
KIMBERLEY-CRANBROOK

2008 BC WINTER GAMES

ECONOMIC IMPACT ANALYSIS

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Prepared for:

BC Games Society

and

Ministry of Tourism, Sport and the Arts

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SUMMARY OF FINDINGS

Based on the survey data collected for this event, the Kimberley-Cranbrook 2008 BC Winter Games created direct economic impact in the area in excess of 1.7 million dollars. Just under two-thirds of this impact was created by the spending of Games participants, while one-third was contributed by Games Society organizers.

- Direct spending within these two categories was as follows:

Spending by participants	\$1,128,000
Spending by organizers	<u>\$658,000</u>
Total	\$1,786,000

- Direct spending by the participants was as follows:

Competitors	\$244,000
Spectators	\$643,000
Volunteers	<u>\$241,000</u>
Total	\$1,128,000

- Direct spending in Kimberley-Cranbrook by Games organizers and other agencies was as follows:

Kimberley-Cranbrook 2008 BC Winter Games Society	\$583,000
BC Games Society	\$27,000
VIPs/Media/Scouts	<u>\$48,000</u>
Total	\$658,000

Spending by Games participants occurred over the four days of the Games during the last weekend of February. Spending by the Games organizers occurred over a longer period of time - prior to, during, and after the Games.

The demand survey technique used to measure the economic impact of the Games provided a defensible analysis process. Based on the survey sample sizes, the results are considered accurate to within +/- 8% for the participant survey, +/-7% for the spectator survey, and +/-10% for volunteers.

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1.0 INTRODUCTION

1.1 BACKGROUND

The Kimberley-Cranbrook area hosted the 2008 BC Winter Games from February 21 to 24, 2008. The Games took place from Thursday to Sunday, and included 20 events held in 18 venues, located in four separate communities (Kimberley, Cranbrook, Sparwood and Fernie). The Games involved nearly 2,000 participants from the eight provincial sport zones. The host communities provided over 3,000 local volunteers who assisted in administration of the Games. Numerous businesses and agencies in the community also donated a great deal of in-kind support.

Hosting a BC Games produces a surge of economic activity in the host community. This impact is created through spending by both the local Games organization and by the BC Games Society – and also by spending of Games competitors, spectators and volunteers. The BC Games Society periodically retains analysts to conduct surveys aimed at quantifying the economic impact created by the Games. For these 2008 BC Winter Games, the economic impact analysis was jointly sponsored by the BC Games Society and the Tourism Development Branch of the Ministry of Tourism, Sport and the Arts. The Economic Planning Group (EPG) was retained to conduct this analysis. EPG has conducted nine previous BC Games studies over the years, including the BC Winter Games in Quesnel, plus four Northern BC Winter Games.

1.2 OBJECTIVES

The primary purpose of this study was to estimate the economic impact of the Kimberley-Cranbrook 2008 BC Winter Games on the host communities. Economic impact was measured by calculating direct spending in the local area. Impacts were estimated by local spending of the:

- Kimberley-Cranbrook 2008 BC Winter Games Society
- BC Games Society
- Athletes/Coaches/Officials
- Spectators
- Volunteers

A second objective was to compare the findings of this direct survey technique with the results produced by a predictive computer model. The model was the Sport Tourism Economic Assessment Model (STEAM) operated by the Canadian Sport Tourism Alliance.

1.3 METHODOLOGY

Two sources of information were used to collect economic impact information and the resulting findings are additive creating a spending total. The two sources are described below:

- **Participant Spending (Competitors, Spectators and Volunteers)**

This spending analysis technique involved collecting information on individuals within the three participant categories who spent money in the communities as a result of their involvement in the Games. These individuals included the athletes/coaches/officials, spectators and volunteers. A sample of individuals from each of these participant groups was interviewed about their Games related spending.

A group of marketing class students from Mt. Baker High School assisted in the research by conducting the interviews. These volunteers met with the manager of the Economic Planning Group on the Saturday morning of the Games weekend where the purpose of the analysis was explained and the questionnaires reviewed. Instructions were provided on respondent selection and interviewing procedures. Each person was also given clipboards and questionnaires to record the interview results for a sample of athletes, spectators and volunteers. Interviewers were assigned to most of the sport venues.

Completed questionnaires were collected and edited, the spectator turnover ratios calculated, and the sport zones coded. Each questionnaire was numbered and the information entered into survey analysis software. Frequency distributions and averages were produced for each question for each of the three categories of respondents.

- **Agency Spending**

This spending category involved the local expenditures made by the two organizing societies involved with the Games - the Kimberley-Cranbrook 2008 BC Winter Games Society and the BC Games Society. This procedure was designed to capture all local spending by representatives of these administrative bodies, related to the hosting of the Games. These figures were accessed from the society representatives using society budget records. Also included in the totals was the spending of VIP's, out of town media, hockey scouts, and Games partners.

Expenditures of the organizing society were tallied by category and totalled. In cases where spending occurred outside the Kimberley-Cranbrook area (such as purchases of materials from outside suppliers), these amounts were not included.

2.0 COMPETITOR EXPENDITURES

2.1 ANALYSIS METHOD

The number of persons participating in the Games was obtained from the Games organizers. Total spending was estimated by interviewing a sample of these athletes/coaches/officials and asking them about their Games related expenditures. In order to capture a representative sample of participants, interviewers were stationed at most of the sport venues and at the athlete food tent located by the RecPlex in Cranbrook. A total of 196 questionnaires were completed, representing approximately 10% of the athletes and officials.

