

# ECONOMIC IMPACTS OF THE 1996 ARCTIC WINTER GAMES

PREPARED FOR

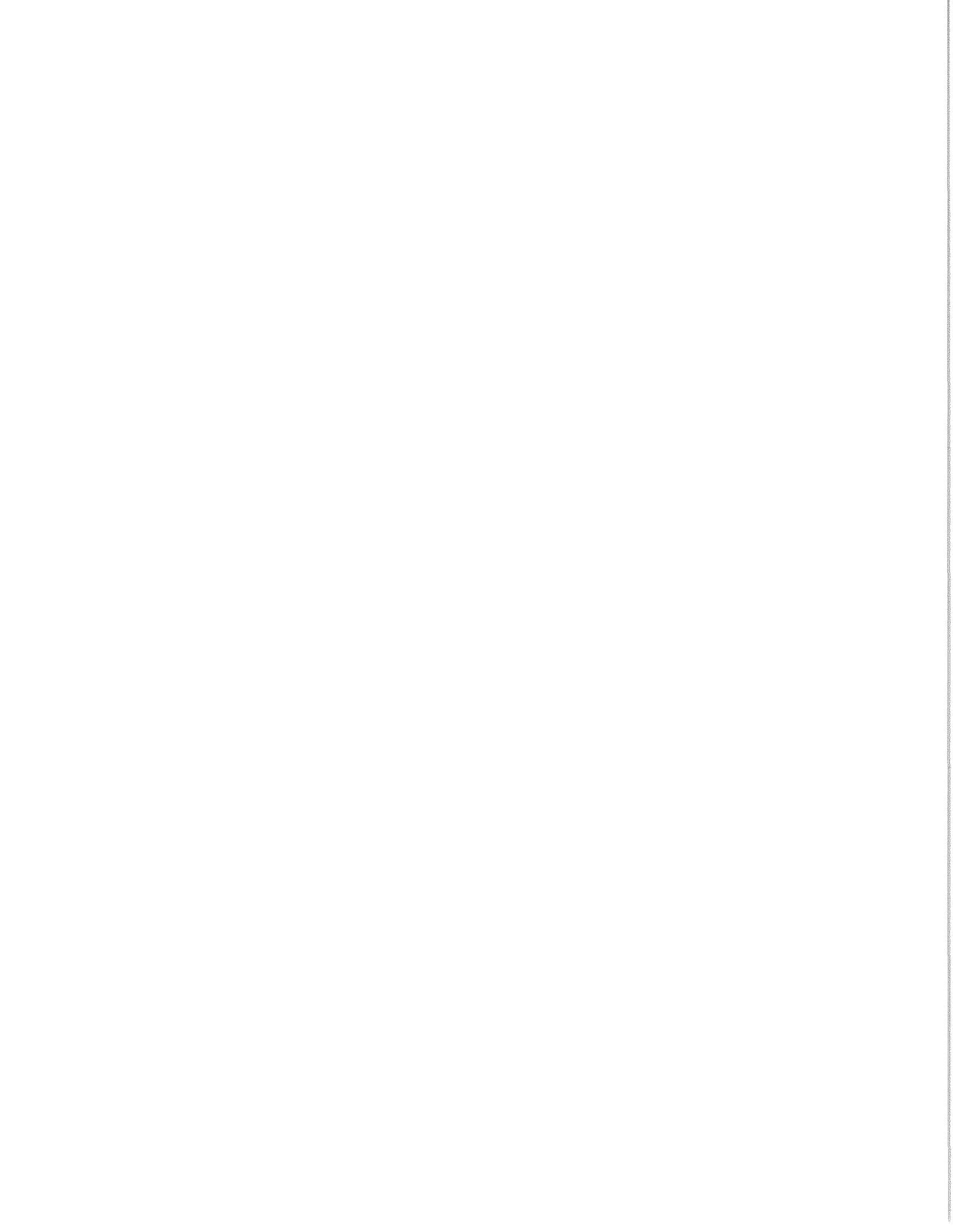
AWG International Committee

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## Summary

The fourteenth Arctic Winter Games (AWG) were held in Eagle River, Alaska in March 1996. It marked the first time in their 26-year history that the AWG had been held in Southcentral Alaska. This study estimates the impact of the games on the regional economy.

The *direct* initial increase in spending resulting from the AWG was an estimated \$2.49 million and the initial equivalent increase in jobs was 43.4 person-years of employment. The *total* impact of the games—including the indirect effects—was \$4.26 million in increased regional income and the equivalent of 62 person-years of employment. Note that these estimates are based on assumptions outlined in the text of the report. Those assumptions qualify the findings.

