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# **Edmonton 2005 World Masters Games**

## **Economic Impact**

Prepared for the City of Edmonton  
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# Introduction

## Background

The World Masters Games are held every four years and provide a venue for international multi-sport competition for non-elite athletics. The games are touted as “the largest celebration of sports and fitness on earth.” The number of athletes participating in Edmonton was approximately double the 10,625 athletes competing in the 2004 Athens Olympics.

The 2005 games were held in Edmonton from July 22 to 31, 2005, with 21,600 registered participants, 3,000 registered companions, coaches and managers and 1,000 officials. Visitors from 88 countries participated in the games (89 including Canada). The events included 27 sports, with the majority for participants age 30 and older.

The games in Edmonton differed from elite competitions such as the Olympics or Commonwealth games in that existing infrastructure were utilized. No new facilities were built for the 2005 games. Events were held at more than 50 locations in the Edmonton region.

Costs incurred to attend the games are paid by the athletes. Participant expenditures during the games result in a significant economic impact to the Edmonton region. Participants also extended their visits to Canada before and after the games, resulting in additional expenditures and economic impact.

Expenditures by the City of Edmonton to host the games as well as expenditures by registered companions, coaches, managers and officials also contribute to the economic impact of the games.

## Scope and Purpose of Economic Impact Analysis

Deloitte & Touche LLP was retained by the City of Edmonton to estimate the economic impact of the 2005 World Masters games. This economic impact analysis quantifies the effect of initial spending on the economy. The impact of initial expenditures flows to the economy as direct, indirect and induced impacts.

- **Direct** impact occurs with the initial spending, including personal expenditures for registration costs, accommodation, local travel, food and entertainment. The expenses incurred to host the games also results in direct impact for wages and the purchase of goods and services. The direct impact will be less than the total amount spent due to leakage from the local economy for goods and services not produced in the region, use of inventories and government production. Personal expenditures by local residents have been excluded from this analysis as we have assumed these amounts represent a redistribution of funds that would have been spent in the local economy regardless of the games.
- **Indirect** impact occurs from the various inputs required to supply the first (direct) purchase. This impact results from expenditures by suppliers of the goods and services. This ripple effect occurs from spending by businesses that supplied goods and services for the initial (direct) games expenditures.
- **Induced** impact occurs from the expenditure of wages of persons employed to organize the games, and of persons employed to provide goods and services for initial (direct) expenditures. Induced impact also occurs from subsequent spending of business' profits. This ripple effect occurs from subsequent spending by individuals and businesses that benefited from the initial (direct) games expenditures.

To estimate the total impact of the games we have relied on operating expenditures and participant data provided by the City of Edmonton and expenditure data collected by the University of Alberta. The Conference Board of Canada TEAM model has been utilized to calculate the impact of these expenditures.

It is important to note that the economic impacts reported herein are estimates derived from the use of industry specific multipliers. The TEAM model developed by the Conference Board of Canada

provides a means to estimate the impact of tourism in regional economies. The model utilized was developed specifically for the Edmonton region. We have assumed that the impact of visitor spending outside of the Edmonton region is comparable to the impact of spending in Edmonton.

The TEAM model provides economic impact in the areas of gross domestic product ("GDP"), wages and salaries, employment, taxes, industry output and imports. GDP is the value added of goods and services arising from economic activity. Wages and salaries, employment jobs (in person years), taxes (municipal, provincial and federal) and imports are the amounts resulting from the initial expenditures. Industry output is the sum of all economic activity resulting from the initial impact; this amount is not limited to incremental value added but rather includes double counting of intermediate production.

## Uses of this Report

The data, information, calculations, projections and assumptions used in this report represent the best estimates which have been compiled from sources believed to be reasonable, reliable and accurate and appropriate for this assessment.

While care has been taken in the preparation of this report and all estimates are based on information believed to be reasonable, reliable and accurate, neither Deloitte & Touche LLP, nor any persons named in or involved in the preparation of this report make any guarantee, representation or warranty whatsoever concerning the accuracy or completeness of the information contained herein.

Deloitte & Touche LLP does not warrant that the actual results or other information referred to in this report will be the same, in whole or in part, as those shown herein. This report is based on certain assumptions and hypotheses and it is possible that actual results will vary, perhaps materially from the results presented.

We reserve the right to review all calculations included or referred to in our report and if we consider it necessary, to revise our report in the light of any information which becomes known to us after the date of this report.

# Impact of Visitor Spending

## Spending by Participants

As detailed on Appendix A, there were 21,600 registered participants at the games. The University of Alberta administered surveys of participants before and after the games. The surveys obtained data regarding participant's experiences and expenditures. More than 1,000 responses (4.6% of participants) were obtained from the pre-games survey and 768 responses (3.6% of participants) from the post-games survey.

We have relied on the post-games survey responses to estimate participant expenditures. We summarize the average expenditures reported by survey respondents on Appendix B. We note that the average expenditure includes the impact of some respondents reporting significantly higher expenditures than the average. 1% to 2% of Canadian and US respondents spent more than \$10,000. However, 25% of other international respondents spent more than \$10,000. The average expenditure amount of the top 25% of other international respondents was approximately \$17,000 per person. For purposes of this analysis we have assumed that the distribution of expenditures by survey respondents is representative of the distribution of expenditures of all participants from similar geographic locations (e.g. we have assumed the average expenditures for games participants from Alberta is the same as the average expenditures reported by survey respondents from Alberta).

In applying the average expenditures to estimate total expenditures by games participants, we have excluded responses for residents of the Edmonton region. The exclusion of expenditures by local residents is based on the assumption that all expenses by these participants represent a redistribution of expenditures rather than new spending that would have occurred in the local economy. We have

also excluded expenses from respondents where the residence was not identified and a single response where the reported amount was four times higher than the next highest reported expenditure. The size of the difference in expenditures between this respondent and other respondents may be due to actual differences, due to language difficulties with the respondent, inaccuracy in the amount reported or other unidentified cause(s). As inclusion of reported expenditures by this participant would have disproportionately skewed the assumed average expenditures, we have assumed that this respondent is not representative of average spending by games participants.

On Appendix C we estimate the total spending by registered games participants based on the average expenditure per person<sup>1</sup> for survey respondents to the total number of participants of similar residency. For example, the average expenditures reported by survey respondents from the United States are assumed to be similar to average expenditures of all games participants from the United States. Amounts for pre and post games expenditures were adjusted to reflect the rate that survey participants reported pre or post-games pre or post games expenditures in Canada. Of the post-games survey respondents from the United States, 15% reported pre and/or post-games expenditures, this figure increased to 55% for other international respondents. We note that pre and post games expenditures include only expenses incurred while in Canada (i.e. transportation does not include cost of travel to Canada).

Based on average expenditures reported by survey respondents, we estimate total spending during the games of \$26.1 million in Edmonton by participants, and total spending before and after the games of \$18.0 million by participants in Canada (\$44.1 million total).

The impact of participant expenditures on GDP is projected to be \$44.2 million, of which \$19.1 million is a direct impact in the Edmonton region. Included in the impact on GDP is the increase in wages and salaries of \$26.3 million (\$12.6 million in the Edmonton region). Participant expenditures created the equivalent of 1,048 jobs, of which 546 would be in the Edmonton region.

The total impact of this spending on industry output is \$84.6 million (\$39.8 million in the Edmonton region), creating tax revenues of \$16.6 million (\$7.9 million from the Edmonton region).

Participant expenditures are projected to have increased imports to Canada by \$22.3 million (\$7.5 million into the Edmonton region).

The impact of spending by games participants for the Edmonton region is detailed on the last column of Appendix D. The total impact of spending by games participants for Canada (including Edmonton) are detailed on the last column of Appendix E.

### Spending by Other Games Attendees

Other games attendees include 3,000 registered companions, coaches and managers and 1,000 officials. The expenditures of these attendees were not directly surveyed. If these attendees had similar spending patterns and residence as registered games participants, the impact of their expenditure would be an additional 19% of the amounts projected for registered games participants (4,000 other games attendees ÷ 21,600 registered games participants).

Based on average expenditures reported by survey respondents, we estimate total spending during the games of \$4.8 million in Edmonton by participants, and total spending before and after the games of \$3.3 million by participants in Canada (\$8.2 million total, difference due to rounding).

