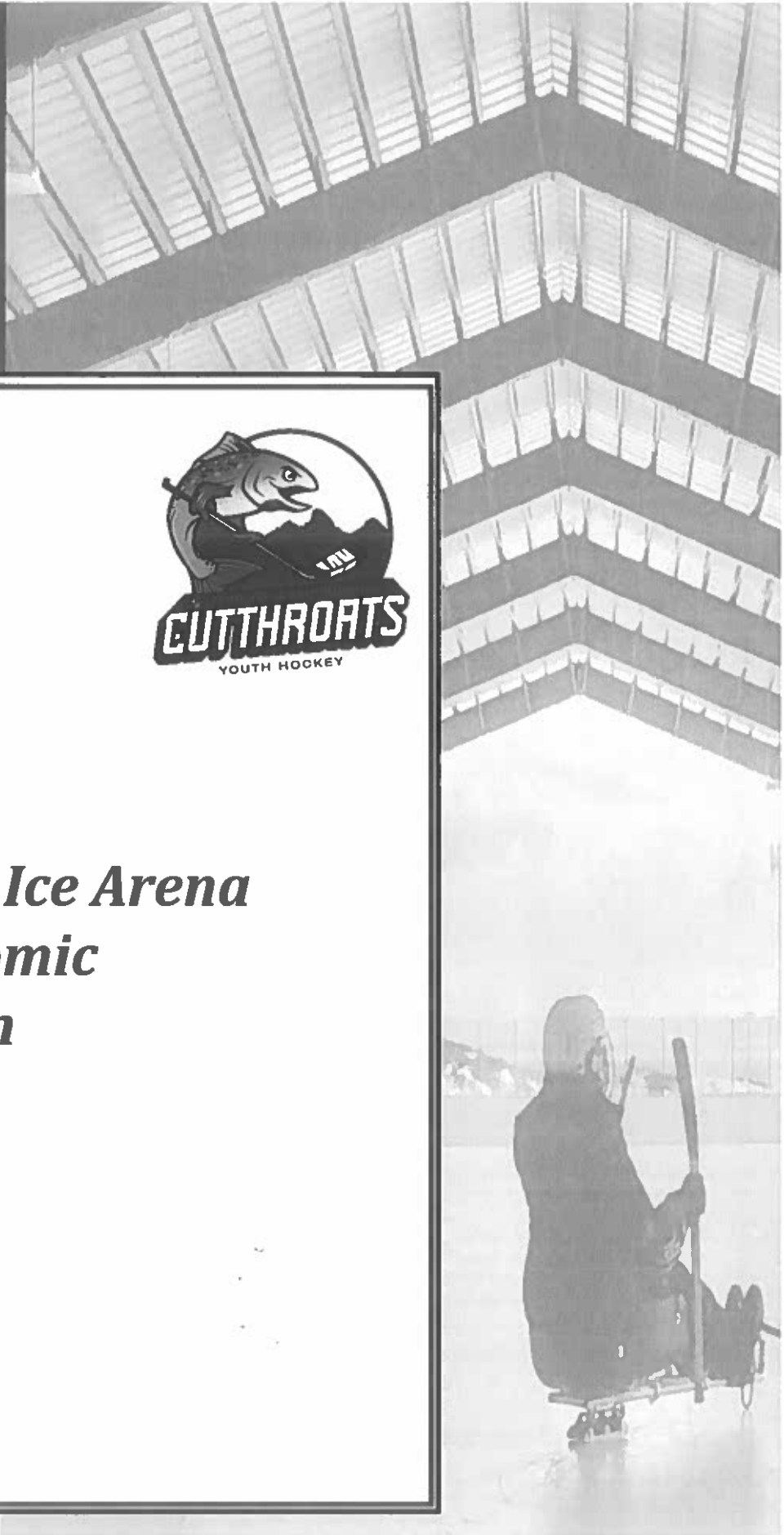




***2023 Kotler Ice Arena
(Rink) Economic
Contribution
Study***

September 2023



***2023 Kotler Ice Arena(Rink)
Economic Contribution
Study***

Sponsored by the Teton Valley Foundation

**Vandal Impact Center
Aidan Ramirez**

**Advisor
Steven Peterson
Research Economist and Clinical Associate Professor
College of Business and Economics
University of Idaho**

September 2023

Executive Summary

This study examines the economic contribution of the outdoor Kotler Ice (rink) Arena, situated in Victor, Idaho in Teton County, Idaho. The arena, operated by Teton Valley Foundation, facilitates youth and adult hockey leagues, hosts regional youth and adult hockey tournaments, serves as a community ice skating facility, and is home to other important outdoor sports and events.

The report was conducted by the Vandal Impact Center and completed in August 2023. The student author was Aidan Ramirez. The faculty advisor was Steven Peterson, Clinical Associate Professor Economics, College of Business and Economics, University of Idaho. The study is sponsored by the Teton Valley Foundation and the study completion date is August 2023. The Kotler Ice Arena is vital to enhance the economic base of the City of Victor and Teton County by attracting tourists and visitors to the region.

In total, the Kotler Ice Arena has about 5,552 local users and around 6,060 nonlocal users, for a total of 11,612 visitors which is nearly the equivalent of the entire population of Teton County (12,544). The nonresident visitors spend about \$604,600 in the community each year. The operating revenues of the arena were considerable, generating \$490,000 in 2022 and \$474,687 in expenditures.