Average spending was calculated from this athletes survey sample and was multiplied by the total number of competitors to obtain total spending. A total of 1,998¹ individuals (athletes/officials/coaches/delegates) participated in the Games. The distribution of participants by sport is tabulated in Table 2-1. A listing of the number of participants by sport zone is tabulated in Table 2-2.

¹ Final count of participants as per Participant Zone Summary, dated February 27, 2008

Table 2-1: Number of Competitors by Sport and Type

Sport/Activity	Athletes	Coaches	Officials	Others	Total
Archery	34	12	4	1	51
Badminton	67	16	8	1	92
Basketball - Wheelchair	35	15	1	1	52
Biathlon	35	15	4	0	54
Boxing	23	9	6	0	38
Curling (M & F)	65	21	3	1	90
Figure Skating	51	17	12	0	80
Gymnastics	66	18	17	1	102
Hockey - F	151	29	19	1	200
Hockey - M	158	28	18	0	204
Judo	65	13	5	1	84
Karate	71	12	20	1	104
Rhythmic Gym	24	9	11	0	44
Ringette	125	24	5	1	155
Skiing – Alpine	89	19	5	2	115
Skiing – XC	68	16	9	1	94
Speedskating	65	21	19	4	109
Squash	26	10	0	1	37
Swimming	147	21	7	1	176
Table Tennis	46	14	11	0	71
Fencing (Cancelled) ²	0	4	0	2	6
Olympic & Paralympic Youth Leadership Academy	0	0	0	40	40
Totals	1,411	343	184	60	1,998

Source: Kimberley-Cranbrook 2008 BC Winter Games, Participant Sport Zone Summary, Feb. 27/08

² Although Fencing was cancelled, a small number of officials/coaches attended the Games.

Table 2-2: Number of Competitors by Sport and Sport Zone

Sport/Activity	Sport Zone								Officials	Total
	1	2	3	4	5	6	7	8		
Archery	7	5	12	3	7	6	0	7	0	47
Badminton	7	13	9	13	12	12	7	12	10	95
Basketball - Wheelchair	0	8	9	11	0	10	0	11	3	52
Biathlon	6	5	7	6	4	8	7	7	4	54
Boxing	5	7	5	0	0	6	5	4	7	39
Curling (M & F)	12	16	18	12	5	12	11	0	4	90
Figure Skating	5	9	9	11	13	7	6	8	13	81
Gymnastics	6	10	17	15	3	19	8	6	18	102
Hockey - F	24	48	24	23	18	24	0	19	20	200
Hockey - M	22	24	23	24	24	24	22	23	18	204
Judo	9	16	11	11	0	12	2	17	6	84
Karate	0	18	15	15	10	18	0	7	21	104
Rhythmic Gymnastics	0	9	5	0	6	8	0	5	11	44
Ringette	0	20	40	20	19	14	17	19	6	155
Skiing – Alpine	18	22	12	13	22	11	4	5	8	115
Skiing – XC	17	16	7	8	11	6	12	8	9	94
Speedskating	4	14	19	10	7	10	9	15	21	109
Squash	0	6	8	4	8	8	3	0	0	37
Swimming	17	27	26	17	17	21	21	22	7	175
Table Tennis	5	0	10	10	11	9	8	8	10	71
Fencing (Cancelled)	0	0	0	0	0	4	2	0	0	6
Olympic & Paralympic Youth Leadership Academy	4	7	11	2	6	8	1	1	0	40
Totals	168	300	297	228	203	257	145	204	196	1,998

Source: Kimberley-Cranbrook 2008 BC Winter Games, Participant Sport Zone Summary, Feb. 27/08

Note: Competitors include athletes, coaches, officials and others.

The geographic zones referred to above are as follows:

<u>Zone</u>	<u>Area</u>	<u>Zone</u>	<u>Area</u>
1	Kootenays	5	Vancouver-Squamish
2	Thompson-Okanagan	6	Vancouver Island-Central Coast
3	Fraser Valley	7	North West
4	Fraser River Delta	8	Cariboo-North East

2.2 COMPETITOR CHARACTERISTICS

- **Distribution of Competitors**

Nine out of ten competitors interviewed (90%) were from outside the Kimberley-Cranbrook area. The distribution of the athletes, and the number and percent interviewed, was as follows:

Table 2-3: Competitors Interviewed by Sport Zone

Zone	Name	Number Interviewed	% of Total Interviewed	Total Competitors
1	Kootenays	13	10%	168
2	Thompson-Okanagan	36	30%	300
3	Fraser Valley	16	13%	297
4	Fraser River Delta	19	15%	228
5	Vancouver-Squamish	8	6%	203
6	Vancouver Island-Central Coast	15	12%	257
7	North West	10	8%	145
8	Cariboo-North East	8	6%	204
	Officials	-	-	196
	No Response	15		
Total		140	8%	1,998

Source: Kimberley-Cranbrook 2008 BC Winter Games Society and EPG survey results

Note: The 1,998 total represents the actual competitors by region and does not include the 196 unallocated officials.

- **Competitors Interviewed by Sport**

A total of 140 competitors, representing 7% of the total were interviewed, and representing most sports. Table 2-4 depicts the distribution of persons interviewed by sport.

