



GENESEE COUNTY PARKS

Get away. Right away.

2015-2016 Economic Impact Analysis of the Genesee County Parks and Recreation Commission Report

Prepared for:
**Genesee County
Parks and Recreation Commission**



Prepared by:
pros 
consulting
LLC

August 2017

TABLE OF CONTENTS

Section 1. Introduction 1

 1.1 Economic Impact from Tourism..... 1

 1.2 Economic Impact from Operations 2

 1.3 Total Commission Economic Impact 2

 1.4 CRV Attendance 2

Section 2. Economic Impact Analysis of Crossroads Village Operations 3

 2.1 Visitor Analysis 4

 2.2 CRV Economic Impact 6

 2.3 Conclusion 7

Section 3. Economic Impact Analysis of Day Out With Thomas at Crossroads Village Operations..... 7

 3.1 Day out With Thomas Visitor Analysis 7

 3.2 Economic Impact of Day Out With Thomas 10

 3.3 Conclusion 10

Section 4. Economic Impact Analysis of the 2016 Michigan Warrior Dash 10

 4.1 Visitor Analysis 10

 4.2 Analysis Assumptions..... 11

 4.3 2016 Michigan Warrior Dash Economic Impact 13

 4.4 Conclusion 14

Section 5. Economic Impact Analysis of 2016 Local Payroll for the Genesee County Parks and Recreation Commission 14

 5.1 Economic Impact of 2016 Local Payroll 14

 5.2 Conclusion 15

Section 6. Economic Impact Analysis of 2016 Local Purchases for the Genesee County Parks and Recreation Commission 15

 6.1 Conclusion 16

Section 7. Other Economic Factors 17

 7.1 GPRC Volunteer Hours 17

 7.2 Keep Genesee County Beautiful Volunteer Hours 17

2015-2016 Economic Impact Analysis of Genesee County Parks and Recreation Commission

SECTION 1. INTRODUCTION

The Genesee County Parks and Recreation Commission (GCPRC) makes a significant economic impact to the local community through tourism, local purchasing and local payroll. The national economy has had a negative impact on the Crossroads Village (CRV) revenues, but even with economic downturn, CRV continues to make a significant positive impact through tourism. PROS Consulting LLC performed an economic impact analysis to measure the economic benefit from the operations of the Parks Commission. Three tourism functions, two segments of the Commission operations, and the value of volunteer services were analyzed:



- Tourism
 - Crossroads Village and Huckleberry Railroad (CRV)
 - Day Out With Thomas at Crossroads Village (DOWT)
 - 2016 Michigan Warrior Dash
- Commission Operations
 - Parks and Recreation Commission local purchasing from Genesee County businesses
 - Parks and Recreation Commission local payroll to Genesee County residents
 - Volunteer Services
 - Park Volunteer Program
 - Keep Genesee County Beautiful

1.1 ECONOMIC IMPACT FROM TOURISM

Figure 1 shows the summary of the economic analysis from tourism. Crossroads Village and Huckleberry Railroad analysis indicates an additional economic impact of \$7.6 million and 204 jobs from tourist spending.

Figure 1 – Economic Impact Summary

Tourism Event	Economic Impact	Jobs
Crossroads Village and Huckleberry Railroad without DOWT	\$ 5,255,640	138
Day Out With Thomas at CRV	\$ 981,180	27
Michigan Warrior Dash	\$ 1,398,962	39
Total Economic Impact from Tourism	\$ 7,635,782	204

The data for this analysis is based on CRV visitor surveys and economic factors from the Regional Input-Output Modeling System produced by the U.S. Department of Commerce - Bureau of Economic Analysis. The model developed in Microsoft Excel uses local multipliers and presents approximate economic impact on the local economy. The economic impact is expressed in terms of dollars generated in the economy and in terms of the change in the number of jobs. Based on the economic multipliers for the Flint metropolitan statistical area, the average salary per new job is estimated at \$25,501.54.

1.2 ECONOMIC IMPACT FROM OPERATIONS

The total economic impact from in-county payroll, local direct expenditures, and volunteer programs is \$11.2 million and 208 jobs shown in **Figure 2**. The economic impact of in-county payroll is \$5.0 million and 101 jobs. The economic impact of local direct expenditures is \$5.3 million and 107 jobs. The total value of volunteer hours during fiscal year ending 2016 is \$964,343 based on the U.S. Department of Commerce average personal income for the Genesee County area.

Figure 2 – Operations Economic Impact Summary

Commssion Operations	Economic Impact	Jobs
Commission Local Payroll	\$ 4,960,980	101
Commission Local Purchasing	\$ 5,283,442	107
Park Volunteer Program	\$ 347,775	N/A
Keep Genesee County Beautiful Program	\$ 616,568	N/A
Total	\$ 11,208,765	208

1.3 TOTAL COMMISSION ECONOMIC IMPACT

From the segments and events analyzed the total economic impact is \$18,844,547 and 412 jobs as shown in **Figure 3**.

