University of Minnesota Extension

DEPARTMENT OF COMMUNITY DEVELOPMENT

Economic contribution of 2024 Grandma's Marathon weekend

A report of the Economic Impact Analysis program

Presented by Brigid Tuck and John Bennett

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October 2024

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Table of contents

Authored by Brigid Tuck and John Bennett, October 2024

Executive summary: Economic contribution of 2024 Grandma's Marathon weekend

Grandma's Marathon. The iconic marathon's name is instantly recognizable within running communities across Minnesota, the nation, and even the world. Launched in 1977, the marathon course follows Scenic Route 61, hugging the curves of Lake Superior. With a starting line in picturesque Two Harbors, the race ends in Duluth, offering runners and fans the full experience of Minnesota's North Shore in June.

In 2024, 17,942 people lined up to start at least one of the three events. Both the full marathon and 5K set records with the largest race fields in history, and the half-marathon hosted the second largest field on record. Along with racers come friends, family, and spectators, filling Duluth area hotels and campgrounds, dining out at local restaurants, and taking advantage of the recreational amenities of northeast Minnesota.

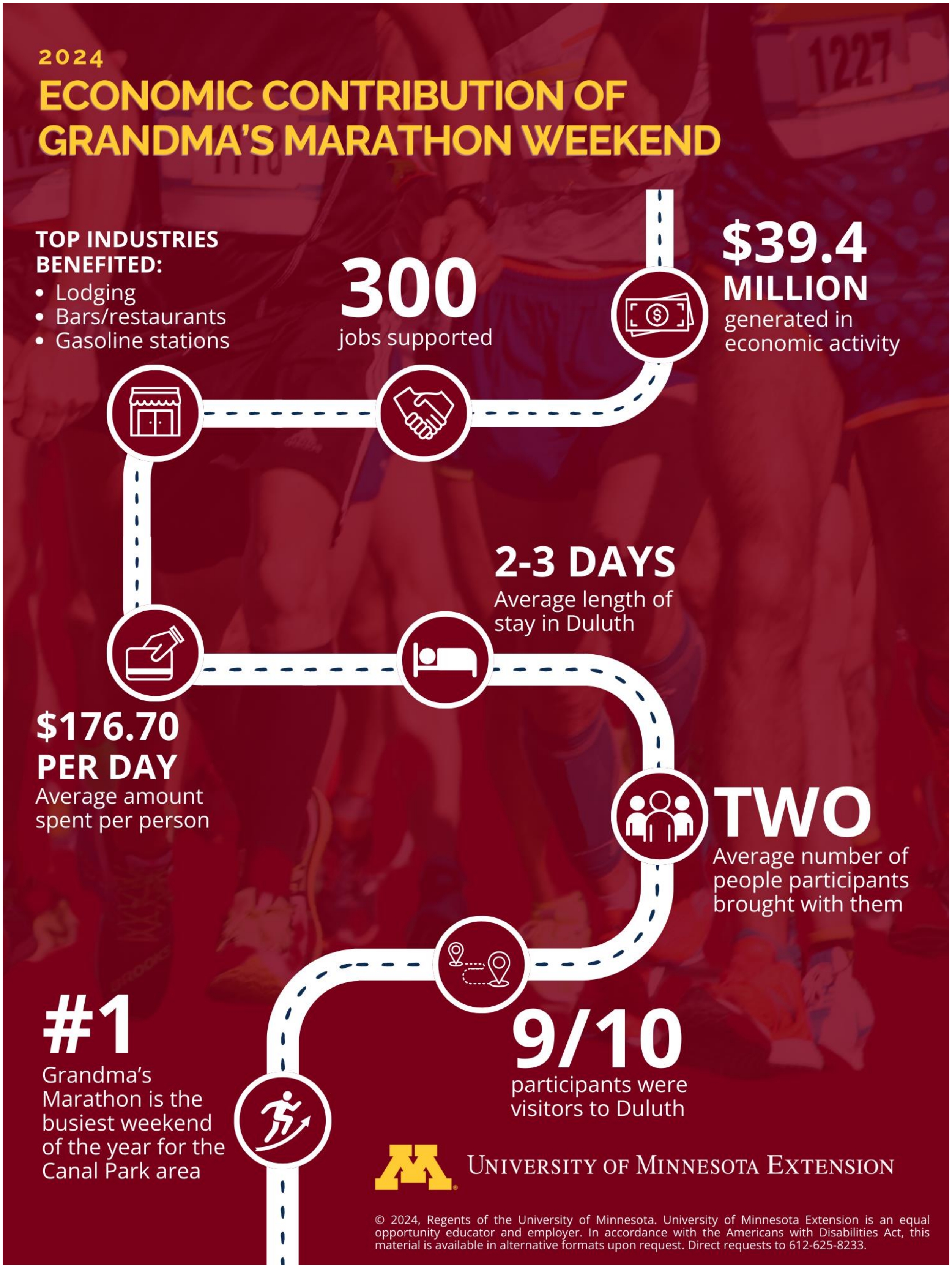
As they do these things, racers and their travel parties spend money in the region. Grandma's Marathon event organizers were interested in understanding the economic contribution of the events. University of Minnesota Extension conducted an economic contribution analysis. From the analysis, Extension drew the following conclusions.