Total annual economic contributions of the Kotler Ice Arena were **\$1,983,867 in output (sales); \$764,116 in total compensation (wages and salaries), and 20 jobs.**

The tax contributions include **\$10,193 in property annual tax revenues, 6% lodging tax fees of \$21,600, and \$31,184 in state sales, excise tax contributions, and income taxes, totaling \$62,976** (Including the multiplier effects).

There are plans for an approximate \$1.5 million future construction project that will expand the rink's overall year-round capacity. The construction project alone will create 16 construction-related jobs for one year, support \$2.0 million in regional output (sales), and support about \$818,389 in total compensation. The operation's impacts will increase output (sales) to about \$3 million annually, supporting \$1.15 million in total compensation, 31 annual jobs, and creating \$292,735 in local and state taxes.

Table of Contents

Executive Summary.....	1
Introduction and Overview of Study.....	3
Overview and Introduction.....	3
Goals of the Study.....	3
Regional Economy.....	4
Economic Versus Political Boundaries.....	4
Idaho: A Contrast of Urban Versus Rural.....	5
Overview Regional Economy.....	6
Commuting Patterns.....	8
Other Economic and Regional Metrics (Lightcast).....	9
Kotler Ice Arena Visitor Estimates.....	10
Skaters.....	10
Curling.....	10
Youth Hockey.....	10
Adult Hockey.....	10
Total Visitors.....	10
Kotler Ice Arena Budget and Expenditure Estimates.....	11
Budget – Revenues and Expenditures: Key Summary.....	11
Surveys.....	12
Methodology.....	13
Data Sources.....	13
Methodology.....	13
Economic Base Assessment.....	13
Defining and Explaining Economic Contributions and Contributions.....	14
Multipliers.....	15
Results.....	16
Summary Results.....	16
Primary Kotler Ice Arena Operations.....	17
Grand Total Economic Contributions.....	17
Tax Contributions.....	17
Future Expansions.....	18
Conclusions.....	19
Terminology.....	21
Caveats and Limitations.....	21
Sources.....	22

Introduction and Overview of Study

Overview and Introduction

This study examines the economic contribution of the outdoor Kotler Ice (rink) Arena, situated in Victor, Idaho. The arena, operated by Teton Valley Foundation, facilitates youth and adult hockey leagues, hosts regional youth and adult hockey tournaments, serves as a community ice skating facility, and is home to other important outdoor sports and events. The Kotler Ice Arena is an important source of income for Victor, Idaho. The local economy is significantly boosted by the influx of out-of-town visitors who come to Victor, Idaho for tournaments and winter events. The visitors who travel to the Kotler Ice arena spend money on lodging and at Victor's gas stations, restaurants, and stores. This encourages local economic development and employment opportunities. The rink plays an important and growing economic role in the economy.

Goals of the Study

- 1) Analyze and report descriptively the Kotler Ice (rink) Arena economic, social, and fiscal role in the regional economy.
- 2) Analyze the contribution to the regional economy.
- 3) Create an economic input/output model of the regional economy to measure the arena's operational contributions on the regional economy, reporting regional sales, earnings, employment, and taxes. These contributions include direct, indirect, and induced impacts (multiplier effects).

This study was conducted by the Vandal Impact Center and completed in August 2023. The student author was Aidan Ramirez. The faculty advisor was Steven Peterson, Clinical Associate Professor Economics, College of Business and Economics, University of Idaho. The study is sponsored by the Teton Valley Foundation and the study completion date is September 2023.

