



3/29/2013

Understanding Factors Contributing to the Retention of Canadian Sport Officials

Susan L. Forbes, PhD
Adjunct Professor
School of Kinesiology, Lakehead University

Lori A. Livingston, PhD
Full Professor & Dean
Faculty of Health and Behavioural Sciences, Lakehead
University

Thunder Bay, ON, Canada

Table of Contents

Acknowledgements	3
Introduction	4
Purpose and Hypotheses	5
Research Question and Subsidiary Questions	6
Methodology	6
Ethical Approval	6
Participant Sample and Recruitment	6
Two-Phase Approach to Data Collection	7
Phase 1	7
Demographic Questionnaire	7
The Sport Motivation Scale (SMS)	7
The 8-Item Survey of Perceived Organizational Support (SPOS)	7
The CD-RISC2	8
Open-Ended Qualitative Questions	8
Phase 2	8
Data Reduction and Analysis	8
Results	10
Description of the Study Sample	10
The Sport Motivation Scale (SMS)	10
The 8-Item Perceived Organizational Support Scale (SPOS)	12
Connor Davidson Resilience Scale (CD-RISC2)	13
Discussion	15
Summary of Key Observations	22
Next Steps	24
References	25
Appendix A Stefani's (1999) Taxonomy of Sport Rating Systems	28
Appendix B Description of the Sample	30

Acknowledgements

There are many people who contributed in multiple ways to this study. We want to begin by thanking André Lachance, Baseball Canada, for providing administrative, financial and motivational support for this study. Denise Pittuck and Sports Officials Canada were also instrumental in assisting with communications and recruitment, and the distribution of the survey.

We would also like to offer our thanks to the following members of the Long Term Officiating Development (LTOD) Working Group who provided their expertise and insight in the development of various aspects of this study.

André-Marc Allain
Corrie Davis
Tiger Liu
David Patterson

Nancy Brawley
Paul Deshaies
Frances Losier
Ross Ste-Croix

Josée Daudelin
Louise Leblanc
Kelsey McIntosh
Hector Vergara

And to our Research Assistants at Lakehead University, Mr. Chris Torma and Mr. Rinku Davé, we express our appreciation for their assistance in completing literature searches and other tasks in support of this project.

Finally we would like to thank all those individuals who took the time to participate in this study. Without them, this study would not have been possible.

Introduction and Rationale

Sports officials represent a critical aspect of the sporting infrastructure (Kellett & Warner, 2011; Philippe et al., 2009), yet those responsible for officiating athletic contests are leaving sport at an alarming rate. The Canadian Hockey Association, for example, loses approximately one-third of its referees and linesmen on an annual basis (Livingston & Forbes, 2007). There is evidence in this sport, moreover, that attrition rates are highest amongst first and second year officials, with an estimated annual loss of 45-50% (H. Bolton, personal communication, September 15, 2001). However, the problem of officiating attrition is not unique to ice hockey or to Canada; rather it is a significant global issue for many sports (Kellett & Shilbury, 2007; Kellett & Warner, 2011; Zezynski, 2002) that has yet to receive adequate attention from the sports science research community.

Investigations of sports officials began in earnest during the mid-to-late 1980s with an almost singular focus on the psychology of officiating (i.e., stress, burnout, coping behaviours) amongst adult-aged elite officials. A systematic review of the peer-reviewed sports officiating literature over time, moreover, reveals that (a) sports officials have been grossly understudied relative to their coaching and playing counterparts, and (b) researchers have maintained a consistent yet narrow and constrained topical focus over time. These trends continue today and are evidenced by a recent search of the SportDiscus database which revealed that over a twelve month period (i.e., March, 2011 to February, 2012), a rather meager total of 30 peer-reviewed investigations of sport officials¹ were published. The majority of these studies were focused on male elite or expert officials (73%), studied officials in mainstream invasion sports (80%) and in particular soccer (53%), conducted in continental Europe and Great Britain (63%), and focused on topics related to exercise psychology or exercise physiology and training (77%). Given the high rates of attrition experienced in the amateur officiating ranks, the relative dearth of information on the lived experience of entry-level amateur sport officials and the factors that contribute to their attrition from or retention within the officiating ranks must be viewed as problematic.

Fortunately some interesting insights have more recently begun to emerge on the topic of officiating recruitment, retention, and attrition. For example, in a recent study from Germany on the sport of basketball, it was concluded that a successful youth playing career significantly enhanced the likelihood of an individual becoming a basketball referee (Schorer et al., 2011). Love and enjoyment for a sport and a wish to continue participating often motivates individuals to move on to participate as officials (Auger et al., 2010; Betts et al., 2007). However, as the statistics illustrate, once an individual enters into the

¹ To be included, the population being studied in the investigation must have consisted of sports officials (e.g., umpires, referees, linesmen, judges).

ranks the challenge becomes one of retaining them. The media and lay literature would lead us to believe that the real or perceived threat of verbal and physical abuse is the leading cause of attrition (e.g., Cribb, 2009; Proudfoot, 2009), yet investigators (Dorsch & Paskevich, 2007; Kellett & Shilbury, 2007) have begun to challenge this notion, citing that officials, once past the initial stages of entry into officiating, are psychologically resilient and generally accept that abuse is to be expected. Alternately evidence from other investigations (Betts, Forbes, & Livingston, 2007; Kellett & Warner, 2011; Livingston & Forbes, 2007) suggests that factors such as the presence or absence of organizational support (e.g., remuneration rates versus costs, mentorship, equity in opportunity), stage of career, or being able to find a sense of community will weigh on an individual's decision to continue or discontinue their participation as a sports official. Research has also highlighted and identified as problematic the significantly greater time and cost demands incurred by rural and regional officials in comparison to their urban counterparts (Cuskelly, Hoye, & Evans, 2004; Sask Sport, 2010).