Grandma's Marathon and associated events generated significant economic activity in the region.

- In 2024, Grandma's Marathon and events generated $39.4 million in economic activity.
- The events created $13.6 million in labor income for the 300 jobs supported by the event.
- On average, each person in Duluth for the events spent $176.70 per day.
- Hotels and motels, bars and restaurants, and gasoline stations directly benefited the most from the events.
- The real estate and utilities industries, which are not usually visited by runners, received the highest indirect and induced benefits from the events.

Grandma's Marathon and associated events contributed to Duluth's tourism economy.

- Grandma's Marathon weekend was the busiest weekend of the year for the Bayfront Park and Canal Park areas of Duluth, according to mobile analytics data.
- Nearly nine out of every 10 participants in Grandma's Marathon events were visitors to Duluth.
- On average, each participant brought between two and three people with them for the weekend.
- People generally were in Duluth for two to three days as part of the events.


2024
ECONOMIC CONTRIBUTION OF
GRANDMA'S MARATHON WEEKEND
TOP INDUSTRIES BENEFITED:
• Lodging
• Bars/restaurants
• Gasoline stations
300
jobs supported
$39.4 MILLION
generated in economic activity
2-3 DAYS
Average length of stay in Duluth
$176.70 PER DAY
Average amount spent per person
TWO
Average number of people participants brought with them
#1
Grandma's Marathon is the busiest weekend of the year for the Canal Park area
9/10
participants were visitors to Duluth
University of Minnesota Extension
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Project overview

Grandma's Marathon. The iconic marathon's name is instantly recognizable within running communities across Minnesota, the nation, and even the world. Launched in 1977, the marathon course follows Scenic Route 61, hugging the curves of Lake Superior. With a starting line in picturesque Two Harbors, the race ends in Duluth, offering runners and fans the full experience of Minnesota's North Shore in June.[1]

From 150 marathon runners its first year, Grandma's Marathon has grown to a full weekend of events, including three road race options. Friday evening, participants can run the William A. Irvin 5K. Saturday races include the full Grandma's Marathon and the Garry Bjorklund Half Marathon.

In 2024, 17,942 people lined up to start at least one of the three events. Both the full marathon and 5K set records with the largest race fields in history, and the half-marathon hosted the second largest field on record. Along with racers come friends, family, and spectators, filling Duluth area hotels and campgrounds, dining out at local restaurants, and taking advantage of the recreational amenities of northeast Minnesota.

As they do these things, racers and their travel parties spend money in the region. Grandma's Marathon event organizers were interested in understanding the economic contribution of the events. University of Minnesota Extension conducted an economic contribution analysis. This report is a summary of the results.

Participant survey

As a first step to quantify the economic contribution of the events, Extension, in partnership with Grandma's Marathon, surveyed participants. Grandma's Marathon organizers annually send an evaluation survey to participants following the events. For the 2024 survey, Grandma's Marathon added a set of questions designed by Extension.

In total, the survey received 1,983 responses, for an overall response rate of 11 percent. The number of responses gives a confidence level of 95 percent with a 3 percent sampling error.

Economic contribution

Economic contribution is comprised of direct, indirect, and induced effects. The direct effect is the spending directly related to the activity itself. In this case, it is the spending by participants in Grandma's Marathon events and their travel parties, as well as spending to host the events. Indirect and induced effects are the impacts on other businesses due to the direct spending.

Indirect impacts relate to the supply chain. For example, a visitor buys dinner at a local restaurant. That restaurant, in turn, makes purchases from its food supplier, from the local utility for electricity, and so forth. Those businesses then increase their production, demanding more from their suppliers, and so forth. Induced impacts relate to the spending of income. A restaurant worker earns income, which they then spend on housing, health care, and food, and thus increasing activity on those supply chains.

Direct effect

The first step of an economic contribution analysis is to measure the direct effect. For participants in Grandma's Marathon events, the direct effect is their total spending while in the Duluth area. To

[1] Outdoor Guide. (2023, April 10). *A brief history of Grandma's Marathon in Duluth, Minnesota*. Duluth Pack. https://www.duluthpack.com/blogs/a-brief-history-of-grandmas-marathon-in-duluth-minnesota/

quantify total spending, Extension needed two pieces of information: an estimate of daily spending per person and the total number of participants.

