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PRIMARY ECONOMIC IMPACT OF SMALL-SCALE SPORTS EVENTS

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The assumption that events can have positive economic impacts has increased interest in their hosting by many destinations worldwide. Although attendees are a constitutive part of events, scarce research has empirically analyzed their behavior from an economic standpoint. In particular, further exploratory research is required on (1) how much money event attendees spend at events, and (2) the extent to which event attendee expenditures positively affect the host region. A better understanding of these two aspects is crucial for any kind of economic impact assessment. This study examines three World Cup ski-jumping events in Norway during the winter of 2012–2013. Altogether, 870 spectators were interviewed at the venues in Vikersund, Trondheim, and Oslo. Prior research has estimated that the proportion of spectators contributing to a positive economic impact is between 10% and 60%. The current study shows that the share of this spectator group at the World Cup ski-jumping events in Norway lies in the lower part of the range. Furthermore, the study shows that though the total number of spectators was significant (137,000), the primary economic impact on the host region was modest, amounting to less than NOK 9 million.

Key words: Event attendees' composition; Economic impact; Small-scale events; Ski jumping

Introduction

The number of events and festivals being hosted worldwide has grown tremendously in the past years. Beyond the actual sport, music, or culture, these events provide entertainment, enhance civic pride, and often bring economic benefits to the destinations in which they are hosted. These alleged economic benefits are one of the key arguments in discussions of whether a given city/region should bid on hosting an event. However, little is known

about how much money event attendees actually spend at such events or the extent to which event-related expenditures constitute new money in the host region (Kwiatkowski, 2016a; Preuss, Kurscheidt, & Schutte, 2009). This dearth of knowledge is particularly apparent for smaller scale events (non-mega-events), which have recently received growing interest in being hosted by many destinations around the world (Kwiatkowski, 2015; Richards & Palmer, 2010; Taks, 2013; Taks, Chalip, & Green, 2015).

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When estimating the primary economic impact of an event, based on event attendee expenditures, it is important to distinguish among different categories of attendees, to determine the extent to which their expenditures cause positive, neutral, or negative impacts on the host region (Crompton, 1995; Crompton, Lee, & Shuster, 2001; Crompton & McKay, 1994; Kwiatkowski, 2016a; Preuss, 2005, 2006; Tyrrell & Johnston, 2001). Only a few empirical studies based on a sound theoretical foundation have analyzed the composition of event attendees according to their potential economic impact on the host region (e.g., Crompton, 1995; Preuss, 2005; Tyrrell & Johnston, 2001). However, these studies have either analyzed mega-events (e.g., FIFA World Cup, UEFA European Championship, Commonwealth Games) or aimed to identify the composition of event attendees from a national perspective (i.e., the host region had been defined as the whole country in which the event took place) (Kwiatkowski, 2015, 2016a).¹

Therefore, there is a clear research gap with respect to the analysis of the composition of event attendees at small-scale² (sports) events from a local perspective (i.e., the city in which the event is hosted). Furthermore, results of such analyses would enable calculation of the overall economic impact of event attendee expenditures on the host region, thus providing reliable estimates for further *ex ante* analysis of comparable events. As Matheson and Baade (2006) note, “if errors are made in assessing direct spending, those errors are compounded in calculating indirect spending through standard multiplier analysis” (p. 357). Thus, the composition of event attendees and their event-related expenditures, combined with an accurate depiction of their economic relevance for the host region (positive vs. neutral), would increase the reliability of any form of *ex ante* (preevent) economic impact assessment (Crompton et al., 2001; Dwyer, Forsyth, & Spurr, 2005, 2006b; Kwiatkowski, 2016b; Preuss, 2005; Tyrrell & Johnston, 2001). In turn, this would serve as a basis for a more profound assessment of whether hosting an event would likely corroborate the widespread assumption of the positive economic impact of events on local economies. That is, such an assessment of the economic effects would help cities/regions decide whether they should host (subsidize) specific events.

Against this background, we attempt to fill this knowledge gap. Specifically, through an exploratory approach, we first estimate the relative share of spectators who attended the three World Cup (WC) events in ski jumping held in Vikersund, Trondheim, and Oslo (all Norway) during the winter of 2012–2013, and second, we calculate the primary economic impact of their spending on the respective host regions. Finally, we present the combined economic impact of the three events on the Norwegian economy.