Clearly there is much more to be understood about the lived experiences of sports officials in general, and more specifically, Canadian amateur sports officials. At the highest level, there is a need to understand what factors contribute to an individual's decision to enter into and remain active in sport officiating. In addition, at a more discrete level, we need to broaden our understanding of the issues by differentiating between populations to be studied (e.g., novice entry-level vs. experienced, male vs. female), the demands imposed by the sport in question (e.g., combat vs. individual aesthetic vs. team-oriented invasion, net/court, fielding or target games), and the realities of officiating in urban versus rural environments.

It is anticipated that the results of the following study will help to inform the development of the Canadian Long Term Officials Development (LTOD) Model.

Purpose and Hypotheses

The purpose of this study was to understand why individuals choose to be sports officials and why they remain active over time as sports officials. Theoretically we aimed to interpret an individual's motivation to engage in sport officiating from an interactionist perspective (Zurher, 1983). We defined motivation as the reasons people give to explain why they participate in sport officiating and we assumed that this motivation arises from a link (or interaction) between the characteristics of the individual (e.g., age, experience), the social identity they derive from the role (e.g., prestige, status, fitness level), and the social setting in which they act (e.g., organizational characteristics, sense of community) (Curry & Weiss, 1989; Kellett & Warner, 2011).

Based on the research we and others have completed to date, we hypothesized

that persistence in the role may be linked to their motivation to participate in sport, the extent to which they feel supported by their officiating organization, and their resilience or the ability to thrive in the face of adversity (Betts et al., 2007; Dorsch & Paskevich, 2007; Kellett & Warner, 2011; Livingston & Forbes, 2007; Pelletier et al., 1995; Vaishnavi, Connor & Davidson, 2007). In addition, we hypothesized that differences in these measures may be observed based on individual differences such as the age (i.e., experience level) or sex (i.e., female or male) of a sport official, the nature of the sport they officiating, and where they officiate (i.e., urban or rural settings).

Research Question and Subsidiary Questions

What factors contribute to an individual's motivation to enter into and remain active in sport officiating?

- (a) Do these factors differ between those who are considered novice entry-level versus experienced officials or, alternately, grassroots versus elite officials?
- (b) Do these factors differ between males and females?
- (c) Do these factors differ between categories of sport (e.g., team invasion games, individual, aesthetic, court or net, combat, target)?
- (d) Do these factors differ between urban and rural settings?

Methodology

Ethical Approval. Prior to beginning this investigation, all of the methods utilized in this study received ethical approval from the Lakehead University Research Ethics Board.

Participant Sample and Recruitment. The sample was one of convenience, drawn from the population of Canadian amateur sport officials from a wide variety of sports. A sports official was defined as someone having direct interaction with participating athletes or coaches (e.g., those who participate on the field of play or whose calls or judgments ultimately determine the outcome of a sporting contest) as well as those individuals who may be considered secondary officials (e.g., table officials responsible for time keeping, scoring and other event management-related duties).

Participants were recruited with the assistance of Sports Officials Canada. An electronic invitation, issued in both English and French, and containing a direct link to our survey instrument, was circulated to the membership list of the

organization. In addition, paper copies of the aforementioned invitations were distributed to delegates attending the Sports Officials Canada Conference in Saskatoon in September, 2012. These delegates, many of whom were affiliated with national and provincial sports organizations, were encouraged to circulate the invitation for participation as broadly as possible. The researchers also created an additional contact list of local, regional, and provincial officiating organizations and issued an electronic call for participation.

Phase 1 of data collection took place over a three month period, beginning on August 30, 2012 and extending to November 30, 2012.

Two-Phase Approach to Data Collection. A mixed-methods approach was used. In Phase 1 of the study, quantitative and qualitative data were gathered using a web-based approach on the Survey Monkey™ platform. It is important to note that two different, yet content identical versions (i.e., English, French) were utilized. The order of presentation of the instruments and questions in each version were identical.

In Phase 2, the investigators contacted selected participants from Phase 1 of the study by telephone and/or email in an effort to add to the clarity or depth of their responses. Only those individuals who expressed willingness during Phase 1 of the study to participate in Phase 2 were contacted.

Phase I. Participants were asked to respond to a number of formalized questionnaires and open-ended questions. These included:

(a) Demographic Questionnaire

This questionnaire included questions pertaining to sex, age, employment status, vocation, location (i.e., province) and size (i.e., population size) of place of residence, and experience (e.g., years of experience as an athlete, highest level of participation as an athlete, years of officiating, highest level of competition officiated) and certification levels achieved in each sport officiated.

(b) The Sport Motivation Scale (SMS)

The SMS consists of seven subscales that measure three types of intrinsic motivation (IM), three forms of regulation for extrinsic motivation (EM), and amotivation (AM). The reliability characteristics of this instrument have been established, and it is both valid and reliable (Pelletier et al., 1995). Where needed, the wording of select questions was slightly modified (i.e., by inserting the term “official” for “athlete”).

(c) The 8-Item Survey of Perceived Organizational Support (SPOS)

The SPOS measures perceived organizational support (i.e., an individual's general belief regarding an organization's commitment to them and their intention to continue their relationship with that organization). Studies have

demonstrated that this instrument has high internal reliability (Rhoades & Eisenberger, 2002).

(d) The Connor-Davidson Resilience Scale (CD-RISC2)

The CD-RISC2 is an abbreviated version of the Connor-Davidson Resilience Scale (CD_RISC) and measures "bounce-back" and adaptability in individuals across a spectrum of activities. Several studies indicate that the CD-RISC2 has high internal reliability (Baek, et. al, 2010; Connor & Davidson, 2003; Davydova, Stewart, Ritchie, & Chaudieuc, 2010; Vaishnavi et al., 2007).

