



# PALM BEACH COUNTY SPORTS COMMISSION

## ECONOMIC IMPACT OF THE 2021 WINTER EQUESTRIAN FESTIVAL



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# I. Introduction

This report contains the results of a study of the 2021 Winter Equestrian Festival (WEF) held at the Palm Beach International Equestrian Center in Wellington, Palm Beach County, Florida. The purpose of the study was to estimate the economic impact of the WEF on the Palm Beach County Economy, including the impact on Gross Domestic Product (GDP), employment (jobs), and labor earnings (wages and salaries plus supplements to wages and salaries plus proprietors' income).

The report was prepared for the Palm Beach County Sports Commission. The Sports Commission is a private, not-for-profit organization contracted by Palm Beach County to promote and market the County as a sports and sports tourism destination. The Commission attracts sports events and activities to the County to create economic impacts, stimulate tourist tax revenues and maximize utilization of sport venues.

The report contains six sections. Following the Introduction, Section II is an Executive Summary that highlights key findings of the study. Section III provides details of an extensive comprehensive internet survey of WEF 2021 participants, including riders, trainers and horse owners. The WEF was closed to the general public this year because of COVID 19 and so the survey did not include visitors. Such visitors come to the WEF in order to watch the horses competing and practicing (schooling) as well as to visit the stabling areas.

A description of the results of the internet survey of participants with special emphasis on their expenditures on their horses during the WEF follows in Section IV. Non-resident participants make tourist expenditures (lodging, dining, shopping, local transportation etc.) in Palm Beach County during the WEF and an analysis of these expenditures is presented in Section V. The last section of the report contains the total economic impact of the 2021 WEF, which is the sum of the impacts of horse expenditures and

visitor expenditures. It also contains the impact of WEF visitors on paid room nights in the Palm Beach County lodging industry.

The authors of this report have extensive experience in economic impact studies of local and regional economies. We would like to note that the equestrian industry is extremely complex in regard to accurately assessing its economic impact. For this reason, we would like to thank the riders, owners and production staff who provided information during the course of our research. The riders, horse owners and trainers especially provided valuable information for the internet survey.

## II. Executive Summary

1. The Winter Equestrian Festival (WEF) normally has 12 consecutive weeks of US Equestrian Federation (USEF) and Fédération Equestre Internationale (FEI) sanctioned competitions that begin in the second week of January. The 2020 WEF closed one week early because of the COVID-19 pandemic. In 2021, WEF began one week earlier than normal to make up for the early closure in 2020.
2. The 2021 Winter Equestrian Festival contributed \$279 million and 2,880 jobs to the Palm Beach economy. This resulted in labor earnings of \$83.9 million with average earnings of \$29,131 per job.
3. Most of the income and employment (79.3 percent) were generated from horse expenditures by participants (riders, owners and trainers) of \$168 million; tourist expenditures of \$35.6 million generated 20.7 percent. All the tourist expenditures were generated by participants (rider, owners and trainers) because WEF 2021 was closed to the general public because of the COVID 19 pandemic.
4. The data used to generate the economic impact estimates for this study were obtained from an internet survey of almost 3,000 email addresses obtained from Equestrian Sport Productions (ESP) who produce the WEF. The response rate to the survey was 32.2 percent (768 returned questionnaires).<sup>1</sup> This was greater than our targets of a 20 percent response rate and at least 400 completed surveys returned.
5. The 2021 questionnaire was a modification of the 2020 questionnaire based on experience with the 2020 questionnaire.

6. Direct horse expenditures amounted to \$133 million with an average of \$23,164 per horse. Variation among participants reflected their different numbers of horses and differences in the length of time they were at the WEF. The average number of horses per participant was 3, with more than 50 percent involved with 1 or two horses. The average time participants spent at the WEF was 9.73 weeks or 2.43 months.
7. Direct tourist expenditures of \$35.6 million were made by non-resident participants. This amounted to \$20,208 per visiting party. Variation among nonresident participants reflected differences in party sizes and differences in lengths of stay. The average party size was 2.7 persons and the average length of stay was 66.5 nights. Another factor was the share of visitors who paid for their lodging (72.3 percent). Some nonresident participants owned the condominiums or house where they lodged. WEF 2021 nonresident participants generated 149,894 paid room nights for the Palm Beach County lodging industry. This estimate reflects the absence of attendees at WEF 2021, but also the increased duration of the event.