Table 2-4: Participants Interviewed by Event

Sport/Activity	Number Interviewed	Competitors
Archery	3	47
Badminton	4	95
Basketball - Wheelchair	2	52
Biathlon	9	54
Boxing	1	39
Curling (M & F)	24	90
Figure Skating	0	81
Gymnastics	6	102
Hockey - F	14	200
Hockey - M	7	204
Judo	7	84
Karate	0	104
Rhythmic Gymnastics	5	44
Ringette	15	155
Skiing – Alpine	7	115
Skiing – XC	14	94
Speedskating	1	109
Squash	3	37
Swimming	15	175
Table Tennis	1	71
Fencing (Cancelled)	NA	6
Olympic & Paralympic Youth Leadership Academy	0	40
Total	140	1,998

Source: EPG survey results

- **Competitors Description**

Two thirds of competitors (66%) were staying in Kimberley-Cranbrook for the entire four-day duration of the Games, while one-quarter (24%) stayed three days. The average length of stay was 3.7 days. (Although the Games officially lasted four days, some competitors arrived the day before the Games began or left before the Games officially ended, when their event was over.)

Most persons interviewed (68%), were taking part in the Games as competitors. Another 25% were coaches, 5% as officials, and the remaining 2% either as managers or chaperones.

Nearly all of the competitors (96%) indicated that they had attended the Opening Ceremonies.

More than half of athletes (60%) had friends or relatives come to the event to watch them perform. The average number of spectating friends and relatives per athletes was 3.2. It is noted that many of these spectators were watching more than one competitor, so the participant related totals are not additive. Distribution of the number of spectators watching friends and relatives compete is as follows:

– None	39%
– 1 spectator	9%
– 2 spectators	12%
– 3 spectators	7%
– 4 - 5 spectators	11%
– 6 - 9 spectators	14%
– 10 or more spectators	8%

2.3 COMPETITOR EXPENDITURES

• Expenditures by Category

Nearly all competitors (98%) said they had spent, or would be spending, some money while participating in the Games. Most competitors indicated that these expenditures covered only their own spending, while the remainder indicated that their expenditures covered persons in addition to themselves ranging from two to five persons. For analytical purposes, all expenditures have been converted to per-person totals.

Table 2-5 illustrates the distribution of expenditures by dollar ranges and by expenditure category as a percentage. Average expenditures by category are also tallied.

Table 2-5: Competitor Expenditures by Category

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101-+	
Accom.	87	2	2	1	0	2	0	0	1	0	1	4	\$20.39
Automobile	81	4	4	2	0	5	1	0	0	0	1	2	\$ 8.96
Concession	53	23	9	5	2	2	1	1	0	0	2	2	\$13.40
Gifts	46	9	15	7	1	6	4	1	1	1	4	4	\$26.06
Local Trans.	93	3	1	2	0	1	0	0	0	0	0	2	\$3.84
Groceries	67	14	7	6	2	3	0	0	0	0	2	1	\$9.11
Restaurant	59	9	7	5	5	4	2	0	2	1	2	5	\$23.81
Rec./Ent.	84	11	2	2	1	2	0	0	0	0	0	0	\$2.18
Shopping	84	6	2	4	1	0	0	0	0	1	2	1	\$5.33
Other	92	2	2	1	0	1	1	0	0	0	0	2	\$5.33
Total	15	3	7	10	3	7	12	3	4	3	4	29	\$122.03

Source: Interviews with 140 Games participants.

Notes:

1. Figures are Row Percentages (i.e., they add to 100% horizontally and have been rounded).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category (including those that spent nothing).
3. The total expenditure is slightly different than the sum of the individual category totals as several questionnaires had a total spending only but no breakdown.

The average amount of money spent per person was **\$122.03**. Average spending ranged from a few dollars to several hundreds of dollars, with non-local residents spending appreciably more than local residents. The difference between local resident and non-local resident spending is as follows:

- Average expenditures for non-local residents \$127.38
- Average expenditure for local residents \$75.43

- **Total Expenditures**

The total amount of money spent by competitors was estimated to be **\$244,000** calculated as follows:

– Average expenditure per person	\$122.03
Times	x
– Number of competitors	<u>1,998</u>
Equals	=
– Total competitor spending	\$244,000

The pre diem spending was approximately **\$33.00** (i.e., \$122.03/3.7).

Competitors spent money within a number of expenditure categories. Gifts and souvenirs and restaurant meals were the biggest expenditure categories, both responsible for about one-fifth of the total and representing approximately \$50,000 each.

Distribution of the \$244,000 competitor spending by category was as follows:

Table 2-6: Distribution of Competitor Expenditures by Category

Expenditure Category	Average Amount Spent	Percent Distribution	Expenditure by Category
Accommodation	\$20.39	17%	\$40,739
Automobile	\$8.96	7%	\$17,902
Concession	\$13.40	11%	\$26,773
Gifts and Souvenirs	\$26.06	21%	\$52,068
Local Transportation	\$3.84	3%	\$7,672
Groceries	\$9.11	7%	\$18,202
Restaurant Meals	\$23.81	20%	\$47,572
Recreation/Entertainment	\$2.18	2%	\$4,356
Retail Shopping	\$5.33	4%	\$10,649
Other	\$5.33	4%	\$10,649
Total	\$122.03	100%	\$243,000

Notes:

1. There is a slight difference in average spending totals due to some questionnaires having only spending totals with no breakdown by category.
2. Accommodation is a significant category as coaches and officials stayed in commercial accommodation.