The impact of other attendee expenditures on GDP is projected to be \$8.2 million, of which \$3.5 million is a direct impact in the Edmonton region. Included in the impact on GDP is the increase in wages and salaries of \$4.9 million (\$2.3 million in the Edmonton region). Other attendee expenditures created the equivalent of 194 jobs, of which 101 would be in the Edmonton region.

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<sup>1</sup>Total expenditures have been adjusted to reflect the average expenditure per person based on number of people covered by the expenditures.

The total impact of this spending on industry output is \$15.7 million (\$7.4 million in the Edmonton region), creating tax revenues of \$3.1 million (\$1.5 million from the Edmonton region).

Other attendee expenditures are projected to have increased imports to Canada by \$4.1 million (\$1.4 million into the Edmonton region).

The impact of spending by other games attendees for the Edmonton region is detailed on the last column of Appendix F. The total impact of spending by other games attendees for Canada (including Edmonton) are detailed on the last column of Appendix G.

We summarize the estimated economic impact of all visitor expenditures (games participants and other games attendees) arising from the 2005 World Masters Games for the Edmonton region as follows:

| Impact on the Edmonton Region                                                                                                                                                                 | Source of Economic Impact                   |                       |                                |                       | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------|--------------------------------|-----------------------|-------|
|                                                                                                                                                                                               | Tourism Expenditures in the Edmonton Region |                       | Tourism Expenditures Elsewhere |                       |       |
|                                                                                                                                                                                               | Games Participants                          | Other Games Attendees | Games Participants             | Other Games Attendees |       |
|                                                                                                                                                                                               | (Appendix D)                                | (Appendix F)          |                                |                       |       |
| In Millions (Note 1):                                                                                                                                                                         |                                             |                       |                                |                       |       |
| Initial Expenditure                                                                                                                                                                           | 26.1                                        | 4.8                   |                                |                       | 30.9  |
| Gross Domestic Product                                                                                                                                                                        | 19.1                                        | 3.5                   |                                |                       | 22.6  |
| Wages & Salaries                                                                                                                                                                              | 12.6                                        | 2.3                   |                                |                       | 15.0  |
| Industry Output                                                                                                                                                                               | 39.8                                        | 7.4                   |                                |                       | 47.1  |
| Taxes                                                                                                                                                                                         | 7.9                                         | 1.5                   |                                |                       | 9.4   |
| Imports                                                                                                                                                                                       | 7.5                                         | 1.4                   |                                |                       | 8.9   |
| Employment (Jobs)                                                                                                                                                                             | 546                                         | 101                   |                                |                       | 647   |
| Note 1: All amounts denoted in millions, except employment which is denoted in jobs.                                                                                                          |                                             |                       |                                |                       |       |
| Note 2: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest \$100,000, except employment which is denoted in jobs. |                                             |                       |                                |                       |       |

We summarize the estimated economic impact of all visitor expenditures (games participants and other games attendees) arising from the 2005 World Masters Games for Canada (including the Edmonton region) as follows:

| Impact on Canada                                                                                                                                                                              | Source of Economic Impact                   |                       |                                |                       | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------|--------------------------------|-----------------------|-------|
|                                                                                                                                                                                               | Tourism Expenditures in the Edmonton Region |                       | Tourism Expenditures Elsewhere |                       |       |
|                                                                                                                                                                                               | Games Participants                          | Other Games Attendees | Games Participants             | Other Games Attendees |       |
|                                                                                                                                                                                               | (Appendix E)                                | (Appendix G)          | (Appendix E)                   | (Appendix G)          |       |
| In Millions (Note 1):                                                                                                                                                                         |                                             |                       |                                |                       |       |
| Initial Expenditure                                                                                                                                                                           | 26.1                                        | 4.8                   | 18.0                           | 3.3                   | 52.3  |
| Gross Domestic Product                                                                                                                                                                        | 25.9                                        | 4.8                   | 18.3                           | 3.4                   | 52.4  |
| Wages & Salaries                                                                                                                                                                              | 15.8                                        | 2.9                   | 10.5                           | 2.0                   | 31.2  |
| Industry Output                                                                                                                                                                               | 50.5                                        | 9.4                   | 34.1                           | 6.3                   | 100.3 |
| Taxes                                                                                                                                                                                         | 9.7                                         | 1.8                   | 6.9                            | 1.3                   | 19.6  |
| Imports                                                                                                                                                                                       | 13.5                                        | 2.5                   | 8.9                            | 1.6                   | 26.5  |
| Employment (Jobs)                                                                                                                                                                             | 621                                         | 115                   | 427                            | 79                    | 1,243 |
| Note 1: All amounts denoted in millions, except employment which is denoted in jobs.                                                                                                          |                                             |                       |                                |                       |       |
| Note 2: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest \$100,000, except employment which is denoted in jobs. |                                             |                       |                                |                       |       |

# Impact of Staging the Event

## Operating Expenditures

From the expenditure data provided by the City of Edmonton, operating expenditures to host the 2005 World Masters Games totalled \$13.9 million. We note that existing venues were utilized to host the events. As such no capital investments were required.

We have allocated expenditures to categories used by the TEAM model based on the general nature of the expenses. These categories are based on industry sectors for which statistics are available to estimate the economic impact of spending in these sectors. We have assumed that all expenses were incurred in the local economy.

## Economic Impact of Operating Expenditures

Operating expenditures to host the 2005 World Masters Games totalled \$13.9 million. The impact of operating expenses on GDP is projected to be \$17.9 million, of which \$13.8 million is a direct impact in the Edmonton region. Included in the impact on GDP is the increase in wages and salaries of \$14.0 million (\$12.1 million in Edmonton). While the host had 24 full-time and 15 part-time employees, host operating expenditures created the equivalent of 176 jobs, of which 132 would be in the Edmonton region.

The total impact of this spending on industry output is \$30.3 million (\$22.2 million in the Edmonton region), creating tax revenues of \$6.1 million (\$5.0 million from the Edmonton region).

Operating expenditures are projected to have increased imports to Canada by \$6.0 million (\$2.2 million into the Edmonton region).

The impact of operating expenditures for the Edmonton region is detailed on the first column of Appendix H. The total impacts of operating expenditures for Canada (including the Edmonton region) are detailed on the second column of Appendix H.

We summarize the estimated economic impact of host operating expenditures arising from the 2005 World Masters Games as follows:

| Impact of Operating Expenditures                                                     | Impact on the Edmonton Region | Impact on Canada (Including Edmonton Region) |
|--------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------|
|                                                                                      | (Appendix H)                  | (Appendix H)                                 |
| In Millions (Note 1):                                                                |                               |                                              |
| Initial Expenditure                                                                  | 13.9                          | 13.9                                         |
| Gross Domestic Product                                                               | 13.8                          | 17.9                                         |
| Wages & Salaries                                                                     | 12.1                          | 14.0                                         |
| Industry Output                                                                      | 22.2                          | 30.3                                         |
| Taxes                                                                                | 5.0                           | 6.1                                          |
| Imports                                                                              | 2.2                           | 6.0                                          |
| Employment (Jobs)                                                                    | 132                           | 176                                          |
| Note 1: All amounts denoted in millions, except employment which is denoted in jobs. |                               |                                              |



# Other Economic Benefits

Hosting the 2005 World Masters Games in Edmonton results in numerous other benefits that are beyond the scope of this analysis. Some of these benefits include:

## International exposure

There were 89 countries represented at the games (including Canada). The experiences of the participants were surveyed in a study by the University of Alberta in conjunction with the participant expenditure survey. 15% of survey respondents from the United States reported extending their stay before or after the games, and for international participants this increased to 55%.

## Canadian entertainment and travel expenditures

As detailed in Appendix A, there were 14,267 Canadians participating in the games, of which 6,979 were from the Edmonton region, 3,043 were from other parts of Alberta and 4,245 were from other parts of Canada. Additionally there were 5,500 volunteers that committed to a minimum of 30 hours at the games. The funds expended by these individuals were retained in the region by hosting games. While we have explicitly excluded spending made by Canadians before and after the games, assuming that these expenditures would likely have been made regardless and constitute a redistribution of normal expenditures within Canada (as per note 1 in Appendix B), the spending made by these individuals will nonetheless have had an impact within the City of Edmonton and Canada as a whole.

