Event Management, Vol. 17, pp. 257–270
Printed in the USA.

1525-9951/13 $60.00 + .00
DOI: http://dx.doi.org/10.3727/152599513X13708863377917
E-ISSN 1943-4308
www.cognizantcommunication.com

CONFIRMING THE FESTIVAL SOCIAL IMPACT ATTITUDE SCALE IN THE CONTEXT OF A RURAL TEXAS CULTURAL FESTIVAL

KYLE M. WOOSNAM,* CHRISTINE M. VAN WINKLE,† AND SEONHEE AN*

*Department of Recreation, Park & Tourism Sciences, Texas A&M University, College Station, TX, USA
†Kinesiology and Recreation Management, University of Manitoba, Winnipeg, Manitoba, Canada

Although numerous scales exist measuring residents' perceptions of festival impacts, the first of its kind, the Festival Social Impact Attitude Scale (FSIAS), has never been examined to confirm its proposed factor structure. In addition, recent calls have been made to utilize the FSIAS in a novel context and assess its reliability and validity. Utilizing the context of a Czech heritage festival, this article has three purposes: (1) to confirm the FSIAS factor structure, (2) to examine psychometric properties of the scale, and (3) to determine if impacts of the festival were perceived differently among residents living in a community in which the festival is held. Results confirm the factor structure of the FSIAS is identical to that found in previous studies and psychometric properties were strong. A number of significant differences in perceived festival impacts were found across sociodemographic and socioeconomic variables. Theoretical and practical implications are discussed and future research opportunities are provided.

Key words: Confirmatory factor analysis; Multiple analyses of variance (MANOVA); Resident; Festival; Social impacts; Multistage cluster sampling; Sociodemographic variables; Socioeconomic variables

Introduction

Research surrounding impacts of festivals is typically conceived of in terms of economics—either the financial gains or losses that results from a hosting such events (Fredline, Jago, & Deery, 2003; Getz, 2005). The social-cultural impacts of festivals can oftentimes be secondary to the traditional "bottom line" that economic impact studies yield. However, with the advent of the "triple bottom line," we are seeing the growing interest in social-cultural impacts, especially in the context of festivals and events (Fredline, Raybould, Jago, & Deery, 2005).

A fair amount of research (see Delamere, 2001; Delamere, Wankel, & Hinch, 2001; Fredline et al., 2003; Rollins & Delamere, 2007; Small, 2008; Small & Edwards, 2003) has been conducted concerning the social-cultural impacts of festivals and events in the form of various scales measuring the

Address correspondence to Kyle M. Woosnam, Assistant Professor, Department of Recreation, Park & Tourism Sciences, 454 Agriculture and Life Sciences Building, Texas A&M University, College Station, TX 77843-2261, USA.
Tel: +1-979-845-9781; Fax: +1-979-845-0446; E-mail: woosnam@tamu.edu

construct. Although these scales have some degree of divergence, a great deal of redundancy exists in items and resulting dimensions across the scales. Furthermore, such scales have rarely been validated and examined for reliability beyond their initial use. One of the first scales used to measure social-cultural impacts of festivals was the Festival Social Impact Attitude Scale (FSIAS), first developed by Delamere (2001). However, the factor structure of FSIAS has yet to be confirmed. According to Rollins and Delamere (2007), "There remains a need to further validate the FSIAS by implementing it in other community types and with differing types of festivals and celebrations" (p. 807).

The continued use of existing scales in empirical research indicates the importance of such a measure and also serves to add to the theoretical development of the fields of festival and event management. According to Wanhill (1995), one of the most important contributions a researcher can make to his or her field is the development of theory, which can encourage greater theoretical and model testing. In addition, by critically examining scale measures and adhering to a rigorous procedure of data collection and analysis, researchers can produce more reliable and valid measures that can be used to further a particular line of research (Netemeyer, Bearden, & Sharma, 2003). Such reliable and valid measures, in this case pertaining to assessing resident attitudes of social-cultural impacts of festivals or events, can provide planners and managers with practical tools (i.e., scales) to utilize in a consistent manner. As it stands, competing scales measuring the same construct of social-cultural impacts of festivals or events exist within the literature. This is why it is important to examine the FSIAS, the first scale of its kind, in greater depth.

Examining residents' attitudes regarding socio-cultural impacts of a cultural heritage festival in rural Texas (a novel setting in which to examine the FSIAS), this study has three main purposes: (1) to confirm the factor structure of the FSIAS, (2) to examine psychometric properties (i.e., numerous forms of reliability and validity) of the FSIAS, and (3) to determine if significant differences in factor composite means exist across numerous sociodemographic and socioeconomic variables (e.g., length of residency, number of years attending festival, education level, and annual household income) among residents living in the community in which the festival is held.

Literature Review

Numerous studies (Delamere, 2001; Delamere et al., 2001; Fredline et al., 2003; Rollins & Delamere, 2007; Small, 2008; Small & Edwards, 2003) have been undertaken to develop scales that measure community residents' perspectives of the social-cultural impacts of festivals and events. Such studies have been conducted primarily in provinces across Australia and Canada from small- to large-scale festivals and events celebrating art, literature, music, coastal living, wildlife, family, and sporting events. With so many scales created to measure the same construct, one can argue that the work is somewhat redundant. For instance, the redundancy can be seen in items and resulting dimensions across scales pertaining to social benefits, stress on public facilities, social costs, community and economic growth and development, and individual behavior—each of which are pointed out in Small's (2008) work where the author compares emerging dimensions from the scales.

