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The Economic Impact of the Frederik Meijer Gardens & Sculpture Park

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CONTRIBUTING AUTHORS

Christian Glupker, MBA, Primary Researcher

Paul Isely, Ph.D., Reviewer

RESEARCH SUPPORT

Ashley Bush, Research Assistant and Data Entry

Felipe Miranda, Research Assistant **Jacob Vandenberg**, Research Assistant

Star Sikora, Research Assistant

SPONSORING ORGANIZATION

Frederik MEIJER GARDENS & Sculpture Park

Cover photo: Lena Meijer Tropical Conservator
Photo credits: Unless otherwise noted, all photos were taken from Frederik Meijer Gardens Facebook page or website.

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L. William Seidman Center
50 Front Avenue SW
Grand Rapids, MI 49504
gvsu.edu/seidman/

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1.0 OVERVIEW

1.1 SUMMARY OF ECONOMIC IMPACT

- The total annual economic impact of FMG is $138 million in economic activity, supporting 1,167 jobs, and contributing $77.6 million to Kent County's GDP.
- The visitor direct spending, operational spending, and capital investment spending generate $353,115 in annual tax revenue for Kent County.
- There were 755,000 visitors to Frederik Meijer Gardens and Sculpture Park (FMG) with 62% of these visitors coming from outside Kent County (nonlocal visitors).
- 50% of the nonlocal visitors were visiting FMG for the first time and 48% of the local visitors visit FMG six or more times a year.
- 40% of all visitors have household incomes over $125,000.
- 37% of all visitors have a 4-year degree and 40% of all visitors have a graduate degree.
- There were 271,541 primary visitors to FMG. That is, visitors who stated their primary reason for being in Kent County was to visit FMG.
- All (local and nonlocal) primary visitors generated $20.9 million in direct spending.
- The direct spending from primary visitors results in an annual economic impact of $30.6 million in economic activity, supporting 268 jobs.
- The nonlocal primary direct spending generates a fiscal impact for Kent County of $106,969.
- FMG organizational spending generates $35.7 million in additional economic impact and support for 301 jobs.
- Over the past three years, FMG capital investment spending generated an average annual economic impact of $12.1 million and support for 80 jobs.

1.2 ORGANIZATION BACKGROUND


Lena Meijer Tropical Conservatory

Frederik Meijer Gardens & Sculpture Park (FMG) opened to the public in April 1995. Located in Grand Rapids, Michigan, the 158-acre campus includes the five-story, 15,000-square-foot, Lena Meijer Tropical Conservatory (see cover photo). This facility houses Michigan's largest tropical conservatory and includes rock landscapes, a waterfall, and a variety of exotic plant selections from around the world. Additional indoor gardens include the Kenneth E. Nelson Carnivorous Plant House, Earl and Donnalee Holton Arid Garden, the Earl and Donnalee Holton Victorian Garden, and the Grace Jarecki Seasonal Display Greenhouse.

The outdoor gardens feature four-season plantings and include the Wege Nature Trail that winds through a forested section and the Frey Boardwalk that introduces visitors to the natural wetlands. These walks include bird-watching sites, a tadpole pond, and vistas of woodlands and wetlands.

The sculpture program includes a permanent sculpture collection and sculpture galleries. The permanent collection features nearly 300 works. The greatest collection of work is featured in the 30-acre sculpture park. Key highlights of FMG include:

- **The Richard & Helen DeVos Japanese Garden:** This is the most recent major garden addition to FMG (2015). This eight-acre project features waterfalls, elevation changes, boulder placements, authentic Japanese structures, and a functioning teahouse.
- **The Lena Meijer Children's Garden:** This is one of the largest interactive children's gardens in the country. Here children can get answers to questions about sculpture, dig for fossils, and sail the Great Lakes at the Great Lakes Garden water feature. This garden also includes tree houses, a log cabin, butterflies, a sense garden, and a child-sized beaver lodge.

Frederik Meijer Gardens Amphitheater

- **Michigan's Farm Garden:** This serves as a reminder of the 1930s family farm where the land provided the family with food and income. The area includes a farmhouse, barn, gardens, and animal pens.

- **Frederik Meijer Gardens Amphitheater:** This serves as the venue for the Fifth Third Bank Summer Concert Series. This outdoor amphitheater provides tiered lawn seating for 1,900 people. Featured artists have included Steve Miller Band, B.B. King, Lyle Lovett, and Willie Nelson.

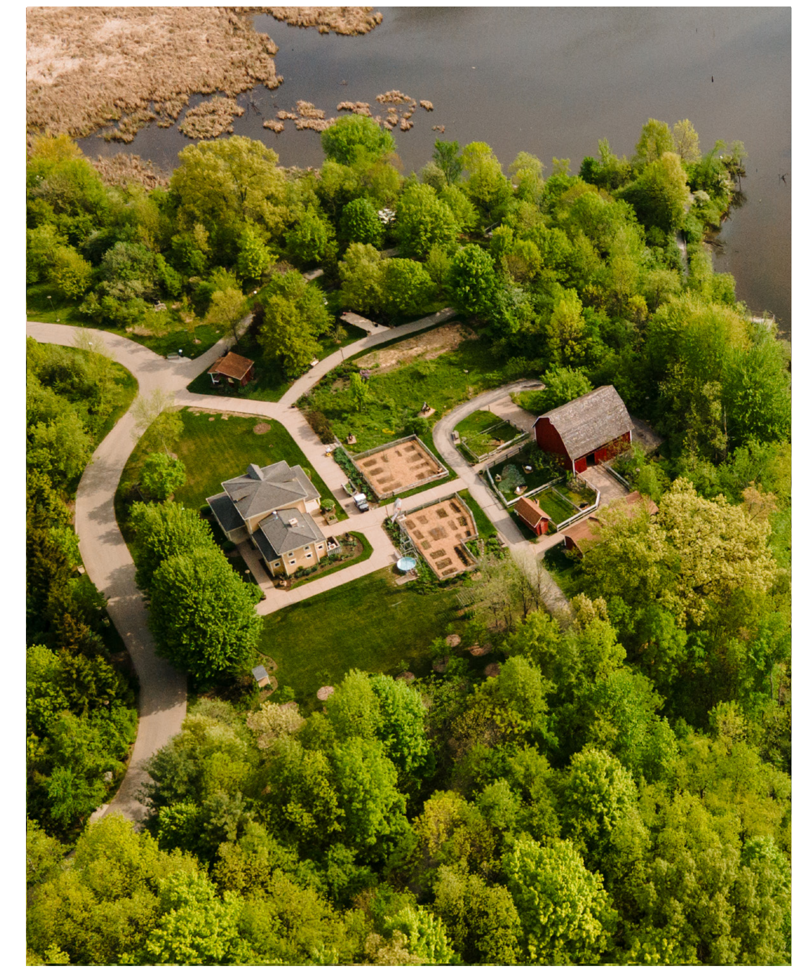
- **The Fred & Dorothy Fichter Butterflies Are Blooming:** This exhibit takes place every March and April and features 7,000 tropical butterflies from more than 50 species of South American, Central American, African, and Asian origin. The butterflies fly freely in the five-story, 15,000-square-foot Lena Meijer Tropical Conservatory.

- **Chrysanthemum & More!:** This features expansive chrysanthemum displays, fall foliage, and fun activities.

- **The University of Michigan Health-West: Christmas Holiday Traditions:** This is a celebration that takes place November through January. Featuring 46 different cultures and customs from around the world, with more than 300,000 Christmas lights, visits from Santa, and educational activities.

1.3 SCOPE OF WORK

This report focuses on the economic impact (direct, indirect, and induced) FMG provides to the Grand Rapids area. The economic contribution is the amount of economic activity that FMG generates within a defined region. For this report, the local region is defined as Kent County. This study will quantify the number of visitors to FMG, spending patterns by those visitors, and the indirect/induced values because of that spending. Every effort is made to exclude substitute spending. This substitute spending may come in the form of local residents along with visitors who were in the Grand Rapids area for other reasons (family outings, relatives, business, etc.).



Michigan's Farm Garden

Lena Meijer Tropical Conservatory

1.4 METHODOLOGY

This study will estimate the economic impact of FMG. The steps to achieve these are as follows:

1. Gather data on visitor spending.
2. Gather data from FMG on organizational spending, capital expenditures, and admission data.

For this analysis, the annual economic impacts were estimated for each of the following:

- Visitors to FMG
- FMG operational spending
- FMG capital investment spending

1.4.1 Visitors to Frederik Meijer Gardens & Sculpture Park

During the Summer of 2023 (June to August), an intercept survey was conducted at FMG. This survey was administered multiple times a day at random times throughout the Summer. We relied on a Grand Valley State University student research team to administer the survey. Data gathered includes zip code, length of visits, party size, spending patterns, and general demographics.

In calculating the economic impact of FMG, we only count "new" spending that is directly or indirectly caused by the event. To accomplish this, survey respondents are categorized into distinct groups:[1]

Local Visitors: These visitors' primary residence is in Kent County. Spending by Kent County visitors is not counted in the economic impact because the spending would have happened regardless of FMG. All survey forms ask for zip codes, which identify the residents.

The American Horse by Nina Akamu

NonLocal 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 (Kent County).

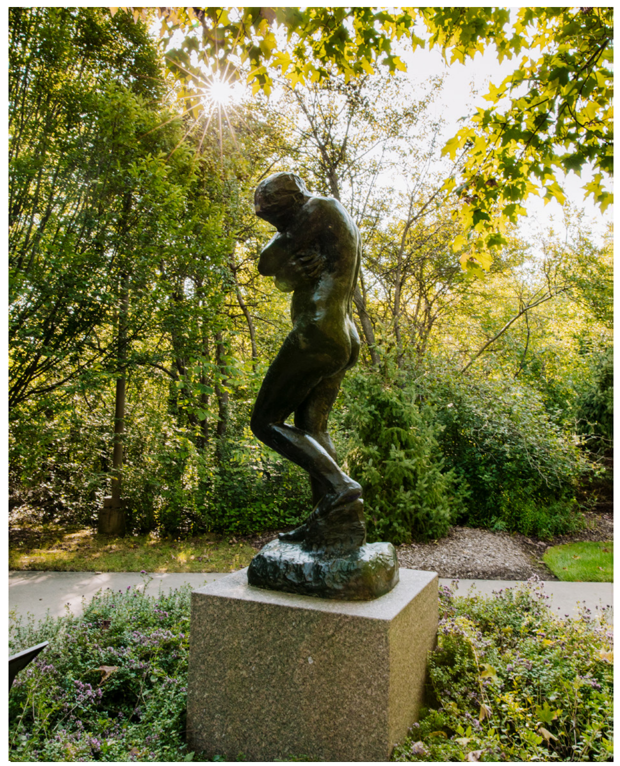
Primary Visitors: These visitors' primary reason for their visit must be visiting FMG. These visitors can be categorized as nonlocal primary or local primary visitors. The nonlocal primary visitors are considered 'new' money to the local economy and the main driver in the economic impact modeling.

Casual Visitors: These visitors (local or nonlocal) were already in Kent County for other reasons (family outings, relatives, business, etc.). Generally, the spending of these visitors cannot be included in the economic impact because they were already in town, and they would likely have spent the money regardless of visiting FMG. This method does have a drawback, as it will cause us to miss some spending by individuals who, while not visiting specifically to visit FMG, ended up spending more than they would have because of their visit. Therefore, these visitors will be included in the economic impact ***supported*** by FMG

[1] 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

1.4.2 Frederik Meijer Gardens & Sculpture Park Operations and Capital Investment

In addition to visitor spending, we also include the operational spending of the FMG in calculating the economic impact. For this study, we will use the 2022 fiscal year budget. Also included are the capital investments made by FMG. To smooth out the volatility in investment spending, we will use an annual average based on the last three years and the projected capital investments for the next three years.


Eve by Auguste Rodin

1.4.3 Economic Modeling

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.[2] 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:[3]

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.

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.