Figure 3 – Total Economic Impact Summary

Description	Economic Impact	Jobs
Tourism	\$ 7,635,782	204
Commission Operations	\$ 11,208,765	208
Total Economic Impact	\$ 18,844,547	412

1.4 CRV ATTENDANCE

The annual attendance for CRV including DOWT is shown in **Figure 4**. The visitor count shifted from the summer season to the Halloween and Christmas seasons.

The Fiscal Year Ending 2016 CRV attendance including DOWT decreased from 2015 attendance, but is fourth highest in the 10-year attendance shown in **Figure 4**.

Figure 4 – Annual CRV Attendance

Attendance										
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Summer	77,505	78,507	67,010	68,070	64,775	54,249	54,352	56,661	54,780	46,091
Halloween	46,080	36,944	39,120	34,458	33,706	43,145	39,468	42,227	46,508	45,992
Christmas	37,993	37,663	27,781	36,761	33,156	42,715	44,462	42,391	57,394	60,619
Total	161,578	153,114	133,911	139,289	131,637	140,109	138,282	141,279	158,682	152,702

A decrease in visitors living farther away from CRV (excluding DOWT) was shown in the estimated total visitors with an increase in visitors living nearer to CRV as shown in **Figure 5**.

Figure 5 – Change in Distance Traveled to CRV in Visitors Surveyed

Total Annual Visitors					
Distance Traveled To CRV (Miles)					
Greater Than	Less Than or Equal To	Estimated Total		Estimated Total	
		Visitors By Distance In 2015	2015 Percent of Total	Visitors By Distance In 2016	2016 Percent of Total
0	25	55,629	38.64%	55,650	40.01%
25	50	46,115	32.03%	43,569	31.31%
50	75	22,605	15.70%	21,691	15.59%
75	100	10,714	7.44%	9,800	7.04%
100	150	3,194	2.22%	2,984	2.14%
150	200	1,501	1.04%	1,399	1.01%
200	250	4,014	2.79%	3,831	2.75%
250	and over	199	0.14%	213	0.15%
Total Annual Visitors		143,971	100.00%	139,137	100.00%

SECTION 2. ECONOMIC IMPACT ANALYSIS OF CROSSROADS VILLAGE OPERATIONS

PROS Consulting LLC performed an economic impact analysis to measure the economic benefit of Crossroads Village and Huckleberry Railroad. The data for this analysis is based on CRV visitor data, economic factors from the U.S. Department of Commerce - Bureau of Economic Analysis, and CRV visitor information. The model developed in Microsoft Excel uses local multipliers and presents estimated economic impacts on major retail sectors; such as, lodging and food/beverage sectors. The CRV economic analysis excludes the impact of the “Down Out With Thomas” event that is analyzed separately below.

2.1 VISITOR ANALYSIS

The CRV historical visitor data from fiscal year 2016 is used to identify the attendance and the travel distance for CRV visitors. The CRV attendance data excluding the DOWT events is segmented into eight distance groups as shown in **Figure 6**.

Figure 6 - Distribution of Annual Visitor by Distance Traveled

Total Annual Visitors (2016)				
Distance Traveled To CRV (Miles)				
Greater Than	Less Than or Equal To	Total Visitors Surveyed	Percent of Total	Estimated Total Visitors By Distance
0	25	50,556	40.00%	55,650
25	50	39,581	31.31%	43,569
50	75	19,706	15.59%	21,691
75	100	8,903	7.04%	9,800
100	150	2,711	2.14%	2,984
150	200	1,271	1.01%	1,399
200	250	3,480	2.75%	3,831
250	and over	194	0.15%	213
Totals		126,402	100.00%	139,137

PROS estimated the average out-of-area visitor spending per day by spending category as shown in **Figure 7**.

Figure 7- Spending Amounts by Visitor per Day

Spending Level by Category	Estimated Average Daily Spending Per Visitor
Accommodation	\$ 60.00
Food services and drinking places	\$ 50.00
Transit and ground passenger transportation	\$ 15.00
Retail trade	\$ 25.00
Performing arts, museums, and related activities	\$ 7.50
Amusements, gambling, and recreation	\$ 7.50
Other services	\$ 10.00
Total	\$ 175.00

The economic impact multipliers used in this analysis are from U.S. Department of Commerce - Bureau of Economic Analysis, Regional Economic Analysis Division, Analysis and Special Studies Branch, Regional Input-Output Modeling System (RIMS II) for the Genesee County, Michigan area. The RIMS II factors are most recently available based on 2010 economic information. **Figure 8** shows the factors used in the analysis.