Daily per person spending

Survey respondents were asked to estimate how much they spent while in the Duluth area. On average, participants in Grandma's Marathon and its associated events, along with their travel parties, spent $176.70 per person, per day (Table 1). Participants reported spending the highest amounts on lodging, dining out, and transportation.

Table 1: Grandma's Marathon Events, Average Spending Per Person, Per Day, 2024

Category	Value
Lodging	$92.00
Dining out	$30.00
Transportation	$20.00
Expo merchandise	$10.20
Running merchandise outside of expo	$8.80
Groceries	$7.50
All other retail	$5.20
Entertainment/recreation	$2.50
Other	$0.50
Total	**$176.70**

Number of participants

In 2024, 17,942 people participated in Grandma's Marathon and its related events. On average, for each participant, there were 1.7 other people traveling with them, for a total party size of 2.7 people. Thus, Grandma's Marathon and events brought an estimated 49,101 participants and spectators to Duluth in 2024 (Table 2). Most participants were visitors to Duluth and spent an average of 2.5 days in the area.

Table 2: Grandma's Marathon Events, Participant Statistics, 2024

Category	Value
Average travel party size	2.7
Average nights in the region	2.5
Percent who are visitors to Duluth	88%
Percent who stayed overnight	90%
Number of starters	17,942
Estimated number of attendees (participants plus travel parties)	49,101

Total direct spending

In 2024, race participants and attendees spent an estimated $21.9 million in the Duluth area (Table 3). This includes $11.4 million on lodging, $3.6 million on dining out, and $2.5 million on transportation.

Table 3: Grandma's Marathon Events, Direct Effect, 2024

Category	All races
Participant and Travel Party Spending	
Lodging	$11,360,680
Dining	$3,634,740
Transportation	$2,523,010
Expo merchandise	$1,240,280
Running merchandise outside of expo	$1,011,810
Groceries	$969,110
All other retail	$726,410
Entertainment/recreation	$377,220
Other	$58,850
Total participant and travel party	$21,902,110
Grandma's Marathon spending	$3,489,500
Total Direct Effect	**$25,391,610**

The second component of the direct effect is spending by event organizers. Grandma's Marathon staff provided Extension with their budget for the 2024 event. In total, the organization spent $3.5 million to host the events.

Thus, the total direct effect of the 2024 Grandma's Marathon and events was $25.4 million.

Indirect and induced effects

Extension used the input-output model IMPLAN to measure the economic contribution of events associated with Grandma's Marathon. Input-output models capture the flow of goods and services within an economy. Once the pattern is established, the model can show how a change in one area of the economy (say consumer spending) affects other parts of the economy (such as real estate and health care). For purposes of this analysis, the region is St. Louis County.

Economic impact terms

Direct effect: initial change

Indirect effect: business-to-business impacts

Induced effect: consumer-to-business impacts

Total economic contribution

In total, the 2024 Grandma's Marathon and its events generated $39.4 million in economic activity in the region (Table 4). This includes $13.6 million of labor income. The events supported 300 jobs.

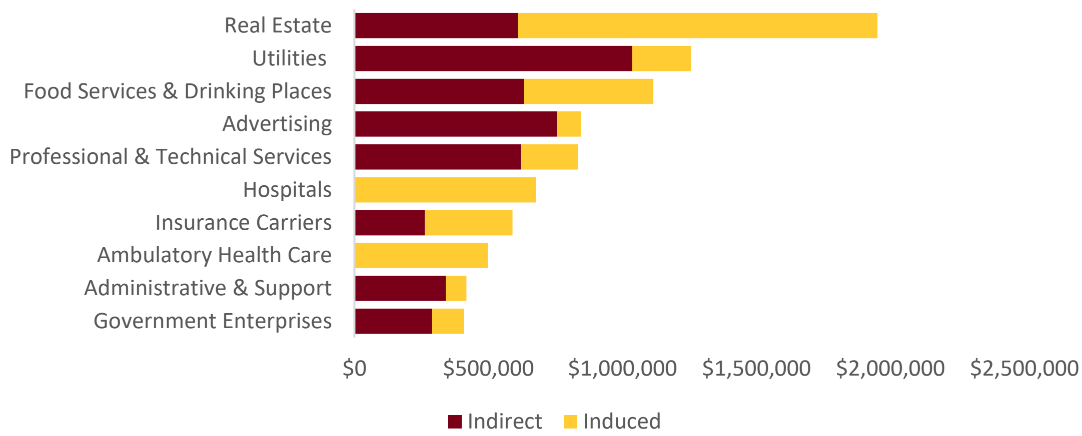
Table 4: Total Economic Impact, Grandma's Marathon Events, Duluth 2024

Category	Output	Employment	Labor Income
Direct	$25,391,610	220	$9,599,340
Indirect	$7,020,320	40	$1,788,760
Induced	$7,020,750	40	$2,187,620
Total	**$39,432,680**	**300**	**$13,575,720**

Grandma's Marathon and related events generated $25.4 million of spending directly by race participants, their travel parties, and event organizers. This created $14.0 million in economic activity at businesses not directly visited by event participants.