This study does not explicitly consider the 125,000 hours of volunteer time that were required to stage the games. We generated our estimates with the Alaska Input/Output model, which the Institute of Social and Economic Research developed to analyze the Alaska economy.

Many additional impacts of the 1996 Arctic Winter Games are not quantifiable but are nonetheless real. Certainly the games increased the sense of community in the area of Eagle River, Chugiak, and Anchorage. The games and the events held in conjunction with them also undoubtedly contributed to increased understanding among the people of the North. Almost two thousand people from across the North came together at the games. The Russian dancers from Magadan, for instance, provided Alaskans and others with a glimpse of their culture. One young girl from Baffin Island in Canada's Northwest Territories had never seen trees before she came to take part in the games.

And, on a more personal level, the author's 12-year-old son—who took part in cross-country skiing at the games—described it as “the best week of my life.” We need to keep in mind that economic impacts are only one part of the overall effects of the Arctic Winter Games.

## **Background on the Games**

The idea of holding winter games just for athletes from northern communities had its genesis in the mid 1960s, during the Canada Winter Games. At those events, the political leaders of the Yukon and Northwest Territories looked on as their athletes were bested in nearly all competitions. The leaders realized that northern communities, drawing on a small pool of athletes and having inadequate training facilities, were at a competitive disadvantage compared with their southern counterparts. Parity in competition on a national level would be a long time in coming.

Thus, the Arctic Winter Games were born. The first games took place in 1970 in Yellowknife, Northwest Territories. The games are intended to provide training and competitive opportunities for northern athletes other than the elite athletes who have other opportunities. During the first Arctic Winter Games, 500 athletes from Alaska, the Yukon, and the Northwest Territories participated. Since then, the games have been held every two years at various sites within the participating jurisdictions.

The numbers of participating governments and provinces, competitive events, and athletes have grown over time. Greenland and the Canadian province of Alberta have become permanent members of the games, and during the past two games the Russians have sent small contingents of athletes from two of their northern regions—Magadan in the Russian Far East and Tuymen in central Russia.

In addition to the games themselves, teams trials are held in each of the jurisdictions. In Alaska trials are held at various locations throughout the state. For instance, the 1996 cross-country skiers representing Alaska were chosen through races in Homer, Soldotna, Anchorage, Eagle River, Fairbanks, and Salcha. Other sports have similar selection processes. So the Arctic Winter Games involve more than just the competitions that take place during the games themselves—they involve a large number of events in many locations.

The 1996 games were the fourteenth Arctic Winter Games and the largest to date, with over 2,000 athletes, coaches, officials, and dignitaries from around the Northern Hemisphere. Nineteen sporting events were held, ranging from hockey to dog sledding to basketball to curling. Along with the sporting events, each contingent brought cultural displays and performers. These combined elements make the Arctic Winter Games not only a sporting event but a celebration of life in the North.

The Arctic Winter Games International Committee is funded by an annual levy on the five governments with representatives on the Board of Directors—the Northwest Territories, the Yukon Territory, Alaska, the province of Alberta, and Greenland. The host societies (the local organizations in each province, state, or nation) receive substantial cash grants from their respective governments. In Canada the host societies receive money from the national, provincial, and territorial governments as well as the host municipalities. In Alaska the funding is primarily provided by state, municipal, and borough governments. Greenland's participation is funded by the home rule government of Greenland through the Greenland Sports Federation. In all jurisdictions the private sectors are playing an increasingly important role.

## How the Games Create Economic Impacts

While the purpose of the Arctic Winter Games is to provide competitive opportunities on an international level for local and regional athletes, it is hard to ignore the fact that the games also have a significant impact on the economies of the host jurisdictions. The games bring significant extra money into the economy of the host jurisdiction for approximately 10 days. While the impact of these games is much less than that of the Winter Olympics, the impact is analogous.

The economic impact of the Arctic Winter Games result from several factors. The first is the host society's spending in the local economy. This spending is financed by governmental grants, private sector grants, and private sector 'in-kind' spending. Second, the game participants (athletes, coaches, officials, and dignitaries) from other regions spend money in the local economy. Third, spectators who travel to the games spend money locally. Fourth, local participants and spectators spend money locally that they would normally spend elsewhere. Each of these components of spending will be examined and explained in depth below.

The total economic impact of the games can be measured in terms of increased spending and the corollary increase in income in the area where the games are held. As a result of the increased spending created by the games, incomes of people in the region increase—and these people in turn spend more. This spending further increases income, which in turn, further increases spending—and so on. In effect, the income of the region where the games are held increases by a multiple of the initial increase in spending that accompanies the games.