### III. Description of the Internet Survey

The economic impact of WEF 2021 results from the expenditures made in connection with the Festival by participants, namely riders, owners, and trainers. In contrast to previous WEFs, the events were closed to the general public in 2021 because of the COVID 19 pandemic so there was no economic impact from the spending by attendees. Data were collected by means of an internet survey sent to email addresses. The internet survey used Survey Monkey software.

An internet survey sent out by email has several advantages when compared with traditional mail surveys, telephone surveys and personal interview surveys. It is the least costly and fastest among the different methods. The questionnaire is self-administered (as is also true of a traditional mail survey) avoiding the costs of interviewers. The questionnaire is delivered to respondents almost instantly. Respondents can fill out the questionnaire quickly by clicking a mouse for most questions and contact information is provided for those who might have questions. Branching among questions on the questionnaire is seamless to respondents since earlier answers can direct the respondent to the appropriate section of the questionnaire instantly. Reminders can be sent to non-respondents by clicking a button.

By sending out the survey at the end of the WEF, respondents can give actual expenditures data rather than a projection of future expenditures. This collection of data “ex post” is regarded as “best practice” in expenditure surveys.

A database of almost 3,000 unduplicated email addresses of participants was obtained from ESP Productions who produce WEF. The entries in the database contained information supplied by the participants as they registered as riders, owners or trainers. Participants could register for more than one registration category, and this resulted in duplicate emails which were removed from the sample surveyed. A total of 2,697 email addresses were contacted. The Survey Monkey software indicated that

234 emails “bounced because of an invalid email address or because the address did not accept email surveys. Additionally, 78 of those contacted “opted out” of the survey by clicking an unsubscribe button. The remaining 2,385 email addresses were the “population” surveyed. The returned questionnaires were viewed as the sample.

A modification of the 2020 questionnaire was sent out in 2021. The modifications reflected our experience in 2020, the first year we had surveyed a WEF population. For example, our experience showed that respondents often failed to complete the survey, and we added some questions at the beginning of the survey to obtain important respondent characteristics, rather than later in the survey when the information was needed to direct the respondent to an appropriate branch of questions. The survey was sent out in a series of 3 “waves” beginning on March 28, 2021 so that adjustments could be made to the questionnaire in later waves if deemed necessary. No adjustments to the questionnaire were required.

The questionnaire contained two major parts: collection of data on horse expenditures including stabling, feed, training, local horse transportation and so on, and collection of data on the tourist expenditures made by non-resident participants including lodging, dining, groceries, shopping, local transportation and so on. The itemized list of horse expenditures was the same as had been collected in previous WEF surveys, and the itemized list of tourist expenditures contained the standard items collected in tourism research. The questionnaire contained 20 questions, down from 26 in 2020.

Survey Monkey provides the capability to send reminders to nonrespondents by clicking a button. Five reminders were sent later in April with the last reminder was sent on April 30<sup>th</sup>, 2021.

### Survey Response Rate

The closest of the alternative survey methods to an email survey is a traditional mail survey because they are both self-administered. Our experience with mail surveys suggest that 20 percent is an adequate response rate because many respondents can refuse to participate, for a variety of legitimate



reasons. A minimum number of 400 returned questionnaires is required to ensure sufficiently accurate results.

A total of 768 responses were received after the initial e-mailing and five reminders. The survey was “closed” to additional responses on May 10th. The survey response rate was 32.2 percent which was higher than the 26.5 percent reported for 2020. It was comfortably above the target we regarded as a minimum (20 percent). The number of returned questionnaires (768) exceeded our goal of 400, although not all returned questionnaires contained data for all questions.