The top industries that benefitted from the indirect and induced effects of the marathon events include real estate, utilities, and food and drinking places (Chart 1). Real estate has both indirect and induced effects. Restaurants, for example, pay rent to occupy their spaces. This is an indirect effect on the real estate industry. At the same time, restaurant workers, who assist marathon events participants, use their wages and tips to pay their rents and mortgages, which are the induced effects of the real estate industry. Similarly, businesses and workers use utilities.

Chart 1: Top Industries Affected, Indirect and Induced Effects, Grandma's Marathon Events, Duluth 2024



Insights from survey data and mobile analytics

Beyond economic contribution, the survey results can provide insights into Grandma's Marathon's role in Duluth's tourism industry. Further, mobile analytics data help show the influence of the events.

Extension has a subscription to the Placer AI mobile analytics database. This database provides insights into visitor patterns based on cell phone location data.

The first step of pulling data from Placer AI is to define the geographic location for analysis. As shown in Map 1, Extension drew a polygon around Bayfront Park and the Canal Park area, leaving out the Duluth Entertainment Convention Center (DECC).

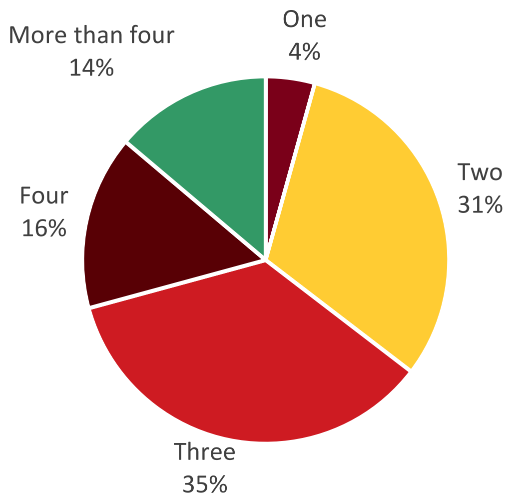
Map 1: Grandma's Marathon Finish Line Route Used in Placer AI

This next section of the report highlights insights from the survey and mobile analytics data.

Grandma's Marathon and the tourism industry

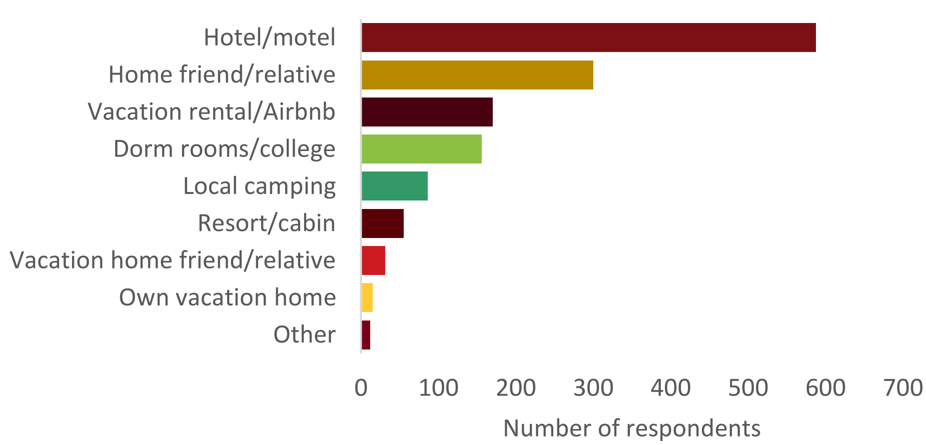
Grandma's Marathon and its events drew people to the Duluth region for longer than race day (Chart 2). More than two-thirds of participants were in the region for two or three days.

