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The Economic Impact of Bell's Iceman Cometh Challenge 2022 Mountain Bike Race

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The Economic Impact of Bell's Iceman Cometh Challenge 2022 Mountain Bike Race

January 2023

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SUMMARY OF ECONOMIC IMPACT

The 2022 Iceman Cometh Challenge mountain bike race is estimated to have generated or supported economic benefits for Grand Traverse County in the following ways:

- 16,569 total visitors, with 88% visiting from outside of Grand Traverse County. Over 36 states and four countries were represented.
- There were 38,047 total visitor days, with 95% coming from nonlocal visitors. These nonlocal visitors spent on average 2.5 days in the Traverse City area.
- Direct spending of all visitors was \$4.7 million, with nonlocal visitors spending \$4.5 million.
- The total economic impact of nonlocal visitors is estimated at \$5.6 million in economic output supporting 47 jobs.
- The total economic impact of all visitor spending and Iceman operational spending is estimated at \$6.7 million in economic output supporting 57 jobs.
- Nonlocal visitors generated approximately \$35,233 in additional tax revenue for Grand Traverse County.

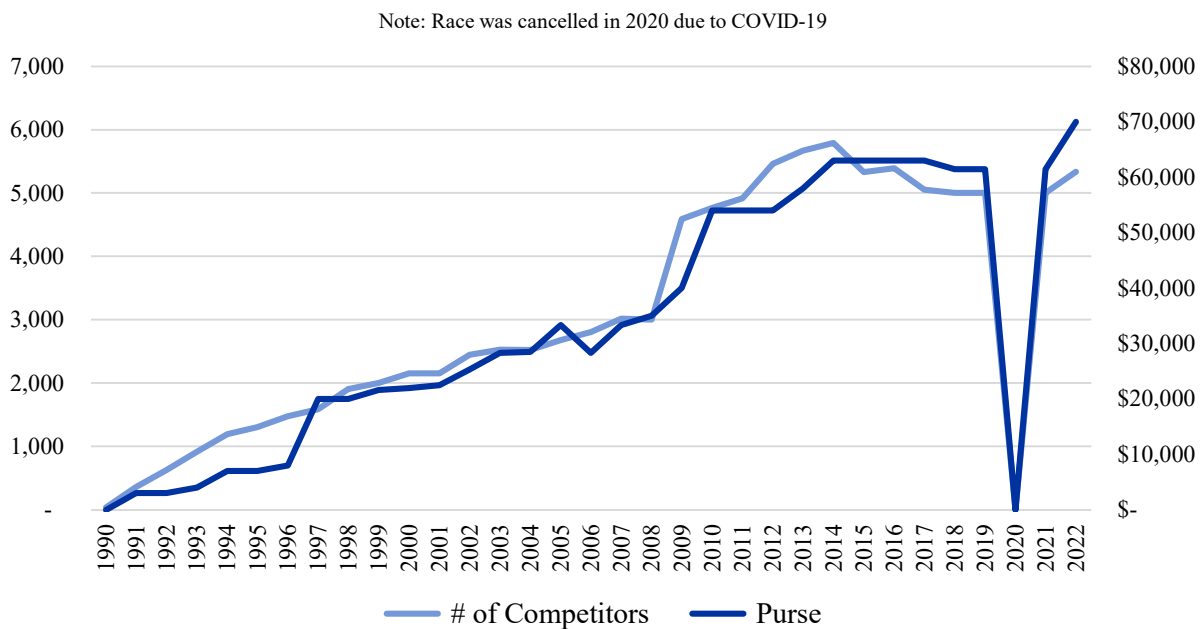
RACE BACKGROUND

The Iceman Come Challenge occurs on the first Saturday in November. The first Iceman Cometh Challenge race occurred in 1990 with 35 race participants. Today, the race enjoys 5,337 race participants with a winner's purse of \$70,000. The race has grown to become the country's largest single-day, point-to-point mountain bike race. The race is managed by the Festival Foundation, which also manages the National Cherry Festival.

These events would not be possible without the support of volunteers and sponsors. Given its reputation, Iceman attracts both local and national brands. Some of these national brands include Bell’s Brewery, Trek, Meijer, Bissell, and Subaru.¹

An integral part of the Iceman mission statement is community involvement. This mission is achieved through donations and volunteer teams supporting trail building and encouraging juniors to get on the trail. In 2021, Iceman donated over \$44,000 back to the community. The race supported area high school sports teams, youth cycling groups, trail-building organizations, biking associations, and nonprofits.²

Figure 1: Participation and Purse Growth 1990-2022



SCOPE OF WORK

This report focuses on the economic contribution (direct, indirect, and induced) the 2022 Iceman Cometh Challenge (Iceman) mountain bike race provides to the Traverse City region. The economic contribution is the amount of economic activity that Iceman generates within a defined region. For the purpose of this report, the local region is defined as Grand Traverse County.

¹ Full list of sponsors can be found at: <https://www.iceman.com/sponsors.aspx>

² Additional race details can be found in Appendix A7: Race Details

This study will quantify the number of visitors to the Iceman, spending patterns by those visitors, and the indirect/induced values as a result of that spending. Every effort is made to exclude substitute spending. This substitute spending may come in the form of local residents participating in the event.

METHODOLOGY

There were two surveys conducted during the research period. Both surveys focused on the visitors and their spending patterns, however one was administered during the Ice Cycle Expo and the other was administered online a week after the race.³ For the Ice Cycle Expo survey, we relied on the Iceman’s volunteer network to administer the survey. Data gathered from both surveys includes zip code, length of visits, party size, spending patterns, general demographics, and other questions regarding the event.

In calculating the economic impact of the Iceman, we only count spending that is directly or indirectly caused by the race. The economic data used is based on nonlocal survey respondents who visited Traverse City for the sole purpose of attending Iceman.

In addition to visitor spending, we also include the operational spending of the Iceman Cometh Challenge in calculating the economic impact. This spending is directly related to organizing and hosting the 2022 event. However, due to the scope of this report, spending by vendors and media is excluded.

The economic impact is estimated using the IMPLAN model. IMPLAN is a regional economic analysis software application that is designed to estimate the impact or ripple effect (specifically backward linkages) of a given economic activity within a specific geographic area through the implementation of its Input-Output model.⁴ This modeling system uses multipliers that provide a way to measure the complete economic impact that the initial change in demand has on the local economy. The results of an input-output model are broken down into three effects:⁵

Direct Effects A set of expenditures applied to the input-output multipliers. The direct effect is often referred to as direct spending or initial change in demand. This direct spending, or initial change in demand, is determined by the researcher or analyst. Applying these initial changes to the multipliers in IMPLAN will then display how a region will respond economically to them

³ More information available in Appendix A2: Survey Details

⁴ Full IMPLAN disclaimer can be found in Appendix A1: IMPLAN Disclaimer

⁵ <https://blog.implan.com/understanding-implan-effects>

- Indirect Effects** Indirect effects are the business-to-business purchases in the supply chain taking place in the economic region that stem from the initial change in demand or direct spending (direct effects). In other words, this is the increase in sales by businesses that are suppliers to restaurants, hotels, retail stores, etc.
- Induced Effects:** Increased economic activity from household spending of labor income, after the removal of taxes and savings. The induced effects are generated by the spending of employees within the business' supply chain.