Figure 8 - RIMS II Multipliers

Region: Flint MSA (Type II)							
	Final-demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final-demand Employment /3/ (number of jobs)	Final-demand Value-added /4/ (dollars)	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)	
Accommodation	1.5612	0.3952	15.6434	0.8815	1.5664	1.4207	
Food services and drinking places	1.5401	0.4179	23.6217	0.8604	1.442	1.2095	
Transit and ground passenger transport	1.5034	0.5340	20.8221	1.0036	1.2987	1.2411	
Retail trade	1.5236	0.4087	16.1219	0.9804	1.4547	1.3434	
Performing arts, spectator sports, music, and recreation	1.5516	0.3955	14.5121	0.9346	1.5513	1.4887	
Amusements, gambling, and recreation	1.516	0.4508	24.809	0.965	1.381	1.1986	
Other services*	1.6656	0.574	18.4597	0.9597	1.391	1.4281	

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

The average spending per out-of-town visitor per day was adjusted based on the distance the visitor traveled to CRV. The major assumption is that the spending is less for visitors traveling shorter distances than the spending of those visitors driving from longer distances. The adjustments are shown in **Figure 9**.

Figure 9 - Adjustments to Average Visitor Spending

Distance Traveled To CRV (Miles)									
Greater Than	Less Than or Equal To	Accommodation	Food services and drinking places	Transit and ground passenger transportation	Retail trade	Performing arts, museums, and related activities	Amusements, gambling, and recreation	Other services	
0	25	0%	0%	0%	0%	0%	100%	5%	
25	50	0%	10%	0%	0%	35%	100%	10%	
50	75	0%	20%	25%	35%	50%	100%	15%	
75	100	0%	30%	35%	45%	60%	100%	25%	
100	150	0%	40%	45%	55%	70%	100%	50%	
150	200	10%	60%	100%	75%	80%	100%	50%	
200	250	25%	100%	100%	100%	90%	100%	50%	
250	and over	100%	100%	100%	100%	100%	100%	100%	

The direct CRV related spending was estimated based on the visitor survey data and analysis described above. The net spending per visitor by distance traveled is shown in **Figure 10**.

Figure 10 - Net Direct CRV Related Spending Per Visitor

Total Annual Visitor Spending					
CRV (Miles)					
Greater Than	Less Than or Equal To	Estimated Total Visitors By Distance	Total Spending Per Visitor	Estimated Total Spending	
0	25	55,650	\$ 11.50	\$ 639,975.00	
25	50	43,569	\$ 19.63	\$ 855,259.47	
50	75	21,691	\$ 38.75	\$ 840,526.25	
75	100	9,800	\$ 49.50	\$ 485,100.00	
100	150	2,984	\$ 61.75	\$ 184,262.00	
150	200	1,399	\$ 91.75	\$ 128,358.25	
200	250	3,831	\$ 127.75	\$ 489,410.25	
250	and over	213	\$ 178.50	\$ 38,020.50	
Totals		139,137		\$ 3,660,911.72	

2.2 CRV ECONOMIC IMPACT

The total direct economic impact of CRV is shown in **Figure 11**. The economic impact is \$5,255,640 with a local job impact of 138 full-time jobs.

Figure 11 - Total Economic Impact of CRV

Economic Impact of the Medium Spending Profile by Category	Total Rev/Sales Captured by Local Region	Final Demand				Direct Effect	
		Output (Dollars) <1>	Earnings (Dollars) <2>	Employment / \$M Sales (Jobs) <3>	Final-demand Value-added (Dollars) <4>	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)
Accommodation	78,639	122,771	48,519	2	108,223	76,000	3
Food services and drinking places	885,605	1,363,920	569,982	32	1,173,517	821,914	39
Transit and ground passenger transportation*	234,578	352,665	188,323	7	353,935	244,575	9
Retail trade	468,408	713,666	291,675	12	699,678	424,300	16
Performing arts, museums, and related activities	1,530,507	2,374,735	939,208	34	2,219,427	1,456,993	51
Amusements, gambling, and recreation	291,544	441,981	199,245	11	426,512	275,157	13
Other services*	171,631	285,868	164,088	5	274,348	228,246	7
Total Annual Spending	\$ 3,660,912	\$ 5,655,606	\$ 2,401,040	103	\$ 5,255,640	\$ 3,527,185	138

- Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
- Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
- Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

Figure 11 illustrates the total final economic impact of CRV operations. Column 1 shows the output in terms of dollars. Columns 2 and 3 are estimates of the final effect earnings and employment (jobs), on the Genesee County area. The Final-demand Value-added in dollars is shown in Column 4. Columns 5 and 6 show the Direct-effect Earnings and Total Jobs, respectively.

