

# Assessing the Economic Impact of Recreation Events on the Town of Kentville and Surrounding Area

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## **Study Objective**

The objective of this study is to estimate the impact on the economy resulting from expenditures made by visitors attending recreational sporting events in the town of Kentville and its surrounding area.

## **Event Description**

The study is based on a full year of events based in Kentville, including gentlemen's hockey tournaments, minor hockey tournaments, media and old-timer hockey tournaments held at the Kentville Centennial Arena. Also included is provincial Junior tennis, senior and minor baseball, and several slow pitch and fast pitch tournaments located at various fields in Kentville. Visitors were broken down into three categories:

1. individuals from any team that needed to travel to the area and stayed overnight for these recreation tournaments in a hotel/motel.
2. individuals from any team that needed to travel to the area and stayed overnight for these recreation tournaments in a campground.
3. individuals that did not require over night accommodations.

The study area includes Kentville, surrounding areas of New Minas, Coldbrook, Greenwich.

## **Estimating Direct Expenditures**

- Data Collection

Data was collected using a questionnaire that was distributed with the team tournament registration kit (picked up by a team member upon registering his/her team) and was supplemented with a random sample distribution during selected tournaments. A total of 204 questionnaires were used in the analysis.

- Average Direct Expenditure

Average expenditure per day was determined using the dollar figures collected in the questionnaire plus utilizing information gained elsewhere. Questionnaires were collected for adult recreation hockey and slowpitch events. Responses were averaged across events. Daily costs were found via the questionnaire and were broken down into four spending categories for two different visitor types (as shown in Table 1):

**Table 1: Daily Costs for Recreational Visitors**

Visitor Type	Food	Beverages	Entertainment	Miscellaneous	Daily Costs
Requiring Overnight Accommodation	\$23.00	\$21.70	\$6.86	\$5.91	\$57.47
Not Requiring Overnight Accommodation	\$16.98	13.81	\$3.77	\$6.33	\$40.89

Accommodation expenditures were estimated by obtaining the local hotel/motel and campground rates at different local facilities. The average was then taken. Costs were then based on quad occupancy per motel/hotel room and dual occupancy for campground sites. The average hotel/motel cost was \$55.00 per night, or \$13.75 per person. The average campground site was \$10.83 or \$5.42 per person.

Transportation expenditure was estimated arbitrarily as no data was available from local gasoline stations. The study estimates that an average of \$15.00 was spent on transportation for people requiring overnight accommodations and \$10.00 per car was spent by people who did not require overnight accommodations. The average number of players per car traveling was 3.23. Per person transportation expenditures therefore equaled \$4.64 and \$3.10 for overnight visitors and traveling visitors, respectively.

Average daily expenditure per person is shown in Table 2 and was found by summing the average daily expenditure on food, beverage, entertainment, and miscellaneous (as shown in table 1) with the average transportation and accommodation expenditures.

**Table 2: Average Total Expenditure for Recreation Event Visitors**

Accommodation Type	Daily Costs	Accommodations	Transportation	Total
Hotel/Motel	\$ 57.47	\$ 13.75	\$ 4.64	\$ 75.86
Campground	\$ 57.47	\$ 3.10	\$ 4.64	\$ 65.21
None required	\$ 40.89	\$ 0.00	\$ 3.10	\$ 43.99

Some of the recreation events held in Kentville include tournaments in which the main participants are children. In many cases, the children are billeted with local families and require no accommodation. Since no data was available, average daily expenditure per child was estimated at \$10.00 per day. Adults transporting and traveling these children (i.e.: coaches) are also usually billeted and no data was available for average daily expenditure. It is estimated at \$30.00 per day per adult.

- Total Direct Expenditure

Several out of town teams participated in the recreation events held throughout the year in Kentville. The town recreation department supplied the information regarding the number of out of town teams. The average size of an adult team was estimated at 15 people. The average number of event visitors for youth events is based on 15 youths and 5 adults per team.

Labour Day weekend, the estimated number of persons per team is twenty. This is due to the fact that more players bring their families with them as it is the last weekend of summer. A random sample head count of 25 teams verified this figure.

Most recreation events start early Saturday morning and are completed by late Sunday afternoon. The average length of stay is calculated as 1.5 days for most teams who participate in these tournaments. Some events occur over long weekends and run from early Saturday morning until late Monday afternoon. The average length of stay for these teams is estimated at 2.5 days.

