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## An Analysis of Attendance at an NCAA Division I University: The Relationship of Fan Identification, Sport Fandom, and Demographic Variables

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AN ANALYSIS OF ATTENDANCE

**An Analysis of Attendance at an NCAA Division I University: The Relationship of Fan  
Identification, Sport Fandom, and Demographic Variables**

Ashley Richardson

The University of Akron

## **Abstract**

Research was conducted at The University of Akron to investigate the relationship between attendance at sporting events and fan identification, sport fandom, and other demographics variables. 195 Akron students took a survey consisting of the Sport Spectator Identification Scale, the Sport Fandom Questionnaire, and a demographic questionnaire. The results revealed that fan identification and sport fandom were both positively correlated to student attendance at sporting events. Additional factors significantly correlated with attendance were if the participant had friends that played on a varsity sports team, or if the participant themselves played on a varsity sports team. Demographic variables such as age, sex, ethnicity, and year in school were not significantly correlated with attendance.

*Keywords:* Fan Identification, Sport Fandom, Attendance

## **An Analysis of Attendance at an NCAA Division I University: The Relationship of Fan Identification, Sport Fandom, and Demographic Variables**

Throughout the years the motivation of fans to attend athletic events has been a question that many professionals in the sports industry have pondered (Wann, 2002). As a result, recently there has been increased interest in exploring fan motivation to attend games. Studies have been conducted to examine fan identification (Rosselli et al., 2018). Sport scientists have investigated the idea of how fans identify with their teams and what sort of significance that has on attendance at sporting events.

One way in which researchers have attempted to determine the impact of fan identification is to analyze how this construct is related to attendance at sporting events. For instance, Kim et al. (2019) compared sport attendance to three categories of possible predictors: fan-focused, relationship-focused, and product-focused. Fan-focused included aesthetic, achievement, drama, escape, knowledge, and social aspects. Relationship-focused reasons for attendance included identification, trust, and commitment aspects. Product-focused included accessibility, cost, facility, opponent, physical attractiveness, promotion, skill, star player, and winning. The authors concluded that relationship-focused factors had the largest effect on attendance (Kim et al., 2019). Thus, how a fan identifies with their team is a relationship-focused factor, and therefore is hypothesized to be a significant predictor of attendance.

Similarly, Rosselli et al. (2018) studied factors that affect attendance at a small National Collegiate Athletic Association (NCAA) Division III college. Non-athlete students completed the Sport Spectator Identification Scale and the Sport Fandom. The results revealed that team familiarity was the most important influence on attendance (Rosselli et al., 2018). The authors predicted that this was common in smaller colleges and high schools because of a greater chance

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that the athletes know many of their peers. Therefore, it is important for university athletic administrators to know this in order to encourage student-athletes to get to know more peers to build more team familiarity at their university. This study demonstrated that fans are more invested and identify more with teams in which they are familiar with someone on the team. Because of the person they know on the team, the fan has a higher fan identification (Rosselli et al., 2018).

Another relationship-focused variable that has been considered an important component to understand what makes fans loyal to their favorite team and what motivates them to attend sporting events is fan identification (Wann & Branscombe, 1993). The theory of fan identification hypothesizes that not all fans are the same. Some sports organizations view fans as similar, and that their motivation behind the support they have for their favorite team and the level of support they have for their favorite team are all the same. The theory of fan identification suggests that this is not true. Not all fans are the same. Some are more invested into their teams than others. The more dedicated fans, the ones with higher fan identification, are willing to be more invested and more involved with the team (Wann & Branscombe, 1993).

One of the first studies to examine fan identification was Wann and Branscombe 1993. The authors developed the Sports Spectator Identification Scale (SSIS) to analyze how fans identify with their school's basketball team. It was a seven-question survey on an eight-point scale. Lower numbers on the scale represented less investment into the Kansas basketball team. Higher numbers on the scale represented more investment into the Kansas basketball team. The survey asked the spectator questions, such as to rate themselves on how important their school's basketball team is to them. The results of this study showed that spectator identification has a large impact on the behaviors of fans. The study was done twice, the second time with an

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entirely new group of students, to check if the results were valid, and they were. After both studies were completed and compared, it was concluded that this was a reliable and valid survey to measure fan identification (Wann & Branscombe, 1993).