Excluded from the impact analysis is spending by non-participant visitors who may have traveled to Edmonton to watch these games (whether from other parts of Alberta, Canada, the United States or internationally). The associated spending impacts of these individuals (on accommodation, meals and entertainment, other) would also contribute to the total economic impact of the games. We note that some of these individuals would be included in other attendees as registered companions.

## Credibility & Marketing Value

Edmonton has hosted a number of international events including ITU Triathlon World Cup races, IAAF 2001 World Championships in Athletics, the FIFA Women's Under-19 World Soccer Championship, and the IAAF Half Marathon World Championships. In 2006 Edmonton will host the World Handball Championships and the IRB Women's World Cup of Rugby. In 2007 Edmonton will host the U-FIFA Men's U-20 World Soccer Championships. The reputation earned by hosting the 2005 World Masters Games will add to Edmonton's credibility as a host for international athletic competition. The ability to bid on future athletic events should be enhanced by the success of the 2005 World Masters Games.

## Civic Pride

Civic pride in hosting this event should be significant. The number of participants and the success in hosting this event was visibly apparent to most people in Edmonton during the games. The opportunities to participate in the games, to view events and to join in après-games activities made the games open to all residents of the Edmonton region.



# Summary of Economic Impacts

## Edmonton Region

Based on average expenditures reported by survey respondents and operating expenditures, we estimate total spending directly impacting the Edmonton area of \$44.9 million.

The impact of total expenditures on GDP for the Edmonton region is projected to be \$36.4 million. Included in the impact on GDP is the increase in wages and salaries of \$27.1 million in the Edmonton region.

The total impact of this spending on industry output is \$69.4 million in the Edmonton region, creating tax revenues of \$14.4 million from the Edmonton region.

Total expenditures are projected to have increased imports to \$11.1 million into the Edmonton region. Total expenditures created the equivalent of 779 jobs in the Edmonton region.

The impact for the Edmonton region is detailed in the first column on Appendix I. We summarize the estimated economic impact of the 2005 World Masters Games for the Edmonton region as follows:

| Impact on the<br>Edmonton Region                                                                                                                                                              | Source of Economic Impact  |                                                |                                             |                                   |                             | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|---------------------------------------------|-----------------------------------|-----------------------------|-------|
|                                                                                                                                                                                               | Operations<br>(Appendix H) | Tourism Expenditures<br>in the Edmonton Region |                                             | Tourism Expenditures<br>Elsewhere |                             |       |
|                                                                                                                                                                                               |                            | Games<br>Participants<br>(Appendix D)          | Other<br>Games<br>Attendees<br>(Appendix F) | Games<br>Participants             | Other<br>Games<br>Attendees |       |
|                                                                                                                                                                                               |                            |                                                |                                             |                                   |                             |       |
| In Millions (Note 1):                                                                                                                                                                         |                            |                                                |                                             |                                   |                             |       |
| Initial Expenditure                                                                                                                                                                           | 13.9                       | 26.1                                           | 4.8                                         |                                   |                             | 44.9  |
| Gross Domestic Product                                                                                                                                                                        | 13.8                       | 19.1                                           | 3.5                                         |                                   |                             | 36.4  |
| Wages & Salaries                                                                                                                                                                              | 12.1                       | 12.6                                           | 2.3                                         |                                   |                             | 27.1  |
| Industry Output                                                                                                                                                                               | 22.2                       | 39.8                                           | 7.4                                         |                                   |                             | 69.4  |
| Taxes                                                                                                                                                                                         | 5.0                        | 7.9                                            | 1.5                                         |                                   |                             | 14.4  |
| Imports                                                                                                                                                                                       | 2.2                        | 7.5                                            | 1.4                                         |                                   |                             | 11.1  |
| Employment (Jobs)                                                                                                                                                                             | 132                        | 546                                            | 101                                         |                                   |                             | 779   |
| Note 1: All amounts denoted in millions, except employment which is denoted in jobs.                                                                                                          |                            |                                                |                                             |                                   |                             |       |
| Note 2: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest \$100,000, except employment which is denoted in jobs. |                            |                                                |                                             |                                   |                             |       |

## Canada

Based on average expenditures reported by survey respondents and operating expenditures, we estimate total spending directly impacting Canada of \$66.2 million.

The impact of total expenditures on GDP for Canada is projected to be \$70.3 million. Included in the impact on GDP is the increase in wages and salaries of \$45.2 million in Canada.

The total impact of this spending on industry output is \$130.6 million for Canada, creating tax revenues of \$25.8 million from Canada.

Total expenditures are projected to have increased imports to \$32.5 million for Canada. Total expenditures created the equivalent of 1,419 jobs in Canada.

The total impacts are detailed in the last column on Appendix J. We summarize the estimated economic impact of the 2005 World Masters Games for Canada as follows:

| Impact on Canada<br>(Including Edmonton<br>Region)                                                                                                                                            | Source of Economic Impact  |                                                |                                             |                                       |                                             | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|---------------------------------------------|---------------------------------------|---------------------------------------------|-------|
|                                                                                                                                                                                               | Operations<br>(Appendix H) | Tourism Expenditures in<br>the Edmonton Region |                                             | Tourism Expenditures<br>Elsewhere     |                                             |       |
|                                                                                                                                                                                               |                            | Games<br>Participants<br>(Appendix E)          | Other<br>Games<br>Attendees<br>(Appendix G) | Games<br>Participants<br>(Appendix E) | Other<br>Games<br>Attendees<br>(Appendix G) |       |
|                                                                                                                                                                                               |                            |                                                |                                             |                                       |                                             |       |
|                                                                                                                                                                                               |                            |                                                |                                             |                                       |                                             |       |
| In Millions (Note 1):                                                                                                                                                                         |                            |                                                |                                             |                                       |                                             |       |
| Initial Expenditure                                                                                                                                                                           | 13.9                       | 26.1                                           | 4.8                                         | 18.0                                  | 3.3                                         | 66.2  |
| Gross Domestic Product                                                                                                                                                                        | 17.9                       | 25.9                                           | 4.8                                         | 18.3                                  | 3.4                                         | 70.3  |
| Wages & Salaries                                                                                                                                                                              | 14.0                       | 15.8                                           | 2.9                                         | 10.5                                  | 2.0                                         | 45.2  |
| Industry Output                                                                                                                                                                               | 30.3                       | 50.5                                           | 9.4                                         | 34.1                                  | 6.3                                         | 130.6 |
| Taxes                                                                                                                                                                                         | 6.1                        | 9.7                                            | 1.8                                         | 6.9                                   | 1.3                                         | 25.8  |
| Imports                                                                                                                                                                                       | 6.0                        | 13.5                                           | 2.5                                         | 8.9                                   | 1.6                                         | 32.5  |
| Employment (Jobs)                                                                                                                                                                             | 176                        | 621                                            | 115                                         | 427                                   | 79                                          | 1,419 |
| Note 1: All amounts denoted in millions, except employment which is denoted in jobs.                                                                                                          |                            |                                                |                                             |                                       |                                             |       |
| Note 2: All amounts for Canada include the economic impact summarized above for the Edmonton Region.                                                                                          |                            |                                                |                                             |                                       |                                             |       |
| Note 3: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest \$100,000, except employment which is denoted in jobs. |                            |                                                |                                             |                                       |                                             |       |