Economists call this effect the *multiplier effect*, and it is the sum of two types of spending. The initial or new spending that results from the games—for example, a team member goes into a store and buys something, generating income for the store's owner and employees—is referred to as the autonomous spending. However, the store owner or the employees now have more income, which they in turn spend. Thus, there is a second type of spending—indirect or induced spending.

## **The Chugiak/Eagle River Arctic Winter Games**

The Chugiak/Eagle River Arctic Winter Games Host Society was formed to help the Municipality of Anchorage plan and implement the 1996 Arctic Winter Games. The total budget of the 1996 AWG was just over \$2 million. This budget came from three main sources: government grants (State of Alaska and Municipality of Anchorage); private cash and in-kind contributions and sponsorships; and sales (tickets to venues and merchandise). In addition, there were some small miscellaneous revenues from special fund-raising events.

Assessing the economic impact of the games is difficult at best. A true measure of the economic impact of an event would be all the additional spending that took place in the economy as a result of that event, over the spending that would have taken place without it.

The new spending that was injected into the Eagle River economy as a result of the games came from two places: spending by the host society through the budget for the games, and spending by participants and visitors.

An additional part of the economic impact of the games did not involve explicit spending but rather in-kind contributions from local vendors. The impact of in-kind contributions is assumed to be similar to that of cash expenditures, except in-kind contributions don't involve an explicit outlay of cash. The service or good is still produced, wages and other costs of production are paid by the firm, and money is re-spent in the economy.

This study assumes that the multiplier effects of in-kind contributions are the same as for explicit cash expenditures. This may not be totally true, but it is a first approximation. Some small firms may have made in-kind donations, where the services were donated but no added spending took place. Carpenters, for example, might have donated time and not generated any additional spending—just spent extra time providing the in-kind service, with no payments for inputs and no opportunity costs, other than their lost free time. However, most of the in-kind contributions counted in this portion of the study came from relatively large firms, and the assumption that these expenditures are similar in their economic impact to cash expenditures is a close approximation.

## Host Society Budget

In examining the budget and the spending of the host society, we made one major assumption: that the money spent by the host society would not have been spent in the local economy had the games not been staged in Eagle River. The budget is assumed to be autonomous spending—new money that flowed into the local economy as a result of Eagle River's hosting the games. It is not entirely clear whether this assumption is valid, because money the host society raised from local and state governments might have been spent in the local jurisdiction anyway, but in a different manner in a different time. Also, the private contributions to the games by business firms might also have been spent in the community at a different time or in a different way.

However, it is impossible to know whether or how much of this money would have been true marginal additions to spending. Certainly a significant portion of the direct budget expenditures of the host society was new spending. Although it may be somewhat arbitrary, we assumed that all of the host society budget was autonomous spending.

Second, we assumed that in-kind expenditures had the same effect as cash expenditures. We assumed that if firm A donated \$1,000 of its product, that donation had the same impact as if the host society had spent \$1,000 buying the product from the firm. We assumed in-kind services were purchased at their true market value. If a firm donated \$1,000 of product, the firm had to pay the recourses necessary to have the product produced.

The 1996 AWG cash expenditures amounted to \$1,200,000. In-kind expenditures came to \$615,000. Additionally, it appears that the host society earned about \$100,000 in profit from the games, and we assumed that this money will be spent in the local economy—possibly as seed money for future events. Thus, the total spending that resulted from the direct budget of the 1996 Arctic Winter Games was \$1,915,000.

## Visitor Spending

A second component of spending as a result of the games was spending by visiting athletes and coaches. There were 1,525 athletes, coaches, and team leaders at the 1996 AWG, staying in various places. Athletes and coaches were housed at schools and recreational areas. There were approximately 50 officials from outside Alaska, visitors to the Eagle River venue. This included 10 officials (skating and table tennis judges) from the Lower 48 states. The officials and team leaders stayed at transient housing on Ft. Richardson, a U. S. Army post adjacent to Eagle River.

The host society provided game participants with food and housing. However, athletes, coaches, and team leaders also spent their own money in the local economy—for such things as souvenirs, entertainment, occasional meals outside the games' cafeteria, and other miscellaneous expenses.