The continued use of existing measures, if they are not problematic (i.e., exhibit sound reliability) and measure what they are intended to measure, provides empirical support and contributes to theoretical development. As Netemeyer et al. (2003) claim, "If good measures of a construct already exist, the value of a new measure may be small" (p. 8). From its inception, the FSIAS (the first social-cultural impact of festivals scale developed) has shown strong reliability, indicating support for its continued utilization; however, calls have been made to validate the scale while comparable scales have been created.

Existing Scales Measuring Social-Cultural Impact of Festivals and Events

Following a rigorous procedure of scale development, Delamere and colleagues established the first social-cultural impacts of festivals scale or FSIAS approximately 10 years ago. Delamere et al. (2001) utilized qualitative means to generate items for the scale and followed this procedure with two

pretests. Each pretest involved student samples that arguably may or may not accurately reflect a sample of community residents with established perspectives of festival impacts. Careful consideration should be made in selecting pretest samples in the formative stages of scale development so that factor structure is not potentially compromised (Babbie, 2011; Churchill, 1979; Netemeyer et al., 2003). Through exploratory factor analysis (EFA) techniques and removal of cross-loading and low-loading items (from 70 initially, down to 47 items), two factors emerged: Social Benefits and Social Costs of festivals (Delamere et al., 2001). This is in keeping with the work of Lankford and Howard (1994) and Ap and Crompton (1998) that examined impacts of tourism in a general sense.

Examining residents of the Cloverdale community (adjacent to Edmonton, Alberta) perceptions' of the impacts of the Edmonton Folk Festival, Delamere (2001) further refined the FSIAS. Even though an initial factor structure was determined, an EFA was conducted, revealing the two factors, Social Benefits and Social Costs, across 25 items. In this instance, Fabrigar, Wegener, MacCallum, and Strahan (1999) argue a confirmatory factor analysis (CFA) would have been more appropriate. The Social Benefits factor was then assessed and found to have two subfactors: Community Benefits and Individual Benefits. The three-factor structure of Community Benefits (eight items), Individual Benefits (eight items), and Social Costs (nine items) "was found to contribute to the greatest amount of variance" (Delamere, 2001, p. 34), yielding sound reliability (exceeding 0.90) and validity coefficients.

In an effort to show the transferability and utilization of FSIAS, Rollins and Delamere (2007) conducted a study of residents and their perspectives regarding the impacts of two festivals (i.e., Parksville Sandcastle Festival and the Ucluelet and Tofino Whale Festival) in British Columbia, Canada. Although reliability was adequate (exceeding 0.80) for each study site (Lance, Butts, & Michels, 2006), the coefficient was presented only for the entire scale, which is relevant only for unidimensional scales (Kline, 2011). In addition, Rollins and Delamere (2007) did not indicate the factor structure, so it is unclear if it is similar to previous work. Furthermore, the authors assess convergent validity through examining the correlation between the FSIAS and Zaichkowsky's (1994) Revised Personal Involvement Inventory; however, the two measures do not measure the same construct, calling into question the findings of the validity analysis.

Fredline et al. (2003) developed a scale similar to the FSIAS to measure social impacts of festivals and events. Within the "generic scale," six factors (i.e., social and economic development benefits, concerns about justice and inconvenience, impact on public facilities, impacts on behavior and environment, long-term impact on community, and impact on prices of some goods and services) comprised the 42 items. The length of the scale could have factored into response rates of 13%, 8%, and 8% from the three study samples. Babbie (2011) argues parsimonious measures can contribute to whether or not someone completes a survey instrument. Fredline et al. allude to the importance of decreasing the number of items within the scale. Surprisingly, no mention of reliability and validity of the scale are found within the work. In establishing a scale for any construct it is crucial to indicate its sound psychometric properties (Raykov & Marcoulides, 2011).

A third scale, the Social Impact Perception (SIP) Scale, was initially created through the work of Small and Edwards (2003) as the authors formulated impact items that festival organizers vetted through the use of a Delphi technique. The SIP was then developed through EFA, yielding 35-items across six factors: inconvenience, community identity and cohesion, personal frustration, entertainment and socialization opportunities, community growth and development, and behavioral consequences (Small, 2008). Although variance explained in the construct was as high (i.e., approximately 60%) as prior scales, only EFA was utilized to determine the factor structure. In addition, reliability was deemed adequate with Cronbach α coefficients exceeding 0.80 (Lance et al., 2006); however, no mention was made of validity measures for the factors or the scale overall. Small (2008), through the use of a factor comparison table, indicates that resulting factors of SIP are comparable to factors presented by Delamere (2001) and Fredline et al. (2003); however, this begs the question, is such a scale redundant?

Social Impacts of Festivals and Events Across Sociodemographic and Socioeconomic Variables

As Small (2008) indicated in her study, "consensus is not always achieved with respect to the nature of impacts on residents" (p. 53). Such individuals' perceptions of impacts can be examined with respect to sociodemographic and socioeconomic variables. Unfortunately, none of the studies discussed above concerning scales measuring social-cultural impact of festivals or events examined whether differences in perceived impacts exist across sociodemographic and socioeconomic variables.

