2013 USA Cycling Professional Road National Championships Economic Impact Report

Prepared for USA Cycling, Inc.

By

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TABLE OF CONTENTS

Page

Executive Summary 3

REPORT SECTIONS

1 Background/Purpose 5

2 Data Collection 5

Methods 5

Responses 6

Analysis 7

3 Results: Participant Expenditures 8

4 Results: Team Expenditures 8

5 Results: Spectator/Visitors Expenditures 9

6 Results: Overall lodging/hotel utilization 9

7 Resident Impacts 9

8 Summary Expenditures/Multiplier Effects 10

9 About the Researcher 13

A APPENDIX 14

IMPLAN model assumptions 14

Executive Summary

In order to fully characterize the economic impacts that USA Cycling national championship events have on host communities, this study was commissioned to perform an economic impact analysis of the 2013 Professional Road Championships (Road Race and Individual Time Trial) in Chattanooga, TN. The events were hosted in the Chattanooga, TN vicinity between May 25th and May 27th, 2013. The following summary list enumerates some key findings of the study, while the complete methods, results, and analysis follow in the body of the report.

Key Findings

- The Championships brought at least 1641 visitors in to the Chattanooga, TN area. This consisted of 166 participants and an estimated 1475 additional non-local spectators and travel companions. About 47% of the participants and 43% of the non-local spectators were female. ***Only 1.4% of all participants lived in the local area.***
- Lodging for event participants, teams, non-local spectators, and non-local event personnel generated approximately ***3776 paid hotel room nights***.
- The number of on-site spectators for the Time Trial and Road Racing events was estimated to be 2802 unique individuals (Individual Time Trial: 833, Road Races: 2661). Of these, ***an estimated 1250 (44.6%) were non-local, non-competitor visitors to Chattanooga***.
- Non-local spectators reported spending an average of 2.9 nights in Chattanooga with average local expenditures of $557, for a total contribution of approximately $696,769 in direct local spending during their visits.
- The direct spending associated with the event organization also contributed nearly $158,185 in local expenditures to the Hamilton County economy.
- ***In total, the direct expenditures in the Chattanooga, TN (Hamilton County) area associated with the USA Cycling Professional Road National Championships' presence was approximately $1,048,692.***
- Due to a variety of conservative assumptions, measures, and estimation techniques, these figures could be viewed as constituting a "lower bound" for the levels of direct spending of the USA Cycling Professional National Championships. In contrast to many commercially hosted and solicited economic impact analyses, which seek to paint the rosiest picture of an event, this report specifically sought to estimate the minimum verified impacts, with confidence that the "true" total impacts would only be greater than estimated.
- When factoring the indirect and induced spending in the Hamilton County economy, the events ***generated a total of $1,569,670 in independent economic impact*** for the local community.

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2013 USA Cycling Economic Impact Analysis

BACKGROUND/PURPOSE

Every year, USA Cycling sanctions national championships in well over 500 category and discipline combinations. As one of its most prominent event properties, the Professional National Championships regularly feature America's top professional participants and draws significant spectator interest. It can quickly be presumed that these events will have significant impacts on the economies of these host localities. First of all, out-of-town attendees, both participants and spectators, spend money in local businesses (direct spending), and a good portion of this money is recirculated within the community through local salaries (indirect spending), replenishment of inventories (induced spending), and local governments may witness increased tax revenues (e.g. sales, property, and income). Additionally, the event organizers themselves bring direct spending into the community by employing local labor and engaging in business with local vendors.

The purpose of this study, commissioned by USA Cycling in cooperation with the race management company Medalist Sports, the Chattanooga Convention and Visitors Bureau, and Outdoor Chattanooga, is to attempt to accurately estimate the total fiscal impacts of the 2013 USA Cycling Professional Road National Championships events on one such location, Chattanooga, TN. This type of analysis has been conducted in the past for USA Cycling national championship events, including Bend, OR and Augusta, GA; but much of the focus of those studies has been on tourism and event participants alone. This study will focus more on the composition of visitors, particularly non-local spectators; such that USA Cycling can have the best information about the potential impacts/benefits that their professional national championship competition might continue to bring to the host community of Chattanooga, TN.