Wann and Branscombe investigated fan identification because “a valid and reliable measure of team identification has not been available for use in research” (Wann & Branscombe, 1993). They predicted that fan identification had a large impact on attendance at games. The more a fan identified with their team, the more likely they were to attend the games of that team. Not only does it affect attendance, but a fan who identifies more with their team will also differ in time and money invested into a team than those who identify less with their team. Wann and Branscombe also investigated the cognitive factors that could be affected by fan identification. They predicted through their research how fans would react at games. People with higher identification would have a higher physiological arousal at games than those of low identification. They also believed that there is a correlation between a fan’s identification and feelings of self-worth or life-satisfaction. If their favorite team was having a great season, and a spectator was considered to have high identification with that team, then the fan is assumed to have better feelings of self-worth and better life-satisfaction. If the team is having a bad season, then that same fan will have lower life-satisfaction. Fans with lower identification are not as easily affected by the outcome of the team’s season.

Looking further into fan identification, Wann continued research on this theory. In 2002, Wann wrote an article called “Preliminary Validation of a Measure for Assessing Identification as a Sports Fan: The Sport Fandom Questionnaire”. He created a new survey called the Sport Fandom Questionnaire (SFQ).

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The SFQ contains five statements, and the participant is asked to rank their response on an eight-point scale. Lower numbers represent that the fan disagrees with the given statement. Higher numbers represent that the fan agrees with the given statement. To make sure this questionnaire was valid, Wann performed a series of three studies with this survey. Each survey was given to a group of college students. Study 1 was done through pencil and paper, study 2 was done over the phone, and study three had a group of students take the same test twice but a few weeks apart to see how consistent the results were. After all of the studies were finished Wann compared the results, and concluded that the Sport Fandom Questionnaire was a valid test (Wann, 2002).

One of the results that came out of this study was the difference in gender when it comes to sport fandom. The results showed that more males than females perceive themselves as a sports fan. But, when comparing that to previous studies regarding fan identification, there was not a significant difference. Males and females have fan identification at about the same levels. This result shows the differences between sport fandom and team identification. In this study, Fan Identification with The University of Akron, gender roles will be compared in the results to see how it relates to this outcome.

In addition to these variables that are predicted to relate to attendance at sporting events, demographic variables and other factors will be analyzed in the present study. These demographic variables will include age, gender, and ethnicity. Other factors include if they live on campus, their year in school, and their major. Other variables that are predicted to be related to attendance at the University of Akron Athletic contests include their relation to sport, including if they play on a varsity sport at The University of Akron, if they have friends that play varsity sports, and if they play club or intramural sports. Another question asked in this study to

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help find correlations behind these factors and attendance will be how many (estimated) Akron varsity sports events they have attended in the last year.

The present study analyzed the relationship of fan identification, sport fandom, and other variables and demographics on the likelihood of these factors having an association with attendance at The University of Akron sporting events. This study is important because it further investigates previous studies but with a different population at a Division 1 NCAA college. It is also slightly different than other studies because it includes other variables, such as living on campus or participation of the spectator to be on a varsity team themselves. This study is needed because it is so important for athletic departments to understand what possible factors contribute to fans attending games. Thus, the purpose of this study was to find out what variables best predict attendance at The University of Akron athletic events. It was predicted that the most significant determinant of attendance would be if the spectator has friends that play on a varsity team at The University of Akron, similar to the outcome of the study done by Rosselli et al. in 2018, at the NCAA Division III level.

### **Method**

#### **Participants**

Students at The University of Akron were asked to participate in the study. The participants in this study included 195 students (120 female and 75 male). The ages of the participants ranged from 18 to over 25. Overall, there were 6 freshman, 34 sophomores, 63 juniors, 90 seniors, and 2 graduate students. The majority of students were Caucasian/White (n=175), while 9 were African American, 5 were Asian/Pacific Islander, 4 Hispanic/Latino, and 2 were biracial. There was a wide range of majors (see Table 3). All participants were informed



in advance about the study. Informed consent was assumed by the participants completion of the survey.

### **Instrumentation**

*The Sport Spectator Identification Scale (SSIS).* The SSIS is a seven-question survey that is measured on an eight-point scale (see Appendix A). The student is asked to rank each answer on a scale from 1 to 8. The questions asks how important is it that the Zips win, how strongly they see themselves as a fan, how strongly their friends see them as a fan, how closely they follow the Zips, how important is being a fan to them, how much they dislike the Zips greatest rivals, and how often they display the Zips name or insignia. The scale goes from 1 being the least to 8 being the most. Wann and Branscombe conducted two studies on SSIS to establish its reliability and validity. The first study revealed that the scores on the scale stayed consistent over the period of one year, so the test was internally consistent. The second study revealed that the test related to other relevant variables as expected (Wann & Branscombe, 1993).

