure password-protected files which will be accessible to the members of the research team during data collection and the time of analysis. All physical data will be conserved by the principal investigator in a locked cabinet in the office on campus. All data will be retained for 5 five years by the principal investigator, after which they will be destroyed.

**Compensation:** This survey is part of your panel status with Qualtrics and you will be compensated accordingly.

**Voluntary Participation:** You are under no obligation to participate and if you choose to participate, you may stop participating from the study at any time prior to submitting your answers. To stop participating means that you do not complete the survey and/or you do not submit your survey to the researcher. If you choose not to answer a question you will be choosing to stop participation, and you will not be compensated by Qualtrics, as per your contract with them. All data gathered until the time of participation stopping will be destroyed and will not be used for any research purpose. If you choose to submit your survey, you will not be able to withdraw your data/responses because of the anonymous nature of the survey.

If you have any questions or require more information about the study itself, you may contact the principal investigator Jordan Bakhsh, School of Human Kinetics, Faculty of Health Sciences, University of Ottawa, 125 University Private (MNT 420A) Ottawa ON K1N 6N5 Canada.

You may also contact the principal investigator's primary supervisor Dr. Marijke Taks, School of Human Kinetics, Faculty of Health Sciences, University of Ottawa, 125 University Private, Ottawa ON K1N 6N4.

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5.

Please save or print a copy of this information letter and consent page for your records.

Thank you for your time and consideration.

Jordan T. Bakhsh  
Principal Investigator

## Appendix H

### Post-Questionnaire Interview Guide

#### Introduction

*I will start the recording now (as per LOI and LOC)*

Thank you for participating in this study. Your involvement is greatly appreciated and will provide valuable insights for my research project.

*[In the case new participants are being recruited, the following questions will be asked]*

Before we start, can you confirm you were born before 1984?

→ if yes, continue

→ if no, thank the participant for his/her willingness to participate

Can you confirm, you are a resident of [City]

→ if yes, continue

→ if no, thank the participant for his/her willingness to participate

*[The following questions will be asked to all participants]*

Have you read and agree with the consent form?

→ if yes, continue

→ if no, ask participant to do so, or thank the participant for his/her willingness to participate

To review with you again, the purpose of my research project is to discuss how residents valued hosting the 2010 Olympic Winter Games.

In February 2010, the City of Vancouver hosted the 2010 Olympic Winter Games with some sport disciplines being held in Richmond, West Vancouver, and Whistler (e.g., speed skating in Richmond, snowboarding in West Vancouver, and mountain sports in Whistler).

Please try to answer the questions to the best of your ability; there are no right or wrong answers. Everything you say will remain confidential. Do you have any questions before we begin the interview?

#### Demographic Information

Did you vote in the referendum? If yes, can you recall your vote? If no, why did you choose not to vote at the referendum? *[Question is only for new participants]*

Can you tell me about your experience with the Games when the Games was hosted in February 2010?

Can you tell me about your connection to the Games after it was hosted?

### The Games

When you think of the 2010 Games, what do you think about?  
 What do the 2010 Games mean to you?  
 Sport event? Social opportunity?

What do you think the Games should be? Explain  
 Just a sport event?  
 More than a sport event?

We know that as Canadian residents, part of our tax dollars went toward hosting the Games. Do you think the Games were a worthwhile investment of your tax dollars?  
 If no: what do you think would have made it a worthwhile investment?  
 If yes: why

### Value of the Event

As a [\_\_\_\_\_] resident, your tax dollars were used to host the Games in 2010. This money was spent over a 7-year timeframe, meaning an allocated amount of your tax dollars was given each year for 7 years to host the Games. Having experienced the event, how much of your current tax dollars would you give each year for 7 years, to host the Games? *[wait for answer before providing the following numbers]*

Here were the costs for Canadian residents based on where they lived in present value (Vancouver residents between \$75-\$175 a year; BC residents between \$65-\$130 a year; and Canadian residents between \$4-\$7 a year) *[Write these numbers in the chat function of the platform for the interviewee]*

So, your answer would be \_\_\_\_\_ in relation to the estimated investment  
 Does this surprise you at all?  
 If so, why?  
 If not, why not?

In the previous phase of my research, I surveyed hundreds of Canadian residents and asked them to indicate how much of their tax dollars they would give each year for 7 years to host the 2010 Games. Interestingly, on average: *[Provide the following numbers, write them in the chat function of the platform for the interviewee]*

Vancouver residents said they would pay \$85 a year (right around the lower end of their estimated investment)

Whistler, Richmond, West Vancouver residents said they would pay \$100 a year (around the middle of their estimated investment, but more than Vancouver)

BC residents (living outside Vancouver, Whistler, Richmond, and West Vancouver) said they would pay \$75 a year (around the lower end of their estimated investment)

Canadian residents (living outside BC) said they would pay \$70 a year (well over their estimated investment, and almost the same as BC residents)

When you hear these numbers, what is your immediate reaction?

There are a few things based on these numbers I'd like your thoughts on: *[questions will be specific to the geographic region of the interviewee]*

Why do you think Whistler, Richmond, West Vancouver residents were willing to pay more than Vancouver residents?