The remainder of this article proceeds as follows. In section 2, we derive a theoretical basis for our empirical analysis by presenting a framework for the economic impact assessments proposed by Preuss (2005). In section 3, we present the data collection. Section 4 presents an empirical scheme for identifying different groups of event attendees according to economic relevance for the host region (positive vs. neutral). Section 5 contains a discussion of the results, and section 6 concludes.

Theoretical Background

The past three decades have witnessed growing interest in assessing the economic impact of sports events. Consequently, research on the economic impact of events has covered a diverse range of approaches and perspectives. Specifically, studies have investigated the economic impact of events or facilities on housing values (Ahlfeldt & Maennig, 2010; Tu, 2005), stock markets (Berman, Brooks, & Davidson, 2000; Veraros, Kasimati, & Dawson, 2004), employment and wages (Feddersen & Maennig, 2012), tourism (Fourie & Santana-Gallego, 2011), and civic pride (Atkinson, Mourato, Szymanski, & Ozdemiroglu, 2008; Süßmuth, Heyne, & Maennig, 2010), to name a few (for a comprehensive review, see Porter & Chin, 2012).

This phenomenon has resulted from the need to legitimize governmental spending and the necessity of demonstrating a return on the use of public funds (subsidies) to the host communities (Atkinson et al., 2008; Kwiatkowski, 2014; Mitchell & Stewart, 2015; Wood, 2009). In response, research has introduced various advanced methods for estimating the economic impact of sports events, the most common of which are economic impact analysis, cost–benefit analysis, input–output models, and computable

general equilibrium models (Dwyer et al., 2006a; Késenne, 2005, 2012; Porter & Fletcher, 2008; Wang, 1997).³

However, despite the substantive increase in economic impact evaluations of sports events (for a review, see Coates & Humphreys, 2008; Porter & Chin, 2012), doubts and uncertainty about the credibility of such assessments remain (Chang, Kim, & Petrovcikova, 2015; Davies, Coleman, & Ramchandani, 2013; Lee & Taylor, 2005). A review of literature shows several reasons for this. First, there is a lack of consistency and standardization in conducted assessments, including the frequently mentioned multiplayer effect (mis)use (Crompton, 1995; Diederling & Kwiatkowski, 2015; Matheson, 2009; Warnick, Bojanic, & Xu, 2015; Wood, 2009). Second, studies have provided incorrect or suspicious estimations of basic input variables (e.g., event attendee composition, attendance numbers) or have offered unclear definitions of the host region (Davies, Ramchandani, & Coleman, 2010; Gratton, Dobson, & Shibli, 2000; Jeong, Crompton, & Dudensing, 2015; Preuss, 2005; Warnick et al., 2015). Finally, some researchers have used a “client-led” approach in economic impact assessments, which often serves as an instrument for political “shenanigans” rather than a true examination of the economic effects of the event (Crompton, 2006).

However, research provides arguments about the importance of assessing primary data of visitor spending. For example, Walpole and Goodwin (2000) argue that, especially when considering local impacts on employment and tourism in relatively small communities, input–output analysis falls short because of the lack of pertinent data. In this case, direct estimation by using primary data is more likely to identify those impacts. Frechtling (2006) and Scott and Turco (2011) argue that visitor expenditures are crucial for estimating economic benefits for host regions. For that reason and to focus the current work, our literature review puts emphasis on studies examining the economic impact of expenditures directly related to event attendees. As we indicated previously, we aim to provide systematic evidence of the composition of event attendees at ski-jumping events held in Norway by applying Preuss’s (2005) theoretical framework. Furthermore, we extend our examination by providing information on the primary economic impact of all considered events.

To estimate the primary economic impact of an event using expenditures, it is important to divide attendees into different categories, depending on economic significance of their expenditures for a host region (neutral vs. positive) (Crompton, 1995; Frechtling, 2006, Kwiatkowski, 2016a; Preuss, 2005; Tyrrell & Johnston, 2001).⁴ Specifically, we divide event attendees into two groups according to their place of origin (Preuss, 2005). The first group consists of attendees living in the area in which the event occurs (locals). The second group contains those outside the area (nonlocals). We can further divide these two groups into six groups according to their motivation to visit the host region and, consequently, different economic relevance for the host economy (Preuss, 2005). Figure 1 shows a schematic overview of the various categories of attendees in connection with an event.