2.3 CONCLUSION

The Final-demand Value-added factors include direct, indirect, and induced economic impacts. This economic benefit is estimated to be \$5,255,640 with a local job increase of 138 full-time jobs. This analysis excludes the impacts of the Day Out with Thomas events.

SECTION 3. ECONOMIC IMPACT ANALYSIS OF DAY OUT WITH THOMAS AT CROSSROADS VILLAGE OPERATIONS

PROS Consulting LLC performed an economic impact analysis to measure the economic benefit of Day Out With Thomas (DOWT) program at Crossroads Village and Huckleberry Railroad. The data for this analysis is based on CRV visitor data, economic factors from the U.S. Department of Commerce - Bureau of Economic Analysis, and CRV visitor information. The model developed in Microsoft Excel uses local multipliers and presents estimated economic impacts on major retail sectors; such as, lodging and food/beverage sectors.

3.1 DAY OUT WITH THOMAS VISITOR ANALYSIS

The Day Out with Thomas visitor data from the six days over two weekends are used to identify the attendance and the travel distance for visitors. The attendance data from the survey and projected total visitor distances were segmented into seven distance groups as shown in **Figure 12**.

Figure 12 - Distribution of Annual Visitor by Distance Traveled

Total DOWT Visitors (2016)				
Distance Traveled To CRV (Miles)				
Greater Than	Less Than or Equal To	Total Visitors Surveyed	Percent of Total	Estimated Total Visitors By Distance
0	25	1,438	14.43%	1,957
25	50	2,985	29.95%	4,062
50	75	2,889	28.98%	3,932
75	100	941	9.44%	1,281
100	150	862	8.65%	1,173
150	200	398	3.99%	542
200	250	399	4.00%	543
250	and over	56	0.56%	75
Total Annual Visitors		9,968	100.00%	13,565

The first segment of zero to 25 miles includes visitors from Genesee County. The segments over 250 miles are an estimated eight-hour drive time. PROS estimated the average out-of-area visitor spending per day by spending category as shown in **Figure 13**.

Figure 13 - Spending Amounts by Visitor Per Day

Spending Level by Category	Estimated Average Daily Spending Per Visitor
Accommodation	\$ 60.00
Food services and drinking places	\$ 50.00
Transit and ground passenger transportation	\$ 15.00
Retail trade	\$ 25.00
Performing arts, museums, and related activities	\$ 7.50
Amusements, gambling, and recreation	\$ 21.00
Other services	\$ 10.00
Total	\$ 188.50

The economic impact multipliers used in this analysis are from the U.S. Department of Commerce - Bureau of Economic Analysis, Regional Economic Analysis Division, Analysis and Special Studies Branch, Regional Input-Output Modeling System (RIMS II) shown in **Figure 8**.

The average spending per out-of-town visitor per day was adjusted based on the distance the visitor traveled to the CRV. The major assumption is that the spending is less for visitors traveling shorter distances than the spending of those visitors driving from longer distances. The adjustments are shown in **Figure 14**.

Figure 14 - Adjustments to Average Visitor Spending

Distance Traveled To CRV (Miles)		Spending Adjustments by Distance Traveled							
Greater Than	Less Than or Equal To	Accommodation	Food services and drinking places	Transit and ground passenger transportation	Retail trade	Performing arts, museums, and related activities	Amusements, gambling, and recreation	Other services	
0	25	0%	0%	0%	0%	0%	100%	5%	
25	50	0%	10%	0%	23%	35%	100%	10%	
50	75	0%	20%	25%	35%	50%	100%	15%	
75	100	0%	30%	35%	45%	60%	100%	25%	
100	150	0%	40%	45%	55%	70%	100%	50%	
150	200	10%	60%	100%	75%	80%	100%	50%	
200	250	25%	100%	100%	100%	90%	100%	50%	
250	and over	100%	100%	100%	100%	100%	100%	100%	100%

The direct DOWT related spending was estimated based on the visitor survey data and analysis described above. The net spending per visitor by category by distance traveled is shown in **Figure 15**. The total direct spending is shown in **Figure 16**.

