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Understanding 2016 Wisconsin Science Festival Audiences

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In collaboration with the Morgridge Institute for Research, researchers in the Department of Life Sciences Communication conducted an evaluation of the 2016 Wisconsin Science Festival in Madison, Wisconsin to better understand the audience makeup at the festival. The Wisconsin Science Festival began in 2011 and is organized by the Wisconsin Alumni Research Foundation and the Morgridge Institute of Research. The event took place October 20-23, 2016, with most events occurring at the Wisconsin Institutes of Discovery (WID) building on the University of Wisconsin-Madison campus. The number of science festivals has been rising since the late 1980s, with 30 events nationwide in 2013. Research on the reach and impact of science festivals, however, has lagged behind this increase. This evaluation examined the the makeup of the 2016 Wisconsin Science Festival attendees to provide the event organizers detailed information on attendees' views and opinions.

A total of five surveyors were stationed throughout the lobby of the WID Building during the 2016 Wisconsin Science Festival on Friday, October 21st and Saturday, October 22nd. To favor representativeness of the sample, surveyors were instructed to approach every fifth person or group to pass by and invite them to take a brief survey on an iPad. Two surveyors collected surveys on Friday October 21st from 6PM-9PM for a Science Arcade event designed to attract a diverse audience by showcasing vintage arcade games, virtual reality, board games, and more. Three surveyors collected surveys on Saturday October 22nd from 10AM-2PM for the Discovery Expo which featured hands-on, interactive exhibits.

Seventy-four participants took the survey in total, 27 on Friday, October 21st and 47 on Saturday, October 22nd. All participants were over the age of 18. The median age was 38 and over half of the participants (54.8%) were female. Over half of those surveyed (58.1%) attended the festival with children. Politically, the sample trended liberal on social and economic issues (67.7% leaning liberal). The vast majority of the participants (89.7%) had a college degree.

The 2016 Wisconsin Science Festival audience differs from Wisconsin residents
To better understand the 2016 Wisconsin Science Festival audience, comparisons were made between the festival survey respondents and a 2015 representative survey of Wisconsin residents. The 2016 Wisconsin Science Festival participants were generally younger, more liberal, more highly educated, more trusting of university scientists and regulatory agencies, and more deferent towards science than were other Wisconsin residents[1]. In addition, they were less trusting of religious organizations and paid more attention to government and politics than other Wisconsin residents did, on average[2]. Of note, 2016 science festival attendees did not differ significantly from Wisconsin residents in their trust in corporations[3].

Attendees at the 2016 Wisconsin Science Festival were similar to 2015 Wisconsin Science Festival audiences.
Comparing 2016 festival attendees to those who were surveyed at the 2015 science festival, 2016 respondents were mostly similar but had more trust in corporations[4].

(For a visual representation of the 2016 Wisconsin Science Festival, 2015 Wisconsin Science Festival, and 2015 Wisconsin resident datasets see Appendix A.)

2016 Wisconsin Science Festival audiences were younger on Friday than on Saturday.
As mentioned above, Friday night of the 2016 Wisconsin Science Festival was a science arcade

event designed to bring a more diverse crowd than those who have attended the Wisconsin Science Festival in the past or might attend the science expo events on Saturday. We found limited differences between those that were in attendance on Friday night and those on Saturday. The only significant difference was in age, with Friday night attendees trending younger than Saturday attendees (median age of 32 on Friday as opposed to 42 on Saturday)[5].

Attendees were motivated to attend the 2016 Wisconsin Science Festival because of their own interest or because they thought it would be beneficial for their children.
At the 2015 Wisconsin Science Festival, researchers in the Department of Life Sciences Communication conducted focus groups to determine the motivations and potential barriers for attending. Additional survey questions incorporating the findings from the focus groups were on the 2016 survey to better understand attendee motivations (Figure 1). More than half the 2016 attendees indicated that they came to the festival because they were interested in science or the topics being discussed or for the benefit of their children. Those who attended for the benefit of their children wanted their children to be interested in science or thought that out-of-the-classroom activities were important. Of note, 30% of participants reported coming with friends or family as a motivation for attending.