DATA COLLECTION

There were four main components of this economic impact analysis data collection:

(1) Web based participant survey
(2) Team organization survey
(3) Competition venue spectator survey
(4) Spectator/visitor estimations

Methods

Participants: The participant data was collected using web-based questionnaires. All event registrants were contacted one day following the championships, and a follow-up email to non-respondents was sent after one week. They were asked to participate in a survey with the stated purpose of helping USA Cycling "understand the impact of the championships on the local community". Within this instrument, they were asked to report their personal direct spending, spending on any "financial party" companions, length of stay, hotel utilization, and some basic demographic information.

Teams: As the professional cycling team organizations often account for the largest portion of local spending on behalf of the (employee) participants, a survey of the managers of attending teams was taken. A paper and pencil questionnaire was distributed at the compulsory team managers meeting the evening before the Road Race event. The attending team managers were asked to participate in a survey with the stated purpose of helping USA Cycling "understand the impact of the championships on the local community". Within this questionnaire instrument, they were asked to report their organization's direct spending across common spending categories, the number of members in the organization's traveling party (staff + participants), length of stay, and hotel utilization.

Spectators: The race venue spectator survey was designed to determine the spending patterns of non-local, non-participant spectators associated with their visit to Chattanooga, TN. A randomized intercept method was used at the two event sites. Spectators along the courses were asked if they would, "take a moment to participate in a short survey about the events". Participants and local residents were excluded from the final sample data. Basic demographic characteristics were collected in addition to their direct local spending, travel party size, length of stay, and hotel utilization.

Crowd estimations: At the Individual Time Trial venue, spectator counts were taken directly at the event site near the conclusion of the Men's Time Trial event (peak attendance).

For the Road Race venue, the spectator/visitor estimation was conducted using high-definition video recordings of the visible crowd directly from a caravan race vehicle. This technique allowed for a direct measure of nearly all of the individuals with a direct view or proximity to the race course. The actual video captured consisted of the final lap of the long road race circuit, and the first of the three final downtown circuits.

The level of spectator accumulation was also sampled at several points during the Road Race and Time Trial competitions. During the peak spectator levels of the events, researchers began randomly sampling sections of the course in order to determine the relative representation of local residents, and non-local/non-participant spectators. At each set distance (data collection point) on the outside and inside perimeters of the courses, the researchers sampled the spectators within one approximate barricade length of the course. Their locations were noted and no course sections were sampled more than once. Additionally, during each data collection stop, those who indicated that they were non-local/non-participants were asked to participate in our study by filling out the questionnaire discussed above.

Responses

Participants: In total, 68 participant questionnaires were completed, yielding approximately 41% of the possible participants. In terms of responses to individual questionnaire items, there was little variation throughout the questionnaires and in general, the inquiries made about event spending and length of stay were completed (n = 64; 94.1%).

Team Management: Twenty four of the 42 (57%) possible team managers completed a questionnaire on behalf of their organization. In general the survey responses were complete with the lowest individual item response rate of 95.8%, or one missing value.

Spectators: In terms of the on-site spectator survey administered at the time trial and road race venues, 639 individuals were asked and indicated whether they were local residents or not. Local residents comprised 55.4% of this crowd, while the remainder was non-local spectators (44.6%). Of the non-local, non-participant crowd members, 147 completed local economic impact questionnaires out of 285 solicitations (51.6% response rate).

In terms of responses to individual questionnaire items of the non-local spectators, there was some variation throughout the questionnaires. This arose either through incomplete/abandoned questionnaires, or through conscious non-response. In particular, the household income was often not reported (only 91 answered, 62%), but in general, the inquiries made about event spending and length of stay were completed (n = 140; 95.2%).

Crowd Estimation: Two (left, right) high definition "GoPro" cameras were mounted to a VIP race caravan vehicle to traverse the Road Race course with a full field of view in close proximity (physical and temporal) to the racing action. The timing of the footage was intended to capture the entire conclusion of the event, but due to the early retirement of the vehicle from the caravan, only one full lap of the event was recorded. Despite this, the observations offered a complete view of the course spectators very close to the conclusion of the event, with only 15.3 miles (~35 min) remaining. The total visible number of spectators observed at this time was approximately 2661 individuals. Using the spectator sample composition and the video measurements of the total crowd size, the total number of non-local spectators was estimated to be approximately 1641 individuals.