\* \* \* \* \*

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# Appendix A – 2005 World Masters Games Registrations

| International         |        | International         |        | International               |               |
|-----------------------|--------|-----------------------|--------|-----------------------------|---------------|
| Canada                | 14,267 | Ghana                 | 1      | Pakistan                    | 9             |
| United States         | 1,973  | Great Britain         | 11     | Papua New Guinea            | 1             |
| Antigua and Barbuda   | 2      | Greece                | 5      | Peru                        | 14            |
| Argentina             | 25     | Guam                  | 28     | Poland                      | 44            |
| Armenia               | 2      | Guatemala             | 27     | Puerto Rico                 | 17            |
| Aruba                 | 2      | Holland               | 1      | Qatar                       | 1             |
| Australia             | 1,411  | Hong Kong             | 2      | Romania                     | 1             |
| Austria               | 43     | Hungary               | 62     | Russia                      | 402           |
| Bangladesh            | 2      | India                 | 140    | Russia Federation           | 1             |
| Barbados, West Indies | 1      | Indonesia             | 5      | Scotland                    | 6             |
| Belarus               | 8      | Ireland               | 20     | Singapore                   | 3             |
| Belgium               | 14     | Israel                | 42     | Slovakia                    | 7             |
| Bermuda               | 1      | Italy                 | 23     | Slovenia                    | 8             |
| Brazil                | 259    | Jamaica               | 9      | South Africa                | 61            |
| Brunei                | 1      | Japan                 | 186    | Spain                       | 5             |
| Bulgaria              | 3      | Korea, South          | 7      | Sri Lanka                   | 35            |
| Cayman Islands        | 1      | Latvia                | 107    | Sweden                      | 207           |
| Chile                 | 7      | Lithuania             | 77     | Switzerland                 | 76            |
| China                 | 13     | Macau                 | 8      | Taiwan                      | 84            |
| Colombia              | 7      | Malawi                | 1      | The Bahamas                 | 1             |
| Croatia               | 4      | Malaysia              | 3      | Trinidad and Tobago         | 5             |
| Cyprus                | 1      | Mariana Islands       | 2      | Turkey                      | 1             |
| Czech Republic        | 77     | Mexico                | 128    | Ukraine                     | 79            |
| Denmark               | 80     | Mongolia              | 17     | United Arab Emirates        | 3             |
| Ecuador               | 4      | Nepal                 | 1      | United Kingdom              | 323           |
| Egypt                 | 7      | Netherlands           | 24     |                             |               |
| El Salvador           | 3      | New Zealand           | 266    | <b>Total Participants</b>   | <b>21,600</b> |
| Estonia               | 76     | Vanuatu               | 1      | <b>Total # of Countries</b> | <b>89</b>     |
| Finland               | 206    | Venezuela             | 7      |                             |               |
| France                | 38     | Nigeria               | 33     |                             |               |
| French Polynesia      | 5      | Northern Ireland      | 2      |                             |               |
| Germany               | 249    | Norway                | 168    |                             |               |
| Alberta               |        | Canada                |        | Summary                     |               |
| Edmonton & Area       |        | Outside Alberta       |        | Edmonton Region             | 6,979         |
| Ardrossan             | 43     | British Columbia      | 2,389  | Other Alberta               | 3,043         |
| Beaumont              | 83     | Saskatchewan          | 574    | Other Canada                | 4,245         |
| Devon                 | 32     | Manitoba              | 152    | Total Canada                | 14,267        |
| Edmonton              | 4,907  | Ontario               | 869    | United States               | 1,973         |
| Fort Saskatchewan     | 87     | Quebec                | 102    | Other International         | 5,360         |
| Gibbons               | 13     | New Brunswick         | 23     |                             |               |
| Leduc                 | 79     | Nova Scotia           | 43     | <b>Total Participants</b>   | <b>21,600</b> |
| Sherwood Park         | 698    | Newfoundland          | 2      | <b>Total # of Countries</b> | <b>89</b>     |
| Spruce Grove          | 203    | Prince Edward Island  | 14     |                             |               |
| St. Albert            | 750    | Northwest Territories | 41     |                             |               |
| Stony Plain           | 84     | Yukon                 | 34     |                             |               |
| Edmonton and area     | 6,979  | Nunavut               | 2      |                             |               |
| Calgary               | 1,334  | Other Canada          | 4,245  |                             |               |
| Other Alberta         | 1,709  | Alberta               | 10,022 |                             |               |
| Total Alberta         | 10,022 | Total Canada          | 14,267 |                             |               |

## Appendix B – Reported Expenditures by Survey Respondents

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Albertan Residents | Other Canadian Residents | United States Visitors | Other International Visitors |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------|------------------------|------------------------------|
| Average expenditures before/after games                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                          |                        |                              |
| Accommodation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                          | 755                    | 2,567                        |
| Transportation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                          | 426                    | 1,604                        |
| Meals & entertainment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Note 1             | Note 1                   | 450                    | 1,262                        |
| Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                          | <u>277</u>             | <u>468</u>                   |
| Subtotal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                          | 1,908                  | 5,901                        |
| Proportion reporting pre or post games expenditures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                          | <u>15%</u>             | <u>55%</u>                   |
| Proportion adjusted pre and post games expenditures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                          | 286                    | 3,246                        |
| Average expenditures during games                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                          |                        |                              |
| Accommodation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 416                | 424                      | 789                    | 829                          |
| Transportation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 143                | 168                      | 282                    | 305                          |
| Meals & entertainment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 266                | 333                      | 415                    | 604                          |
| Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <u>230</u>         | <u>288</u>               | <u>225</u>             | <u>515</u>                   |
| Subtotal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1,055              | 1,213                    | 1,710                  | 2,252                        |
| Average cost of registration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u>155</u>         | <u>155</u>               | <u>155</u>             | <u>155</u>                   |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <u>1,210</u>       | <u>1,368</u>             | <u>2,151</u>           | <u>5,653</u>                 |
| <p>Note 1: Pre and post games expenditure data is for travel within all parts of Canada reported by survey respondents. Pre and post games expenditures by Canadian residents are assumed to be a redistribution of normal expenditures within Canada rather than incremental amounts for new spending.</p> <p>Note 2: Average expenditure data excludes one respondent that reported personal expenditures significantly higher than all other respondents, and has been excluded from this analysis.</p> <p>Note 3: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest whole number.</p> |                    |                          |                        |                              |

## Appendix C – Total Projected Participant Expenditures

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Albertan Residents | Other Canadian Residents | United States Visitors | Other International Visitors |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------|------------------------|------------------------------|
| Average expenditures before/after games                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                          | 1,908                  | 5,901                        |
| Proportion reporting pre or post games expenditures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                          | 15%                    | 55%                          |
| Registrations included in analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Note 1             | Note 1                   | 1,973                  | 5,360                        |
| Projected participant expenditure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                          | 546,570                | 17,492,032                   |
| <b>Total projected participant expenditure before/after games</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                          |                        | <b>\$18,038,601</b>          |
| Average expenditures during games                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1,055              | 1,213                    | 1,710                  | 2,252                        |
| Average cost of registration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 155                | 155                      | 155                    | 155                          |
| Registrations included in analysis (Note 1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3,043              | 4,245                    | 1,973                  | 5,360                        |
| Projected participant expenditure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3,681,341          | 5,809,912                | 3,679,430              | 12,902,409                   |
| <b>Total projected participant expenditure during games</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                          |                        | <b>\$26,073,092</b>          |
| <p>Note 1: Pre and post games expenditure data is for travel within all parts of Canada reported by survey respondents. Pre and post games expenditures by Canadian residents are assumed to be a redistribution of normal expenditures within Canada rather than incremental amounts for new spending.</p> <p>Note 2: Average expenditure data excludes one respondent that reported personal expenditures significantly higher than all other respondents, and has been excluded from this analysis.</p> <p>Note 3: Differences in totals are due to rounding. Totals are calculated from raw data, which has been summarized above to the nearest whole number.</p> |                    |                          |                        |                              |