Research in the fields of festival and event management and tourism has provided insight into the relationship between the variables such as length of residence, number of years attending a festival, education level, and household income and the perceptions of social-cultural impacts. In the context of tourism in general, Huh and Vogt (2008) and Draper, Woosnam, and Norman (2011) both found length of residency to significantly predict residents' perceived impacts of tourism. Whereas length of residency is crucial in forging an attachment to community (McCool & Martin, 1994), Gursoy and Kendall (2006) found a direct relationship between level of community attachment and perceived benefits of mega-events. In terms of number of years attending wine festivals in Western Australia, Shanka and Taylor (2004) found that repeat festival attendees had more positive attitudes toward the festivals and associated amenities than did first-time attendees.

As Harrill (2004) points out, socioeconomic variables such as education level and annual household income are "more often than not included simply as a standard part of survey instruments" and "can play a relatively minor role and sometimes contradictory role in explaining variation in residents' attitudes" (p. 252). As a result, research focused on residents' attitudes regarding the impacts of festivals across education and household income is somewhat limited. Examining residents' attitudes in Nadi (Fiji), Urgup (Turkey), and Central Florida, Tosun (2002) found that support for tourism did not vary significantly across level of education. In regard to perceived impacts of the Gold Coast IndyCar Race in Australia, Fredline and Faulkner (2000) found that residents who were "concerned for a reason" tended to be higher income earners. This is somewhat counter to what Tosun (2002) found, whereby individuals in Central Florida with higher incomes had higher levels of support for tourism than did those with lower incomes.

Although the FSIAS was the first scale to be used, others have been proposed and used based on reasoning that Delamere's (2001) scale was inadequate or insufficient. Yet, many items and dimensions from these scales overlap, indicating redundancy. Although some concerns have been made concerning the FSIAS, the fact remains that the scale was the first of its kind and its factor structure has never been confirmed. Therefore, the main purpose of this article is to determine whether the initial three-factor structure can be confirmed through CFA. Additionally, this work will examine psychometric properties of the FSIAS to determine various forms of reliability and validity. Finally, since the FSIAS has not been examined in regard to sociodemographic and socioeconomic variables, this research will determine if differences in factor composite means are significant across residents' length of residency, number of years attending festival, education level, and annual household income.

Research Methods

Study Site

Caldwell, Texas, situated 80 miles east of Austin (state capital) and 100 miles northwest of Houston, is home to the annual Kolache Festival. For the last 26 years, during the second weekend in September, the Kolache Festival has celebrated Czech culture, its delicacies, and the influence that the culture has on the area. As a representation of the Czech culture throughout Central Texas, the kolache is a breakfast yeast pastry served either with a jelly-like filling on top or with a sausage (and cheese or cheese and jalapenos) baked inside, and can be found at nearly every bakery throughout the region. Some of the festival activities include polka dancing and live music, artisan demonstrations, kolache-eating contests, antique machinery and tractor show, Miss Kolache Festival coronation, and areas set up to purchase local-area bakeries' kolaches and locally produced crafts (Burleson County Chamber of Commerce, 2011). It should be noted that nearly all of the festival activities occur in or near the downtown area of the town.

Although a majority of the 4,104 inhabitants of Caldwell (US Census Bureau, 2013) are of Czech lineage, some concern has been voiced by residents claiming that the festival and its average 20,000 visitors, as reported by Burleson County Chamber of Commerce officials (personal communication, April 15, 2010), are a disruption to the lives of individuals residing in the community, contributing to crowding and littering. The local chamber of commerce contends that such perspectives are not held by many, citing "such thoughts may only be held by a few of those who are opposed to celebrating our culture who tend to be negative in general." With such conflicting perspectives, it was determined that collecting FSIAS data from residents of the town would be a sound way to assess the impacts of the festival on the community. In addition to these varying perspectives, Caldwell was considered a prime location given Rollins and Delamere (2007) have called for the utilization of the FSIAS in the context of a cultural festival. Furthermore, Caldwell is one of the most well-known Czech settlements in a state with a rich Czech heritage.

Sampling and Data Collection

The sample for this study included permanent resident heads of households (or their spouses) at least 18 years of age living in Caldwell, Texas. During five weekends (starting with the weekend following the festival) in September and October 2010, an on-site self-administered survey instrument was distributed door to door throughout the town to residents using a multistage cluster sampling scheme (Babbie, 2011). This data collection strategy was selected given it yields high response rates and allows for data to be collected in a relatively short time period (McGehee & Andereck, 2004). Caldwell was initially reduced to geographic census tracts based on homogeneous sociodemographic and socioeconomic criteria (from the US Census Bureau). Census tracts were then randomly selected. For each selected census tract, block groups (a further geographic refinement) were then randomly selected. Beginning in randomly selected locations within each block group, every second household was visited and researchers asked heads of households (or their spouses) to participate. To allow for a greater response rate, two return contacts were made to each household later the same day to collect completed survey instruments.