3.0 SPECTATOR EXPENDITURES

3.1 ANALYSIS METHOD

To calculate spectator spending, the total number of spectators was multiplied by the average spending per spectator. Average spending was obtained from interviews with a sample of spectators. A total of 196 spectators were interviewed, and they were interviewed at most sport venues.

There are no spectator counts at BC Games since the events are open to the public and un-gated. Consequently, the number of spectators must be estimated. The peak number of spectators at each venue was determined by periodic counts over the course of the Games. Input to this peak at-one-time spectator count estimate was also provided by the venue hosts and sport chairpersons. It is noted that this figure represented the estimated number of dedicated spectators and does not include athletes who were watching other competitors. The figure is designed to represent the best estimate of the at-one-time peak attendance.

However, this figure double counts persons who visited more than one event. The analysis process used here needs to work with the total number of “unique” spectators in order to eliminate counting one person multiple times as they attend different events. The “spectator turnover ratio” is intended to eliminate double counting (i.e., counting the same person at more than one event). This ratio was determined by asking spectators to indicate the number of events they had watched or were planning to watch. The turnover ratio becomes the calculated average of the number of events (different sports) being watched divided by the number of days. By definition, this index must be equal to or greater than one.

The turnover ratio, generated from the sample of spectators interviewed, was applied to the total number of spectators recorded for each venue. This approach produced an estimate of the total number of unique spectators who attended events at the Games.

This is represented by the formula:

Number of Unique Spectators = Peak Number of Spectators / Spectator Turn-Over Ratio

3.2 SPECTATOR COUNTS

- Counted Number of Spectators

The peak number of spectators who attended each venue is illustrated below. As noted, these estimates were made by periodic counts and by estimates of the sport chairpersons.

Table 3-1: Spectators Interviewed and Peak Spectator Counts by Sport

Sport/Activity	Spectators Interviewed	Maximum At-one-time Spectators
Archery	3	100
Badminton	10	60
Basketball - Wheelchair	7	30
Biathlon	1	50
Boxing	10	350
Curling (M & F)	9	200
Figure Skating	0	250
Gymnastics	23	250
Hockey - F	37	500
Hockey - M	23	300
Judo	0	200
Karate	0	175
Rhythmic Gymnastics	5	100
Ringette	0	150
Skiing – Alpine	21	300
Skiing – CX	23	40
Speedskating	2	175
Squash	0	50
Swimming	2	150
Table Tennis	0	60
Total	196	3,490

Source: Kimberley-Cranbrook 2008 BC Winter Games Society for participants, plus personal counts and estimates by venue chairmen for spectators.

The total peak spectator count was 3,490. The calculated spectator turnover ratio was 1.34, or expressed differently, each spectator attended 1.34 different events.

Consequently, the total number of unique individual spectators was estimated to be approximately 2,605 (i.e., $3,490 / 1.34 = 2,605$).

3.3 SPECTATOR CHARACTERISTICS

- **Spectator Origin**

Less than half of the spectators interviewed (43%), were from the Kimberley-Cranbrook area. The non-local spectators interviewed came from throughout the eight BC sport zones plus non-BC origins. The distribution is as follows:

Table 3-2: Spectators Interviewed by Sport Zone

Zone	Name	Number Interviewed	% of Total Interviewed
1	Kootenays	15	14%
2	Thompson-Okanagan	15	14%
3	Fraser Valley	6	5%
4	Fraser River Delta	27	24%
5	Vancouver-Squamish	1	1%
6	Vancouver Island-Central Coast	11	10%
7	North West	6	5%
8	Cariboo-North East	7	6%
	Other	23	21%
	No Response	85	NA
Total		196	100%

- **Reason for Visiting the Area**

The BC Winter Games were the main reason for most (86%) of the non-local residents being in the area.

- **Duration of Stay**

Nearly four out of ten spectators (38%) were attending the Games for all four days, and 30% were attending the Games for three days. The average length of stay in the Kimberley-Cranbrook area was 2.9 days. The distribution of length of stay was as follows:

– 1 day	14%
– 2 days	19%
– 3 days	29%
– 4 days	38%

- **Games Participation**

Nearly half of the spectators attended the Opening Ceremonies (44%). Two thirds of spectators (69%) were attending the Games to watch a friend or relative compete. The average number of persons they were watching was 2.2 persons. This figure is based on those who came to watch one person (usually the person's son or daughter), and those who came to watch an entire team compete.

The average size of the spectator parties was 3.8 persons, and the distribution of spectator party size was as follows:

– 1 spectator	18%
– 2 spectators	28%
– 3 spectators	17%
– 4 spectators	12%
– 5+ spectators	25%

3.4 SPECTATOR EXPENDITURES

- **Distribution of Expenditures**

Most spectators (89%) spent money on goods and/or services while attending the Games. The following chart indicates the distribution of per person spending in ten dollar increments in a variety of categories.