Analysis

After compiling all of the data and estimating a summative amount for direct spending from all of the non-local spending parties entering the local economy, an IMPLAN analysis system was used to estimate the total economic impact of the event. Using this technique, we adopt a standard "Input-Output" framework wherein every additional "new" dollar of spending in the relevant economy, in this case Hamilton County, has further impacts (ripple effects) on local businesses and industries that we can estimate based on a matrix of the local industrial characteristics. IMPLAN is a statistical software tool for this procedure that incorporates the particular characteristics and data of an area of interest (Hamilton County). IMPLAN also allows us to specify industry categories to which spending is accruing, e.g. lodging, retail, food service, in order to realize the most accurate estimate of the event's effects. This process necessarily excludes any local resident spending, as these activities would merely constitute transfers away from other local spending actions. Therefore, we specifically exclude spending data from the handful of local participants and any local spectators captured during the survey process.

PARTICIPANTS

The participant spending at the Championships fell into the following categories:

- Personal spending associated with their visit.
- Spending for other adult competitors/companions that they were personally paying for.

The reported personal spending was understandably low as most of the competitors' expenses were incurred by their respective cycling teams (see "TEAMS" below).

The descriptive statistics for the participant sample is listed in the following table.

Adult participants (n = 68)				
Descriptives	**Mean**	**SD**	**Max**	**Min**
Gender (% Male)	41.2%	-	-	-
# of Others financially responsible for	2.14	2.81	10	0
Visit Days	4.4	1.60	15	1
Visit Nights	3.8	1.62	10	0
Own Spending	$289.10	423.87	1900	0
Other Spending	$73.15	221.60	1550	0
Total Reported Spending per person	**$362.25**			

The average reported total spending per visit night per person for Adult participants was approximately $95.

TEAM EXPENDITURES

The team organizations comprised the largest portion of the expenditures on behalf of the participants. These figures were collected as an aggregate of the organizations local expenditures for all of its riders, staff, and management. The following table contains the descriptive statistics for this sample group:

Team Managers (n = 24)				
Descriptives	**Mean**	**SD**	**Max**	**Min**
Travel Party Size	9.3	4.2	16	1
Days	5.1	1.9	9	0
Nights	4.4	2.2	8	0
Spending per person	$351	260	948	16
Average Total Local Spending per Team	**$3258.90**	**2418.70**	**8800**	**150**

SPECTATOR/VISITOR EXPENDITURES

The following table displays the non-local spectator respondents' basic characteristics and their reported totals of local spending.

Non-Local Spectators (n = 147)				
Descriptives	**Mean**	**SD**	**Max**	**Min**
Age	42.4	12.3	85	14
Gender (% Male)	56%	-	-	-
Household income	$120,551	91,790	500,000	175
Days	3.2	5.2	60	0
Nights	2.9	5.6	60	0
Total Local Spending per person	**$585.29**	**632.56**	**3960**	**8**

LODGING PATTERNS/HOTEL UTILIZATION

The participants, teams, and non-local spectators also reported the total number and type of lodging they used. While the event organizers and teams utilized paid lodging options, the non-local spectators used a much higher proportion of private residences or other accommodations (several indicating camping as lodging choice). The estimated totals are shown below.

Group	***Room nights***	***% of all lodging***
Teams	936	71.20%
Participants	190	N/A*
Non-local Spectators	2175	59.70%
Event Organizers	475	100%
Total	**3776**	

*Participants were only asked about paid nights lodging, not lodging types.

RESIDENT IMPACTS

While it is commonly accepted that new events can bring increased spending into a regional or local economy, it is nearly as commonly neglected that these new events could potentially have negative impacts as well. It is straightforward for a community to calculate the fiscal costs/investments in attracting and hosting events, such as public service provisions, subsidies, and/or inducements, but it is more difficult to capture other impacts such as displacement of economic activities. For example, it has been shown that mega-events such as a Super Bowl, Daytona 500, Olympic Games, etc. actually have the effects of local residents "running away" from the event area, and/or visitors "avoiding" the area because of increased congestion and overbooked facilities (crowding out effects). In the former case, the local residents that flee the area would be taking local expenditures away during their absence, and spending local monies in outside communities and activities. In the later case, new spending that would have

otherwise entered the local economy is forgone and assumably made in some outside (non-local) area. There are several reasons we will give that the particular instance of the 2013 USA Professional Road Cycling Championships in Chattanooga may escape such problems, or that they can cautiously be assumed to be negligible.