(e) Open-Ended Qualitative Questions

Because we were interested in how people experience their sport officiating role, we used a qualitative approach to examine the social processes associated with an individual's decision to become involved or stay involved as a sport official. Participants were asked to respond in writing to a series of open-ended questions that focused on:

- What influenced their decision to become an official and what skills and talents they brought to the position
- Describing their officiating career to date, including discussing high and lesser points, as well as identifying their response to these events
- Providing their view on what it means to be resilient, as well as indicating if they felt they and other officials are resilient
- Recounting a significant event they experienced while officiating and what their response was to that event
- Providing a description of the support they received surrounding difficult officiating-related events
- Whether they had ever considered leaving officiating, and why and what helped them decide to continue
- How they were able to maintain a sense of wellness while officiating

Phase 2. When participants completed their responses in Phase 1 of the study, they were asked to indicate their willingness to be contacted by a member of the research team. Those who were willing provided their name and contact information. These follow up conversations allowed the investigators to add clarity to responses received in Phase 1 or to gather additional information pertaining to particular responses.

Data Reduction and Analysis. Data from the English and French versions of the on-line survey were downloaded and combined into one data file for the purposes of analysis. Where required, the French responses were translated into English.

The quantitative data were separated from the qualitative data gathered using open-ended questions for the purposes of analysis.

The quantitative data were analyzed using the IBM SPSS Statistics Version 20 software package. The independent variables of interest included measures of sport by category, experience (i.e., age), sex (i.e., male, female), and geographic location (i.e., urban, rural). Two of these variables deserve greater explanation at this point.

We opted to analyze the data using a measure of the category of the sport rather than by individual sport. The primary reason for this approach was that in some instances, we had small numbers of participants from individual sports. Such small numbers would not allow for meaningful analyses and results to be generated. In addition, Stefani's (1999) taxonomy of different sports provides an objective approach to grouping sport based on selected characteristics (e.g., the objective of the sport, interactions between opponents (where applicable) and the defined spaces in which those interactions take place, etc.). A full description of this taxonomy can be found in Appendix A.

We also chose age as a measure of experience for a number of reasons. First, in previous investigations on officiating conducted by these researchers, there was a high correlation between age and officiating experience (e.g., Livingston & Forbes, 2007). Second, respondents were much more likely to report their age as compared to their years of experience, and to do so with greater clarity. For example, when asked to report on their experience, respondents would often provide a range in years (e.g., 6-7) years rather a singular year figure. In addition, if the respondent had officiated more than one sport, s/he would often report two different numbers and it was not always easy to discern which number was associated with each of the differing sports.

The dependent variables, in contrast, included seven subscale scores from the Sport Motivation Scale (i.e., three that measure intrinsic motivation, three that measure extrinsic motivation, and one which measures amotivation), one measure of perceived organizational support (i.e., SPOS score), and one measure of resilience (i.e., CD-RISC2 score).

The first step in the statistical analysis was to generate descriptive statistics (i.e., mean, standard deviation) for each of the dependent variables by groups as defined by the independent variables. Scatterplots were then generated to verify that the data were normally distributed and bivariate Pearson product-moment correlations were generated in order to determine the degree of association between the dependent variables. These analyses revealed no violations of normal distribution and only weak statistically insignificant associations between the dependent variables.

Given these results, each of the seven subscale scores from the Sport Motivation

Scale (SMS), the single total score measure of perceived organizational support (SPOS), and the single measure of resiliency from the CD-RISC2 instrument were analyzed using four-way (i.e., sport category by age by sex by location) analysis-of-variance (ANOVA) procedures. Where required, post hoc tests (i.e., Tukey's LSD) were used to determine where significant statistical differences, if any, existed between groups.

Once the key results of the quantitative analysis were completed, the qualitative data were scanned in an effort to find explicit commentary pertaining to our statistically significant findings. In order to do this, the textual information gathered from the open-ended questions was downloaded from the Survey Monkey™ platform into MS Word documents. From there, the qualitative data were independently reviewed by members of the research team and summarized.

Results

Description of the Study Sample. A total of 1,421 individuals (i.e., 1239 Anglophone, 182 Francophone) responded to our survey and included respondents from all provinces and territories in Canada. There was also one respondent from the United States and one from Europe, both of whom were removed from any subsequent analysis. For the purposes of statistical analysis, the data set was reduced to eliminate those who indicated that they were inactive as officials and as needed for those responses that were incomplete. A complete description of the sample may be found in Appendix B.

Of the 1073 remaining respondents, 806 (75.1%) were male and 267 (24.9%) were female and they ranged in age from under 15 years of age to 61 years or more. Table 1 contains a summary of the number of respondents by age category. Of this group, 12.7% (n=136) indicated that they officiate in primarily rural settings, while 44.2% (n=474) reported working in primarily urban settings. The remainder (i.e., 43.2% or n=463) reported working in both settings.

Table 2 provides a summary of the distribution of officials by sport category. The largest group (n=341) of respondents came from invasion game sports (e.g., soccer, field hockey, lacrosse) while the smallest group (n=1) represented independent aiming or projectile sports (e.g., archery, shooting).

The Sport Motivation Scale (SMS). Univariate ANOVA procedures revealed significant statistical differences for three of the seven subscale measures, one each in the area of intrinsic motivation, extrinsic motivation, and amotivation.

The Intrinsic Motivation to Experience Stimulation Subscale revealed a statistically significant difference by sex ($F(1, 832)=5.69, p<0.02$), with males

Table 1

Number of Participants by Age Category

Age Group (yr)	Number of Participants (n)	Overall Sample (%)
15 years or less	21	1.9
16-20	72	6.7
21-25	53	4.9
26-30	58	5.4
31-35	60	5.6
36-40	78	7.3
41-45	93	8.7
46-50	148	13.8
51-55	182	17.0
56-60	143	13.3
61 years or more	165	15.4
TOTAL	1073	100

having a significantly higher mean score (i.e., 14.4 ± 5.6) than their female counterparts (i.e., 12.9 ± 5.4). There was also a statistically significant three-way interaction effect of sex by age by sport category ($F(26,832)=1.648$, $p<0.02$). This interaction effect was indicative of three trends. First, across each sport category, mean scores were consistently higher for male officials in comparison to their female counterparts. Second, mean scores were higher in the target (e.g., archery, curling) and individual aesthetic sports (i.e., diving, synchronized swimming, figure skating) while the lowest mean scores were observed in fielding (e.g., baseball, fastpitch/softball) and invasion sports (e.g., soccer, basketball, lacrosse). And finally, while females in the under 15 years and 16 to 20 year age groups had higher mean scores than their male counterparts, mean scores for females tended to decline in an almost systematic, chronological fashion with age. Male mean scores, in contrast, remained relatively stable.