# Appendix D – TEAM Model Economic Impact of Participant Expenditures in the Edmonton Region

| Impact on the Edmonton Region                                                                                       | Tourism Expenditures in the Edmonton Region | Tourism Expenditures Elsewhere | Total               |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------|---------------------|
| <b>Initial Expenditure</b>                                                                                          | \$26,073,092                                |                                | \$26,073,092        |
| <b>Gross Domestic Product</b>                                                                                       |                                             |                                |                     |
| Direct Impact                                                                                                       | \$11,289,876                                |                                | \$11,289,876        |
| Indirect Impact                                                                                                     | \$3,802,564                                 |                                | \$3,802,564         |
| Induced Impact                                                                                                      | \$3,994,796                                 |                                | \$3,994,796         |
| <b>Total Impact</b>                                                                                                 | <b>\$19,087,236</b>                         |                                | <b>\$19,087,236</b> |
| Total/Direct (A)                                                                                                    | 1.69                                        |                                | 1.69                |
| Total/Initial (B)                                                                                                   | 0.73                                        |                                | 0.73                |
| <b>Wages &amp; Salaries</b>                                                                                         |                                             |                                |                     |
| Direct Impact                                                                                                       | \$8,125,533                                 |                                | \$8,125,533         |
| Indirect Impact                                                                                                     | \$2,389,281                                 |                                | \$2,389,281         |
| Induced Impact                                                                                                      | \$2,116,608                                 |                                | \$2,116,608         |
| <b>Total Impact</b>                                                                                                 | <b>\$12,631,422</b>                         |                                | <b>\$12,631,422</b> |
| Total/Direct (A)                                                                                                    | 1.55                                        |                                | 1.55                |
| Total/Initial (B)                                                                                                   | 0.48                                        |                                | 0.48                |
| <b>Employment (Jobs)</b>                                                                                            |                                             |                                |                     |
| Direct Impact                                                                                                       | 417.0                                       |                                | 417.0               |
| Indirect Impact                                                                                                     | 58.3                                        |                                | 58.3                |
| Induced Impact                                                                                                      | 70.9                                        |                                | 70.9                |
| <b>Total Impact</b>                                                                                                 | <b>546.2</b>                                |                                | <b>546.2</b>        |
| Total/Direct (A)                                                                                                    | 1.31                                        |                                | 1.31                |
| Total/I\$ Million (B)                                                                                               | 20.95                                       |                                | 20.95               |
| <b>Industry Output</b>                                                                                              |                                             |                                |                     |
| <b>Total Impact</b>                                                                                                 | <b>\$39,750,649</b>                         |                                | <b>\$39,750,649</b> |
| Total/Initial (B)                                                                                                   | 1.52                                        |                                | 1.52                |
| <b>Taxes</b>                                                                                                        |                                             |                                |                     |
| Direct Impact                                                                                                       | \$5,320,245                                 |                                | \$5,320,245         |
| Indirect Impact                                                                                                     | \$1,260,127                                 |                                | \$1,260,127         |
| Induced Impact                                                                                                      | \$1,358,433                                 |                                | \$1,358,433         |
| <b>Total Impact</b>                                                                                                 | <b>\$7,938,805</b>                          |                                | <b>\$7,938,805</b>  |
| Total/Direct (A)                                                                                                    | 1.49                                        |                                | 1.49                |
| Total/Initial (B)                                                                                                   | 0.30                                        |                                | 0.30                |
| <b>Imports</b>                                                                                                      |                                             |                                |                     |
| Direct Impact                                                                                                       | \$0                                         |                                | \$0                 |
| Indirect Impact                                                                                                     | \$5,907,613                                 |                                | \$5,907,613         |
| Induced Impact                                                                                                      | \$1,588,247                                 |                                | \$1,588,247         |
| <b>Total Impact</b>                                                                                                 | <b>\$7,495,860</b>                          |                                | <b>\$7,495,860</b>  |
| Total/Initial (B)                                                                                                   | 0.29                                        |                                | 0.29                |
| Note 1: Tourism Expenditures in the Edmonton Region based on participant expenditures in Edmonton during the games. |                                             |                                |                     |

# Appendix E – TEAM Model Economic Impact of Participant Expenditures in Canada

| Impact on Canada<br>(Including Edmonton Region)                                                                           | Tourism<br>Expenditures in the<br>Edmonton Region | Tourism<br>Expenditures<br>Elsewhere | Total               |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------|---------------------|
| <b>Initial Expenditure</b>                                                                                                | \$26,073,092                                      | \$18,038,601                         | \$44,111,693        |
| <b>Gross Domestic Product</b>                                                                                             |                                                   |                                      |                     |
| Direct Impact                                                                                                             | \$11,291,146                                      | \$6,934,460                          | \$18,225,606        |
| Indirect Impact                                                                                                           | \$6,255,053                                       | \$5,619,147                          | \$11,874,200        |
| Induced Impact                                                                                                            | \$8,366,131                                       | \$5,775,882                          | \$14,142,013        |
| <b>Total Impact</b>                                                                                                       | <b>\$25,912,330</b>                               | <b>\$18,329,489</b>                  | <b>\$44,241,819</b> |
| Total/Direct (A)                                                                                                          | 2.29                                              | 2.6                                  | 2.43                |
| Total/Initial (B)                                                                                                         | 0.99                                              | 1.02                                 | 1.00                |
| <b>Wages &amp; Salaries</b>                                                                                               |                                                   |                                      |                     |
| Direct Impact                                                                                                             | \$8,126,582                                       | \$4,919,434                          | \$13,046,016        |
| Indirect Impact                                                                                                           | \$3,483,703                                       | \$2,757,658                          | \$6,241,361         |
| Induced Impact                                                                                                            | \$4,167,501                                       | \$2,871,289                          | \$7,038,790         |
| <b>Total Impact</b>                                                                                                       | <b>\$15,777,786</b>                               | <b>\$10,548,382</b>                  | <b>\$26,326,168</b> |
| Total/Direct (A)                                                                                                          | 1.94                                              | 2.14                                 | 2.02                |
| Total/Initial (B)                                                                                                         | 0.61                                              | 0.58                                 | 0.60                |
| <b>Employment (Jobs)</b>                                                                                                  |                                                   |                                      |                     |
| Direct Impact                                                                                                             | 417.1                                             | 280.8                                | 697.9               |
| Indirect Impact                                                                                                           | 84.9                                              | 63.6                                 | 148.5               |
| Induced Impact                                                                                                            | 119.4                                             | 82.7                                 | 202.1               |
| <b>Total Impact</b>                                                                                                       | <b>621.3</b>                                      | <b>427.1</b>                         | <b>1,048.4</b>      |
| Total/Direct (A)                                                                                                          | 1.49                                              | 1.52                                 | 1.50                |
| Total/I\$ Million (B)                                                                                                     | 23.83                                             | 23.68                                | 23.77               |
| <b>Industry Output</b>                                                                                                    |                                                   |                                      |                     |
| <b>Total Impact</b>                                                                                                       | <b>\$50,492,172</b>                               | <b>\$34,136,159</b>                  | <b>\$84,628,331</b> |
| Total/Initial (B)                                                                                                         | 1.94                                              | 1.89                                 | 1.92                |
| <b>Taxes</b>                                                                                                              |                                                   |                                      |                     |
| Direct Impact                                                                                                             | \$5,320,711                                       | \$3,514,447                          | \$8,835,158         |
| Indirect Impact                                                                                                           | \$1,840,905                                       | \$1,597,431                          | \$3,438,336         |
| Induced Impact                                                                                                            | \$2,547,921                                       | \$1,752,673                          | \$4,300,594         |
| <b>Total Impact</b>                                                                                                       | <b>\$9,709,536</b>                                | <b>\$6,864,551</b>                   | <b>\$16,574,087</b> |
| Total/Direct (A)                                                                                                          | 1.82                                              | 1.95                                 | 1.88                |
| Total/Initial (B)                                                                                                         | 0.37                                              | 0.38                                 | 0.38                |
| <b>Imports</b>                                                                                                            |                                                   |                                      |                     |
| Direct Impact                                                                                                             | \$0                                               | \$0.0                                | \$0                 |
| Indirect Impact                                                                                                           | \$8,526,893                                       | \$5,484,994                          | \$14,011,887        |
| Induced Impact                                                                                                            | \$4,926,701                                       | \$3,394,585                          | \$8,321,286         |
| <b>Total Impact</b>                                                                                                       | <b>\$13,453,594</b>                               | <b>\$8,879,579</b>                   | <b>\$22,333,173</b> |
| Total/Initial (B)                                                                                                         | 0.52                                              | 0.49                                 | 0.51                |
| Note 1: Tourism Expenditures in the Edmonton Region based on participant expenditures in Edmonton during the games.       |                                                   |                                      |                     |
| Note 2: Tourism Expenditures Elsewhere based on participant expenditures in throughout Canada before and after the games. |                                                   |                                      |                     |