Why do you think Whistler, Richmond, West Vancouver residents were willing to pay more than other BC residents?

Why do you think Canadian residents were willing to pay almost the same as Vancouver residents?

Of all the individuals asked, only Canadian residents living outside BC indicated that they would pay more than their estimated investment.

Why do you think individuals so far from the physical event, are willing to pay more than those who are close to the event?

Why do you think Vancouver residents who were the hosts of the event, showed they wanted to pay less than what they did?

When you hear how the funding is provided (Vancouver \$525-\$1225; BC \$455-\$910; and Canada \$28-\$49), where Vancouver residents paid the most, BC slightly less, and then Canadians outside of BC much less, do you think this is appropriate?

If yes: why should Vancouver be paying the most and why should BC be only slightly less?

If no: how can the funding be distributed more appropriately?

Follow-up to both: what makes funding appropriate or not appropriate when we talk about the different groups

Access to the actual physical event?

Tangible outcomes from the event? (e.g., infrastructure)

Intangible outcomes from the event? (e.g., Canadian pride)

### Final Thoughts

Now, more than 10 years after hosting 2010, do you think using this taxpayer money to host the 2010 Games was a good use of that money?

If good use: what did it do/create that makes it a good use to you?

If not a good use: where and how do you think it should have been used? Why?

Is there anything else you would like to mention about the 2010 Games and your thoughts on its value?

Do you want to participate in a draw to win a \$50 Visa gift certificate (approximate chance of 1 in 25 to win)?

→ if yes: we will put your name in the draw, and draw the winner two weeks after completion of the last interview which will approximately *[date]*

*[Per 5.2, remind the participants they will receive the transcribed interview within two-weeks and asked to approve it or suggest changes needed]*

Thank you for your time and valuable insight

→ if No: No problem, thank you for your time and valuable insight

## Appendix I

### Post-Questionnaire Interview Letter of Information

My name is Jordan T. Bakhsh, and I am a doctoral student in the School of Human Kinetics at the University of Ottawa. As part of my doctoral dissertation, I am interested in learning how and why residents valued hosting the 2010 Olympic Winter Games. I am looking for residents to help me with this study.

By participating, you can help policymakers make more informed decisions in terms of supporting (or not) major sport events in the future, and how to more effectively invest taxpayers' contributions to benefit Canadian communities.

If you agree to participate in the study, you will be asked to take part in a 20- to 40-minute interview (face-to-face interview via virtual platform of your choice; e.g., Zoom, Microsoft Teams) about the value you perceive from having hosted the 2010 Games. Your participation is voluntary. At any point in the interview, you may stop your participation. You do not have to answer questions you do not wish to answer. The interview will be audio recorded. This recording will be transcribed and sent back to you so you can verify it.

I will guarantee your anonymity by using a pseudonym. All hard copy materials will be stored in a locked cabinet in a locked office at the University of Ottawa campus for a period of 5 years, at which time they will be shredded. All electronic data files will be kept in a shared, password protected file, accessible to myself and my supervisors (i.e., Dr. Marijke Taks and Dr. Milena Parent) during the time of analysis, after which they will be stored in a password-protected file on my password-protected computer. After 5 years, all electronic files will be securely destroyed.

The University of Ottawa Research Ethics Board has approved the ethical components of this research project Board. If you have any questions, comments or concerns, please contact the project supervisors, or the Office of Research Ethics and Integrity.

I hope that the results of my research project will be beneficial to you and other residents as well as to future major sport event host city residents. I very much look forward to speaking with you and thank you in advance for your assistance with this project.

Sincerely,

Jordan T. Bakhsh  
Doctoral Student  
School of Human Kinetics, Faculty of Health Sciences, University of Ottawa

## Appendix J

### Post-Questionnaire Interview Consent Form

You are invited to participate in a research project titled “Examining Residents’ Social Return on Investment from Hosting Major Sport Events: The Case of the 2010 Olympic Winter Games.” This study is conducted by Jordan T. Bakhsh from the School of Human Kinetics at the University of Ottawa, and supervised by Dr. Marijke Taks and Dr. Milena M. Parent.

PRINCIPAL INVESTIGATOR: Jordan T. Bakhsh

RESEARCH PROJECT SUPERVISORS: Dr. Marijke Taks and Dr. Milena M. Parent

**Purpose of the Study:** As part of my doctoral dissertation, I am interested in learning how residents valued hosting the 2010 Olympic Winter Games, more than 10 years after the fact.

**Participation:** Your participation will include one interview discussing how you value hosting the 2010 Games. Participants may withdraw at any time without any negative consequences.

If you volunteer to participate in the interview process:

You will be interviewed by the principal investigator one-on-one with no one else present

Your name will not appear anywhere

The interview will last about 20- to 40-minutes

Interviews will be on a virtual platform of the interviewee’s choice (e.g., Zoom, Microsoft Teams)

You consent to being audio recorded so that the principal investigator can transcribe and analyze information from the session

You will have the opportunity to review your interview transcript within 2 weeks of your interview

You will be able to participate in a draw to win a \$50 Visa gift certificate (with approximately a 1 in 25 chance to win)

**Potential Risks and Discomforts:** There is no known or anticipated risks if you participate in this study beyond what you face every day. Your participation is voluntary. At any point in the interview you may stop your participation. You do not have to answer questions you do not wish to answer. Should you choose to withdraw, your data will be removed and not used in the study.