Figure 15 - Net Direct DOWT Related Spending Per Visitor

Distance Traveled To CRV (Miles)		Adjusted Spending Per Visitor								Total Spending Per Visitor
Greater Than	Less Than or Equal To	Accommodation	Food services and drinking places	Transit and ground passenger transportation	Retail trade	Performing arts, museums, and related activities	Amusements, gambling, and recreation	Other services		
0	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21.00	\$ 0.50	\$ 21.50	
25	50	\$ -	\$ 5.00	\$ -	\$ 5.75	\$ 2.63	\$ 21.00	\$ 1.00	\$ 35.38	
50	75	\$ -	\$ 10.00	\$ 3.75	\$ 8.75	\$ 3.75	\$ 21.00	\$ 1.50	\$ 48.75	
75	100	\$ -	\$ 15.00	\$ 5.25	\$ 11.25	\$ 4.50	\$ 21.00	\$ 2.50	\$ 59.50	
100	150	\$ -	\$ 20.00	\$ 6.75	\$ 13.75	\$ 5.25	\$ 21.00	\$ 5.00	\$ 71.75	
150	200	\$ 6.00	\$ 30.00	\$ 15.00	\$ 18.75	\$ 6.00	\$ 21.00	\$ 5.00	\$ 101.75	
200	250	\$ 15.00	\$ 50.00	\$ 15.00	\$ 25.00	\$ 6.75	\$ 21.00	\$ 5.00	\$ 137.75	
250	and over	\$ 60.00	\$ 50.00	\$ 15.00	\$ 25.00	\$ 7.50	\$ 21.00	\$ 10.00	\$ 188.50	

Figure 16 - Total Direct Spending by Day Out with Thomas Visitors

Total DOWT Visitors (2016)					
Distance Traveled To CRV (Miles)					Estimated Total Spending
Greater Than	Less Than or Equal To	Estimated Total Visitors By Distance	Total Spending Per Visitor		
0	25	1,957	\$ 21.50	\$ 42,075.50	
25	50	4,062	\$ 35.38	\$ 143,693.25	
50	75	3,932	\$ 48.75	\$ 191,685.00	
75	100	1,281	\$ 59.50	\$ 76,219.50	
100	150	1,173	\$ 71.75	\$ 84,162.75	
150	200	542	\$ 101.75	\$ 55,148.50	
200	250	543	\$ 137.75	\$ 74,798.25	
250	and over	75	\$ 188.50	\$ 14,137.50	
Total DOWT Visitor Spending				\$ 681,920.25	

3.2 ECONOMIC IMPACT OF DAY OUT WITH THOMAS

The total direct tourism spending is estimated to be \$681,920 from the two weekends of the Day Out with Thomas event. The economic impact on the local area is \$981,180 and approximately 27 jobs. **Figure 17** shows economic impact by industry sector.

Figure 17 - Total Economic Impact of DOWT

Economic Impact of the Medium Spending Profile by Category	Total Rev/Sales Captured by Local Region	Final Demand				Direct Effect	
		Output (Dollars) <1>	Earnings (Dollars) <2>	Employment/\$ M Sales (Jobs) <3>	Final-demand Value-added (Dollars) <4>	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)
Accommodation	15,897	24,818	9,808	-	21,877	15,364	1
Food services and drinking places	149,465	230,191	96,197	5	198,056	138,716	7
Transit and ground passenger transportation*	46,788	70,341	37,562	1	70,594	48,782	2
Retail trade	113,914	173,559	70,934	3	170,158	103,187	4
Performing arts, museums, and related activities	284,865	441,997	174,810	6	413,090	271,182	10
Amusements, gambling, and recreation	44,810	67,932	30,624	2	65,555	42,292	2
Air transportation	-	-	-	-	-	-	-
Other services*	26,181	43,607	25,030	1	41,850	34,817	1
Total Annual Spending	\$ 681,920	\$ 1,052,445	\$ 444,965	18	\$ 981,180	\$ 654,340	27

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

3.3 CONCLUSION

The Day Out with Thomas event not only provided a quality family event for the citizens of Genesee County, but also produced nine hundred thousand dollars in economic benefit from tourism.

SECTION 4. ECONOMIC IMPACT ANALYSIS OF THE 2016 MICHIGAN WARRIOR DASH

PROS Consulting LLC performed an economic impact analysis to measure the economic benefit of the Michigan Warrior Dash held on July 30, 2016. E. A. Cummings Center was the staging site for the race. The data for this analysis is based on the 2016 Michigan Warrior Dash registration, economic factors from the U.S. Department of Commerce - Bureau of Economic Analysis. The model developed in Microsoft Excel uses local multipliers and presents estimated economic impacts on major retail sectors; such as, lodging and food/beverage sectors.

4.1 VISITOR ANALYSIS

The Michigan Warrior Dash registration information is used to estimate the attendance and the travel distance for visitors is used to estimate the visitor spending. The attendance data was segmented into eight distance groups as shown in **Figure 2**.

Figure 2 - Distribution of Annual Visitor by Distance Traveled

Distance Traveled To Genesee County (Miles)				
Greater Than	Less Than or Equal To	Total Visitors Registered	Percent of Total	Total Visitors (1 additional visitor per
0	25	965	9.25%	1,930
25	75	5,927	56.81%	11,854
75	150	2,525	24.20%	5,050
150	250	948	9.09%	1,896
250	500	63	0.60%	126
500	750	1	0.01%	2
750	1000	-	0.00%	-
1000	and over	4	0.04%	8
Total Visitors		10,433	100.00%	20,866

4.2 ANALYSIS ASSUMPTIONS

The economic analysis of Michigan Warrior Dash is based on the registrants participating in the race and stay for the two days. One additional visitor for each registrant is assumed to attend based actual attendance for a recent Warrior Dash in Florida. Spending patterns are based on the estimates and assumptions shown in **Figure 3**.