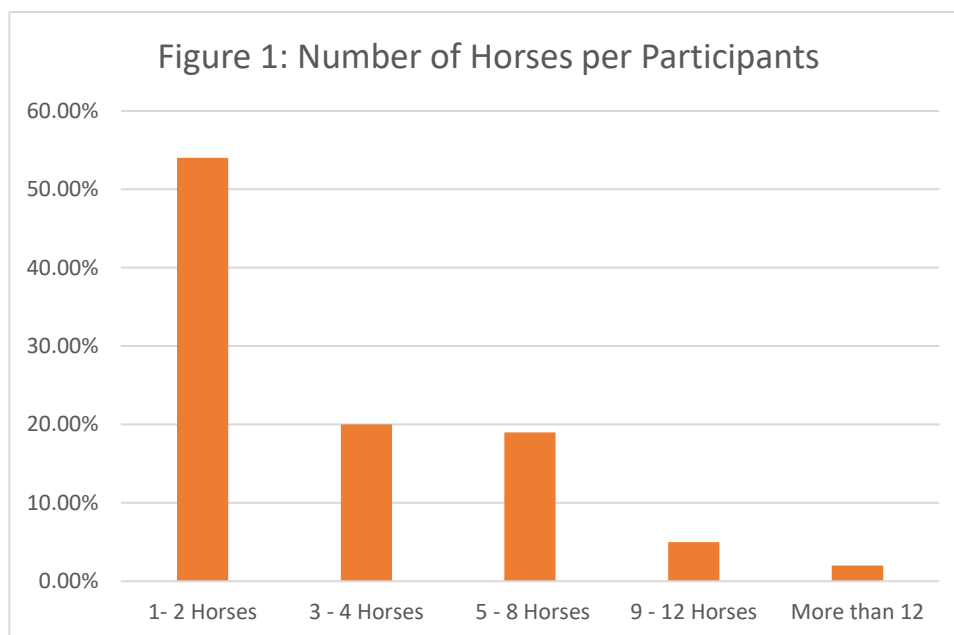
## IV. Expenditures on Horses by WEF 2021 Participants

The internet survey discussed above is the source of the data on Horse Expenditures discussed in this section of the report. Horse expenditures were incurred by WEF participants, namely, riders, owners and trainers. Horse expenditures include stabling, feed, manure disposal, training, equipment maintenance & purchase, vehicle fuel & repairs, local horse transportation, supplements & farrier/shoeing services, and other items.

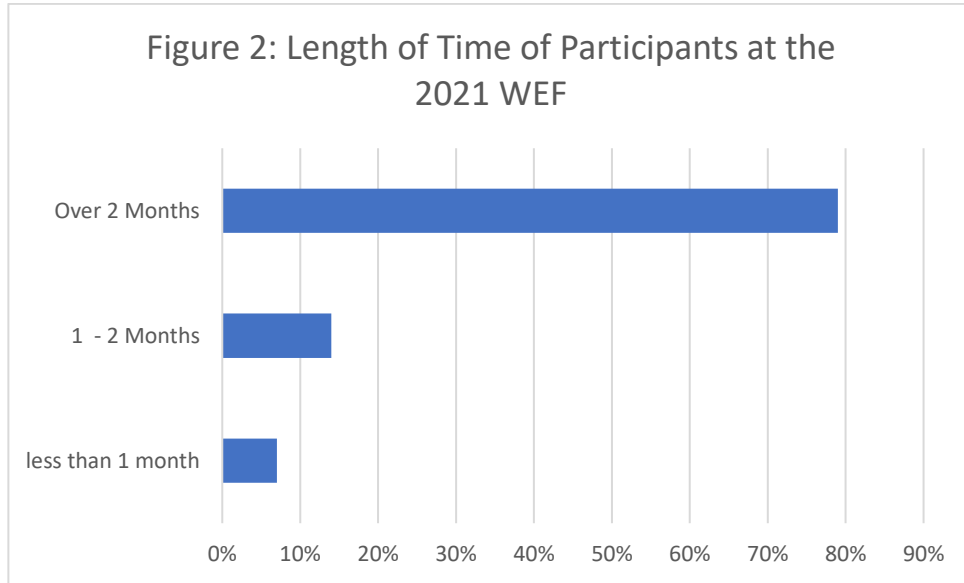
### Participant Characteristics

Two characteristics of participants are important in explaining the level of horse expenditures by participants, namely, the number of horses they were involved with at the WEF, and the length of time (months or weeks) they participated in the WEF. Participants with larger numbers of horses had higher expenditures as did participants who spent longer periods of time.

The average number of horses per participant was 2.4 with 56% of the participants involved with 1 or 2 horses. About three-fourths of the participants were involved with fewer than 4 horses.