Table 3-3: Spectator Expenditures by Category

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101+	
Accommodation	57	1	0	1	1	1	1	1	2	0	6	30	\$79.00
Automobile	42	7	12	6	7	8	1	3	2	1	6	5	\$31.73
Concession	45	26	15	3	3	7	0	1	0	0	1	1	\$14.01
Gifts	59	8	8	4	4	6	1	1	2	1	3	4	\$19.46
Local Trans.	94	1	2	2	1	1	0	0	0	0	0	1	\$2.92
Groceries	62	4	9	5	4	6	1	2	1	0	3	4	\$20.99
Restaurant	38	3	6	4	8	9	1	4	3	1	8	14	\$48.81
Rec./Ent.	86	2	2	2	1	1	1	1	1	1	1	4	\$12.39
Shopping	80	1	2	1	4	4	0	0	1	1	5	3	\$17.21
Other	97	1	0	0	0	0	1	0	1	0	0	1	\$1.93
Total	11	4	8	3	4	5	2	4	2	1	2	57	\$246.84

Source: Interviews with 196 Games spectators

Notes:

1. Figures are Row Percentages (i.e., they add to 100% horizontally).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category.
3. The total expenditure is slightly different than the sum of the individual category totals as several questionnaires had a total spending only but no breakdown.

- **Total Expenditures**

Spectators attending the Games had an average expenditure of **\$246.84** during their stay in the area. This figure is based on the following averages of locals and non-locals:

- Average spending by non-local residents \$394.08
- Average spending by local residents \$54.55

Applying the average expenditures to the total number of spectators results in a spectator spending total of **\$643,000** (i.e., \$246.84 x 2,605).

The per diem spending was **\$85.12** (i.e., \$246.84/2.9).

- **Distribution of Spectator Spending**

Spectators spent money on a variety of items within a number of expenditure categories. Accommodation was the largest category responsible for nearly one-third (32%) of spectator expenditures. Restaurant meals and automobile costs were the next largest expenditure categories, responsible for 20% and 13% respectively.

Distribution of the \$643,000 total by category was calculated as follows.

Table 3-4: Distribution of Spectator Expenditures

Expenditure Category	Average Amount Spent	Percent Distribution	Expenditure by Category
Accommodation	\$79.00	32%	\$205,795
Automobile	\$31.73	13%	\$82,657
Concession	\$14.01	6%	\$36,496
Gifts and Souvenirs	\$19.46	8%	\$50,693
Local Transportation	\$2.92	1%	\$7,607
Groceries	\$20.99	9%	\$54,679
Restaurant Meals	\$48.81	20%	\$127,150
Recreation/Entertainment	\$12.39	5%	\$32,276
Retail Shopping	\$17.21	7%	\$44,832
Other	\$1.93	1%	\$5,028
Total	\$246.84	100%	\$643,000

Note: There is a slight difference in the average spending totals and the expenditure by category due to a few questionnaires that had total spending only with no breakdown.

4.0 VOLUNTEER EXPENDITURES

4.1 ANALYSIS METHOD

As with competitors and spectators, volunteers were asked about their Games participation and related spending. A total of 3,033 volunteers were registered and assigned duties to assist with administration of the Games (Source: BC Games Society). Approximately 3% or 99 were interviewed at a variety of venues.

Volunteers were asked about the volunteer category in which they were working, the number of days they would be volunteering, whether they had any friends or relatives attending the Games, and their spending. Average spending per person was multiplied by the total number of volunteers to estimate total spending by all volunteers.

4.2 VOLUNTEER CHARACTERISTICS

Volunteers were involved in the Games in a number of different capacities. The distribution of persons interviewed was as follows:

Table 4-1: Volunteers Interviewed by Category

Category	Number of Volunteers	Number Interviewed	Percent Interviewed
Accommodation	468	6	6%
Administration	61	6	6%
Ceremonies	399	-	-
Communications	45	2	2%
Food Services	326	14	14%
Medical Services	203	5	5%
Promotions	103	8	8%
Protocol	143	-	-
Registration and Results	103	-	-
Security	217	12	12%
Special Events	166	13	13%
Sports	744	39	39%
Transportation	208	6	6%
Others	20	-	-
Total	3,033	99	100%

Notes:

1. The total number of volunteers by category was 3,206, however about 200 were volunteers doing more than one job. Total number of unique volunteers was 3,033.
2. Total number of volunteers tallied by category was 111, but 12 were registered in two categories. Total number of unique volunteers interviewed was 99. Percentage distribution is similarly affected.

Most volunteers (65%) were working at the Games for three days or more, while the average duration was 2.5 days. The distribution was as follows:

- one day 12%
- two days 24%
- three days +64%

Most volunteers (62%) were not a friend or relative of a Games participant.

4.3 VOLUNTEER EXPENDITURES

- **Volunteer Spending Ranges**

Most volunteers bought some goods and/or services while assisting with the Games. Table 4-2 illustrates the distribution of expenditures in percentages, by category.

Table 4-2: Volunteer Expenditures by Category

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101+	
Accommodation	98	0	0	0	0	0	0	0	0	0	0	1	\$4.21
Automobile	54	8	15	3	1	12	1	0	1	0	2	3	\$18.79
Concession	58	12	13	8	0	7	2	0	0	0	0	0	\$10.82
Gifts	83	0	3	3	0	1	1	0	2	0	4	2	\$12.11
Local Trans.	99	0	0	0	0	0	0	0	1	0	0	0	\$0.79
Groceries	86	1	4	0	0	5	0	0	0	0	3	1	\$6.71
Restaurant	70	1	7	4	0	10	1	0	1	0	3	0	\$15.38
Rec./Ent.	96	0	1	2	0	0	0	0	0	0	0	1	\$4.04
Shopping	97	0	0	0	0	0	1	0	0	0	1	1	\$3.38
Other	98	0	0	0	0	1	0	0	0	0	0	1	\$4.74
Total	24	10	8	6	6	7	4	3	2	0	5	23	\$79.32

Source: Survey of 99 volunteers.