*The Sport Fandom Questionnaire (SFQ).* The SFQ is a five-question survey that is measured on an eight-point scale (see Appendix B). Each of the five questions are a statement about being a fan of the Akron Zips, and the student must give an answer for how true that statement is for them. The student can choose any number from 1 (disagree) to 8 (agree). The statements say if they consider themselves to be an Akron Zips fan, if their friends see them as an Akron Zips fan, if they believe that following the Akron Zips is the most enjoyable form of entertainment, if their life would be less enjoyable if they were not able to follow the Akron Zips, and if being an Akron Zips fan is very important to them. Wann examined the reliability and validity of the SFQ. Wann found that the SFQ was internally consistent and contained

adequate concurrent validity, and that the scale possessed strong predictive validity (Wann, 2002).

*Demographic Questionnaire.* The Demographic Questionnaire included ten questions that asked about several other details about the students (see Appendix C). This questionnaire asked for the student's age, sex, ethnicity, year or school, major, if they live on campus, if they are a member of a varsity sports team, if they have friends on a varsity sports team, if they play club or intramural sports, and how many Zips sporting events they attended in the last year.

### **Procedure**

After obtaining IRB approval, students at The University of Akron were emailed a request to participate in the current study. Students were then directed to an online survey packet to complete through Qualtrics. The email asking students to participate in the present survey was emailed to a variety of students in different classes with a range of grades and majors. The survey packet consisted of the informed consent letter (see Appendix D), the SSIS, the SFQ, and the demographics questionnaire. All students were informed about the study and what it was looking to accomplish. Participants were told that answering the questions was voluntary.

### **Results**

Descriptive statistics were computed and the mean and standard deviation were calculated. Table 1 shows the descriptive statistics for fan identification, sport fandom, and attendance at games (found by using results from question number 10 in the demographic survey). The mean for sport fandom was at 18.03, with a standard deviation of 9.35. The mean for fan identification was 28.86, with a standard deviation of 13.37. The mean for attendance was 4.16, with a standard deviation of 7.11.

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Table 2 shows how each of the demographic variables were correlated with attendance. Age, sex, ethnicity, and year of school were calculated. The correlation between age and attendance was  $r=0.18$ . Between sex and attendance, it was  $r=0.05$ . Ethnicity's correlation to attendance was  $r=0.10$ . Attendance's correlation with year of school was  $r=0.07$ . Table 3 shows the frequencies of the participants' majors.

Table 4 shows the correlation matrix. The factors included in the correlation matrix were sport fandom, fan identification, attendance, and four of the questions in the demographics survey. Those questions were if the participant lived on campus (D6), if they played a varsity sport (D7), if they had a friend on a varsity sports team (D8), and if they played in club or intramural sports (D9). Correlations were found between each of these factors.

Pearson product moment correlations were computed to determine the relationship between attendance, fan identification, sport fandom and various demographic variable (see Table 4). The relationship between attendance and fan identification was significant ( $r=0.595$ ,  $p<.01$ ). Also, attendance was positively correlated with sport fandom ( $r=0.557$ ,  $p<.01$ ).

**Table 1**

### Descriptive Statistics

	Mean	Std. Deviation	N
Sport Fandom	18.0308	9.34996	195
Fan Identification	28.8601	13.36647	193
Attendance	4.16	7.108	195

**Table 2**  
**Correlations with Demographics**

<b>Demographic Category</b>	<b>Correlation with number of games attended</b>
Age	0.1787
Sex	0.0507
Ethnicity	0.1000
Year of school	0.0668

**Table 3**  
**Major Frequencies**

<b>Major</b>	<b>Frequency</b>	<b>Percentage</b>
Dietetics	5	2.6
Nursing	65	33.3
Exercise Science	27	13.8
Sport Management	7	3.6
Business	16	8.2
Engineering	43	22.1
Art	1	0.5
CIS	6	3.1
Biology	2	1.0
Mathematics	3	1.5
Accounting	9	4.6
Education	6	3.1
Political Science	1	0.5
NA	4	2.1
<b>Total</b>	195	100