Chart 2: Number of Days in Duluth Area for Grandma's Marathon Events, 2024



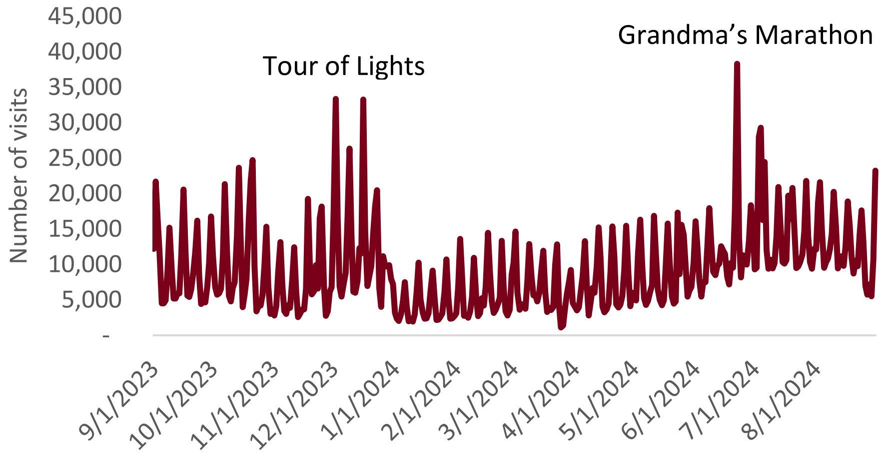
The marathon and events also drove hotel stays. Forty-two percent of participants reported staying overnight in a hotel or motel (Chart 3). Other common accommodation options included staying at the home of a friend/relative or using a vacation rental (VRBO/Airbnb).

Chart 3: Type of Accommodation, Grandma's Marathon Events, Survey Respondents



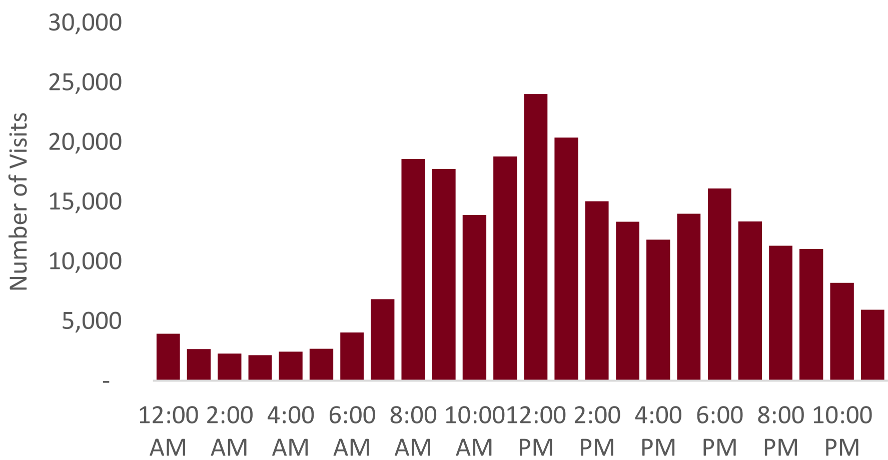
Grandma's Marathon and its related events drove the busiest week for the Bayfront Park and Canal Park areas in the last 12 months (Chart 4). Other popular times include the Bentleyville "Tour of Lights" weeks and the 4th of July weekend.

Chart 4: Number of Visits by Week, Grandma's Marathon Finish Line Route, 2024, Source: Placer AI



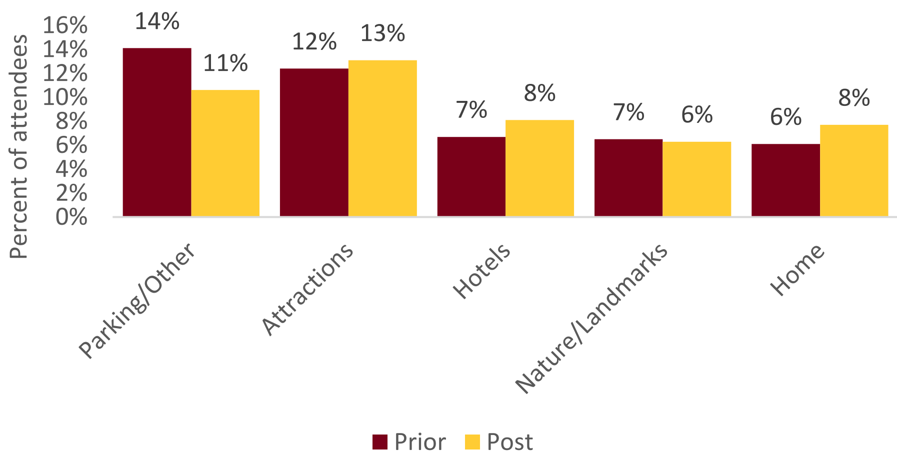
Grandma's Marathon and events drew people to the area throughout the day with a peak around noon (Chart 5). This chart includes all three days of the event.