Regional Economy

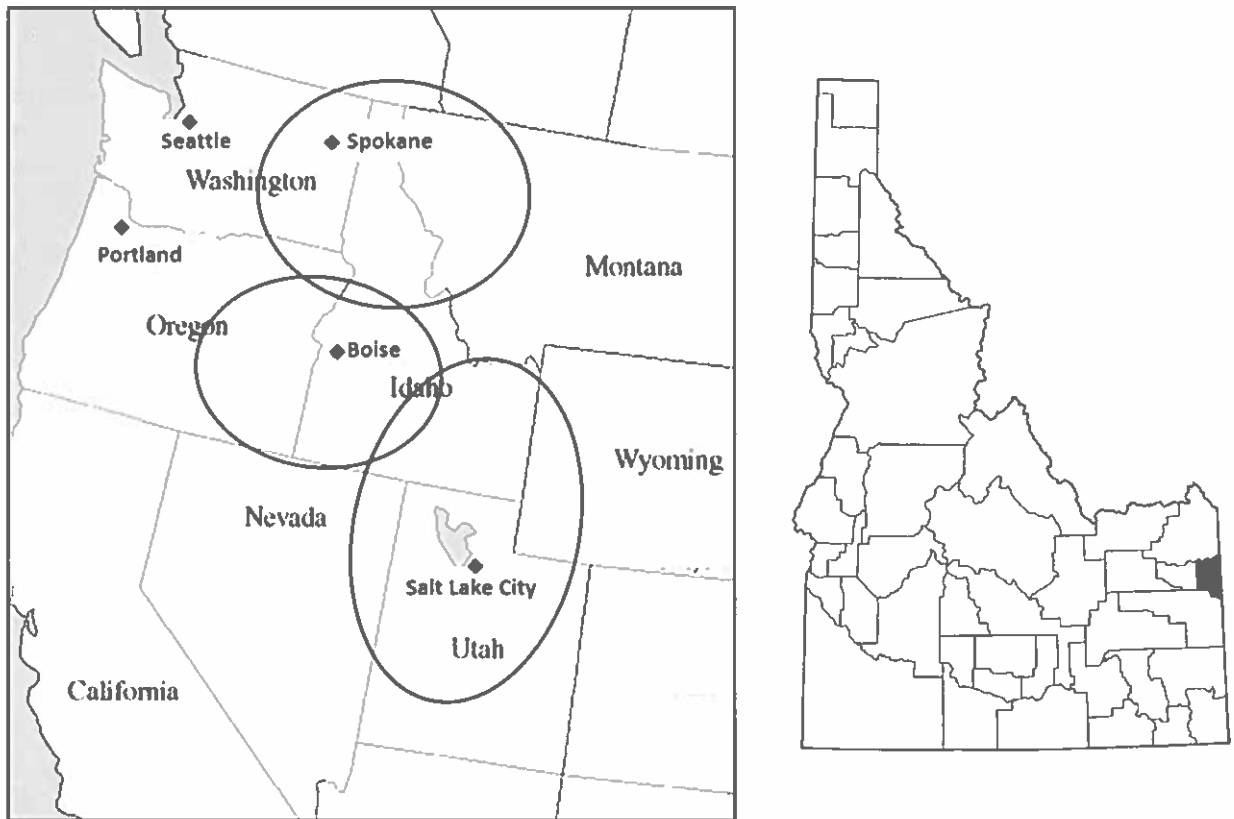
Economic Versus Political Boundaries

In terms of political boundaries, Idaho is a single state. In terms of economic boundaries, Idaho has three distinct economies. The U.S. Bureau of Economic Analysis divides the state of Idaho into 1) The Boise economy, which includes eastern Oregon, southwest Idaho, and central Idaho; 2) The Spokane economy, comprised of eastern Washington, northern Idaho, the southwestern region of Canada, and part of western Montana; and 3) The Salt Lake City economy, which includes most of Utah, a portion of northwestern Nevada, and southeast Idaho. Political boundaries rarely coincide with the integrated economic regions focused on these market centers. The Kotler Ice Arena is in the eastern Idaho and Salt Lake City economic region (Figure1).

Idaho trade patterns run east-west while the political boundaries run north-south. Teton County, the City of Victor, and the regional economies are closely tied to the Teton County, Wyoming economy with links to the Cities of Idaho Falls – Pocatello, Salt Lake City corridor.

Figure 1: The Economic Regions of Idaho and Teton County, Idaho





Idaho: A Contrast of Urban Versus Rural

Idaho is a state with two economies: one urban and one rural. The rural economy is based on agriculture and other natural resource industries, while the urban economy is based on tourism, trade, and rapidly growing high-technology and service companies. These two separate economies reflect Idaho's past, present, and future. The two economies complement each other and also compete with each other for resources. The region of Teton County is situated in the southeast corridor of the state reflecting the transition to the new economy of the future.

The population and economic growth of the urban portions of the state have been rapid and robust (particularly those regions with tourism, high-technology industries, and related services), while the growth of the rural regions and natural resource-based economies have been modest or negative. The most impoverished regions of the state tend to be the most rural.

Idaho's economic performance over the last decade has made it one of the fastest-growing states in the nation and this trend will likely continue into the next decade. From 2010 and 2020, Idaho's population increased by 271,525. During these ten years, Idaho was the 2nd

fastest growing state in the U.S., reaching 1,839,106 people and supporting a population growth rate of 17.3%. Only Utah had a faster population growth rate of 18.4%.

Idaho was 2nd place in 2021-2022 in population growth (1.8%) behind only Florida (1.9%). From 2020 to 2021, Idaho was first in the nation (2.9%). Idaho's population has been fast-growing since 1990, ranking in the top five fastest-growing states annually, interrupted only occasionally by recessions.

Overview Regional Economy

Teton County's regional economy runs east - west and is closely tied to the Teton County, Wyoming economy. The broader economy is part of the Idaho Falls – Pocatello- Salt Lake City region.

Teton County's population grew 6.9% from 2020 to 2022 and stood at 12,544 people in 2022. Teton's population grew 14.4% from 2010 to 2020.

Figure 2 presents the employment by industry and jobs as a percentage of total employment. Teton County's overall employment grew 51%: from 3,340 jobs to 5,046 jobs, a 1,705 increase. The average salary and benefits are \$55,248.