The IMPLAN model will report economic impact in four ways:⁶

- Output** **Gross output** is the total economic activity, including the sum of intermediate inputs and the value they add to the final good or service. The intermediate inputs are the resources used in the production of final goods and services. It should be noted that gross output can be overstated if the intermediate inputs are used multiple times in the production of other goods and services.
- Labor Income** The increase in wages, salaries, and proprietors' income as a result of the initial change in demand (direct effects).
- Employment** The total number of jobs supported by direct spending or initial change in demand. This measurement does not distinguish between a full-time or part-time employee. It also does not account for employees who moved from one job to another within the defined economic region. Thus it does tend to overstate the number of jobs created.
- Value Added** The contribution to the economic region's gross domestic product (GDP).

In many cases, the findings of the economic impact analysis are rounded to the nearest million to avoid giving the reader a false sense of precision about the results. Readers should keep in mind the figures presented are estimates generated by economic models and not the result of an audit. The intent is not to obscure, but to provide reliable results without misleading the readers as to the overall level of precision

⁶ Expanded definitions can be found in Appendix A1: IMPLAN Disclaimer

VISITOR SURVEYING AND DEMOGRAPHICS

To assess the economic impact of Iceman, we used racer registration data and survey data to determine visitor count, visitor days, and visitor spending.

VISITOR SURVEY

The visitor survey collected the primary economic impact data. There were two surveys conducted during the research period. Both surveys focused on the visitors and their spending patterns, however one was administered during the Ice Cycle Expo and the other was administered online a week after the race. The data from both surveys were combined.⁷

For the Ice Cycle Expo survey, we relied on the Iceman's volunteer network to administer the survey. Data gathered from this survey was limited to zip code, length of visits, party size, spending patterns, and general demographics. There were 312 completed surveys, resulting in 293 usable surveys (after data cleaning).

The online survey was administered a week after the race and ran for three weeks. The survey was emailed to all registered racers, promoted on Iceman's Facebook page, and promoted on an Iceman participant's Facebook page. Data gathered from this survey included zip code, length of visits, party size, spending patterns, general demographics, and specific feedback about the event. The result was 1,225 completed surveys with 951 usable surveys (after data cleaning). This response rate exceeds our targeted 383 completed surveys, with a 95% confidence level, and a 5% margin of error.

The results show attendees from over 36 states and four countries. Figures 2 and 3 show the geographic distribution of the survey respondents within the United States and Michigan. Not shown in these figures are visitors from other countries, which include Canada, Mexico, the United Kingdom, and the Netherlands.

⁷ More information available in Appendix A2: Survey Details

Figure 2: Zip code distribution for the United States

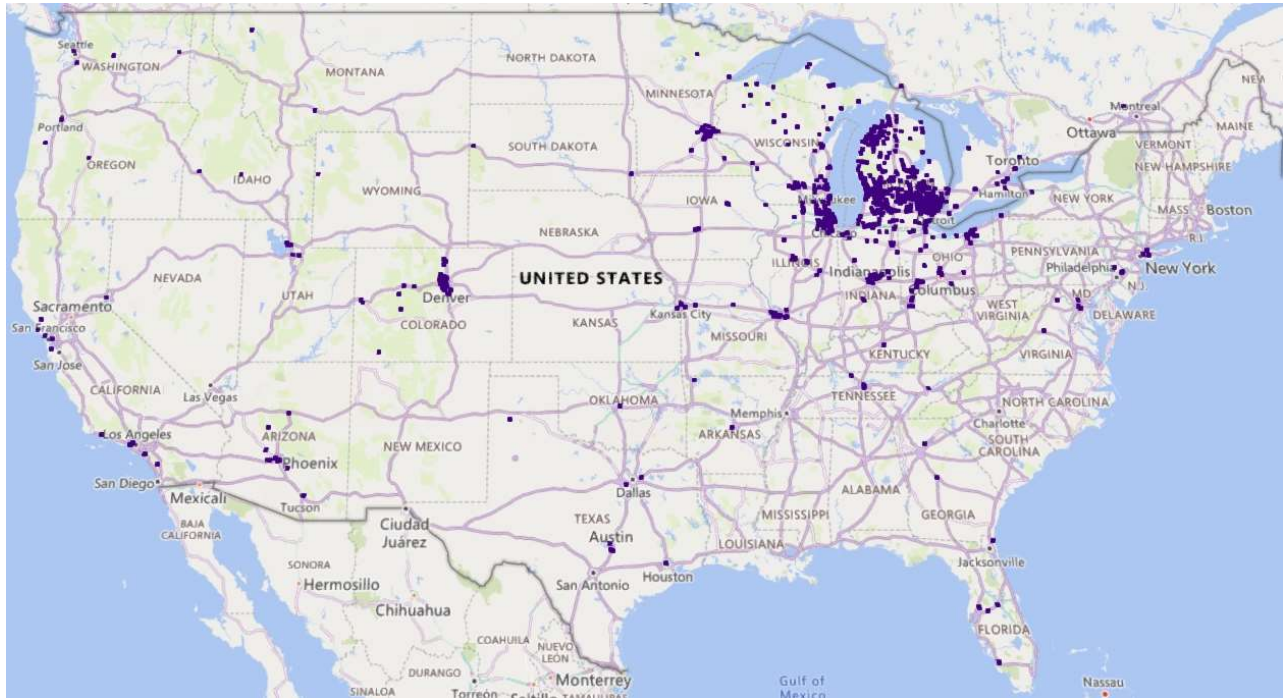
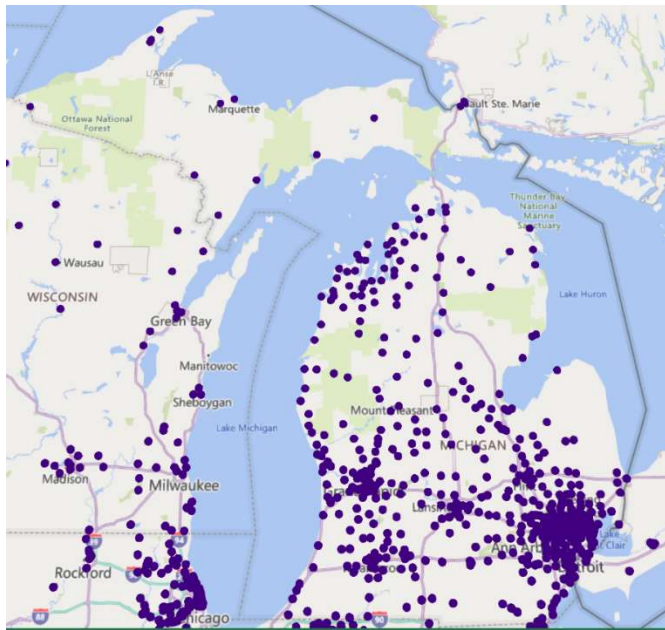


Figure 3: Zip code distribution for Michigan



VISITOR DEMOGRAPHICS

The visitor survey asked general demographic questions. These questions included age, gender, and income. The visitors were also asked if they were aware the Festival Foundation (Iceman) donated over \$44,000 in 2021. The figures below present this data. The online survey asked specific questions about packet pick-up, the start/finish lines, the race course, equipment used, and other event-related questions. These are standard questions asked each year, therefore the responses are not included in this report.