[2] Full IMPLAN disclaimer can be found in Appendix A1: IMPLAN Disclaimer
[3] https://blog.implan.com/understanding-implan-effects

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:[4]

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.


Cabin Creek by Deborah Butterfield

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).

Commercial visitors were asked to identify their spending in four basic categories. Each of these categories represents multiple industry classifications within the IMPLAN model. To account for this, the IMPLAN model allows users to combine IMPLAN industry classification so the model matches the data being collected. This is known as industry aggregation.[5]

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.

[4] Expanded definitions can be found in Appendix A1: IMPLAN Modeling
[5] A detailed breakdown of industry aggregation is available in Appendix A1: IMPLAN Modeling

Lena Meijer Children's Garden

2.0 VISITOR SURVEYING

2.1 VISITOR SURVEY

To assess the economic impact of FMG, we collected survey data to determine visitor count, visitor days, and visitor spending. The visitor survey collected the primary economic impact data. The visitor survey was administered multiple times a week at random times throughout the Summer of 2023 (June to August). We relied on a Grand Valley State University student research team to administer the survey.[6]

Respondents had to be 18 years old or older to be included in the survey. During the surveying period, there were 2,551 interview requests with 1,644 surveys completed. This equates to a total

[6] A copy of the survey is available in Appendix A2: Survey Details

response rate of 64%. Approximately 54% of the surveys were completed by nonlocal visitors. The survey 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 40 states and nine countries. Figures 1 and 2 show the geographic distribution of the survey respondents for North America and the Great Lakes area. Not shown in these figures are visitors from other countries, which include Norway, Germany, Italy, Hungary, Spain, Israel, South Africa, and Australia.

Figure 1: Zip code distribution for North America

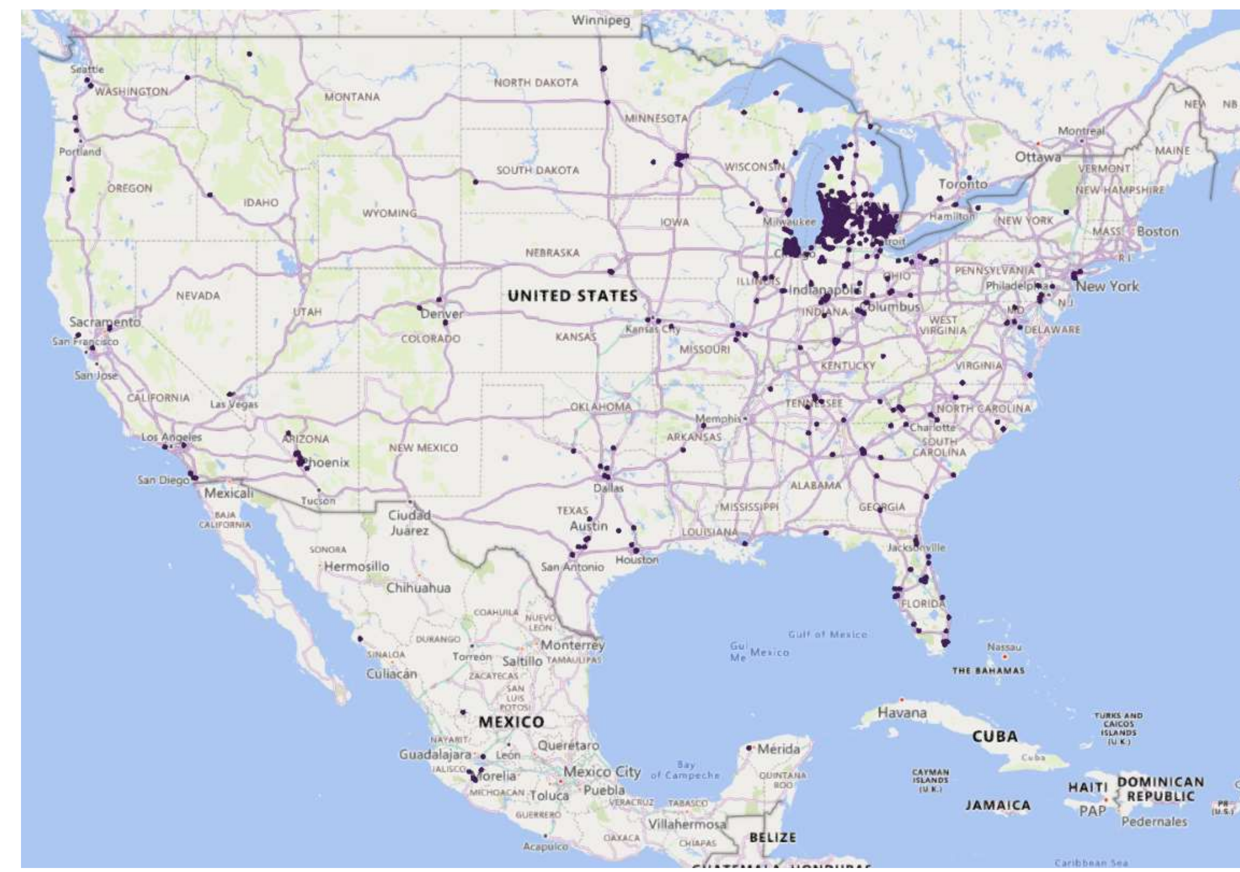
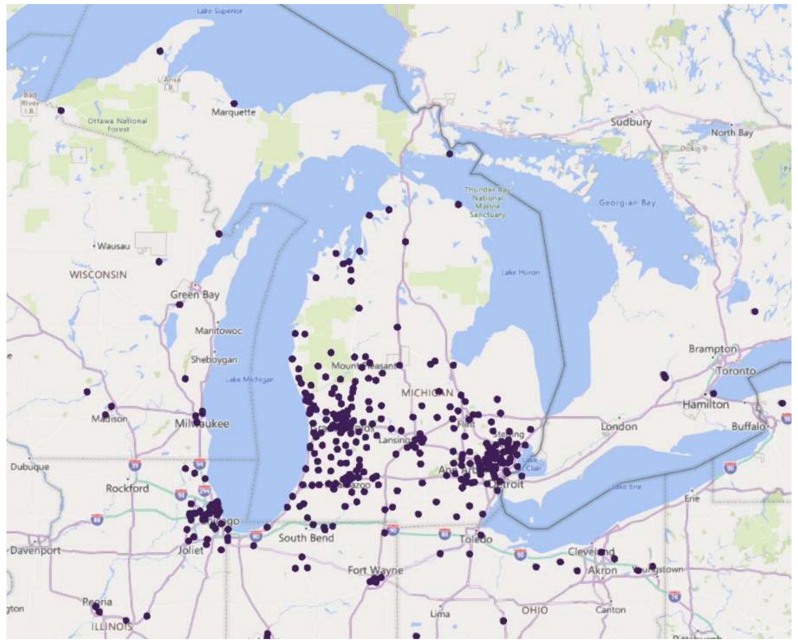


Figure 2: Zip code distribution for the Great Lakes area



2.2 VISITOR SURVEY ANSWERS AND DEMOGRAPHICS

The visitor survey asked questions about their visit to FMG and general demographic questions. The figures below present this data. More detailed information is available in Appendix A3: Visitor Demographics.

Figure 3: What is your reason for visiting Meijer Gardens today?

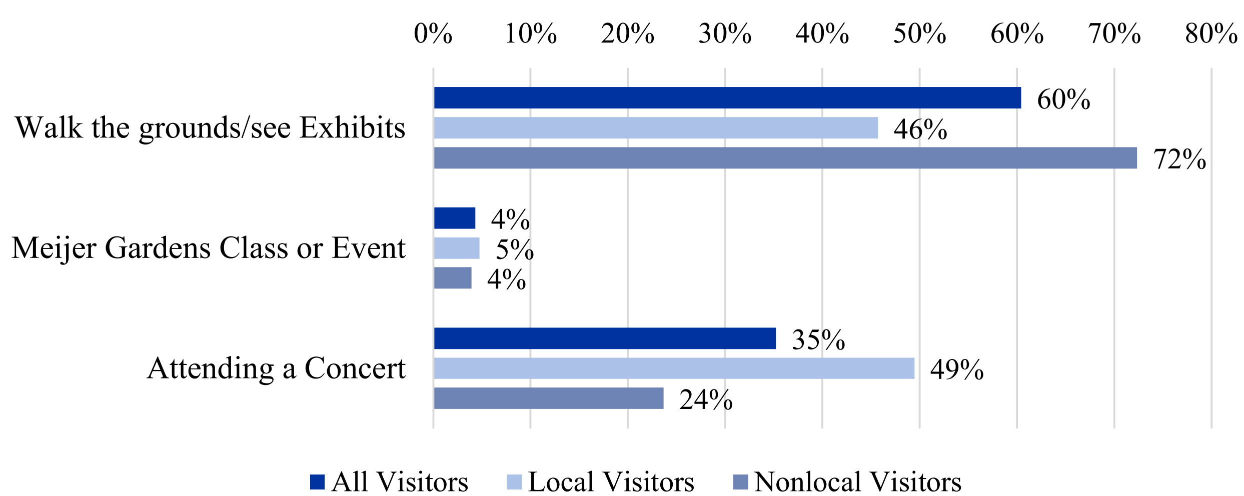


Figure 4: How frequently do you visit Meijer Gardens?