It is not known how much spending was done by this group, in total. This is one area of further research that could be undertaken. Ideally, it would be desirable to survey the athletes and coaches to determine how much they spent in the local economy. This could be done with a random sample, so that it would be possible to get accurate assessments of spending in the local economy from a relatively small number of participants. Such a survey would have to be set up prior to the games. Athletes, coaches, and team leaders could be contacted and asked to keep diaries tracking their spending during the games. This information could then be imputed to all the athletes for an accurate assessment of this component of spending.

However, although we don't have such survey information, it is possible to make some estimates, based on information from other sources. The Alaska Department of Commerce and Economic Development's Division of Tourism collects data on visitor (tourist and business traveler) expenditures. These data suggest expenditure estimates in the range of \$25 to \$50 per day might be appropriate. Usually spending by tourists and business travelers is in the range of \$150 per day—but food and hotel expenses account for half that total.

A study in process at the University of Alaska Anchorage at the Institute of Social and Economic Research is examining the economic impact of the Great Alaska Shootout, a basketball tournament that takes place in Anchorage every November. Early indications are that participants may spend in the range of \$25 to \$30 per day.

For this study, we assumed that each of the AWG participants spent \$25 per day. We used a conservative estimate for several reasons. Many of the participants are young; most are not financially independent and have to rely on their parents or other adults. They have limited access to discretionary money. However, this is a special event for the participants, and they train and plan for the AWG for a long time. Some might have saved a considerable amount to spend during the games. Another factor that would tend to limit spending is that most of the participants come to Eagle River just for the games and not to take part in tourist activities. Some of the older participants might have spent larger amounts. Some of the coaches and team leaders, but likely not too many, probably rented vehicles. Again, readers need to keep in mind that our assumptions are just estimates (best guesses); if there were spending surveys at future games, our impact figures would be more accurate.

In addition to the athletes and coaches, officials estimate that there were approximately 200 visitors—friends and families of athletes, coaches, and team leaders—at the Eagle River games. These visitors stayed at various commercial establishments.

Approximately 140 stayed at the Hilton Hotel in Anchorage, about a 20-minute drive from Eagle River. We assume these visitors spent \$140 per day per person—the level of spending by outside visitors who come to Anchorage for the Great Alaska Shootout. In the absence of any better information, we assume that visitors attending the Eagle River games spent similar amounts as visitors attending the Great Alaska Shootout, another athletic event. Again, we suggest that at future games, surveys of the number of visitors and their spending could provide much better information for estimating impacts.

The AWG International Committee members and their families also attended the Eagle River games. Officials estimates put this group of visitors at about 20. These people stayed at commercial establishments. We assumed they also spent their money like the group of visitors described in the paragraph above. Again, this should be rather easy to determine, if research were done during future games.

Spending by participants and visitors may vary, depending on where the games are held. Athletes may spend differently in a larger metropolitan area like Anchorage and Eagle River than they would (on average) in Yellowknife, Fairbanks, or Whitehorse. Without further research we can't say for certain. Such research could be done without a great deal of effort, given the proper planning.

## Alaska IO Model

We calculated the impact of the 1996 Arctic Winter Games using an input-output model that ISER economists designed to measure the impact on the Alaska economy of various projects and programs. The model describes economic activity as the flow of payments among industries and consumers in Alaska by region. It divides the state into four regions: Southeast (Juneau and the Alaska Panhandle), Southcentral (Anchorage and the Kenai Peninsula), Southwest (Kodiak, Bristol Bay, and the Yukon-Kuskokwim Delta area), and Northern (Fairbanks, the Interior, and the North Slope).

The model examines basic industries—such as fishing and tourism—that sell goods to customers outside the region or state. These sales bring money into the economy—money that circulates among the basic industries and the support industries, which buy locally produced goods and services. Money flows between the region's households and the region's industries: industries pay wages to households for labor, and households purchase good and services. Finally, money flows out of the region and the state as both industries and households purchase goods and services produced outside the region.

We assumed the 1996 Arctic Winter Games brought money into the regional economy—money that would not have come into the economy had the Arctic Winter Games not been held here. We treated the Arctic Winter Games as a one-time injection of spending: a one-time tourist event. Some of this money flowed directly back out of the economy—for instance, when part of the money was used to purchase computers that came from outside Alaska. Some circulated repeatedly through the economy; for instance, local residents working at firms where the money was initially spent would then spend their wages at local stores—which in turn would employ labor and make local purchases.

Economic impacts result from both the initial expenditures on goods and services and on the downstream expenditures as the money circulates through the economy. Input-output models attempt to measure the total effect on the economy of a change in expenditures. Once an initial expenditure was made for the AWG (for example, a local printer was paid to print programs), the money would circulate through the economy and create a chain reaction of additional expenditures.