If we consider the Time Trial location first, we can see that the area of the competition is located in an industrial park/campus that is used sparsely during a normal weekend day. As a non-residential venue it would not impact any residential activity, and not negatively impact our economic analysis for Chattanooga, TN and Hamilton County.

In terms of "run-aways" for the road race course however, the event organization and Chattanooga might suffer some of these concerns. In particular, the Road Race venue makes use of many downtown thoroughfares that are regularly used to access several of Chattanooga's tourist attractions. Several local media outlets' pre-event coverage also implied that people should "avoid the area" due to the extensive road closures. These challenges may have affected the local residents living on or within the race course. While these effects are not measured in this study, the potential negative impacts should be considered in future planning and mitigated wherever possible.

The potential "crowding out" effects of large events can be analyzed by considering the available industrial capacity and impact of the event on local tourists. The largest relevant concern here would be the capacity of accommodations. While the USA Cycling Professional Road Championships featured a reasonably large number of participants and related visitors, approximately 2000 when event staff are included, this is a small number compared to the lodging capacity of Hamilton County which is in excess of 12,000 rooms. We also assume the non-local tourist impacts are negligible as the profile of the cycling championships would not be high in the mind of potential visitors nor did the events interfere with any of the local attractions' normal operations.

It is important to note that these conditions would not necessarily be consistent across potential event host communities. Chattanooga can almost be viewed as a favorable scenario in terms of minimizing negative local impacts/displacements. Any prospective community should also consider these impacts relative to their own particular infrastructure conditions, hotel stock, concurrent events, and available competition venues.

SUMMARY EXPENDITURES/MULTIPLIER EFFECTS

As probably the most important concern among policy makers interested in hosting or attracting events to their communities, the relevant effects on local economic activity must also be explicitly estimated. While the direct expenditures can be very consistent from locale to locale (taking into consideration cost of living differences), the subsequent indirect and induced impacts can vary based on a communities variety of industrialization and import-export balances.

We first considered the total direct impacts generated from our data collection:

Direct Impacts:

Estimated Total Spending (gross $) by Non-Local Championship Visitor Category					
Sector	**Teams**	**Participants**	**Non-local Spectators**	**Event Organizers**	**Total**
Lodging	64,269	21,421	288,206	55,000	428,896
Food	43,735	25,352	245,251	30,700	345,037
Entertainment	5,387	1,636	53,427	0	60,449
Shopping	7231	2,185	58,329	0	67,745
Local Transportation	11,687	5,956	41,224	4,500	63,368
Other (misc. retail)	4,773	940	10,332	7335	23,379
Public services				10,250	10,250
Event Services (local)				50,400	50,400
Total	137,082	57,490	696,769	158,185	**$1,049,525**

An IMPLAN impacts model was then created to translate our measured estimates of direct spending into total impacts for the Chattanooga, TN economy. To begin with the model analysis only includes the marginal effects of direct spending on the local goods ($983,146 v. $1,049,525) to account for the fact the initial influx of spending suffers some "leakages" to outside providers of initial goods sold, i.e. goods sold are often "imported" from outside suppliers. The retail spending categories suffer this effect most significantly, but the Lodging and Food and Beverage sectors (where most event spending occurs) have high "marginal gains" from trade and retain much of the gross transaction spending.

Overall Impacts:

Impact Types	*Employment (jobs)*	*Labor Income*	*Value Added*	*Output*
Direct Effect (marginal)	13.1	$325,304	$547,011	$983,146
Indirect Effect	2.6	$122,211	$156,288	$323,903
Induced Effect	2.2	$94,330	$156,669	$262,621
Total Effect	**17.9**	**$541,844**	**$859,968**	**$1,569,670**

Along with considering these indirect and induced impacts, IMPLAN can also be used to analyze how the events presence differentially affects other local business sectors. Despite the fact that we gather all of our direct participant spending into 8 broad categories, these initial transactions "ripple" into the local economy and have economic output impacts of $500 or more in 100 (23.7%) of the area's 421 industrial sectors. The top 10 affected sectors and output effects are show below.