Table 2

Number of Participants by Sport Category

Sport Category	Number of Participants ^a (n)	Overall Sample (%)
Combat	5	0.5
Individual Aesthetic	78	7.4
Individual Aiming	1	0.1
Racing	270	25.7
Net/Court	54	5.1
Invasion	341	32.5
Fielding	267	25.4
Target	35	3.3
TOTAL	1051	100

^a Of the 1073 participants included in the statistical analysis, 22 did not declare an affiliation with a given sport. As a result, they were removed from the analysis.

The Extrinsic Motivation External Regulation Subscale revealed a statistically significant difference by age ($F(10,832)=3.19$, $p<0.0001$), with the mean value for the 15 years or less age group (i.e., 15.8 ± 4.4) being larger in comparison to all other age groups. In comparison, the mean for this variable across the entire sample was 14.0 ± 5.6 .

Statistical analysis of the Amotivation Subscale scores revealed a statistically significant two-way interaction effect ($F(2,832) = 3.16$, $p<0.04$) of sex by the setting in which officials perform their duties. Females displayed a higher mean amotivation score in urban environments and a lower amotivation score in rural settings than their male counterparts (Table 3). In contrast, for those who indicated that they officiated in both urban and rural environments, there was no difference in mean amotivation score between the sexes.

The 8-Item Survey of Perceived Organizational Support (SPOS). The SPOS consisted of eight questions from which a single overall score was calculated. Two statistically significant results were observed.

Table 3

Mean Scores for the Amotivation Subscale by Sex and Officiating Location^a

Sex	Location	Participants (n)	Mean Score (SD)
Male	Rural	98	7.2 (3.3)
	Urban	359	6.7 (3.1)
	Both	327	7.1 (3.5)
Female	Rural	33	6.8 (3.5)
	Urban	104	7.6 (4.1)
	Both	124	7.1 (4.0)

^a Two way interaction effect of sex by location ($p < 0.01$)

In the first instance, there was a statistically significant difference by age ($F(10,831) = 1.99, p < 0.03$). Post hoc tests revealed that the mean score for the 16 to 20 year old age group (i.e., 43.1 ± 9.6) was significantly higher than that of all of the older age groups (i.e., ranging from 38.5 ± 11.5 to 41.0 ± 10.6) but not that of the 15 years and less age group (i.e., 42.6 ± 9.2).

In the second instance, there was a statistically significant two-way interaction effect ($F(2,831) = 4.53, p < 0.01$) of sex by the setting in which officials perform their duties. Females displayed a lower mean POS score in urban environments and a higher mean score in rural settings than their male counterparts (Table 4).

Connor Davidson Resilience Scale (CD-RISC2). The CD-RISC2 consisted of two questions from which a single overall score was calculated. No statistically significant differences were observed by sport category, age, sex or officiating location. There were also no interaction effects.

An analysis of the descriptive frequencies of the data set may be found in Table 5, with distinctions drawn between what would be expected for the general population, versus those that fall above or below the normative range. According

Table 4

Mean Scores for the 8-Item SPOS by Sex and Officiating Location^a

Sex	Location	Participants (n)	Mean Score (SD)
Male	Rural	98	41.9 (9.6)
	Urban	359	40.9 (10.9)
	Both	327	39.5 (12.0)
Female	Rural	33	44.1 (8.4)
	Urban	104	39.2 (11.7)
	Both	124	41.2 (11.8)

^a Two way interaction effect of sex by location ($p < 0.01$)

Table 5

Frequency of Mean Resilience Scores for the Overall Sample

Range	Participants (n)	Overall Sample (%)	Description
Below 70%	120	7.8	Below normal
70-85%	314	30.0	Normal
Above 85%	611 ^a	62.2	Above normal

^a Of this group, 400 of the 611 had scores equal to 100%

to one of the CD-RISC2 scale authors,² mean scores for the general population typically fall between 70-85%.

Discussion

In our original funding proposal for this investigation, we indicated that we were hoping for a minimum of 500 responses from individuals active in sport officiating. Much to our surprise, over the three month data collection period, we received responses from 1,421 individuals who identified as sports officials. Even after we removed those who indicated they were currently inactive, or those with incomplete responses, we were left with a robust data set of 1,073 respondents. Some expressed concern at the outset of this study about the length of the on-line survey. However, despite the length of the survey, many sport officials from across the country were willing to take the time to complete it and many of them explicitly and emphatically thanked us for the opportunity to participate. This provides more than ample evidence of our first key observation:

Observation #1. Sports officials have a voice and they want to be heard.

The purpose of this study was to understand why individuals choose to be sports officials and what characterizes those who remain active over time. An analysis of the descriptive sample data (Appendix B) helps to answer the first part of the question. First and foremost is the observation that 78.8% (or 4 out of every 5) of the officials we surveyed began as a participant (or are still active as a participant) in the sport they currently officiate. Many spoke of the fact that they moved into officiating because of their love for the sport and/or their desire to give back to the sport they love. This is consistent with similar findings in previous investigations by these authors (e.g., Betts et al., 2007; Livingston & Forbes, 2007). As an example, consider the following quotes:

I took up officiating to remain in a sport I love and the friendships I have created with athletes, coaches, other officials and parents have made it all rewarding and everlasting. (Male, 61+)

As a competitor I appreciated the role of an official and felt this was a way to give back to the sport. (Female, 61+)

I have been involved in my sport as an athlete, coach, staff member and volunteer. It was a natural transition and I am happy to give back to the sport. (Female, 41-45)

This leads to our second key observation:

² Personal communication with Jonathon Davidson (March 22, 2013).