Chart 5: Number of Visits by Hour, June 21-23, 2024, Grandma's Marathon Finish Line Route



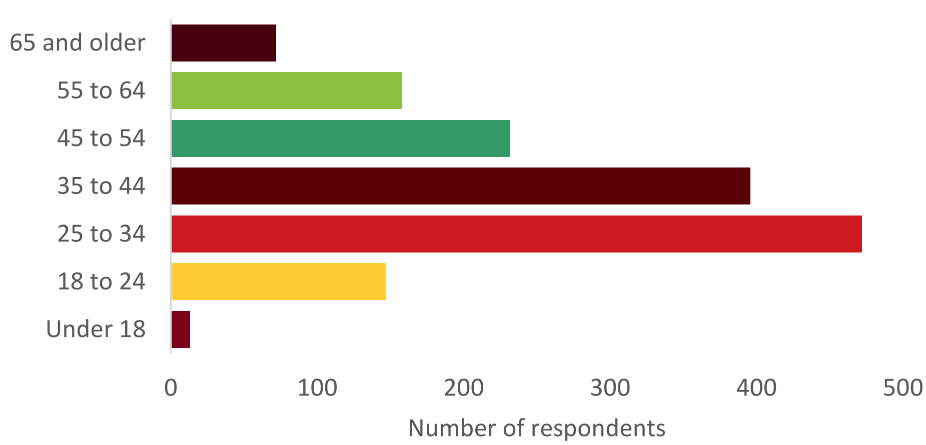
The Placer AI data can also provide an understanding of travel patterns. Chart 6 shows the location of people in the Bayfront and Canal Park areas before and after they enter the area. Not surprisingly, many people come from parking areas (such as the DECC parking lot) or other locations (which might include those staying at campus locations). The data also shows people are visiting Duluth area attractions and nature/landmarks.

Chart 6: Grandma's Marathon Event Attendees, Prior and Post Event, 2024



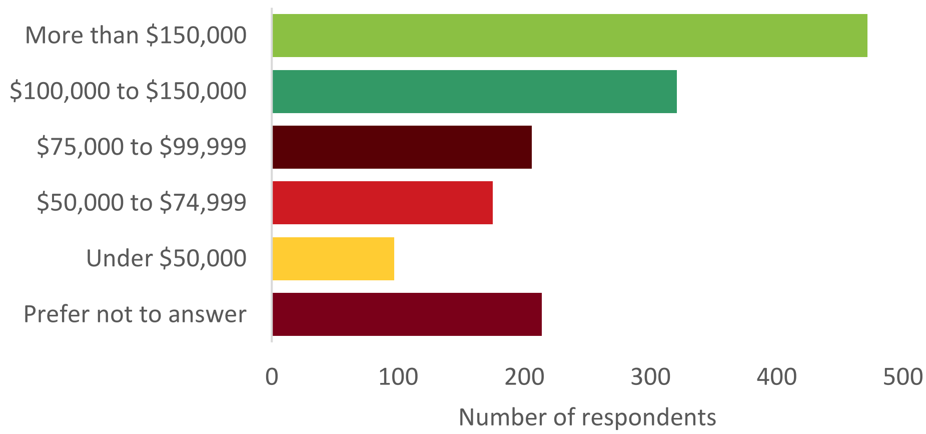
Grandma's Marathon and related events attracted a diverse group of participants. The highest number of participants were in the 25-to-34 age group, but there were participants across all age groups (Chart 7).

Chart 7: Age, Grandma's Marathon Events, Survey Respondents, 2024



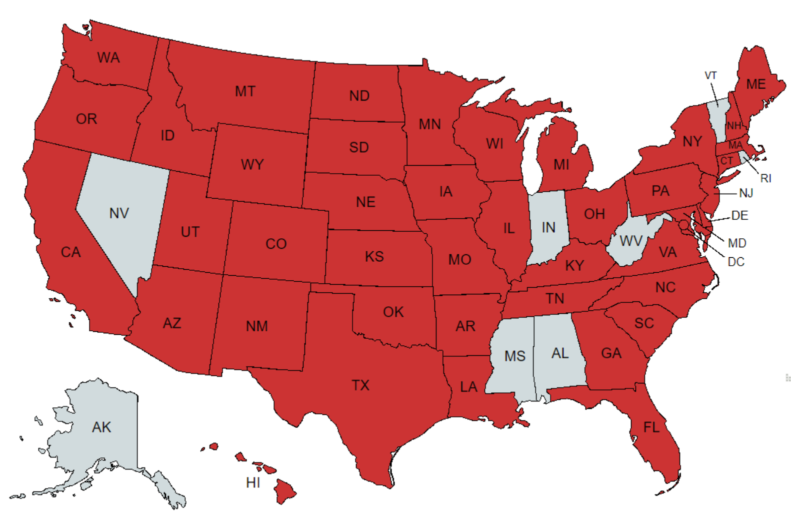
Participants also reported a variety of household incomes (Chart 8). While the highest number of participants reported incomes of more than $150,000, that group represented less than one-third of all respondents.