Figure 4: Visitor age distribution

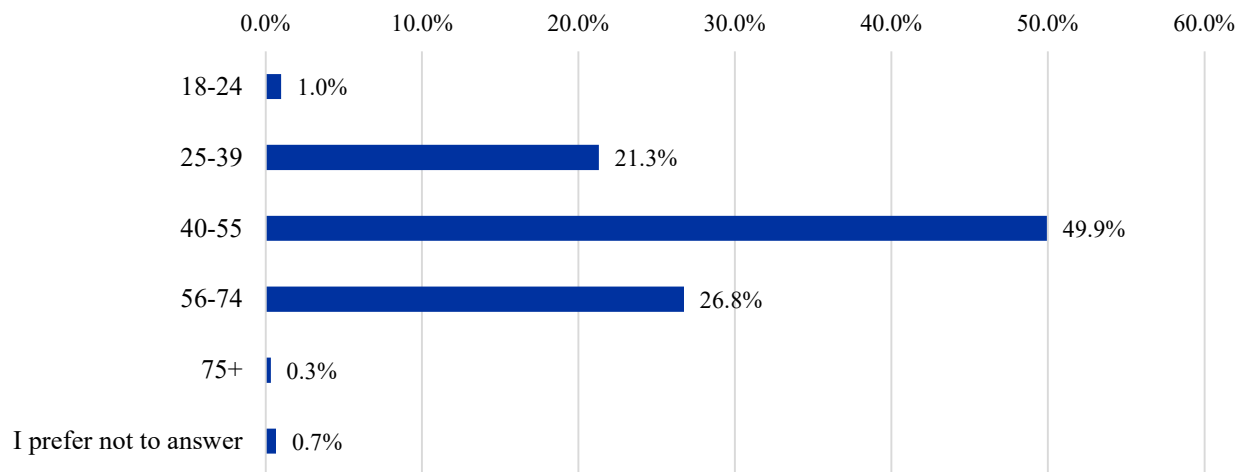


Figure 5: Visitor gender distribution

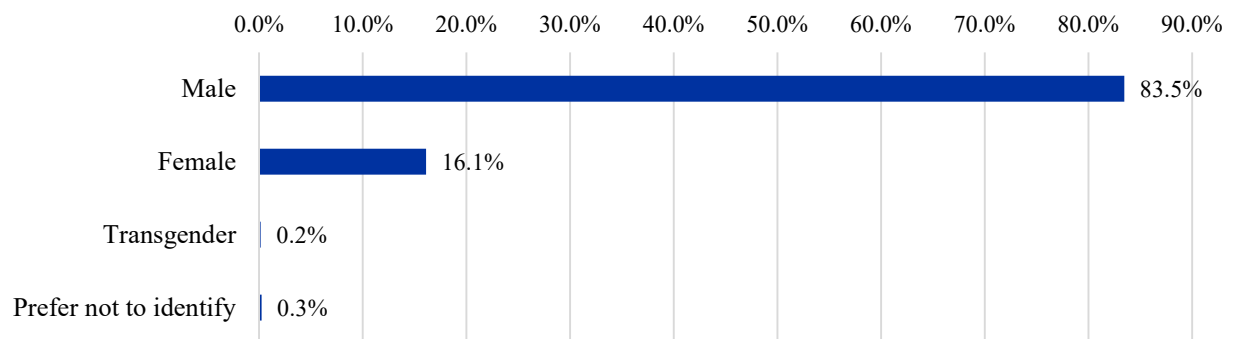


Figure 6: Visitor income distribution

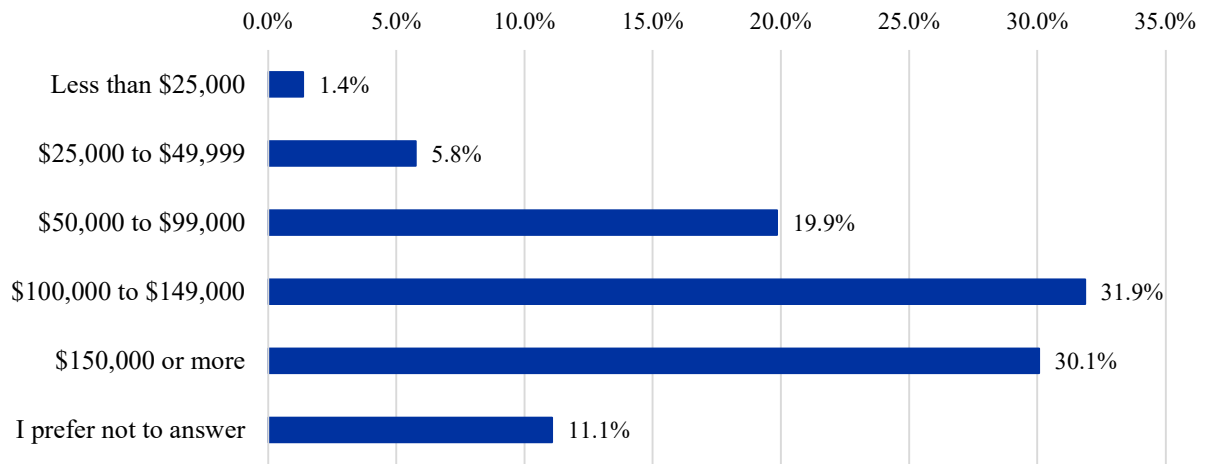
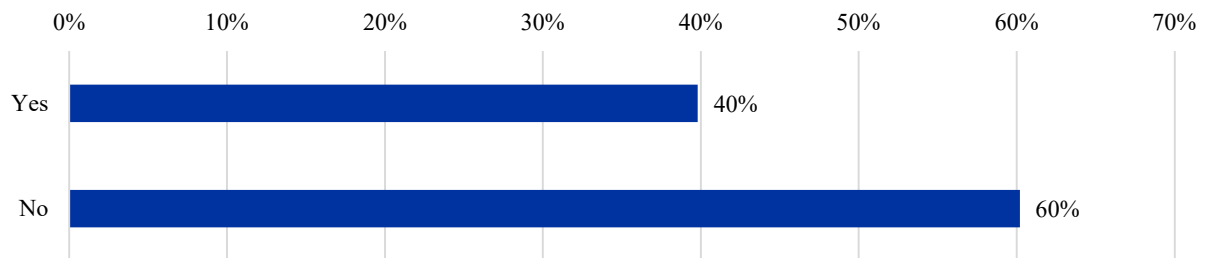


Figure 7: Are you aware The Festival Foundation/Iceman Cometh Challenge gave over \$44,000 in 2021? In addition, the foundation volunteers its equipment, staff, and other assets to assist the community.