PROS estimated the average visitor spending for the two race days by spending category as shown in **Figure 3**. The amounts in Figure 3 estimate the spending of one person over the two-day period. The accommodation assumes one nights lodging double occupancy at \$120 per night.

Figure 3 - Spending Amounts by Visitor per Day

Spending by Category	Estimated Average Spending Per Visitor (for the two race days)
Accommodation	\$ 60.00
Food services and drinking places	\$ 70.00
Transit and ground passenger transportation	\$ 10.00
Retail trade	\$ 25.00
Performing arts, museums, and related activities	\$ 7.50
Amusements, gambling, and recreation	\$ 7.50
Other services	\$ 10.00
Total	\$ 190.00

The economic impact multipliers used in this analysis are from U.S. Department of Commerce - Bureau of Economic Analysis, Regional Economic Analysis Division, Analysis and Special Studies Branch, Regional Input-Output Modeling System (RIMS II) for the Genesee County, Michigan region. The RIMS II factors are based on 2010 economic information. **Figure 4** shows the factors used in the analysis.

Figure 4 - RIMS II Multipliers

Region: Flint MSA (Type II)						
	Final-demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final-demand Employment /3/ (number of jobs)	Final-demand Value-added /4/ (dollars)	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)
Accommodation	1.5612	0.3952	15.6434	0.8815	1.5664	1.4207
Food services and drinking places	1.5401	0.4179	23.6217	0.8604	1.442	1.2095
Transit and ground passenger transportation*	1.5034	0.5340	20.8221	1.0036	1.2987	1.2411
Retail trade	1.5236	0.4087	16.1219	0.9804	1.4547	1.3434
Performing arts, spectator sports, museums, zoos, and parks	1.5516	0.3955	14.5121	0.9346	1.5513	1.4887
Amusements, gambling, and recreation	1.516	0.4508	24.809	0.965	1.381	1.1986
Other services*	1.6656	0.5740	18.4597	0.9597	1.391	1.4281

SOURCE: Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

The average spending per out-of-town visitor is adjusted based on the distance the visitor traveled to the Genesee County area. The major assumption is that the spending is less for visitors traveling shorter distances than the spending of those visitors traveling from longer distances. The adjustments are shown in **Figure 5**. The visitors from 25 miles or less are assumed to be from the Genesee County area and thus there is no out-of-area funds brought into Genesee County.

Figure 5 - Adjustments to Average Visitor Spending

To Genesee County (Miles)		Adjustment Factors								
Greater Than	Less Than or Equal To	Food services and drinking places		Transit and ground passenger transportation		Performing arts, museums, and related activities		Amusements, gambling, and recreation		Other services
		Accommodation			Retail trade					
0	25	0%	0%	0%	0%	0%	0%	0%	0%	
25	75	5%	25%	0%	25%	0%	0%	0%	10%	
75	150	50%	50%	0%	50%	10%	10%	10%	50%	
150	250	75%	75%	0%	75%	25%	25%	25%	50%	
250	500	100%	75%	25%	100%	25%	25%	25%	75%	
500	750	100%	100%	50%	100%	50%	50%	50%	100%	
750	1000	100%	100%	75%	100%	100%	100%	100%	100%	
1000	and over	100%	100%	100%	100%	100%	100%	100%	100%	

The direct Michigan Warrior Dash related spending was estimated based on the visitor survey data and analysis described above. The net spending per visitor by distance traveled is shown in **Figure 6**.

Figure 6 – Estimated Direct Michigan Warrior Dash Related Spending

Total Visitor Spending (2016)					
Distance Traveled To Genesee County (Miles)					Estimated Total Spending
Greater Than	Less Than or Equal To	Esstimated Visitors	Total Spending Per Visitor		
0	25	1,930	\$ -	\$ -	
25	50	11,854	\$ 27.75	\$ 328,948.50	
50	75	5,050	\$ 84.00	\$ 424,200.00	
75	100	1,896	\$ 125.01	\$ 237,018.96	
100	150	126	\$ 151.26	\$ 19,058.76	
150	200	2	\$ 177.50	\$ 355.00	
200	250	-	\$ 187.50	\$ -	
250	and over	8	\$ 190.00	\$ 1,520.00	
Total		20,866		\$ 1,011,101.22	

4.3 2016 MICHIGAN WARRIOR DASH ECONOMIC IMPACT

The total direct economic impact of 2016 Michigan Warrior Dash is shown in **Figure 7**. The economic impact is \$1,398,962 with a local job impact of 38 full-time jobs.