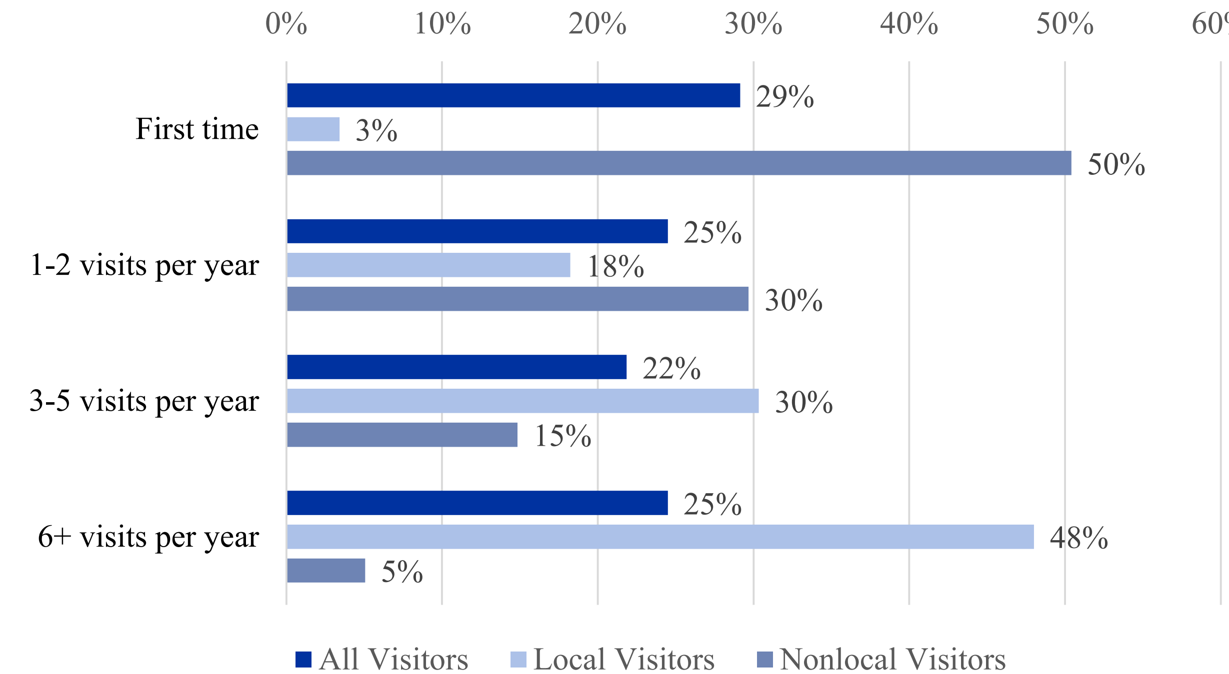


Figure 5: Gender

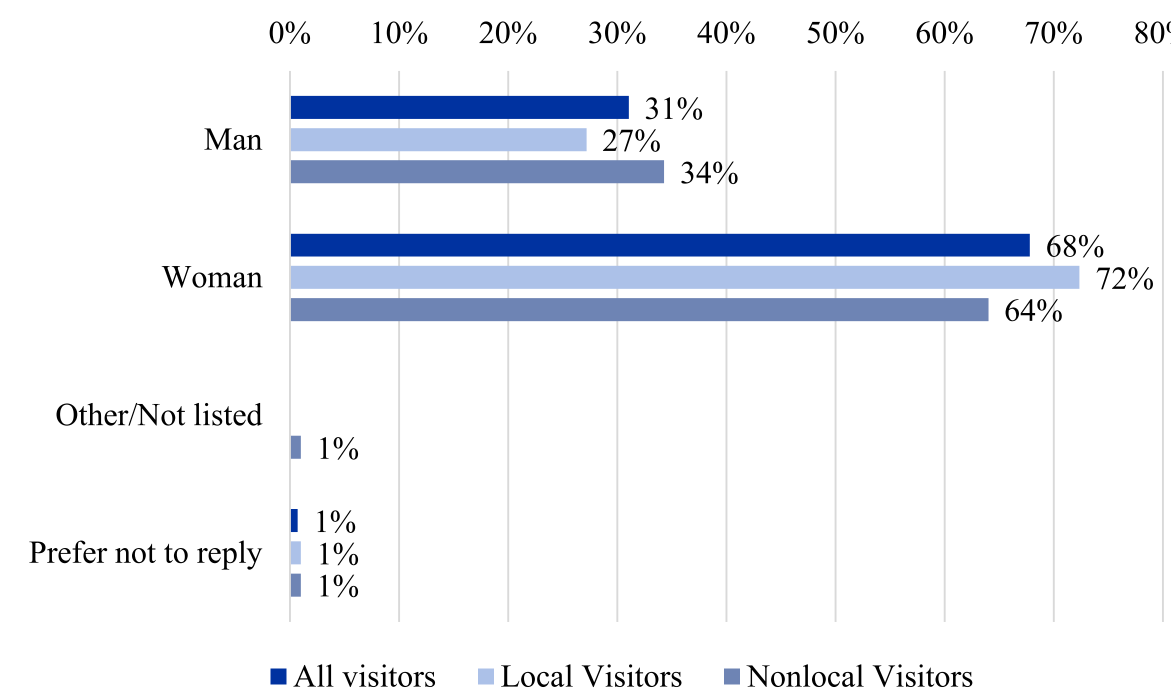


Figure 6: Age distribution (All visitors)

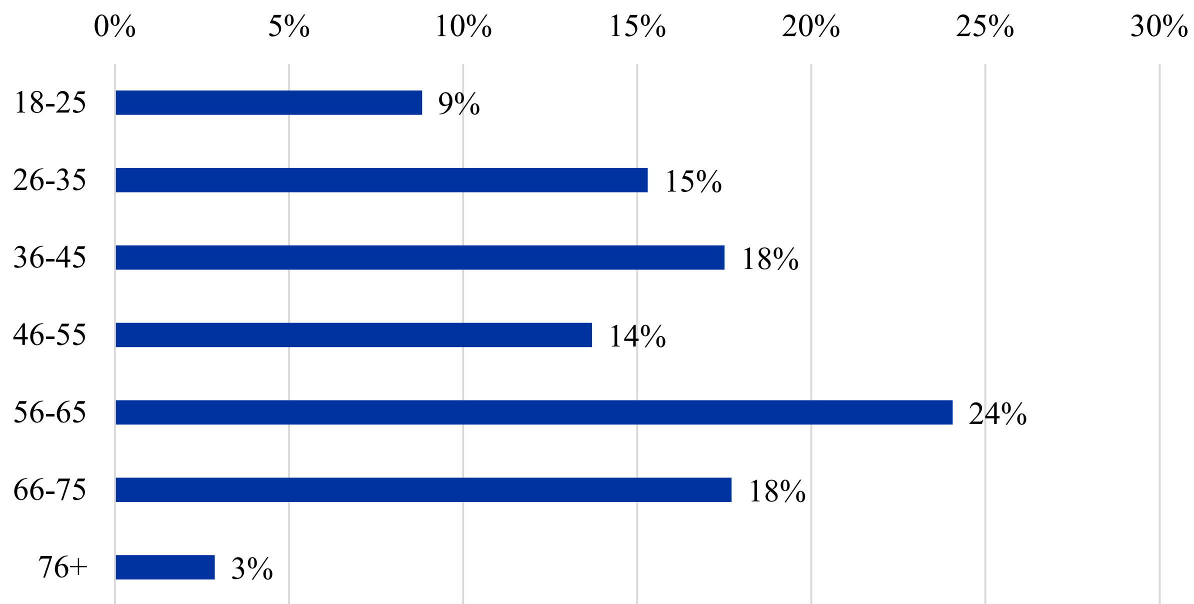


Figure 7: Which statement best describes your 2022 household income?

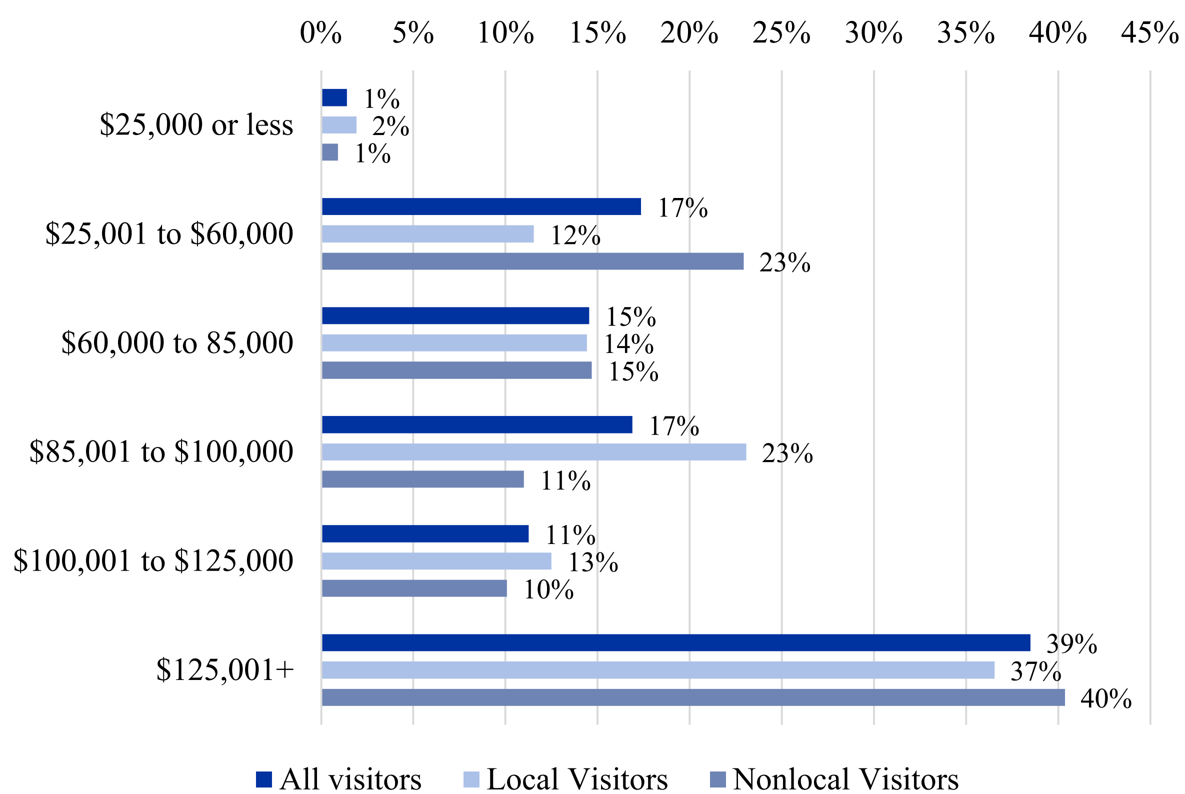


Figure 8: What race or ethnicity best describes you?

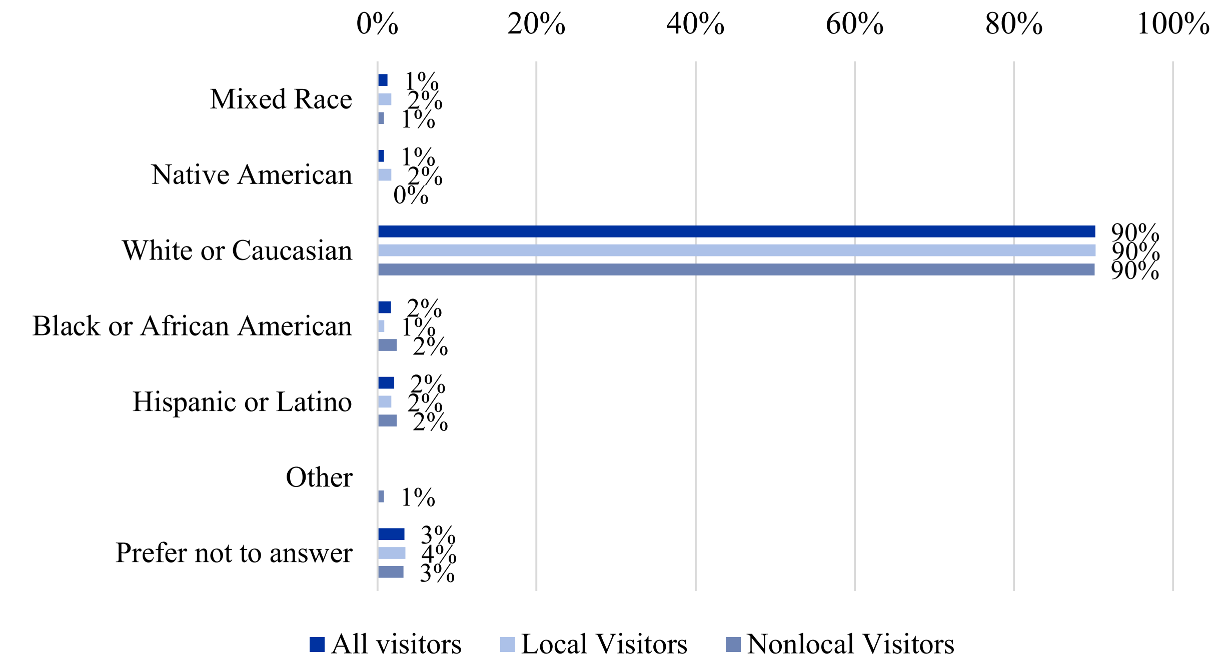
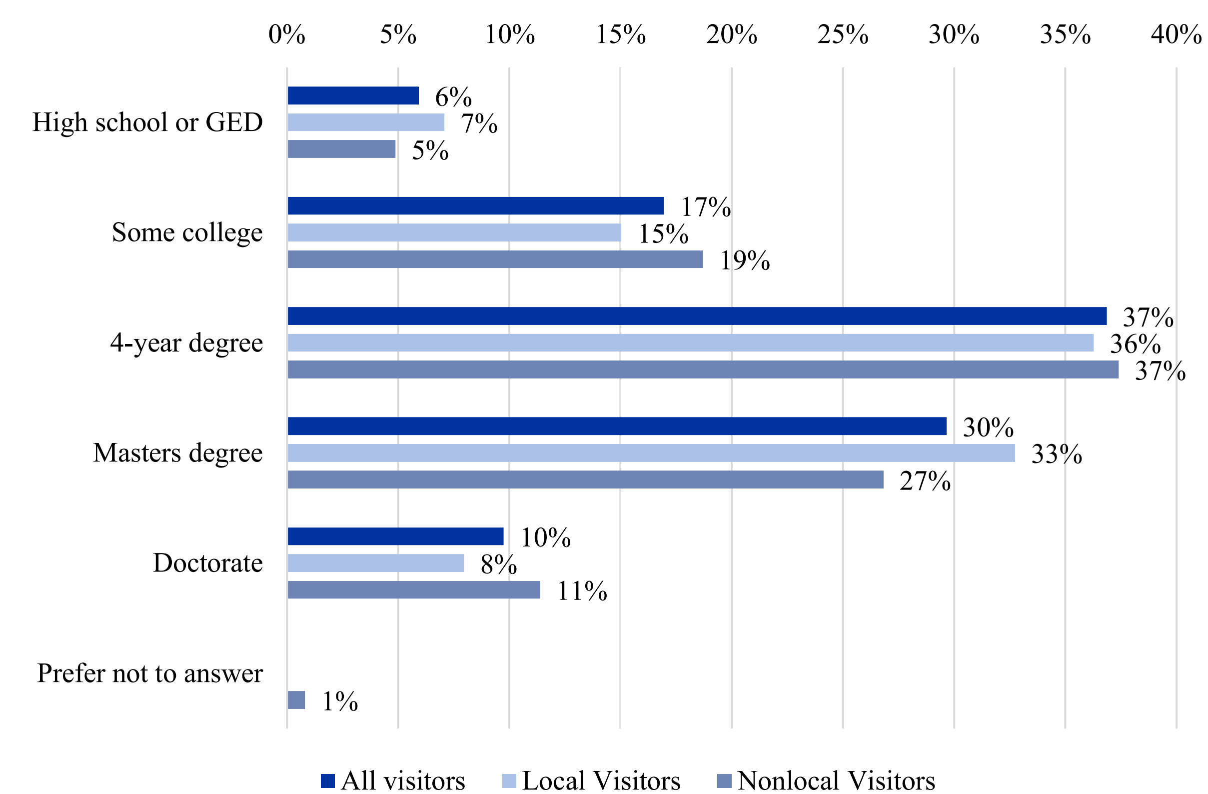