Impacts by Industrial Sector (Top 10 affected):

Sector	Description	Employment (jobs)	Labor Income	Value Added	Output
411	Hotels and motels, including casino	4.1	$101,397	$202,395	$429,057
413	Food services and drinking places	5.5	$119,132	$172,315	$322,715
326	Retail Stores - Gasoline stations	0.8	$39,670	$64,078	$86,289
329	Retail Stores - General merchandise	1.1	$28,066	$50,966	$66,597
330	Retail Stores - Miscellaneous	1.2	$27,462	$47,110	$59,004
410	Other amusement and recreation	0.8	$21,220	$28,064	$44,615
360	Real estate establishments	0.2	$6,337	$31,694	$42,302
361	Imputed rental activity for owner-occupied dwellings	0	$0	$23,655	$35,768
428	Federal electric utilities	0.1	$8,973	($24,995)	$33,848
357	Insurance carriers	0.1	$6,928	$15,686	$26,976

Finally, all of this output activity influences tax revenues for federal, state, and local governments. In the case of Hamilton County, these indirect effects circulate back to the local government primarily through the local sales tax receipts and property taxes. The following table summarizes the state and local tax impacts of Chattanooga, TN hosting the events. It is important to note that the impact of any "State level" tax items may be overstated because some of the respondents included in our analysis may be TN residents even though they are not Hamilton County residents.

Tax Impacts:

Description	Employee Compensation	Indirect Business Tax	Households	Corporations
Dividends				$79
Social Ins Tax- Employee Contribution	$147			
Social Ins Tax- Employer Contribution	$261			
Indirect Bus Tax: Sales Tax		$62,362		
Indirect Bus Tax: Property Tax		$27,173		
Indirect Bus Tax: Motor Vehicle Lic		$976		
Indirect Bus Tax: Severance Tax		$35		
Indirect Bus Tax: Other Taxes		$8,515		
Indirect Bus Tax: S/L NonTaxes		$3,484		
Corporate Profits Tax				$2,208
Personal Tax: Income Tax			$326	
Personal Tax: NonTaxes (Fines- Fees			$1,136	
Personal Tax: Motor Vehicle License			$467	
Personal Tax: Property Taxes			$144	
Personal Tax: Other Tax (Fish/Hunt)			$240	
Total State and Local Tax	**$407**	**$102,546**	**$2,313**	**$2,287**

ABOUT THE RESEARCHERS

Daniel J. Larson, PhD
Dr. Larson is a Lecturer at the University of Oklahoma. Dr. Larson's research focuses on sport economics and specifically the economic issues within the sport of cycling. Dr. Larson functions as the coordinator for the project/report.

Andrew Bailey, PhD
Dr. Bailey is an Assistant Professor and Program Coordinator for the Sport and Leisure Service Administration program at the University of Tennessee Chattanooga. Dr. Bailey has expertise in research design related to youth development, community programs, and recreation travel and tourism. Dr. Bailey assisted in data collection along with several University of Tennessee-Chattanooga student assistants.

APPENDIX

Input-output analysis assumptions

The input-output (IO) analysis on IMPLAN relies on several simplifying assumptions that should be considered when interpreting results. While these assumptions generally are not met in their entirety, IO (and IMPLAN) provides a good balance between practicality and accuracy. That is particularly true in cases, such as the present study, where the impact being evaluated is a small compared to the overall study area economy. In such cases, non-linearities can be reasonably approximated with the linear relationships inherent in IO. IO assumptions include the following:

1. All businesses within each sector produce a single, homogeneous product or service; the input procedures used in the production process are identical.

2. An increase of production will lead to purchase of inputs in the proportions shown in the technical coefficients matrix. In technical terms, the production function is linear and homogeneous. This assumption restricts economies of scale; IO analysis assumes a business always will use the same proportion of inputs regardless of how much it grows.

3. When households are included in the analysis (as is done for this analysis), their spending patterns (consumption functions) also are assumed to be linear and homogeneous.

4. The structure of the economy will not change. Many input-output models, including the one used here, are static in nature. They are based on data from a single year (in this case 2011) and yet are used to estimate significance in other years. Dramatic structural changes in the economy would invalidate this assumption. The project area, and the nation as a whole, had been in recession, but this is assumed to be a temporary phenomenon that does not involve a substantial structural change to the Hamilton County economy.

5. When IO is used to estimate the effect of changes in final demand (as in the present case), there must be unemployed resources available to be brought into the sector as inputs.