**Table 4**  
**Pearson Product Moment Correlations**

		Sport Fandom	Fan Identification	Attendan ce	D6	D7	D8	D9
Sport Fandom	Pearson Correlation	1	.894**	.557**	-.208**	-.370**	-.394**	-.167*
	Sig. (2-tailed)		.000	.000	.003	.000	.000	.020
	N		193	195	195	195	195	195
Fan Identification	Pearson Correlation		1	.595**	-.223**	-.403**	-.457**	-.159*
	Sig. (2-tailed)			.000	.002	.000	.000	.027
	N			193	193	193	193	193
Attendance	Pearson Correlation			1	-.190**	-.378**	-.372**	-.149*
	Sig. (2-tailed)				.008	.000	.000	.038
	N				195	195	195	195
D6	Pearson Correlation				1	.406**	.090	.008
	Sig. (2-tailed)					.000	.211	.906
	N					195	195	195
D7	Pearson Correlation					1	.413**	-.125
	Sig. (2-tailed)						.000	.082
	N						195	195
D8	Pearson Correlation						1	.122
	Sig. (2-tailed)							.088
	N							195
D9	Pearson Correlation							1
	Sig. (2-tailed)							
	N							

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## Discussion

The purpose of the current study was to analyze the relationship of attendance at sporting events with fan identification, sport fandom, and demographics. Students at The University of Akron were asked to complete a survey packet containing the Sport Spectator Identification Scale measuring the construct of fan identification, the Sport Fandom Questionnaire measuring the construct of sport fandom, and a demographics questionnaire. The results from these surveys were used to find correlations between a number of factors with attendance.

The demographic variable with the biggest correlation to number of games attended was if the participant had a friend that played on a varsity sport. This is consistent with the previous research conducted by Rosselli et al., 2018. In particular, where they found that team familiarity was the largest contributing factor to attending games. Thus, not only is team familiarity important for small universities, it is also important for large universities. The second biggest factor that follows very closely is if the participant is a member of a varsity sports team. This shows that athletes go to many other sporting events. The lowest correlation related to number of games attended was sex. Sex was a large difference Wann discovered between the SSIS and the SFQ. He suggested that more males than females perceive themselves as fans, but there was not a significant difference between males and females in regards to fan identification. The results of this study show that sex does not have a significant correlation to attendance at games.

In the present study, the correlations of fan identification and sport fandom were moderately positive, showing that the higher the student's fan identification and sport fandom, the more likely they will be to attend a sporting event. Also, according to Wann's theories, these

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students will be more invested into the Zips and be willing to spend more time and money at games, and they will have higher physiological arousal at games (Wann & Branscombe, 1993).

There could be some possible limitations of the present study. For one, the students only provided an estimated guess as to how many games they have attended in the last year. It could be more beneficial for a study to look at exact numbers of how many games participants attended. Another limitation is that this study only used a small percentage of the students at this university. The University of Akron has nearly 20,000 students, and this survey only looks at the responses of 195 of them (University of Akron, 2020).

University athletic administrators can use the information gathered from this study. Team familiarity has one of the largest effects on attendance. Administrators can encourage student athletes to create bonds with other students in class to create more team familiarity which could lead to more fans in attendance. Also, this study showed that athletes tend to attend other sporting events. Administrators can encourage teams supporting other teams at their school to increase attendance.

Future research could investigate similar factors but at a different university. Results could vary between sizes of colleges. Another way to further investigate this idea is to look at individual sports. There could be more fan identification at a college for certain sports more than others, so future research could investigate the difference between fan identification and sport fandom between sports at the same school.

## **References**

- Kim, Y., Magnusen, M., Kim, M., & Lee, H. (2019). Meta-Analytic review of sport consumption: Factors affecting attendance to sporting events. *Sport Marketing Quarterly*, 28, 117-134.
- Rosselli, A., Culpepper, D., Roberts, S., Killion, L., & Bolton, C. (2018). Determinants of fan attendance to collegiate sporting events: Practical applications for small colleges. *TAHPERD Journal*, Spring Issue, 8-11.
- University of Akron (2020). Quick facts. Retrieved from <https://www.uakron.edu/ir/quick-facts/>
- Wann, D. (2002). Preliminary validation of a measure for assessing identification as a sports fan: The Sport Fandom Questionnaire. *International Journal of Sport Management*, 3, 103-115.
- Wann, D., & Branscombe, N. (1993). Sports fans: Measuring degree of identification with their team. *International Journal Sport Psychology*, 24, 1-17.