Figure 7 - Total Economic Impact of the Michigan Warrior Dash

Economic Impact of the Medium Spending Profile by Category	Total Rev/Sales Captured by Local Region	Final Demand				Direct Effect	
		Output (Dollars) <1>	Earnings (Dollars) <2>	Employment / \$M Sales (Jobs) <3>	Final-demand Value-added (Dollars) <4>	Direct-effect Earnings (Dollars) <5>	Direct-effect Employment (Number of Jobs) <6>
Accommodation	280,542	437,982	173,090	7	386,081	271,128	10
Food services and drinking places	491,048	756,263	316,042	18	650,689	455,733	22
Transit and ground passenger transportation*	405	609	325	-	611	422	-
Retail trade	176,163	268,402	109,696	4	263,141	159,575	5
Performing arts, museums, and related activities	7,657	11,881	4,699	-	11,104	7,290	-
Amusements, gambling, and recreation	7,657	11,608	5,233	-	11,202	7,227	-
Other services*	47,629	79,331	45,536	1	76,134	63,341	1
Total Spending and Economic Impact	\$ 1,011,101	\$ 1,566,076	\$ 654,621	30	\$ 1,398,962	\$ 964,716	38

- Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 2008 data, the output delivered to final demand should be in 2008 dollars.
- Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
- Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
- Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

Figure 7 illustrates the total final economic impact of 2016 Michigan Warrior Dash. Column 1 shows the output in terms of dollars. Columns 2 and 3 are estimates of the final effect earnings and employment (jobs), on the Genesee County area. The Final-demand Value-added in dollars is shown in Column 4. Columns 5 and 6 show the Direct-effect Earnings and Total Jobs, respectively.

4.4 CONCLUSION

The Final-demand Value-added factors include direct, indirect, and induced economic impacts. This economic benefit is estimated to be \$1,398,962 with a local job increase of 38 full-time jobs.

SECTION 5. ECONOMIC IMPACT ANALYSIS OF 2016 LOCAL PAYROLL FOR THE GENESEE COUNTY PARKS AND RECREATION COMMISSION

This analysis measures the estimated economic benefit of local payroll of the Commission. This analysis is based on payroll of in-county employees.

5.1 ECONOMIC IMPACT OF 2016 LOCAL PAYROLL

The Commission's local payroll for fiscal year ending 2016 is used as the basis for the analysis. The annual local payroll amounts were summed for employees with a local U.S. Postal Service Zip Code. The impact of local payroll was analyzed using the recreation industry impact economic multipliers from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS). Each RIMS industry category has a value multiplier and a jobs multiplier. The Commission's local payroll was multiplied by the related multipliers to calculate the economic impacts in terms of economic value and jobs. The payroll details are shown in **Figure 18**.

Figure 18 – County Payroll Details

Payroll	
In County Wages	\$ 3,391,103.00
Out County Wages	\$ 638,505.00
Total Payroll FYE 9/30/16	\$ 4,029,608.00

The economic impact multipliers used in this analysis from U.S. Department of Commerce - Bureau of Economic Analysis, Regional Economic Analysis Division, Analysis and Special Studies Branch, Regional Input-Output Modeling System (RIMS II) for the Genesee County, Michigan area. The RIMS II factors are based on 2010 economic data for the region as shown in **Figure 19**.

Figure 19 – Economic Mutlipliers

Region: Genesee County (Type II) Series: 2010 U.S. Annual I-O data and 2010 Regional Data	Final- demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final- demand Employment /3/ (number of jobs)	Final- demand Value- added /4/ (dollars)	Direct- effect Earnings /5/ (dollars)	Direct- effect Employment /6/ (number of jobs)
Amusements, gambling, and recreation	1.516	0.4508	24.809	0.965	1.381	1.1986

Genesee County Commission employees that live in the County contribute to the Genesee County economy through purchase of goods and services in Genesee County. This analysis includes only Commission employees living in Genesee County. The local payroll for fiscal year ending 2016 is \$3,391,103.

Figure 20 illustrates the total final economic impact of the Genesee County Parks and Recreation Commission Local Payroll. Column 1 shows the output in terms of dollars. Columns 2 and 3 are estimates of the final effect earnings and employment (jobs), on the Genesee County area. The Final-demand Value-added in dollars is shown in Column 4. The Final-demand Value-added factors include direct, indirect, and induced economic impacts. Column 5 shows the effect on household earnings of all industries for each dollar in the analyzed activities of the Commission. The total jobs in all industries are shown in Column 6 that result from the total change in jobs of the analyzed activities of the Commission.