According to the US Census Bureau's 2010 Census, there are 1,452 occupied housing units (or households) in Caldwell, Texas (US Census Bureau, 2013). Overall, 986 households were visited. At approximately 51.6% of those homes ($n = 509$), there was no answer. To alleviate nonresponse bias for no-answer households, researchers went to the next immediate household to distribute the survey instrument. At the remaining 477 homes, the head of household (or spouse) was contacted and asked to participate, of whom 61 declined (an 87.2% acceptance rate). Of the 416 survey instruments that were distributed, 348 were completed by residents (an 83.7% completion rate). The overall response rate (i.e., 348 completed survey instruments from the 477 individuals that were contacted) was 73.0%. It should be noted that a sample size of 348 is well within the required 304 households needed with a population of 1,452 (households) while specifying a confidence level of 95% and confidence interval of 5 (Creative Research Systems, 2011).

Instrument and Data Analysis

The survey instrument used in this study was composed of five sections that included questions pertaining to sense of community, emotional solidarity, satisfaction with life, personal values, attitudes about social-cultural impacts of the festival, and background information. For this article, only the latter two sections were utilized. To measure social-cultural impacts of the festival, the 25-item FSIAS was included and asked in the form of a 7-point Likert scale (where 1 = *strongly disagree* and 7 = *strongly agree*). Background information was asked of participants through number of years in community (i.e., length of residency), number of years attending the Kolache festival, gender, age, education level, annual household income, and race.

To address the first and second purposes of this article, CFA was conducted using EQS 6.1 statistical software package. The third purpose of the article was addressed through conducting multiple analyses of variance (MANOVAs) in IBM SPSS v19.0. Prior to beginning data analysis, the data set was screened for outliers (examining z scores for univariate screening and Mahalanobis's distance for

multivariate screening) per Tabachnick and Fidell (2007). In addition, missing data were imputed through expectation-maximization procedures by predicting scores in a series of regressions where each missing variable is regressed on remaining variables for a particular case (Kline, 2011).

Results

Participant Profile

The sample was composed of a slight majority (59.8%) of women, with a fairly equal age category distribution. Approximately half (43.8%) of the sample had at least an undergraduate degree. This high percentage may be explained by the fact that a major university is approximately 30 min from Caldwell. A preponderance of participants were Caucasian (66.0%), with Latino alone (18.4%) and African-American alone (11.8%) comprising most of the remainder. Such percentages are comparable to the actual percentages for Caucasian (74.1%), Latino alone (27.6%), and African-American alone (13.5%) currently living in Caldwell according to the US Census Bureau's 2010 Census (US Census Bureau, 2013). A majority (62.0%) of households visited had an annual income greater than $50,000. The mean number of years participants had lived in Caldwell was 23.2 years, and the mean number of years attending the Kolache Festival was 10.7 years. A descriptive summary of participants can be found in Table 1.

Table 1
Descriptive Summary of Participants

Sociodemographic Variable	*n*	%
Gender (*n* = 348)		
Female	208	59.8
Male	140	40.2
Age[a] (*n* = 342)		
18–29	61	17.8
30–39	74	21.6
40–49	77	22.5
50–59	61	17.8
≥ 60	69	20.2
Education (*n* = 345)		
Less than high school	8	2.3
High school	101	29.3
Technical or vocational school	85	24.6
Undergraduate degree	117	33.9
Graduate degree	34	9.9
Race/ethnicity (*n* = 347)		
Black alone	41	11.8
Hispanic/Latino alone	64	18.4
White alone	229	66.0
Some other race alone	3	0.9
Two or more races	10	2.9
Annual household income (*n* = 331)		
Under $25,000	47	14.2
$25,000–49,999	79	23.9
$50,000–74,999	73	22.1
$75,000–99,999	94	28.4
$100,000 or above	38	11.5
Length of residency[b] (*n* = 347)		
Less than 20 years	186	53.6
20 years or more	161	46.4
Number of years attending festival[c] (*n* = 348)		
Less than 10 years	171	49.1
10 years or more	177	50.9

[a] *M* = 45.3 years of age, SD = 16.6.
[b] *M* = 23.2 years, SD = 17.8.
[c] *M* = 10.7 years, SD = 7.5.

Confirmatory Factor Analysis of FSIAS

To confirm the factor structure of the FSIAS, CFA was conducted across the 25-item scale. Given the FSIAS explained the greatest degree of variance in the construct with a three-factor solution (Delamere, 2001; Rollins & Delamere, 2007), each factor with its corresponding items were added to the model using LaGrange Multiplier (LM) tests as suggested by Kline (2011). In so doing, each subsequent factor was added with error terms from previous factors, all the while allowing each factor to covary with one another. In a sense, the model was built one factor at a time similar to adding one independent variable at a time in forward stepwise regression. Once all factors were added, an "ideal model" was constructed with perfect incremental fit indices [e.g., comparative fit index (CFI), normed fit index (NFI), and goodness-of-fit index (GFI) each equal to 1.00] and absolute fit indices [e.g., root mean square error of approximation (RMSEA) and root mean square residual (RMR) each equal to 0.00], indicating the model fit the data perfectly. Although it is nearly impossible to interpret the "ideal model," we are able to observe each error parameter in the form of error covariance and cross-loading item from the resulting structure (Brown, 2006). Given the high number of scale items, 76 error parameters (67 error covariances and nine cross-loading items) were identified.