# Appendix F – Estimated Economic Impact of Other Attendee Expenditures in the Edmonton Region

| Impact on Edmonton Region                                                                                                                                                                                                                                             | Source of Economic Impact                   |                                | Total              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------|--------------------|
|                                                                                                                                                                                                                                                                       | Tourism Expenditures in the Edmonton Region | Tourism Expenditures Elsewhere |                    |
| <b>Initial Expenditure</b>                                                                                                                                                                                                                                            | \$4,828,350                                 |                                | \$4,828,350        |
| <b>Gross Domestic Product</b>                                                                                                                                                                                                                                         |                                             |                                |                    |
| Direct Impact                                                                                                                                                                                                                                                         | \$2,090,718                                 |                                | \$2,090,718        |
| Indirect Impact                                                                                                                                                                                                                                                       | \$704,179                                   |                                | \$704,179          |
| Induced Impact                                                                                                                                                                                                                                                        | \$739,777                                   |                                | \$739,777          |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$3,534,673</b>                          |                                | <b>\$3,534,673</b> |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.69                                        |                                | 1.69               |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.73                                        |                                | 0.73               |
| <b>Wages &amp; Salaries</b>                                                                                                                                                                                                                                           |                                             |                                |                    |
| Direct Impact                                                                                                                                                                                                                                                         | \$1,504,728                                 |                                | \$1,504,728        |
| Indirect Impact                                                                                                                                                                                                                                                       | \$442,459                                   |                                | \$442,459          |
| Induced Impact                                                                                                                                                                                                                                                        | \$391,964                                   |                                | \$391,964          |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$2,339,152</b>                          |                                | <b>\$2,339,152</b> |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.55                                        |                                | 1.55               |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.48                                        |                                | 0.48               |
| <b>Employment (Jobs)</b>                                                                                                                                                                                                                                              |                                             |                                |                    |
| Direct Impact                                                                                                                                                                                                                                                         | 77.2                                        |                                | 77.2               |
| Indirect Impact                                                                                                                                                                                                                                                       | 10.8                                        |                                | 10.8               |
| Induced Impact                                                                                                                                                                                                                                                        | 13.1                                        |                                | 13.1               |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>101.1</b>                                |                                | <b>101.1</b>       |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.31                                        |                                | 1.31               |
| Total/I\$ Million (B)                                                                                                                                                                                                                                                 | 20.95                                       |                                | 20.95              |
| <b>Industry Output</b>                                                                                                                                                                                                                                                |                                             |                                |                    |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$7,361,231</b>                          |                                | <b>\$7,361,231</b> |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 1.52                                        |                                | 1.52               |
| <b>Taxes</b>                                                                                                                                                                                                                                                          |                                             |                                |                    |
| Direct Impact                                                                                                                                                                                                                                                         | \$985,231                                   |                                | \$985,231          |
| Indirect Impact                                                                                                                                                                                                                                                       | \$233,357                                   |                                | \$233,357          |
| Induced Impact                                                                                                                                                                                                                                                        | \$251,562                                   |                                | \$251,562          |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$1,470,149</b>                          |                                | <b>\$1,470,149</b> |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.49                                        |                                | 1.49               |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.30                                        |                                | 0.30               |
| <b>Imports</b>                                                                                                                                                                                                                                                        |                                             |                                |                    |
| Direct Impact                                                                                                                                                                                                                                                         | \$0                                         |                                | \$0                |
| Indirect Impact                                                                                                                                                                                                                                                       | \$1,094,002                                 |                                | \$1,094,002        |
| Induced Impact                                                                                                                                                                                                                                                        | \$294,120                                   |                                | \$294,120          |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$1,388,122</b>                          |                                | <b>\$1,388,122</b> |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.29                                        |                                | 0.29               |
| Note 1: Economic impact for the 3,000 registered companions, coaches and managers and 1,000 officials has been extrapolated from total impact derived from participant survey responses and model projections for expenditures of the 21,600 registered participants. |                                             |                                |                    |
| Note 2: Tourism Expenditures in the Edmonton Region based on estimated other attendee expenditures in Edmonton during the games.                                                                                                                                      |                                             |                                |                    |

# Appendix G – Estimated Economic Impact of Other Attendee Expenditures in Canada

| Impact on Canada<br>(Including Edmonton Region)                                                                                                                                                                                                                       | Source of Economic Impact                         |                                      | Total               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------|---------------------|
|                                                                                                                                                                                                                                                                       | Tourism<br>Expenditures in the<br>Edmonton Region | Tourism<br>Expenditures<br>Elsewhere |                     |
| <b>Initial Expenditure</b>                                                                                                                                                                                                                                            | \$4,828,350                                       | \$3,340,482                          | \$8,168,832         |
| <b>Gross Domestic Product</b>                                                                                                                                                                                                                                         |                                                   |                                      |                     |
| Direct Impact                                                                                                                                                                                                                                                         | \$2,090,953                                       | \$1,284,159                          | \$3,375,112         |
| Indirect Impact                                                                                                                                                                                                                                                       | \$1,158,343                                       | \$1,040,583                          | \$2,198,926         |
| Induced Impact                                                                                                                                                                                                                                                        | \$1,549,284                                       | \$1,069,608                          | \$2,618,891         |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$4,798,580</b>                                | <b>\$3,394,350</b>                   | <b>\$8,192,930</b>  |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 2.29                                              | 2.64                                 | 2.43                |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.99                                              | 1.02                                 | 1.00                |
| <b>Wages &amp; Salaries</b>                                                                                                                                                                                                                                           |                                                   |                                      |                     |
| Direct Impact                                                                                                                                                                                                                                                         | \$1,504,923                                       | \$911,006                            | \$2,415,929         |
| Indirect Impact                                                                                                                                                                                                                                                       | \$645,130                                         | \$510,677                            | \$1,155,808         |
| Induced Impact                                                                                                                                                                                                                                                        | \$771,759                                         | \$531,720                            | \$1,303,480         |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$2,921,812</b>                                | <b>\$1,953,404</b>                   | <b>\$4,875,216</b>  |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.94                                              | 2.14                                 | 2.02                |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.61                                              | 0.58                                 | 0.60                |
| <b>Employment (Jobs)</b>                                                                                                                                                                                                                                              |                                                   |                                      |                     |
| Direct Impact                                                                                                                                                                                                                                                         | 77.2                                              | 52.0                                 | 129.2               |
| Indirect Impact                                                                                                                                                                                                                                                       | 15.7                                              | 11.8                                 | 27.5                |
| Induced Impact                                                                                                                                                                                                                                                        | 22.1                                              | 15.3                                 | 37.4                |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>115.1</b>                                      | <b>79.1</b>                          | <b>194.1</b>        |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.49                                              | 1.52                                 | 1.50                |
| Total/I\$ Million (B)                                                                                                                                                                                                                                                 | 23.83                                             | 23.68                                | 23.77               |
| <b>Industry Output</b>                                                                                                                                                                                                                                                |                                                   |                                      |                     |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$9,350,402</b>                                | <b>\$6,321,511</b>                   | <b>\$15,671,913</b> |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 1.94                                              | 1.89                                 | 1.92                |
| <b>Taxes</b>                                                                                                                                                                                                                                                          |                                                   |                                      |                     |
| Direct Impact                                                                                                                                                                                                                                                         | \$985,317                                         | \$650,824                            | \$1,636,140         |
| Indirect Impact                                                                                                                                                                                                                                                       | \$340,908                                         | \$295,820                            | \$636,729           |
| Induced Impact                                                                                                                                                                                                                                                        | \$471,837                                         | \$324,569                            | \$796,406           |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$1,798,062</b>                                | <b>\$1,271,213</b>                   | <b>\$3,069,275</b>  |
| Total/Direct (A)                                                                                                                                                                                                                                                      | 1.82                                              | 1.95                                 | 1.88                |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.37                                              | 0.38                                 | 0.38                |
| <b>Imports</b>                                                                                                                                                                                                                                                        |                                                   |                                      |                     |
| Direct Impact                                                                                                                                                                                                                                                         | \$0                                               | \$0                                  | \$0                 |
| Indirect Impact                                                                                                                                                                                                                                                       | \$1,579,054                                       | \$1,015,740                          | \$2,594,794         |
| Induced Impact                                                                                                                                                                                                                                                        | \$912,352                                         | \$628,627                            | \$1,540,979         |
| <b>Total Impact</b>                                                                                                                                                                                                                                                   | <b>\$2,491,406</b>                                | <b>\$1,644,366</b>                   | <b>\$4,135,773</b>  |
| Total/Initial (B)                                                                                                                                                                                                                                                     | 0.52                                              | 0.49                                 | 0.51                |
| Note 1: Economic impact for the 3,000 registered companions, coaches and managers and 1,000 officials has been extrapolated from total impact derived from participant survey responses and model projections for expenditures of the 21,600 registered participants. |                                                   |                                      |                     |
| Note 2: Tourism Expenditures in the Edmonton Region based on estimated other attendee expenditures in Edmonton during the games.                                                                                                                                      |                                                   |                                      |                     |
| Note 3: Tourism Expenditures Elsewhere based on estimated other attendee expenditures in throughout Canada before and after the games.                                                                                                                                |                                                   |                                      |                     |