**Table 3: Total number of visitor days**

Event/ Tournament	Event Type	Number of Out of Town Teams	Number of Persons Per team	Number of out of town persons	Average Length of stay	Total Visitor Days
Bantam Hockey	Child	15	20	300	1.5	450
Peeewe Hockey	Child	15	20	300	2.5	750
Recreation Hockey	Adult	14	15	210	1.5	315
Old-timers Hockey #1	Adult	15	15	225	1.5	337.5
High School Fastball	Child	12	20	240	1.5	360
Apple Blossom Slowpitch	Adult	30	15	450	2.5	1125
AVR Slowpitch	Adult	11	15	165	1.5	247.5
Moosehead Slowpitch	Adult	28	15	420	1.5	630
D.O.T. Slowpitch	Adult	16	15	240	1.5	360
JR's Slowpitch	Adult	14	15	210	1.5	315
Michelin Slowpitch	Adult	20	15	300	1.5	450
MT&T Slowpitch	Adult	14	15	210	1.5	315
Prov. Junior Tennis	Child	0	0	62	1.5	93
JC's Slowpitch	Adult	9	15	135	1.5	202.5
Minor Baseball	Child	22	20	440	2.5	1100
Oland's Slowpitch	Adult	83	20	1660	2.5	4150
Police Ass'n Slowpitch	Adult	23	15	345	1.5	517.5
Fireman Ass'n Slowpitch	Adult	13	15	195	1.5	292.5
Provincial Slowpitch	Adult	4	15	60	1.5	90
Old-timers Hockey #2	Adult	18	15	270	1.5	405
Senior Baseball	Adult	5	15	75	1.5	112.5
	Totals	381	325	6512		
				<b>Total Visitor Days</b>		<b>12618</b>

**Table 4. Total Direct Expenditure By Visitor Type**

Event/Tournament	Total Visitor Days not requiring lodging	Average Daily Expenditure	Total Expenditure	Total Visitor Days requiring lodging in hotels/motels	Average Daily Expenditure	Total Expenditure	Total Visitor Days requiring lodging at campground	Average Daily Expenditure	Total Expenditure
Bantam Hockey	180	***	\$2,700.00	0	***	\$4,050.00	0	65.21	\$-
Peewee Hockey	300	***	\$4,500.00	0	***	\$6,750.00	0	65.21	\$-
Recreation Hockey	135	43.99	\$5,938.65	180	75.86	\$13,654.80	0	65.21	\$-
Oldtimers Hockey #1	135	43.99	\$5,938.65	202.5	75.86	\$15,361.65	0	65.21	\$-
High School Fastball	150	***	\$3,150.00	210	***	\$6,844.00	0	65.21	\$-
Apple Blossom Slowpitch	450	43.99	\$19,795.50	525	75.86	\$39,826.50	150	65.21	\$9,781.50
AVR Slowpitch	90	43.99	\$3,959.10	112.5	75.86	\$8,534.25	45	65.21	\$2,934.45
Moosehead Slowpitch	247.5	43.99	\$10,887.53	292.5	75.86	\$22,189.05	90	65.21	\$5,868.90
D.O.T. Slowpitch	135	43.99	\$5,938.65	180	75.86	\$13,654.80	45	65.21	\$2,934.45
JR's Slowpitch	135	43.99	\$5,938.65	135	75.86	\$10,241.10	45	65.21	\$2,934.45
Michelin Slowpitch	180	43.99	\$7,918.20	180	75.86	\$13,654.80	90	65.21	\$5,868.90
MT&T Slowpitch	135	43.99	\$5,938.65	135	75.86	\$10,241.10	45	65.21	\$2,934.45
Prov. Junior Tennis	37.5	43.99	\$1,649.63	55.5	75.86	\$4,210.23	0	65.21	\$-
JC's Slowpitch	90	43.99	\$3,959.10	90	75.86	\$6,827.40	22.5	65.21	\$1,467.23
Minor Baseball	450	***	\$5,850.00	0	***	\$9,750.00	150	65.21	\$9,781.50
Oland's Slowpitch	1650	43.99	\$72,583.50	1900	75.86	\$144,134.00	600	65.21	\$39,126.00
Police Ass'n Slowpitch	202.5	43.99	\$8,907.98	247.5	75.86	\$18,775.35	67.5	65.21	\$4,401.68
Fireman Ass'n Slowpitch	112.5	43.99	\$4,948.88	135	75.86	\$10,241.10	45	65.21	\$2,934.45
Provincial Slowpitch	45	43.99	\$1,979.55	45	75.86	\$3,413.70	0	65.21	\$-
Oldtimers Hockey #2	157.5	43.99	\$6,928.43	247.5	75.86	\$18,775.35	0	65.21	\$-
Senior Baseball	45	43.99	\$1,979.55	67.5	75.86	\$5,120.55	0	65.21	\$-
			Total Expenditures			\$386,249.73			\$90,967.95

\*\*\* Non Adult expenditure based on 15 children per day at \$10.00 per day and 5 adults per day at \$30.00 per day. Total expenditures for non-adult visitors who are billeted are listed under hotel/motel lodging for display purposes.