Input-output analysis traces that flow of spending through various sectors of the economy. It begins with an account of expenditures for final products (final demand) produced by each sector of the economy. In this instance, the final demand came from the budget expenditures of the host society—in both cash and in-kind expenditures—and from spending by the 200 or so visitors who came to the AWG from outside Alaska. The analysis then uses a detailed accounting of the spending by each sector of the economy in the other sectors to determine how money circulates in the economy. By accounting for this circulation, the analysis provides an estimate of the full effects of spending.

This type of analysis allows us to compare the economy in two different equilibrium states. The first is the level of input (and jobs and payroll) before the new spending occurs. The second equilibrium state includes not only the effects of the initial new expenditures, but also the additional effects of that expenditure circulating through the economy.

The Alaska input-output model was custom designed to take account of the unique characteristics of the Alaska economy. ISER constructed its model based on a national input-output model created by the U. S. Bureau of Economic Analysis, with adjustments to make it conform more closely to the industrial composition of the Alaska economy.

Economists generally refer to the effects of initial expenditure as “direct effects,” and to the effects of subsequent additional expenditures as “indirect effects.” In the case of the AWG, the indirect effects we discuss will occur over time, and the economy will eventually return to its initial equilibrium state. The AWG was a one-time event and not an on-going project—as contrasted with the proposed satellite launching facility on Kodiak Island, for instance, which would inject new money into the economy year after year. The AWG caused a brief temporary increase in economic activity, not a higher level of continuing economic activity.

Our first analytical task was estimating the sector impact of the AWG. The budget of the host society was primarily an accounting tool, not designed for the purpose of estimating the economic impacts of the AWG. The budget was put together to record expenditures by area of responsibility in the games. So it was difficult to know exactly in which industrial sectors the funds were spent. Significant expenditures were made for equipment, and usually we assumed that these were expenditures made in the retail sector. Printing, which was all done locally, was entered in the input-output model under “other manufacturing.” We assumed the miscellaneous expenditure category was spent half for business services and half in the retail sector. Again, some of our decisions were arbitrary, but we assumed that the expenditures approximated what happened on a sector by sector basis.

## Economic Impact

The vectors of final demand for each of the categories of spending are given in Table 1-A. This is the aggregate autonomous spending that took place at the 1996 AWG. This table assumes that these funds would not have been spent in the regional economy, were it not for the AWG. The total level of autonomous or direct spending as a result of the AWG was \$2.49 million.

Table 1 summarizes the economic impacts of the AWG. The direct effect of the 1996 AWG is the same as the vector of final demands given in Table 1-A. Of that total direct spending, about \$959,000 went into payroll. This payroll accounted for the equivalent of 43.4 jobs in various sectors.

Table 1 also shows that the \$2.49 million in direct spending ultimately created \$4.26 million in total spending. Put another way, the initial \$2.49 million in direct spending created an additional \$1.7 million in spending as the money circulated through the economy. The additional spending also created additional jobs, so that the total growth in equivalent employment was 61.9 jobs. Table 2 breaks down the total employment and payroll impacts by industry. Table 3 breaks down the employment impacts by industry and region. Table 4 presents both the direct and indirect increases in payroll by region and industry.

A word of caution should be entered here. We are not reporting that the AWG created 62 jobs, but rather that the increase in spending was the equivalent of increasing employment by 62 jobs. Certainly, part of this increase was in overtime for existing jobs. Additionally, it must be remembered that this is a temporary increase, because the AWG was a one-time event. So these jobs are the equivalent of 62 one-person jobs, at the average payrolls in each of the various industries.