Figure 20 - Total Economic Impact of 2016 Genesee County Parks and Recreation Commission Local Payroll

	Final-demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final-demand Employment /3/ (number of jobs)	Final-demand Value-added /4/ (dollars)	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)
Local Payroll	1.5160	0.4508	24.8090	0.9650	1.3810	1.1986
\$ 3,391,103	Results \$ 5,140,912.15	\$ 1,528,709.23	84	\$ 4,960,980	\$ 2,111,147	101

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

5.2 CONCLUSION

Final economic impact of Commission local payroll is estimated to be \$4,960,980 with a local job increase of 101 full-time jobs.

SECTION 6. ECONOMIC IMPACT ANALYSIS OF 2016 LOCAL PURCHASES FOR THE GENESSEE COUNTY PARKS AND RECREATION COMMISSION

The Commission's local purchasing for fiscal year ending 2016 is used as the basis for the analysis. The annual local purchasing amounts were summed for vendors with a local U.S. Postal Service Zip Code. The impact of local purchases was analyzed using the recreation industry impact economic multipliers from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS). Each RIMS industry category has a value multiplier and a jobs multiplier. The Commission local purchases were multiplied by the related multipliers to calculate the economic impacts in terms of economic value and jobs.

The economic impact multipliers used in this analysis from U.S. Department of Commerce - Bureau of Economic Analysis, Regional Economic Analysis Division, Analysis and Special Studies Branch, Regional Input-Output Modeling System (RIMS II) for the Genesee County, Michigan area. The RIMS II factors are based on 2010 economic data for the region as shown in **Figure 21**.

Figure 21 – Economic Mutlipliers

Region: Genesee County (Type II) Series: 2010 U.S. Annual I-O data and 2010 Regional Data	Final- demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final- demand Employment /3/ (number of jobs)	Final- demand Value- added /4/ (dollars)	Direct- effect Earnings /5/ (dollars)	Direct- effect Employment /6/ (number of jobs)
Amusements, gambling, and recreation	1.516	0.4508	24.809	0.965	1.381	1.1986

The total in-county direct expenditures of the Commission for fiscal year ending 2016 are \$3,611,523.

Figure 22 illustrates the total final economic impact of the in-county expenditures of the Genesee County Parks and Recreation Commission. Column 1 shows the output in terms of dollars. Columns 2 and 3 are estimates of the final effect earnings and employment (jobs), on the Genesee County area. The Final-demand Value-added in dollars is shown in Column 4. The Final-demand Value-added factors include direct, indirect, and induced economic impacts.

Figure 22 - Total Economic Impact of 2016 Genesee County Parks and Recreation Commission Expenditures from In-County Vendors

Local Purchasing	Final-demand Output /1/ (dollars)	Final-demand Earnings /2/ (dollars)	Final-demand Employment /3/ (number of jobs)	Final-demand Value-added /4/ (dollars)	Direct-effect Earnings /5/ (dollars)	Direct-effect Employment /6/ (number of jobs)	
	Factors	1.516	0.4508	24.809	0.965	1.381	1.1986
\$ 3,611,523	Results	\$ 5,475,069.16	\$ 1,628,074.65	90	\$ 5,283,442	\$ 2,248,371	107

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

6.1 CONCLUSION

Final economic impact of Commission local purchases is estimated to be \$5,283,442 with a local job increase of 107 full-time jobs.

SECTION 7. OTHER ECONOMIC FACTORS

7.1 GPRC VOLUNTEER HOURS

GCPRC benefits from a successful volunteer program. The value of the volunteer hours from recent years is shown in **Figure 23**. The Commission estimates the hourly value volunteer hours at \$21.22 per hour. The value of the 2016 Park volunteer hours is \$347,775.

Figure 23- Estimated Value of GPRC Volunteer Hours

Fiscal Year	Number of Hours	Value of Volunteer Hours
2007	18,286	\$388,029
2008	13,335	\$282,969
2009	17,603	\$373,536
2010	18,180	\$385,780
2011	18,710	\$397,026
2012	18,836	\$399,700
2013	15,989	\$339,287
2014	14,228	\$301,918
2015	15,276	\$324,157
2016	16,389	\$347,775

Source: United States Department of Labor: Occupational Employment Statistics: May 2016 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates - Flint, Michigan

7.2 KEEP GENESEE COUNTY BEAUTIFUL VOLUNTEER HOURS

GCPRC Keep Genesee County Beautiful (KGCB) program provides community beautification, planting and recycling. The value of the volunteer hours from 2016 is shown in **Figure 24**. The Commission estimates the hourly value volunteer hours at \$21.22 per hour. The value of the 2016 Park volunteer hours is \$616,568.

Figure 23- Estimated Value of KGCB Volunteer Hours

Fiscal Year	Number of Hours	Value of Volunteer Hours
2016	29,056	\$616,568

Source: United States Department of Labor: Occupational Employment Statistics: May 2016 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates - Flint, Michigan