Figure 9: What is the highest level of education you have completed?

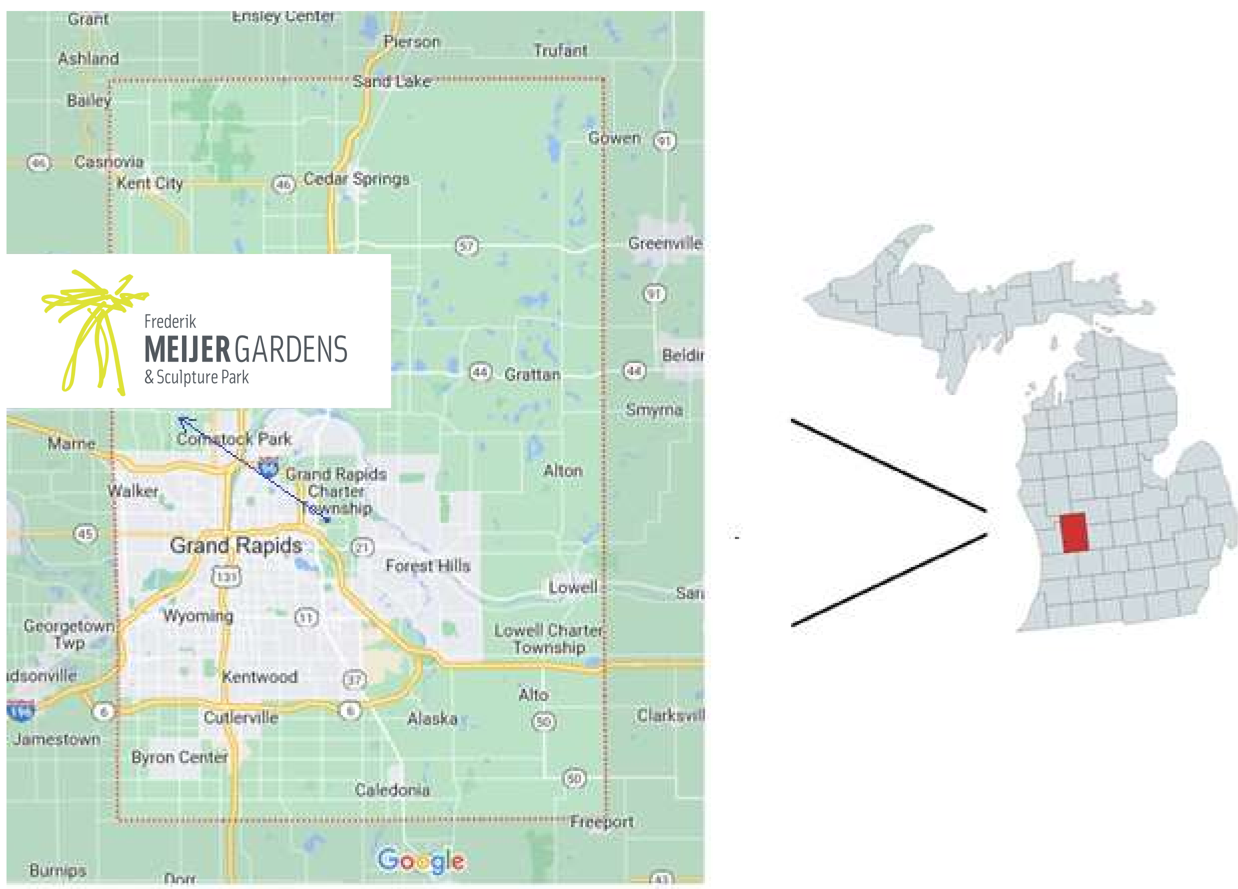


3.0 VISITORS AND ATTENDANCE

3.1 DEFINING THE ECONOMIC REGION

To properly determine who is a visitor to FMG we must first define the local region. For this report, we define the local region as Kent County. We believe this defined region represents a conservative approach to determining the economic impact of FMG. Figure 10 displays the map of the defined economic region.[7]

Figure 10: The defined economic region: Kent County



[7] https://www.mapchart.net/usa-counties.html and Google Maps

Frederik Meijer Gardens & Sculpture Park

3.2 VISITOR TYPES

As mentioned in section 1.4.1, there are distinct groups of visitors: Nonlocal, local, primary, and casual. To calculate the economic impact of FMG we should consider only new spending that occurred specifically because of FMG. To accomplish this, we focus on nonlocal visitors who stated their primary reason for being in Kent County was to visit FMG. This method does have a drawback, as it will cause us to miss some spending by individuals who, while not visiting specifically for FMG, ended up spending more than they would have because of FMG. Therefore, these "casual" visitors will be included in the economic impact *supported* by FMG.

The visitor data will also be grouped by the reason for their visit. There are two groups: General admission visitors and concert visitors. The general admission visitors include general admission, education guests, member visits, garden events, and hospitality events.

To determine the visitor's locality and the reason for their visit, we asked the survey respondents for their home residence zip code and if FMG was their primary reason for visiting. The results from these questions are found in Figure 11 and Figure 12.

Figure 11: Percentage of local vs. nonlocal based on visitor type.

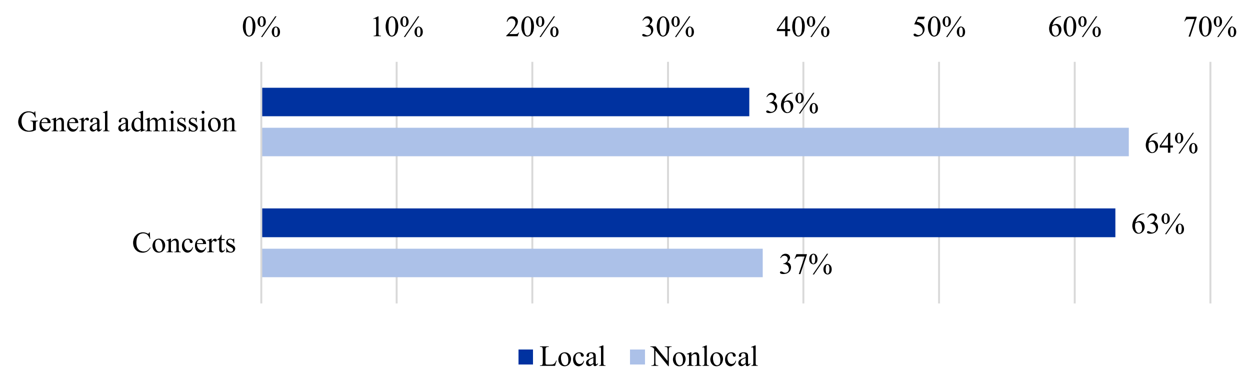
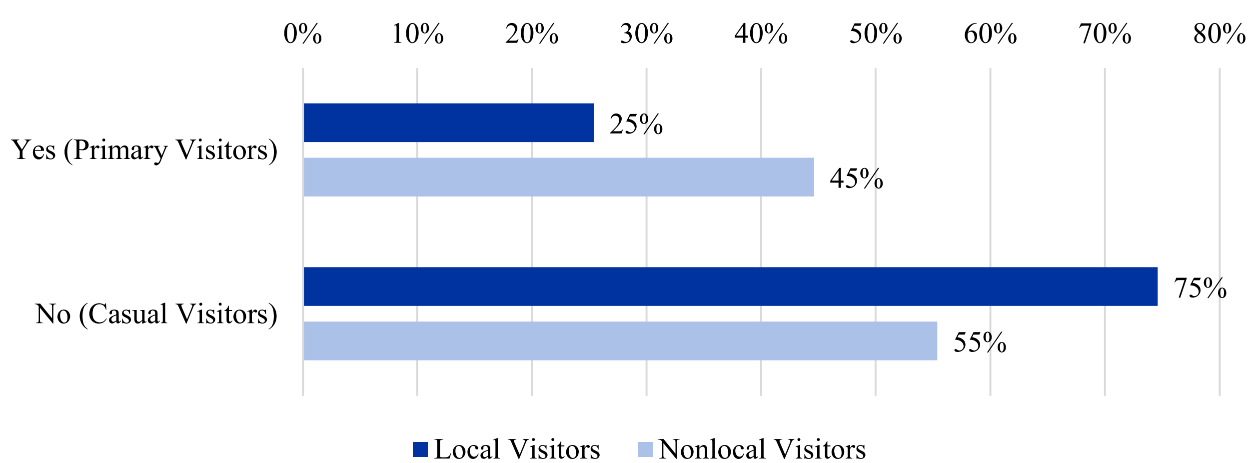


Figure 12: Is Meijer Gardens your primary reason for visiting the Grand Rapids area?



3.3 ESTIMATING THE NUMBER OF VISITORS AND VISITOR DAYS

To measure the economic impact of FMG it is necessary to have an accurate count of visitors to the gardens. Table 1 below presents the admission data for FY2022 and YTD2023 (as of 8/20/23).[8] FMG estimates total admissions at 755,000 by the end of the fiscal year.[9]

Figure on a Trunk by Magdalena Abakanowicz

Table 1: Admission data

	Projected FYE 2023	YTD 2023	FYE 2022	FYE 2021	FYE 2020
General admission and other guests[10]	693,243	628,806	608,562	454,775	328,539
Concerts[11]	61,757	57,957	58,994	43,731	0
Total visitors	755,000	686,763	667,556	498,506	328,539

Using the data in Table 1, Figure 11, and Figure 12, we estimate 466,906 nonlocal visitors, with 198,884 (43%) of those visitors visiting primarily for FMG. We also estimate 288,094 local visitors, with 72,657 (25%) of those visitors visiting primarily for FMG (see Table 2).[12]

[8] This data was provided FMG.
[9] The fiscal year is October 1 to September 30.
[10] Includes education guests, member visits, garden events, and hospitality events.
[11] There were two Fifth Third Concert series concerts left on the schedule. Both concerts were sold out. Capacity is 1,900, thus we added 3,800 to the YTD concert admission numbers.
[12] Attendance figures account for all children over the age of 2, therefore no adjustments for party size were made to the admission figures.

Table 2: Total visitors based on visitor type.