TABLE 1-A  
Autonomous Spending At 1996 Arctic Winter Games, Eagle River, Alaska

I/O model Industries	Host Society Budget by sector	In-Kind Expenditures		Total Spending by Sector
		by Host Society by sector	Spending by Visitors by sector	
Agriculture	0	0	0	0
Forestry	0	0	0	0
Fishing	0	0	0	0
Petroleum (mining)	0	0	0	0
Other Mining	0	0	0	0
New Construction	509	0	0	509
Maintenance & Repair	783	500	0	1283
Food & Kindred Pdts	0	0	0	0
Paper & Allied Pdts	0	0	0	0
Petroleum Processing	0	7500	0	7500
Lumber & Wood Pdts	0	5321	0	5321
Other Manufacturing	72891	66800	0	139691
Railroads	0	0	0	0
Local & Urban Transit	0	0	10339.56	10339.56
Motor Freight & Wrhs	0	1000	0	1000
Water Transport	0	0	0	0
Air Transport	0	5500	0	5500
Pipelines	0	0	0	0
Transportation Serv.	3790	0	0	3790
Communication	13626	117200	0	130826
Utilities	3047	0	0	3047
Wholesale Trade	29307	95200	0	124507
Retain Trade	262563	18110	212778.77	493451.77
Finance	0	0	0	0
Insurance	20511	0	0	20511
Hotels & Lodging	0	0	101621.52	101621.52
Business Services	208498	204750	0	413248
Personal Services	51992	0	118198.13	170190.13
Eating & Drinking	206158	44150	190049.63	440357.63
Health Services	2489	3850	0	6339
Misc. Services	28957	9345	0	38302
Fed. Govt.	9494	0	0	9494
State & Local Govt	0	5159	2383.92	7542.92
Households	356885	0	0	356885
State & Local Govt	0	0	0	0
<b>Total Spending</b>	<b>1271500</b>	<b>584385</b>	<b>635371.52</b>	<b>2491256.5</b>

**Arctic Winter Games 1996:  
STATEWIDE IMPACT**

**TABLE 1: SUMMARY**

	STATE	SOUTH EAST I	SOUTH CENTRAL II	SOUTH WEST III	NORTH IV
<b>DIRECT EFFECT</b>					
OUTPUT	\$2,491,257	\$0	\$2,491,257	\$0	\$0
PAYROLL	\$958,754	\$0	\$958,754	\$0	\$0
EMPLOYMENT	43.4	0.0	43.4	0.0	0.0
<b>TOTAL EFFECT</b>					
OUTPUT	\$4,257,642	\$0	\$4,257,642	\$0	\$0
PAYROLL	\$1,428,064	\$0	\$1,428,064	\$0	\$0
EMPLOYMENT	61.9	0.0	61.9	0.0	0.0
<b>INDIRECT/INDUCED EFFECT</b>					
OUTPUT	\$1,766,385	\$0	\$1,766,385	\$0	\$0
PAYROLL	\$469,310	\$0	\$469,310	\$0	\$0
EMPLOYMENT	18.4	0.0	18.4	0.0	0.0
<b>DIRECT EFFECT MULTIPLIERS (BEA DEF.)</b>					
OUTPUT	1.71	0.00	1.71	0.00	0.00
PAYROLL	1.49	0.00	1.49	0.00	0.00
EMPLOYMENT	1.42	0.00	1.42	0.00	0.00
<b>FINAL DEMAND MULTIPLIERS (BEA DEF.)</b>					
OUTPUT	\$1.71	\$0.00	\$1.71	\$0.00	\$0.00
PAYROLL	\$0.57	\$0.00	\$0.57	\$0.00	\$0.00
EMPLOYMENT	24.83	0.00	24.83	0.00	0.00

NOTES:

Final Demand Multipliers:

Total dollar change for each additional dollar of output delivered to final demand

Total change in number of jobs for each additional million \$ of output delivered to final demand

## Arctic Winter Games 1996: STATEWIDE IMPACT

### TABLE 2: SUMMARY INDUSTRY DETAIL

INDUSTRY		EMPLOYMENT	PAYROLL	OUTPUT
Total		61.9	\$1,428,064	\$4,257,642
Agriculture and AFF Services	1	0.1	\$994	\$3,618
Forestry	2	0.0	\$85	\$407
Fishing	3	0.0	\$428	\$2,043
Crude Petroleum and Natural Gas	4	0.1	\$7,461	\$80,444
Other Mining	5	0.1	\$6,364	\$19,468
New Construction	6	0.0	\$130	\$510
Maintenance and Repair	7	1.2	\$52,308	\$122,360
Food and Kindred Products	8	0.1	\$1,849	\$12,642
Paper and Allied Products	9	0.0	\$145	\$907
Chemicals and Petroleum Processing	10	0.1	\$4,641	\$114,973
Lumber and Wood Products	11	0.0	\$1,179	\$7,619
Other Manufacturing	12	1.4	\$41,231	\$167,458
Railroads	13	0.0	\$2,132	\$8,299
Local and Interurban Transit	14	0.3	\$3,830	\$14,904
Motor Freight and Warehousing	15	0.1	\$4,007	\$15,593
Water Transportation	16	0.0	\$1,355	\$5,274
Air Transportation	17	0.4	\$12,210	\$47,516
Pipelines	18	0.0	\$755	\$2,938
Transportation Services	19	0.1	\$2,023	\$7,872
Communication	20	1.1	\$60,262	\$216,100
Electric, Gas, Water, and Sanitary	21	0.4	\$18,638	\$233,742
Wholesale Trade	22	2.2	\$71,650	\$184,707
Retail Trade	23	17.7	\$299,790	\$638,382
Finance	24	0.8	\$21,049	\$53,547
Insurance	25	1.0	\$16,650	\$39,680
Real Estate	26	0.2	\$4,593	\$341,567
Hotels, Lodging, Amusements	27	6.5	\$135,908	\$447,031
Personal Services	28	6.5	\$90,080	\$191,724
Business Services	29	11.9	\$300,580	\$580,922
Eating and Drinking	30	1.9	\$31,753	\$107,664
Health Services	31	2.1	\$57,724	\$102,251
Miscellaneous Services	32	1.7	\$36,295	\$101,592
Federal Government Ent	33	0.3	\$8,826	\$24,704
State & Local Government Ent	34	3.7	\$128,323	\$359,185
Households	35	0.0	\$2,818	XXXXXXXXXX
State and Local Government	36	0.0	\$0	\$0
X2	37	0.0	\$0	\$0
X3	38	0.0	\$0	\$0
X4	39	0.0	\$0	\$0
X5	40	0.0	\$0	\$0