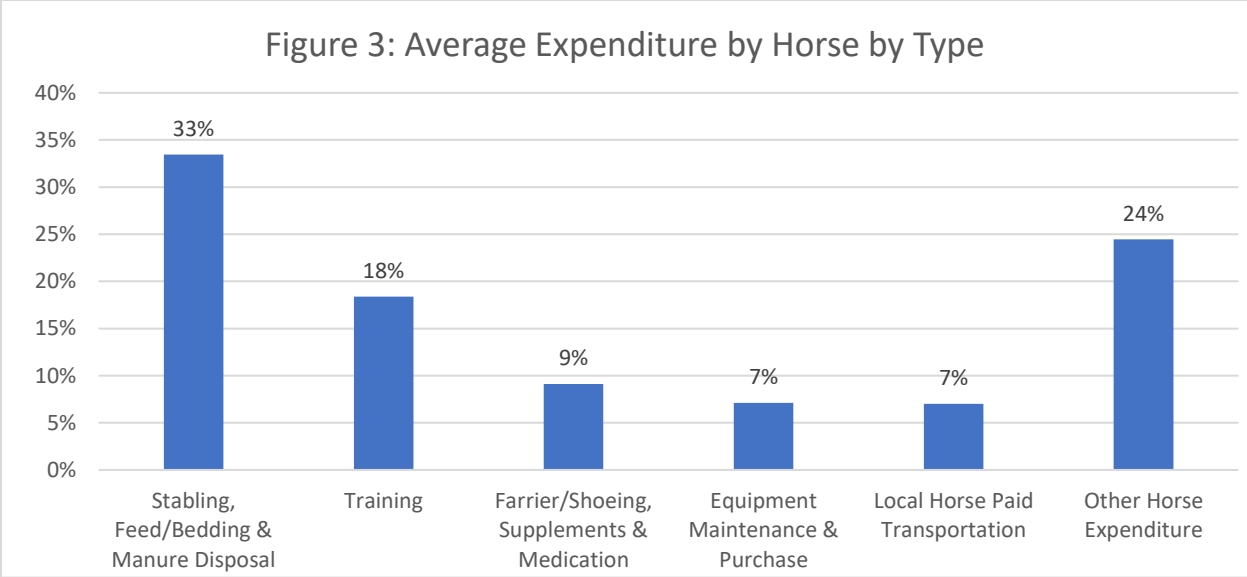


The average length of stay for the horses at the 2021 WEF was 9.7 weeks or 2.43 months. The percent of participants who spent less than one month was 6.83 %, and over 70% of the participants stayed more than 2 months.<sup>2</sup>



### Average Horse Expenditure

The average participant spent \$23,164 per horse at the 2021 WEF. Stabling, feed and manure disposal accounted for 33 percent, training accounted for 18 percent, farrier/shoeing accounted for 9 percent, and equipment maintenance and purchases and local paid horse transportation each accounted for 7 percent. There was also a residual “Other” category which contained a variety of items accounted for 24 percent, some of which was caused by the COVID 19 pandemic<sup>3</sup>. The average expenditure per horse for the 2021 WEF was slightly lower than the average for the 2020 WEF.



**Total Horse Expenditure**

The survey provided an estimate of the number of horses involved with WEF 21, namely, 5,724. This was less than the number of horses involved with WEF 2020. COVID restrictions on travel, particularly internationally, provided some explanation for the reduction.

Multiplying the average expenditures for each category of horse expenditure by the total number of horses that attended the 2021 WEF resulted in total expenditure of \$132.6 million. The estimate is down from the estimate for 2020 (\$138.4 million). These expenditures are labeled as “direct expenditures” in Table 1 because they result from the direct actions of participants. Table 1 provides direct expenditures by spending category.

Direct horse expenditure at the 2021 WEF resulted in indirect horse-related expenditure. These are the additional expenditures made by businesses in the industries back up the various supply chains that provide the goods and services purchased by the industries directly affected. There are also expenditures made by the workers who received increased incomes because of the expansion of the supply chains. The spending by workers goes on consumer goods and services such as lodging, food, educational, medical, and transportation services and so on.

### Direct & Indirect Horse Expenditure

Indirect expenditures reflect the effect of the direct expenditures “rippling” through the economy. The total of the direct and indirect effect expenditures is the impact of horse expenditures on the production of the Palm Beach County economy (GDP). The spending by horse owners, riders, and trainers at the 2021 WEF increased the GDP of Palm Beach County by \$221.1 million, the sum of direct and indirect spending.