	All visitors	Primary visitors	Casual visitors
Nonlocal general admission visitors	444,087	186,783	257,304
Nonlocal concert visitors	22,818	12,101	10,718
Total Nonlocal visitors	**466,906**	**198,884**	**268,022**
Local general admission visitors	249,156	62,837	186,319
Local concert visitors	38,939	9,820	29,118
Total local visitors	**288,094**	**72,657**	**215,437**
Total visitors (local and nonlocal)	755,000	271,541	483,459

Nonlocal primary visitors stayed an average of 1.34 days when visiting for general admission and 1.02 days when visiting for a concert. This results in 262,744 primary visitor days (see Table 3). A visitor day is a metric used to measure the number of days that a visitor spends at FMG. It is the product of total visitors and the average number of days visited. It should be noted that local visitors stayed one day, therefore the local visitor data in Table 2 also represents visitor days.

Table 3: Total **nonlocal** visitor days based on visitor type

Nonlocal visitors	All visitor days	Primary visitor days	Casual visitor days
General admission visitor	600,798	250,412	350,386
Concert visitor	23,596	12,331	11,265
Total visitor days	624,394	262,744	361,650

Grand Rapids Arch by Andy Goldsworthy

4.0 ECONOMIC EFFECTS

This section will estimate the economic impact of FMG. The estimated impacts will be based on data collected from surveys and data provided by FMG. The economic impact will be broken into four components: Primary visitors, casual visitors, operations of FMG, and FMG capital investment. This section will also include the fiscal (tax revenue) impact.

4.1 ESTIMATING VISITOR SPENDING


Mad Mom by Tom Otterness

Survey respondents were asked how much they spent on meals, retail shopping, lodging, and transportation. This 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 categories that include retail pricing 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 Kent County are estimated at 38.25% for retail spending and 10.58% for transportation spending.

4.2 THE ECONOMIC IMPACT OF PRIMARY VISITORS

To determine the economic impact of FMG we should only consider nonlocal spending that occurred specifically because of their visit to FMG. This will not include local visitor or casual visitor spending because it is assumed that spending would have happened during this period in the absence of their visit. 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 miss some spending by individuals who, while not visiting Grand Rapids primarily for FMG, ended up spending more than they would have because of FMG. This includes local residents who would have spent money in the absence of their visit but ended up spending more as a result of their visit. Therefore, these visitors will be included in the economic impact ***supported*** by FMG.

Our preferred method in calculating economic impact is to focus solely on those who claimed FMG was their primary reason for visiting Grand Rapids. These visitors will include locals and nonlocals. With local spending included, there is concern this impact figure will be inflated due to substitute spending. Therefore we will also break out local and nonlocal data to provide some context to the overall economic impact.

Based on the survey data, all primary visitors spent on average $43.56 per person, per day, with nonlocal primary visitors spending $56.13 per person, per day (see Figure 13 below). These spending figures result in $21 million in direct spending by all primary visitors, with approximately 84% coming from nonlocal visitors (see Table 4 below).[13]

Figure 13: Average per person, per day spending for primary visitors

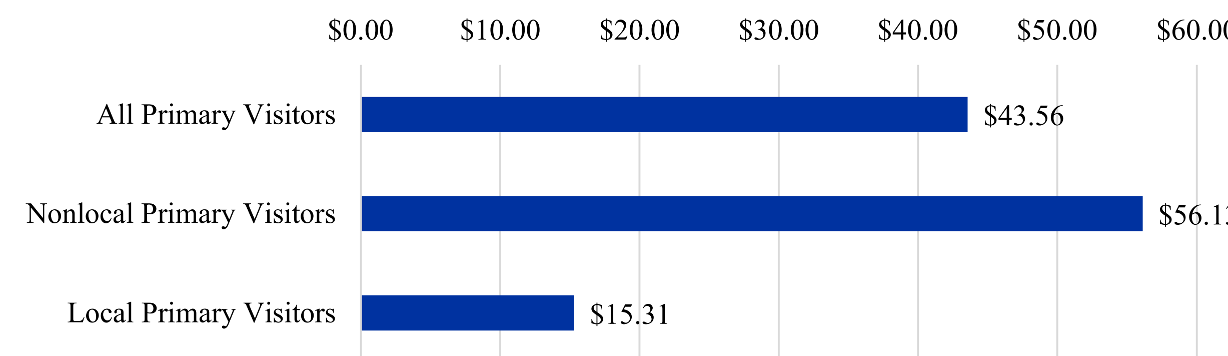


Table 4: Total direct spending by primary visitors

	Primary visitors
Local visitor	$3.4M
Nonlocal visitor	$17.4M
All visitors[14]	$20.9M

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.

[13] Detailed methodology can be found in Appendix A4: Estimating Visitor Spending
[14] This is not the exact sum of local and nonlocal visitors due to rounding.

A true measure of new spending focuses on primary nonlocal visitors. Using the IMPLAN model, we estimate their economic impact at $26 million in output, $9 million in earnings, $14 million in value-added (GDP), and support for 221 jobs (see Table 5).

Table 5: The annual economic impact of **nonlocal** primary visitors

Nonlocal Primary Visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (less retail margins)	$15.3M	$5.6M	164	$8.8M
Indirect Impact	$5.6M	$2.0M	31	$2.9M
Induced Impact	$4.6M	$1.5M	26	$2.6M
Total Impact	$25.5M	$9.1M	221	$14.3M

Using the IMPLAN model, we estimate the total economic impact of **ALL** (local and nonlocal) primary visitors at $31 million in output, $11 million in earnings, $17 million in value-added (GDP), and support for 268 jobs (See Table 6).

Table 6: The annual economic impact of **all** (local and nonlocal) primary visitors

All Primary Visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (less retail margins)	$18.3M	$6.8M	199	$10.4M
Indirect Impact	$6.8M	$2.4M	38	$3.4M
Induced Impact	$5.6M	$1.8M	31	$3.2M
Total Impact	$30.6M	$11.0M	268	$17.0M

As noted, the impact figures in Table 6 include substitute spending from local visitors because it is assumed their spending would have occurred during this period in the absence of their visit to FMG. As mentioned earlier, this assumption does have a drawback, as some locals may have ended up spending more than they would have because of their visit.

The local primary visitors contributed $5.1 million in economic output, $1.9 million in earnings, $2.7 million in value-added, and support for 47 jobs. These figures are included in Table 6 above; however, it is unknown how much of this spending would have occurred regardless of their visit, therefore these figures should be used with caution.

Light of the Moon by Igor Mitoraj

4.3 THE FISCAL IMPACT OF PRIMARY VISITORS

The increase in economic activity also produces additional tax revenue at the local and state 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, most of the tax is sales tax. Table 7 below is the best representation of "new" tax revenue caused by FMG nonlocal primary visitors.

Table 7: Annual fiscal impact of **nonlocal** primary visitors

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	$80,877	$114,329	$265,756	$921,217
Indirect Impact	$11,309	$19,165	$37,179	$151,331
Induced Impact	$14,783	$22,184	$48,583	$180,191
Total Impact	$106,969	$155,677	$351,517	$1,252,739

4.4 THE ECONOMIC IMPACT OF CASUAL VISITORS

The economic impact ***supported*** by FMG focuses on spending by those who stated FMG was *not* their primary reason for visiting the area. These are referred to as casual visitors. Per Table 2, there were 483,459 casual visitors to FMG, with 55% of those visitors coming from outside Kent County.

The impact of casual visitors is not included in the overall economic impact because they were in Grand Rapids for reasons other than visiting FMG. Thus, their spending would have occurred in the absence of their visit. What is unknown is if these visitors stayed more days or spent more than they normally would because of their visit. The data for casual visitors are presented here for informational purposes only.

Based on the survey data, all casual visitors spent on average $48.81 per person, per day, with nonlocal casual visitors spending $85.39 per person, per day (see Figure 14 below). These spending figures result in $41 million in direct spending by all casual visitors, with approximately 86% coming from nonlocal visitors (see Table 8 below).

Figure 14: Average per person, per day spending for casual visitors

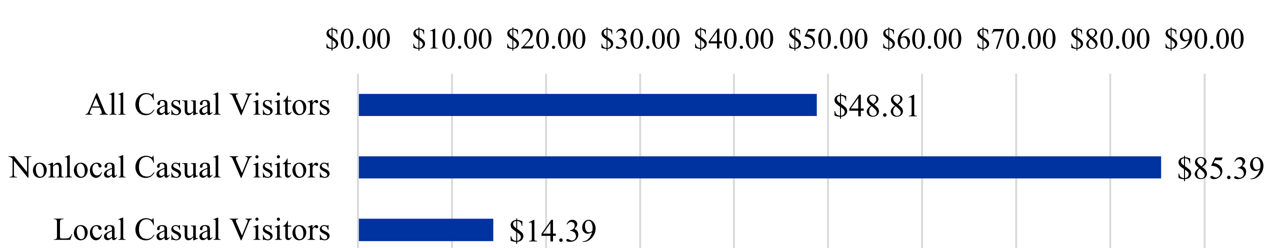
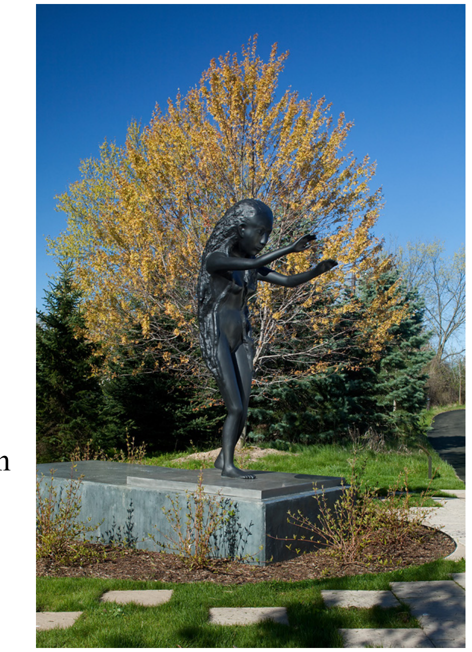


Table 8: Total direct spending by casual visitors

	Casual visitor
Local visitor	$5.7M
Nonlocal visitor	$35.1M
All visitors	$40.8M



Sleepwalker by Kiki Smith

To consider only new spending, we should focus on nonlocal casual spending. Using the IMPLAN model, we estimate their economic impact at $51 million in output, $18 million in earnings, $29 million in value-added (GDP), and support for 441 jobs (see Table 9).

Table 9: The annual economic impact of **nonlocal** casual visitors

Nonlocal casual visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (less retail margins)	$30.8M	$11.2M	327	$17.6M
Indirect Impact	$11.1M	$3.9M	62	$5.7M
Induced Impact	$9.2M	$3.0M	52	$5.2M
Total Impact	$51.1M	$18.1M	441	$28.6M

The estimated total economic impact of **all** (local and nonlocal) casual visitors at $60 million in output, $21 million in earnings, $28 million in value-added (GDP), and support for 437 jobs (See Table 10).

Table 10: The annual economic impact of **all** casual visitors

All casual visitors	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (less retail margins)	$35.7M	$13.0M	385	$20.3M
Indirect Impact	$13.1M	$4.6M	73	$6.7M
Induced Impact	$10.7M	$3.5M	60	$6.1M
Total Impact	$59.6M	$21.1M	518	$33.1M

As mentioned previously, these impact figures include substitute spending from local visitors therefore these figures should be used with caution. The local casual visitors contributed $8 million in economic output, $3 million in earnings, $4 million in value-added, and support for 77 jobs.

4.5 THE FISCAL IMPACT OF CASUAL VISITORS

The increase in economic activity also produces additional tax revenue at the local and state 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, most of the tax is sales tax. Table 11 below is the best representation of "new" tax revenue *supported* by FMG nonlocal casual visitors.

Table 11: The annual fiscal impact of **nonlocal** casual visitors

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	$166,557	$265,756	$234,554	$1,891,124
Indirect Impact	$22,490	$37,179	$38,162	$301,308
Induced Impact	$29,543	$48,583	$44,334	$360,114
Total Impact	$218,590	$351,517	$317,050	$2,552,545

4.6 THE ECONOMIC IMPACT OF FMG ORGANIZATIONAL SPENDING

In addition to visitor spending, we also include the operational spending of the FMG in calculating the economic impact. For this study, we will use the 2022 fiscal year budget.