Figure 2: Employment Profile Teton County 2015 to 2023

Industry	2015	2023	Change	% Change	Avg. Salary
Agriculture-Forestry	234	242	8	3%	\$47,855
Mining	0	<10	NA	NA	NA
Utilities	<10	23	NA	NA	\$87,450
Construction	407	902	495	122%	\$64,216
Manufacturing	126	205	79	63%	\$50,474
Wholesale Trade	63	45	(18)	(28%)	\$61,250
Retail Trade	322	486	164	51%	\$36,050
Transportation/Ware h.	61	76	15	25%	\$91,176
Information	37	54	17	44%	\$96,149
Finance/Insurance	47	57	10	22%	\$89,692
Real Estate	80	77	(3)	(3%)	\$63,657
Professional/Scientific Services	164	289	125	76%	\$87,814

Management of Companies	0	<10	NA	NA	NA
Administrative/Waste Management	263	414	152	58%	\$53,476
Educational Services	37	54	17	46%	\$40,409
Health Care and Social Assistance	267	374	107	40%	\$65,926
Arts, Entertainment, and Recreation	164	293	129	78%	\$58,651
Accommodation and Food Services	420	704	284	68%	\$29,315
Other Services	151	216	65	43%	\$34,298
Government	490	523	33	7%	\$65,172
Total	3,340	5,046	1,705	51%	\$55,248

Source: Lightcast

The region's largest employers include Teton School District, Md Management and Landscaping, Broulim's Foodtown, and Teton County (Figure 3).

Figure 3 : Region's Largest Employers Ranked by Employment

Employer	Range
Teton County School District	250 - 499
Md Management & Landscaping	100 - 249
Broulim's Foodtown	100 - 249
Teton County	050 - 099
Avail Valley Construction	050 - 099
Teton County Fire District	010 - 049
Valley Lumber And Rental	010 - 049
High Range Designs	010 - 049
Mills Concrete	010 - 049
Teton Aviation Center	010 - 049

Source: Idaho Department of Labor

Teton County's largest industries, measured by direct employment (at the 2-digit North American Industrial Classification System -NAICAS Code), are construction at 902 jobs, accommodation and food service (704 jobs), federal, state, and local government at 523 jobs, retail trade (486 jobs), administrative / waste management (414 jobs), and health care and social assistance (374 jobs) (Figure 4).

Figure 4: Region's Largest Industries

Rank	Industry	2023
1	Construction	902
2	Accommodation and Food Services	704
3	Government	523
4	Retail Trade	486
5	Administrative/Waste Management	414
6	Health Care and Social Assistance	374

Source: Lightcast

Commuting Patterns

The Teton County economy is a bedroom community to Teton County, Wyoming and the Teton National Park-related economy. That is, most of the jobs are situated outside of the county. According to the U.S. Census, in 2020 43.4% of all Teton County, Idaho workers were employed in Teton County, Wyoming (OnTheMap (census.gov)) with nearly 1,500 of those jobs in Jackson Town, Wyoming (Figure 5).

Figure 5: Commuting Patterns Teton County, Idaho.

Jobs Counts by Counties Where Workers are Employed - All Jobs

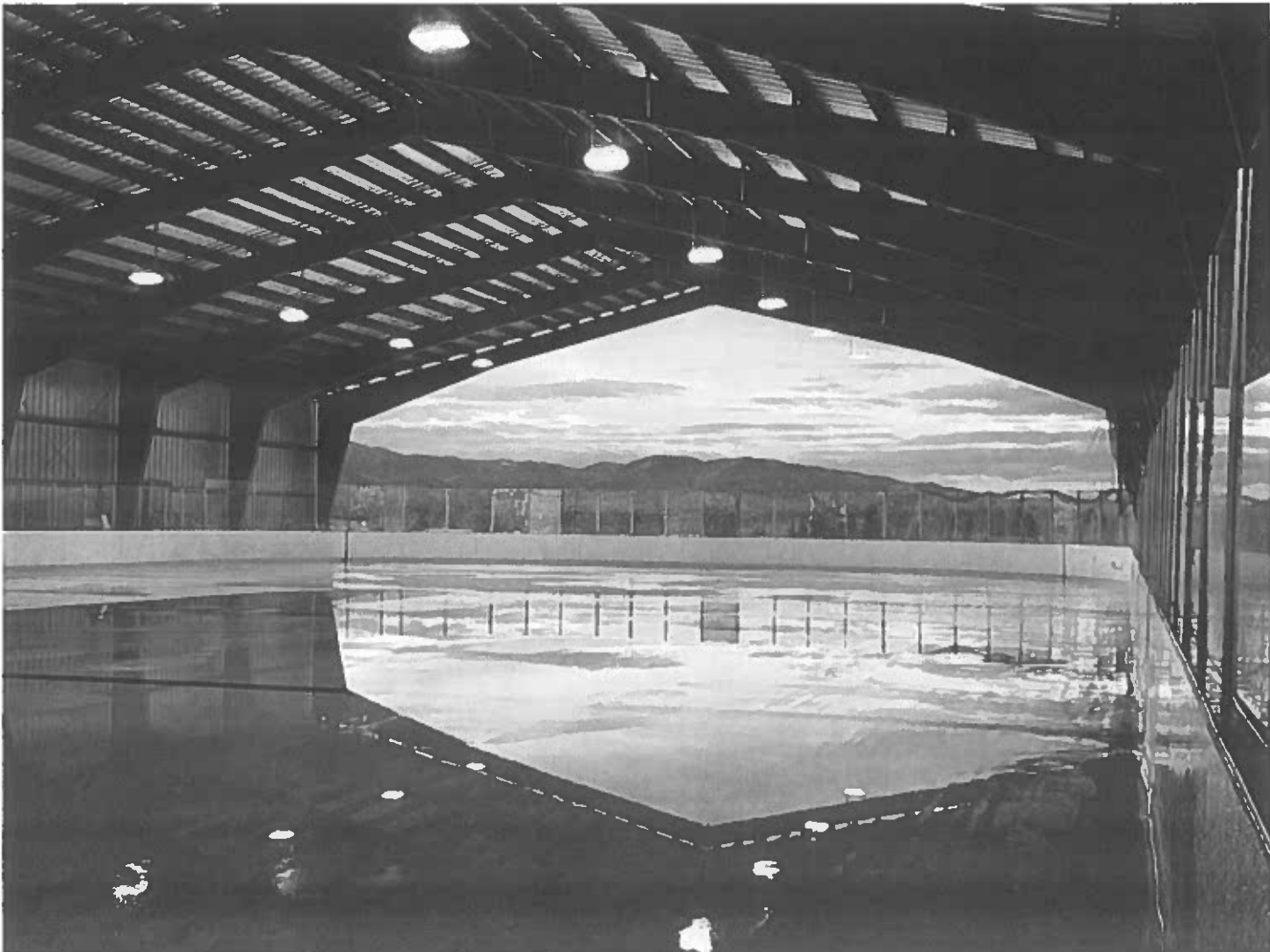
County	Count	Share
Teton County, WY	2,586	43.4%
Teton County, ID	2,000	33.6%
Bonneville County, ID	219	3.7%
Ada County, ID	173	2.9%
Madison County, ID	119	2.0%
Bannock County, ID	95	1.6%
Gallatin County, MT	71	1.2%
Lincoln County, WY	61	1.0%
Bingham County, ID	54	0.9%
Twin Falls County, ID	40	0.7%
All Other Locations	534	9.0%