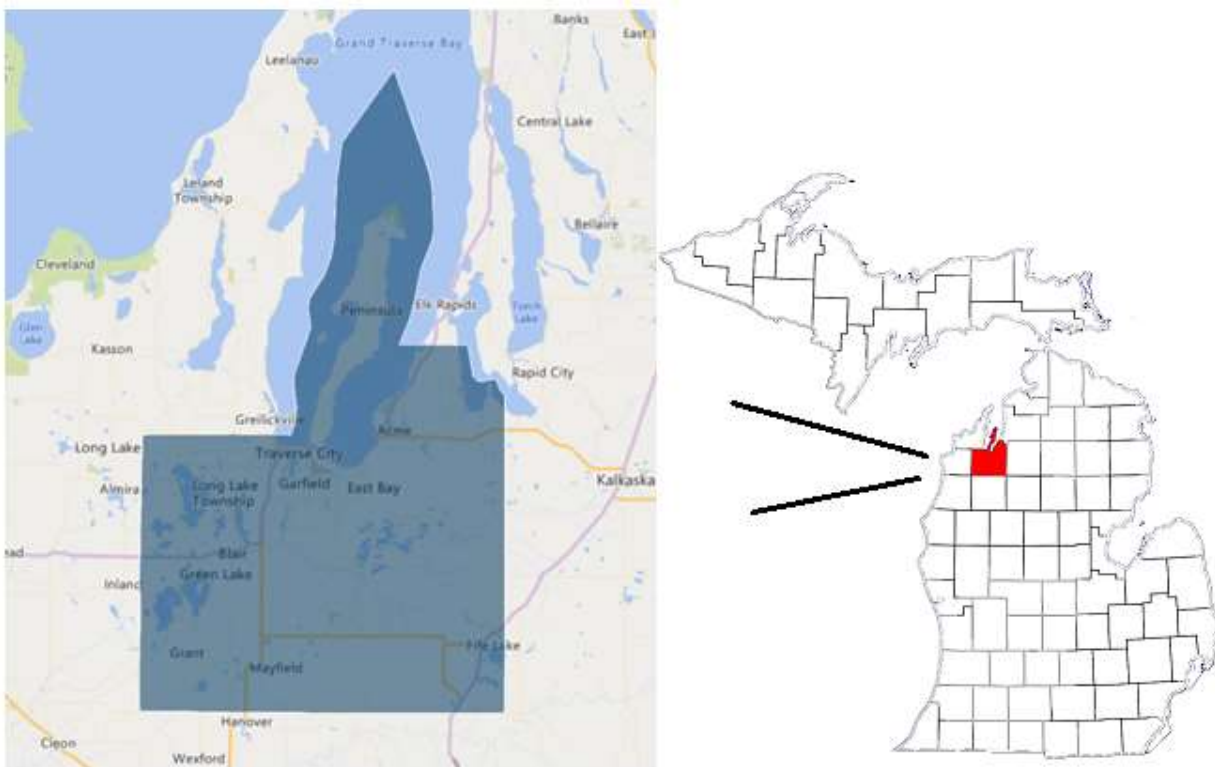




DEFINING THE ECONOMIC REGION

To properly determine who is a visitor to the festival we must first define the local region. For the purpose of this report, we define the local region as Grand Traverse County. We believe this defined region represents a conservative approach to determining the economic impact of Iceman. The downside to using this county is that it does exclude any impact associated with Kalkaska, MI, which is where the race starts. Figure 8 displays the map of the defined economic region. Demographics of this economic region are presented in Appendix A3: Defined Economic Region.

Figure 8: The defined economic region: Grand Traverse County



VISITOR TYPES

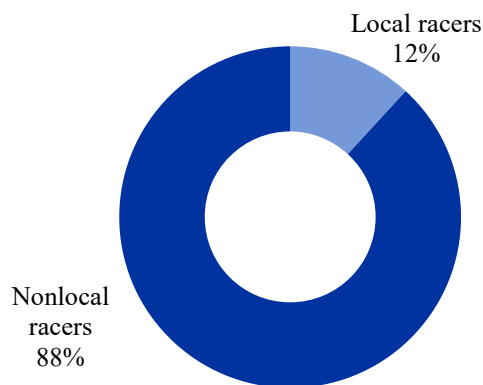
To calculate the economic impact of Iceman we should consider only new spending that occurred specifically because of Iceman. To accomplish this, survey respondents are categorized into three groups:⁸

Local Visitors: Spending by Grand Traverse County residents-local visitors-is not generally counted in the economic impact because the spending would have happened regardless of the race. All survey forms ask for zip codes, which identify the local residents.

Non-Local Visitors: Spending by non-local visitors is the key driver in economic impact studies. These visitors' primary residence must be outside the defined economic region (Grand Traverse) and they must be registered participants of Iceman.

The breakdown of local and nonlocal visitors is presented in Figure 9.⁹

Figure 9: Percentage of local and nonlocal racers



⁸ Crompton, J. L., Lee, S., & Shuster, T. J. (2001). A Guide for Undertaking Economic Impact Studies: The Springfest Example. *Journal of Travel Research*, 40(1), 79-87. doi:10.1177/004728750104000110

⁹ This data is based on registered racer zip codes not survey data.

ESTIMATING THE NUMBER OF VISITORS AND VISITOR DAYS

To measure the economic impact of an event like Iceman it is necessary to have an accurate count of visitors over the week of the event. We used registration information and survey data to estimate the number of visitors and visitor days. Based on this data, we estimate 16,569 visitors with 88% of the visitors originating outside Grand Traverse County. Table 1 presents this information.

Table 1: Total visitors based on visitor type

	All visitors
Local visitors	1,962
Nonlocal visitors	14,607
Total visitors	16,569

The party size was consistent among all visitor types. Nonlocal visitors averaged 3.9 people and local visitors averaged 3.8 people. The survey asked the respondent for the number of days they plan to visit Traverse City. The nonlocal visitors stayed on average of 2.5 days and the local visitor stayed an average of one day. Table 2 presents the party size and number of days visited based on visitor type. Using the data in Table 1 and Table 2, we can estimate the total number of visitor days. Table 3 presents this information.¹⁰

Table 2: Party size and days visited based on visitor type

	Nonlocal visitors	Local visitors
Party size	3.92	3.82
Days visited	2.47	1.00

¹⁰ Detailed methodology can be found in Appendix A4: Estimating the Number of Visitors and Visitor Days

Table 3: Total visitor days based on visitor type

	All visitors
Local visitor days	1,970
Nonlocal visitor days	36,077
Total visitor days	38,047

ECONOMIC EFFECTS



This section will estimate the economic impact of the Iceman visitors. The estimated impacts will be based on data collected from surveys and data provided by Iceman Cometh organizers. The economic impact will be broken into two components: visitor impact and Iceman operational spending impact. This section will also include hospitality rates and the fiscal (tax revenue) impact.