After reviewing tournament lists and tournament information, it is determined that 60% of all out-of town teams require overnight accommodation. Seventy-five percent of those requiring overnight accommodations stay in hotels/motels, while the other twenty-five percent stay in campgrounds. Table 4 shows the total number of visitor days in each of the three visitor categories, and calculates the total direct expenditures into the community from each event, as well as total direct expenditures from each of the three visitor categories.

Using the data from Table 4, we can sum total direct expenditures made by the three visitor types in the community.

**Table 5: Total Direct Expenditure**

<b>Visitor Type</b>	<b>Total Expenditure by Visitor Type</b>
Visitors who did not stay overnight	\$ 191,390.18
Visitors who stayed overnight in hotel/motel	\$ 386,249.73
Visitors who stayed overnight in campground	\$ 90,967.95
<b><i>Total Direct Expenditure for 1986 recreation events held in Kentville</i></b>	<b>\$ 668607.86</b>

**Indirect Multiplied Impacts**

In order to determine the indirect impacts made on the local economy, two items must be estimated:

1. K1 = the proportion of income earned by local residents that is respent in the local area.
2. K2 = the proportion of visitor expenditures that are returned to local residents by way of salaries and wages paid to local employees.

A random sample of fifty residents was surveyed to determine their net household income and how much of that income was repent within the community. To estimate K1, the weighted average of all individuals was taken, based on total income and amount respent within the community. A total expenditure of \$2,010,200 was respent in the community. The household income was \$2,185,000. Therefore, \$0.92 of every dollar earned was repent within the community, as derived from the equation below:

$$K1 = \frac{\text{total expenditure in local area}}{\text{total household income}}$$

To determine the proportion of visitor expenditures that are returned to local residents by way of salaries and wages (induced effects, K2), the total sales of local businesses had to be identified as well as the percentage of wages that they paid out from sales of goods and services to recreational event visitors.

To create this multiplier, the study used data obtained in the 1976 Foster and Harvey study of Kejimikujik National Park.

The multiplier mathematically was calculated as:

$$K2 = \frac{\text{SUM}(Li)}{\text{SUM}(Si)} * W_i$$

Li = amount of income paid out to employees as income from sales in sector i.

Si = reported sales for sector i.

W1 = proportion of income spent by visitors in sector i.

**Table 6: Percentages and Expenditures of local businesses**

Sector	Employee Income as a percentage of sales	Total Expenditure within sector
Service Stations	10.69 %	\$ 24,214.30
Average of grocery stores, tourist services and other businesses and services	26.44 %	\$ 644,393.55

Applying the figures above to the equation, K2 = \$0.2587. That is, nearly 26 cents of every dollar spent by recreation event visitors is being returned to local residents in the form of wages and other income. This is the induced effect of recreation events in the Kentville area.

**Total Impacts**

All of the components of the impact model are now known. Shown below is the total impact of visitor expenditure in the local area:

$$Y = \frac{Y1}{1 - (K1 * K2)}$$

$$Y = \frac{\$668,607.85}{1 - (.92 * .2587)}$$

$$Y = \$877,438.12$$

The total impact of having the recreation events listed in the above tables for 1986 was \$877,438.12.

### **Conclusion**

Recreational events attract out of town visitors to the Kentville area. These visitors spend their money at local businesses. The businesses purchase goods and services from other businesses in the area and pay their employees wages. A certain percentage of the business expenditures are from a direct result of selling their goods and services to the recreation event visitors. A percentage of these expenditures are as a result of the recreation event visitors purchasing goods and services from these businesses. Once the study found:

- the total direct expenditures made at local businesses as a direct result of the recreation events
- the proportion of income earned by local residents that is respent in the local area
- the proportion of visitor expenditures that are returned to local residents by way of salaries and wages paid to local employees

The total economic impact of visitor expenditures made in the local area while attending recreation events in Kentville in 1986 could be determined.

Without direct data on some of the parameters within the study, it was necessary to estimate some of the numbers needed to make certain calculations. These included estimating total employee income as a percentage of sales, estimating the expenditures of billeted players and coaches and estimated transportation costs. Because of these estimates, there is likely to be a margin of error. Other studies using the same methodology shows that with these estimates, the total impact represents the true economic impact within a 20% range, plus or minus.

Therefore, the actual total impact on the local economy in 1986 from expenditures made by out of town visitors ranges from \$701,950 to \$1.053 million and is calculated as \$877,438.