Just as the LM tests build the ideal model (indicating each of the error parameters), Wald tests were then utilized to trim the ideal model and remove each error term (Brown, 2006). Error parameters were removed in such a way that the integrity of the model was not compromised and delta chi-square/degree of freedom was less than the 3.84 critical value as indicated by Tabachnick and Fidell (2007). Ultimately, each of the 76 error parameters were safely removed, yielding a final FSIAS measurement model composed of all 25 items loading on the appropriate three factors as indicated in Delamere (2001): Satorra-Bentler scaled $\chi^2(272,\ N = 348) = 501.71,\ p < 0.001,\ \text{CFI} = 0.92,\ \text{NFI} = 0.91,\ \text{RMSEA} = 0.05$. According to Hu and Bentler (1999), incremental fit index values greater than 0.90 indicate reasonably good fit just as absolute model fit index values less than or equal to 0.05 show a close, approximate fit (Browne & Cudeck, 1993). The resulting factor structure of the FSIAS is shown in Table 2. Each of the 25 items loaded correctly onto the three factors: Community benefits (eight items), Individuals benefits (eight items), and Social costs (nine items). Standardized factor loadings all exceeded 0.70, which, according to Fornell and Larcker (1981), is ideal.

Reliability and Validity. Each of the maximal weighted and composite reliabilities for the three factors were extremely high (Table 2). Maximal weighted α coefficients are weighted by factor loadings, which provide a more robust estimate of internal consistency (Kline, 2011). Composite reliability estimates the extent to which a set of latent construct indicators share in their measurement of a construct. Each composite reliability value exceeded the critical value of 0.60 as suggested by Tseng, Dornyei, and Schmitt (2006) to be considered adequate. Construct validity was examined through convergent and discriminant validity per Churchill's (1979) recommendation. Just as reliability and validity are two sides of the same psychometric coin, convergent and discriminant validity are two sides of the validity coin. All *t* values (Table 2) associated with each loading on corresponding factors were significant ($p < 0.001$), as they exceeded the critical value of 3.29, established by Tabachnick and Fidell (2007). Such findings indicate convergent validity for the scale and its resulting factors. Discriminant validity was also demonstrated as the variance extracted estimate for each factor was at least 0.50 and was greater than any of the factor intercorrelations, as Fornell and Larcker (1981) suggest (see Table 3).

FSIAS Across Sociodemographic and Socioeconomic Variables

In order to address the third purpose of this article—to determine if significant differences in factor composite means exist across numerous sociodemographic and socioeconomic variables—a series of MANOVAs with Wilks's Λ (i.e., one for length of residency, number of years attending the festival, education level, and annual household income) were run. Such tests were deemed appropriate given FSIAS factors were correlated, psychometric properties were sound, and fit index values were good (Tabachnick & Fidell, 2007). Composite mean scores for each of the CFA-resulting factors (i.e., Community Benefits, Individual Benefits, and Social Costs) were calculated prior to running MANOVAs. It should be noted that both variables, length of residency and number of years attending the festival, were asked as continuous variables on the survey instrument. However, for the sake of practicality, each variable was transformed into categorical variables by splitting raw data near the mean while accounting for a normal distribution.

Significant differences were found among those residents living in Caldwell for less than 20 years and those who have lived in the town 20 years or more on the three FSIAS factors, Wilks's $\Lambda = 0.94$, $F(3, 343) = 7.87$, $p < 0.001$ (Table 4). Analyses of variances (ANOVAs) on each factor (as the dependent variable) were then conducted as post hoc tests to the MANOVA. Using the Bonferroni method (to control for Type 1 errors), each ANOVA was tested at the 0.017 level (i.e., 0.05 divided by the number of dependent variables) per Tabachnick and Fidell's (2007) suggestion. The ANOVA on Community Benefits was significant, $F(1, 346) = 22.93$, $p < 0.001$. In addition, the ANOVA on Individual Benefits was significant, $F(1, 346) = 10.09$, $p = 0.002$. In both benefits factors, residents living in Caldwell for 20 years or more indicated a significantly higher degree of agreement with items

Table 2
CFA of FSIAS Items

Factor and Corresponding Item	Factor Mean[a]	Standardized Factor Loading (t Value[b])	Reliabilities	
			Maximal Weighted	Composite
Community benefits	6.06		0.96	0.96
Community identity is enhanced through festival		0.902 (11.75)		
Festival leaves ongoing positive cultural impact in community		0.897 (12.58)		
Festival contributes to sense of community well-being		0.881 (14.21)		
Festival helps me show others why my community is unique and special		0.849 (12.71)		
Festival helps improve quality of life in community		0.845 (13.65)		
Festival is a celebration of my community		0.840 (10.96)		
Festival enhances image of the community		0.838 (11.95)		
My community gains positive recognition as a result of festival		0.795 (10.12)		
Individual benefits	5.76		0.96	0.95
Residents participating in festival have opportunity to learn new things		0.887 (12.79)		
I feel a personal sense of pride and recognition by participating in festival		0.873 (15.19)		
I enjoy meeting festival performers/workers		0.872 (13.98)		
Festival provides opportunities for community residents to experience new activities		0.862 (13.55)		
Festival acts as a showcase for new ideas		0.847 (15.24)		
Festival contributes to my personal health/well-being		0.827 (16.83)		
Festival provides community with opportunity to discover/develop new cultural skills/talents		0.813 (12.68)		
I am exposed to a variety of cultural experiences through festival		0.801 (15.28)		
Social costs	2.06		0.97	0.96
Noise levels are increased to an unacceptable level during festival		0.918 (15.28)		
Festival overtaxes available community human resources		0.912 (14.76)		
My community is overcrowded during festival		0.894 (17.67)		
Car/bus/truck/RV traffic is increased to unacceptable levels during festival		0.884 (15.40)		
Influx of festival visitors reduces privacy we have within our community		0.880 (14.08)		
Festival is intrusion into lives of community residents		0.858 (14.50)		
Community recreational facilities are overused during festival		0.854 (13.81)		
Litter is increased to unacceptable levels during festival		0.813 (11.78)		
Festival leads to disruption in normal routines of community residents		0.771 (14.56)		