The locals can be divided into two groups. First, some locals may have decided to change their travel plans to stay in the host region and follow the event; they are called “Home Stayers” (Preuss, 2005). Thus, money they would have otherwise spent outside the host region is now spent locally, representing a gain to the local economy (Cobb & Weinberg, 1993). Second, local attendees who did not intend to leave the area during the event but do not contribute to the host economy in any further way are called “Residents” (Preuss, 2005). The impact of Residents on the host economy is neutral because this group opted out of other activities and consumption in their home region to follow the event. That is, deciding to go to the cinema or to the event involves merely a shift in consumption from one activity to another within the same region (i.e., redistribution of money).

The group of nonlocals can be divided into four groups. First, visitors/tourists who come to the region solely because of the event are called “Event Visitors,” and second, those who would have visited the region regardless of whether the event took place or not are called “Casuals” (Preuss, 2005). The expenditures of Event Visitors result in an influx of new money to the host region because this group moves its consumption from the home regions to the region in which the event takes place. Conversely, the expenditures of Casuals stay neutral because these are not directly determined by the event; in other words, these expenditures

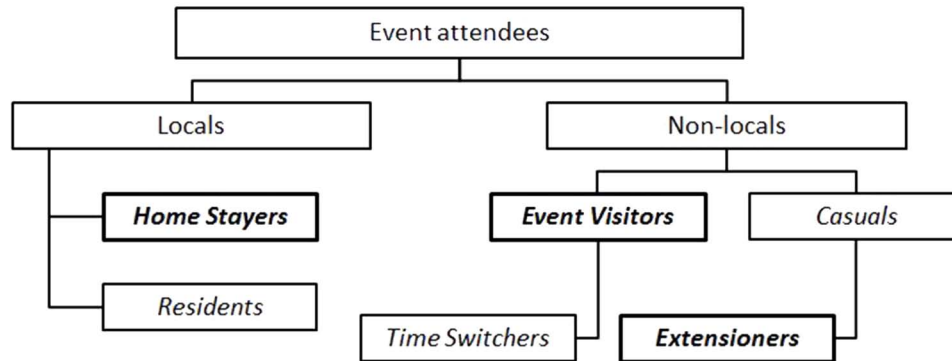


Figure 1. A schematic overview of the various categories of event attendees. Source: Adopted from Preuss (2005). Notes: The bold groups reflect attendees whose event-related expenditures cause positive economic stimulus to the host region.

would have occurred regardless the event being held. Third, Preuss (2005) identifies a subgroup of Event Visitors that would have visited the host region regardless but modified travel plans so that the stay coincided with the time of the event. This group is called “Time Switchers” (Preuss, 2005); their expenditures are neutral because these also would have occurred regardless of the event being held. Fourth, Preuss (2005) identifies a subgroup of Casuals that extend the stay to attend the event (i.e., attendees who came earlier or stayed longer in the host region because of the event). This group is called “Extensioners,” and their expenditures represent a positive stimulus to the host region, but only during the time of extension.

Data

The data for this study came from the three WC events in ski jumping in Norway during the winter of 2012–2013. The first ski-jumping event was the WC in Vikersund (January 26–27), the second the WC in Trondheim (March 14–15), and the third the WC in Oslo (March 16–17). All three events are arranged by the Norwegian Ski Federation. Two events (Oslo and Trondheim) are recurring events, while the third is an irregular event hosted occasionally in Vikersund. The characteristics of these locations also differ; Oslo (600,000 inhabitants) is the highly populated capital city of Norway, Trondheim (170,000 inhabitants) is a large city, and Vikersund (3,000 inhabitants) is a small town. Furthermore, although all three events were

ski-jumping competitions, the actual ski jumps are considerably different: Oslo has the ski jump of K-point 120 m, Trondheim of K-point 140 m, and Vikersund has a very large ski jump (K-point 200 m). Vikersund also currently holds the world record jump of 251.5 m (by Anders Fannemæl in January 2015).