ESTIMATING VISITOR SPENDING

Survey respondents were asked how much their party expected to spend on Meals-Restaurant, Meals-Other, Lodging, Transportation, and Retail Shopping/Other Shopping. The initial spending by visitors is referred to as ‘direct effect’ or ‘direct spending’. The direct spending is calculated as the product of the visitor per-person/per-day spending and total visitor days. It should be noted that the ‘Retail Shopping/Other Shopping’ and ‘Transportation’ category does include retail pricing, thus must be adjusted for retail margins. That is, retail prices will include the cost of manufacturing, the majority of which occurs outside the defined economic region. The estimated economic impact of visitor spending should not include these manufacturing costs. The IMPLAN economic modeling will adjust for retail margins, which in Grand Traverse County are estimated at 43.32% for retail spending (on average) and 11.44% for transportation spending.

ECONOMIC IMPACT OF PRIMARY VISITORS

To determine the economic impact of the Iceman race we should only consider nonlocal spending that occurred specifically because of the event. This will not include local visitor spending because it is assumed that spending would have happened during this period in the absence of Iceman. This method is the most conservative estimate of new spending in the economy.

This method does have a drawback, as it will cause us to local residents who would have spent money in absence of Iceman but ended up spending more as a result of Iceman. Therefore, we will break out local and nonlocal data to provide some context to the overall economic impact.

Based on the survey data, all visitors spent on average \$120.87 per person, per day, with nonlocal primary visitors spending \$124.26 per person, per day (see Figure 10 below). These spending figures result in \$4.7 million in direct spending by all visitors, with approximately 96.2% coming from nonlocal visitors (see Table 4 below).

Figure 10: Average per person, per day spending for primary visitors



Table 4: Total direct spending by visitors

Visitor type	Total Direct Spending
Local visitor	\$176,172
Nonlocal visitor	\$4.5M
All visitors	\$4.7M

This direct spending by visitors leads to indirect and induced spending. For example, a visitor to the area purchases from local retail stores (direct spending). These retail stores must then purchase more supplies from local distributors (indirect spending). Retail store owners and employees receive more income from the spending of visitors, and they spend some of that greater income in the local area (induced spending). The dollar amount and effect on employment of indirect and induced spending can be estimated using the IMPLAN economic modeling software.

A true measure of new spending focuses on nonlocal visitors. Using the IMPLAN model, we estimate their economic impact at \$5.6 million in output, \$1.9 million in earnings, \$3.1 million in value-added (GDP), and support for 47 jobs (see Table 5).¹¹

Table 5: Total economic impact of nonlocal visitors

Nonlocal Primary Visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (Spending)	\$3.5M ¹²	\$1.2M	35	\$2.1M
Indirect Impact	\$1.1M	\$317,000	6	\$504,000
Induced Impact	\$921,000	\$302,000	6	\$523,000
Total Impact	\$5.6M	\$1.9M	47	\$3.1M

Using the IMPLAN model, we estimate the total economic impact of **ALL** (local and nonlocal) primary visitors at \$5.7 million in output, \$1.9 million in earnings, \$3.2 million in value-added (GDP), and support for 49 jobs (See Table 6).¹³

¹¹ Detailed methodology can be found in Appendix A6: Primary Visitor Economic Impact

¹² This is the \$4.5M from Table 4 with retail margins applied.

¹³ Detailed methodology can be found in Appendix A6: Primary Visitor Economic Impact

Table 6: Total economic impact of all (local and nonlocal) visitors

All Primary Visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (Spending)	\$3.7M ¹⁴	\$1.3M	37	\$2.2M
Indirect Impact	\$1.1M	\$329,000	6	\$523,000
Induced Impact	\$953,000	\$312,000	6	\$541,000
Total Impact	\$5.8M	\$1.9M	49	\$3.2M

These impact figures do not include local visitors because it is assumed their spending would have occurred during this period in the absence of Iceman. As mentioned earlier, this assumption does have a drawback, as some locals may have ended up spending more than they would have because of Iceman. The local visitors contributed \$197,000 in economic output, \$66,700 in earnings, \$105,000 in value-added, and support for 2 jobs.

It should be noted that a significant percentage of racers traveled to Traverse City at least one week before the event to pre-ride the course. Per the visitor survey, approximately 28% of the survey respondents traveled to Traverse City to pre-ride the course. The visitor survey also asked if they spent money in select categories during the pre-ride visit. The results are shown in Table 7. Unfortunately, these figures are not included in the impact figures.

Table 7: Percentage of pre-riders who spent money in each category

Spending category	Percentage
Meals	67%
Retail shopping	17%
Lodging	33%
Transportation (gas, etc.)	61%
Other spending	10%

¹⁴ This is the \$4.7M from Table 4 with retail margins applied.

HOTEL OCCUPANCY RATES

The Traverse City Tourism organization provided us with occupancy rates and average daily rates for the week before the festival, the week of the festival, and the week after the festival. This data is presented in Figure 11 and Figure 12. It should be noted that the increase in average daily rates is consistent with inflation rates.¹⁵

Figure 11: Occupancy rates

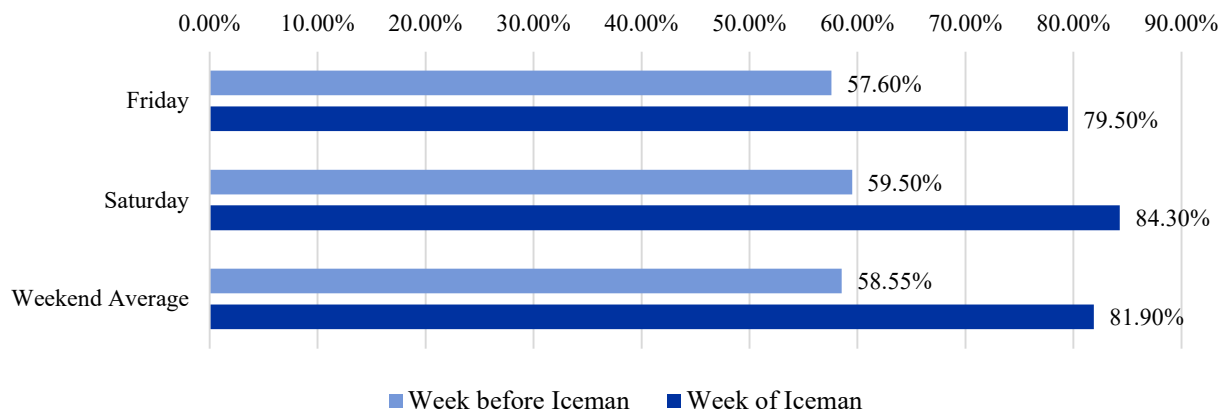
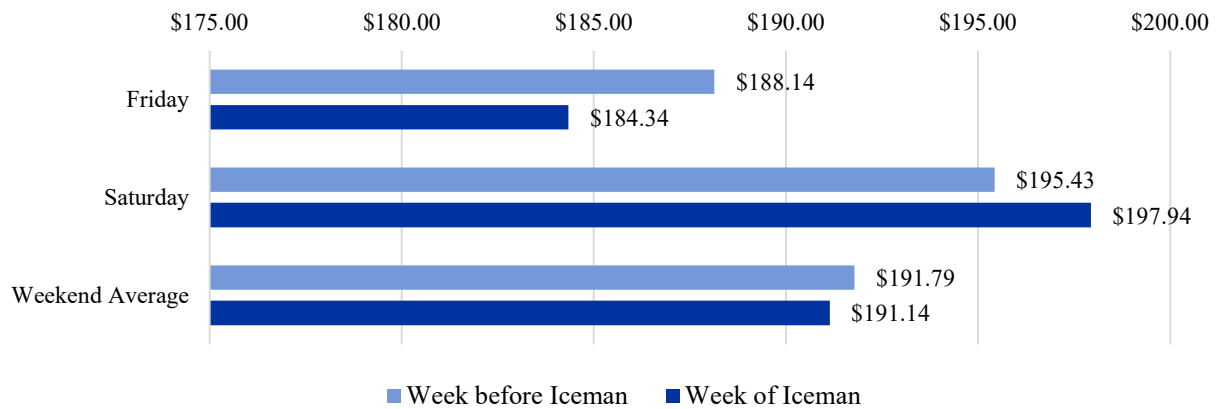