# Appendix H – TEAM Model Economic Impact of Operations Expenditures in the Edmonton Region & in Canada

| Source of Economic Impact: Operations                                                                                  | Impact on<br>Edmonton Region | Impact on Canada<br>(Including Edmonton Region) |
|------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------|
| <b>Initial Expenditure</b>                                                                                             | \$13,948,724                 | \$13,948,724                                    |
| <b>Gross Domestic Product</b>                                                                                          |                              |                                                 |
| Direct Impact                                                                                                          | \$8,617,097                  | \$8,617,097                                     |
| Indirect Impact                                                                                                        | \$2,361,619                  | \$3,265,221                                     |
| Induced Impact                                                                                                         | \$2,798,876                  | \$6,006,797                                     |
| <b>Total Impact</b>                                                                                                    | <b>\$13,777,593</b>          | <b>\$17,889,115</b>                             |
| Total/Direct (A)                                                                                                       | 1.60                         | 2.08                                            |
| Total/Initial (B)                                                                                                      | 0.99                         | 1.28                                            |
| <b>Wages &amp; Salaries</b>                                                                                            |                              |                                                 |
| Direct Impact                                                                                                          | \$8,617,097                  | \$8,617,097                                     |
| Indirect Impact                                                                                                        | \$1,680,475                  | \$2,101,163                                     |
| Induced Impact                                                                                                         | \$1,818,800                  | \$3,328,359                                     |
| <b>Total Impact</b>                                                                                                    | <b>\$12,116,373</b>          | <b>\$14,046,621</b>                             |
| Total/Direct (A)                                                                                                       | 1.41                         | 1.63                                            |
| Total/Initial (B)                                                                                                      | 0.87                         | 1.01                                            |
| <b>Employment (Jobs)</b>                                                                                               |                              |                                                 |
| Direct Impact                                                                                                          | 30.7                         | 30.7                                            |
| Indirect Impact                                                                                                        | 40.4                         | 50.0                                            |
| Induced Impact                                                                                                         | 60.8                         | 95.6                                            |
| <b>Total Impact</b>                                                                                                    | <b>132.0</b>                 | <b>176.2</b>                                    |
| Total/Direct (A)                                                                                                       | 4.30                         | 5.74                                            |
| Total/I\$ Million (B)                                                                                                  | 9.46                         | 12.63                                           |
| <b>Industry Output</b>                                                                                                 |                              |                                                 |
| <b>Total Impact</b>                                                                                                    | <b>\$22,245,422</b>          | <b>\$30,334,398</b>                             |
| Total/Initial (B)                                                                                                      | 1.59                         | 2.17                                            |
| <b>Taxes</b>                                                                                                           |                              |                                                 |
| Direct Impact                                                                                                          | \$2,985,643                  | \$2,985,643                                     |
| Indirect Impact                                                                                                        | \$861,595                    | \$1,093,374                                     |
| Induced Impact                                                                                                         | \$1,173,490                  | \$2,056,833                                     |
| <b>Total Impact</b>                                                                                                    | <b>\$5,020,718</b>           | <b>\$6,135,852</b>                              |
| Total/Direct (A)                                                                                                       | 1.68                         | 2.06                                            |
| Total/Initial (B)                                                                                                      | 0.36                         | 0.44                                            |
| <b>Imports</b>                                                                                                         |                              |                                                 |
| Direct Impact                                                                                                          | \$0                          | \$0                                             |
| Indirect Impact                                                                                                        | \$1,492,419                  | \$2,066,406                                     |
| Induced Impact                                                                                                         | \$694,425                    | \$3,946,059                                     |
| <b>Total Impact</b>                                                                                                    | <b>\$2,186,842</b>           | <b>\$6,012,465</b>                              |
| Total/Initial (B)                                                                                                      | 0.16                         | 0.43                                            |
| Note 1: Operating Expenditures based on operating expenses provided by the City of Edmonton as detailed on Appendix H. |                              |                                                 |

# Appendix I – Estimated Economic Impact of Operations, Participant & Other Attendee Expenditures in the Edmonton Region

| Impact on the Edmonton Region                                                                                       | Source of Economic Impact |                                             |                                | Total               |
|---------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------|--------------------------------|---------------------|
|                                                                                                                     | Operations                | Tourism Expenditures in the Edmonton Region | Tourism Expenditures Elsewhere |                     |
| <b>Initial Expenditure</b>                                                                                          | \$13,948,724              | \$30,901,442                                |                                | \$44,850,166        |
| <b>Gross Domestic Product</b>                                                                                       |                           |                                             |                                |                     |
| Direct Impact                                                                                                       | \$8,617,097               | \$13,380,594                                |                                | \$21,997,691        |
| Indirect Impact                                                                                                     | \$2,361,619               | \$4,506,743                                 |                                | \$6,868,362         |
| Induced Impact                                                                                                      | \$2,798,876               | \$4,734,573                                 |                                | \$7,533,449         |
| <b>Total Impact</b>                                                                                                 | <b>\$13,777,593</b>       | <b>\$22,621,909</b>                         |                                | <b>\$36,399,503</b> |
| Total/Direct (A)                                                                                                    | 1.60                      | 1.69                                        |                                | 1.65                |
| Total/Initial (B)                                                                                                   | 0.99                      | 0.73                                        |                                | 0.52                |
| <b>Wages &amp; Salaries</b>                                                                                         |                           |                                             |                                |                     |
| Direct Impact                                                                                                       | \$8,617,097               | \$9,630,261                                 |                                | \$18,247,359        |
| Indirect Impact                                                                                                     | \$1,680,475               | \$2,831,740                                 |                                | \$4,512,216         |
| Induced Impact                                                                                                      | \$1,818,800               | \$2,508,572                                 |                                | \$4,327,373         |
| <b>Total Impact</b>                                                                                                 | <b>\$12,116,373</b>       | <b>\$14,970,574</b>                         |                                | <b>\$27,086,947</b> |
| Total/Direct (A)                                                                                                    | 1.41                      | 1.55                                        |                                | 1.48                |
| Total/Initial (B)                                                                                                   | 0.87                      | 0.48                                        |                                | 0.39                |
| <b>Employment (Jobs)</b>                                                                                            |                           |                                             |                                |                     |
| Direct Impact                                                                                                       | 30.7                      | 494.2                                       |                                | 524.9               |
| Indirect Impact                                                                                                     | 40.4                      | 69.1                                        |                                | 109.5               |
| Induced Impact                                                                                                      | 60.8                      | 84.0                                        |                                | 144.8               |
| <b>Total Impact</b>                                                                                                 | <b>132.0</b>              | <b>647.3</b>                                |                                | <b>779.3</b>        |
| Total/Direct (A)                                                                                                    | 4.30                      | 1.31                                        |                                | 1.48                |
| Total/I\$ Million (B)                                                                                               | 9.46                      | 20.95                                       |                                | 11.22               |
| <b>Industry Output</b>                                                                                              |                           |                                             |                                |                     |
| <b>Total Impact</b>                                                                                                 | <b>\$22,245,422</b>       | <b>\$47,111,880</b>                         |                                | <b>\$69,357,303</b> |
| Total/Initial (B)                                                                                                   | 1.59                      | 1.52                                        |                                | 1.00                |
| <b>Taxes</b>                                                                                                        |                           |                                             |                                |                     |
| Direct Impact                                                                                                       | \$2,985,643               | \$6,305,476                                 |                                | \$9,291,119         |
| Indirect Impact                                                                                                     | \$861,595                 | \$1,493,484                                 |                                | \$2,355,079         |
| Induced Impact                                                                                                      | \$1,173,490               | \$1,609,995                                 |                                | \$2,783,484         |
| <b>Total Impact</b>                                                                                                 | <b>\$5,020,718</b>        | <b>\$9,408,954</b>                          |                                | <b>\$14,429,672</b> |
| Total/Direct (A)                                                                                                    | 1.68                      | 1.49                                        |                                | 1.55                |
| Total/Initial (B)                                                                                                   | 0.36                      | 0.30                                        |                                | 0.21                |
| <b>Imports</b>                                                                                                      |                           |                                             |                                |                     |
| Direct Impact                                                                                                       | \$0                       | \$0                                         |                                | \$0                 |
| Indirect Impact                                                                                                     | \$1,492,419               | \$7,001,615                                 |                                | \$8,494,034         |
| Induced Impact                                                                                                      | \$694,425                 | \$1,882,367                                 |                                | \$2,576,792         |
| <b>Total Impact</b>                                                                                                 | <b>\$2,186,842</b>        | <b>\$8,883,982</b>                          |                                | <b>\$11,070,824</b> |
| Total/Initial (B)                                                                                                   | 0.16                      | 0.29                                        |                                | 0.16                |
| Note 1: Operating expenditures in the Edmonton Region based on host operating expenditures.                         |                           |                                             |                                |                     |
| Note 2: Tourism Expenditures in the Edmonton Region based on participant expenditures in Edmonton during the games. |                           |                                             |                                |                     |