Table 1 The Expansion of Palm Beach County GDP due to Horse Expenditures by 2021 WEF Participants (Millions of Dollars)			
	Direct Expenditures	Indirect Expenditures	Total Expenditures
Stabling, Feed/Bedding & Manure Disposal	\$44.4	\$29.0	\$73.4
Training	\$24.4	\$17.3	\$41.7
Farrier/Shoeing, Supplements & Medication	\$12.1	\$6.4	\$18.5
Equipment Maintenance & Purchase	\$9.4	\$6.1	\$15.6
Local Horse Paid Transportation	\$9.9	\$6.2	\$16.2
Other Horse Expenditure	\$32.4	\$23.4	\$55.8
<b>Total</b>	<b>\$132.6</b>	<b>\$88.5</b>	<b>\$221.1</b>

The multipliers used to calculate the total direct expenditures by type were obtained from a special run of the RIMS II Model of Palm Beach County obtained from the Bureau of Economic Analysis (BEA) of the US Department of Commerce. The BEA produces the official GDP estimates for the US nation, states, and counties as well as RIMS II models for the various regions of the national economy. Each dollar of direct expenditure at the 2021 WEF resulted in an overall multiplier impact of 1.673.

## Jobs Created and Labor Earnings

As the Palm Beach GDP expands due to the spending by participants at the 2021 WEF, jobs are created for Palm Beach County workers and their labor earnings are increased. The RIMS II Model produces estimates of the number of jobs created as well as the increase in earnings. The number of Jobs created, and the labor earnings are given in Table 2.

Table 2 Impact of WEF 2021 on Jobs and Labor Earnings (Number of Jobs and Millions of Dollars)				
	Jobs Multipliers	Jobs Created	Earnings Multipliers	Labor Earnings
Stabling, Feed/Bedding & Manure Disposal	24.15	783	0.54	\$23.3
Training	30.92	570	0.61	\$14.9
Farrier/Shoeing, Supplements & Medication	18.38	168	0.40	\$4.8
Equipment Maintenance & Purchase	16.70	119	0.45	\$4.3
Local Horse Paid Transportation	9.89	40	0.35	\$1.9
Vehicle Fuel, Parts & Repair	14.60	49	0.52	\$2.4
Other Horse Expenditure	36.01	587	0.51	\$16.2
<b>Total</b>	<b>23.81</b>	<b>2,315</b>	<b>0.52</b>	<b>\$67.7</b>

The direct horse expenditures of \$132.6 million at the 2021 WEF created 2,315 jobs in all industries. These include industries providing supplies to the 2021 WEF participants and consumer industries serving the needs of workers in the various supply chains which received increases in their labor earnings. The total increase in labor earnings was \$67.7 million. (The average earnings per job was \$29,242).

## V. Tourist Expenditures by Out of County 2021 WEF Participants

This section of the report contains estimates of the “tourist” expenditures made by out of county participants who visited WEF 2021. Tourist expenditures include spending on lodging, dining and groceries, entertainment and recreation, shopping and local transportation.<sup>4</sup> Data on these expenditures was collected in the email survey discussed in previous sections of this report.

### Tourist Characteristics

People visiting an area away from home usually travel in parties. A party is a group of individuals traveling together who share expenses. As a result, the unit of observation for a visitor survey is the traveling party. Such parties have two characteristics that strongly influence their expenditures: their party size, namely, the number of persons in their party, and their length of stay, which is the number of days (or nights) that the members stay at a particular location.

2021 WEF participants had an average party size of 2.7 persons and an average length of stay of 66 nights. The party size is similar to other surveys of Palm Beach County tourists, but WEF participants tend to have a longer stay than many other tourists. The length of stay is long because the event that draws WEF participants lasts 12 weeks. (13 weeks in 2021).<sup>5</sup>

### Average Tourist Expenditures

The average tourist expenditures per party was \$20,208. Lodging was the largest item accounting for 43.1 percent of the total, followed by dining and groceries which together accounted for 27.4 percent. Shopping accounted for 8.5 percent, entertainment and recreation, and local transportation, and a residual other category each accounted for 7 percent.