Considering the need to collect primary data, we chose an on-site, self-administered questionnaire as the most suitable instrument to collect data on consumer expenditures. Davies (2002) suggests that estimations of consumer expenditures are consistently two to five times lower than direct indications by spectators on site. Moreover, to reduce recall bias several scholars suggest collecting spending data as soon as possible after their occurrence (Rylander, Propst, & McMurtry, 1995; Stynes & White, 2006). To collect data, we applied a random cluster sampling procedure (Cochran, 1977). The questionnaire aimed to gather the necessary information to classify respondents into one of the six categories of attendees. In addition, we collected a range of travel-related and sociodemographic questions to delineate respondents’ profile and spending patterns. The respondents also provided their nationality and postal codes.

The team of interviewers consisted of four undergraduate and two doctoral students. We instructed the interviewers about the purpose and scope of the study, the target group, and the data collection technique. Data collection took place only within the ski-jump arenas, as all three events were located in remote city areas (Trondheim and Oslo) or outside

the city (Vikersund). With this approach, we eliminated the possibility of interviewing casual passers-by. Furthermore, in an effort to accommodate most of the expected attendees at the event, in addition to an English version of the questionnaire, a Norwegian version (produced by a native speaker) was available.

Of the 870 collected responses, 461 came from Vikersund, 304 from Oslo, and 105 from Trondheim. All respondents had bought a ticket to attend the event. According to the Norwegian Ski Federation, 137,000 spectators attended three events: 14,000 in Trondheim, 27,000 in Vikersund, and 96,000 in Oslo.⁵

Empirical Scheme to Identify Groups of Event Attendees

The analysis of the economic impact of the events began with identification of the share of the

six event attendee categories described previously. To assign each interviewee to one of the six categories, we collected a series of data: (1) attendees' place of origin, (2) attendees' purpose for visiting the host region, and (3) changes in attendees' travel plans attributable to the event.

Figure 2 displays the postsurvey procedure that we followed to identify the event attendees' group affiliation based on the primary data collected at the site. Specifically, this procedure collected five questions from each respondent during the event. We used respondents' answers as a basis for the postsurvey data manipulation.

Specifically, we categorized respondents as either "locals" or "nonlocals" according to the postal code information they reported in the questionnaire. Depending on the purpose of the analysis, the host region can be defined as any geographical/administrative unit between, for example, a town/city (local perspective) and the whole country