Figure 12: Average daily rate



¹⁵ 2021 rates were not adjusted for inflation. For more information on inflation rates see Appendix A9: Impact of Economic Conditions

ECONOMIC IMPACT OF ICEMAN COMETH CHALLENGE ORGANIZATIONAL SPENDING

Iceman spent \$583,00 organizing and hosting the festival (not including wages and salaries). Approximately 68% (\$397,000) of this money was spent within Grand Traverse County. Iceman's primary sources of revenue come from race entry fees, sponsorships, and vendors.

As shown in Table 8, the local spending by Iceman generates \$307,000 in indirect and induced economic activity, supports 8 jobs, and contributes \$368,000 to the local GDP.

Table 8: Annual economic impact of Iceman operational spending

Operational spending	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (Spending)	\$551,000 ¹⁶	\$154,000 ¹⁷	7	\$217,000
Indirect Impact	\$188,000	\$53,000	.5	\$83,000
Induced Impact	\$119,000	\$39,000	.5	\$67,000
Total Impact	\$858,000	\$246,000	8	\$368,000

FISCAL IMPACT

The increase in economic activity also produces additional tax revenue at the local, state, and federal levels. The IMPLAN economic model estimates these fiscal impacts. The tax at the county and sub-county levels consists of property taxes. At the state level, the majority is sales tax. As shown in Table 9 below, direct spending from nonlocal visitors generated \$35,233 for Grand Traverse County¹⁸. This table is the best representation of “new” tax revenue caused by Iceman.

¹⁶ This amount is the \$397,000 in local spending plus IMPLAN estimated wages and salaries.

¹⁷ IMPLAN estimate for direct wages and salaries based on industry code

¹⁸ Fiscal impact from all primary visitors and casual visitors can be found in Appendix A8: Fiscal Impact

Table 9: Fiscal impact of nonlocal visitors

	Grand Traverse County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	\$28,657	\$29,168	\$101,557	\$274,077
Indirect Impact	\$2,724	\$2,772	\$9,655	\$30,231
Induced Impact	\$3,852	\$3,920	\$13,652	\$39,758
Total Impact	\$35,233	\$35,860	\$124,864	\$344,066

Due to its nonprofit structure, operational spending by Iceman added little to the fiscal impact. A total of \$1,584 in tax revenue for Grand Traverse County, \$1,612 to local municipalities, and \$5,615 to special districts.

CONCLUSION



The Iceman Cometh Challenge mountain bike race occurred Saturday, November 5, and had over 5,000 registered racers. This one-day event attracted over 16,500 visitors, with 88% of these visitors coming from outside Grand Traverse County. These nonlocal visitors stayed on average for 2.5 days and spent \$124 per person, per day.

All visitors spent approximately \$4.7 million at Iceman, resulting in total economic output of \$5.8 million, supporting 49 jobs. Approximately 97% of this economic activity is attributed to nonlocal visitors. Iceman operational local spending of \$397,000 added \$858,000 in economic output and support for 8 jobs. See Table 10 for a summary of the economic impact.

Table 10: Summary of the annual economic impact of visitors and Iceman operational spending

Summary	Direct Spending	Output	Earnings	Jobs	Value-Added (GDP)
All visitors	\$4.7M	\$5.8M	\$1.9M	49	\$3.2M
Iceman Operations	\$397,000	\$858,000	\$246,000	8	\$368,000
Total Impact	\$5.1M	\$6.7M	\$2.1M	57	\$3.6M

The increase in economic activity also produces additional tax revenue at the local and state level. The direct spending by nonlocal visitors generated \$35,233 in tax revenue for Grand Traverse County. The operational spending generated an additional \$1,584 for the county. See Table 11 for a summary of the fiscal impact.

Table 11: Summary of the annual fiscal impact

Summary	County tax revenue	Sub-county: Municipalities	Sub-county: Special Districts	State
Nonlocal visitors	\$35,233	\$35,860	\$124,864	\$344,066
Iceman operations	\$1,584	\$1,612	\$5,615	\$19,133

Our estimated total economic impact likely underestimates the actual impact as the estimate was derived using relatively conservative assumptions and methods. Also, this estimate ignores the impact of spending by vendors and the media. Finally, the measure of the economic impact of Iceman excludes the long-run economic and cultural impacts. Namely, new visitors to Traverse City may return in the future given their positive experience during the Iceman Cometh Challenge. As mentioned earlier, not included in the impact figure are racers who traveled to Traverse City at least one week before the event to pre-ride the course. Per the visitor survey, approximately 28% of the survey respondents traveled to Traverse City to pre-ride the course. [Ω](#)



A1: IMPLAN DISCLAIMER AND DEFINITIONS

IMPLAN is a regional economic analysis software application that is designed to estimate the impact or ripple effect (specifically backward linkages) of a given economic activity within a specific geographic area through the implementation of its Input-Output model. Studies, results, and reports that rely on IMPLAN data or applications are limited by the researcher's assumptions concerning the subject or event being modeled. Studies such as this one are in no way endorsed or verified by IMPLAN Group, LLC unless otherwise stated by a representative of IMPLAN.

IMPLAN provides the estimated Indirect and Induced Effects of the given economic activity as defined by the user's inputs. Some Direct Effects may be estimated by IMPLAN when such information is not specified by the user. While IMPLAN is an excellent tool for its designed purposes, it is the responsibility of analysts using IMPLAN to be sure inputs are defined appropriately and to be aware of the following assumptions within any I-O Model:

- Constant returns to scale
- No supply constraints
- Fixed input structure
- Industry technology assumption
- Constant byproducts coefficients
- The model is static

By design, the following key limitations apply to Input-Output Models such as IMPLAN and should be considered by analysts using the tool:

- **Feasibility:** The assumption that there are no supply constraints and there is a fixed input structure means that even if input resources required are scarce, IMPLAN will assume it will still only require the same portion of production value to acquire that input unless otherwise specified by the user. The assumption of no supply constraints also applies to human resources, so there is assumed to be no constraint on the talent pool from which a business or organization can draw. Analysts should evaluate the logistical feasibility of a business outside of IMPLAN. Similarly, IMPLAN cannot determine whether a given business venture being analyzed will be financially successful.
- **Backward-linked and Static model:** I-O models do not account for forward linkages, nor do I-O models account for offsetting effects such as cannibalization of other existing businesses, diverting funds used for the project from other potential or existing projects, etc. It falls upon the analyst to take such possible countervailing or offsetting effects into account or to note the omission of such possible effects from the analysis.
- **Like the model, prices are also static:** Price changes cannot be modeled in IMPLAN directly; instead, the final demand effects of a price change must be estimated by the analyst before modeling them in IMPLAN to estimate the additional economic impacts of such changes.