Observation #2. Participation as an athlete in a sport, previously or concurrently, appears to be strongly linked to one's subsequent decision to become an official in the same sport.

To try and understand what characterizes those who remain active as sport officials over time, we relied on three measurement instruments: the Sport Motivation Scale (SMS), the Survey of Perceived Organizational Support (SPOS), and the Connor-Davidson Resilience Scale (CD-RISC2). The study yielded a number of significant differences amongst active officials based on their sport category, age, sex, and their officiating location. The purpose of the remainder of this discussion is to elaborate on these findings.

The Sport Motivation Scale (SMS) provided a way to measure sources of motivation amongst the participants. Understanding what influences motivation is important as it will sway many aspects of behaviour including one's tendency to persist (or remain actively engaged), learn, and perform (Pelletier et al., 1995).

The SMS' Intrinsic Motivation to Experience Stimulation Subscale measures the extent to which a person persists in sport for the sake of experiencing excitement and pleasure. Qualitative commentary from the participants indicated that both females and males are motivated by the excitement they experience when officiating. As evidence of this, consider the following exemplar quotes, one from a female and one from a male sports official:

I do NOT do this for the money. It's all about the love of the sport and being involved with the growth of the players and the excitement of the game. (Female, 36-40)

It was the same drive I had as an athlete...the opportunity to participate in an exciting environment. (Male, 46-50)

In this study, male officials scored significantly higher than female officials on this subscale. This suggests that males derive a higher level of satisfaction from the "thrill" of their experiences in comparison to their female counterparts. This is not surprising, given that males have long been known to score higher than females in this domain when it comes to sport (e.g., Jack & Ronan, 1998; Ruedi et al., 2012). High motivational profiles also tend to be linked with and observed in those striving for the highest levels of performance in competitive sport (Gillet et al., 2012), yet the scores observed for the sports officials studied herein were considerably lower than similar scores for competitive athletes (Bhatnagar & Karageorghis, 2013). This leads to our next two key observations:

Observation #3. Both males and females are intrinsically motivated to participate in officiating because they derive pleasure and excitement from the experiences.

Observation #4. On average, males score higher in this intrinsic motivation for stimulation dimension than their female counterparts.

Examination of the significant interaction effect of sport category by age by sex yielded a richer description of this “sensation” seeking phenomenon. In the younger age groups (i.e., age 20 years and below), female participants actually displayed higher scores on this subscale than their male counterparts. After the age of 20, however, this trend reversed. Indeed, female scores on the Intrinsic Motivation for Stimulation Subscale systematically decreased with an increase in age while male scores stayed more or less stable. Therefore:

Observation #5. Below the age of 20 years, females demonstrate higher levels of intrinsic motivation associated with the excitement of their experiences than their male peers. Thereafter, their excitement levels systematically decline with age while those of their male counterparts remain relatively stable.

Interestingly, the highest scores on this subscale were observed for officials involved in officiating target sports (e.g., curling, archery) and individual aesthetic sports (e.g., figure skating, diving, synchronized swimming), while the lowest scores were observed for those officiating invasion (e.g., soccer, ice hockey, basketball) and fielding (e.g., baseball, fastpitch/softball) sports. This was an unexpected finding and one for which the data yielded no explicit explanation. However, it may be that for officials who work as a “team” (e.g., groups of two or more) in invasion games such as soccer or fielding games such as baseball, the collective sharing of officiating duties (i.e., less individualized burden) contributes to lower levels of excitement stimulation in comparison to those who work on their own or those who must make individualized judgements. Nonetheless:

Observation #6. Intrinsic motivation for the purpose of experiencing excitement and pleasure was highest in target and individual aesthetic sports and lowest in invasion and fielding sports.

This study also yielded an interesting finding with respect to the role that extrinsic motivation plays in getting some individuals to become involved in sport officiating. Extrinsic motivation refers to the tendency for behaviour to be controlled by external rewards such as monetary awards or praise from others (Pelletier et al., 1995). We observed that young officials, and in particular those 20 years of age and younger, scored higher in this domain than their older adult counterparts. When asked, numerous participants indicated that their initial decision to begin officiating was influenced by the opportunity to make money. For example:

Wanted to make money and stay in the sport of baseball. (Male, 16-20)

At first, the money. I was a college student and I loved basketball - it was a way to make money while doing something I loved. (Male, 31-35)

Many others, in contrast, pointed to the influence of others in getting them to join the officiating ranks. Often, these individuals occupied positions of influence, such as teachers or parents:

My basketball coach, and close friend, needed some extra people to help officiate Jr. high basketball games, and asked if I was interested. In helping him, he said I should continue with it, since he was a basketball official for high school. I followed up with it and have continued after I graduated and still officiate...I was responsible enough to be depended on in his time of need. (Female, 16-20)

I had a teacher who I greatly respected talk me into doing it. (Male, 26-30)

I was young and our association needed new blood. I became an official because others believed in me at the time. (Female, 36-40)

The influence of extrinsic rewards, and in particular that of praise or encouragement from parents, coaches and sports officials in the recruitment of new, younger cohorts of individuals into the officiating ranks is important and should not be underestimated. Indeed, the aforementioned quotes implicitly point to the value of mentors in the early years of one's officiating endeavours. Therefore:

Observation #7. Officials aged 20 years and under are influenced to a greater degree by external rewards such as money and praise than are their older counterparts.

Observation #8. Influential mentors (e.g., coaches, teachers) play a key role in recruiting younger officials into the sport officiating ranks.

In general, the results of this study clearly indicate that our participants were motivated (i.e., extrinsically, intrinsically or both) to be involved in sport officiating. This is to be expected since the sample consisted of individuals actively engaged in the avocation. Similarly, it was not surprising that the participants in this study generated consistently low measures of amotivation. When an individual is

amotivated, s/he is neither extrinsically motivated or intrinsically motivated, has feelings of incompetence and lack of control, and may eventually decide to withdraw from the activity in question (Koumpoula et al., 2011; Pelletier et al., 1995).