During FY 2022, FMG reported $29.6 million in operating expenses, with approximately 212 full-time equivalent employees. This spending results in an annual economic impact of $36 million in output, $15 million in earnings, support for 301 jobs, and contributes $21 million to the local GDP (see Table 12).

Table 12: The annual economic impact of FMG operational spending

	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (less nonlocal spending)[15]	$19.4M	$10.2M	212	$12.3M
Indirect Impact	$8.5M	$2.7M	46	$4.2M
Induced Impact	$7.7M	$2.5M	43	$4.4M
Total Impact	$35.7M	$15.4M	301	$20.8M

Not included in this impact figure is the generosity shown by supporters of FMG. During FY 2022, FMG received donated services valued at $13,674 and donated materials and supplies valued at $189,832. In addition, FMG operates with 960 volunteers, with 450 of the volunteers working over 20 hours a week.

Long Island Buddha by Zhang Huan

[15] Based on previous study, it is assumed 85% of FMG operational expenses are spent within Kent County. Depreciation of $6.7 million was also netted out of total operating expenses.

4.7 THE FISCAL IMPACT OF FMG ORGANIZATIONAL SPENDING

The West Michigan Horticultural Society, Inc. d.b.a Frederik Meijer Gardens & Sculpture Park (FMG) is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code, thus their direct fiscal impact is negative. However, the direct impact does lead to indirect and induced impacts. A summary of FMG's fiscal impact is presented in Table 13.

Table 13: The annual fiscal impact of FMG operations

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	-$22,678	-$2,768	-$74,333	-$60,057
Indirect Impact	$14,433	$25,236	$47,455	$200,304
Induced Impact	$24,760	$37,154	$81,371	$301,791
Total Impact	$16,515	$59,623	$54,493	$442,038

The New Welcome Center (Source: Owen Ames Kimball)

4.8 THE ECONOMIC IMPACT OF FMG CAPITAL INVESTMENT SPENDING

In September 2017, FMG started a $115 million capital expansion project named “Honoring a Legacy of Love” that included several new buildings, totaling over 100,000 sq, and extensive renovations to the 158-acre campus. This project was completed in 2022. Highlights of this project include:

- A new 69,000-square-foot Welcome Center
- A new 20,000-square-foot Covenant Learning Center
- A new Padnos Rooftop Sculpture Garden
- A new Peter C. and Emajean (Pat) Cook Transportation Center
- Expanded and upgraded Frederik Meijer Gardens Amphitheater
- A renovated and expanded Bissell Inc. Scenic Corridor
- A new Meijer-Shedleski Picnic Pavilion

Due to the year-to-year volatility in capital investment spending, this analysis will use a three-year annual average. Over the past three years, FMG has invested $30 million in the gardens. This results in a three-year annual average of $10 million. In addition, we will also consider projected capital investment for the next three years. This projected three-year capital investment spending is estimated at $10 million or $3.3 million per year. It should be noted, the economic impact of construction spending only occurs during the construction phase of the project. The impact figures could fluctuate if the amount of capital investment increases or decreases. Table 14 presents the average annual impact figures from capital investment spending over the past three years.

Table 14: Three-year average annual economic impact of **past** FMG capital investment spending

	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (local spending)[16]	$7.2M	$3.8M	55	$3.9M
Indirect Impact	$2.1M	$700,000	9	$1.1M
Induced Impact	$2.9M	$1.0M	16	$1.6M
Total Impact	$12.1M	$5.4M	80	$6.7M

[16] Based on other studies, it is assumed that 72% of construction spending is spent within the local economic region. Thus, average annual capital investment is discounted 28%.

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. As mentioned earlier, FMG is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code, thus their direct fiscal impact is negative. However, the direct impact does lead to indirect and induced impacts. A summary of FMG's average annual fiscal impact over the past three years is presented in Table 15.

Table 15: Three-year average annual fiscal impact of **past** FMG capital investments

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	-$3,864	$5,900	-$12,627	$25,900
Indirect Impact	$5,768	$9,014	$18,958	$72,135
Induced Impact	$9,137	$13,712	$30,028	$111,381
Total Impact	$11,041	$28,625	$36,358	$209,416

FMG projects spending, on average, $10 million over the next three years on capital investment projects ($3.3 million per year). This capital investment impact will add $4.0 million in annual economic impact and support 37 jobs over the next three years (see Table 16). The average fiscal impact over the next three years is presented in Table 17.

Table 16: Three-year average annual economic impact of **future** FMG capital investment spending

	Output	Earnings	Jobs	Value-Added (GDP)
Direct Impact (local spending)[17]	$2.4M	$1.3M	18	$1.3M
Indirect Impact	$682,000	$234,000	3	$365,000
Induced Impact	$941,000	$307,000	5	$535,000
Total Impact	$4.0M	$1.8M	26	$2.2M

[17] Based on other studies, it is assumed that 72% of construction spending is spent within the local economic region. Thus, average annual capital investment is discounted 18%.

Table 17: Three-year average annual fiscal impact of **future** FMG capital investments

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Direct Impact	-$1,275	$1,947	-$4,167	$8,547
Indirect Impact	$1,903	$2,975	$6,256	$23,804
Induced Impact	$3,015	$4,525	$9,909	$36,756
Total Impact	$3,643	$9,446	$11,998	$69,107

4.9 INDUSTRY IMPACT

Per the IMPLAN model, the top ten industries impacted by all (local and nonlocal) primary visitor spending are presented in Tables 18 (output) and 19 (employment). These tables are based on all primary visitors and FMG operational spending.

Table 18: Top ten industries impacted by all primary visitor spending stated as a percentage of indirect/induced output and total output.

Industry	% of Indirect/Induced Output	% of Total Output
Museums, historical sites, zoos, and parks	0.04%	31.77%
All Meals and Dining	4.25%	12.78%
All Lodging	0.00%	8.82%
Other real estate	13.18%	5.69%
All Retail Shopping	5.22%	4.41%
Transportation	0.94%	3.56%
Insurance carriers, except direct life	7.50%	3.24%
Owner-occupied dwellings	5.42%	2.34%
Hospitals	3.95%	1.70%
Employment services	3.51%	1.52%

Table 19: Top five industries impacted by visitor spending stated as a percentage of indirect/induced employment and total employment.

Industry	% of Indirect/Induced Employment	% of Total Employment
Museums, historical sites, zoos, and parks	0.08%	40.63%
All Meals and Dining	9.31%	18.20%
All Lodging	0.00%	9.27%
Transportation	2.09%	5.13%
All Retail Shopping	7.38%	4.04%
Other real estate	11.06%	3.10%
Employment services	6.50%	1.82%
Couriers and messengers	2.60%	0.73%
Services to buildings	2.58%	0.72%
Management of companies and enterprises	2.36%	0.66%

Lena Meijer Tropical Conservatory

5.0 CONCLUSION

This study estimated the economic impacts based on visitor spending, FMG operational spending, and FMG capital investment spending. Our preferred method in calculating economic impact is to focus solely on those who claimed FMG was their primary reason for visiting Grand Rapids. These visitors will include locals and nonlocals.

Bent of Mind by Tony Cragg

There were 272,000 primary visitors, with 55% coming from outside Kent County. These primary visitors spent $20.9 million during their trip to FMG, with 84% coming from nonlocal visitors. This spending generated a total economic impact of $30.6 million in economic activity and support for 268 jobs.

FMG operational spending totaled $29.6 million during fiscal year 2022. After adjustments, this spending generated $35.7 million in economic activity and support for 301 jobs.

Over the past three years, FMG spent, on average, $10 million per year on capital investment projects. This investment spending generated $12.1 million in economic output and support for 80 jobs.

The impact of casual visitors is not included in the overall economic impact because they were in Grand Rapids for reasons other than visiting FMG. Thus, their spending would have occurred in the absence of the event. What is unknown is if these visitors spent more than they normally would because of their visit to FMG. Therefore, these visitors will be included in the economic impact ***supported*** by FMG.

There were 483,459 casual visitors to FMG, with 55% of those visitors coming from outside Kent County. These casual visitors spent $40.8 million during their visits to FMG, with 86% coming from nonlocal visitors. This spending generated $59.6 million in economic output and support for 518 jobs. It is unknown how much of this spending occurred because of FMG, therefore these figures should be used with caution.

A summary of the annual economic impacts is presented in Table 20.

Table 20: The total annual economic impact of FMG

	Output	Earnings	Jobs	Value-Added (GDP)
Economic impact of primary visitors[18]	$30.6M	$10.9M	268	$17.0M
Economic impact of FMG operations	$35.7M	$15.4M	301	$20.8M
Economic impact of FMG capital investment[19]	$12.1M	$5.4M	80	$6.7M
Economic impact of casual visitors	$59.6M	$12.1M	518	$33.1M
Total Impact	$138M	$43.8M	1,167	$77.6M

The increase in economic activity also produces additional tax revenue at the local and state levels. A summary of FMG's total annual fiscal impact is presented in Table 21.

Table 21: The total annual fiscal impact of FMG

	Kent County	Sub-County: Municipalities	Sub-County: Special Districts	Michigan
Nonlocal primary visitors[20]	$106,969	$155,677	$351,517	$1,525,739
FMG operations	$16,515	$59,623	$54,493	$442,038
FMG capital investment	$11,041	$28,625	$36,358	$943,232
Nonlocal casual visitors[21]	$218,590	$317,050	$718,318	$2,552,545
Total fiscal Impact	$353,115	$560,975	$1,160,686	$5,463,554

[18] This includes all primary visitors, local and nonlocal, for general admission and concerts.
[19] Based on a three annual average. It should be noted, the economic impact of construction spending only occurs during the construction phase of the project. The impact figures could fluctuate if the amount of capital investment increases or decreases.
[20] Local primary visitors were omitted because it would not be considered 'new' tax revenue.
[21] Local casual visitors were omitted because it would not be considered 'new' tax revenue.

Visitations by Joseph Kinnebrew

Our measure of the economic impact of the FMG does not capture the long-run economic, societal, and cultural impacts. These impacts can include:

- New visitors to the Grand Rapids area that may return in the future given their positive experience while visiting FMG
- Community engagement events that bring people together
- Education and learning opportunities for children and adults
- Promotion of inclusivity and diversity
- Enhancement of well-being
- Promotion of creativity and expression

In May 2023, a panel of experts nominated FMG for the USA Today's Readers' Choice 10 Best award. In June 2023, it was announced that FMG was named the No. 1 sculpture park in the U.S. This award further solidifies the park's position as a must-visit destination for art and nature lovers. Ω

APPENDIX

A1: IMPLAN DISCLAIMER AND DEFINITIONS

DISCLAIMER

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.

DEFINITIONS

The IMPLAN model will report economic impact in four ways:

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.

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.

Labor Income — The increase in wages, salaries, and proprietors' income as a result of the initial change in demand (direct effects).

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 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.

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.

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 business-to-business transactions. **Induced employment** is the number of jobs supported by the household spending generated by the business activity.

Value Added — The contribution to the economic region's gross domestic product (GDP).

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.

INDUSTRY AGGREGATION

Commercial visitors were asked to identify their spending in four basic categories. Each of these categories represents multiple industry classifications within the IMPLAN model. To account for this, the IMPLAN model allows users to combine IMPLAN industry classification so the model matches the data being collected. Table A1-1 on the next page shows this industry aggregation.