# Appendix J – Estimated Economic Impact of Operations, Participant & Other Attendee Expenditures in Canada

| Impact on Canada<br>(Including Edmonton Region)                                                                        | Source of Economic Impact |                                                   |                                      | Total                |
|------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------|--------------------------------------|----------------------|
|                                                                                                                        | Operations                | Tourism<br>Expenditures in the<br>Edmonton Region | Tourism<br>Expenditures<br>Elsewhere |                      |
| <b>Initial Expenditure</b>                                                                                             | \$13,948,724              | \$30,901,442                                      | \$21,379,083                         | \$66,229,250         |
| <b>Gross Domestic Product</b>                                                                                          |                           |                                                   |                                      |                      |
| Direct Impact                                                                                                          | \$8,617,097               | \$13,382,099                                      | \$8,218,620                          | \$30,217,816         |
| Indirect Impact                                                                                                        | \$3,265,221               | \$7,413,396                                       | \$6,659,730                          | \$17,338,347         |
| Induced Impact                                                                                                         | \$6,006,797               | \$9,915,415                                       | \$6,845,490                          | \$22,767,701         |
| <b>Total Impact</b>                                                                                                    | <b>\$17,889,115</b>       | <b>\$30,710,910</b>                               | <b>\$21,723,839</b>                  | <b>\$70,323,864</b>  |
| Total/Direct (A)                                                                                                       | 2.08                      | 2.29                                              | 2.64                                 | 2.33                 |
| Total/Initial (B)                                                                                                      | 1.28                      | 0.99                                              | 1.02                                 | 1.06                 |
| <b>Wages &amp; Salaries</b>                                                                                            |                           |                                                   |                                      |                      |
| Direct Impact                                                                                                          | \$8,617,097               | \$9,631,505                                       | \$5,830,441                          | \$24,079,043         |
| Indirect Impact                                                                                                        | \$2,101,163               | \$4,128,833                                       | \$3,268,336                          | \$9,498,332          |
| Induced Impact                                                                                                         | \$3,328,359               | \$4,939,260                                       | \$3,403,010                          | \$11,670,629         |
| <b>Total Impact</b>                                                                                                    | <b>\$14,046,621</b>       | <b>\$18,699,598</b>                               | <b>\$12,501,787</b>                  | <b>\$45,248,006</b>  |
| Total/Direct (A)                                                                                                       | 1.63                      | 1.94                                              | 2.14                                 | 1.88                 |
| Total/Initial (B)                                                                                                      | 1.01                      | 0.61                                              | 0.58                                 | 0.68                 |
| <b>Employment (Jobs)</b>                                                                                               |                           |                                                   |                                      |                      |
| Direct Impact                                                                                                          | 30.7                      | 494.3                                             | 332.8                                | 857.8                |
| Indirect Impact                                                                                                        | 50.0                      | 100.6                                             | 75.4                                 | 226.0                |
| Induced Impact                                                                                                         | 95.6                      | 141.5                                             | 98.0                                 | 335.1                |
| <b>Total Impact</b>                                                                                                    | <b>176.2</b>              | <b>736.4</b>                                      | <b>506.2</b>                         | <b>1,418.7</b>       |
| Total/Direct (A)                                                                                                       | 5.74                      | 1.49                                              | 1.52                                 | 1.65                 |
| Total/I\$ Million (B)                                                                                                  | 12.63                     | 23.83                                             | 23.68                                | 21.42                |
| <b>Industry Output</b>                                                                                                 |                           |                                                   |                                      |                      |
| <b>Total Impact</b>                                                                                                    | <b>\$30,334,398</b>       | <b>\$59,842,574</b>                               | <b>\$40,457,670</b>                  | <b>\$130,634,642</b> |
| Total/Initial (B)                                                                                                      | 2.17                      | 1.94                                              | 1.89                                 | 1.97                 |
| <b>Taxes</b>                                                                                                           |                           |                                                   |                                      |                      |
| Direct Impact                                                                                                          | \$2,985,643               | \$6,306,028                                       | \$4,165,270                          | \$13,456,942         |
| Indirect Impact                                                                                                        | \$1,093,374               | \$2,181,813                                       | \$1,893,251                          | \$5,168,438          |
| Induced Impact                                                                                                         | \$2,056,833               | \$3,019,758                                       | \$2,077,242                          | \$7,153,833          |
| <b>Total Impact</b>                                                                                                    | <b>\$6,135,852</b>        | <b>\$11,507,598</b>                               | <b>\$8,135,764</b>                   | <b>\$25,779,214</b>  |
| Total/Direct (A)                                                                                                       | 2.06                      | 1.82                                              | 1.95                                 | 1.92                 |
| Total/Initial (B)                                                                                                      | 0.44                      | 0.37                                              | 0.38                                 | 0.39                 |
| <b>Imports</b>                                                                                                         |                           |                                                   |                                      |                      |
| Direct Impact                                                                                                          | \$0                       | \$0                                               | \$0                                  | \$0                  |
| Indirect Impact                                                                                                        | \$2,066,406               | \$10,105,947                                      | \$6,500,734                          | \$18,673,087         |
| Induced Impact                                                                                                         | \$3,946,059               | \$5,839,053                                       | \$4,023,211                          | \$13,808,323         |
| <b>Total Impact</b>                                                                                                    | <b>\$6,012,465</b>        | <b>\$15,945,000</b>                               | <b>\$10,523,945</b>                  | <b>\$32,481,410</b>  |
| Total/Initial (B)                                                                                                      | 0.43                      | 0.52                                              | 0.49                                 | 0.49                 |
| Note 1: Operating expenditures based on host operating expenditures.                                                   |                           |                                                   |                                      |                      |
| Note 2: Tourism Expenditures in the Edmonton Region based on participant expenditures in Edmonton during the games.    |                           |                                                   |                                      |                      |
| Note 2: Tourism Expenditures Elsewhere based on participant expenditures throughout Canada before and after the games. |                           |                                                   |                                      |                      |

## Appendix K – Restrictions & Limitations

1. Estimates of expenditures by participants and attendees and estimates of economic impacts produced in conjunction with this report contain hypotheses and assumptions which are reasonable and appropriate in Deloitte & Touche LLP's judgment, are consistent with the purpose of the analysis, but will differ from the actual expenditures and economic impact.
2. Information provided by others including the City of Edmonton, the University of Alberta, and Edmonton Economic Development upon which all or portions of this report are based is believed to be reliable but has not been verified in all cases. No warranty is given as to the accuracy of such information.
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