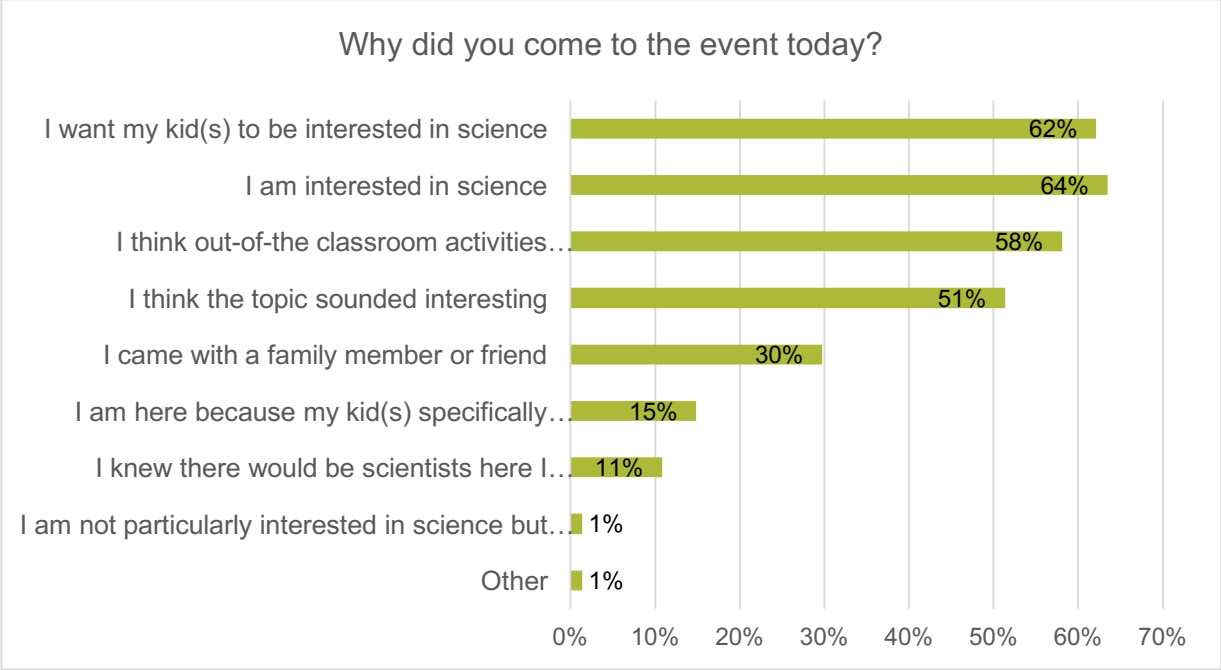

Figure 1. Motivations for 2016 Science Festival attendance (N=74).

2016 Wisconsin Science Festival attendees felt that a lack of time or ability was the largest barrier for others.
Again, based on the 2015 focus group results, 2016 science festival participants were also asked what potential barriers others in the community might have faced that kept them from attending the event (Figure 2). More than half (56.8%) of the participants noted that lack of time or ability was the most likely barrier. Fewer respondents (40.5%) thought that lack of parking or

difficulty finding transport could be a barrier, and one third (32.4%) of participants thought that limited event promotion could explain why people did not attend.