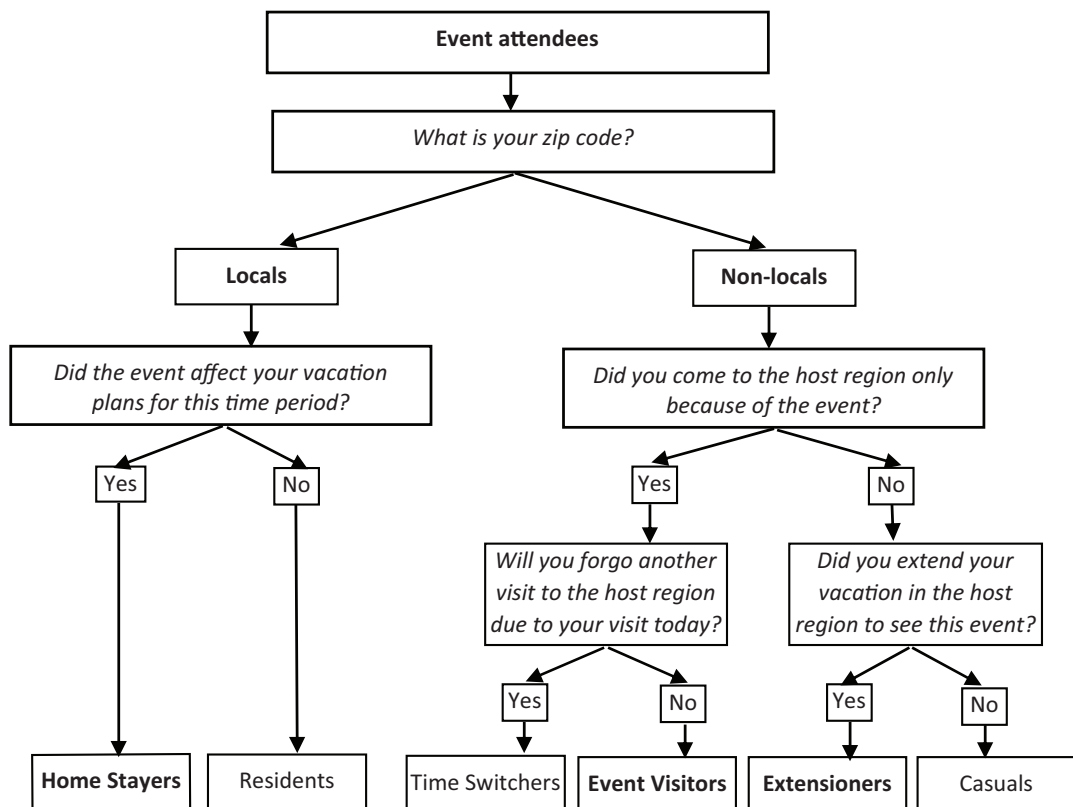


Figure 2. Identification scheme for subgroups of event attendees. In the bottom row groups shown in bold indicate a positive economic impact, and the others indicate a neutral economic impact. Source: Kwiatkowski (2016).

(national perspective). We defined a host region in a narrow sense in line with a public economics perspective, which defines the host region as the main stockholder that financially supports an event.

Next, the locals indicated whether they cancelled an already-planned trip outside the host region to attend the event. Accordingly, we classified those who answered “Yes, I broke off a trip to ___ in order to attend the event” as Home Stayers and those who answered “No” as Residents. Among the nonlocals, we identified Event Visitors according to whether they answered “Yes” to the question “Did you come to Oslo (alt. Trondheim or Vikersund) only because of the event?” We categorized those who answered “No” to this question as Casuals. We further identified the subgroup of Event Visitors as Time Switchers if they answered “Yes” to the question “Will you forgo another visit to Oslo (alt. Trondheim or Vikersund) due to your visit today?” Finally, we identified the subgroup of Casuals as Extensioners if they answered “Yes” to the question “Did you extend your vacation in Oslo (alt. Trondheim or Vikersund) to see the event?” The economic impact of these six mutually exclusive groups varies from neutral to positive (see Fig. 2).

Results

Composition of Event Attendees

We present the results of the study in two parts: the composition of event attendees and the primary economic impact of the event. Table 1 shows the distribution of event attendees among the six categories by venue. Of the 870 questionnaires received, 79 were invalid because of one or several

missing answers and therefore were removed from the sample. The final net sample consisted of 791 respondents. As Table 1 shows, the largest share of the sample group consists of Residents, who were in the area anyway, independent of the event. The second largest group is Time Switchers, who modified their travel plans to attend the event. The third largest group is Event Visitors, who traveled to the region solely to attend the ski-jumping event. Extensioners, who extended a previously planned journey to attend the event, also constitute a significant share of the total sample. The categories Casuals and Home Stayers are small, and thus, barely measurable.

Furthermore, we can evaluate whether the distribution of spectator categories varies among the three ski-jumping events. Note that the share of attendees in Trondheim (93 respondents) represents a relatively small sample, so estimates must be interpreted with caution. The Event Visitors group was the largest in Vikersund compared with the other venues. This group accounted for more than 20% of the attendees in Vikersund, whereas the percentage was below 5% in Trondheim and Oslo. The two other groups having a direct positive economic impact are only partially measurable. The Extensioners category accounts for approximately 10% of the attendees in Vikersund and Oslo and approximately 5% in Trondheim. Only one person among the total sample represented the Home Stayers category.