Most WEF Participants reported that they stayed in single family homes (60 percent) or apartments/condominiums (26.7 percent). A smaller group stayed in hotels or motels (11.3 percent) and only 2.0 percent stayed in Mobile Homes or RVs. We have observed in surveys of beach tourists in South

Florida that hotels are chosen for lodging by short term visitors, condominiums are chosen by longer term visitors who have small party sizes, and that single family homes are chosen by longer term visitors with larger party sizes.

Average lodging expenditure per person per night amounted to \$77.81.<sup>6</sup> The average number of bedrooms rented per party was 2.2 (for an average party size of 2.7 persons). Most persons stayed in their own bedroom (in either a single family home or a condominium). Spending per room was relatively low in part because many owned their place of lodging, or they were staying with friends or relatives.

### Total Tourist Expenditures

Total visitor expenditures were obtained by multiplying average expenditures by type, by the estimated number of out of county visitor parties (as obtained from the email survey). The result was total expenditures by visitors to WEF 2021 of \$35.6 million, an increase of about 6 percent over the WEF 2020 estimate. This reflected in part, the longer duration of the WEF 21.

### Direct and Indirect Expenditures

Economists refer to the total tourist expenditures estimated above as “direct” expenditures because they are made by the tourists to the industries they affect directly. Direct tourist expenditures result in indirect expenditures. These are the additional expenditures made by businesses in the local supply chains that supply the various inputs to the front line industries that provide the goods and services directly purchased by the WEF participants. There are also expenditures made by the workers who receive increased incomes because of the expansion of the supply chains. The spending by workers goes on consumer goods and services such as lodging, food, educational, medical, and transportation services and so on. The direct expenditures by spending category are presented in Table 3.



**Table 3**  
**The Expansion of Palm Beach County GDP due to the Tourist Expenditures of WEF 2021 Participants.**  
**(Millions of Dollars)**

	Direct Expenditures	Indirect Expenditures	Total Expenditures
Lodging	\$15.6	\$8.9	\$24.5
Dining	\$5.2	\$3.3	\$8.6
Groceries	\$4.6	\$3.2	\$7.7
Entertainment & Recreation	\$2.4	\$1.6	\$4.0
Shopping	\$3.0	\$2.1	\$5.2
Local Transport.	\$2.3	\$4.7	\$13.8
Other Visitor Expenditures	\$2.6	\$1.8	\$4.4
<b>Total</b>	<b>\$35.6</b>	<b>\$22.1</b>	<b>\$57.8</b>

The total of the direct and indirect effect expenditures is the impact of WEF participant tourist expenditures on the production of the Palm Beach County economy (GDP). Participant tourist expenditures increased the GDP of Palm Beach County by \$57.8 million, the sum of direct and indirect spending. Each dollar of direct visitor expenditure resulted in \$1.62 so the overall multiplier was 1.62.

The “multipliers” that convert direct expenditures by type into total expenditures by type were obtained from a special run of the RIMS II Model of Palm Beach County obtained from the Bureau of Economic Analysis (BEA) of the US Department of Commerce. The BEA produces the official GDP estimates for the US nation, the states, and counties as well as RIMS II models for the various regions of the national economy.

### Jobs Created and Labor Earnings

As the Palm Beach GDP expands due to the spending by visitors to the 2021 WEF, jobs are created for Palm Beach County workers and their labor earnings are increased. The RIMS II Model also produces estimates of the number of jobs created as well as the increase in earnings. These are shown in Table 4.

<p style="text-align: center;"><b>Table 4</b>  <b>Impact of Direct Visitor Expenditures on Jobs and Labor Earnings</b>  <b>Number of Jobs and Millions of Dollars</b></p>				
	Jobs Multipliers	Jobs Created	Earnings Multipliers	Labor Earnings
Lodging	15.0502	217	0.4431	\$6.9
Dining	25.4649	123	0.4802	\$2.5
Groceries	16.7956	71	0.4716	\$2.1
Entertainment & Recreation	20.7879	45	0.5189	\$1.2
Shopping	16.7956	47	0.4716	\$1.4
Local Transportation	9.9671	21	0.3496	\$0.8
Other Visitor Expenditures	16.7956	40	0.4716	\$1.2
<b>Total</b>	<b>15.7064</b>	<b>565</b>	<b>0.4312</b>	<b>\$16.2</b>

The expenditures of visitors to the 2021 WEF created 565 jobs in all industries impacted by the direct spending of WEF visitors, including supplying industries and consumer industries serving the needs of workers in the various supply chains which received increases in their labor earnings. The total increase in labor earnings was \$16.2 million. The average earnings per job was \$28,673.