**APPENDIX A**

**SPORT SPECTATOR IDENTIFICATION SCALE**

Answer each of the following questions by circling the most accurate number for each item.

1. How important is it to you that the Akron Zips win?

Not Important 1      2      3      4      5      6      7      8      Very Important

2. How strongly do you see yourself as a fan of the Akron Zips?

Not at all a fan      1      2      3      4      5      6      7      8      Very much a fan

3. How strongly do your friends see you as fan of the Akron Zips?

Not at all a fan      1      2      3      4      5      6      7      8      Very much a fan

4. During the season, how closely do you follow the Akron Zips via ANY of the following: in person or on television, on the radio, or televised news or a newspaper?

Never      1      2      3      4      5      6      7      8      Almost every day

5. How important is being a fan of the Akron Zips to you?

Not Important 1      2      3      4      5      6      7      8      Very important

6. How much do you dislike the greatest rivals of the Akron Zips?

Do not dislike      1      2      3      4      5      6      7      8      Dislike very much

7. How often do you display the Akron Zips name or insignia at your place of work, where you live, or on your clothing?

Never      1      2      3      4      5      6      7      8      Always

**APPENDIX B**

**SPORT FANDOM QUESTIONNAIRE**

Answer each of the following questions by circling the most accurate number for each item.

1. I consider myself to be an Akron Zips fan.

Disagree    1    2    3    4    5    6    7    8    Agree

2. My friends see me as an Akron Zips fan.

Disagree    1    2    3    4    5    6    7    8    Agree

3. I believe that following the Akron Zips is the most enjoyable form of entertainment.

Disagree    1    2    3    4    5    6    7    8    Agree

4. My life would be less enjoyable if I were not able to follow the Akron Zips.

Disagree    1    2    3    4    5    6    7    8    Agree

5. Being an Akron Zips fan is very important to me.

Disagree    1    2    3    4    5    6    7    8    Agree

**APPENDIX C**

DEMOGRAPHIC QUESTIONNAIRE

1. What is your age?

<18       18-19       20-21       22-23       24-25       >25

2. What is your sex?  Male       Female       Intersex

3. What is your ethnicity?

African American       Caucasian/white       Asian/Pacific Islander  
 Hispanic/Latino       Other (please specify) \_\_\_\_\_

4. What year of school are you in?

High school       Freshman       Sophomore  
 Junior       Senior       Graduate School

5. What is your major? \_\_\_\_\_

6. Do you live on campus?  Yes       No

7. Are you a member of a varsity sports team at The University of Akron?  Yes       No

8. Do you have any friends that play a varsity sport at The University of Akron?  Yes       No

9. Do you play a club or intramural sport at The University of Akron?  Yes       No

10. How many Akron Zips sporting events have you attended in the last year (estimate)? \_\_\_\_\_

**APPENDIX D**

Dear Participant,

I am currently an undergraduate degree student from The University of Akron School of Sport Science and Wellness Education investigating fan identification within The University of Akron's athletic program. I am attempting to determine the relationship between attendance at Akron Zips games with fan identification, sport fandom, and demographics. These surveys are available to University of Akron students and should only take a few minutes to complete.

Your decision to participate in these surveys is voluntary. Also, although I would appreciate the completion of each survey, you do not have to answer each question if you feel that you don't have an answer to each question. By beginning the survey, you consent to participate in this research. After you have begun the survey, you may stop at any time you feel that you do not wish to continue. There are no special benefits and there are no risks involved with participating in these surveys.

The surveys will be administered online using Qualtrics software. Upon completion, all answers to the survey questions will be collected and kept confidential from that point forward. Please know that your responses will remain strictly confidential. Your name will not be used at any point in the write up of the results of the research.

If you have any questions about this project, feel free to reach out to me, Ashley Richardson, at [anr83@zips.uakron.edu](mailto:anr83@zips.uakron.edu) or my advisor, Alan Kornspan, at [alan3@uakron.edu](mailto:alan3@uakron.edu).

This study has been approved by the University of Akron's Institutional Review Board (IRB) for the Protection of Human Subjects. If you have questions about your rights as a research subject, you may contact the University of Akron's IRB at 330-972-7666.

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Thank you very much for your time and input to this study.

Sincerely, Ashley Richardson