Notes:

1. Figures are Row Percentages (i.e., they add to 100% horizontally).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category.
3. The total expenditure is slightly different than the sum of the individual category totals as several questionnaires had a total spending only but no breakdown.

The average expenditure by each volunteer over the duration of the Games was \$79.32.

The total expenditure of the 3,033 volunteers was approximately **\$241,000** (i.e., \$79.32 x 3,033).

The per diem spending was **\$31.73** (i.e., \$79.32/2.5).

- **Distribution of Volunteer Spending**

Volunteers spent money on a variety of items within a number of expenditure categories. Both accommodation and automobile expenses were the largest individual categories at 21% each. (It is noted that there were a number of non-resident volunteers who stayed in commercial accommodation. The relatively high automobile transportation expenditures were due to travel to the events located in two communities for most of the events, plus Fernie and Sparwood.) Responsible for about 19% of expenditure were restaurant meals followed by gifts and souvenirs at 10%.

Distribution of the \$241,000 total is allocated as follows:

Table 4-3: Distribution of Spectator Expenditures

Expenditure Category	Average Amount Spent	Percent Distribution	Expenditure by Category
Accommodation	\$27.27	21%	\$82,710
Automobile	\$27.12	21%	\$82,255
Concession	\$11.24	9%	\$34,091
Gifts and Souvenirs	\$13.38	10%	\$40,582
Local Transportation	\$0.76	1%	\$2,305
Groceries	\$10.47	8%	\$31,756
Restaurant Meals	\$25.16	19%	\$76,310
Recreation/Entertainment	\$8.98	7%	\$27,236
Retail Shopping	\$3.38	3%	\$10,252
Other	\$4.55	3%	\$13,800
Total	\$79.32	100%	\$241,000

Source: Survey of 99 Volunteers

Note: Totals differ slightly from the sum of the columns as some questionnaires recorded only a total figure with no breakdown.

5.0 GAMES SOCIETY / OTHER EXPENDITURES

5.1 KIMBERLEY-CRANBROOK 2008 BC WINTER GAMES SOCIETY

- **Games Revenue**

The Kimberley-Cranbrook 2008 BC Winter Games Society was responsible for organizing and staging the Games. The Society had a budget of \$648,000 to host the Games (Source: 2008 BC Winter Games Society, Budget Summary). Revenues were categorized as follows:

Table 5-1: 2008 Winter Games Operating Budget

Category	Budget	Percent
BC Games Society Grant	\$525,000	81%
Municipal Grant	\$40,000	6%
Local Business Support	\$50,000	8%
GST Rebate	\$12,000	2%
Academy Steering Committee	\$14,450	2%
Academy Registration Fees	\$6,250	1%
Total	\$647,700	100%

Source: Kimberley-Cranbrook 2008 Winter Games Society, Administration Director, March 2008

- **Expenditure Breakdown**

The spending of this money to purchase goods and services had an impact on the local economy since most was spent in the East Kootenay area. The following is the expenditure allocation by category.

Table 5-2: 2008 Games Society Operating Expenditures

Category	Budget	Percent
Accommodation	\$12,000	2%
Administration	\$147,347	23%
Ceremonies	\$38,700	6%
Communications	\$20,400	3%
Food Services	\$139,158	21%
Friends of the Games	\$15,300	2%
Medical	\$4,010	1%
Promotions	\$28,500	4%
Protocol	\$63,300	10%
Reg. & Results	\$17,000	3%
Security	\$3,800	1%
Special Events	\$32,835	5%
Sport	\$98,600	15%
Transportation	\$26,750	4%
Total	\$647,700	100%

Source: Kimberley-Cranbrook 2008 Winter Games Society, Administration Director, March 2008

The total local Games society spending was approximately \$648,000. It is important to note that the majority of these expenditures are made locally. Estimates made by the Games administration indicate that approximately 90% of the expenditures would have been made locally. Therefore, the estimated “local” spending was approximately **\$583,000**.

5.2 BC GAMES SOCIETY

BC Games Society employees incurred travel related expenditures as part of their assistance to the Games organizers. Information supplied by BC Games indicated several person-trips had been made to Cranbrook, prior to and during the Games. These included expenditures for accommodations, meals, vehicle rentals and miscellaneous costs, and totalled approximately **\$27,000**.

5.3 VIPs/MEDIA/SCOUNTS³

- **Partner/Miscellaneous Agencies**

A number of representatives of other agencies were present in Cranbrook for the Games. These included provincial government representatives, corporate partners, partner BC Games, sport partners, plus representatives of the Global TV television network. The tally of nights spent by category is as follows:

<u>Agencies</u>	<u>Nights</u>
- BC Government	7
- Corporate Partners	5
- Partner Games	7
- Sport Partners	19
- Other	9
- Global TV	<u>30</u>
Total	77

The estimated per diem for accommodation, food, transportation and entertainment is \$150 per person-night. This results in an estimated expenditure of **\$11,550**.