The IMPLAN model will report economic impact in four ways:

Output	<p>Gross output is the total economic activity, including the sum of intermediate inputs and the value they add to the final good or service. The intermediate inputs are the resources used in the production of final goods and services. It should be noted that gross output can be overstated if the intermediate inputs are used multiple times in the production of other goods and services.</p> <p>Direct output is the same as the direct effect (direct spending). The indirect output represents the value of economic activity generated because of direct business-to-business spending. Induced output is the total value that all industries take in as a result of household spending.</p>
Labor Income	<p>The increase in wages, salaries, and proprietors' income as a result of the initial change in demand (direct effects).</p> <p>Direct labor income is the total wages, benefits, and payroll taxes associated with the business or organization responsible for the direct effects. Indirect labor income represents the amount of compensation that is supported by the business to business transactions. Induced labor income is the value of employee compensation and proprietor income that comes from the household spending of the employees connected to the business/organization and supply chain.</p>
Employment	<p>The total number of jobs supported by direct spending or initial change in demand. This measurement does not distinguish between a full-time or part-time employee. It also does not account for employees who moved from one job to another within the defined economic region. Thus it does tend to overstate the number of jobs created.</p> <p>Direct employment is the jobs supported at the business or organization responsible for the direct effects. Indirect employment represents the number of jobs that are supported by the business to business transactions. Induced employment is the number of jobs supported by the household spending generated by the business activity.</p>
Value Added	<p>The contribution to the economic region's gross domestic product (GDP).</p> <p>Direct value added is associated with the business or organization responsible for the direct effects. Indirect value added is the specific value generated by the business-to-business transaction as a result of the direct effects. Induced value added is the specific value associated with household spending as a result of the direct effects.</p>

A2: SURVEY DETAILS

To assess the economic impact of Iceman, we collected survey data to determine visitor count, visitor days, and visitor spending. There were two surveys conducted during the research period. Both surveys focused on the visitors and their spending patterns, however one was administered during the Ice Cycle Expo and the other was administered online a week after the race

The visitor survey collected the primary economic impact data. The survey was administered during the Ice Cycle Expo and again online a week after the race. We relied on the Iceman volunteer network to administer the survey during the expo. Respondents had to be 18 years old or older to be included in the survey.

The expo intercept survey resulted in 312 completed surveys and the online survey resulted in 1,225 completed surveys. Data from both surveys were combined, resulting in 1,244 usable surveys. This response rate exceeds our targeted 383 completed surveys, with a 95% confidence level, and a 5% margin of error.

Figure A2-1 presents the visitor's survey as administered at the Ice Cycle Expo. The online survey is similar, however, asked more in-depth feedback questions about the execution of the race. These are standard questions asked each year, therefore the responses are not included in this report.

Figure A2-1: Visitor survey

The image shows a two-page survey form for the Iceman event. The left page contains questions 1 through 8, and the right page contains questions 9 through 14. The survey includes a mix of multiple-choice, checkbox, and fill-in-the-blank questions. A logo for the Iceman event is visible on the left page, and a 'THANK YOU!!' message with the Seidman and Grand Valley State University logos is at the bottom of the right page.

Page 1 (Left):

1. Zip code of home residence? _____
2. Are you at least 18 years old? Yes No (stop here)
3. Are you or somebody in your party racing in the Iceman, Sno-Cone, or Slush Cup? Yes No
4. How many in your party at Iceman? Adults: _____ Children: _____
5. How many days do you plan to spend at Iceman? _____
6. How much does your party expect to spend **EACH DAY** (in the TC area) in each category **as a result** of participating in Iceman? *(Please put \$0 if you plan to spend nothing)*
 - \$ _____ Meals-Restaurant (full service)
 - \$ _____ Meals-Other (Finish Line food, Limited service, Fast Food, Food truck, etc.)
 - \$ _____ Ice Cycle Expo
 - \$ _____ Other Retail Shopping/Other Shopping
 - \$ _____ Lodging (Hotel, Airbnb, etc.)
 - \$ _____ Transportation (gas, parking, Uber, etc.)
7. Did you pre-ride the Iceman course at least one week before the event? Yes No
8. If you did pre-ride the course, did you spend money in any of the following categories within the Traverse City area (check all that apply):
 - Meals Retail shopping Lodging
 - Transportation (gas, parking, etc.) Other spending

Page 2 (Right):

9. What race is the registered racer participating in *(Check for the adult racer, circle for the kid racer)*:
 - Iceman Slush Cup Sno-Cone I'm a spectator
10. How frequently do you participate in Iceman events:
 - First time Number of past Iceman events: _____
11. The Festival Foundation/Iceman Cometh Challenge gave over \$44,000 to charity in 2021. In addition, the foundation volunteers its equipment, staff, and other assets to assist with community events. Were you aware of this? Yes No
12. Gender: Male Female Non-Binary Prefer not to identify
13. Age: _____
14. Which statement best describes your 2022 personal income:
 - \$25,000 or less \$25,001 to \$75,000 \$75,001 to \$125,000 \$125,000+

THANK YOU!!

SEIDMAN | GRAND VALLEY STATE UNIVERSITY

A3: DEFINED ECONOMIC REGION¹⁹

Demographics of Grand Traverse County			
Population	95,860	Education	
Employed population	47,221	High school graduate or higher	95.4%
Median age	43	Bachelor's degree or higher	38.4%
Households	37,939	Income and Poverty	
Persons per household	2.39	Median household income	\$66,457
Persons under 18	19.7%	Per capita income	\$35,705
Persons 65 years and older	21.3%	Poverty rate	10.20%
Female persons	50.5%	Top 5 Employment by industry	
Race		Health Care and Social Assistance	17.5%
White	92.3%	Retail Trade	13.3%
Black or African American	0.9%	Manufacturing	10.1%
American Indian and Alaska Native	1.3%	Accommodation and Food Service	9.5%
Asian	0.8%	Construction	7.9%
Two or more races	2.0%	Top 5 Employment by Occupation	
Hispanic or Latino	3.2%	Sales and Related Occupations	13.2%
Housing		Management Occupations	9.9%
Median house value	225,400	Office & Administrative Support	8.9%
Homeownership rate	76.50%	Health Diagnosing & Treating Practitioners	7.1%
		Food Preparation Services	6.9%

¹⁹ Sources include <https://datausa.io/profile/geo/grand-traverse-county-mi#housing> and <https://www.census.gov/quickfacts/fact/table/grandtraversecountymichigan/HSG860220#HSG860220>

A4: ESTIMATING THE NUMBER OF VISITORS AND VISITOR DAYS

We used the registration data and survey data to estimate local and nonlocal visitors. Table A4-1 shows the registration data and Tables A4-2 and A4-3 walk you through the methodology to estimate the number of visitors and visitor days (for local and nonlocals). Data from these tables were used for Table 1, Table 2, and Table 3 in the main report.