**Arctic Winter Games 1996:  
STATEWIDE IMPACT**

**TABLE 3: EMPLOYMENT BY REGION**

	TOTAL EMPLOYMENT					DIRECT EMPLOYMENT				
	STATE	SOUTH	SOUTH	SOUTH	NORTH	STATE	SOUTH	SOUTH	SOUTH	NORTH
	TOTAL	EAST	CENTRAL	WEST	IV	TOTAL	EAST	CENTRAL	WEST	IV
	I	II	III	IV		I	II	III	IV	
<b>Total</b>	<b>62</b>	<b>0.0</b>	<b>62</b>	<b>0.0</b>	<b>0.0</b>	<b>43.4</b>	<b>0.0</b>	<b>43.4</b>	<b>0.0</b>	<b>0.0</b>
Agriculture and AFF Services	1	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Forestry	2	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing	3	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Crude Petroleum and Natural Gas	4	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Other Mining	5	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
New Construction	6	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance and Repair	7	1	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0
Food and Kindred Products	8	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Paper and Allied Products	9	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals and Petroleum Processin	10	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Lumber and Wood Products	11	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Other Manufacturing	12	1	0.0	1	0.0	1.2	0.0	1.2	0.0	0.0
Railroads	13	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Local and Interurban Transit	14	0	0.0	0	0.0	0.2	0.0	0.2	0.0	0.0
Motor Freight and Warehousing	15	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Water Transportation	16	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Air Transportation	17	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Pipelines	18	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Transportation Services	19	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Communication	20	1	0.0	1	0.0	0.6	0.0	0.6	0.0	0.0
Electric, Gas, Water, and Sanitary	21	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale Trade	22	2	0.0	2	0.0	1.5	0.0	1.5	0.0	0.0
Retail Trade	23	18	0.0	18	0.0	13.7	0.0	13.7	0.0	0.0
Finance	24	1	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0
Insurance	25	1	0.0	1	0.0	0.5	0.0	0.5	0.0	0.0
Real Estate	26	0	0.0	0	0.0	0.1	0.0	0.1	0.0	0.0
Hotels, Lodging, Amusements	27	6	0.0	6	0.0	6.0	0.0	6.0	0.0	0.0
Personal Services	28	6	0.0	6	0.0	5.7	0.0	5.7	0.0	0.0
Business Services	29	12	0.0	12	0.0	9.0	0.0	9.0	0.0	0.0
Eating and Drinking	30	2	0.0	2	0.0	0.1	0.0	0.1	0.0	0.0
Health Services	31	2	0.0	2	0.0	0.8	0.0	0.8	0.0	0.0
Miscellaneous Services	32	2	0.0	2	0.0	0.2	0.0	0.2	0.0	0.0
Federal Government Ent	33	0	0.0	0	0.0	0.1	0.0	0.1	0.0	0.0
State & Local Government Ent	34	4	0.0	4	0.0	3.7	0.0	3.7	0.0	0.0
Households	35	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
State and Local Government	36	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
X2	37	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
X3	38	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
X4	39	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
X5	40	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