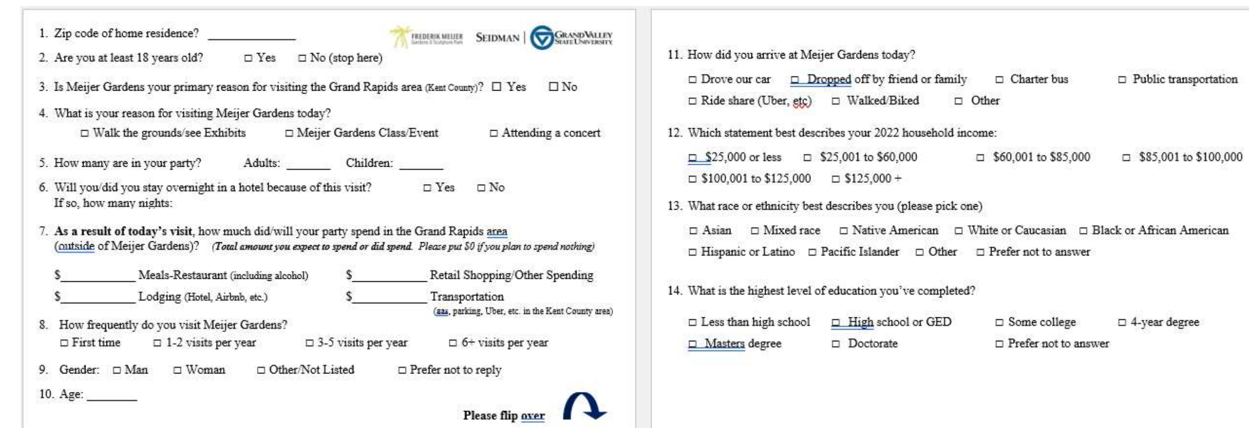
Table A1-1: IMPLAN industry aggregation

Visiting spending categories	IMPLAN Industry
Lodging	Hotels and motels, including casino hotels
	Other accommodations
Meals	Full-service restaurants
	Limited-service restaurants
	All other food and drinking places
Retail shopping	Retail-Motor vehicle and parts dealers
	Retail-Furniture and home furnishings stores
	Retail – Electronics and appliance stores
	Retail – Food and beverage stores
	Retail - Building material and garden equipment and supplies stores
	Retail - Health and personal care stores
	Retail - Clothing and clothing accessories stores
	Retail - Sporting goods, hobby, musical instrument, and bookstores
	Retail - General merchandise stores
	Retail - Miscellaneous store retailers
	Retail - Nonstore retailers
Transportation	Retail-Gasoline stores
	Scenic and sightseeing transportation and support activities for transportation
	Transit and ground passenger transportation

A2: SURVEY DETAILS

The visitor survey collected the primary economic impact data (See Figure A2-1). The survey was administered multiple times a week at random times throughout the Summer of 2023. We relied on a Grand Valley State University student research team to administer the survey.

Figure A2-1: Visitor survey



1. Zip code of home residence? ____________
2. Are you at least 18 years old? ☐ Yes ☐ No (stop here)
3. Is Meijer Gardens your primary reason for visiting the Grand Rapids area (Kent County)? ☐ Yes ☐ No
4. What is your reason for visiting Meijer Gardens today?
   ☐ Walk the grounds/see Exhibits ☐ Meijer Gardens Class/Event ☐ Attending a concert
5. How many are in your party? Adults: ______ Children: ______
6. Will you/did you stay overnight in a hotel because of this visit? ☐ Yes ☐ No
   If so, how many nights:
7. **As a result of today's visit**, how much did/will your party spend in the Grand Rapids area (outside of Meijer Gardens)? *(Total amount you expect to spend or did spend. Please put $0 if you plan to spend nothing)*
   $__________ Meals-Restaurant (including alcohol) $__________ Retail Shopping/Other Spending
   $__________ Lodging (Hotel, Airbnb, etc.) $__________ Transportation (gas, parking, Uber, etc. in the Kent County area)
8. How frequently do you visit Meijer Gardens?
   ☐ First time ☐ 1-2 visits per year ☐ 3-5 visits per year ☐ 6+ visits per year
9. Gender: ☐ Man ☐ Woman ☐ Other/Not Listed ☐ Prefer not to reply
10. Age: _______

Please flip over

11. How did you arrive at Meijer Gardens today?
    ☐ Drove our car ☐ Dropped off by friend or family ☐ Charter bus ☐ Public transportation
    ☐ Ride share (Uber, etc) ☐ Walked/Biked ☐ Other
12. Which statement best describes your 2022 household income:
    ☐ $25,000 or less ☐ $25,001 to $60,000 ☐ $60,001 to $85,000 ☐ $85,001 to $100,000
    ☐ $100,001 to $125,000 ☐ $125,000 +
13. What race or ethnicity best describes you (please pick one)
    ☐ Asian ☐ Mixed race ☐ Native American ☐ White or Caucasian ☐ Black or African American
    ☐ Hispanic or Latino ☐ Pacific Islander ☐ Other ☐ Prefer not to answer
14. What is the highest level of education you've completed?
    ☐ Less than high school ☐ High school or GED ☐ Some college ☐ 4-year degree
    ☐ Masters degree ☐ Doctorate ☐ Prefer not to answer

A3: VISITOR DEMOGRAPHICS

Section 2.2 of the main report presented some of the more general responses to survey questions and the overall demographics of FMG visitors. In this section, we will look at this data in more detail.

Figure A3-1: Gender distribution based on visitor activity

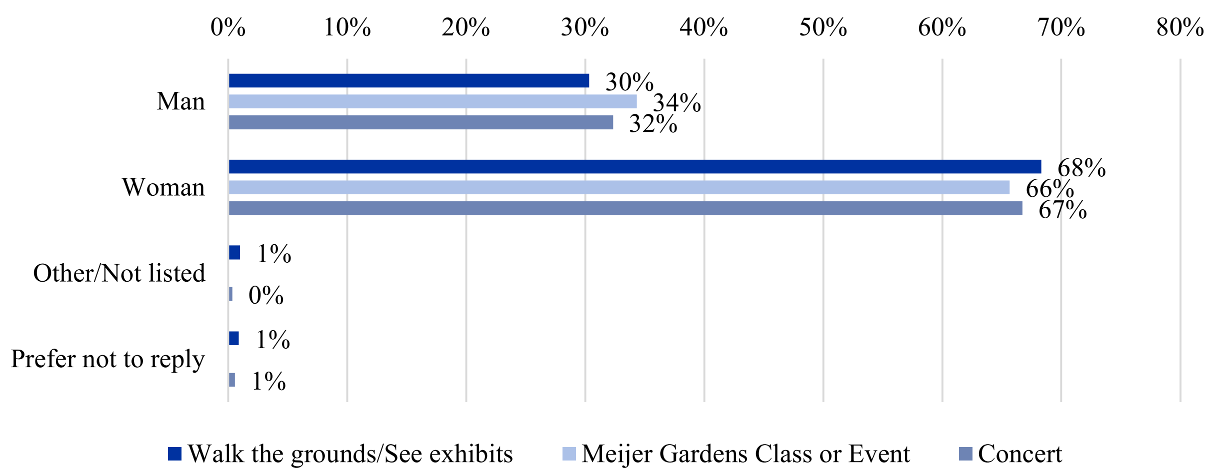


Figure A3-2: Age distribution based on visitor activity

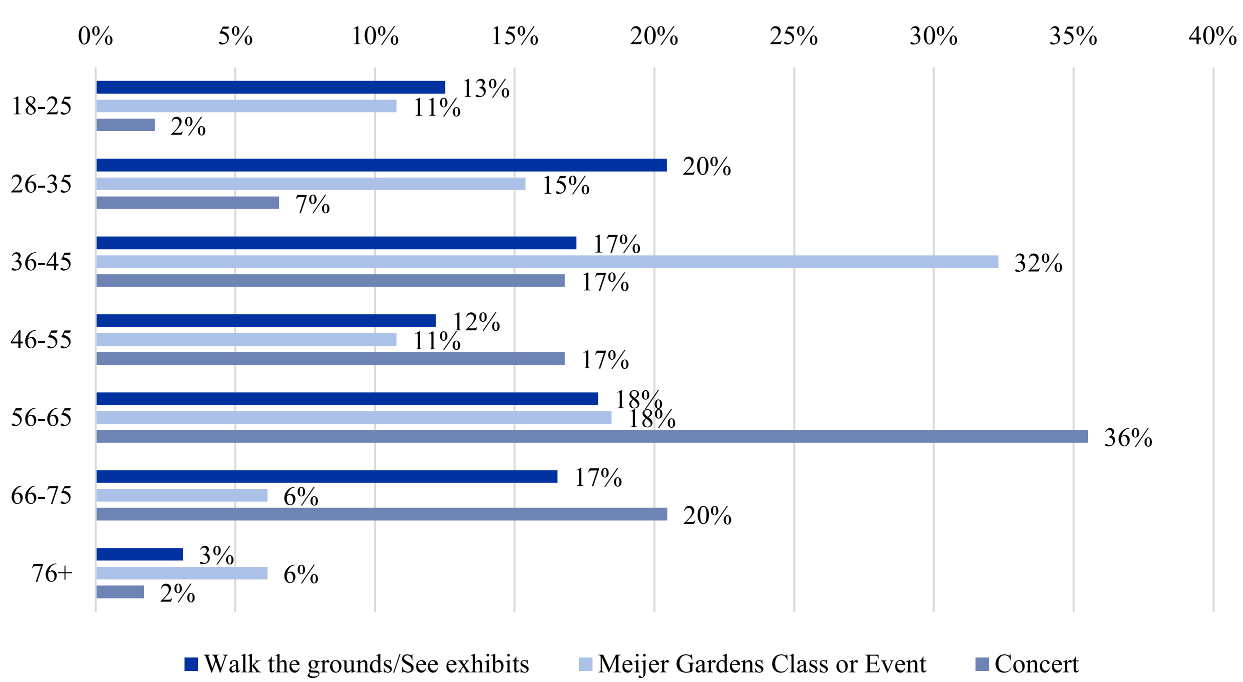


Figure A3-3: Income distribution based on visitor activity.

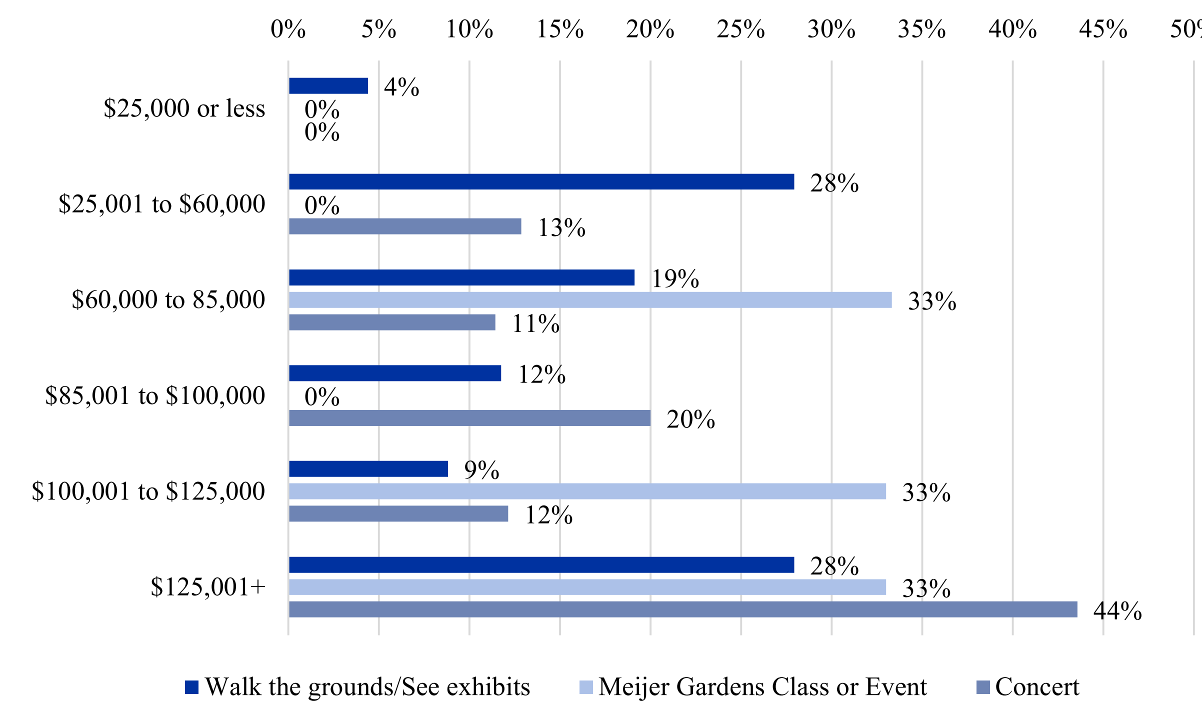


Figure A3-4: Race and ethnicity distribution based on visitor activity.