Source: OnTheMap (census.gov)

The Kotler Ice Arena is vital to enhance the economic base of the City of Victor and Teton County by attracting tourists and visitors to the region.

Other Economic and Regional Metrics (Lightcast)

Educational attainment, 34.2% of Teton County, ID residents possess a bachelor's degree (13.4% above the national average), and 8.1% hold an associate degree (0.7% below the national average). Teton County population is expected to increase by 8.2% between 2022 and 2027, adding 1,028 people. 2021 median household income was \$75,800, about \$6,800 about the U.S. average.



Kotler Ice Arena Visitor Estimates

Skaters

The Kotler Ice Arena is a popular destination for ice sport participants and fans, drawing a sizable number of visitors who actively participate in a variety of activities. 410 skaters across 4 different leagues and 1 practice participate in the adult hockey leagues for seventeen weeks of the season.

Curling

Curling brings both local and national visitors to the Kotler Ice Arena. Bi-weekly curling events hosted 36 ice rink users, and a onetime event hosted 62 visitors from all over the country. Annually, 98 curlers used the Kotler Ice Arena to recreate.

Youth Hockey

Youth hockey stands as a prominent activity at the arena, drawing a significant number of young athletes who participate in the sport. In the Cutthroats Youth Hockey program, 167 skaters play at the arena for sixteen weeks, attracting around 1,500 spectators to non-tournament events and practices. In total, there are seven different youth hockey divisions.

Adult Hockey

The adult hockey leagues hold a vital role for fostering a sense of friendly competition while also generating a significant source of engagement and revenue contributing to the overall success of the Kotler Ice Arena. The arena hosts 389 total skaters across 4 leagues weekly for 17 weeks.

Total Visitors

The Kotler Ice Arena hosts an array of events that bring in 5535 individuals to the arena ranging from local and regional skaters and spectators. The Kotler Ice Arena also caters to private rentals, offering individuals and organizations the opportunity to host events in the Arena. Over the 2022 - 23 winter, individuals and organizations rented the arena for forty-six hours at an average of 20 guests per hour rented, equating to 920 users for private rentals. **In total, the Kotler Ice Arena has about 5,552 local users and around 6,060 nonlocal users, for a total of 11,612 visitors which is nearly the equivalent of the entire population of Teton County (12,544).**



Kotler Ice Arena Budget and Expenditure Estimates

Primary data was supplied by the Teton Valley Foundation for the most current fiscal year 2023.

Budget – Revenues and Expenditures: Key Summary

Expenditures: The rink's facility maintenance was \$32,000. Facility renovations cost \$40,000. Additionally, the rink spent \$5,500 on operational materials for daily operations and \$31,000 on utilities to cover necessities to remain operational. Staff payroll was \$177,350 with \$20,575 in payroll taxes. In addition, \$32,500 in compensation costs for independent contractors, including coaches and referees, were included. Credit card fees, permit fees, travel and auto costs, continuing education costs, food cost of items sold, and miscellaneous program equipment made up the entire amount of miscellaneous expenses, which came to \$85,397. Total expenditure was \$474,687.

Revenues: The Kotler Ice Arena generated a \$490,000 in income per year from all sources, demonstrating its viability and significant economic contributions to the community (Figure 6)

Figure 6: Summary Budget Totals

Revenues	\$ 490,000
Expenditures	\$ 474,687
Payroll	\$ 230,475

Surveys

Nonresident participants were surveyed to estimate regional spending and collect other demographic information to assist in the study analysis. There were 91 respondents representing groups and individuals. From that survey, the following spending template was developed in Figure 7. The number of participants for each category was adjusted carefully to account for the number of nonresident participants per group, including children. Most of the nonresident participants stayed in motels. In total, the nonresident spending per participant was \$100, totaling \$604,600 in annual spending.