Chart 8: Household Income, Grandma's Marathon Events, Survey Respondents, 2024



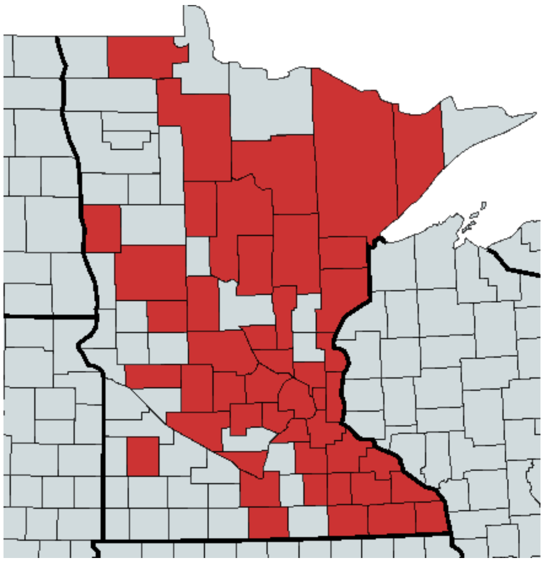
Survey respondents travelled to Duluth from 43 of the 50 states, plus the District of Columbia (Map 2).

Map 2: States with Survey Respondents, Grandma's Marathon Events, 2024



Further, survey respondents came from across Minnesota, representing 47 of Minnesota's 87 counties (Map 3).

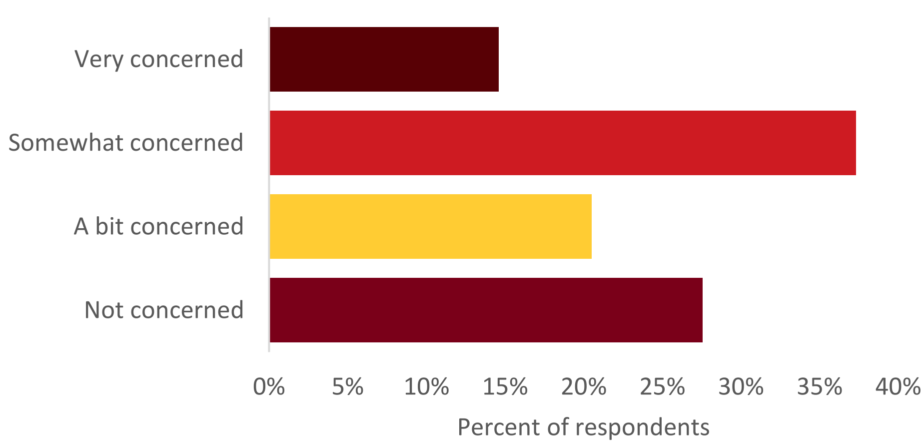
Map 3: Minnesota Counties with Survey Respondents, Grandma's Marathon Events, 2024



Grandma's Marathon and weather cancellations

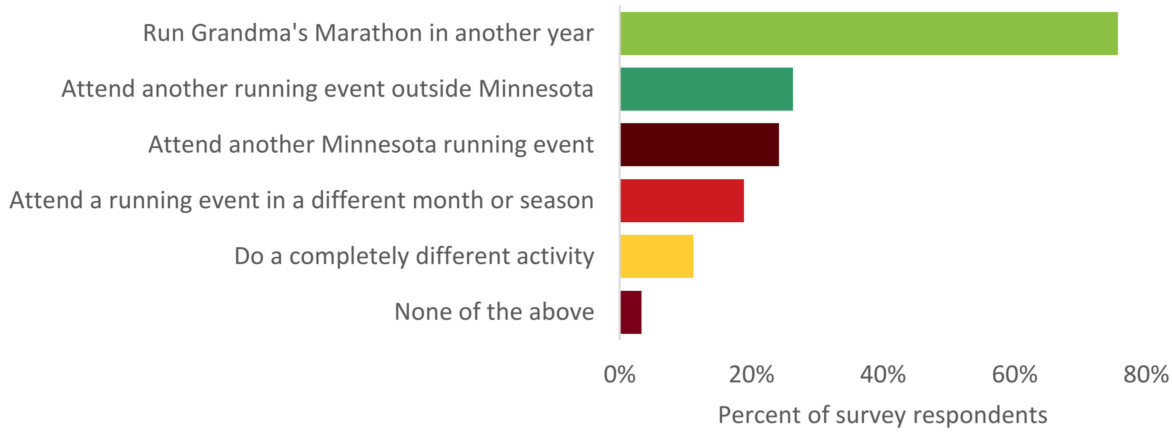
The cancellation of the 2023 Twin Cities Marathon reminded race organizers and racers alike of the potential impact of extreme weather events. More than half of the survey respondents from Grandma's Marathon and events indicated they were "somewhat" or "very" concerned about the potential impact of extreme weather on the events (Chart 9). More than one in every four of the survey respondents were "not concerned" about the impact of extreme weather.