We also find differences among the three event venues in terms of the spectator categories with a neutral economic impact on the region. Residents make up more than 75% of the share of spectators in Trondheim, approximately 50% in Oslo,

Table 1
Distribution of Event Attendees by Venue and Spectator Category

Group of Event Attendees	Whole Sample	Vikersund	Trondheim	Oslo
Residents	37.9%	21.8%	76.3%	48.8%
Event visitors	12.5%	20.6%	1.1%	4.6%
Casuals	2.2%	1.2%	0%	4.2%
Time switchers	36.2%	42.6%	17.2%	33.0%
Extensioners	11.1%	13.6%	5.4%	9.5%
Home stayers	0.1%	0.2%	0.0%	0.0%
Obs.	791	413	93	285

Table 2
Total Average Daily Expenditure in NOK Per Person in the Six Spectator Categories, Standard Deviation, and Minimum/Maximum Values

Group of Event Attendees	Mean	SD	Min	Max
Residents	175.6	273.0	0	3,000
Event visitors	361.9	405.4	0	2,400
Casuals	358.4	274.5	8.1	800
Time switchers	373.4	483.2	0	3,000
Extensioners	357.9	345.8	0	1,500
Home stayers	700.0	–	700	700
Total	308.3	438.2	–	–

Note. 1 NOK = US\$0.12.

and only 20% in Vikersund. Casuals make up only 5% in Oslo and do not constitute a measurable share in Trondheim or Vikersund. Time Switchers constitute approximately 36% of the total share. The largest proportion of this group was in Vikersund, though the proportion in Oslo was also significant. In Trondheim, this spectator category was below 20%.

Primary Economic Impact

We discuss the primary economic impact of the three ski-jumping events first separately and then in terms of the aggregate impact. Table 2 shows the total average daily spending (excluding transportation) per person (in NOK, 1 NOK = US\$0.12) for each of the six spectator categories, the standard deviation, and the minimum and maximum values.

The average expenditure for the entire sample group was approximately NOK 308 per day, based on the respondents' own information and corrected

for the number of respondents covered by the specified amount of expenditure. The average expenditure is the highest in the Time Switchers group, with an average of NOK 373.4 per person per day. The expenditures of Event Visitors, Casuals, and Extensioners fall right below this level. Conversely, expenditure of Residents was approximately half that of the spectators in the other categories. As Table 2 shows, the Home Stayers, who chose to stay at home to follow the event instead of traveling, had the highest reported expenditure of NOK 700; again, however, because this group is extremely small (one person), we must interpret the results with caution.

We examine the primary economic impact of each of the three WC events separately. To calculate this impact, we multiply the absolute number of attendees and daily expenditures for all categories of attendees in terms of which expenditures caused the most positive economic impact (Event Visitors, Extensioners, and Home Stayers) on the host region. We then sum the results for all three groups to achieve an aggregate economic impact. Table 3 shows the primary economic impact of the WC ski-jumping competition in Vikersund.

The first column shows the six spectator categories included in the sample, the second column indicates the distribution among the categories at the event, and the third column shows the absolute distribution of spectators among the six categories. We obtained these figures by multiplying the total number of spectators at the event (27,000 in Vikersund) with the percentage distribution in column two. Column four displays the average additional expenditure in the region per person per day. In accordance with Preuss (2005), we excluded

Table 3
Primary Economic Impact of the WC Event in Vikersund

Group of Event Attendees	Spectator Distribution (%)	Spectator Distribution (Absolute)	Average Additional Expenditure Per Person Per Day in NOK	Primary Economic Impact in NOK
Residents	21.79%	5,883	0.0	0
Event visitors	20.58%	5,557	361.9	2,011,034
Casuals	1.21%	327	0.0	0
Time switchers	42.62%	11,507	0.0	0
Extensioners	13.56%	3,661	357.9	1,310,187
Home stayers	0.24%	65	700.0	45,360
Total	100.00%	27,000		3,366,581