Figure 7: Estimated Nonresident Participant Spending

Spending	Nonresident Visitors	Per Spending Group	Total
Fuel	600	\$79	\$47,400
Eat and Drinking	6,060	\$20	\$121,200
Retail	400	\$65	\$26,000
Other Spending	1000	\$50	\$50,000
Lodging	1,800	\$200	\$360,000
Total	6,060	\$100	\$604,600

Methodology

Data Sources

A Teton County IMPLAN input-output model was created to conduct the needs of the analysis. IMPLAN (Impact Analysis for Planning) is the most widely used and cited economic impact software and data (IMPLAN Group LLC). Lightcast (formerly Emsi) labor force and industrial account data were also used in this study.

Methodology

Economic Base Assessment

This analysis is founded on economic base theory. A local or regional economy has two types of industries: basic industries and non-basic industries. Any economic activity that brings money into the local economy from the outside is considered a basic industry. Basic industries are sometimes identified as export industries, which is defined as any economic activity that brings new monies into the community. For example, basic industries can include high-technology companies, medical services, retail trade services, federal government operations, as well as other manufacturing, agriculture, and service firms. Firms providing services to individuals living outside the region's trade center, such as medical and legal services, are included in the region's base. Payments from state and federal governments (including Social Security, Medicare, university funding, and welfare payments are sources of outside income to businesses and residents.

For example, the base industries in Teton County include agriculture sales, tourism, federal government payments, and other industries and services.

These are counted as part of the economic base. Import substitution can also be basic under certain circumstances. Import substitution has the advantage of keeping dollars at home, dollars that previously would have left the local economy. For example, local resident skating enthusiasts participate in the Kotler Ice Arena rather than travel outside the region for another recreational opportunity.

Non-basic industries are defined as an economic activity within a region that supports local consumers and businesses. They re-circulate incomes within the region. Such activities include shopping malls, business and personal services consumed locally, medical services consumed locally, and local construction contracts.

Basic industries are sometimes confused with non-basic industries. For example, some county economies have a large retail trade sector, producing a paradox: they employ a substantial percentage of the workforce but contribute little economic contributions because most of the retail sales are local. They bring little new money into the community. Thus, it appears from the side effect that the retail trade sector contributes a large amount of employment and earnings to the economy. In reality, most of this employment and earning activity is allocated or attributed to other local “export” industries that bring revenues into the community from outside. From a “size” perspective, the retail trade sector appears large. However, from an economic base perspective, which determines the economic “drivers” of the economy, the retail trade sector is smaller. Only the retail trade activities serving visitors from outside the area can be counted as economic base activity and employment.

Defining and Explaining Economic Contributions and Contributions

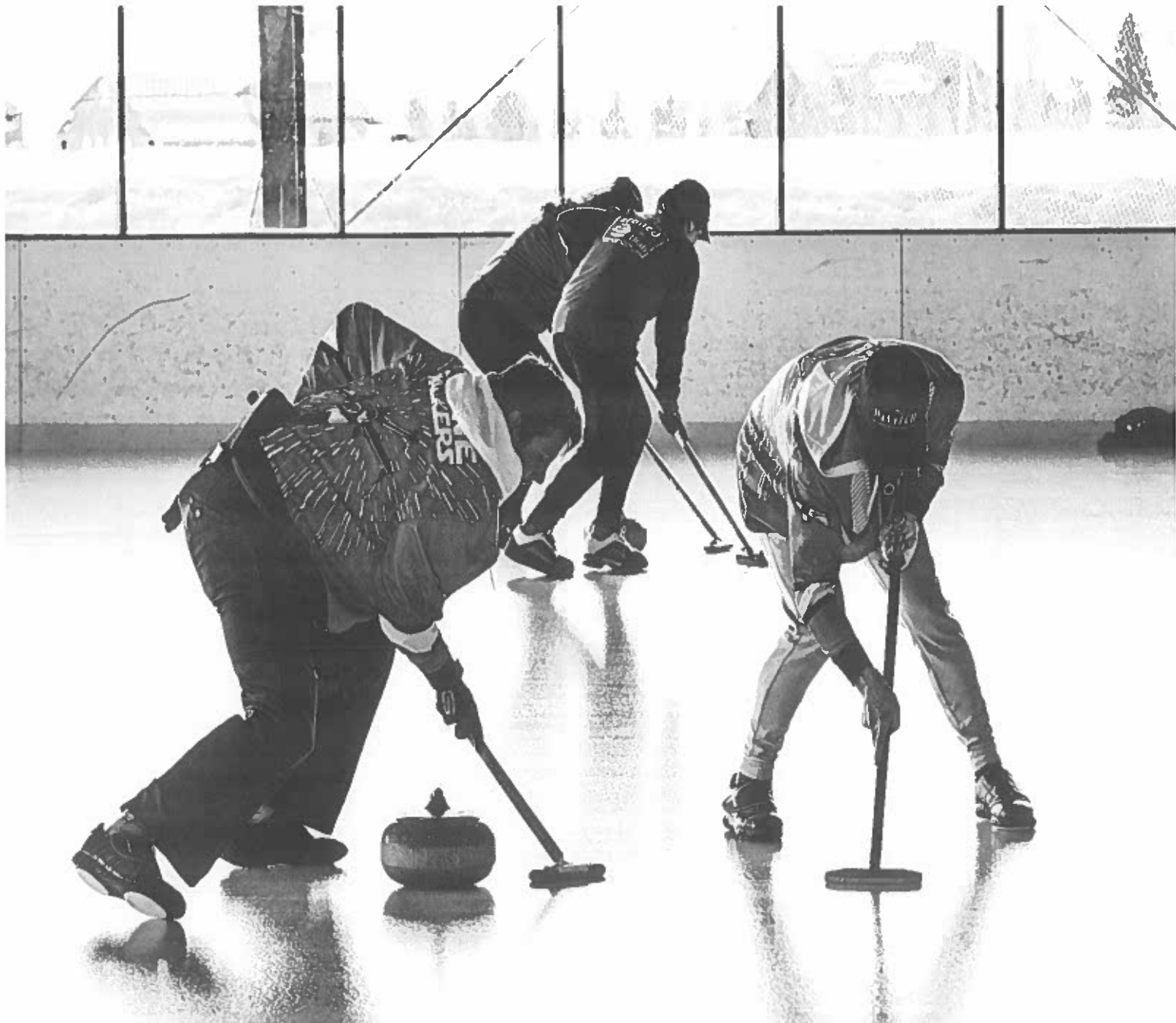
Economic contributions measure the magnitude or importance of the expenditures of basic (export) industries. Our economic model estimates multipliers for each industrial and service sector. The overall output multiplier is 1.31. Every dollar of direct arena expenditures creates \$1.31 dollars of total new spending in the community economy.