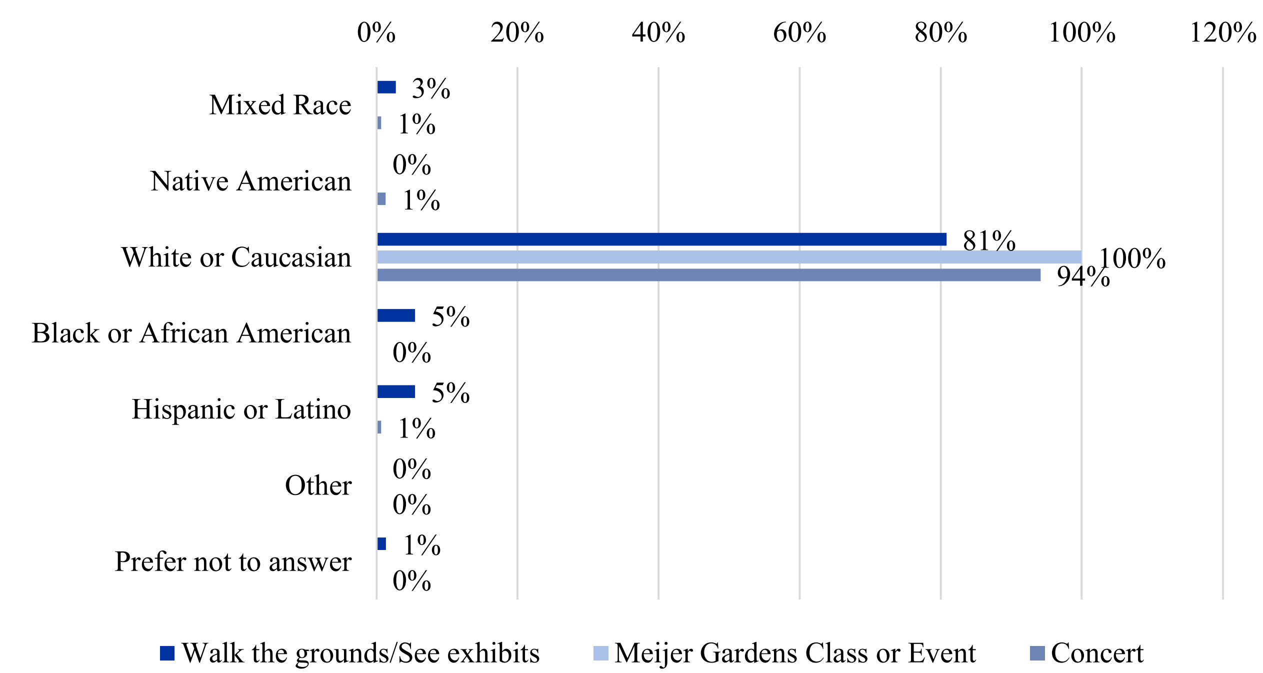


Figure A3-5: Education distribution based on visitor activity.

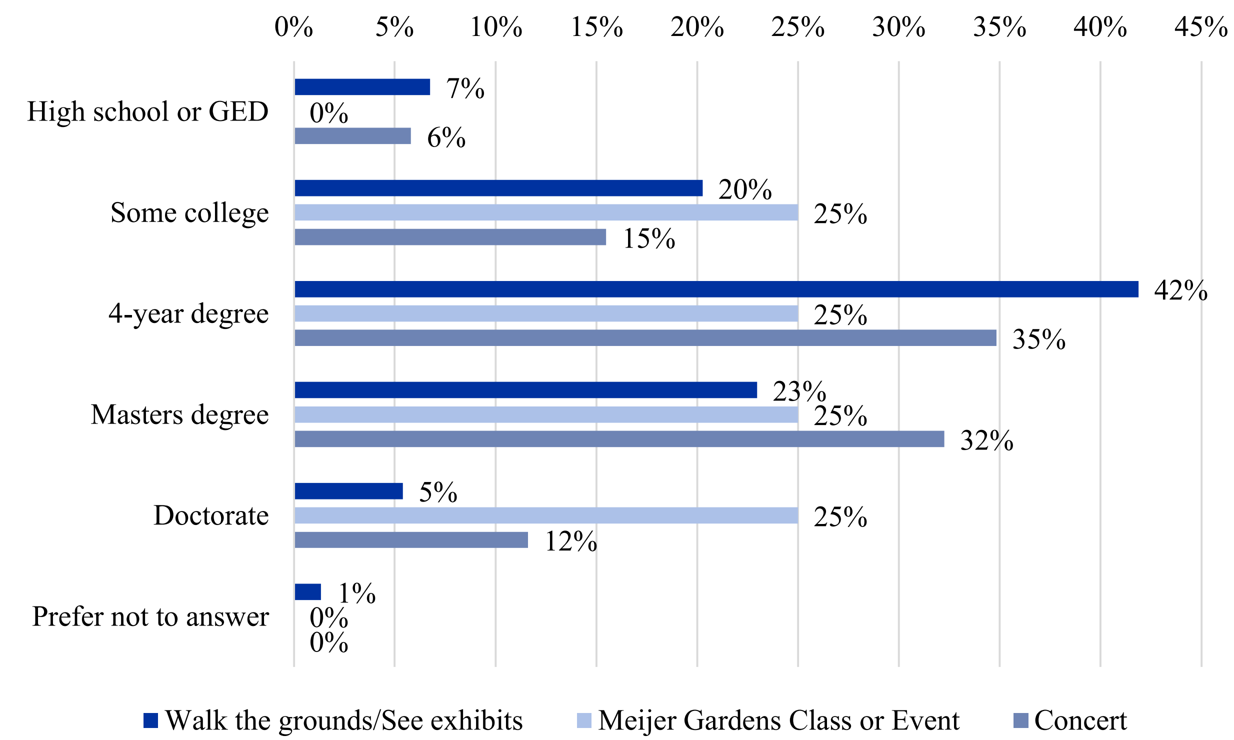
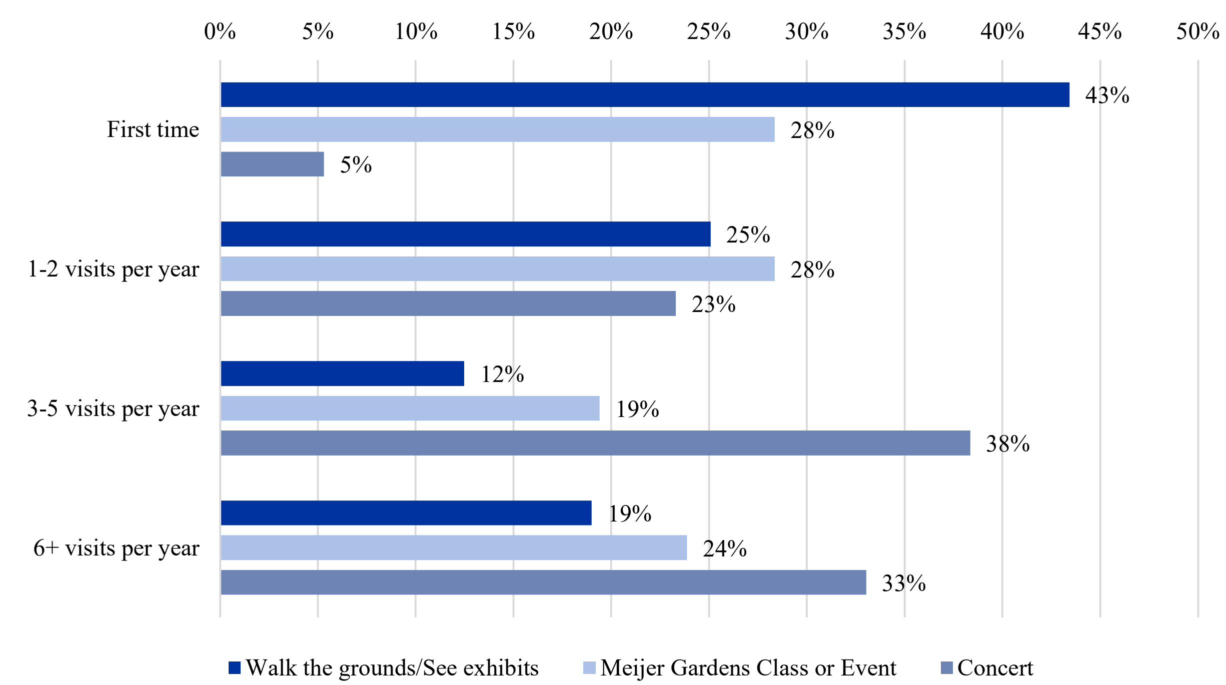


Figure A3-6: Frequency of visits based on visitor activity.



A4: ESTIMATING VISITOR SPENDING

Estimated Spending: Primary Visitors

Table A4-1 shows the average spending per person, per day for nonlocal primary visitors and Table A4-2 shows the total direct spending for the same visitors.

Table A4-1: Estimated average spending per person, per day (PPPD) for **nonlocal** primary visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$26.11	$13.31
Retail	$13.51	$4.63
Lodging	$21.33	$4.44
Transportation	$7.32	$3.80
Total Average Spending PPPD	$68.27	$26.18

Table A4-2: Estimated total direct spending for **nonlocal** primary visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$6,538,270	$164,126
Retail	$3,383,073	$57,093
Lodging	$5,341,299	$54,750
Transportation	$1,833,019	$46,858
Direct spending by visitor type	$17,095,661	$322,827
Total direct spending (as shown in Table 4)	$17,418,488	

Table A4-3 shows the average spending per person, per day for local primary visitors and Table A4-4 shows the total direct spending for the same visitors.

Table A4-3: Estimated average spending per person, per day (PPPD) for **local** primary visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$7.13	$13.09
Retail	$2.80	$3.30
Lodging	$0.00	$0.00
Transportation	$2.94	$1.38
Total Average Spending PPPD	$12.87	$17.77

Table A4-4: Estimated total direct spending for **local** primary visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$1,785,441	$161,413
Retail	$701,155	$40,692
Lodging	$0	$0
Transportation	$736,213	$17,017
Direct spending by visitor type	$3,222,809	$219,123
Total direct spending (as shown in Table 4)	$3,441,931	

Estimated spending: Casual Visitors

The tables below follow the same format as that of the primary visitors (see section above).

Table A4-5: Estimated average spending per person, per day (PPPD) for **nonlocal** casual visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$37.33	$13.06
Retail	$19.78	$4.71
Lodging	$32.04	$6.06
Transportation	$10.18	$1.98
Total Average Spending PPPD	$99.33	$25.81

Table A4-6: Estimated total direct spending for **nonlocal** casual visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$13,079,902	$147,115
Retail	$6,930,631	$53,056
Lodging	$11,226,361	$68,263
Transportation	$3,566,928	$22,304
Direct spending by visitor type	$34,803,822	$290,739
Total direct spending (as shown in Table 7)	$35,094,561	

Table A4-7: Estimated average spending per person, per day (PPPD) for **local** casual visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$10.47	$10.12
Retail	$3.53	$1.31
Lodging	$0.00	$0.00
Transportation	$1.95	$0.95
Total Average Spending PPPD	$15.95	$12.38

Table A4-4: Estimated total direct spending for **local** casual visitors.

Nonlocal primary visitors	General Admission	Concert
Meals	$3,668,539	$113,998
Retail	$1,236,862	$14,757
Lodging	$0	$0
Transportation	$683,252	$10,701
Direct spending by visitor type	$5,588,654	$139,455
Total direct spending (as shown in Table 7)	$5,728,109	

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