However, our findings did generate one significant interaction effect (i.e., differences between males and females officiating in rural versus urban settings) with respect to amotivation that is worth further examination. Indeed, while male scores for amotivation did not vary considerably between those who officiate in urban versus rural environments, females officiating in urban environments displayed significantly higher amotivation scores than did females officiating in rural environments.

Observation #9. Females officiating in urban environments were more amotivated than females officiating in rural environments.

This is an interesting finding, and an important one since amotivation is often linked to discontinuation of an activity, yet one that is difficult to explain. Given the dearth of qualitative comments on this topic, we questioned whether a heightened level of amotivation in an urban versus rural environment is associated with the actual sport experience (e.g., having to perform in front of larger groups of spectators or perhaps at higher levels of competition) or a product of feeling more marginalized as a function of their sex (i.e., being female rather than male) in larger sport organizations?

Interestingly, and perhaps non-coincidentally, a significant interaction effect of sex (i.e., male versus female) by officiating location (i.e., urban versus rural) effect was observed for scores of Perceived Organizational Support (POS). While POS scores for males were similar in urban and rural environments, scores for females were much lower for those officiating in urban versus rural environments. This leads to our next key observation:

Observation #10. Females officiating in urban environments had lower overall scores of perceived organizational support than females officiating in rural environments.

Once again, there was a relative dearth of qualitative commentary on this issue, perhaps because the focus of this investigation was on individuals who are active and have remained active in officiating over time. Such persistence in an activity is more likely to be associated with positive experiences than negative.

There is no doubt that the overwhelming majority of the participants in this study felt well supported by their officiating administrations and nowhere was this more apparent than in the younger age groups. Officials aged 20 years and younger had significantly higher scores of perceived organizational support than did their

older adult counterparts. To this end, it is important to note that:

Observation #11. Officials aged 20 years and younger had significantly higher scores of perceived organizational support than did their older adult counterparts. This may be linked to heightened levels of mentorship and support in the early years of development as an official.

Indeed, the following quotes speak in strong support of the value of support and mentorship in the early years of one's officiating career:

If I have a situation where I need support, I know I can talk to any of the officials on the board of my association for help or advice. (Female, 16-20)

There are many supervisors and mentors in my association that help me through difficult situations and are very encouraging. (Male, 16-20)

In our association, each official is assigned a Mentor. I can call my Mentor following a game and ask them for ideas or assistance in difficult situations. The Mentor also attends two of my games over the season to give input and advice in how I can improve. I also act as a Mentor to younger officials that are just beginning. (Male, 41-45)

It is encouraging to know that the younger officials who responded to our survey felt well supported by their officiating organizations. But equally important was the comparatively equivocal commentary received from older officials. Lower values for POS amongst this group may be reflected in their commentary on the declining levels of support they received as they attempted to progress to higher levels within their sport. Hence, it is also key to understand that:

Observation #12. There is evidence to suggest that there is an inverse relationship between the length of time spent in officiating and the amount of support provided by officiating organizations.

For example, consider the following comments including the first from an official who is considering leaving officiating of a shift in focus to support younger officials:

YES - The passion was no longer there. However, now it is because the association is heading in a youth movement [which] is hurting the game. Officials are being brought up before they have learned to communicate without upsetting the players and coaches. (Male, 51-

55)

I have left and come back to officiating when I felt undervalued and there was no clear path to upper level certification. There must always be seen to be opportunities for advancement to higher levels of officiating be it national and international. (Female, 56-60)

Lack of progression to higher level due to lack of opportunity, lack of direction, and lack of area support and guidance. The old boy's club mentality is prevalent and the system is very political. Bring up concerns at association meetings or to supervisor (little affect). If there is no hope for progression or equality should I continue doing it? (Male, 41-45)

Although it was not the focus of this study, the qualitative commentary clearly indicated that some of the officials studied have experienced what might best be referred to as significant negative events during the course of their officiating careers. However, despite these occurrences, these individuals have persisted; that is, they have remained continuously active as officials or have quit for periods of time only to return. It appears that they are by nature a highly resilient group.

Resilience, as defined by Connor and Davidson (2003) is a measure of stress coping ability and something that enables an individual to thrive in the face of adversity. In this investigation, the sport officials studied would best be described as a highly resilient group, with only 7.8% of the total sample falling below the mean normative score expected in the general population. Moreover, a large number of participants (i.e., 400 or greater than one-third of the sample) received scores of 100%, indicating they were highly resilient. Since resilience is modifiable and can be improved and modified over time, what is unknown is whether or not active officials had higher levels of resilience before they entered into officiating or whether it was developed as a result of their officiating experiences.

Observation #13. Sports officials are highly resilient. What is unknown is whether these high levels of resilience exist before they enter into officiating or whether they are developed as a result of their officiating experiences.

In concluding our discussion, we believe that it is important to draw the readers' attention to some of the more globally emerging trends in our findings. For example, sport category did not appear to be a differentiating factor in describing the experiences of officials. In contrast, three of the aforementioned key observations suggest that there are significant differences between females and males in terms of their motivational characteristics. In addition, and perhaps more importantly, while levels of motivation for males remain relatively stable over

time, those for females tend to decline while amotivation rises. Such trends are of concern if officiating organizations wish to recruit and retain female officials into their ranks. Clearly:

Observation #14. Further research aimed at exploring the differences in the male versus female officiating experience are warranted.

Differences in age are also associated with differences in motivation for participation, as well as the levels of support typically provided by officiating organizations. Active officials speak highly of the supports they receive during the early stages of their careers as well as the decline in such supports over time. Moving forward:

Observation #15. Officiating organizations should review their current practices and consider enhancing the supports provided to their officials beyond the entry levels.