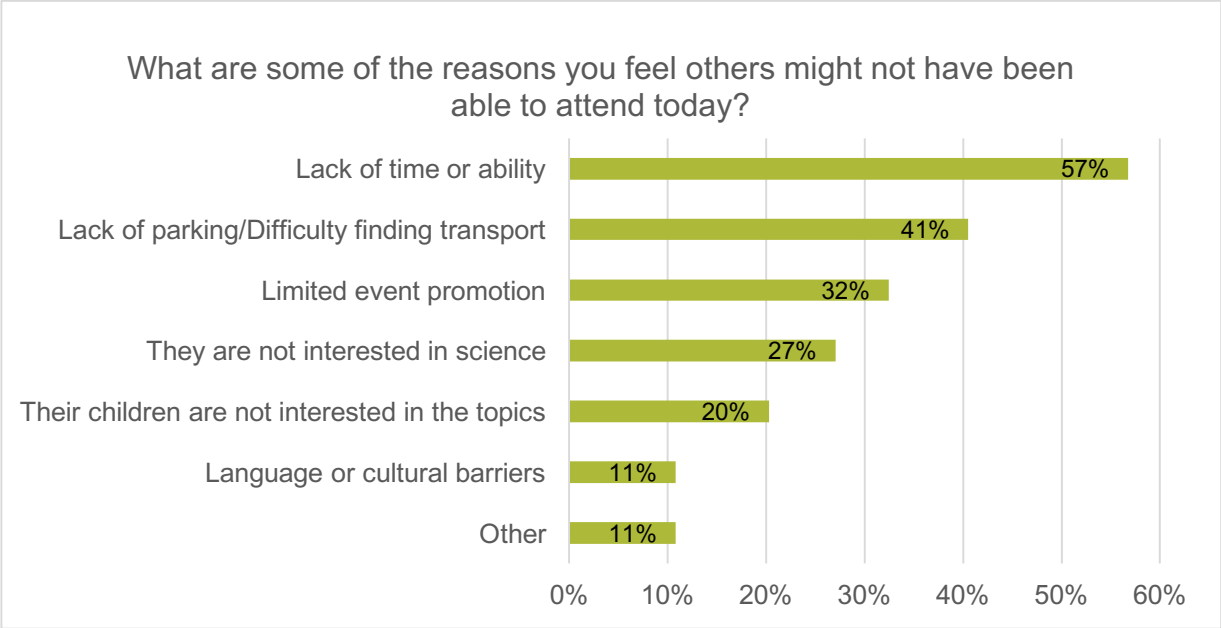

Figure 2. Potential barriers to attendance listed by the 2016 Science Festival attendees (N=74).

Appendix A:

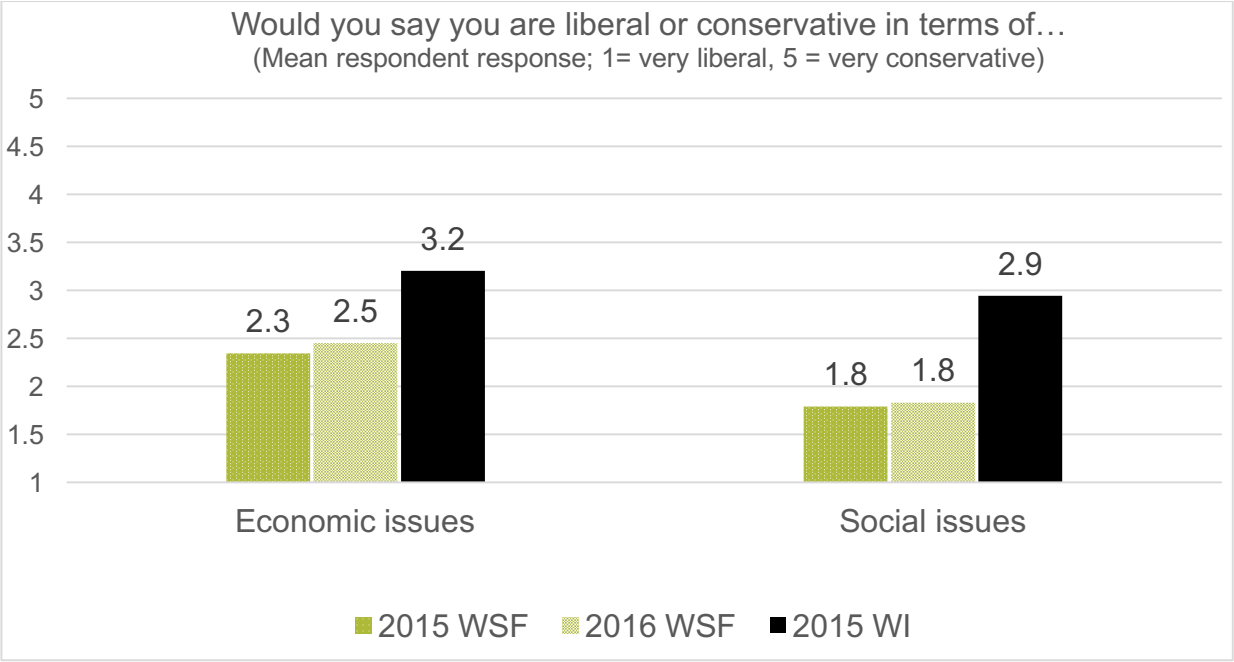

Figure 3. Political ideology for 2015 Wisconsin Science Festival attendees (N =173), 2016 Wisconsin Science Festival attendees (N=65) and Wisconsin residents (N=926).