[a]Items were rated on a 7-point scale, where 1 = *strongly disagree* and 7 = *strongly agree*.
[b]All t tests were significant at $p < 0.001$.

comprising each factor than did those living less than 20 years in the community.

A second MANOVA was run concerning the number of years residents have attended the Kolache Festival. Significant differences were found among those residents having attended the festival less than 10 years and those having attended 10 years or more on the three FSIAS factors, Wilks's $\Lambda = 0.97$, $F(3, 344) = 3.13$, $p < 0.001$ (Table 5). Following the same process in assessing ANOVAs with the Bonferroni method, the ANOVA on Community Benefits was significant, $F(1, 347) = 7.82$, $p = 0.005$. Residents that have attended the festival for 10 years or more indicated a significantly higher level of agreement with items comprising the Community Benefits factor.

Table 3
Discriminant Validity Analysis From FSIAS CFA

Factors	1	2	3
Community benefits	**0.73**[a]		
Individual benefits	0.29[b]	**0.72**	
Social costs	(0.46)	(0.46)	**0.75**

[a]The bold diagonal elements are the square root of the variance shared between the factors and their measures (average variance extracted).
[b]Off-diagonal elements are the correlations between factors. For discriminant validity, the diagonal elements should be larger than any other corresponding row or column entry.

Two final MANOVAs were run for education level and annual household income. No significant differences were found for education levels on the three FSIAS factors, Wilks's $\Lambda = 0.96$, $F(3, 338) = 1.25$, $p = 0.246$ (Table 6). As a result, no post hoc ANOVAs were necessary. However significant differences were found among the numerous levels of annual household income on the three FSIAS factors, Wilks's $\Lambda = 0.82$, $F(3, 324) = 5.71$, $p < 0.001$ (Table 7). Following the same process as above in assessing ANOVAs with the Bonferroni method, the post hoc ANOVAs for each of the three FSIAS factors were significant. The ANOVA on Community Benefits was significant, $F(1, 330) = 3.29$, $p = 0.002$. Those with an annual household income between \$50,000 and \$74,999 and \$100,000 or more indicated a significantly higher degree of agreement with the Community Benefits items than those with annual household incomes under \$25,000. The ANOVA on Individual Benefits was also significant, $F(1, 330) = 5.50$, $p = 0.001$. Those with an annual household income between \$50,000 and \$74,999 indicated a significantly higher level of agreement with Individual Benefits items than those with annual household incomes under \$25,000, between \$25,000 and \$49,999, and \$100,000 or more. Finally, the ANOVA on Social Costs was significant, $F(1, 330) = 13.95$, $p < 0.001$. Those with an annual household income under \$25,000 indicated a higher level of agreement with Social Costs items than all other income categories. In addition, those making \$25,000–\$49,999 indicated a significantly higher degree of agreement with the Social Costs items than those making \$50,000–\$74,999.

Discussion and Conclusion

Even though the FSIAS was the first of its kind to measure residents' attitudes about the social-cultural impacts of a festival on communities, prior to the current study, no one had confirmed the factor structure of the scale. Although EFA is widely used in many studies involving attitudinal scales, it is incorrectly used when a known factor structure exists for a construct (Hurley et al., 1997). EFA is a moot point in exploring something that has empirical support or a priori evidence to indicate its existence. This is why CFA was the preferred means by which to factor analyze the FSIAS. From the CFA results, a similar three-factor structure to that found in the works of Delamere (2001) and Rollins and Delamere (2007) resulted. Two of the factors related to positive impacts (i.e., Community Benefits and Individual Benefits) and the other to negative impacts (i.e., Social Costs).

If scales are to be utilized in subsequent research, it is crucial to demonstrate that the measure is both reliable and valid (Netemeyer et al., 2003). As Babbie (2011) has indicated, a measure can yield consistent results while not measuring what it is intended to measure (i.e., poor internal validity). This was not the case within the current study as the FSIAS

Table 4
FSIAS Factor Differences Across Length of Residency[a]

	Means[b] (SD)		ANOVA Results[c]	
FSIAS Factor	<20 years	20 years or more	*F*	*p*
Community benefits	5.85 (1.04)	6.31 (0.66)	22.93	0.000
Individual benefits	5.58 (1.29)	5.96 (0.86)	10.09	0.002
Social costs	2.15 (1.17)	1.97 (0.96)	2.45	0.118

[a]MANOVA model: Wilks's $\Lambda = 0.94$, $F(3, 343) = 7.87$, $p < 0.001$.
[b]Measurement scale: 1 (*strongly disagree*) to 7 (*strongly agree*).
[c]Significance determined at 0.017 level.