the impact of the groups with a neutral economic impact on the region. Therefore, the groups Residents, Time Switchers, and Casuals are associated with an estimated increase in daily expenditure of NOK 0 per person per day. For the three remaining groups, we use an average daily amount of expenditure per person from Table 2 as the basis for our calculations. The primary economic impact of each of the three spectator categories appears in column five, derived by multiplying columns three and four. The overall economic impact of the event comes from the sum of column five. As Table 3 shows, the overall economic impact of the ski-jumping event in Vikersund was approximately NOK 3.4 million. As mentioned previously, the Home Stayers group contains just one person, and though the respondent reported a high expenditure level (NOK 700), this does not represent a measurable amount in terms of the overall economic impact. Altogether, the positive primary economic impact of the three groups on the regional economy was approximately 34%. In Trondheim, the total number of attendees was lower than that at the other two WC events (14,000), and there were no spectators in the categories Casuals and Home Stayers. Thus, we assess the impact of this event with caution because of the small sample size (93). Table 4 shows that only two spectator categories contributed positively to the primary economic impact on the regional economy of Trondheim: Event Visitors and Extensioners. These categories notably constituted a small portion of the total spectator count (between 6% and 7%). The overall economic impact of the ski-jumping event in Trondheim amounted to approximately NOK 320,000 (i.e., 10% of the overall impact in Vikersund).

The event in Oslo had the largest number of spectators overall (96,000). Similar to the other events, there were no Home Stayers among the spectators, though like in Trondheim, two spectator categories contributed to a positive primary economic impact on the regional economy: Event Visitors and Extensioners. Together, these two categories accounted for approximately 14% of the overall spectator count (see Table 5). The overall economic effect of the ski-jumping event in Oslo amounted to approximately NOK 4.8 million, the largest impact of the three events studied. Although the primary economic impact in Vikersund was largely driven by a high proportion of spectators in the three spectator categories (i.e., Event Visitors, Extensioners, and Home Stayers), the overall number of spectators was the most important factor in Oslo.

Thus, the overall economic impact of the three WC events in ski jumping on the regional economy is the sum impact of each event—NOK 3.4 million (Vikersund), NOK 320,000 (Trondheim), and NOK 4.8 million (Oslo)—resulting in an overall economic impact of approximately NOK 8.6 million. Although these were rather large international events, the study shows that the overall economic impact on the regional economy is relatively modest. This is because most of the spectators either lived in the area and merely changed their travel itineraries to attend the event or would have visited the region in any case.

Conclusion

To understand the economic impact of an event, based on expenditures of individual attendees, it is important to distinguish among different attendee

Table 4
Primary Economic Impact of the WC Event in Trondheim

Group of Event Attendees	Spectator Distribution (%)	Spectator Distribution (Absolute)	Average Additional Expenditure Per Person Per Day in NOK	Primary Economic Impact in NOK
Residents	76.34%	10,688	0.0	0
Event visitors	1.08%	151	361.9	54,722
Casuals	0.00%	0	0.0	0
Time switchers	17.20%	2,408	0.0	0
Extensioners	5.38%	753	357.9	269,538
Home stayers	0.00%	0	700.0	0
Total	100.00%	14,000	–	324,260

Table 5
Primary Economic Impact of the WC Event in Oslo

Group of Event Attendees	Spectator Distribution (%)	Spectator Distribution (Absolute)	Average Additional Expenditure Per Person Per Day in NOK	Primary Economic Impact in NOK
Residents	48.77%	46,819	0.0	0
Event visitors	4.56%	4,378	361.9	1,584,332
Casuals	4.21%	4,042	0.0	0
Time switchers	32.98%	31,661	0.0	0
Extensioners	9.47%	9,091	357.9	3,253,352
Home stayers	0.00%	0	700.0	0
Total	100.00%	96,000	–	4,838,685

categories to determine the economic significance for the host economy (positive vs. neutral) (Crompton, 1995; Preuss, 2005). Prior studies have estimated that the proportion of spectators contributing to a positive economic impact is between 10% and 60%. Our study shows that the WC ski-jumping events in Vikersund and Oslo also fall within this range. The largest share of spectators contributing positively to the economic impact of the event came from Vikersund, with 34%; the equivalent share in Oslo was 14% and 6.7% in Trondheim. This result may lie in the unique characteristic of the ski jump in Vikersund, whose “attractive power” may be considerably larger than the other two sites. More precisely, Vikersund has the largest ski jump in the world (K-point 200 m) and currently hosts the world record. Thus, more fans (regardless of region) may be willing to travel to this site to see the competition than to the other “more regular” sites, which are more common around the world (particularly in Europe).