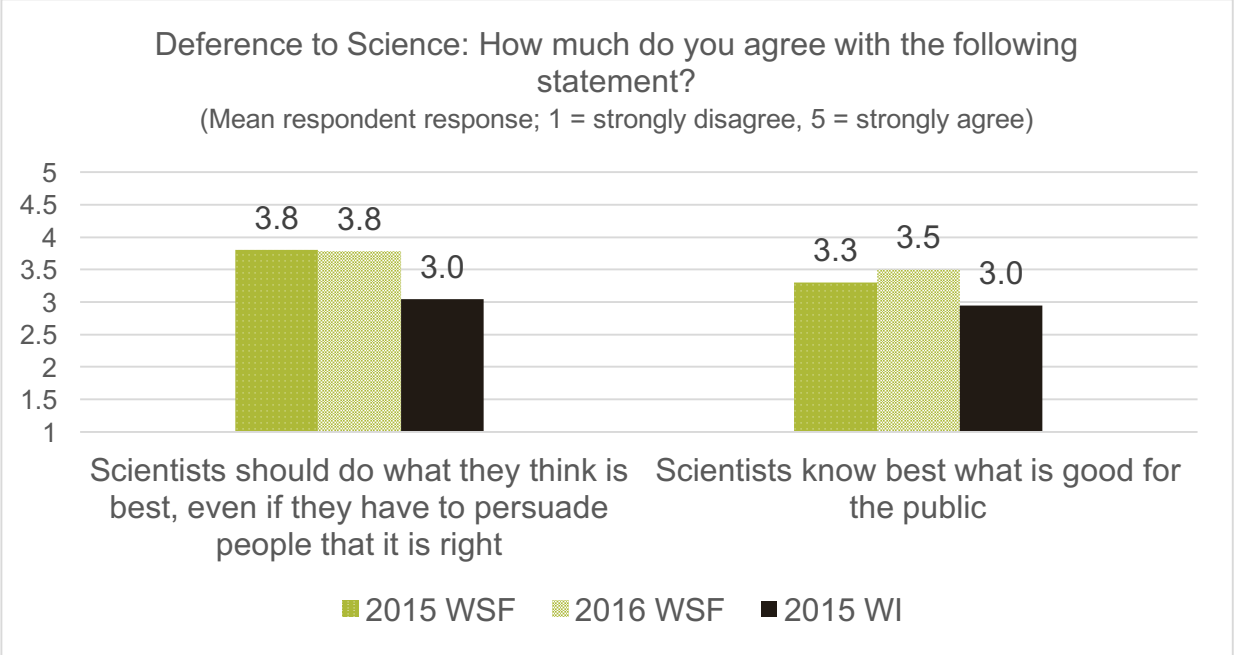

Figure 4. Science deference for 2015 Wisconsin Science Festival attendees (N =182), 2016 Wisconsin Science Festival attendees (N=70), and Wisconsin residents (N=921-931).