- **Hockey Scouts**

The 2008 Winter Games attracted a number of hockey scouts. A sample of scouts and representatives of BC Hockey indicated that a significant number of hockey scouts attended the Games, mainly to watch the boys hockey tournament. These included several scouts from each of the 22 major junior teams of the Western Hockey League. There were also university scouts and scouts from Junior A teams. The estimated number of hockey scouts in total was 120.

³ Not included in this analysis were Air Canada Jazz landing fees and fuel charges paid to the Canadian Rockies International Airport for ten flights chartered by the BC Games Society to transport competitors.

They would have stayed for three nights on average for a total of 360 room-nights. Based on a per diem of \$100 (mostly double occupancy stays), results in an estimated expenditure of **\$36,000**.

5.4 SYNOPSIS OF GAMES SOCIETY AND OTHER EXPENDITURES

The total expenditures of these other agencies was **\$658,000**. The following is a summary of Games society plus VIP/media expenditures.

- Kimberley-Cranbrook 2008 BC Winter Games Society	\$583,000
- BC Games Society	\$27,000
- VIPs/Media	\$12,000
- Hockey Scouts	<u>\$36,000</u>
Total	\$658,000

6.0 “STEAM” ESTIMATES

6.1 BACKGROUND

The Canadian Sport Tourism Alliance is the sponsoring agency of an economic impact model known as the Sport Tourism Economic Assessment Model (STEAM). This model was developed several years ago in association with Sport Canada, the Canadian Tourism Commission, the Canadian Tourism Research Institute/The Conference Board of Canada and the Canadian Association of Convention and Visitor Bureaus. The model is a variation on the Conference Board’s Tourism Economic Assessment Model (TEAM) calibrated to reflect the unique aspects of sporting events.

This model was created in order to provide a predictive tool for users to estimate the economic impact of sporting events. The model is national in scope as one of its purposes is to compare the economic contributions of events in different locations throughout Canada. Consequently, the model uses standardized visitor expenditure profiles developed from survey data collected by the Canadian Sport Tourism Alliance. Attributes used in the model’s analysis include the person’s role in the event (spectator, participant or media), distance travelled, age and length of stay.

The model was designed as a predictive process to allow the user to estimate the likely economic impact of a sporting event. Data input to the model is based on templates, which require estimates for a number of values descriptive of the event. The model is web-based which allows the member agency user to access the model electronically.

The model allows users to provide information on four spending categories, including:

- Tourist Spending
- Capital Spending
- Operations Spending
- Combined Spending

The model uses the input information to create estimates for a number of outputs including:

- Total initial expenditure
- Gross Domestic Product
- Wages and Salaries
- Employment (FTEs)
- Industry Output
- Taxes

Within each of these categories, the model produces estimates of the direct, indirect and induced effects. Estimates are made for the selected city, the rest of the province, and the total province.

The purpose of using STEAM in the context of the 2008 BC Winter Games was to compare the outputs of the model against the findings of the direct survey approach described in this report. As described above, STEAM produces a variety of statistics descriptive of the event's economic impact. The BC Games primary data gathering approach produces just one comparable number - namely, direct spending. (STEAM then uses the direct spending number to calculate the other values.)

The analysis type selected from the STEAM menu of options was the category titled "tourist spending" as this category included spending by competitors and spectators, two groups that were included in the survey. The survey provided detailed information on most of the variables required to run the model. Based on this survey information collected of Games participants, the STEAM templates were filled out. The model was then run and the results produced.

6.2 FINDINGS

STEAM produces a range of estimates as described earlier, however, the one number of interest was direct spending. In the survey approach, this figure is derived by multiplying the average expenditure by the number of participants (in this case competitors and spectators). In the STEAM approach, a series of inputs are required and the model calculates the direct spending estimate.

The direct spending estimates produced by the model are significantly different than the estimates provided by the primary data gathering survey technique used for this analysis.

The findings for spending by competitors and spectators are as follows:

- BC Games survey approach	\$887,000
- STEAM estimate	\$642,000
- Percent Difference	38%

The reasons for this large discrepancy are unknown, however some possible explanations are as follows:

- STEAM uses national spending averages, which may differ from BC factors.
- STEAM uses expenditure data from 2005, while the direct survey was using current 2008 values.

- BC Games experience a significant non-local spectator contingent, mainly made up of families of the competitors. This composition may be different than the information contained in STEAM and used for its calculations.
- BC Winter Games took place in February, consequently all commercial accommodation would be in roofed facilities (no campgrounds).

Further exploration on STEAM calibrations should shed light on why these differences occurred.

7.0 CONCLUSIONS

Based on the survey data collected for this event, the Kimberley-Cranbrook 2008 BC Winter Games created direct economic impact in the area of over 1.7 million dollars. Just under two-thirds of this impact was created by the spending of Games participants, while one-third was contributed by Games Society organizers.

- Direct spending within these two categories was as follows:

Spending by participants	\$1,128,000
Spending by organizers	<u>\$658,000</u>
Total	\$1,786,000

- Direct spending by the participants was as follows:

Competitors	\$244,000
Spectators	\$643,000
Volunteers	<u>\$241,000</u>
Total	\$1,128,000

- Direct spending in Kimberley-Cranbrook by Games organizers and other agencies was as follows:

Kimberley-Cranbrook 2008 BC Winter Games Society	\$583,000
BC Games Society	\$27,000
VIPs/Media/Scouts	<u>\$48,000</u>
Total	\$658,000

Spending by Games participants occurred over the four days of the Games during the last weekend of February. Spending by the Games organizers occurred over a longer period of time - prior to, during, and after the Games.