#### Paid Room Nights Occupied by 2021 WEF Non-Resident Participants

Spending by 2021 WEF Visitors had a positive impact on the paid room nights at Palm Beach County lodging places. They generated 149,894 paid room nights. This estimate reflects the absence of attendees at WEF 2021, but also the increased duration of the event.

## VI. Total Economic Impact of 2021 WEF

The economic impact of the Winter Equestrian Festival (WEF) is caused by the “direct” spending pumped into the local economy because of WEF. There are two types of direct expenditures generated by the WEF, namely, horse expenditures made by all participants and tourist expenditures made by nonresident participants by non-participating visitors.

The 2021 WEF caused an increase in the GDP of Palm Beach County of \$278.9 million, resulting in the creation of 2,880 jobs throughout the economy and labor earnings of \$83.9 million. About 80 percent of the impact was due to horse expenditures and 20 percent was due to visitor expenditures. Visitor expenditures were lower than might be expected in a more normal year because the coronavirus pandemic led to the early cancellation of the WEF. The impact of the pandemic on horse expenditures was less significant because many horses remained on site during the cancellation period because of travel restrictions and the lack of competing events.

Table 5 Economic Impact of the 2021 WEF on the Palm Beach County Economy Millions of Dollars			
	Direct Expenditure	Total Expenditures (GDP)	Percent of Total
Horse expenditures	\$132.6	\$221.1	79.3
Nonresident tourist expenditures	\$35.6	\$57.8	20.7
<b>Total</b>	<b>\$168.2</b>	<b>\$278.9</b>	<b>100.0</b>

The WEF 21 direct expenditures Jobs created 2,880 jobs in the economy throughout the economy included those created by direct spending, plus those created as supply chains expanded, and consumer industries expanded as workers received additional labor earnings of \$83.9 million (See Table 6). The jobs that were created earned on average, \$29,131 per job.

Table 6 Impact of the WEF on Jobs and Labor Earnings Millions of Dollars and Number of Jobs		
	Labor Earnings	Jobs
	Impact	Impact
Participant Horse Expenditures	\$67.7	2,315
Non-resident Visitor Expenditures	\$16.2	565
Total	\$83.9	2,880

WEF 2021 participants and visitors generated 149,894 paid room nights for the Palm Beach County lodging industry. This was 18 percent lower than in 2020. Part of the reason for the reduction was the absence of attendees at the events of the WEF221 which was closed to the public because of the COVID 19 pandemic.

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<sup>1</sup> A mail survey, even when conducted on the internet, has a lower response rate than a telephone survey unless the latter survey reports the number of calls made that were not completed. It is also lower than a personal interview survey unless the number of persons approached by the interviewers who refuse to participate is reported. Our experience suggests that 20 percent is a minimum response rate for a mail survey provided a minimum of 400 completed surveys are returned. The response rate and number of completed responses to the internet survey were sufficient to ensure satisfactory accuracy of the results.

<sup>2</sup> As noted in endnote 4 below, we capped the length of stay at 14 weeks.

<sup>3</sup> The other category included entry fees.

<sup>4</sup> These items are normally included in tourist surveys.

<sup>5</sup> WEF usually lasts 12 weeks but in 2020 it was canceled one week early because of COVID 19 and WEF 2021 lasted 13 weeks, one week longer than normal to compensate participants for the early closure in the preceding year. Although some participants stayed less than 13 weeks, there were also some participants who stayed considerably longer. We capped the length of stay at 14 weeks, namely, the duration of the WEF (13 weeks) and an extra week to allow participants to arrive a few days earlier than WEF and/or stay a few days later. Some participants come even earlier to attend other events, or to enjoy their horses before WEF begins. They behave like seasonal residents attracted to the county because of the warm weather and friends whom they have met on previous visits. Like many seasonal residents, some participants have purchased condominiums or single family homes in the county.

<sup>6</sup> About one in four visitors did not pay for their lodging (26.7 percent).