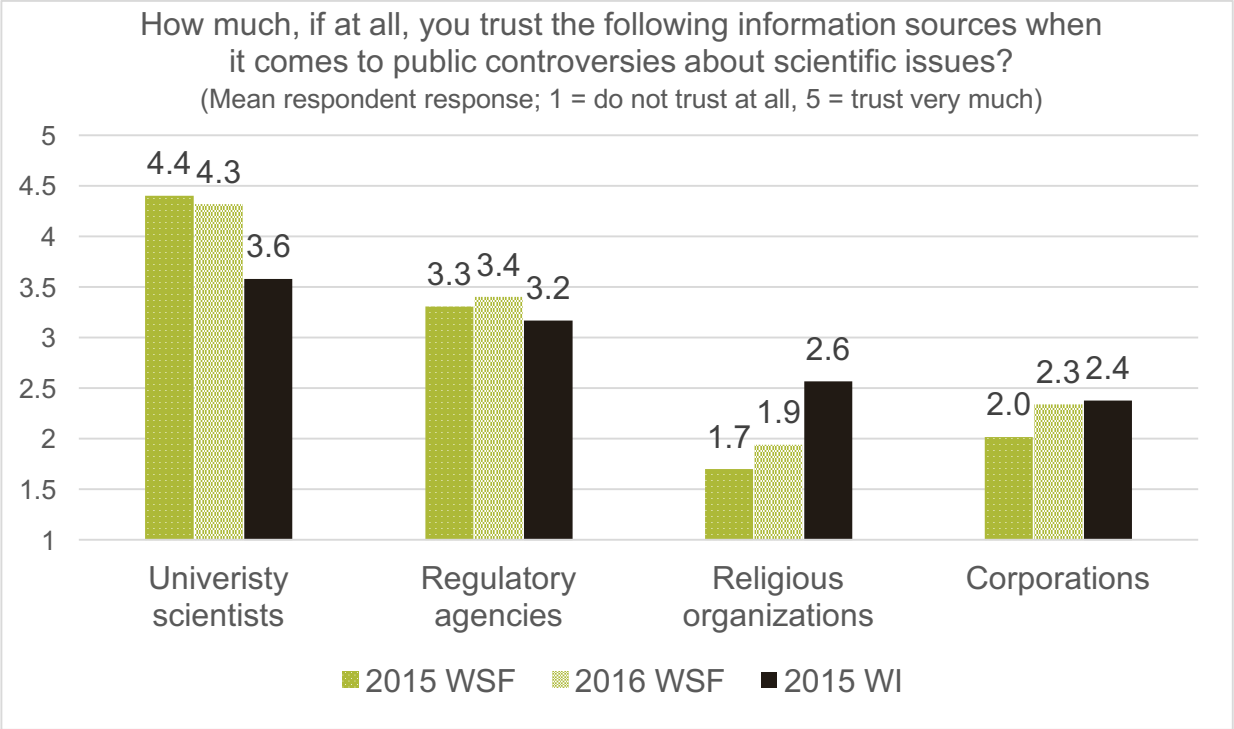

Figure 5. Trust in various sources for scientific information for 2015 Wisconsin Science Festival attendees (N =183), 2016 Wisconsin Science Festival attendees (N=68-70), and Wisconsin residents (N=913-933).

[1] Age: t=10.9, p<0.01; 2016 science festival attendees (N=53; M=38.9), Wisconsin residents (N=921; M=56.4)
Political ideology for social issues: t=7.6, p<0.01; 2016 science festival attendees (N=65, M=1.8), Wisconsin residents (N=926; M=2.9)
Political ideology for economic issues: t=5.0, p<0.01; 2016 science festival attendees (N=65; M=2.5), Wisconsin residents (N=926; M=3.2)
Education: t=11.4, p<0.01; comparing college degree across 2016 science festival attendees (N=58; M= 1.1) with Wisconsin residents (N=917; M=1.6)
Trust in university scientists: t=-7.1, p<0.01; 2016 science festival attendees (N=68; M=4.3), Wisconsin residents (N=924; M=3.6)
Scientists know best: t=-4.6, p<0.01; 2016 science festival attendees (N=70; M=3.5), Wisconsin residents (N=931; M=3.0)
Scientists should do what they think is best: t=-6.2, p<0.01; 2016 science festival attendees (N=70; M=3.8), Wisconsin residents (N=921, M=3.0)
[2] Trust in religious organizations: t=4.6, p<0.01; 2016 science festival attendees (N=70; M=1.9); Wisconsin residents (N=914; M=2.6)
Attention to national government and politics: t=-4.4, p<0.01; 2016 science festival attendees (N=70; M=3.8), Wisconsin residents (N=940; M=3.2)
[3] Trust in regulatory agencies: t=-2.1, p=0.04; 2016 science festival attendees (N= 70; M=3.4), Wisconsin residents (N= 933; M=3.2)
Trust in corporations: t=.33, p=.74; 2016 science festival attendees (N= 70; M=2.3), Wisconsin residents (N= 913; M=2.4)
[4] Trust in corporations: t=-2.5, p=0.01; 2015 science festival attendees (N= 183; M=2.0), 2016 science festival attendees (N= 70; M=2.3)
[5] Age: t=-2.6, p<0.01; Friday science festival attendees (N=23; M=34.7), Saturday science festival attendees (N=30; M=42.2)