The demand survey technique used to measure the economic impact of the Games provided a defensible analysis process. Based on the survey sample sizes, the results are considered accurate to within +/- 8% for the participant survey, +/-7% for the spectator survey, and +/-10% for volunteers.

APPENDIX

APPENDIX

ATHLETE QUESTIONNAIRE

SPECTATOR QUESTIONNAIRE

VOLUNTEER QUESTIONNAIRE

APPENDIX

KIMBERLEY-CRANBROOK 2008 BC WINTER GAMES

ATHLETE SURVEY

Activity _____ Location _____ Fri. Sat. Sun.

1. Do you live in the Kimberley-Cranbrook area: Yes (GO TO #4) No

2. If no, where is your home? (Community) _____ [Sport Zone _____]

3. How many days in total will you be spending in the area as a result of attending these Games? _____ days

4. Which sports/events/activities have you attended or will you be attending?

Friday 1 _____ 2 _____ 3 _____

Saturday 1 _____ 2 _____ 3 _____

Sunday 1 _____ 2 _____ 3 _____

Opening Ceremony Yes / No

5. In what capacity are you taking part?

Participant Official Coach Other _____

6. Have friends or relatives come to the Games to watch you? Yes How many? _____ No

7. Have you purchased, or will you be purchasing, any goods or services while either visiting the area or attending the Games? Yes No

8. How much do you estimate you and your party will spend in total in the area during the Games on the following items? (Enter amounts to nearest dollar.)

How many persons are covered by the expenditures? _____ persons.

Accommodation \$ _____ Groceries \$ _____

Automobile and Gas \$ _____ Restaurant Meals \$ _____

Concession \$ _____ Recreation/Entertainment \$ _____

Gifts and Souvenirs \$ _____ Retail Shopping \$ _____

Local Transportation \$ _____ Other _____ \$ _____

Total \$ _____

APPENDIX

KIMBERLEY-CRANBROOK 2008 BC WINTER GAMES

SPECTATOR SURVEY

Activity_____	Location_____	Fri. <input type="checkbox"/>	Sat. <input type="checkbox"/>	Sun. <input type="checkbox"/>
---------------	---------------	-------------------------------	-------------------------------	-------------------------------

1. Do you live in the Kimberley-Cranbrook area? Yes (GO TO #4) No

2. If no, where is your home? (Community)_____

3. Are these Winter Games your prime reason for visiting the area today?
Yes No Not sure/Don't know

4. How many days will you be spending at these Games? _____days

5. Which sports/events/activities have you attended or will you be attending?

Friday 1 _____ 2 _____ 3 _____

Saturday 1 _____ 2 _____ 3 _____

Sunday 1 _____ 2 _____ 3 _____

Opening Ceremony Yes / No

6. Have you come to watch friends or relatives? Yes How many?_____
No

7. How many people, including yourself, are in your spectator party? _____

8. Have you, or will you be, purchasing any goods or services while either visiting the area or attending the Games? Yes No

9. How much do you estimate you **and your party** will spend in total **in the area** during the Games on the following items? (Enter amounts to nearest dollar.)
How many persons are covered by the expenditures? _____ persons

Accommodation \$_____ Groceries \$_____

Automobile and Gas \$_____ Restaurant Meals \$_____

Concession \$_____ Recreation/Entertainment \$_____

Gifts and Souvenirs \$_____ Retail Shopping \$_____

Local Transportation \$_____ Other _____ \$_____

Total \$_____

APPENDIX

KIMBERLEY-CRANBROOK 2008 BC WINTER GAMES

VOLUNTEER SURVEY

Activity_____	Location_____	Fri. <input type="checkbox"/>	Sat. <input type="checkbox"/>	Sun. <input type="checkbox"/>
---------------	---------------	-------------------------------	-------------------------------	-------------------------------

1. In which volunteer capacity are you working?

- | | | | |
|--------------------------|--------------------------|----------------|--------------------------|
| Accommodation | <input type="checkbox"/> | Security | <input type="checkbox"/> |
| Communications | <input type="checkbox"/> | Social | <input type="checkbox"/> |
| Finance & Administration | <input type="checkbox"/> | Sports | <input type="checkbox"/> |
| Fundraising | <input type="checkbox"/> | Transportation | <input type="checkbox"/> |
| Medical | <input type="checkbox"/> | Volunteers | <input type="checkbox"/> |
| Public Relations | <input type="checkbox"/> | Others | <input type="checkbox"/> |
- _____

2. How many days will you spend working at these Games? _____ days

3. Are you a friend or relative of any of the participants (athletes or officials), in the Games? Yes No

4. How much do you estimate you will spend during the Games on the following items?
(Please record only expenditures that you have made, or will make, as a result of the Games?)

Accommodation	\$_____	Groceries	\$_____
Automobile and Gas	\$_____	Restaurant Meals	\$_____
Concession	\$_____	Recreation/Entertainment	\$_____
Gifts and Souvenirs	\$_____	Retail Shopping	\$_____
Local Transportation	\$_____	Other _____	\$_____
		Total	\$_____

Thank you for your assistance.