**Arctic Winter Games 1996:  
STATEWIDE IMPACT**

**TABLE 4: PAYROLL BY REGION**

	TOTAL PAYROLL					DIRECT PAYROLL				
	STATE TOTAL	SOUTH EAST I	SOUTH CENTRAL II	SOUTH WEST III	NORTH IV	STATE TOTAL	SOUTH EAST I	SOUTH CENTRAL II	SOUTH WEST III	NORTH IV
Total	\$1,428,064	\$0	\$1,428,064	\$0	\$0	\$958,754	\$0	\$958,754	\$0	\$0
Agriculture and AFF Services	1 \$994	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Forestry	2 \$85	\$0	\$85	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fishing	3 \$428	\$0	\$428	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Crude Petroleum and Natural Gas	4 \$7,461	\$0	\$7,461	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Mining	5 \$6,364	\$0	\$6,364	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Construction	6 \$130	\$0	\$130	\$0	\$0	\$129	\$0	\$129	\$0	\$0
Maintenance and Repair	7 \$52,308	\$0	\$52,308	\$0	\$0	\$548	\$0	\$548	\$0	\$0
Food and Kindred Products	8 \$1,849	\$0	\$1,849	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Paper and Allied Products	9 \$145	\$0	\$145	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Chemicals and Petroleum Processing	10 \$4,641	\$0	\$4,641	\$0	\$0	\$303	\$0	\$303	\$0	\$0
Lumber and Wood Products	11 \$1,179	\$0	\$1,179	\$0	\$0	\$823	\$0	\$823	\$0	\$0
Other Manufacturing	12 \$41,231	\$0	\$41,231	\$0	\$0	\$34,394	\$0	\$34,394	\$0	\$0
Railroads	13 \$2,132	\$0	\$2,132	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Local and Interurban Transit	14 \$3,830	\$0	\$3,830	\$0	\$0	\$2,657	\$0	\$2,657	\$0	\$0
Motor Freight and Warehousing	15 \$4,007	\$0	\$4,007	\$0	\$0	\$257	\$0	\$257	\$0	\$0
Water Transportation	16 \$1,355	\$0	\$1,355	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Air Transportation	17 \$12,210	\$0	\$12,210	\$0	\$0	\$1,413	\$0	\$1,413	\$0	\$0
Pipelines	18 \$755	\$0	\$755	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transportation Services	19 \$2,023	\$0	\$2,023	\$0	\$0	\$974	\$0	\$974	\$0	\$0
Communication	20 \$60,262	\$0	\$60,262	\$0	\$0	\$36,482	\$0	\$36,482	\$0	\$0
Electric, Gas, Water, and Sanitary	21 \$18,638	\$0	\$18,638	\$0	\$0	\$243	\$0	\$243	\$0	\$0
Wholesale Trade	22 \$71,650	\$0	\$71,650	\$0	\$0	\$48,298	\$0	\$48,298	\$0	\$0
Retail Trade	23 \$299,790	\$0	\$299,790	\$0	\$0	\$231,729	\$0	\$231,729	\$0	\$0
Finance	24 \$21,049	\$0	\$21,049	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Insurance	25 \$16,650	\$0	\$16,650	\$0	\$0	\$8,607	\$0	\$8,607	\$0	\$0
Real Estate	26 \$4,593	\$0	\$4,593	\$0	\$0	\$1,366	\$0	\$1,366	\$0	\$0
Hotels, Lodging, Amusements	27 \$135,908	\$0	\$135,908	\$0	\$0	\$125,637	\$0	\$125,637	\$0	\$0
Personal Services	28 \$90,080	\$0	\$90,080	\$0	\$0	\$78,963	\$0	\$78,963	\$0	\$0
Business Services	29 \$300,580	\$0	\$300,580	\$0	\$0	\$227,849	\$0	\$227,849	\$0	\$0
Eating and Drinking	30 \$31,753	\$0	\$31,753	\$0	\$0	\$1,870	\$0	\$1,870	\$0	\$0
Health Services	31 \$57,724	\$0	\$57,724	\$0	\$0	\$21,623	\$0	\$21,623	\$0	\$0
Miscellaneous Services	32 \$36,295	\$0	\$36,295	\$0	\$0	\$3,392	\$0	\$3,392	\$0	\$0
Federal Government Ent	33 \$8,826	\$0	\$8,826	\$0	\$0	\$2,695	\$0	\$2,695	\$0	\$0
State & Local Government Ent	34 \$128,323	\$0	\$128,323	\$0	\$0	\$127,501	\$0	\$127,501	\$0	\$0
Households	35 \$2,818	\$0	\$2,818	\$0	\$0	\$0	\$0	\$0	\$0	\$0
State and Local Government	36 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
X2	37 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
X3	38 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
X4	39 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
X5	40 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0