As shown in these tables, we used two methods to estimate the visitor count. The first method used the number of adults per party and children per adult. The second method used average party size. We averaged these two methods to arrive at an estimated visitor count.

Table A4-1: Registration data

	Number	% of all racers
Registered Racers	5337	
Registered racers over 18	4873	91.31%
Registered racers under 18	464	8.69%
Did not pick up their packet	713	13.36%
Did not start the race ²⁰	545	10.21%
Did not finish the race	65	1.22%
Registered zip codes	5,600	
Percentage of zip codes local	11.8%	
Percentage of zip codes nonlocal	88.2%	

²⁰ 1,258 racers did not start, 713 did not pick-up their packet, leaving 545 racers who picked up their packet but did not start.

Table A4-2: Local visitors and visitor days

	Method 1	Method 2	Average
Adult racers	4,873		
Percentage local	11.8%		
Local adult racers	576		
Local racers who did not pick up their packet ²¹	84		
Total local adult racers	492	492	
The average number of adults per party	3.28		
Total adults in the party	1,613		
Children per-adult	.2576		
Average party size		3.82	
Total number of visitors	2,029	1,877	1,953
The average number of days	1.00	1.00	1.00
Estimated number of visitor days	2,029	1,877	1,953

Table A4-3: Nonlocal visitors and visitor days

	Method 1	Method 2	Average
Adult racers	4,873		
Percentage local	88.2%		
Local adult racers	4,297		
Local racers who did not pick up their packet ²²	629		
Total local adult racers	3,668	3,668	
The average number of adults per party	3.53		
Total adults in the party	12,949		
Children per-adult	.1346		
Average party size		3.922	
Total number of visitors	14,692	14,387	14,539
The average number of days	2.47	2.47	2.47
Estimated number of visitor days	36,289	35,535	35,912

²¹ We assumed the same ratio (11.8%) as local racers.

²² We assumed the same ratio (88.2%) as nonlocal racers.

A5: ESTIMATING VISITOR SPENDING

Table A5-1 shows the average spending per person, per day for each type of visitor. Data from these tables were used in Figure 9 in the main report to estimate total direct spending.

Table A5-1: Estimated average spending per person, per day (PPPD)

	Local visitors	Nonlocal visitors	All visitors
Meals-full service restaurant	\$25.73	\$25.96	\$25.93
Meals-other	\$13.28	\$8.78	\$9.20
Other retail spending	\$6.86	\$6.60	\$6.63
Expo spending	\$25.06	\$10.72	\$12.07
Lodging	\$5.26	\$52.40	\$47.99
Transportation	\$5.79	\$16.44	\$15.45
Other spending	\$7.45	\$3.36	\$3.60
Total Average Spending PPPD	\$89.43	\$124.26	\$120.87

Using the average category spending for each visitor type and the number of visitor days, we can estimate total direct spending. Table A5-2 presents the total direct spending (direct effects or direct output) for each category and each type of visitor. Data from this table was used in Table 4 in the main report.

Table A5-2: Estimated total direct spending for each category and each visitor type

	Local visitors	Nonlocal visitors	All visitors
Meals-full service restaurant	\$50,687	\$936,550	\$987,237
Meals-other	\$26,161	\$316,753	\$342,914
Other retail spending	\$13,514	\$238,106	\$251,620
Expo spending	\$49,367	\$386,742	\$436,109
Lodging	\$10,362	\$1,890,418	\$1,900,779
Transportation	\$11,406	\$593,100	\$604,506
Other spending	\$14,676	\$121,218	\$135,894
Total Direct Spending	\$176,172	\$4,482,887	\$4,659,059

A6: ECONOMIC IMPACT OF VISITORS

Per the IMPLAN model, the top five industries impacted by visitor spending are presented in tables A6-1 (output) and A6-2 (employment). These tables are based on all visitors. There is no significant change when focused solely on nonlocal spenders.

Table A6-1: Top five industries impacted by visitor spending stated as a percentage of indirect/induced output and total output.

Category	% of Indirect/Induced Output	% of Total Output
Lodging	0.00%	33.03%
Full-service restaurants	1.61%	17.74%
Food and beverage (not full-service)	5.82%	8.08%
Retail	5.64%	4.76%
Other real estate	11.31%	4.12%

Table A6-4: Top 10 industries impacted by visitor spending stated as a percentage of indirect/induced employment and total employment.

Category	% of Indirect/Induced Employment	% of Total Employment
Lodging	0.00%	31.94%
Full-service restaurants	3.50%	26.51%
Food and beverage (not full-service)	11.31%	10.80%
Retail – Sporting Goods	0.57%	5.51%
Retail shopping - Other	8.71%	5.02%

A7: RACE DETAILS

The 2022 Bell's Iceman Cometh Challenge is a point-to-point mountain bike race held on the first Saturday in November. The race starts at the Kalkaska Airport and finishes thirty miles later at Timber Ridge RV & Recreation Resort on the eastern edge of Traverse City, Michigan.

The course consists primarily of dirt roads, two tracks (the majority of the course), abandoned railroad beds, and the world-famous Vasa Nordic ski trail as it winds through the breathtaking terrain of the Pere Marquette State Forest in Northern Lower Michigan.²³

The Meijer Slush Cup offers beginning riders a half-frozen version of the Bell's Beer Iceman. Approximately 8 miles long, the Slush Cup starts at Timber Ridge Resort, follows the Vasa 10K ski trail, and then merges with the Bell's Beer Ice-man trail before winding up back at Timber Ridge Resort. The Meijer Sno-Cone is geared for riders 10 & under who want to discover the thrill of bike racing. Each participant receives a medal and number plate.

Schedule of events:

FRIDAY, NOVEMBER 4, 2022

10:00 AM – 9:00 PM Packet Pick-up, Grand Traverse Resort & Spa

11:00 AM – 9:00 PM Concessions Open, Grand Traverse Resort & Spa

10:00 AM – 9:00 PM Ice Cycle Expo, Grand Traverse Resort & Spa

SATURDAY, NOVEMBER 5, 2022

9:00 AM Bell's Beer ICEMAN START, Kalkaska Airport

9:00 AM Meijer SLUSH CUP START, Timber Ridge

10:00 AM Food Trucks Open, Timber Ridge

2:00 PM Sno-Cone Packet Pick-up, Timber Ridge

2:30 PM Bell's Beer ICEMAN START – PROs, Kalkaska Airport

3:00 PM MEIJER SNO-CONE START, Timber Ridge

²³ Additional information can be found in the Iceman Gazette:
https://www.dropbox.com/s/bkrxhiu72d5ec0j/2022_IcemanGazettev3_nobleed.pdf?dl=0

Race route:

