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State of Sustainable Tourism in Minnesota 2013

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State of Sustainable Tourism in Minnesota 2013

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EXECUTIVE SUMMARY

In 2013, the University of Minnesota Tourism Center partnered with Explore Minnesota Tourism (EMT), the state's tourism promotion office, to conduct an online survey on sustainable practices. Part of an ongoing effort since 2007, the 2013 survey asked about perceived benefits and difficulties to adopt sustainable practices and included questions about the state of implementing sustainable practices in six areas: energy efficiency, waste minimization, environmental purchasing, air quality, water conservation, and landscaping/wildlife. Respondents also indicated: their gender, their industry sector, their Minnesota tourism region, number of years working in the industry and for their current employer, the likelihood of participating in green travel certification programs, and preferred ways of receiving information on sustainable tourism.

Methods

An online questionnaire was developed based on past research, reviewed by EMT and University partners, and then distributed via Survey Monkey to the database of tourism entities maintained by EMT in spring 2013. Among the 3,550 surveyed entities, 585 responded and 426 completed the survey, yielding a response rate of 16 percent and a completion rate of 12 percent. Data were downloaded from Survey Monkey into SPSS (version 21.0) format. Completed questionnaires were included in data analysis (N=426). The data were checked and analyzed in SPSS.

Results

***Perceived benefits of adopting sustainable practices*:** The majority of respondents agreed or strongly agreed with each of the eight potential benefits of adopting sustainable practices: improved consumer prospects, remaining competitive, economic savings, improved organizational image, attracting new clientele, improved customer perceptions, meeting customer expectations, and increased environment protection. Agreement did not significantly differ by region.

***Perceived difficulties of adopting sustainable practices*:** Results were mixed on perceived difficulties of implementing sustainable practices across the state. About 80 percent of the respondents agreed or strongly agreed that initial financial costs, time and energy pose difficulties to adopt sustainable practices. More than half of the tourism respondents identified lack of information and external restrictions on operations as difficulties to adopt sustainable practices. By comparison, fewer than 20 percent of respondents agreed or strongly agreed that staff opposition and customer opposition were difficulties to sustainable practice adoption.

Significant regional differences emerged for five of the 10 difficulties to adopt sustainable practices: initial financial costs, customer opposition, external restrictions on operations, lack of interest in the concept of sustainability within the organization and within the consumer base, and lack of control over customer behavior. Overall, entities in the Northwest region agreed the most with these difficulties, while those in the Northeast region and the Metro area agreed the least.

***Likelihood of participating in certification related to green travel*:** Overall, respondents agreed they were more likely to participate in a self-certification program for sustainable tourism than in a third-party certification.

Sustainable practice implementation

***Energy efficiency practices*:** More than 70 percent of the respondents used daylight to the greatest possible extent. However, fewer than 50 percent of the respondents made any attempt to follow

several other practices: use renewable energy resources, install window film, replace PTAC units with more efficient technologies, include energy audit in operation schedules, or use occupancy sensors or timers.

***Waste minimization practices*:** At least 65 percent of the respondents completed or were practicing on an ongoing basis: maintain a recycling program, provide recycling receptacles, have a recycling program, buy products that contain recycled materials, safely store chemical products, and donate leftover guest amenities and old furniture. Close to 70 percent of the respondents made no attempt to consult the U.S. Green Building Council when constructing or remodeling.

***Environmental purchasing practices*:** Most of the 13 practices assessed were reported as completed or ongoing by the majority of tourism entities surveyed, including: employ local residents, practice social responsibility without discrimination, pay a fair wage, provide literature that promotes local businesses, favor equipment that has a long life and can be repaired, buy products locally when possible, and purchase reusable and durable products. However, close to 50 percent of the respondents indicated that they made no attempt to purchase fair trade products.

***Air quality practices*:** At least 70 percent of the respondents completed or were practicing on an ongoing basis four of the 11 practices assessed: ventilate high-moisture areas, clean all air handler units and coils regularly, not leave vehicles running when idle, and encourage public or group transportation. At the same time, more than 40 percent of the respondents made no attempt to conduct periodic tests to ensure healthy air quality.

***Water conservation practices*:** Three of the 10 practices, sweep/vacuum large areas, properly dispose of hazardous chemicals, and regularly test for and repairing leaks, were completed or practiced on an ongoing basis by at least 70 percent of the respondents. However, more than 50 percent of the respondents indicated no attempt to collect rainwater/stormwater, install automatic run-off water taps, or install a reclaimed water system.

***Landscaping/wildlife practices*:** The majority of the 12 practices in this category were completed or practiced on an ongoing basis by at least 60 percent of the respondents: do wildlife observation from a remote distance and avoiding it during sensitive times, conduct irrigation watering in early morning or at night, design and construct facilities to reflect natural surroundings, retain or include native vegetation in landscaping, compost landscaping wastes, and promote “Leave No Trace" principles to customers and employees. At the same time, fewer than 40 percent of respondents regularly used residual pesticides or herbicides in landscaping.

***Best ways of receiving information on sustainable tourism*:** When asked to select from eight ways to receive information on sustainable tourism, more than 40 percent of the respondents selected online reference materials. More than 30 percent of respondents identified local or community workshops as the best information conveyances. Between 20 and 30 percent of the respondents chose either regional workshops, webinars, or professional networking as one of the best ways to get information. Meanwhile, fewer than 10 percent of respondents chose technical assistance as the best way to get information on sustainable tourism.

***Respondents*:** In 2013, more respondents came from the lodging/camping sector and the Northeast region than any other industry sector or region, respectively. Respondents had lengthy tenure in the tourism industry and with their current employer, including more than 30 percent who had worked in the industry for more than 20 years. More female than male respondents completed the survey.

Discussion

As of 2013, tourism entities across Minnesota agreed that there are benefits to sustainable business practice implementations, particularly improved customer perceptions, improved organizational image, and attracting new clientele. However, the perceived difficulties of initial financial costs, as well as time and energy, detract from optimal sustainable practice implementation. Given the importance of economic returns to any business and lack of perceived economic return on sustainable practices, clearly quantifying and then articulating the economic impacts of sustainability practices is essential for businesses to consider adoption.

Furthermore, providing opportunities to reduce financial risk, minimize implementation time, and improve educational opportunities related to sustainable business practices will advance their implementation. To further implement sustainable practices within the tourism arena, there are at least two areas on which to focus: more effective and relevant communications to all industry sectors, as well as sector-specific efforts to increase implementation opportunities.

Regarding communication, respondents preferred online reference materials and community workshops more than the other ways of receiving information on sustainable tourism. The findings indicate that hosting effective community workshops deserves consideration.

In 2008, Explore Minnesota Tourism and the University of Minnesota Tourism Center partnered to create the “Travel Green” webpage to provide online reference materials. Yet, despite respondents’ preference for online reference materials, less than 20 percent of the respondents identified the Travel Green webpage as one of the best ways to obtain information on sustainable tourism. Apparently, the Travel Green website needs to be more relevant and useful to the tourism industry, and other online sources should be considered.

Within each sector there are opportunities to reap the benefits of some fairly simple practices. These "low hanging fruit" for sustainable practices appear to vary by sector. For example, in the lodging sector, tailored efforts could provide more guidance on obtaining composting services (both food and landscaping wastes) and help the sector see air quality practices in light of not just sustainability but also guest comfort. In the retail sector, using occupancy sensors/timers and installing water-saving fixtures have low rates of implementation. Both measures require installing new devices, but the scope of work is not necessarily significant. One way to increase implementation might be to provide the retail sector with technical assistance in installing new devices, as this sector seems more receptive to technical assistance compared with other sectors. In the government sector, tailored efforts could encourage use of daylight to the greatest extent possible, not leaving vehicles running when idle, and conducting irrigation watering in the early morning or at night. Communications could highlight that implementing these three practices does not necessarily require financial or labor investment but calls for behavioral changes – the value of which should not be overlooked. Within this sector, it’s possible that the people completing the questionnaires are not entirely in touch with the breadth of sustainable practices implemented and, as such, their implementation rates could be higher.

Results from the 2013 state of sustainable tourism questionnaire demonstrate the tourism industry has handily adopted and implemented several sustainable practices, but others have yet to be fully implemented. Information conveyed through online resources and regional workshops can work to enhance understanding of the return on investments of various practices. The Tourism Center will

continue to monitor sustainable practice implementation and share results to advance efficiencies and effectiveness across all sustainability areas.

INTRODUCTION

Sustainable tourism refers to the type of development that meets the needs of present tourists and host regions while protecting and enhancing future tourism opportunities (UNEP & UNWTO, 2005). According to the United Nations Environmental Programme and the United Nations World Tourism Organization (2005), three key principles apply to sustainable tourism: (1) making optimal use of environmental resources, (2) respecting the socio-cultural authenticity of the host community, and (3) ensuring viable and long-term economic operation. Application of these three principles contributes to responsible tourism behaviors that lead to sustained environmental and cultural protection, economic benefits at the local level, local community involvement, and active engagement in learning and supporting sustainable tourism by tourists.

As in other parts of the United States and world, in Minnesota, interest in sustainable tourism and its related entities like 'responsible tourism' and 'geotourism' continues. In fact, as of 2013, two of the four National Park Service units in Minnesota are exploring partnerships with National Geographic to highlight select sustainable tourism areas. In 2007, Explore Minnesota Tourism (EMT), the state's tourism promotion agency, looked into developing a Minnesota Travel Green program under the direction of state legislation. The effort emphasized protecting the environment, promoting tourism business practices that reduce environmental impact, educating travelers, and promoting Minnesota travel (EMT, 2008). As part of that effort, the state realized little information existed about the industry's attitudes towards sustainable tourism and even less information about the implementation of sustainable tourism practices.

Recognizing the need to monitor the state of sustainable practices in Minnesota, the University of Minnesota Tourism Center partnered with EMT to develop an Internet-based survey. The survey assesses perceived benefits and difficulties of adopting sustainable practices, as well as current sustainability practices. The survey was first administered in 2007, then again in 2010 and 2013.

This report documents the state of sustainable practices in Minnesota using data from the 2013 survey. For information on the 2007 and 2010 reports, see the comparative report entitled "State of Sustainable Tourism in Minnesota: Assessing Changes from 2007-2013."

METHODOLOGY

Questionnaire

An online questionnaire was developed based on past research and desired industry information (See the Appendix for a copy of the actual survey). First, to understand the attitude of the tourism industry toward sustainability practices, a series of questions assessed respondents' level of agreement with the benefits and difficulties of implementing sustainable practices. Measured on a 5-point Likert scale, these questions included items such as "economic savings," "attracting new clientele," "initial financial costs," and "external restrictions on operations."

Second, respondents answered questions about the implementation of sustainability practices across energy efficiency, waste minimization, environmental purchasing, air quality, water conservation, and landscaping. Implementation was measured using a scale where 0 = No Attempt, 1= Under Consideration, 2= Just Beginning, and 3= Completed/Ongoing. Respondents were given the choice of 'Not Applicable' as well.

Third, respondents indicated the likelihood of participation in self and third-party certification related to green travel for tourism organizations using a 4-point scale, where 1=Very Unlikely,

2=Unlikely, 3=Likely, and 4=Very Likely. Respondents also identified the best ways to receive information on sustainable tourism, such as listserv, in-person workshops, webinars, etc.

For comparison purposes and to assess representativeness, respondents indicated the industry sector they were primarily affiliated with, the Minnesota region where their tourism entities were located, the number of years they had worked in the tourism industry and for their current employer, as well as their gender. The 2013 survey also assessed respondents' knowledge of invasive plant and aquatic species. These findings are reported in a separate document.

Approach

In March 2013, the questionnaire was sent out electronically via Survey Monkey to the database of tourism entities maintained by EMT (N=3,550). As noted, questionnaire recipients were located across the state and represented lodging, event/festival, retail, convention and visitor bureau, and government sectors. To increase response rate, a modified tailored design method (Dillman, Smyth, & Christian, 2009) was used. The technique includes electronic preview before the invitation was sent out, personalization of the invitation to participate in the survey, and a follow-up reminder to complete the survey.

Response rate

Among the 3,550 usable contacts in the EMT database, 585 responded and 426 completed the survey, translating to a response rate of 16 percent and a completion rate of 12 percent.

Analysis

Survey responses were downloaded from Survey Monkey into SPSS (version 21.0). The data file was checked and cleaned. Analysis provided frequencies, means, medians, and standard deviations to describe perceived benefits and difficulties in adopting sustainable practices, as well as interest in self and third-party certification related to green travel.

Analysis also provided frequencies and percentages to describe the extent of implementation of various sustainable practices and interest in ways of receiving information on sustainable tourism. If organizations indicated that a practice was "not applicable" to them, their data was not included in analysis. Kruskal-Wallis tests assessed regional differences in adopting sustainable practices. In terms of perceived benefits and difficulties in adopting sustainable practices, the Analysis of Variance (ANOVA) technique examined differences by region, as well as number of years working in the tourism industry and for their current employer. Although descriptive statistics by industry sector are provided, the number of respondents from each industry sector (except for lodging/camping) was too small for statistical comparisons.

RESULTS

Perceived benefits and difficulties of adopting sustainable practices

Perceived benefits: Overall, the level of agreement with the eight benefits was high (Figure 1; Table 1). More than 80 percent of respondents agreed with or strongly agreed with five of the eight benefits, and all five focused on either customers (improved customer perceptions, attracting new clientele, improved consumer prospects) or organizational competitiveness (remaining competitive, improved organizational image). Economic savings was the least agreed-upon benefit, but still 18 percent of the respondents agreed and 48.7 percent strongly agreed that economic savings were a benefit.

	Mean[1]	Median[1]	Standard Deviation
Improved customer perceptions	4.16	4.00	0.82
Attracting new clientele	4.13	4.00	0.89
Improved organizational image	4.08	4.00	0.82
Increased environment protection	4.06	4.00	0.93
Remaining competitive	3.98	4.00	0.87
Improved consumer prospects	3.98	4.00	0.80
Meeting customer expectations	3.97	4.00	0.92
Economic savings	3.72	4.00	0.94

TABLE 1: Descriptive statistics of the eight benefits to adopt sustainable practices (n=426)

[1]Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

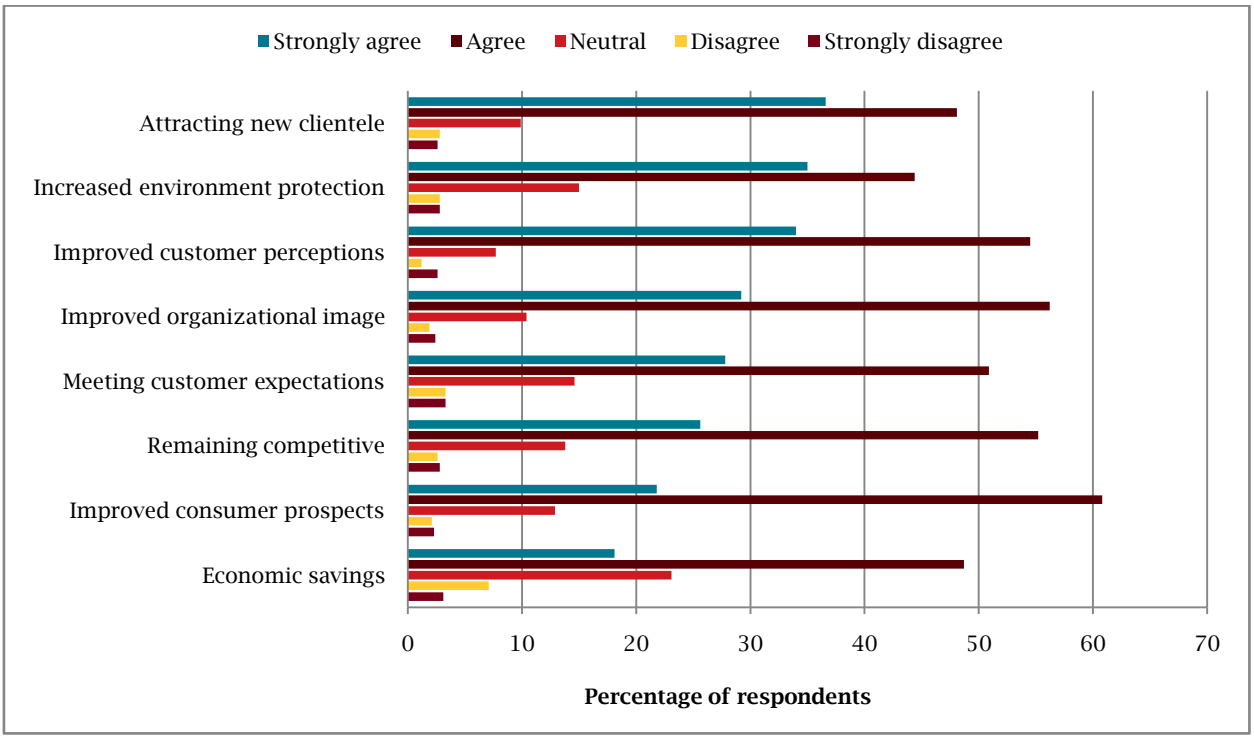

FIG. 1: Percentage of respondents agreeing and disagreeing with the benefits to adopt sustainable practices (n=426)

Although not statistically different, across the industry sectors, the event/festival and CVB sectors indicated the highest levels of agreement with almost all the statements about the benefits to adopt sustainable practices (Table 2). Respondents in the government sector also agreed with most of the statements. On the other hand, respondents from the lodging sector tended to agree less with these statements, particularly about improved organizational image and attracting new clientele.

	Lodging	CVB[a]	Event	Retail	Govern-ment	Other
Improved customer perceptions	4.06 (0.92)	4.48 (0.50)	4.23 (0.68)	3.96 (0.93)	4.48 (0.51)	4.13 (0.82)
Attracting new clientele	4.05 (0.98)	4.39 (0.69)	4.16 (0.73)	4.13 (0.81)	4.26 (0.81)	4.11 (0.93)
Increased environment protection	3.98 (0.93)	4.20 (0.79)	4.12 (1.02)	4.09 (0.95)	4.30 (0.82)	4.03 (0.95)
Meeting customer expectations	3.96 (0.99)	4.16 (0.75)	3.98 (0.83)	3.96 (0.98)	4.09 (0.60)	3.87 (0.98)
Remaining competitive	3.94 (0.91)	4.32 (0.71)	4.05 (0.74)	4.04 (0.77)	4.00 (0.80)	3.86 (0.93)
Improved consumer prospects	3.92 (0.85)	4.16 (0.64)	4.05 (0.72)	4.17 (0.72)	4.09 (0.73)	3.89 (0.85)
Improved organizational image	3.92 (0.84)	4.39 (0.65)	4.20 (0.71)	4.22 (0.80)	4.39 (0.58)	4.04 (0.91)
Economic savings	3.62 (1.05)	3.82 (0.90)	3.91 (0.79)	3.56 (0.90)	3.96 (0.82)	3.71 (0.94)

TABLE 2: Mean (Standard Deviation) of the eight benefits to adopt sustainable practices by industry sector (n=426)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization
Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

Those having worked in the tourism industry for 1-3 years agreed the most with all eight statements about the benefits to adopt sustainable practices (Table 3). Those having worked in the industry for 15-19 years indicated the lowest level of agreement with six of the eight statements, except for the benefits of increased environment protection and remaining competitive.

Those having worked for the current employer for 1-3 years and for 10-14 years indicated the highest level of agreement with all eight statements about the benefits to adopt sustainable practices (Table 4). On the other hand, those having worked for the current employer for over 20 years agreed the least with the benefits of attracting new clientele, improved customer perceptions, and improved consumer prospects. Those having worked for the current employer for 15-19 years agreed the least with the benefits of increased environment protection, meeting customer expectations, and economic savings.

There was no significant regional difference in level of agreement with perceived benefits to adopt sustainable practices (Table 5).

	Mean (Standard Deviation)					
	1 – 3	4 – 6	7 – 9	10 – 14	15 – 19	20+
Improved organizational image	4.39 (0.59)	4.00 (0.93)	4.02 (0.79)	4.18 (0.63)	3.79 (0.89)	4.00 (0.91)
Attracting new clientele	4.34 (0.63)	4.11 (0.94)	4.02 (0.88)	4.21 (0.74)	4.00 (0.90)	4.05 (1.01)
Improved customer perceptions	4.26 (0.55)	4.06 (0.96)	4.22 (0.71)	4.25 (0.67)	4.06 (0.79)	4.06 (1.00)
Meeting customer expectations	4.21 (0.62)	3.87 (1.06)	4.04 (0.81)	4.01 (0.81)	3.76 (0.94)	3.82 (1.07)
Increased environment protection	4.18 (0.90)	4.00 (0.98)	3.98 (0.92)	4.04 (0.86)	4.00 (0.90)	4.14 (0.99)
Remaining competitive	4.18 (0.65)	3.85 (0.96)	4.02 (0.75)	4.01 (0.76)	3.94 (0.97)	3.88 (0.92)
Improved consumer prospects	4.18 (0.51)	3.96 (0.88)	3.96 (0.70)	4.01 (0.68)	3.82 (0.81)	3.90 (0.89)
Economic savings	3.82 (0.86)	3.70 (0.93)	3.77 (0.85)	3.68 (0.90)	3.27 (1.01)	3.67 (1.05)

TABLE 3: Mean (Standard Deviation) of the eight benefits to adopt sustainable practices by number of years having worked in tourism industry (n=426)

Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

	Mean (Standard Deviation)					
	1 – 3	4 – 6	7 – 9	10 – 14	15 – 19	20+
Attracting new clientele	4.30 (0.70)	4.07 (0.94)	4.00 (0.77)	4.22 (0.74)	4.06 (0.90)	3.95 (1.10)
Improved customer perceptions	4.30 (0.59)	4.04 (0.96)	4.11 (0.71)	4.26 (0.63)	4.09 (0.80)	4.01 (1.07)
Improved organizational image	4.30 (0.56)	3.89 (0.99)	4.13 (0.73)	4.18 (0.59)	3.91 (0.95)	3.90 (0.97)
Remaining competitive	4.17 (0.65)	3.78 (0.99)	4.04 (0.64)	4.08 (0.76)	3.94 (0.97)	3.79 (0.96)
Increased environment protection	4.13 (0.88)	4.02 (1.03)	4.07 (0.88)	4.11 (0.80)	3.94 (0.93)	4.06 (1.03)
Improved consumer prospects	4.10 (0.61)	3.87 (0.88)	4.02 (0.65)	4.03 (0.71)	3.91 (0.88)	3.81 (0.91)
Meeting customer expectations	4.02 (0.94)	3.87 (1.04)	3.94 (0.73)	4.06 (0.79)	3.76 (1.00)	3.81 (1.04)
Economic savings	3.78 (0.79)	3.64 (0.97)	3.73 (0.85)	3.74 (0.95)	3.31 (1.09)	3.64 (1.07)

TABLE 4: Mean (Standard Deviation) of the eight benefits to adopt sustainable practices by number of years having worked for the current employer (n=426)

Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

	Mean (Standard Deviation)					F
	Northeast	Central	Northwest	Southern	Metro	
Improved customer perceptions	4.15 (0.98)	4.22 (0.74)	4.07 (0.80)	4.16 (0.78)	4.20 (0.76)	0.38
Increased environment protection	4.13 (0.97)	4.07 (0.89)	3.99 (0.98)	3.98 (1.00)	4.12 (0.80)	0.49
Attracting new clientele	4.07 (1.01)	4.09 (0.88)	4.14 (0.90)	4.16 (0.86)	4.20 (0.79)	0.27
Improved organizational image	4.02 (0.98)	4.13 (0.70)	3.97 (0.83)	4.09 (0.82)	4.17 (0.75)	0.78
Improved consumer prospects	3.91 (0.90)	3.94 (0.72)	4.00 (0.88)	3.95 (0.77)	4.08 (0.74)	0.57
Remaining competitive	3.83 (0.93)	4.06 (0.82)	4.01 (0.89)	3.92 (0.87)	4.10 (0.81)	1.46
Meeting customer expectations	3.82 (1.02)	4.07 (0.84)	4.04 (0.95)	3.94 (0.96)	3.99 (0.83)	1.02
Economic savings	3.53 (0.99)	3.73 (0.99)	3.66 (1.03)	3.89 (0.78)	3.78 (0.91)	1.78

TABLE 5: Regional comparison in level of agreement with eight benefits to adopt sustainable practices (n=426)

Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

Perceived difficulties: More than 55 percent of the respondents agreed and at least 22 percent strongly agreed that initial financial costs, as well as time and energy, posed difficulties in adopting sustainable practices (Table 6; Figure 2). More than half of the respondents identified lack of information (59 percent) and external restrictions on operations (55 percent) as difficulties in adopting sustainable practices. By comparison, staff opposition and customer opposition were perceived as difficulties by fewer than 20 percent of the respondents.

	Mean[1]	Median[1]	Standard Deviation
Initial financial costs	4.00	4.00	0.82
Time and energy	3.91	4.00	0.86
External restrictions on operations	3.52	4.00	0.97
Lack of information	3.52	4.00	0.93
Lack of control over customer behavior	3.34	3.00	0.95
Lack of professional network	3.24	3.00	0.91
Lack of interest within the consumer base	3.05	3.00	0.98
Lack of interest within the organization	2.95	3.00	0.97
Staff opposition	2.71	3.00	0.90
Customer opposition	2.69	3.00	0.93

TABLE 6: Descriptive statistics of 10 difficulties to adopt sustainable practices (n=426)

[1]Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

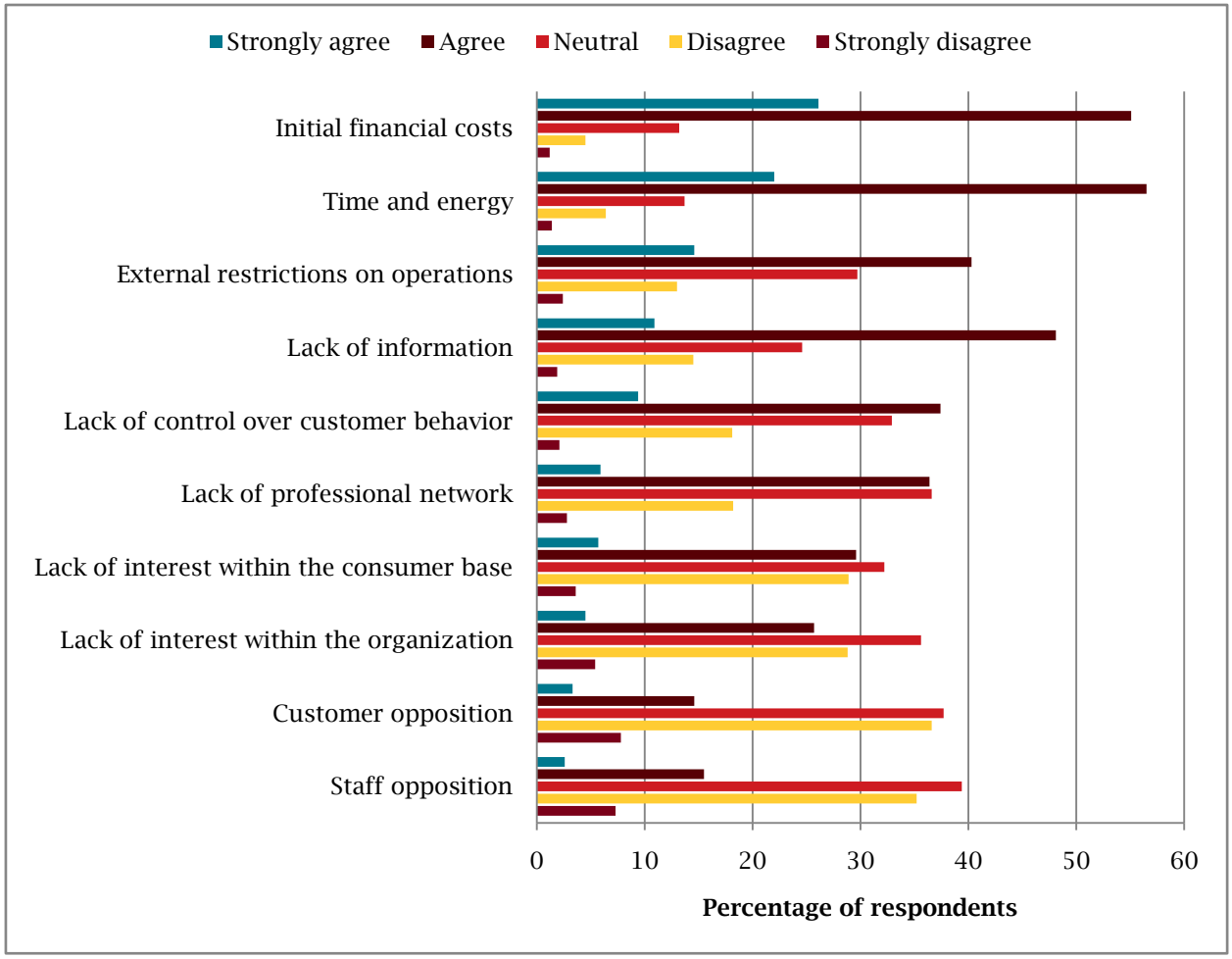

FIG. 2: Percentage of respondents agreeing and disagreeing with 10 difficulties to adopt sustainable practices (n=426)

Although sample sizes precluded statistical significance testing, there are some face-value differences by sector in perceived difficulties in adopting sustainable practices. Across the industry sectors, respondents from the government and lodging/camping sectors most frequently agreed with more than half of the difficulties in adopting sustainable practices, particularly staff opposition, external restrictions on operations, and lack of interest in the concept of sustainability within the consumer base (Table 7). In contrast, respondents from the retail and event/festival sectors indicated the lowest levels of agreement with more than half of the difficulties, especially time and energy, lack of information, and lack of interest in the concept of sustainability within the organization.

	Lodging	CVB[a]	Event	Retail	Government	Other
Initial financial costs	4.06 (0.84)	4.11 (0.58)	4.00 (0.80)	3.83 (0.94)	4.09 (0.73)	3.90 (0.89)
Time and energy	3.94 (0.89)	4.02 (0.82)	3.84 (0.86)	3.64 (1.09)	3.87 (0.46)	3.93 (0.83)
External restrictions on operations	3.76 (1.02)	3.50 (0.79)	3.39 (0.88)	3.14 (0.99)	3.56 (0.66)	3.31 (0.98)
Lack of information	3.59 (0.93)	3.68 (0.91)	3.46 (0.98)	3.22 (1.20)	3.43 (0.89)	3.45 (0.86)
Lack of control over customer behavior	3.50 (0.91)	3.34 (0.91)	3.33 (1.02)	3.30 (0.97)	3.35 (0.98)	3.11 (0.95)
Lack of professional network	3.22 (0.93)	3.09 (0.75)	3.46 (0.95)	2.83 (1.07)	3.52 (0.95)	3.26 (0.97)
Lack of interest in the concept of sustainability within the consumer base	3.14 (1.01)	3.05 (0.78)	3.00 (0.98)	3.00 (0.85)	3.30 (1.06)	2.89 (0.99)
Lack of interest in the concept of sustainability within the organization	3.07 (0.98)	0.09 (0.80)	2.84 (1.00)	2.70 (1.11)	3.26 (0.96)	2.76 (0.94)
Customer opposition	2.91 (0.95)	2.61 (0.81)	2.40 (0.86)	2.52 (0.84)	2.61 (0.94)	2.59 (0.92)
Staff opposition	2.82 (0.89)	2.75 (0.78)	2.61 (0.92)	2.56 (1.04)	3.09 (1.04)	2.52 (0.87)

TABLE 7: Mean (Standard Deviation) of 10 difficulties to adopt sustainable practices by industry sector (n=426)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization
Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

Respondents with 1-3 years of tenure with the current employer agreed the most with the difficulties of financial costs, time and energy, as well as lack of information (Table 8). Meanwhile, these respondents agreed the least with the difficulty of lack of interest in the concept of sustainability within the organization. Respondents having worked for the current employer for 15-19 years indicated the highest level of agreement that lack of interest in the concept of sustainability within the consumer based and within the organizations were difficulties to adopt sustainable practices. At the same time, these respondents agreed the least with the difficulties of financial cost, customer opposition, and staff opposition. Those having worked for the current employer for over 20 years indicated the lowest level of agreement with difficulties of time and energy, lack of information, and external restrictions on operations, while agreeing the most with the difficulty of customer opposition.

	Mean (Standard Deviation)					
	1 – 3	4 – 6	7 – 9	10 – 14	15 – 19	20+
Initial financial costs	4.18 (0.73)	4.13 (0.82)	3.96 (0.91)	4.06 (0.86)	3.90 (0.79)	3.99 (0.79)
Time and energy	3.97 (0.82)	3.87 (0.85)	3.94 (0.77)	3.86 (0.97)	3.94 (0.90)	3.81 (0.86)
Lack of information	3.71 (0.73)	3.55 (0.93)	3.44 (0.92)	3.53 (0.98)	3.56 (0.80)	3.38 (1.03)
External restrictions on operations	3.53 (0.92)	3.57 (0.95)	3.61 (0.95)	3.53 (1.01)	3.61 (1.00)	3.46 (1.01)
Lack of professional network	3.30 (0.74)	3.21 (0.86)	3.02 (0.95)	3.32 (0.98)	3.27 (0.88)	3.24 (0.94)
Lack of control over customer behavior	3.21 (0.96)	3.34 (0.98)	3.18 (1.01)	3.42 (1.04)	3.21 (0.96)	3.36 (0.82)
Lack of interest in the concept of sustainability within the consumer base	3.03 (0.88)	3.04 (0.91)	2.83 (0.93)	3.08 (1.03)	3.09 (0.95)	3.09 (1.03)
Lack of interest in the concept of sustainability within the organization	2.74 (0.92)	3.06 (0.94)	2.92 (0.85)	2.78 (0.97)	3.15 (1.06)	2.97 (0.94)
Customer opposition	2.66 (0.85)	2.67 (0.97)	2.55 (1.06)	2.72 (1.10)	2.48 (0.71)	2.74 (0.87)
Staff opposition	2.63 (0.88)	2.94 (0.73)	2.75 (0.97)	2.53 (1.01)	2.48 (0.83)	2.74 (0.82)

TABLE 8: Mean (Standard Deviation) of 10 difficulties to adopt sustainable practices by number of years having worked in tourism industry (n=426)

Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

Respondents having worked for the current employer for 10-14 years indicated the highest level of agreement with four difficulties: lack of information, lack of professional network, lack of control over customer behavior, and customer opposition (Table 9). At the same time, these respondents agreed the least that lack of interest in the concept of sustainability within the organization is a difficulty. Respondents with 4-6 years of tenure with the current employer agreed the most with the difficulties of initial financial costs, external restrictions on operations, and staff opposition. Respondents having worked for the current employer for 15-19 years indicated the highest level of agreement with the difficulties of time and energy as well as lack of interest in the concept of sustainability within the organization and the consumer base. Respondents with 7-9 years of tenure with the current employer indicated the lowest level of agreement with the difficulties of initial financial costs, lack of professional network, and customer opposition. Those with over 20 years of tenure with the current employer agreed the least with the difficulties of time and energy, lack of information, and staff opposition.

	Mean (Standard Deviation)					
	1 – 3	4 – 6	7 – 9	10 – 14	15 – 19	20+
Initial financial costs	4.12 (0.79)	4.13 (0.82)	3.87 (0.78)	3.95 (0.92)	4.03 (0.85)	3.90 (0.82)
Time and energy	3.95 (0.88)	3.94 (0.82)	3.80 (0.82)	3.84 (1.00)	3.97 (0.92)	3.80 (0.81)
Lack of information	3.61 (0.81)	3.46 (0.98)	3.44 (0.96)	3.64 (0.91)	3.50 (0.95)	3.36 (1.01)
External restrictions on operations	3.41 (0.91)	3.64 (0.95)	3.53 (0.90)	3.51 (0.99)	3.64 (1.02)	3.53 (1.08)
Lack of professional network	3.21 (0.85)	3.16 (0.83)	3.11 (0.92)	3.41 (0.95)	3.33 (0.99)	3.22 (0.93)
Lack of control over customer behavior	3.10 (0.94)	3.31 (1.00)	3.31 (0.98)	3.45 (0.98)	3.45 (0.94)	3.27 (0.87)
Lack of interest in the concept of sustainability within the consumer base	2.95 (0.92)	2.94 (1.01)	3.02 (0.93)	3.06 (0.96)	3.15 (1.00)	3.13 (1.04)
Lack of interest in the concept of sustainability within the organization	2.91 (0.93)	2.94 (1.02)	2.92 (0.95)	2.79 (0.91)	3.30 (1.04)	2.88 (0.87)
Staff opposition	2.64 (0.90)	2.85 (0.80)	2.67 (1.04)	2.62 (0.91)	2.70 (0.95)	2.62 (0.79)
Customer opposition	2.59 (0.84)	2.69 (1.00)	2.51 (1.02)	2.75 (1.05)	2.73 (0.80)	2.71 (0.93)

TABLE 9: Mean (Standard Deviation) of 10 difficulties to adopt sustainable practices by number of years having worked for the current employer (n=426)

Note: Rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree

Significant differences emerged across the five Minnesota tourism regions regarding initial financial cost, customer opposition, external restrictions, lack of interest within the organization, and lack of interest within the consumer base (Table 10). Specifically, tourism entities in the Northeast region and those in the Northwest region differed significantly in all five aspects. Metro area respondents differed significantly from those in the Northwest region in two of the five aspects: customer opposition and lack of interest within the consumer base. Overall, tourism entities in the Northwest region agreed the most with these five difficulties, while those in the Northeast region and the Metro area agreed the least.

	Mean (Standard Deviation)					F
	Northeast	Central	Northwest	Southern	Metro	
Initial financial costs	3.87[a] (0.95)	4.02 (0.88)	4.24[a] (0.66)	4.03 (0.71)	3.91 (0.82)	2.42*
Time and energy	3.85 (0.95)	3.85 (0.89)	4.08 (0.82)	3.98 (0.73)	3.84 (0.85)	1.26
Lack of information	3.39 (1.04)	3.52 (0.88)	3.79 (0.84)	3.47 (0.83)	3.46 (1.01)	2.06
External restrictions on operations	3.33[a] (1.09)	3.62 (1.01)	3.82[a] (0.97)	3.43 (0.84)	3.45 (0.88)	3.07*
Lack of control over customer behavior	3.19 (0.94)	3.30 (1.04)	3.58 (0.89)	3.19 (0.91)	3.49 (0.92)	2.81*
Lack of professional network	3.11 (0.96)	3.29 (0.87)	3.46 (0.91)	3.25 (0.87)	3.15 (0.96)	1.84
Lack of interest in the concept of sustainability within the consumer base	2.97[a] (0.99)	3.07[b] (0.94)	3.51[abcd] (0.91)	2.99[c] (0.93)	2.80[d] (0.99)	5.85***
Lack of interest in the concept of sustainability within the organization	2.77[a] (1.02)	2.91 (0.85)	3.30[a] (0.99)	2.93 (0.92)	2.92 (1.01)	3.15*
Staff opposition	2.61 (0.94)	2.64 (0.91)	2.92 (0.94)	2.71 (0.81)	2.71 (0.90)	1.36
Customer opposition	2.60[a] (0.92)	2.72 (0.93)	3.04[ab] (0.95)	2.71 (0.88)	2.45[b] (0.90)	4.34**

TABLE 10: Regional comparison in level of agreement with 10 difficulties to adopt sustainable practices (n=426)

Note: All items rated on a scale where 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree. Standard deviations appear in parentheses below means. Means with differing subscripts within rows are significantly different at the p<0.05 based on Bonferroni post-hoc paired comparisons. *p<0.05, **p<0.005, ***p<0.0005.

Likelihood of participation in self- and third-party certification related to green travel

Results were mixed on likelihood of participation in certification programs related to green travel. On average, survey respondents said they were more likely to participate in a self-certification related to green travel for tourism organizations than in a third-party certification (Table 11). Specifically, more than 50 percent of respondents indicated they were likely or very likely to participate in a self-certification related to green travel, with 42 percent unlikely or very unlikely (Figure 3). Respondents indicated less likelihood of participating in a third-party certification. Approximately 40 percent of the respondents said they were likely or very likely to participate in a third-party certification if available, while more than 56 percent responded with “unlikely” or “very unlikely.”

	Mean[1]	Median[1]	Standard Deviation
How likely are you to participate in a self-certification for tourism organizations related to green travel?	2.75	3.00	0.55
How likely are you to participate in a third party certification for tourism organizations related to green travel?	2.21	2.00	0.77

TABLE 11: Descriptive statistics of likelihood to participate in self- and third-party certification related to green travel for tourism organizations (n=404)

[1] Rated on a scale where 1=Very unlikely; 2=unlikely; 3=Likely; 4=Very likely.

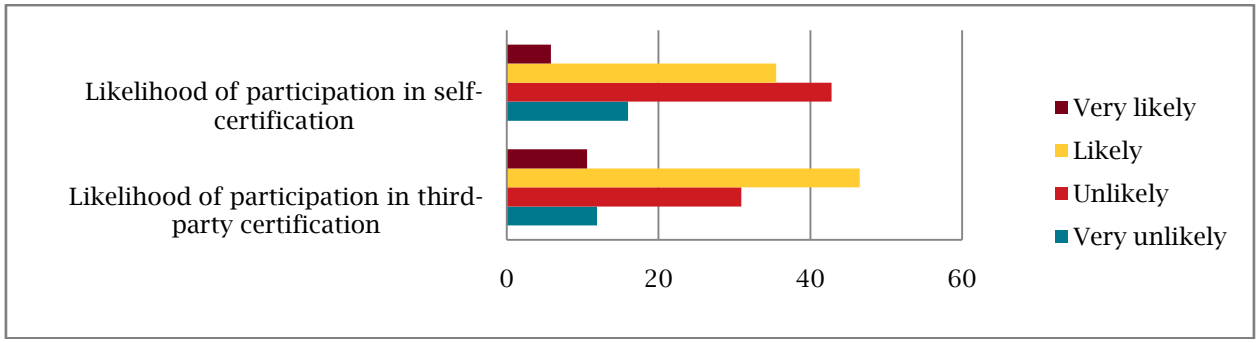

FIG. 3: Likelihood to participate in self- and third-party certification related to green travel for tourism organizations (n=404)

Although sample sizes precluded statistical significance testing, there are some face-value differences by sector in likelihood of participating in certifications related to green travel (Figures 4 and 5). The CVB sector indicated greater likelihood of participation in both types of green travel certification than the other sectors. For the self-certification option, the event and government sectors expressed the least likelihood for participation. For the third-party certification option, the event and the lodging sectors expressed the least likelihood of participation. The government sector expressed *greater* likelihood to participate in third-party certification than in self certification, while the retail sector expressed equal interest in the two certification options. All the other sectors expressed less interest in third-party certification than in self-certification. Still, none of these differences are statistically significant.

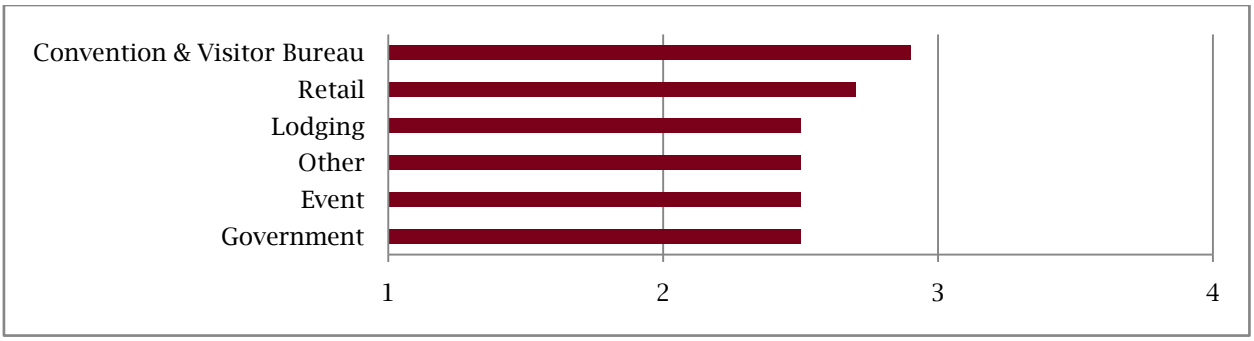

FIG.4: Average likelihood to participate in self-certification related to green travel by industry sector (n=404)

Note: 1=Very unlikely, 2=Unlikely, 3=Likely, 4=Very unlikely.

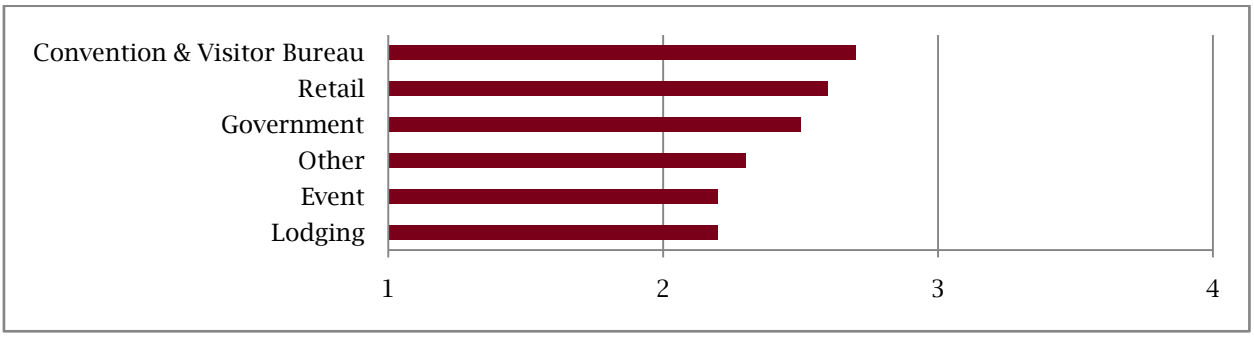

FIG. 5: Average likelihood to participate in third-party certification related to green travel by industry sector (n=404)

Note: 1=Very unlikely, 2=Unlikely, 3=Likely, 4=Very unlikely.

Sustainability practices

Energy efficiency: The data show that a majority of respondents adopted several energy efficiency measures (Figure 6). More than 60 percent of responding tourism entities reported ongoing use of compact fluorescent light bulbs (64.9 percent) and use of daylight to the greatest possible extent (71.4 percent). A little over 50 percent of the tourism entities responding to the survey (51.4 percent) said they included periodic HVAC tune-up in the preventative maintenance schedule.

Meanwhile, 63.1 percent of the respondents made no attempt to use renewable energy sources, 57.4 percent did not install window film, 52.4 percent did not replace PTAC units with more efficient heat pump technologies, 58.8 percent did not incorporate an energy audit or assessment of the facility by a qualified professional in operation schedules, and 51.3 percent made no attempt to use occupancy sensors or timers to control lighting and vending machines in intermittent-use areas. In addition, 39.2 percent of the responding tourism entities made no attempt to use LED exit signs, 39.7 percent did not use an energy management system, and 43.3 percent did not provide customers with energy saving ideas.

Across tourism sectors, lodging/camping sector respondents showed the highest percentage of completion for five of the 13 energy efficiency practices, while the event/festival and the CVB sectors showed the highest percentage of completion for three energy efficiency practices (Table 12). The government sector had the lowest percentage of completion for six of the 13 practices. A

notable exception is for including an energy audit/assessment of the facility by a qualified professional in operation schedules. For this particular practice, the government sector had the highest percentage of completion, whereas the lodging sector had the lowest percentage.

Among entities in different regions, significant differences emerged in including periodic HVAC tune-up in the preventative maintenance schedule (χ^2=12.13, p<0.05) and including an energy audit or assessment of the facility in operation schedules (χ^2=15.03, p<0.01) (Table 13). Respondents in the Northwest region reported the least adoption of these two energy-efficiency practices, while those in the Northeast region and the Metro area showed the widest adoption.

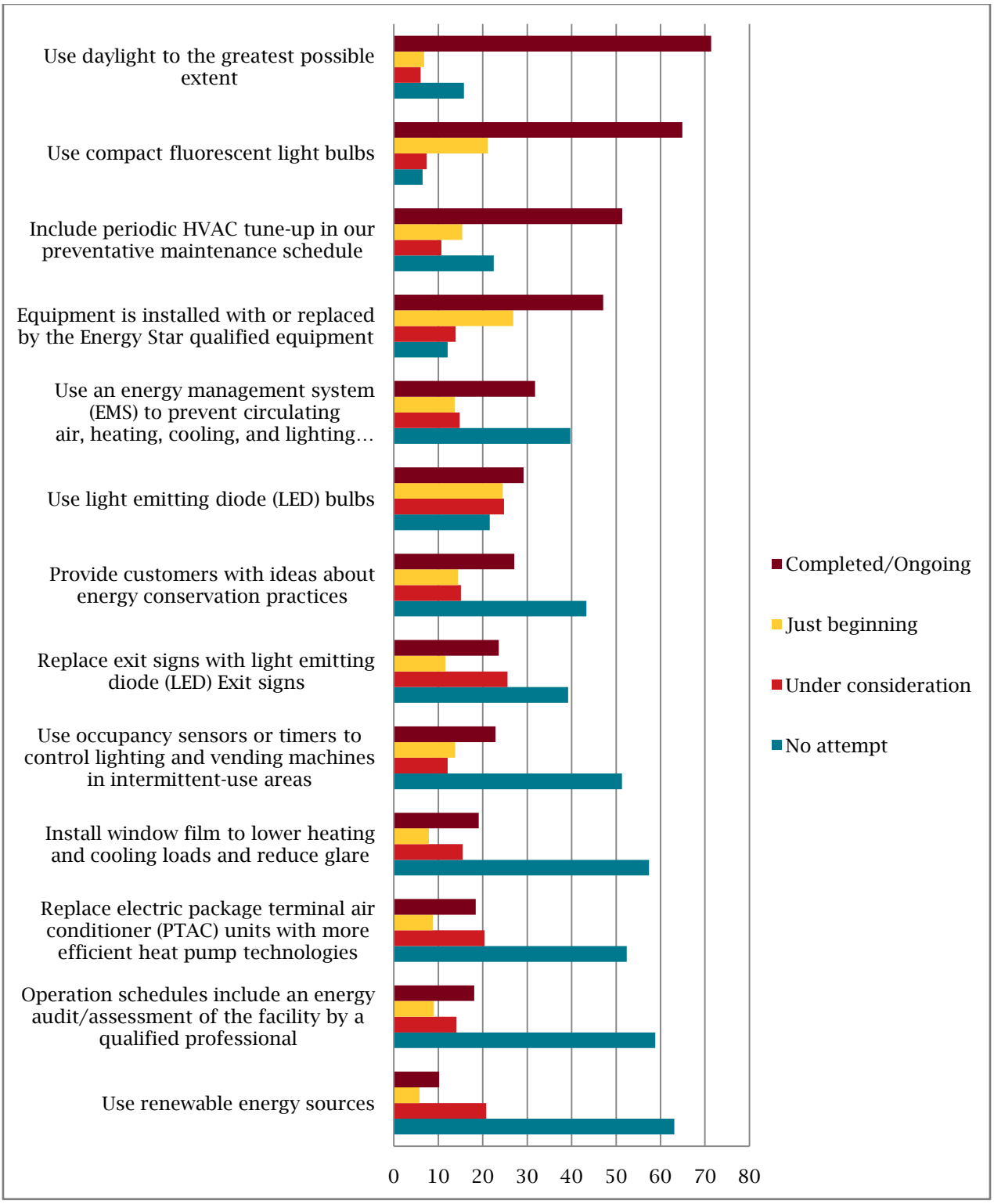

FIG.6: Stage of implementation of 13 energy efficiency practices (n=336)

		Lodging	CVB[a]	Event	Retail	Govern-ment	Other
Use compact fluorescent light bulbs	No attempt	3.3	13.9	16.0	5.6	11.1	5.8
	Under consideration	5.2	11.1	8.0	5.6	16.7	8.1
	Just beginning	17.0	22.2	28.0	38.9	27.8	20.9
	Completed/ongoing	74.5	52.8	18.0	50.0	44.4	65.1
Replace exit signs with light emitting diode (LED) Exit signs	No attempt	27.8	58.8	52.9	50.0	35.7	43.3
	Under consideration	26.6	17.6	23.5	25.0	35.7	25.0
	Just beginning	16.5	11.8	5.9	8.3	7.1	8.3
	Completed/ongoing	29.1	11.8	17.6	16.7	21.4	23.3
Use renewable energy sources	No attempt	64.2	80.0	72.2	50.0	61.1	57.0
	Under consideration	20.4	12.0	11.1	25.0	22.2	25.3
	Just beginning	7.3	0.0	5.6	12.5	11.1	2.5
	Completed/ongoing	8.0	8.0	11.1	12.5	5.6	15.2
Install window film to lower heating and cooling loads and reduce glare	No attempt	62.5	51.6	47.8	52.6	76.5	50.6
	Under consideration	11.8	19.4	21.7	15.8	23.5	16.9
	Just beginning	9.6	3.2	4.3	10.5	0.0	9.1
	Completed/ongoing	16.2	25.8	26.1	21.1	0.0	23.4
Use daylight to the greatest possible extent	No attempt	17.5	17.1	10.5	6.3	29.4	13.8
	Under consideration	5.6	8.6	2.6	6.3	17.6	4.6
	Just beginning	7.0	14.3	2.6	12.5	5.9	4.6
	Completed/ongoing	69.9	60.0	84.2	75.0	47.1	77.0
Equipment is installed with or replaced by the Energy Star qualified equipment	No attempt	3.2	20.7	28.0	12.5	29.4	17.5
	Under consideration	14.1	10.3	16.0	18.8	5.9	15.0
	Just beginning	32.1	27.6	24.0	12.5	41.2	17.5
	Completed/ongoing	50.6	41.4	32.0	56.3	23.5	50.0
Use an energy management system (EMS) to prevent circulating air, heating, cooling, and lighting while not necessary	No attempt	34.4	42.9	43.5	33.3	52.9	44.9
	Under consideration	19.2	17.9	8.7	20.0	5.9	8.7
	Just beginning	17.6	3.6	17.4	0.0	17.6	11.6
	Completed/ongoing	28.8	35.7	30.4	46.7	23.5	34.8
Replace electric package terminal air conditioner (PTAC) units with more efficient heat pump technologies	No attempt	44.0	55.6	61.1	92.3	66.7	52.5
	Under consideration	20.7	22.2	27.8	7.7	13.3	21.3
	Just beginning	13.8	0.0	0.0	0.0	13.3	6.6
	Completed/ongoing	21.6	22.2	11.1	0.0	6.7	19.7
Provide customers with ideas about energy conservation practices	No attempt	27.0	65.2	44.0	76.9	62.5	57.1
	Under consideration	18.2	13.0	8.0	0.0	6.3	17.1
	Just beginning	21.2	0.0	16.0	7.7	6.3	8.6
	Completed/ongoing	33.6	21.7	32.0	15.4	25.0	17.1
Operation schedules include an energy audit/assessment of the facility by a qualified professional	No attempt	61.8	57.1	52.4	78.6	44.4	55.6
	Under consideration	14.5	9.5	23.8	7.1	16.7	12.5
	Just beginning	10.7	9.5	9.5	7.1	5.6	6.9
	Completed/ongoing	13.0	23.8	14.3	7.1	33.3	25.0
Use occupancy sensors or timers are used to control lighting and vending machines in intermittent-use areas	No attempt	48.6	50.0	47.1	85.7	50.0	50.0
	Under consideration	13.3	13.6	5.9	0.0	6.3	15.2
	Just beginning	22.9	13.6	5.9	0.0	6.3	6.1
	Completed/ongoing	15.2	22.7	41.2	14.3	37.5	28.8
Use light emitting diode (LED) bulbs	No attempt	16.2	34.3	13.0	29.4	41.2	22.8
	Under consideration	27.0	17.1	17.4	23.5	17.6	27.8
	Just beginning	25.7	28.6	30.4	11.8	17.6	22.8
	Completed/ongoing	31.1	20.0	39.1	35.3	23.5	26.6
Includes periodic HVAC tune-up in our preventative maintenance schedule	No attempt	18.1	29.6	31.6	25.0	17.6	25.7
	Under consideration	14.2	0.0	10.5	12.5	11.8	8.1
	Just beginning	15.0	14.8	15.8	12.5	17.6	16.2
	Completed/ongoing	52.8	55.6	42.1	50.0	52.9	50.0

TABLE 12: Stage of implementation of 13 energy efficiency practices by industry sector (n=336)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Use Energy Star qualified equipment	182.16	157.86	149.10	150.91	164.84	6.79
Use compact fluorescent light bulbs	179.67	167.18	159.77	168.80	162.75	2.59
Use daylight to the greatest possible extent	174.70	181.39	151.67	159.00	172.99	6.65
Use LED bulbs	161.36	157.15	142.93	157.63	183.42	5.98
Installed window film	157.41	156.20	137.31	134.36	172.40	9.15
Use renewable energy sources	155.23	131.80	142.14	139.78	163.48	6.80
Provide customers with energy saving ideas	152.36	134.11	143.39	127.00	156.33	5.48
Include energy audit in operation schedules	145.44	127.73	118.51	140.13	164.41	12.13*
Include periodic HVAC tune-up in preventative maintenance schedule	144.33	139.72	109.09	139.92	165.87	15.03**
Use energy management system	140.51	135.41	126.05	139.82	154.38	3.59
Replaced PTAC units	131.07	128.11	120.61	120.95	125.79	0.98
Use occupancy sensors or timers	129.35	115.89	107.84	123.60	122.19	3.25
Use LED exit signs	103.01	93.21	90.58	101.99	108.10	2.58

TABLE 13: Regional comparison in stage of implementation of 13 energy efficiency practices (n=336)

*$p<0.05$, **$p<0.01$

Waste minimization: Five waste minimization practices were reported as adopted by at least 65 percent of the responding tourism entities (Figure 7). A total of 81.1 percent of respondents provided recycling receptacles for staff and customer use, 80.6 percent had a recycling program for waste management, and 85.5 percent safely stored chemical products in a well-ventilated area. A total of 66.6 percent of respondents said they bought products containing recycled materials, and 77.3 percent of respondents reported donating leftover guest amenities, old furniture and appliances to charities and environmental conservation organizations. On the other hand, 68.8 percent of respondents said they made no attempt to consult the U.S. Green Building Council when constructing or remodeling, and 54.1 percent reported no attempt to compost food waste and other compostable items.

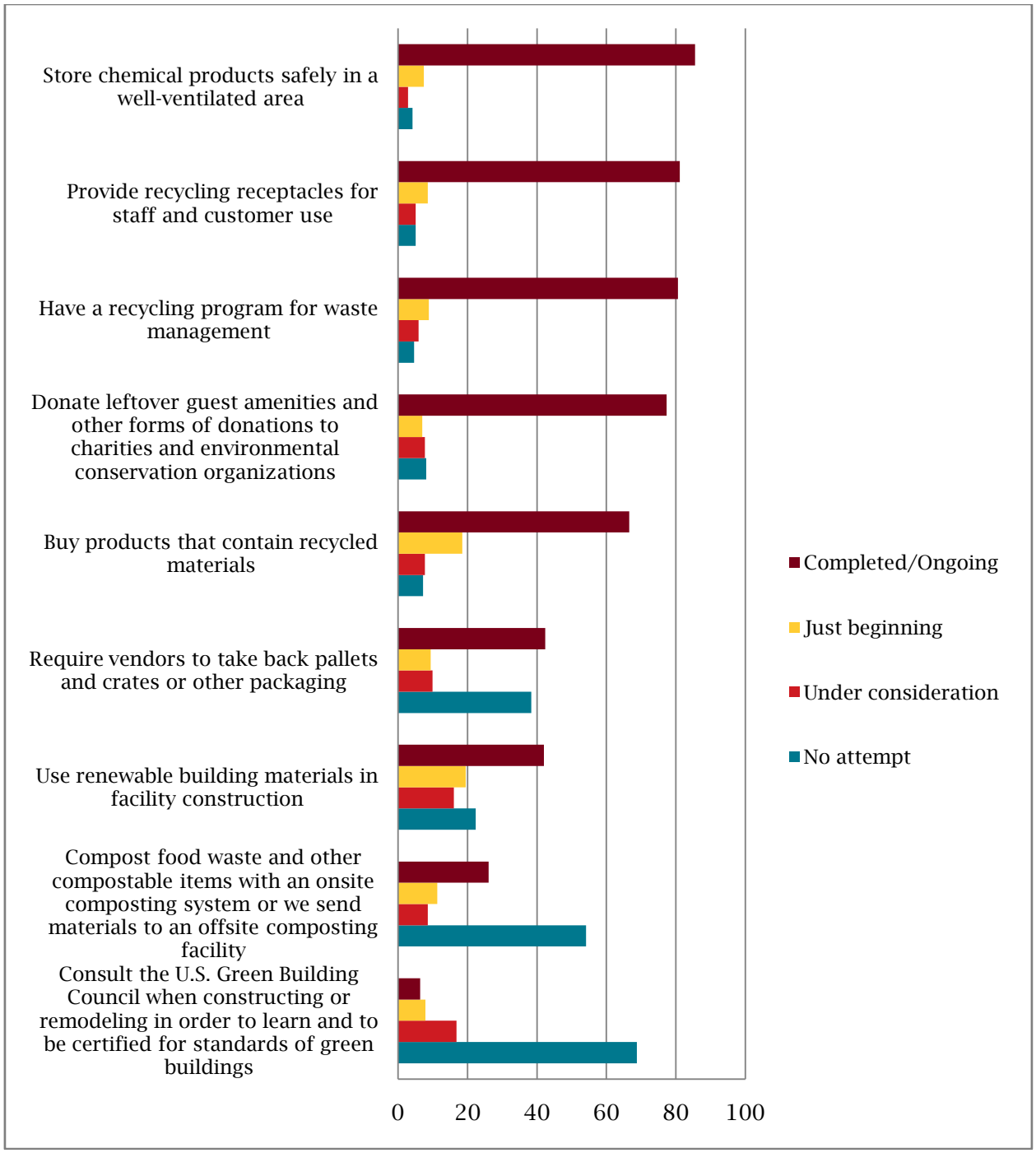

FIG.7: Stage of implementation of nine waste minimization practices (n=372)

Across industry sectors, government and CVB sector respondents reported the highest percentage of completion for three of the nine waste minimization practices respectively, while the event/festival sector had the lowest percentage of completion for four waste minimization practices (Table 14). It is much less likely for events or festivals to have permanent facilities. Therefore, it is not surprising that no event or festival in this study consulted the U.S. Green Building Council when constructing or remodeling in order to learn and to be certified for standards of green buildings.

		Lodging	CVB[a]	Event	Retail	Govern -ment	Other
Provide recycling receptacles for staff and customer use	No attempt	5.8	5.1	2.2	0.0	6.3	6.3
	Under consideration	4.5	5.1	6.5	0.0	0.0	7.3
	Just beginning	10.4	7.7	13.0	5.3	6.3	5.2
	Completed/ongoing	79.2	82.1	78.3	94.7	87.5	81.3
Have a recycling program for waste management	No attempt	3.9	5.3	2.2	5.3	0.0	7.1
	Under consideration	7.1	2.6	8.7	0.0	0.0	6.1
	Just beginning	10.3	13.2	10.9	5.3	6.3	5.1
	Completed/ongoing	78.7	78.9	78.3	89.5	93.8	81.6
Buy products that contain recycled materials	No attempt	7.1	8.1	11.6	5.6	0.0	6.3
	Under consideration	8.4	10.8	11.6	0.0	0.0	6.3
	Just beginning	20.0	5.4	16.3	16.7	35.7	20.0
	Completed/ongoing	64.5	75.7	60.5	77.8	64.3	67.4
Store chemical products safely in a well-ventilated area	No attempt	2.0	10.0	10.0	6.3	0.0	5.0
	Under consideration	2.7	0.0	0.0	0.0	0.0	6.3
	Just beginning	6.1	10.0	10.0	6.3	6.3	8.8
	Completed/ongoing	89.2	80.0	80.0	87.5	93.7	80.0
Require vendors to take pallets and crates or other packaging	No attempt	29.9	37.5	30.4	50.0	30.0	54.4
	Under consideration	9.2	0.0	4.3	30.0	20.0	10.5
	Just beginning	13.8	0.0	8.7	10.0	20.0	3.5
	Completed/ongoing	47.1	62.5	56.5	10.0	30.0	31.6
Use renewable building materials in facility construction	No attempt	19.3	25.0	28.6	20.0	25.0	27.7
	Under consideration	16.7	12.5	14.3	20.0	33.3	10.6
	Just beginning	21.1	0.0	14.3	10.0	16.7	23.4
	Completed/ongoing	43.0	62.5	42.9	50.0	25.0	38.3
Donate leftover guest amenities and other forms of donations to charities and environmental conservation organizations	No attempt	5.1	4.5	11.1	5.9	20.0	13.6
	Under consideration	8.0	4.5	14.8	5.9	0.0	6.8
	Just beginning	5.1	13.6	3.7	17.6	0.0	8.5
	Completed/ongoing	81.9	77.3	70.4	70.6	80.0	71.2
Consult the U.S. Green Building Council when constructing or remodeling in order to learn and to be certified for standards of green buildings	No attempt	69.7	63.6	83.3	81.8	45.5	66.7
	Under consideration	16.5	18.2	8.3	9.1	18.2	20.8
	Just beginning	10.1	0.0	8.3	0.0	9.1	6.3
	Completed/ongoing	3.7	18.2	0.0	9.1	27.3	6.3
Compost food waste and other compostable items with an onsite composting system or we send materials to an offsite composting facility	No attempt	60.8	46.2	35.5	64.3	54.5	50.0
	Under consideration	10.0	15.4	9.7	0.0	9.1	5.9
	Just beginning	11.7	0.0	19.4	7.1	18.2	8.8
	Completed/ongoing	17.5	38.5	35.5	28.6	18.2	35.3

TABLE 14: Stage of implementation of nine waste minimization practices by industry sector (n=372)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

Significant regional differences emerged in the reported use of requiring vendors to take back pallets and crates or other packaging (χ^2=12.18, p<0.05) (Table 15). Tourism entities in the Northeast region had the least adoption of the practice, while those in the metro area and the Northwest region had the widest adoption.

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Have a recycling program	189.48	185.38	168.40	187.88	198.85	5.89
Provide recycling receptacles for staff and customers	187.43	186.13	175.51	184.56	191.82	1.74
Buy products that contain recycled materials	186.47	167.36	172.79	178.29	201.08	6.32
Safely store chemical products	166.66	146.60	149.79	149.69	161.02	6.71
Donate leftover guest amenities, old furniture, etc.	143.72	133.10	148.70	126.32	130.82	5.50
Compost food waste and other compostable items with an onsite composting system or we send materials to an offsite composting facility	129.86	120.06	116.01	140.99	138.41	5.11
Use renewable building materials in facility construction	105.73	93.86	104.06	86.08	124.72	8.80
Consult U.S. Green Building Council when constructing or remodeling	100.76	92.32	85.12	111.82	114.04	5.82
Require vendors to take back packaging materials	88.47	100.19	112.73	91.01	123.07	12.18*

TABLE 15: Regional comparison in stage of implementation of nine waste minimization practices (n=372)

*p<0.05

Environmental purchasing: The majority of the 13 environmental purchasing practices had an implementation rate of at least 80 percent, with 80.2 percent of respondents buying products locally when possible, 85.9 percent favoring equipment that has a long life and that can be repaired, 94.3 percent practicing social responsibility without discrimination, 96.7 percent employing local residents, 91.7 percent paying a fair wage, and 89 percent providing literature that promotes local businesses (Figure 8). A total of 64.4 percent of respondents minimized the amount and size of paper used, and 73.1 percent purchased reusable and durable products. Meanwhile, 49.5 percent of respondents made no attempt to purchase fair trade products, and 31.6 percent entities made no attempt to give preference to the selection of environmentally responsible service providers.

Across the tourism sectors, retail sector respondents had the highest percentage of completion for four of the 13 environmental purchasing practices (Table 16). The event/festival sector, on the other hand, had the lowest percentage of completion for four practices, including employing local residents and paying a fair wage. Many festivals and events have artists or performers from different parts of the country and rely heavily on volunteers. Therefore, it is not surprising that this sector had the lowest percentage of completion for the two practices related to local employment.

The more intriguing sector is CVB, where respondents showed the highest percentage of completion for three practices (buying products locally, employing local residents, and providing literature that promotes local businesses). However, the CVB sector had the lowest percentage of completion for four other practices: giving preference to products that are low-toxicity and organic, purchasing fair

trade products, giving preference to the selection of environmentally responsible service, and practicing social responsibility without discrimination.

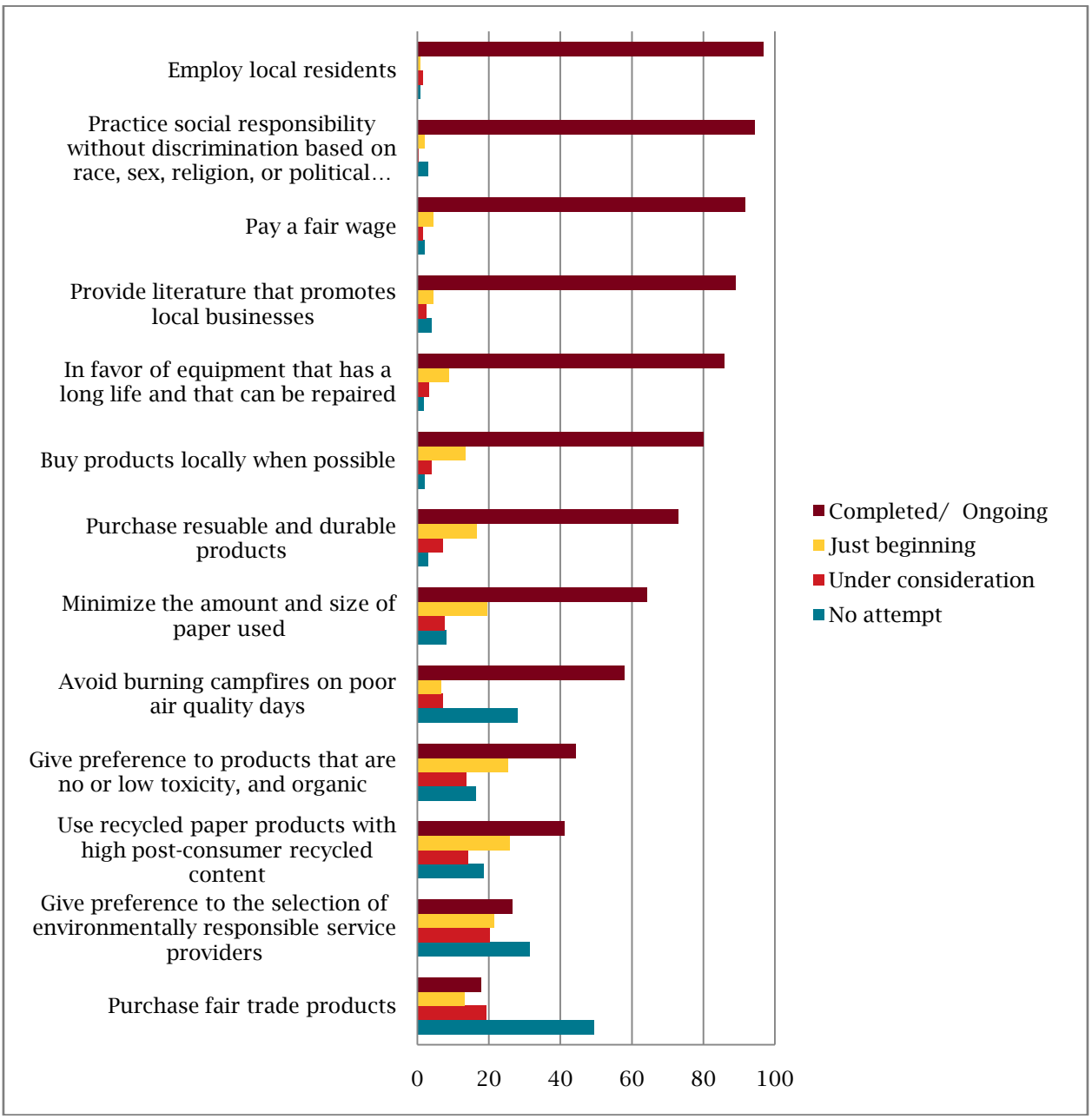

Fig. 8: Stage of implementation of 13 environmental purchasing practices (n=374)

		Lodging	CVB[a]	Event	Retail	Govern-ment	Other
Use recycled paper products with high post-consumer recycled content	No attempt	22.7	18.2	17.6	6.1	13.0	14.0
	Under consideration	15.6	14.0	20.3	3.0	9.1	17.1
	Just beginning	27.8	30.6	21.6	39.4	11.7	28.0
	Completed/ongoing	33.9	37.2	40.5	51.5	66.2	40.9
Minimize the amount and size of paper used	No attempt	9.5	7.1	9.0	2.6	5.2	6.1
	Under consideration	9.3	8.7	15.1	7.9	7.8	7.2
	Just beginning	23.9	18.9	22.3	15.8	19.5	23.9
	Completed/ongoing	57.3	65.4	53.6	73.7	67.5	62.9
Give preference to products that are no or low toxicity, and organic	No attempt	18.6	26.3	20.0	2.7	16.9	17.7
	Under consideration	16.1	19.3	18.7	8.1	11.3	10.3
	Just beginning	27.8	23.7	22.7	24.3	32.4	23.9
	Completed/ongoing	37.4	30.7	38.7	64.9	39.4	48.1
Buy products locally when possible	No attempt	3.5	0.0	2.3	0.0	4.2	3.0
	Under consideration	4.0	3.1	3.5	2.4	18.1	3.3
	Just beginning	12.1	11.5	14.6	14.6	8.3	10.7
	Completed/ongoing	80.4	85.4	79.5	82.9	69.4	83.0
Purchase reusable and durable products	No attempt	3.8	4.0	1.9	0.0	4.0	2.8
	Under consideration	4.7	7.9	13.3	7.9	6.7	6.7
	Just beginning	19.2	19.0	27.2	13.2	22.7	17.0
	Completed/ongoing	72.3	69.0	57.6	78.9	66.7	73.5
Purchase fair trade products	No attempt	47.3	48.0	39.8	38.7	48.1	40.4
	Under consideration	18.8	23.5	18.6	19.4	16.7	17.2
	Just beginning	16.3	15.3	16.9	19.4	18.5	20.7
	Completed/ongoing	17.6	13.3	24.6	22.6	16.7	21.7
Give preference to the selection of environmentally responsible service providers	No attempt	29.5	35.3	24.5	29.4	24.6	29.1
	Under consideration	22.1	23.5	17.9	17.6	18.8	17.3
	Just beginning	23.7	21.2	20.8	23.5	29.0	17.3
	Completed/ongoing	24.7	20.0	36.8	29.4	27.5	36.2
In favor of equipment that has a long life and that can be repaired	No attempt	1.3	1.7	1.3	0.0	2.6	2.3
	Under consideration	1.6	3.3	5.9	0.0	0.0	4.6
	Just beginning	8.6	14.0	13.1	12.2	10.5	9.6
	Completed/ongoing	88.5	81.0	79.7	87.8	86.8	83.5
Practice social responsibility without discrimination based on race, sex, religion, or political affiliation	No attempt	2.6	0.8	1.2	2.4	2.6	1.5
	Under consideration	0.3	0.8	1.2	0.0	0.0	0.8
	Just beginning	2.7	4.6	2.9	2.4	1.3	1.1
	Completed/ongoing	94.4	93.9	94.8	95.2	96.1	96.6
Employ local residents	No attempt	1.3	0.0	2.1	0.0	1.3	0.8
	Under consideration	1.0	0.8	1.4	0.0	2.7	0.8
	Just beginning	2.3	0.8	3.6	3.1	2.7	1.6
	Completed/ongoing	95.4	98.4	92.9	96.9	93.3	96.7
Pay a fair wage	No attempt	1.5	0.8	2.6	3.0	0.0	2.2
	Under consideration	1.0	2.4	5.2	0.0	0.0	3.5
	Just beginning	3.4	8.1	12.1	6.1	2.6	12.4
	Completed/ongoing	94.1	88.7	80.2	90.0	97.4	81.9
Provide literature that promotes local businesses	No attempt	2.6	0.8	0.7	2.4	15.4	2.0
	Under consideration	2.0	1.5	2.6	0.0	3.1	3.6
	Just beginning	4.2	1.5	9.9	7.3	1.5	7.9
	Completed/ongoing	91.2	96.2	86.8	90.2	80.0	86.5
Avoid burning campfires on poor air quality days	No attempt	35.6	6.7	14.3	11.1	50.0	19.5
	Under consideration	6.9	13.3	0.0	0.0	25.0	4.9
	Just beginning	8.9	0.0	0.0	0.0	0.0	7.3
	Completed/ongoing	48.5	80.0	85.7	88.9	25.0	68.3

Table 16: Stage of implementation of 13 environmental purchasing practices by industry sector (n=374)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

Significant regional differences emerged in reported minimization ofthe amount and size of paper used (χ^2=16.77, p<0.005), giving preference to products that are no or low toxicity and organic (χ^2=14.00, p<0.01), and purchasing fair trade products (χ^2=23.53, p<0.005) (Table 17). Respondents in the Central and Northwest regions reported the least adoption of minimizing amount and size of paper used, while those in the Northeast and Southern regions, as well as the Metro area, had the widest adoption. For the other two practices, the Northeast region and the Metro area showed the widest adoption, and the Central region the least.

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Buy products locally	199.16	189.96	179.73	187.97	176.21	4.54
Give preference to organic low-toxicity products	198.19	155.24	163.46	159.81	196.46	14.00*
Minimize amount and size of paper used	192.38	157.11	150.98	187.11	199.46	16.77**
Buy reusable & durable products	188.26	163.91	185.47	166.16	179.72	5.71
Practice social responsibility without discrimination	186.86	177.51	182.49	189.98	184.73	3.56
Use recycled paper products	179.89	145.43	156.63	183.04	179.75	8.64
Favor equipment that has a long life and can be repaired	178.93	184.22	181.90	174.98	188.10	1.75
Provide literature that promotes local businesses	171.79	177.84	182.72	177.52	179.60	1.54
Employ local residents	160.17	167.34	169.53	169.94	170.07	6.06
Pay a fair wage	159.04	174.38	165.25	153.49	167.18	7.93
Buy fair trade products	159.03	132.52	110.14	151.24	179.88	23.53***
Prefer environmentally responsible service providers	156.91	130.29	126.66	146.78	166.76	9.51
Avoid burning campfires on poor air quality days	87.64	88.41	84.74	95.59	106.61	4.06

TABLE 17: Regional comparison of stage of implementation of 13 environmental purchasing practices (n=374)

*p<0.01, **p<0.005, ***p<0.0005

Air quality: Six of the 11 air quality practices were reported as adopted by at least 60 percent of the tourism entities responding to the survey (Figure 9). A total of 76.5 percent said they kept high-moisture areas well ventilated, 70.2 percent scheduled regular preventive maintenance to clean air handler units and coils, 82 percent did not leave vehicles running when idle, and 73.7 percent encouraged public or group transportation. A total of 61.5 percent of respondents checked their HVAC systems at least annually for mold and bacteria, as well as obstructions to air flow, and 64.6 percent controlled air and odor emissions to meet standard requirements. Furthermore, 58.1 percent of respondents had air filtration in place, while 50.8 percent used HEPA filters. On the other hand, 43 percent of respondents said they made no attempt to conduct periodic tests to ensure healthy air quality.

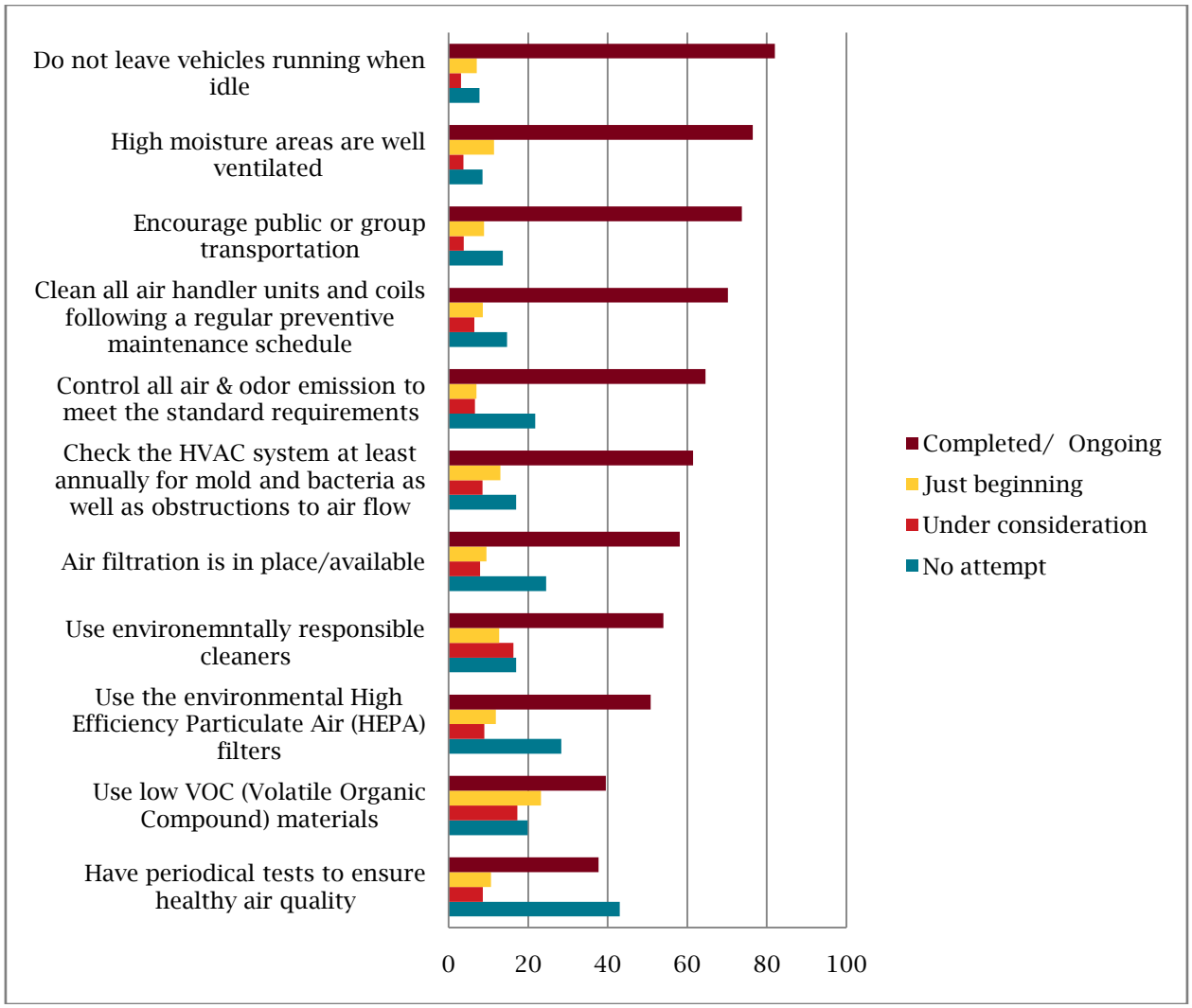

FIG.9: Stage of implementation of 11 air quality practices (n=294)

Across the industry sectors, the government and the retail sectors each reported the highest percentage of completion for three air quality practices (Table 18). At the same time, the government sector lagged behind in not leaving vehicles running when idle, and the retail sector lagged in using low VOC materials. The lodging sector showed the highest percentage of completion for ensuring high-moisture areas are well ventilated, cleaning air handler units and coils regularly, and not leaving vehicles running when idle. Meanwhile, the lodging sector lagged behind in having air filtration in place and encouraging public or group transportation. The event/festival sector showed the lowest percentage of completion for seven of the 11 air quality practices. Such a finding is not surprising, given that some of the practices are mainly applicable to permanent facilities, which few festivals and community events maintain.

		Lodging	CVB[a]	Event	Retail	Govern -ment	Other
Air filtration is in place/available	No attempt	26.5	18.1	22.5	41.7	15.9	20.0
	Under consideration	10.5	6.0	12.5	0.0	11.1	11.6
	Just beginning	14.1	9.6	12.5	8.3	12.7	10.5
	Completed/ongoing	48.9	66.3	52.5	50.0	60.3	57.9
Use environmentally responsible cleaners	No attempt	13.4	25.6	15.7	12.5	10.4	17.3
	Under consideration	14.5	19.2	24.1	12.5	10.4	15.2
	Just beginning	31.7	7.7	24.1	25.0	26.9	16.8
	Completed/ongoing	50.3	47.4	36.1	50.0	52.2	50.8
Use low VOC (Volatile Organic Compound)materials	No attempt	20.0	25.7	23.1	18.5	15.9	22.5
	Under consideration	16.4	12.2	14.1	22.2	14.3	17.0
	Just beginning	25.6	17.6	25.6	25.9	28.6	21.4
	Completed/ongoing	38.0	44.6	37.2	33.3	41.3	39.0
Check the HVAC system at least annually for mold and bacteria as well as obstructions to air flow	No attempt	13.4	23.3	21.6	26.5	10.3	18.6
	Under consideration	8.5	8.2	18.9	8.8	12.1	9.3
	Just beginning	13.9	9.6	20.3	8.8	8.6	19.2
	Completed/ongoing	64.2	58.9	39.2	55.9	69.0	52.9
High moisture areas are well ventilated	No attempt	3.5	19.2	13.3	0.0	6.7	8.7
	Under consideration	2.8	6.4	7.2	7.1	11.7	7.1
	Just beginning	11.7	14.1	19.3	14.3	13.3	19.6
	Completed/ongoing	81.9	60.3	60.2	78.6	68.3	64.7
Control all air and odor emission to meet the standard requirements	No attempt	12.7	20.5	17.3	16.7	11.7	17.5
	Under consideration	7.3	6.8	14.7	8.3	8.3	8.4
	Just beginning	14.8	6.8	13.3	0.0	15.0	15.7
	Completed/ongoing	65.2	65.8	54.7	75.0	65.0	58.4
We have periodical tests to ensure healthy air quality	No attempt	31.7	43.3	51.3	51.9	32.3	41.8
	Under consideration	13.5	7.5	11.8	14.8	9.7	13.0
	Just beginning	16.7	6.0	9.2	3.7	11.3	15.3
	Completed/ongoing	38.0	43.3	27.6	29.6	46.8	29.9
Use the environmental High Efficiency Particulate Air (HEPA) filters	No attempt	24.4	31.0	34.8	13.8	30.4	33.9
	Under consideration	13.0	5.5	18.8	17.2	19.6	10.7
	Just beginning	20.2	14.1	13.0	17.2	10.7	17.3
	Completed/ongoing	42.4	49.3	33.3	51.7	39.3	38.1
Clean all air handler units and coils following a regular preventive maintenance schedule	No attempt	7.4	16.7	26.3	12.5	9.7	19.6
	Under consideration	7.6	4.2	7.9	18.8	12.9	7.3
	Just beginning	12.5	16.7	10.5	9.4	14.5	15.6
	Completed/ongoing	72.5	62.5	55.3	59.4	62.9	57.5
Do not leave vehicles running when idle	No attempt	7.5	8.8	9.6	2.9	11.4	6.1
	Under consideration	4.0	4.4	8.8	2.9	8.6	4.6
	Just beginning	11.1	9.9	13.2	8.8	12.9	6.1
	Completed/ongoing	77.4	76.9	68.4	85.3	67.1	83.2
Encourage public or group transportation	No attempt	19.2	6.8	4.8	3.3	9.7	7.7
	Under consideration	5.9	2.3	10.3	3.3	6.5	6.7
	Just beginning	11.5	14.8	14.3	13.3	11.3	7.7
	Completed/ongoing	63.3	76.1	70.6	80.0	72.6	77.9

Table 18: Stage of implementation of 11 air quality practices by industry sector (n=294)

[a]*Note*: CVB=Convention & Visitor Bureau/similar Tourism Organization

Significant regional differences emerged in scheduling regular preventive maintenance to clean air handler units and coils (χ^2=12.61, p<0.05), checking the HVAC system at least annually for mold and

bacteria as well as obstructions to air flow (χ^2=11.53, p<0.5), and conducting periodic tests to ensure healthy air quality (χ^2=10.45, p<0.05) (Table 19).Responding tourism entities in the Central region reported the least adoption of the three practices, while those in the Metro area showed the widest adoption. Northeast region respondents reported the least adoption of checking HVAC system annually, and Southern region respondents reported the least adoption of conducting periodical tests to ensure healthy air quality.

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Encourage public or group transportation	11096	116.64	104.70	125.85	127.48	6.00
Use low VOC materials	140.79	117.42	136.67	125.79	160.32	9.36
Do not leave vehicles running when idle	140.33	150.74	149.13	146.75	152.13	1.74
Use environmentally responsible cleaners	136.92	126.04	137.56	147.56	146.38	3.11
High moisture areas well ventilated	131.54	127.07	141.76	136.37	147.50	4.05
Use HEPA filters	125.64	112.73	120.62	113.03	141.19	5.95
Regularly clean all air handler units and coils	121.85	107.03	121.51	118.31	146.55	12.61*
Check the HVAC system at least annually	118.23	113.94	115.66	120.74	150.30	11.53*
Have periodical tests to ensure healthy air quality	117.01	111.99	131.94	110.49	147.85	10.45*
Air filtration is in place	113.36	107.06	121.58	123.59	140.30	8.35
Control all air and odor emission	106.67	98.95	119.09	123.32	130.19	9.44

TABLE. 19: Regional comparison in stage of implementation of 11 air quality practices (n=294)

*p<0.05

Water conservation: Three water conservation practices were adopted by at least 70 percent of the responding tourism entities: sweeping or vacuuming instead of washing down large areas (70.8 percent), regularly testing for and repairing leaks (83.4 percent), and properly disposing of hazardous chemicals (94.3 percent) (Figure 10). However, well over 50 percent of respondents reported no attempt to collect rain or storm water (58.8 percent), to install automatic run-off water taps (71.4 percent), or to maintain a reclaimed water system (81.4 percent). A total of 47.4 percent of respondents said they made no attempt to give customers ideas for conserving water during their stays.

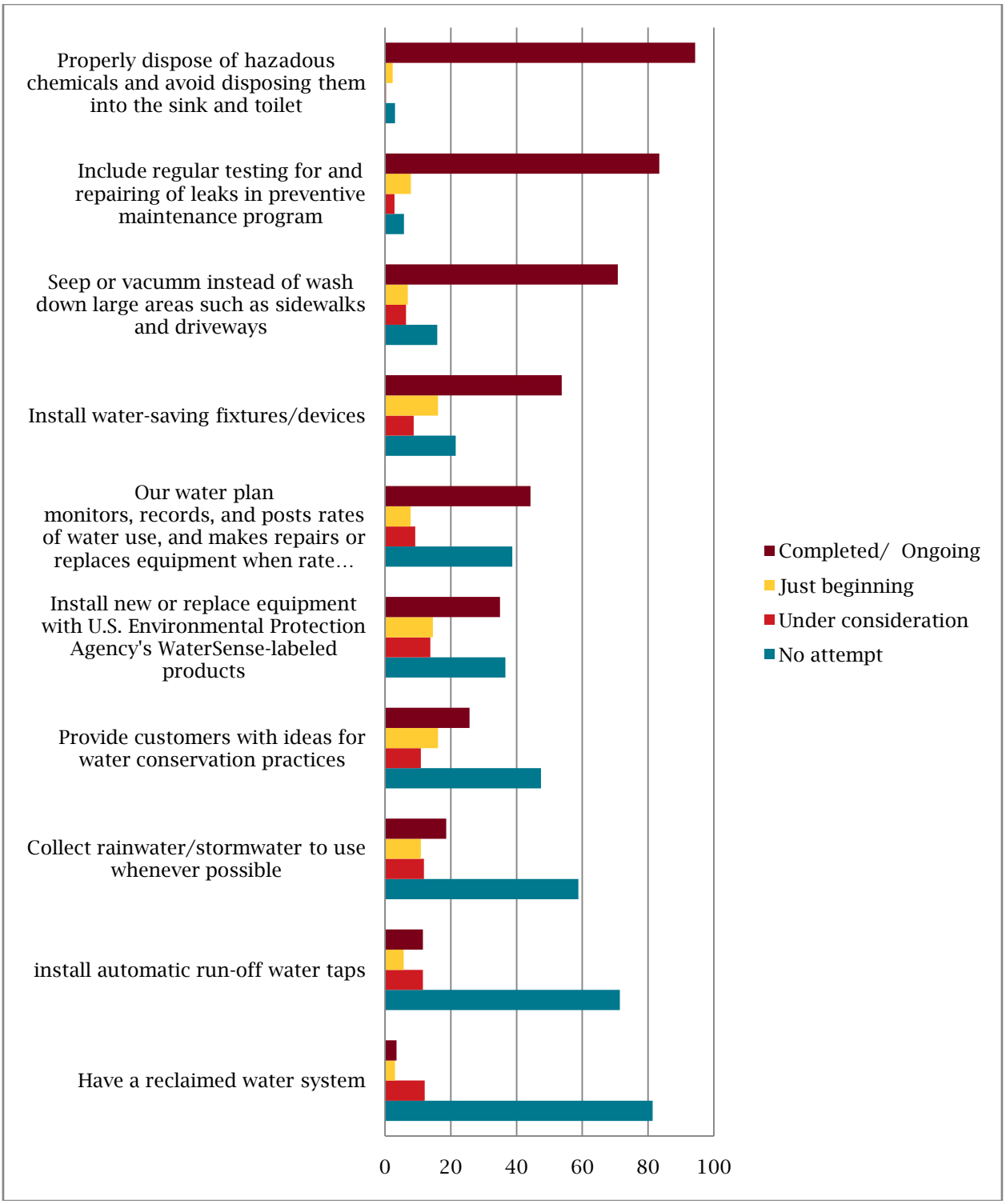

FIG. 10: Stage of implementation of 10 water conservation practices (n=298)

Across industry sectors, lodging sector respondents reported the highest percentage of completion for four of the 10 water conservation practices (Table 20). On the other hand, the event/festival and government sectors showed the lowest percentage of completion for three practices respectively. The retail sector, while reporting the highest percentage of completion for three practices, lagged

behind in two other practices. Water conservation practices did not significantly differ by region (Table 21).

		Lodging	CVB[a]	Event	Retail	Govern -ment	Other
Our water plan monitors, records, and posts rates of water use, and makes repairs or replaces equipment when rate changes indicate problems	No attempt	33.9	36.4	32.8	54.2	37.3	45.0
	Under consideration	11.6	12.7	18.0	0.0	11.9	14.1
	Just beginning	11.0	12.7	9.8	12.5	10.2	8.1
	Completed/ongoing	43.5	38.2	39.3	33.3	40.7	32.9
Collect rainwater/storm water to use whenever possible	No attempt	57.1	66.0	49.2	53.8	63.3	60.0
	Under consideration	17.9	13.2	23.1	15.4	8.3	11.9
	Just beginning	8.6	7.5	10.8	7.7	16.7	9.4
	Completed/ongoing	16.4	13.2	16.9	23.1	11.7	18.8
Install automatic run-off water taps	No attempt	67.3	74.5	59.7	76.0	55.7	67.9
	Under consideration	17.4	14.5	19.4	12.0	9.8	13.6
	Just beginning	5.6	1.8	9.7	4.0	8.2	6.2
	Completed/ongoing	9.7	9.1	11.3	8.0	26.2	12.3
Have a reclaimed water system	No attempt	77.3	81.0	72.7	61.9	81.8	77.3
	Under consideration	13.2	9.5	20.0	19.0	9.1	12.0
	Just beginning	4.0	0.0	1.8	9.5	0.0	1.3
	Completed/ongoing	5.5	9.5	5.5	9.5	9.1	9.3
Seep or vacuum instead of wash down large area such as sidewalks and driveways	No attempt	14.1	10.4	11.6	6.5	11.9	17.9
	Under consideration	5.9	9.1	8.1	3.2	5.1	7.8
	Just beginning	7.4	7.8	9.3	9.7	10.2	10.6
	Completed/ongoing	72.5	72.7	70.9	80.6	72.9	63.7
Properly dispose of hazardous chemicals and avoid disposing them into the sink and toilet	No attempt	1.8	4.5	3.0	2.9	0.0	1.9
	Under consideration	1.1	2.2	2.0	0.0	0.0	2.4
	Just beginning	2.9	1.1	6.1	2.9	1.4	3.4
	Completed/ongoing	94.1	92.1	88.9	94.3	98.6	92.2
Include regularly testing for and repairing leaks in preventive maintenance program	No attempt	1.4	8.3	6.3	13.3	14.3	10.6
	Under consideration	1.4	0.0	6.3	0.0	0.0	7.6
	Just beginning	7.7	12.5	6.3	13.3	7.1	6.1
	Completed/ongoing	89.4	79.2	81.3	73.3	78.6	75.8
Install new or replace equipment with U.S. Environmental Protection Agency's Water Sense-labeled products	No attempt	32.6	26.7	66.7	33.3	50.0	39.3
	Under consideration	13.6	6.7	16.7	25.0	14.3	13.1
	Just beginning	17.4	20.0	0.0	8.3	28.6	8.2
	Completed/ongoing	36.4	46.7	16.7	33.3	7.1	39.3
Install water-saving fixtures/devices	No attempt	11.6	30.8	45.5	55.6	38.5	29.3
	Under consideration	6.5	0.0	9.1	11.1	15.4	13.8
	Just beginning	20.3	30.8	9.1	0.0	15.4	6.9
	Completed/ongoing	61.6	38.5	36.4	33.3	30.8	50.0
Provide customers with ideas for water conservation practices	No attempt	37.1	42.9	62.5	80.0	27.3	70.2
	Under consideration	14.4	21.4	0.0	0.0	9.1	4.3
	Just beginning	17.4	14.3	12.5	0.0	36.4	12.8
	Completed/ongoing	31.1	21.4	25.0	20.0	27.3	12.8

TABLE 20: Stage of implementation of 10 water conservation practices by industry sector (n=298)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Properly dispose of hazardous chemicals	152.51	149.98	152.79	145.12	145.17	2.80
Include regularly testing for and repairing leaks in preventive maintenance program	136.30	149.51	144.27	132.47	132.25	4.57
Install water-saving fixtures/devices	131.32	116.02	130.57	101.50	123.00	7.27
Install new or replace equipment with U.S. Environmental Protection Agency's Water Sense-labeled products	124.93	104.98	129.88	121.62	139.32	5.90
Sweep or vacuum large areas	119.75	116.74	125.93	112.88	109.67	2.33
Provide customers with ideas for water conservation practices	119.35	102.64	115.56	115.98	126.79	0.52
Water plan monitors, records, and posts rates of water use	108.86	113.87	105.47	109.36	107.28	0.47
Install automatic run-off water taps	107.55	110.00	118.94	113.60	123.33	2.82
Operations collect rainwater/stormwater	103.88	114.01	99.99	121.80	117.84	4.53
Have a reclaimed water system	96.10	97.99	97.17	102.76	108.11	2.51

TABLE. 21: Regional comparison in stage of implementation of 10 water conservation practices (n=298)

Landscaping/Wildlife: A total of 80.8 percent of the respondents said they designed and constructed their facilities to reflect the natural surroundings and culture of the area,82.2 percent conducted irrigation watering in the early morning or at night, and 83.6 percent conducted wildlife observation from a remote distance (Figure 11). A total of 78.7 percent of responding tourism entities reported controlling noise levels from all on-site activities, and 79.7 percent said they retained native vegetation in landscaping. Nearly 60 percent (59.4 percent) of respondents provided publications on native plants and wildlife, 60.85 percent used an integrated pest management system, 61.9 percent promoted "Leave No Trace" principles, and 63.1 composted landscaping waste.

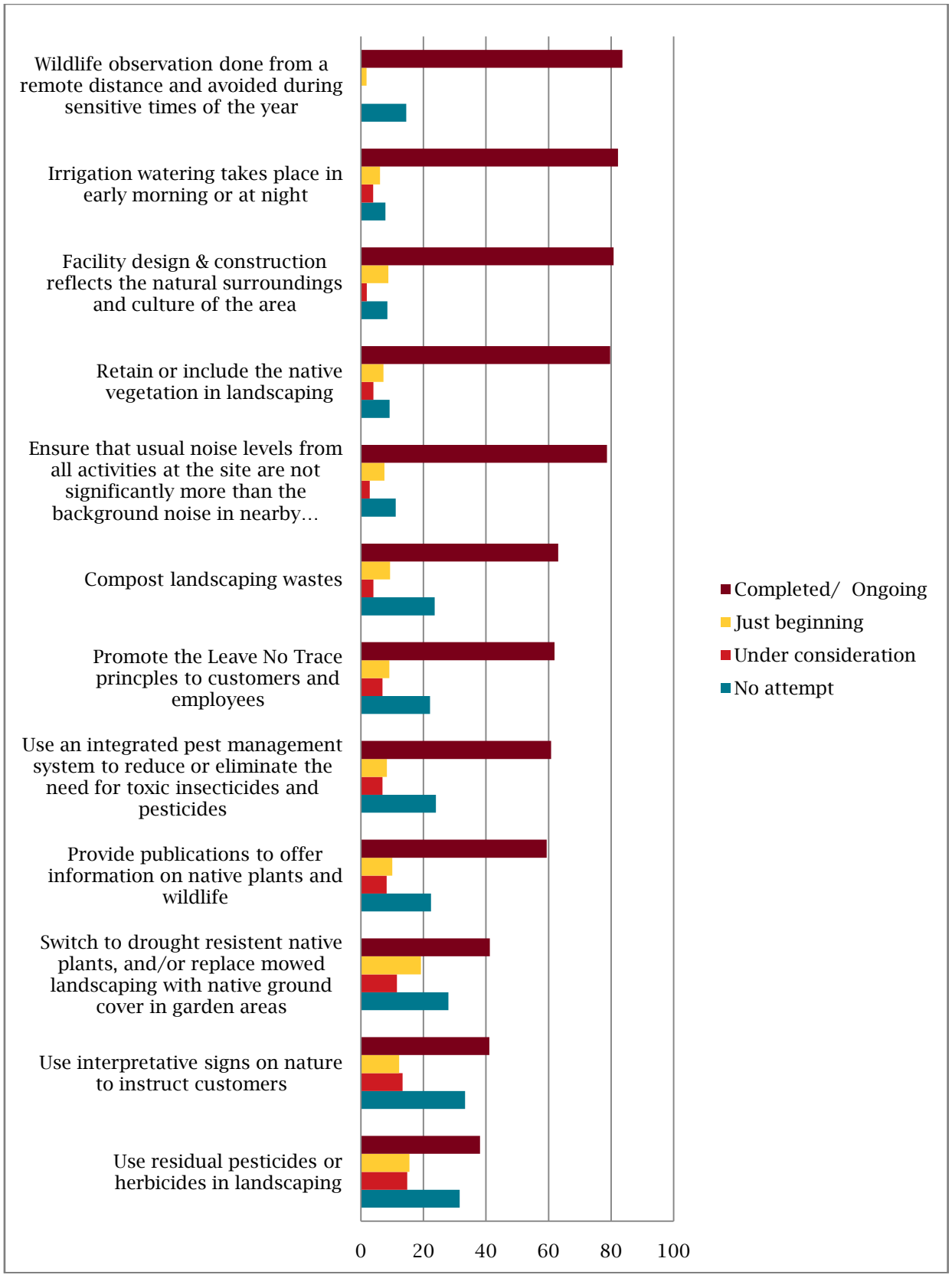

FIG. 11: Stage of implementation of 12 landscaping/wildlife practices (n=260)

Across industry sectors, government sector respondents reported the highest percentage of completion for five of the 12 landscaping/wildlife practices, while the event/festival sector reported the lowest percentage of completion for six of the 12 practices (Table 22). Interestingly, for one practice—composting landscaping wastes—the event sector showed the highest percentage of completion, while the government sector had the lowest percentage.

		Lodging	CVB[a]	Event	Retail	Govern-ment	Other
Use residual pesticides or herbicides in landscaping	No attempt	30.4	32.5	23.6	15.8	31.6	39.8
	Under consideration	12.5	20.0	21.8	15.8	10.5	20.4
	Just beginning	19.7	12.5	20.0	10.5	10.5	10.2
	Completed/ongoing	37.4	35.0	34.5	57.9	47.4	29.6
Facility design & construction reflects the natural surroundings and culture of the area	No attempt	5.1	7.7	12.8	6.5	6.1	7.1
	Under consideration	3.2	1.5	2.6	3.2	4.5	2.7
	Just beginning	8.8	12.3	12.8	6.5	9.1	6.5
	Completed/ongoing	82.9	78.5	71.8	83.9	80.3	83.7
Retain or include the native vegetation in landscaping	No attempt	5.6	9.0	11.1	9.5	4.6	12.9
	Under consideration	4.8	7.5	9.9	4.8	7.7	2.9
	Just beginning	11.3	14.9	11.1	23.8	10.8	14.1
	Completed/ongoing	78.3	68.7	67.9	61.9	76.9	70.0
Ensure that usual noise levels all activities at the site are not significantly more than the background noise in nearby natural areas or adjacent residences	No attempt	9.1	6.8	15.6	7.4	13.6	10.2
	Under consideration	3.1	3.4	12.5	3.7	5.1	4.2
	Just beginning	6.0	11.9	15.6	14.8	11.9	5.4
	Completed/ongoing	81.8	78.0	56.3	74.1	69.5	80.2
Irrigation watering, takes place in the early morning or at night	No attempt	5.4	3.5	5.9	0.0	6.1	7.6
	Under consideration	2.4	0.0	2.9	0.0	10.2	4.5
	Just beginning	4.0	14.0	5.9	12.5	10.2	9.1
	Completed/ongoing	88.2	82.5	85.3	87.5	73.5	78.8
Wildlife observation done from a remote distance and avoided during sensitive times of the year	No attempt	11.1	6.5	10.2	20.0	12.0	12.3
	Under consideration	1.5	0.0	0.0	0.0	6.0	2.6
	Just beginning	5.0	9.7	8.2	10.0	6.0	6.1
	Completed/ongoing	82.4	83.9	81.6	70.0	76.0	78.9
Use an integrated pest management system to reduce or eliminate the need for toxic insecticides and pesticides	No attempt	20.6	17.1	24.0	16.7	22.0	21.9
	Under consideration	10.2	9.8	8.0	5.6	6.8	8.6
	Just beginning	11.0	14.6	18.0	22.2	8.5	8.6
	Completed/ongoing	58.3	58.5	50.0	55.6	62.7	60.9
Promote the Leave No Trace principles to customers and employees	No attempt	19.2	20.0	16.9	16.0	10.0	20.8
	Under consideration	7.9	4.6	9.1	4.0	5.0	7.8
	Just beginning	12.0	6.2	18.2	16.0	6.7	7.1
	Completed/ongoing	60.9	69.2	55.8	64.0	78.3	64.3
Provide publications to offer information on native plants and wildlife	No attempt	22.5	17.7	33.3	50.0	14.5	25.7
	Under consideration	10.5	6.3	9.3	5.0	3.2	7.4
	Just beginning	18.0	11.4	16.7	10.0	8.1	14.7
	Completed/ongoing	49.0	64.6	40.7	35.0	74.2	52.2
Use interpretative signs on nature to instruct customers	No attempt	38.5	21.8	32.6	40.0	9.8	26.8
	Under consideration	17.1	7.3	15.2	10.0	4.9	9.8
	Just beginning	15.9	10.9	19.6	10.0	11.5	15.4
	Completed/ongoing	28.5	60.0	32.6	40.0	73.8	48.0
Switch to drought resistant native plants, and/or replace mowed landscaping with native ground cover in garden areas	No attempt	23.0	21.3	27.4	26.7	21.7	25.5
	Under consideration	16.9	14.9	24.2	20.0	5.0	14.1
	Just beginning	25.4	23.4	19.4	20.0	18.3	17.4
	Completed/ongoing	34.8	40.4	29.0	33.3	55.0	43.0
Compost landscaping wastes	No attempt	24.6	8.3	20.0	11.1	38.5	23.5
	Under consideration	5.4	8.3	0.0	11.1	0.0	0.0
	Just beginning	6.9	16.7	10.0	11.1	7.7	13.7
	Completed/ongoing	63.1	66.7	70.0	66.7	53.8	62.7

TABLE 22: Stage of implementation of 12 landscaping/wildlife practices by industry sector (n=260)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

The survey data revealed significant regional differences in maintaining an integrated pest management system (χ^2=9.83, p<0.05), promoting Leave No Trace principles (χ^2=19.69, p<0.005), and using interpretative signs on nature to instruct customers (χ^2=13.26, p<0.05) (Table 23). Respondents in the Northwest region showed the least adoption of the first practice, while those in the Central region reported the least adoption of the other two practices. Northeast region respondents reported the widest adoption of the first two practices, with the Southern region showing the widest adoption of the third practice.

	Mean ranks					Chi-Square
	Northeast	Central	Northwest	Southern	Metro	
Design and construction of facility reflects natural surroundings	141.68	120.96	131.51	125.97	128.06	5.44
Retain native vegetation	133.35	116.09	129.43	128.22	117.70	4.62
Control noise	131.88	126.14	130.40	127.13	116.65	2.52
Promote the Leave No Trace principles	137.12	89.99	103.93	118.09	119.30	19.69**
Irrigation watering takes place in early morning or at night	89.61	88.08	95.41	88.63	91.95	1.05
Provide publications on native plants and wildlife	124.45	96.94	103.00	110.56	107.05	7.64
Use an integrated pest management system	116.25	95.96	88.20	97.09	114.26	9.83*
Use interpretative signs on nature	97.95	68.86	81.47	105.68	99.03	13.26*
Do wildlife observation from a remote distance	85.86	68.47	85.45	89.50	83.90	8.32
Use residual pesticides or herbicides in landscaping	65.78	73.39	76.00	92.19	90.41	8.12
Switch to drought resistant native plants, and/or replace mowed landscaping with native ground cover in garden areas	95.80	93.67	90.95	90.31	83.00	1.18
Compost landscaping wastes	113.06	108.73	116.39	115.56	110.82	0.58

TABLE 23: Regional comparison in stage of implementation of 12 landscaping/wildlife practices (n=260)

*p<0.05, **p<0.005

Ways of receiving information on sustainable tourism

More than 40 percent of the respondents chose online reference materials as one of the best ways to receive information on sustainable tourism (Figure 12). Twenty percent of respondents endorsed using a professional network to obtain information, 21.4 percent webinars, 23.9 percent regional workshops, and 31 percent local or community workshops. On the other end of the scale, only 9.2 percent of respondents said they would like technical assistance (via on-site visits) to obtain information on sustainable tourism, 10.8 percent preferred a listserv and 15 percent chose the Travel Green website as one of the best ways to receive information on sustainable tourism.

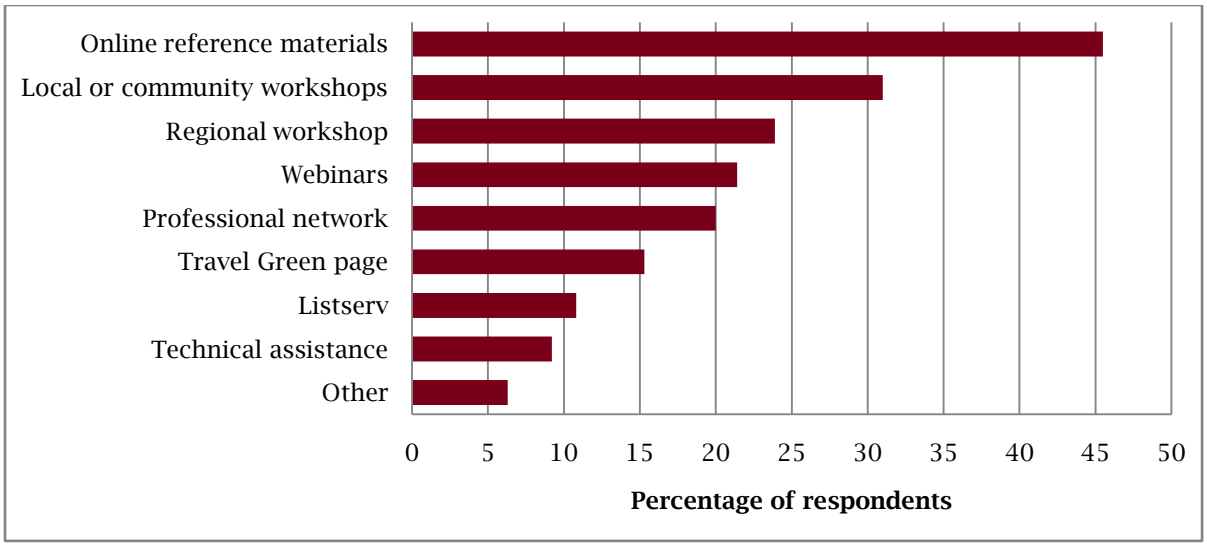

FIG. 12: Respondents' choices of best ways to receive information on sustainable tourism (n=426)

Across industry sectors, online reference materials and local workshops were identified most frequently as one of the best ways to receive information on sustainable tourism for every sector (Table 24). Regional workshops were the third most frequently identified best way to receive information for almost all the sectors (except for "other"). The Travel Green page and technical assistance were identified less frequently across sectors, and a listserv was almost always the least preferred way of receiving information (except for the government sector).

	Lodging	CVB[a]	Event	Retail	Govern -ment	Other
Online reference materials	46.4	38.6	47.4	39.1	43.5	47.8
Local or community workshops	33.1	34.1	31.6	39.1	34.8	23.9
Regional workshop	26.5	31.8	24.6	17.4	21.7	18.6
Webinars	21.7	31.8	14.0	13.0	17.4	23.0
Professional network	21.1	20.5	12.3	17.4	17.4	23.0
Travel Green page	16.9	15.9	21.1	13.0	13.0	10.6
Technical assistance	7.8	13.6	8.8	13.0	8.7	8.8
Listserv	6.0	11.4	7.0	4.3	21.7	18.6
Other	6.6	4.5	5.3	0.0	4.3	8.8

TABLE 24: Respondents choosing various information sources as best ways to receive information on sustainable tourism by industry sector (n=426)

[a]CVB=Convention & Visitor Bureau/similar Tourism Organization

Respondents

Nearly 40 percent of the respondents came from the lodging/camping sector. About 13 percent came from the event/festival sector. Slightly more than 10 percent from the convention and visitor bureau sector (CVB), and close to 30 percent from a sector other than lodging/camping, CVB, event/festival, retail, or government.

The distribution of survey respondents was relatively even across the five Minnesota regions, with the Northeast representing the largest share (22.1 percent) and the Northwest representing the smallest share (16.7 percent).

More than 30 percent of respondents had worked in the tourism industry for more than 20 years, followed by over 20 percent in the industry for 10-14 years. A total of 22.6 percent of respondents had stayed with their current employer for over 20 years, about 18 percent for 10-14 years, and 17.4 percent for 1-3 years.

Lastly, more females (about 55 percent) than males completed the survey. See Table 25 for details of the professional characteristics and gender of 2013 survey respondents.

	Frequency	Percentage (%)
Industry sector		
Lodging/Camping	163	38.3
Event/Festival	55	12.9
Convention & Visitor Bureau/similar Tourism Organization	44	10.3
Government	23	5.4
Retail	22	5.2
Other	119	27.9
Minnesota tourism region		
Northeast[1]	94	22.1
Southern[2]	89	20.9
Central[3]	86	20.2
Metro[4]	86	20.2
Northwest[5]	71	16.7
Number of years working in the tourism industry		
1-3	38	11.1
4-6	47	13.7
7-9	49	14.3
10-14	72	21.0
15-19	33	9.6
20+	104	30.3
Number of year working for the current employer		
1-3	59	17.4
4-6	55	16.2
7-9	55	16.2
10-14	61	17.9
15-19	33	9.7
20+	77	22.6
Gender		
Female	187	54.9
Male	158	44.9

Table 25: Professional characteristics and gender of 2013 survey respondents (n=426)

[1]Northeast includes Carlton, Cook, Itasca, Kanabec, Koochiching, Lake, Pine, St. Louis Counties.
[2]Southern includes Big Stone, Blue Earth, Brown, Chippewa, Cottonwood, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Houston, Jackson, Lac qui Parle, Le Sueur, Lincoln, Lyon, Martin, Mower, Murray, Nicollet, Nobles, Olmsted, Pipestone, Redwood, Renville, Rice, Rock, Sibley, Steele, Swift, Traverse, Wabasha, Waseca, Watonwan, Winona, Yellow Medicine Counties.
[3]Central includes Aitkin, Benton, Crow Wing, Douglas, Grant, Kandiyohi, McLeod, Meeker, Mille Lacs, Morrison, Otter Tail, Sherburne, Stearns, Stevens, Todd, Wadena Counties.
[4]Metro includes Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Washington, Wright Counties.
[5]Northwest includes Becker, Beltrami, Cass, Clay, Clearwater, Hubbard, Kittson, Lake of the Woods, Mahnomen, Marshall, Norman, Pennington, Polk, Pope, Red Lake, Roseau, Wilkin Counties.

DISCUSSION

As of 2013, Minnesota tourism entities that participated in the survey agreed that there are benefits to sustainable business practice implementations, particularly improved customer perceptions, improved organizational image, and opportunities to attract new clientele. However, the perceived difficulties of initial financial costs, as well as time and energy impose on optimal sustainable practice implementation. Until these difficulties are mitigated, organizations and businesses miss opportunities toward sustainability and related savings.

Key focus areas appear to be communications and sector-specific efforts to give tourism entities opportunities to understand and implement more sustainable practices. Specific communication opportunities include providing details on the economic return on investment of sustainable tourism practices and easy-to-find, useful information on sustainable tourism practices, as well as the financial resources to support them. Examining the usefulness of the "Travel Green" webpage and exploration of other possible online communication opportunities is in order. A holistic consideration of sustainable tourism practices includes attention to the difficulties in context of the benefits and sector-specific efforts to address best opportunities and educational opportunities within them.

Communications

Given the importance of economic returns to any business and lack of perceived economic return on sustainable practices, clearly quantifying and communicating the economic impacts of sustainability practices are essential for businesses to consider adoption. Certainly the difficulties of time, energy and financial costs are not unique to sustainable business practice implementation; they are characteristic of most small businesses and organizations. Therefore, providing opportunities to reduce the fiscal risks of, maximize time for, and improve educational opportunities related to sustainable business practices will advance their implementation. Because this research uncovered regional differences in perceptions of difficulties, further exploration by region could provide insight on tailoring communication, education and financial assistance opportunities, especially for the Northwest region.

Beyond time, energy and financial costs, the perception of regulations and lack of information as barriers remain challenges to sustainable practice implementation. Regarding information, both state and non-profit organizations provide considerable information and incentives for implementing a variety of sustainable practices. For example, Clean Energy Resource Teams (CERTS) provide opportunities to purchase water- and energy-saving devices at reduced prices with group buys, and a variety of state agencies offer rebates for energy efficient purchases. However, central information sources about these opportunities may be scarce or unknown to existing tourism industry personnel. The Minnesota Pollution Control Agency maintains a sustainable business database with grant opportunities, but monitoring it takes time. While a central "Travel Green" webpage was created in 2008 and a listserv initiated, use of both has been low. Various industry sectors receive sustainability information through professional associations, each of which might serve as an information clearing house or central information bank for the respective sector. Such practice, while important, is still on the path to optimal performance for most industry sectors.

Although no information source was identified by an overwhelming percentage of respondents as "the best" to disseminate information on sustainable practices, respondents preferred online reference materials and community workshops more than the other ways of receiving information. The findings indicate that hosting effective community workshops deserves consideration. State associations have partnered with non-profits to offer workshops periodically, but consistent

offerings seem absent. In 2008, Explore Minnesota Tourism and the University of Minnesota were committed to disseminating timely and topical information on sustainable tourism and partnered to create the Travel Green webpage, which was meant to serve as online reference materials.

Despite respondents' preference to receive online reference materials, less than 20 percent of them identified the Travel Green webpage as one of the best ways to gather information on sustainable tourism. Apparently, the "Travel Green" webpage needs to be more relevant and useful to the tourism industry. The state's and the University's commitment to maintaining the Travel Green webpage needs to be revisited and reaffirmed.

Study results indicated sectoral differences in preferred ways of receiving information. Therefore, educational opportunities could be tailored accordingly. Furthermore, a better understanding of what online information sources would best serve each sector is needed. The questionnaire used in this study did not ask respondents to name their specific sources of information on sustainability; but this would be good to know. Similarly, the questionnaire did not assess how many tourism entities rely on professional associations, e.g., AHLA, IFEA, for information on sustainable business practices.

Holistic approaches

The finding that tourism entities perceive regulations as a difficulty to adopt sustainable practices is neither particularly surprising nor likely unique to Minnesota. In 2007, discussions with the Travel Green Task Force revealed that several tourism sectors felt burdened with the number and type of regulations their organizations faced. Further exploration of the role regulations play in sustainable practice implementation would provide insights and subsequent opportunities to address them or at least acknowledge them for a better understanding of them as barriers.

Several practices involve providing customers with ideas about various aspects of sustainability, including energy and water conservation, the Leave No Trace principles, providing publications to offer information on native plants and wildlife, and using interpretative signs on nature to instruct customers. Study results show the lodging sector is fairly well along in implementing these practices, but more can be done in the CVB, event, and retail sectors. Of course, such organizations may have missions which do not include such information and efforts at this time. Yet informing consumers can be effective, as at least 40 percent of the respondents within each sector agreed or strongly agreed that lack of control over consumer behavior poses a difficulty to adopt sustainable practices.

Sector-specific approaches

Opportunities exist within each sector to reap the benefits of some fairly simple practices. "Low-hanging fruit" for implementing sustainable practices appears to vary by sector, with each deserving focused efforts to better disseminate information about implementation and to find efficient ways to implement them. For example, the lodging sector shows low implementation of several composting and air quality practices. Therefore, it could be helpful to give lodging businesses more guidance on obtaining composting services for dealing with both food and landscaping wastes. Regarding air quality, installing an air filtration system and avoiding burning campfires on poor air quality days benefit not only the environment but also guest comfort. Helping lodging businesses see the practices in light of customer experience may facilitate implementation of these air quality practices.

In the retail sector, using occupancy sensors/timers and installing water-saving fixtures were on the low implementation end. Both measures require installing new devices, but the scope of work

required by installation is not significant. The retail sector, compared to the other sectors, is receptive to technical assistance as a way to receive information about sustainable tourism. Therefore, one possibility is to provide the retail sector with technical assistance of installing new fixtures and devices where appropriate. There is also potential to increase the implementation of the practice of requiring vendors to take back pallets and crates or other packaging.

Lastly, a small percentage of respondents from the government sector indicated using daylight to the greatest extent, not leaving vehicle running when idle, and conducting irrigation watering in the early morning or at night. Increasing implementation of all three practices mainly needs behavioral changes and does not necessarily require upfront financial or labor investments. The key is to form new habits, and the value of making behavioral changes should not be overlooked. Another possibility from this result is that those in the field actually implementing the practices may not have been those who completed the questionnaires. Future research should identify the role of those completing the questionnaire.

Likelihood of participation in green travel certification programs

Results of participating in green travel certification programs were mixed. Overall, survey respondents expressed stronger likelihood of participating in self-certification related to green travel rather than third-party certification. If developed, programs need to take differences and preferences by sector into account. For instance, the CVB sector seems to be more open to participating in green travel certification, while the event sector is less so. The retail and lodging sectors seem more open to self-certification, while government entities may be open to third-party rather than self-certification. If developed, a challenge is creating programs that clarify standards while providing flexibility and differentiation for those participating. Any third-party certification program launch should be preceded by exploration of the many certification programs already available and consumer perceptions of them.

Overall, results from the 2013 state of sustainable tourism questionnaire demonstrate the tourism industry has handily adopted and implemented several sustainable practices, but others have yet to be fully implemented. Information conveyed through online resources and regional workshops can work to enhance understanding of the return on investments of various practices. The Tourism Center will continue to monitor sustainable practice implementation and share results to advance efficiencies and effectiveness across all sustainability areas.

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APPENDIX

Below is the questionnaire distributed to tourism entities throughout Minnesota in 2013 to gauge implementation of sustainable practices.

The University of Minnesota's Tourism Center and Explore Minnesota Tourism have partnered to assess the 'state of sustainable tourism in Minnesota.' Our goal is to understand the attitudes about and practices of sustainable tourism in Minnesota. By understanding your attitudes and behaviors, we can plan for future educational offerings and product development. In this questionnaire, we define sustainable tourism as: that which meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future." We ask you to complete this short online questionnaire that will take about 15 minutes. All the information you provide is completely voluntary, confidential, and anonymous. If you have any questions or concerns about the survey, please feel free to phone me at 612.624.2250 or email me at ingridss@umn.edu.

Ingrid Schneider, Director, UMN Tourism Center

John Edman, Director, Explore MN Tourism

First, tell us a bit about your organization and its location. (Section 1 of 4).

1.*What industry sector are you PRIMARILY affiliated with (click on one sector)?

- Lodging/Camping
- Convention & Visitor Bureau/similar Tourism Organization
- Event/Festival
- Retail
- Government
- Other (explain, please)

2. *In what Minnesota tourism region is your tourism organization/event located?

- Northeast (includes Carlton, Cook, Itasca, Kanabec, Koochiching, Lake, Pine, St. Louis Counties)
- Central (includes Aitkin, Benton, Crow Wing, Douglas, Grant, Kandiyohi, McLeod, Meeker, Mille Lacs, Morrison, Otter Tail, Sherburne, Stearns, Stevens, Todd, Wadena Counties)
- Northwest (includes Becker, Beltrami, Cass, Clay, Clearwater, Hubbard, Kittson, Lake of the Woods, Mahnomen, Marshall, Norman, Pennington, Polk, Pope, Red Lake, Roseau, Wilkin Counties)
- Southern (includes Big Stone, Blue Earth, Brown, Chippewa, Cottonwood, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Houston, Jackson, Lac qui Parle, Le Sueur, Lincoln, Lyon, Martin, Mower, Murray, Nicollet, Nobles, Olmsted, Pipestone, Redwood, Renville, Rice, Rock, Sibley, Steele, Swift, Traverse, Wabasha, Waseca, Watonwan, Winona, Yellow Medicine Counties)
- Metro (includes Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Washington, Wright Counties)

3. Does your organization own its physical space (office, etc.)?

- ☐ Yes
- ☐ No

Your attitudes about sustainable tourism. (Section 2 of 4).

Sustainable tourism is defined as "that which meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. Management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems." - World Tourism Organization.

In this section, we are interested in your attitudes about sustainable tourism.

4. Click on one response below to indicate your agreement with each of the statements about the benefits and challenges of sustainable tourism.

The BENEFITS in the adoption of sustainable tourism practices are…

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
improved consumer prospects.	☐	☐	☐	☐	☐
remaining competitive.	☐	☐	☐	☐	☐
economic savings.	☐	☐	☐	☐	☐
improved organizational image.	☐	☐	☐	☐	☐
attracting new clientele.	☐	☐	☐	☐	☐
improved customer perceptions.	☐	☐	☐	☐	☐
meeting customer expectations.	☐	☐	☐	☐	☐
increased environment protection.	☐	☐	☐	☐	☐

5. The DIFFICULTIES in the adoption of sustainable tourism practices are…

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
initial financial costs.	☐	☐	☐	☐	☐
time and energy.	☐	☐	☐	☐	☐
customer opposition.	☐	☐	☐	☐	☐
lack of control over customer behavior.	☐	☐	☐	☐	☐
staff opposition.	☐	☐	☐	☐	☐
external restrictions on operations.	☐	☐	☐	☐	☐
lack of information.	☐	☐	☐	☐	☐
lack of professional network.	☐	☐	☐	☐	☐
lack of interest in the concept of sustainability within the organization.	☐	☐	☐	☐	☐
lack of interest in the concept of sustainability within the consumer base.	☐	☐	☐	☐	☐

6. How likely are you to participate in the following, if available?

	Very unlikely	Unlikely	Likely	Very likely
A self certification for tourism organizations (e.g., property, organization, event, etc.) related to green travel	☐	☐	☐	☐
A 3rd party certification for tourism organizations related to green travel (an independent and neutral party does the evaluation).	☐	☐	☐	☐

Sustainable tourism practices. (Section 3 of 4).

To understand the current state of sustainable tourism practices, we ask you to identify your organization's current efforts in six areas: a) energy, b) waste, c) air, d) water, e) landscaping, and f) purchasing. If a practice doesn't apply, simply click 'na' for not applicable.

7. Energy Efficiency. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
Our organization uses compact fluorescent light bulbs.	☐	☐	☐	☐	☐
Our organization uses light emitting diode (LED) bulbs.	☐	☐	☐	☐	☐
Exit signs have been replaced with light emitting diode (LED) exit signs.	☐	☐	☐	☐	☐
Renewable energy sources are used (e. g. solar, wind, biomass, geothermal).	☐	☐	☐	☐	☐
Window film is installed to lower heating and cooling loads and reduce glare.	☐	☐	☐	☐	☐
Daylight is used to the greatest possible extent.	☐	☐	☐	☐	☐
Equipment (e. g. window, light fixtures, appliances) is installed with or replaced by the Energy Star qualified equipments.	☐	☐	☐	☐	☐
An energy management system (EMS) is used to prevent circulating air, heating, cooling, and lighting while not necessary (e.g., when not in use).	☐	☐	☐	☐	☐
Electric package terminal air conditioner (PTAC) units have been replaced with more efficient heat pump technologies.	☐	☐	☐	☐	☐
Customers are provided with ideas about energy conservation practices.	☐	☐	☐	☐	☐

Operation schedules include an energy audit/assessment of the facility by a qualified professional.	☐	☐	☐	☐	☐
Occupancy sensors or timers are used to control lighting and vending machines in intermittent-use areas.	☐	☐	☐	☐	☐
Our organization includes periodic HVAC tune-up in our preventative maintenance schedule.	☐	☐	☐	☐	☐

8. Waste Minimization. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
We have a recycling program for waste management.	☐	☐	☐	☐	☐
We provide recycling receptacles for staff and customer use.	☐	☐	☐	☐	☐
We buy products that contain recycled materials.	☐	☐	☐	☐	☐
Chemical products are stored safely in a well-ventilated area.	☐	☐	☐	☐	☐
We require vendors to take back pallets and crates or other packaging.	☐	☐	☐	☐	☐
Renewable building materials are used in facility construction.	☐	☐	☐	☐	☐
We donate leftover guest amenities, old furniture and appliances, and other forms of donations to charities and environmental conservation organizations.	☐	☐	☐	☐	☐
We consult the U. S. Green Building Council (www.usgbc.org) when constructing or remodeling in order to learn and to be certified for standards of green buildings.	☐	☐	☐	☐	☐
We compost food waste and other compostable items, e.g., dishware, napkins, etc., with an onsite composting system or we send materials to an offsite composting facility.	☐	☐	☐	☐	☐

9. Environmental Purchasing. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
We use recycled paper products with high post-consumer recycled content that are either unbleached or bleached without chlorine.	☐	☐	☐	☐	☐
We minimize the amount and size of paper used.	☐	☐	☐	☐	☐
We give preference to products that are no or low toxicity, and organic.	☐	☐	☐	☐	☐
We buy products locally when possible.	☐	☐	☐	☐	☐
We purchase reusable and durable products.	☐	☐	☐	☐	☐
We purchase fair trade products. The list of wholesalers can be found at: www.fairtradefederation.org/memwhl.html).	☐	☐	☐	☐	☐
We give preference to the selection of environmentally responsible service providers (e.g. renewable energy, pest management, alternative fuel vehicles).	☐	☐	☐	☐	☐
We are in favor of equipment that has a long life and that can be repaired.	☐	☐	☐	☐	☐
We practice social responsibility without discrimination based on race, sex, religion, or political affiliation.	☐	☐	☐	☐	☐
We employ local residents.	☐	☐	☐	☐	☐
We pay a fair wage.	☐	☐	☐	☐	☐
We provide literature that promotes local businesses.	☐	☐	☐	☐	☐
We avoid burning campfires on poor air quality days.	☐	☐	☐	☐	☐

10. Air Quality. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
Air filtration is in place/available.	☐	☐	☐	☐	☐
We use environmentally responsible cleaners (MSDS Health Hazard Rating 1 or less).	☐	☐	☐	☐	☐

Low VOC (Volatile Organic Compound) materials such as paint, adhesives, carpeting, air freshener, etc. have been used.	☐	☐	☐	☐	☐
The HVAC system is checked at least annually for mold and bacteria as well as obstructions to air flow.	☐	☐	☐	☐	☐
High moisture areas are well ventilated.	☐	☐	☐	☐	☐
All air and odor emission are controlled to meet the standard requirements.	☐	☐	☐	☐	☐
We have periodical tests to ensure healthy air quality (such as carbon monoxide and radon, lead paint and asbestos).	☐	☐	☐	☐	☐
We use the environmental High Efficiency Particulate Air (HEPA) filters.	☐	☐	☐	☐	☐
All air handler units and coils are cleaned following a regular preventive maintenance schedule (at least annually).	☐	☐	☐	☐	☐
We do not leave vehicles running when idle.	☐	☐	☐	☐	☐
We encourage public or group transportation.	☐	☐	☐	☐	☐

11. Water Conservation. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
Our water plan monitors, records, and posts rates of water use, and makes repairs or replaces equipment when rate changes indicate problems.	☐	☐	☐	☐	☐
Our operations collect rainwater/storm water to use whenever possible.	☐	☐	☐	☐	☐

We install automatic run-off water taps.	☐	☐	☐	☐	☐
We have a reclaimed water system that is used for things such as irrigation, laundry, toilets, and/or cooling towers.	☐	☐	☐	☐	☐
The large areas such as sidewalks and driveways are swept or vacuumed instead of washed down.	☐	☐	☐	☐	☐
We properly dispose of hazardous chemicals and avoid disposing them into the sink and toilet.	☐	☐	☐	☐	☐
Our preventative maintenance program includes regularly testing for and repairing leaks on toilets, sink faucets, irrigation systems, and other equipment.	☐	☐	☐	☐	☐
We install new or replace equipment with U.S. Environmental Protection Agency's WaterSenselabeled products.	☐	☐	☐	☐	☐
We install low-flow faucet aerators, pre-rinse dish sprayers if there is a commercial kitchen, and showerheads; water efficient, dual flush, or water-free composting toilets; and other water-saving fixtures/devices.	☐	☐	☐	☐	☐
Customers are provided with ideas for water conservation practices.	☐	☐	☐	☐	☐

12. Landscaping/Wildlife. Please check one response in each line below to identify your organization's efforts in this area.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
Residual pesticides or herbicides are used in landscaping.	☐	☐	☐	☐	☐
The design and construction of our facility reflects the natural surroundings and culture of the area.	☐	☐	☐	☐	☐
The native vegetation has been retained or included in landscaping.	☐	☐	☐	☐	☐
We ensure that usual noise levels from all activities at the site are not significantly more than the background noise in nearby natural areas or adjacent residences.	☐	☐	☐	☐	☐
Irrigation watering, when necessary, takes place in the early morning or at night to minimize evaporation and/or is done so using timers to avoid overwatering.	☐	☐	☐	☐	☐
Wildlife observation is done from a remote distance and avoided during sensitive times of the year such as during mating season.	☐	☐	☐	☐	☐
We use an integrated pest management system to reduce or eliminate the need for toxic insecticides and pesticides.	☐	☐	☐	☐	☐
We promote the Leave No Trace principles to customers and employees.	☐	☐	☐	☐	☐
Publications are provided to offer information on native plants and wildlife.	☐	☐	☐	☐	☐
We use interpretative signs on nature to instruct customers.	☐	☐	☐	☐	☐
In the garden areas, we switch to drought resistant native plants, and/or replace mowed landscaping with native ground cover.	☐	☐	☐	☐	☐
We compost landscaping wastes, e.g., grass clippings, woods/plants, on site or we send these materials to an offsite compositing facility.	☐	☐	☐	☐	☐

A bit about you and your organization. (Section 4 of 4).

***13. Please identify what industry sector you are PRIMARILY affiliated with.**

- ☐ Lodging
- ☐ Event/Festival
- ☐ Convention & Visitor Bureau or similar Tourism Organization
- ☐ Retail
- ☐ Government
- ☐ Other

Property Profile.

14. What type of property are you associated with?

- ☐ Resort
- ☐ Resort with campground
- ☐ Hotel/Motel/Historic inn
- ☐ Bed & Breakfast
- ☐ Campground
- ☐ Other (Specify, please)

15. How many rooms/campsites does the property have?

Rooms/Campsites

16. How many acres is your property?

- ☐ Less than 1 acre
- ☐ 1 to 5 acres
- ☐ 6 to 10 acres
- ☐ 11 to 15
- ☐ 16 to 20
- ☐ 21 to 25
- ☐ 25+

17. When is the property open?

- ☐ Year round (if checked, skip next question, please)
- ☐ Seasonally

18. We do property laundry on site.

- ☐ Yes
- ☐ No

19. There are several sustainable practices specific to lodging properties. Please check one response to indicate if and how your organization has considered the practices listed below.

	No attempt	Under consideration	Just beginning	Completed/ ongoing	N/A
Our property offers a linen reuse option to multiple guest rooms.	☐	☐	☐	☐	☐
We install water conserving fixtures such as low-flow showerheads/toilets, toilet-tank fill diverters, and sink aerators.	☐	☐	☐	☐	☐
Our housekeeping and engineering departments have an active system to detect and repair leaking toilets, faucets and showerheads.	☐	☐	☐	☐	☐
Refillable amenity dispensers are used rather than individual bottles for bathroom amenities.	☐	☐	☐	☐	☐
Whenever possible, we buy guest amenities in bulk.	☐	☐	☐	☐	☐
Bicycles are available for use or for rental.	☐	☐	☐	☐	☐
The water-using appliances and equipment, such as ice machines, washing machines, etc., are on a preventative maintenance schedule to ensure maximum efficiency.	☐	☐	☐	☐	☐

We use guest room energy management systems that allow a guest to easily turnoff all unnecessary electronics when leaving the room (e.g., single-point key card systems).	☐	☐	☐	☐	☐

Event/Festival Profile.

20. How many days is your event/festival (Choose one, please)?

21. Approximately how many people attend your event/festival?

- ☐ Fewer than 1,000 people
- ☐ 1,000 – 4 ,999 people
- ☐ 5,000 – 9 ,999 people
- ☐ 10,000 – 49 ,999 people
- ☐ 50 ,000 or more
- ☐ Unsure

22. What is your event/festival's budget?

- ☐ Less than $1,000
- ☐ $1,000 - $9,999
- ☐ $10,000 - $49,999
- ☐ $50,000 or more
- ☐ Unsure

23. In your opinion, what are the most important indicators of a 'sustainable' event or festival?

24. This question focuses on plant species that are invasive to Minnesota. Please indicate your response regarding the following options concerning invasive plant species in Minnesota.

	Strongly Disagree	Disagree	Neither	Agree	Strongly agree
Invasive plants are harmful to Minnesota's environment.	☐	☐	☐	☐	☐
Invasive plants are harmful to Minnesota's economy.	☐	☐	☐	☐	☐

Invasive plants are harmful to Minnesota's society.	☐	☐	☐	☐	☐
Talking to other people about the threats of invasive plants in Minnesota will help control invasive plants.	☐	☐	☐	☐	☐
Reporting invasive plants will help control invasive plants.	☐	☐	☐	☐	☐
Cleaning equipment will help control invasive plants.	☐	☐	☐	☐	☐
Not collecting and planting unidentified seeds will help control invasive plants.	☐	☐	☐	☐	☐
Volunteering to help maintain parks and nature trails will help control invasive plants.	☐	☐	☐	☐	☐
Planting and maintaining native plants in my yard and garden will help control invasive plants.	☐	☐	☐	☐	☐
Killing invasive plants on my property will help control invasive plants.	☐	☐	☐	☐	☐
Encouraging nurseries to avoid invasive non-native plants will help control invasive plants.	☐	☐	☐	☐	☐

25. This question focuses on aquatic species that are invasive. Please indicate your response regarding aquatic invasive species in Minnesota.

	Strongly Disagree	Disagree	Neither	Agree	Strongly agree
Aquatic invasive species are harmful to Minnesota's environment.	☐	☐	☐	☐	☐
Aquatic invasive species are harmful to Minnesota's economy.	☐	☐	☐	☐	☐
Aquatic invasive species are harmful to Minnesota's society.	☐	☐	☐	☐	☐
Talking to other people about the threats of aquative invasive species in Minnesota will help control the population from spreading.	☐	☐	☐	☐	☐
Reporting aquative invasive species to the Minnesota Department of Natural Resources will help control the population.	☐	☐	☐	☐	☐
Cleaning equipment will help control aquatic invasive	☐	☐	☐	☐	☐

species.

Not displacing aquatic invasive species will help control the population.	☐	☐	☐	☐	☐
Killing aquatic invasive species on my property will help control the invasive population.	☐	☐	☐	☐	☐

***26. How many years have you worked in the tourism industry (this drop down box will allow you to enter in number of years; if less than 1, enter 0)?**

27. How many years have you worked in this organization (this drop down box will allow you to enter in number of years; if less than 1, enter 0)?

28. You are (choose one):

29. What are the best ways to receive information on sustainable tourism?

- ☐ Listserv.
- ☐ Travel Green webpage.
- ☐ Local or community workshops.
- ☐ Online reference materials.
- ☐ Regional workshops.
- ☐ Technical assistance (onsite visits).
- ☐ Webinars.
- ☐ Professional network.
- ☐ Other, please specify

30. What, in your opinion, are the next best steps for sustainable tourism in Minnesota (please type in your ideas)?

31. If you would like to be kept informed on developments in Minnesota's sustainable tourism, please include your email below.