Table 5
FSIAS Factor Differences Across Number of Years Attending Festival[a]

	Means[b] (SD)		ANOVA Results[c]	
FSIAS Factor	<10 years	10 years or more	*F*	*p*
Community benefits	5.91 (0.99)	6.19 (0.82)	7.82	0.005
Individual benefits	5.72 (1.17)	5.79 (1.08)	0.41	0.522
Social costs	2.11 (1.16)	2.02 (1.01)	0.56	0.457

[a]MANOVA model: Wilks's $\Lambda = 0.97$, $F(3, 344) = 3.13$, $p < 0.001$.
[b]Measurement scale: 1 (*strongly disagree*) to 7 (*strongly agree*).
[c]Significance determined at 0.017 level.

demonstrated strong coefficients of reliability and validity. In fact, factor reliabilities were found to exceed those presented in Delamere (2001). In addition, previous studies (e.g., Delamere 2001; Rollins & Delamere, 2007) failed to indicate strong construct validity through concurrently examining convergent and discriminant validities. Churchill (1979) argued that evidence of convergent and discriminant validity is imperative to demonstrate the measure at hand possesses construct validity.

As Small (2008) points out, residents in a community are often aware of both the positive and negative impacts that festivals can have on a hosting community. Interpreting the means from each of the factors, two main conclusions can be drawn. First, residents in general indicated a high level of agreement with benefits to the community ($M = 6.06$) and to the individual ($M = 5.76$) and a high level of disagreement with social costs to the community ($M = 2.06$). A similar finding was presented by Small and Edwards (2003) whereby the authors found community residents in Australia did not perceive The Festival of the Book to contribute to crowding in streets and footpaths, shops and facilities, and public transport facilities, whereas at the same time, residents claimed the festival resulted in positive cultural impacts on the community (i.e., impacts on the local character of the community, impacts on the region's cultural identity, increased local interest in the region's culture and history, etc.). Second, in the context of benefits, residents tended to perceive the festival to be more beneficial to the community than to themselves on a personal level. This makes intuitive sense given the festival is a celebration of the culture as a whole. In their study of multiple festivals and special events in Australia, Fredline et al. (2003) found something similar, indicating that "Each of these events is seen as being similarly beneficial, providing greater quality of life outcomes to the community as a whole, than to individuals within the community" (p. 31).

Within any given community, residents will perceive the same impact in different ways (Small, 2008). Oftentimes, individuals will assess impacts based on their personal background whether it is from previous festival participation, travel, or sociodemographic and socioeconomic classification. Given this information, one would expect to find differences in perceptions of impacts across such variables. Significant differences in perceived impacts were found in terms of length of time (i.e., measured in number of years in the community and number of years attending the festival) within this study. Long-time residents and long-time festival visitors indicated a higher degree of agreement with

Table 6
FSIAS Factor Differences Across Education Level[a]

	Means[b] (SD)					ANOVA Results	
FSIAS Factor	< High School	High School	Tech/Voc School	Undergrad	Grad	*F*	*p*
Community benefits	5.81 (1.01)	6.04 (0.97)	6.03 (0.99)	6.10 (0.84)	6.11 (0.86)	0.25	0.908
Individual benefits	5.94 (1.00)	5.68 (1.17)	5.71 (1.20)	5.85 (1.10)	5.72 (0.93)	0.42	0.796
Social costs	2.72 (1.23)	2.19 (1.23)	2.21 (1.26)	1.86 (0.81)	1.89 (0.75)	2.82	0.025

[a]MANOVA model: Wilks's $\Lambda = 0.96$, $F(3, 338) = 1.25$, $p = 0.246$.
[b]Measurement scale: 1 (*strongly disagree*) to 7 (*strongly agree*).

Table 7
FSIAS Factor Differences Across Household Income Level[a]

	Means[b] (SD)					ANOVA Results[c]	
FSIAS Factor	Under $25,000	$25,000–$49,999	$50,000–$74,999	$75,000–$99,999	$100,000 or more	*F*	*p*
Community benefits	5.70 (0.13)[de]	6.02 (0.10)	6.29 (0.10)[d]	6.07 (0.09)	6.35 (0.14)[e]	3.29	0.002
Individual benefits	5.38 (0.16)[f]	5.63 (0.12)[g]	6.18 (0.13)[fgh]	5.83 (0.11)	5.64 (0.18)[h]	5.50	0.001
Social costs	2.96 (0.14)[ijlk]	2.10 (0.11)[im]	1.59 (0.12)[jm]	1.95 (0.10)[k]	2.04 (0.16)[l]	13.95	0.000

[a]MANOVA model: Wilks's $\Lambda = 0.82$, $F(3, 324) = 5.71$, $p < 0.001$.
[b]Measurement scale: 1 (*strongly disagree*) to 7 (*strongly agree*).
[c]Significance determined at 0.017 level.
[d–m]Same letter indicates significant mean difference at the 0.017 level.

festival benefits to the community than did those who had not lived in the community as long. Concerning the length of residency, such a finding is in line with Huh and Vogt (2008) who found length of residency did significantly predict residents' perceived impacts of tourism. In addition, Shanka and Taylor (2004) found repeat festival goers had more positive attitudes toward festivals than those who had attended less, which is similar to what was found in the current study. No differences in perceived impacts were found across the various levels of education. This is in keeping with Harrill's (2004) claim that education rarely explains why individuals feel the way they do about impacts. By and large, residents with higher incomes tended to agree more with items surrounding the festival's benefits to the community and individual and disagree more with items concerning social costs of the festival than did those with lower incomes. Such a finding runs parallel to the work of Tosun (2002) that showed that more affluent individuals favored tourism more than those less affluent. It stands to reason that such individuals may stand to gain the most benefit from the festival based on their reported level of agreement with benefit items.