The study results can serve as a proxy variable to any form of ex ante economic impact assessment of comparable events, which in turn may contribute to future assessments of whether hosting an event would likely justify the economic impact of events on the local/regional economy. Furthermore, to our knowledge, there have been only a few attempts in the literature to estimate the primary economic impact of smaller scale events on the basis of the six spectator categories (Kwiatkowski, 2016a). Therefore, the current work contributes by estimating that the overall economic impact of three WC events in ski jumping on the host economy is less than NOK 9 million. Although these were international events with many spectators, as mentioned

the study shows that the overall economic impact on the regional economy was relatively modest. As a clear policy implication, relevant political stakeholders should realize that not all events “pay off,” and thus the economic relevance of smaller scale (sports) events for the host regions should not be overestimated when bidding. As such, managers of small-scale events need to find arguments other than purely economic-based ones to justify their events, as the composition of event attendees is likely not to generate a large influx of new money. One such argument is the intangible benefits (civic pride, fell good factor, community integration) that local communities may gain from hosting events in the region (Agha & Taks, 2015; Gibson, Kaplanidou, & Kang, 2012).

In addition, we found that Event Visitors and Extensioners contribute positively to the regional economy; both groups had higher daily expenditures than the other groups (NOK 362 and 358 per day, respectively, vs. NOK 308 per day on average, $p < 0.05$). Thus, Event Visitors and Extensioners have a double positive impact on the regional economy; first, their spending behavior is higher on average, and second, their spending gives net positive contributions to the host economy, compared with neutral contributions of the other four groups. To increase potential regional economic effects of events, marketers should target areas far away from the event to bring in new money to the host region.

Although this study offers some new insights into the direct regional economic impact of sports events, it also has limitations. First, the sample from Trondheim comprised only 93 people, and as such, the conclusions based on the sample should be treated with caution. Second, we found

that the share of attendees having a positive economic impact on the region (Event Visitors and Extensioners) was higher in Vikersund (34%) than in Oslo (14%). This finding might be due to some context-specific characteristics of the hosting regions. For example, Oslo is more densely populated than Vikersund (600,000 vs. 3,000 inhabitants), so it makes sense that more people would attend the Oslo than the Vikersund event. However, because testing the effect of host city size on the share of event attendees was beyond the scope of this study, we highlight this issue as a promising avenue for further research. Another potential avenue for research would be to transform the existing scheme in Figure 2 into practical instructions on how to collect necessary data on crowding out visitors and residents.

Notes

¹In their study of the 2002 Commonwealth Games in Manchester, Preuss, Seguin, and O'Reilly (2007) estimated that this amounted to approximately 60% of total attendees. Preuss's (2011a) study on the FIFA World Cup 2006 in Germany showed that the percentage was approximately 40%. A different study (Preuss, 2011b) on the World Handball Championship in 2007 assessed the percentage to be as low as 10%.

²This study follows Higham's (1999) definition of small-scale events; he noted that small-scale sports events require little in the way of public funding, usually operate within existing infrastructures, and are more manageable in terms of crowding and congestion than mega-sports events.

³In addition to the development of tangible economic impact evaluations, several scholars have called for more holistic approaches when assessing local significance of events (Dwyer, Mellor, Mistilis, & Mules, 2000; Wood, 2009). Wood (2009) elaborates a strategic framework for local government community festival evaluations that goes beyond the scope of traditional examinations of events by introducing a more systematic, comprehensive, and long-term perspective.

⁴The current study focuses only on event-affected people who are present at the venue during the event (attendees) and therefore can be identified through face-to-face interviews. Although this might be considered a potential limitation of our assessment of the economic impact of the event, considering the practical complexity of identifying people who do not attend the event (so-called avoiding people) and interviewing them, in line with Preuss (2011b), is beyond the scope of the current contribution. Therefore, the discussion exclusively centers on the mentioned six groups of event attendees; a more comprehensive discussion of the other groups appears in Preuss (2005, 2011) and Kwiatkowski (2016).

⁵Assuming that 137,000 people visited the three ski-jump arenas and with a confidence interval of 95%, the margin error of the collected sample is 3.4%, which is acceptable according to the literature (Bartlett, Kotlik, & Higgins, 2001). However, an analysis of the margin of errors for individual sites reveals higher error margins for the three subsamples. For example, the error margin of the Trondheim subsample is 10%, so the results should be treated with caution.

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