Contributions are divided into two levels. The first level is the direct impact of arena-related expenditures on each respective county economy – the jobs, payroll and benefits, gross regional product, and sales that are directly created by the arena activities as export businesses. The second is comprised of two parts: a) the contributions on other regional businesses that provide goods or services to arena activities - the indirect contributions - and b) the effect of employee and related consumer spending on the economy - the induced contributions. The indirect and induced contributions are the so-called “ripple” or multiplier effects of the arena-related expenditures in the economy. The multiplier or ripple effects are driven by the exports of an economy. Exports, the new money coming into an economy, set off a web of transactions as each business seeks to fulfill the

demands of their customers. The rink's contributions on the economy is thus comprised of the magnitude of the multiplier(s) and the magnitude of the exports. The sum of the direct, indirect, and induced effects measures the total contributions of an industry to an economy.

Multipliers

The IMPLAN framework is robust and capable of modeling changes in the expenditures affecting specific industry or multiple industries at the same time. The IMPLAN model will create an effective average output (sales) multiplier for each expenditure pattern under analysis.



Results

Summary Results

The reported economic contributions include the direct contributions of the rink-related direct spending as well as the backward linkages of that spending as it circulates throughout the economy. It also includes the contributions of consumer spending relating to this economic activity, (the induced contributions). These combined factors represent the multiplier effects. The following economic model outputs were reported:

- Direct (actual) annual employment (not including the multiplier effects)
- Sales transactions– reflects the total transactions from all sources in dollars by direct, indirect, and induced economic activity (i.e., including the multiplier effects).
 - Gross Regional Product – the overall net contribution to the economy (a subset of sales transactions) from arena related expenditures and services. Gross regional product includes employee compensation, proprietor income, other property income, and indirect taxes.
 - Total Compensations (payroll) – (a subset of gross regional product) includes wage, salary, proprietor income payments, and fringe benefits (i.e., supplements) to workers (including the multiplier effects).
- Total Employment – represents the total employment resulting from economic activity (including the multiplier effects).
- Local and State Taxes – includes local property taxes, sales taxes and excise taxes, and all other state taxes (including the multiplier effects).

The following is an outline of the economic contributions of the Kotler Ice Arena by activity. Figure 8 reports the contributions in tabular form. The results include direct, indirect, and induced contributions. The average overall sales/output multiplier was 1.31; i.e., for every dollar of direct expenditures, 1.31 dollars of total output are created in the community. The value-added (GRP) multiplier was 1.24, the total compensation income multiplier was 1.18, and the jobs multiplier was 1.19.

Primary Kotler Ice Arena Operations

- Kotler Ice Arena Created \$605,988 sales (Output); \$290,344 in total compensation (wages and salaries), and 6 jobs.
- Visitor Lodging: Created \$472,861 in sales; \$115,948 in total compensation (wages and salaries), and 4 jobs.
- Visitor Eating and Drinking: Created \$631,993 in sales; \$206,161 in total compensation (wages and salaries), and 7 jobs.
- Other Spending: Created \$105,812 in sales; \$43,950 in total compensation (wages and salaries), and 1 job.
- Local Leakage: Created \$167,213 in sales; \$107,713 in total compensation (wages and salaries), and 2 jobs.

Grand Total Economic Contributions

- Grand Total contributions: Created \$1,983,867 in sales; \$764,116 in total compensation (wages and salaries), and 20 jobs.

Tax Contributions

- The economic activity created by the Kotler Ice Arena generates tax revenues, both directly and indirectly through the multiplier effects (Figure 9).
- Total Kotler Ice Arena operations and participant spending created \$10,193 in property annual tax revenues, 6% lodging tax fees of \$21,600, and \$31,184 in state sales, excise tax contributions, and income taxes, totaling \$62,976 (Including the multiplier effects).