Implications

Findings from the current study have implications for theory and practice. As mentioned before, this work was undertaken in response to calls from Delamere (2001) and Rollins and Delamere (2007) for continued research to validate and use the FSIAS in a novel context. Given the scale had only been used in an exploratory manner, it was submitted to a CFA and examined across various sociodemographic and socioeconomic variables. Findings demonstrate continued support for the scale and its potential to be used in the context of cultural festivals and in locations outside Canada (where the scale had only previously been used). As future researchers contemplate an appropriate scale to utilize in their research, sound evidence of a confirmed factor structure, reliability, and validity should be just cause (as long as the measure is pertinent to their work) to consider the FSIAS as a solid choice. This is especially the case given the Small (2008) and Fredline et al. (2003) scales are also available in the literature. The continued use of existing measures allows the fields of festival and event management to grow and develop as potential theoretical relationships involving constructs such as perceived festival social impacts (and resulting factors) are examined in subsequent research.

Implications exist for the practitioner as well. In Caldwell specifically, findings from this study support the notion held by the local chamber of commerce that the Kolache Festival does indeed benefit the community and individuals with minimal costs to the community. This information should be stressed when promoting the festival to individuals that may be opposed to the cultural celebration. If findings from this study are not sufficient to indicate the worth of the festival, the next logical step would be to conduct an economic impact study to determine how much new revenue enters the county as a result of individuals traveling to the festival and spending money. Given this study was limited to the social-cultural impacts of the festival, visitor spending data were not collected. The chamber of commerce can

also utilize findings from the descriptive variables within the study in modifying any planning aspects of the festival. For example, a campaign to educate those who have not lived in the community for an extended period of time about the Community Benefits (e.g., improving quality of life, contributing to sense of community well-being, celebrating the community) and Individual Benefits (e.g., learning about a culture, feeling a personal sense of pride, learning new things) that the festival provides may be considered. Such a campaign can include promotion through the use of newspaper articles, printed banners, radio coverage, school newsletters, and webpage blogs—where such residents may have greater access.

In a general sense, festival planning/managing organizations can use the scale among residents to gauge how the festival is perceived and the resulting impacts on the community and individuals within the community. This data should be collected at different points in time with the acknowledgment that perceptions are not static, especially as individuals have greater life experiences and the festival itself changes through time. To complement the scale, perhaps data concerning specific attributes of the festival can be evaluated to determine how specific activities, settings, services, and so on are rated by community residents. Of course, an importance-performance analysis can be utilized similar to what Delamere (2001) used in assessing the FSIAS in his earlier work. Those attributes falling within the quadrants of "needs work" (i.e., high importance and low performance) and "possible overkill" (i.e., low importance and high performance) could then be modified.

Limitations and Future Research

As with any research, limitations exist. First and foremost, only four sociodemographic or socioeconomic variables were examined in relation to the FSIAS. Based on empirical support, these four were considered most relevant in determining if perceptions of impacts differed among residents. Subsequent research should include additional variables such as age, gender, employment status, place of birth, cultural background, and role in planning/managing the festival. It would be interesting to determine if significant differences in FSIAS scores exist across these variables.

In addition, we did not examine the role of sense of place or sense of community in explaining why those residents that had lived in the community and had attended the festival more tended to agree more with positive impacts of the festival. Arguably, those that feel a strong sense of place or community would likely be more prone to see the benefits associated with festivals or special events that are focused on improving life in a particular area. In a similar vein, given significant differences on perceived impacts were found across temporal variables (i.e., length of residency and number of years attending the festival), it would be interesting to see how perceptions of festival impacts change over time in a longitudinal study. To the authors' knowledge, this is rarely been done as most researchers select to utilize cross-sectional data measuring a particular phenomenon at one point in time.

Although the current research was conducted to utilize the existing measure of FSIAS and not modify it (so as to examine the existing factor structure), we suggest a potential modification of the FSIAS. Those items that have low standardized factor loadings may be considered for exclusion. The rationale for this is that such items will not compromise the model fit indices for a particular factor and likely do not contribute significantly to the variance explained in the factor. Of course, assessing reliability of the factor with such items removed will be of importance as well. A reduction in the size of scale will make the measure more parsimonious and reduce the potential for confusion and cognitive overload experienced by participants, ultimately improving response rates in subsequent research. Additionally, a modified FSIAS with fewer items may encourage festival and event managers or planners to utilize the measure on a regular basis to determine how attitudes may change over time.

Finally, data on specific attributes of the festival (i.e., activities, performers, food, location, timing, etc.) were not collected from residents of Caldwell. Perhaps such information could shed light on why some individuals had strong perspectives of some items and not others. It would be interesting to determine whether the rating of particular attributes of the festival actually has an effect on how residents perceive positive and negative impacts of the festival. Despite the above-mentioned limitations of the work, findings from this study support the

continued use of the FSIAS in efforts to improve the planning of festivals and the overall quality of life in communities where such festivals are held.

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