**Potential Benefits:** Your participation will help inform public officials and policy on how to more effectively invest taxpayers’ contributions to benefit Canadian communities.

**Compensation:** To thank you for your contribution to the research project, you will be given the option to enter your name in a draw to win a Visa gift certificate valued at \$50. The draw is open to all research participants who enter their name in the draw, regardless of whether they decide to withdraw from further participating in the research project.

At the completion of the study, a name will be randomly selected amongst those who have entered, and the winner will be contacted. To win the prize, the person must correctly answer a skill testing question. If the winner cannot be reached within 14 days from the date of the draw, the prize will be awarded to the second name that is randomly selected and so on until the prize is awarded. The odds of winning a prize are approximately 1 in 25. The prize must be accepted as awarded or forfeited and cannot be redeemed for cash.

Your name and email address provided when you enter the draw is collected for the purpose of contacting you if your name is selected in the draw. Your name and the contact information you have provided will be kept confidential and destroyed once the prize has been awarded.

**Confidentiality and Anonymity:** The information you share during the interview will remain strictly confidential. The contents of the interview will only be used for this study and your confidentiality will be protected. Pseudonyms/codes will be used for all participants to guarantee full anonymity.

**Feedback of the Study Results to Participants:** If you wish, you can request a copy of the study's results by contacting Jordan T. Bakhsh.

**Conservation of Data:** Electronic data files will be kept in a shared, password protected file, accessible to myself and my supervisors during the time of analysis, after which they will be stored in a password-protected file on my password-protected computer. After 5 years, all electronic files will be securely destroyed. All hard copy materials from this study will be stored in a locked cabinet in a locked office at the University of Ottawa campus for a period of 5 years, at which time they will be shredded.

**Subsequent use of Data:** Data from this study may be used in subsequent academic publications and/or presentations by Jordan T. Bakhsh.

Acceptance:

I, \_\_\_\_\_, hereby consent to participate in the above research study conducted by Jordan T. Bakhsh and supervised by Prof. Marijke Taks and Prof. Milena M. Parent.

If I have any questions about the study, I may contact the principal investigator or his supervisors.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa.

Participant's Signature	Date
Researcher's Signature	Date

There are two copies of this form, one of which is yours to keep

## Appendix K

### Post-Questionnaire Interview Recruitment E-Mail

Email to participants from phase one (sent by researcher)

Dear [previous participant's name],

Thank you for participating in the first phase of interviews for my doctoral research. As we discussed at the end of your interview, you were interested in being interviewed again for the final phase of my research project entitled *Examining Residents' Social Return on Investment from Hosting a Major Sport Event: The Case of the 2010 Vancouver Olympic Winter Games*, under the supervision of Dr. Marijke Taks and Dr. Milena M. Parent.

Now having completed the second phase of my research which revealed how much Canadian residents valued hosting the 2010 Olympic Winter Games, I would like to interview you again, to learn about how and why you value the hosting of the 2010 Games and understand these reasonings.

Participation will consist of one 20- to 40-minute interview during which you will be asked about the value you perceive from having hosted the 2010 Games and why you feel the event did or didn't have value for you. The interview will take place online, using your preferred platform (e.g., Zoom, Microsoft Teams), at a time and date that is convenient for you.

In exchange for your time, your name will be entered into a draw for a \$50 Visa gift certificate, with approximately a 1 in 25 chance of winning.

Should you be interested, a more detailed Letter of Information is attached to this e-mail.

Please do not hesitate to contact me if you have any questions.

If you agree to participate in this final interview, I kindly ask you to respond to this e-mail by [DATE], so an appropriate day and time can be scheduled.

Thank you so much for considering participate in this final phase of my study.  
Sincerely,

Jordan

Jordan T. Bakhsh, M.A.  
University of Ottawa  
School of Human Kinetics, Faculty of Health Sciences

[Attachment: Letter of Information]

Template e-mail for participants interested in sending information to potential residents to participate in this study

Dear [participant's name],

I was contacted by Jordan Bakhsh, a doctoral student at the University of Ottawa, School of Human Kinetics, who is conducting a study entitled *Examining Residents' Social Return on Investment from Hosting a Major Sport Event: The Case of the 2010 Vancouver Olympic Winter Games*,

Jordan is interested in learning how [name of city] residents valued hosting the 2010 Games, more than 10 years later. He is looking for [name of city] residents who want to participate in the study.

Participation will consist of one virtual interview (approximately 30-minutes) during which you would be asked about the value you perceive from having hosted the 2010 Games and why you feel the event did or didn't have value for you. Participants will be recruited on a first-come, first-served basis. By participating, you will have an approximate 1 in 25 chance to win a \$50 Visa gift certificate.

If you are interested, a more detailed Letter of Information is attached to this e-mail.

If you would like to participate please contact Jordan directly by email.

[SIGN OFF]

[Attachment: Letter of Information]