Figure 8: Economic Contribution of the Kotler Ice Rink Arena

Includes the Direct, Indirect, and Induced Contributions

Category	Jobs	Wages/Salaries	Output
Rink Operations	6	\$ 290,344	\$ 605,988
Visitor Lodging	4	\$ 115,948	\$ 472,861
Visitor Eating/Drinking	7	\$ 206,161	\$ 631,993
Other Spending	1	\$ 43,950	\$ 105,812
Local Leakage	2	\$ 107,713	\$ 167,213
Total	20	\$ 764,116	\$ 1,983,867

Figure 9 Tax Contribution Results

Tax Contributions to State and Local Governments

Includes the Direct, Indirect, and Induced Effects

Tax Category	Property	State	Total
Total Taxes	\$31,793	\$31,184	\$62,976

Future Expansions

There are plans for an approximate \$1.5 million future construction project that will expand the rink's overall year-round capacity. The construction project alone will create 16 construction-related jobs for one year, support \$2.0 million in regional output (sales), and support about \$818,389 in total compensation. The operations impacts that will increase output (sales) to about \$3 million annually, supporting \$1.15 million in total compensation, 31 annual jobs, and creating \$292,735 in local and state taxes.



Conclusions

The Kotler Ice Arena plays an important role in enhancing the quality of life in the local community and complementing the regional tourism industry, an important growth factor for the economy.

The arena, operated by Teton Valley Foundation, facilitates youth and adult hockey leagues, hosts regional youth and adult hockey tournaments, serves as a community ice skating facility, and is home to other important outdoor sports and events. The Kotler Ice Arena is an important source of income for Victor, Idaho. The local economy is significantly boosted by the influx of out-of-town visitors who come to Victor, Idaho for tournaments and winter events. The visitors who travel to the Kotler Ice arena spend money on lodging and at Victor's gas stations, restaurants, and stores. This encourages local economic development and employment opportunities.

The Kotler Ice Arena contributions include \$1,983,867 in output (sales); \$764,116 in total compensation (wages and salaries), and 20 jobs, including the multiplier effects. Total Kotler Ice Arena operations and participant spending include \$10,193 in annual property tax revenues, and \$31,184 in state sales, excise tax contributions, and income taxes, totaling \$41,376, including the multiplier effects.



Terminology

- **Export activity:** Any product or service whose sales bring money into a community from the outside. Sales of products to firms or consumers in other states are examples of export activity. Other examples include nonresident tourist spending, federal government payments, and income transfers.
- **Sales:** Total dollar transactions from direct, indirect, and induced economic activity.
- **Earnings:** Wage, salary, and other income payments including all fringe benefits to workers.
- **Value-added (gross regional product):** This is a measure of gross domestic product at the local or regional level. Value added is a measure of total net production and activity.
- **Jobs:** Total employment resulting from economic activity. The economic model reports these as full-time and part-time jobs.
- **Indirect taxes:** All taxes generated from economic activity excluding personal and corporate income taxes. These consist of mostly sales taxes and property taxes.
- **Base industries:** Any economic activity that brings money into the local economy from the outside is considered a base industry. For example, Ada County base industries include high-technology companies, medical services, retail services, federal government, and other manufacturing and service firms.
- **Non-base industries:** Any economic activity within a region that supports local consumers and businesses re-circulating incomes generated within the region. These activities include shopping malls that the local population, business and personal services consumed locally, and local construction contracts. Non-base industries support the base industries.
- **Economic contributions:** Economic contributions measure the magnitude or importance of the expenditures of base (export) industries. Our economic model estimates multipliers for each industry. For example, if you have a multiplier of 1.61, every dollar of base expenditures creates \$1.61 dollars of new spending in the community. The total multiplier has three components: direct effects, indirect effects, and induced effects.
- **Direct effects (spending):** This represents the actual sales, income, and jobs from airport operations.
- **Indirect effects:** These are the downstream economic effects on sales, payroll, jobs, and indirect taxes that result from direct spending in the regional economy. For example, an airport purchases community goods and services which supports other area businesses. These firms, in turn, purchase even more goods and services as the effects ripple throughout the economy. They are part of the overall multiplier effects.
- **Induced effects:** These are downstream economic effects of employee and consumer spending on the economy. They are part of the multiplier effects.
- **Full-time equivalent jobs:** The gross number of hours worked in a firm or entity from all employees divided by the maximum number of allowable hours for a single employee in a work year— usually 2,080 hours. The economic model is measuring total full-time and part-time jobs.

Caveats and Limitations

This study was sponsored by the Teton County Foundation. The results and opinions in the study are those of the authors alone (i.e., Steven Peterson etc.) and do not reflect on any associated institutions or the University of Idaho. The authors may be reached for questions or comments at stevenp@uidaho.edu.



Sources

Abelardo Rodríguez, Willem J. Braak, and Philip Watson (2011). "Getting to Know the Economy in Your Community: Automated Social Accounting." *Journal of Extension*, 49(4)

IMPLAN Database and Documentation. IMPLAN Group LLC (2022), <http://www.implan.com/>. Lightcast (formerly Emsi), <http://www.economicmodeling.com/>.

U.S. Department of Commerce, U.S. Census Bureau, On the Map. <http://onthemap.ces.census.gov/>.

U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts. <http://www.bea.gov/regional/>.

U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index. <http://www.bls.gov/cpi/>.

U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Earnings. <http://www.bls.gov/cew/>.