In closing, we must also acknowledge the limitations of this study. For the purposes of this investigation, we relied on a sample of convenience and the willingness of individuals to voluntarily participate. We were not able to control for or balance (i.e., have equal group sizes) by sport category, age, sex, or officiating location. As such, the sample cannot be assumed to be proportionally representative of sports officials in Canada or to fully reflect the experience of all sports officials in Canada. Moreover, the results are only generalizable to officials residing in Canada and the Canadian sporting context.

Summary of Key Observations

This study has generated fifteen key observations that we hope will help to inform not only the development of the Long Term Officiating Development Model (LTOD), but also numerous facets of the officiating experience. These include:

1. Sports officials have a voice and they want to be heard.
2. Participation as an athlete in a sport, previously or concurrently, appears to be strongly linked to one's subsequent decision to become an official in the same sport.
3. Both males and females are intrinsically motivated to participate in officiating because they derive pleasure and excitement from the experiences.
4. On average, males score higher in this intrinsic motivation for stimulation dimension than their female counterparts.

5. Below the age of 20 years, females demonstrate higher levels of intrinsic motivation associated with the excitement of their experiences than their male peers. Thereafter, their excitement levels systematically decline with age while those of their male counterparts remain relatively stable.
6. Intrinsic motivation for the purpose of experiencing excitement and pleasure was highest in target and individual aesthetic sports and lowest in invasion and fielding sports.
7. Officials aged 20 years and under are influenced to a greater degree by external rewards such as money and praise than are their older counterparts.
8. Influential mentors (e.g., coaches, teachers) play a key role in recruiting younger officials into the sport officiating ranks.
9. Females officiating in urban environments were more amotivated than females officiating in rural environments.
10. Females officiating in urban environments had lower overall scores of perceived organizational support than females officiating in rural environments.
11. Officials aged 20 years and younger had significantly higher scores of perceived organizational support than did their older adult counterparts. This may be linked to heightened levels of mentorship and support in the early years of development as an official.
12. There is evidence to suggest that there is an inverse relationship between the length of time spent in officiating and the amount support provided by officiating organizations.
13. Sports officials are highly resilient. What is unknown is whether these high levels of resilience exist before they enter into officiating or whether they are developed as a result of their officiating experiences.
14. Further research aimed at exploring the differences in the male versus female officiating experience are warranted.
15. Officiating organizations should review their current practices and consider enhancing the supports provided to their officials beyond the entry levels.

Next Steps

The results of this study have begun to create a comparative baseline against which future investigations of sport officials in Canada can be developed and enhanced. The data set is robust thanks in large part to the large number of respondents we had to the on-line survey instruments. The sheer volume of data collected brought strength to our efforts, but also challenges. We did not anticipate receiving this much information and we did not, within the three month period allotted for data analysis, have enough time to do as thorough a job of analyzing the data as we would have liked. Rather than rush and potentially compromise the quality of our effort, we adopted a narrower than planned focus at the analysis stage. To this end, there are a number of definitive next steps yet to be realized. These include:

1. Continuing to work with the data set in an effort to improve upon its quality and clarity. For example, we asked participants to provide information on the number of years of experience they had in officiating as well as highest level of certification they had achieved. As mentioned earlier in this report, our participants were inconsistent in their reporting of these pieces of data. With some time and effort, we are confident that we can standardize the information provided by our participants into a consistent form for the purposes of subsequent analysis.
2. Completing a thematic analysis of the large volume of qualitative data received from our participants. We hope to have this portion of the investigation completed by no later than August, 2013. Once complete, we will compile a second report for submission to the Long-Term Officiating Development (LTOD) Committee.
3. Using responses received from those individuals who identified as being currently “non-active” as officials, consider conducting a comparative analysis of the differences between active and non-active officials.
4. Where a sufficient number of participants responded to our survey from a given sport or sport category, analyze the data on a per sport or per sport category basis so as to enhance the applicability of the findings to these groups.
5. Publish the results of this and all subsequent investigations based on the data set in peer-reviewed scientific journals such that the results can be shared with officiating researchers around the world.
6. Disseminate our findings to officiating organizations across the country, including those at the local, regional, provincial, and national levels.

References

- Auger, D., Fortier, J., Thibault, A., Magny, D., & Gravelle, F. (2010). Characteristics and motivations of sports officials in the Province of Quebec. *International Journal of Sport Management Recreation & Tourism*, 5, 29-50.
- Baek, H-S., Lee, K-U., Joo, E-J., Lee, M-Y. & Choi, K-S. (2010). Reliability and Validity of the Korean version of the Connor-Davidson Resilience Scale. *Psychiatry Investigations*, 7, 109–115.
- Betts, M.J., Forbes, S.L., & Livingston, L.A. (2007). Factors contributing to the attrition of Canadian amateur ice hockey officials: The experiences of referees and linesmen in Atlantic Canada. *Avante*, 11, 15-22.
- Bhatnagar, T., & Karageorghis, C.I. (2013). Motives for sport participation as predictors of motivation outcomes in track and field: A self-determination theory perspective. *The Sport Journal*, 6. Retrieved online at: www.thesportjournal.org/article/motives-sport-participation-predictors-motivation-outcomes-track-and-field-self-determinatio.
- Connor, K.M., & Davidson, J.R.T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18,76-82.
- Cribb, R. (2009, December 6). Minor hockey referees fear for game, own safety. *The Toronto Star*. Retrieved from <http://www.thestar.com/printarticle/735089>.
- Curry, T.J., & Weiss, O. (1989). Sport identity and motivation for sport participation: A comparison between American college athletes and Austrian student sport club members. *Sociology of Sport Journal*, 6, 257-268.
- Cuskelly, G., Hoye, R., & Evans, G. (2004, August). Problems and issues in the recruitment and retention of sports officials. *Officiating Australia*, 4(1), p. 4.
- Davydova, D.M., Stewart, R., Ritchie, K., & Chaudieuc, I. (2010). Resilience and mental health. *Clinical Psychology Review*, 30, 479-495.
- Dorsch, K.D., & Paskevich, D.M. (2007). Stressful experiences among six certification levels of ice hockey officials. *Psychology of Sport and Exercise*, 8, 585-593.
- Gill, D.L., Gross, J.B., & Huddleston, S. (1983). Participation motivation in youth sports. *International Journal of Sports Psychology*, 14, 1-14.
- Gillet, N., Berjot, S., Vallerand, R.J., Amoura, S., & Rosnet, E. (2012). Examining the motivation-performance relationship in competitive sport : A cluster-