Chart 9: Concern About the Impact of Extreme Weather on Events, Grandma's Marathon Survey Respondents, 2024



If Grandma's Marathon and its related events were to be cancelled due to extreme weather, participants would react in a variety of ways. The majority (76 percent) would plan on running a Grandma's Marathon event the next year (Chart 10). This indicates a strong loyalty to the event.

Chart 10: Expected Reaction to the Potential Cancellation of Grandma's Marathon Events due to Extreme Weather, Survey Respondents, 2024



Comparison to 2019 economic contribution study

University of Minnesota Extension completed an economic contribution study for Grandma's Marathon and associated events in 2019. That study found that Grandma's Marathon weekend contributed $20.6 million to the area economy. The 2024 study, by comparison, shows a contribution of $39.4 million.

The primary reason for the increase is that participants reported spending more per travel party in 2024 ($1,239) as compared to 2019 ($778). As measured in percentage change, areas with the highest spending growth included lodging, transportation, and running-related retail. There was also an increase in the average number of people per travel party, indicating more spectators are accompanying the runners.

These trends are largely consistent with changes in the economy following the COVID-19 pandemic. People are embracing opportunities to travel and spend time with family and friends. In addition, the pandemic led to inflationary pressures, with overall inflation rising 23 percent between June 2019 and June 2024. In Minnesota, the price of gas in the third week of June in 2024 was 25 percent higher than the same time period in 2019.

Appendix 1: Definitions and terms

Input-output terms

Special models, called input-output models, exist to conduct economic impact analysis. There are several input-output models available, and IMPLAN is one such model. Many economists use IMPLAN for economic contribution analysis because it can measure output and employment impacts, is available on a county-by-county basis and is flexible for the user. While IMPLAN has some limitations and qualifications, it is one of the best tools available to economists for input-output modeling. Understanding the IMPLAN tool's capabilities and limitations helps ensure the best results from the model.

One of the most critical aspects of understanding economic impact analysis is the distinction between the "local" and "non-local" economy. The model-building process identifies the local economy. Either the group requesting the study, or the analyst defines the local area. Typically, the study area (the local economy) is a county or a group of counties that share economic linkages. In this report, the study area is St. Louis County.

A few definitions are essential to properly interpret the results of an IMPLAN analysis. These terms and their definitions are provided below.

Output

Output is measured in dollars and is equivalent to total sales. The output measure can include significant "double counting." Think of food sold at a restaurant, for example. The value of food (say, beef) is counted when it is sold from the farmer to the food manufacturing company, again when the food item (say, a hamburger patty) is sold to the wholesaler, and yet again when the restaurant sells it as a hamburger to an Grandma's Marathon participant. The value of the beef is built into the price of each of these items, and then the sale of each item is added to determine total sales (or output).

Employment

IMPLAN includes total wage and salaried employees, as well as the self-employed, in employment estimates. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric (no inflation).

Labor income

Labor income measures the value added to the product by the labor component. So, in the beef/hamburger example, when the beef is sold to the food manufacturing company, a certain percentage of the price is for the farmer's labor to raise the cow. Then when the hamburger is sold to the restaurant, it includes some markup for its labor costs in the price. When the restaurant sells it to a Grandma's Marathon participant, he/she includes a value for the labor. These individual value increments for labor can be measured, which amounts to labor income. Labor income does *not* include double counting.

Labor income includes both employee compensation and proprietor income. It is measured as wages, salaries, and benefits.

Direct impact

Direct impact is equivalent to the initial activity in the economy. In this study, it is spending by Grandma's Marathon and associated event participants, their travel parties, and event organizers.

Indirect impact
Indirect impact is the summation of changes in the local economy that occur due to spending for inputs (goods and services) by the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, this implies a corresponding increase in output by the plant. As the plant increases output, it must also purchase more inputs, such as electricity, steel, and equipment. As the plant increases purchases of these items, its suppliers must also increase production, and so forth. As these ripples move through the economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts.

Induced impact
The induced impact is the summation of changes in the local economy that occur due to spending by labor, which is, spending by employees in the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, the new employees will have more money to spend on housing, groceries, and going out to dinner. As they spend their new income, more activity occurs in the local economy. This can be quantified and is called the induced impact.

Total impact
The total impact is the summation of the direct, indirect, and induced impacts.