- analytic approach. *International Journal of Sport Psychology*, 43, 79-102.
- Jack, S.J., & Ronan, K.R. (1998). Sensation seeking among high- and low-risk sports participants. *Personality and Individual Differences*, 25, 1063-1083.
- Kellett, P., & Shilbury, D. (2007). Umpire participation: Is abuse really the issue? *Sport Management Review*, 10, 209-229.
- Kellett, P., & Warner, S. (2011). Creating communities that lead to retention: The social worlds and communities of umpires. *European Sport Management Quarterly*, 11, 471-494.
- Koumpoula, M., Tsopani, D., Flessas, K., & Chairpoulou, C. (2011). Goal orientations and sport motivation, differences between the athletes of competitive and non-competitive rhythmic gymnastics. *Journal of Sports Medicine and Physical Fitness*, 51, 480-488.
- Livingston, L.A., & Forbes, S.L. (2007). Factors contributing to the attrition of Canadian amateur ice hockey officials: Survey results from an Ontario-based district hockey association. *Avante*, 11, 1-14.
- Neuman, W.L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Toronto: Pearson Education Incorporated.
- Pelletier, L.G., Fortier, M.S., Vallerand, R.J., Tuson, K.M., Brière, N.M., & Blais, M.R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The Sport Motivation Scale (SMS). *Journal of Sport & Exercise Psychology*, 17, 35-53.
- Philippe, F.L., Vallerand, R.J., Andrianarisoa, J., & Brunel, P. (2009). Passion in referees: Examining their affective and cognitive experiences in sport situations. *Journal of Sport & Exercise Psychology*, 31, 77-96.
- Proudfoot, S. (2009, August 5). It's a rough sport...thanks to unruly parents: Organizations grapple with bad behaviour during games. Retrieved from <http://www.winnipegfreepress.com/canada/its-a-rough-sport-thanks-to-unruly-parents-44579012.html>.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698-714.
- Ruedi, G., Abart, M., Ledochowski, L., Burtscher, M., & Kopp, M. (2012). Self reported risk taking and risk compensation in skiers and snowboarders are associated with sensation seeking. *Accident Analysis and Prevention*, 48(Special Issue), 292-296.

- Sask Sport Incorporated (2010, March). Report from the officials' development task force to Sask Sport Incorporated. Retrieved from <http://www.sasksport.sk.ca/pdf/OfficialsFinalReport.pdf>.
- Schorer, J., Neumann, J., Cobby, S.P., Tietjens, M., & Baker, J. (2011). Lingering effects of relative age in basketball players' post athletic career. *International Journal of Sports Science & Coaching*, 6, 143-147.
- Stefani, R.T. (1999). A taxonomy of sport rating systems. *IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans*, 29, 116-120.
- Vaishnavi, S., Connor, K.M., & Davidson, J.R.T. (2007). An abbreviated version of the Connor-Davidson Resilience Scale (CD-RISC), the CD-RISC2: Psychometric properties and applications in psychopharmacological trials. *Psychiatry Research*, 152, 293-297.
- Zezyński, E. (2002). Motivators and job satisfaction that influence basketball referees' intentions to leave their jobs. Unpublished Master's thesis, University of Derby, Tel Aviv, Israel.
- Zurcher, L.A. (1983). *Social roles: Conformity, conflict, and creativity*. Beverly Hills, CA: Sage.

Appendix A

Classification of Represented Sports by Sport Category

Classification of Represented Sports by Sport Category (Stefani, 1999)

Category	Sports
Combat	Boxing, Taekwondo, Wrestling
Individual Aesthetic	Diving, Figure Skating, Gymnastics, Synchronized Swimming
Individual Aiming	Golf
Racing	Athletics, Biathlon, Boating/Sailing, Bobsleigh/Skeleton Canoe/Kayak, Cross-Country, Cycling, Rowing, Speed Skating, Swimming, Triathlon
Net/Court	Racquetball, Squash, Volleyball
Invasion	Basketball, Broomball, Football, Hockey – Ice, Lacrosse, Ringette, Rugby, Soccer, Waterpolo
Fielding	Baseball, Fastpitch/Softball
Target	Archery, Curling, Shooting, Ten Pin Bowling

Appendix B
Description of the Sample

Table 1

Number of Participants by Sport

Sport	Number of Participants (n)	Percentage of All Participants (%)
Archery	1	0.1
Athletics	31	2.7
Baseball	229	19.8
Basketball	123	10.6
Biathlon	32	2.7
Boating/Sailing	19	1.6
Bobsleigh/Skeleton	8	0.7
Boxing	1	0.1
Broomball	1	0.1
Canoe/Kayak	26	2.2
Cross-country	4	0.3
Curling	24	2.1
Cycling	4	0.3
Diving	7	0.6
Fastpitch/Softball	43	3.7
Figure Skating	65	5.6
Football	16	1.4
Golf	12	1.03
Gymnastics	5	0.4
Hockey – Ice	45	3.9
Lacrosse	1	0.1
Multisport	1	0.1
Racquetball	1	0.1
Ringette	24	2.1
Rowing	1	0.1
Rugby	1	0.1
Shooting	1	0.1
Soccer	211	18.2
Speed Skating	36	3.1
Squash	21	1.8
Swimming	118	10.2
Synchronized Swimming	6	0.5
Taekwondo	1	0.1
Ten Pin Bowling	1	0.1
Triathlon	1	0.1
Volleyball	33	2.8
Waterpolo	1	0.1
Wrestling	3	0.3

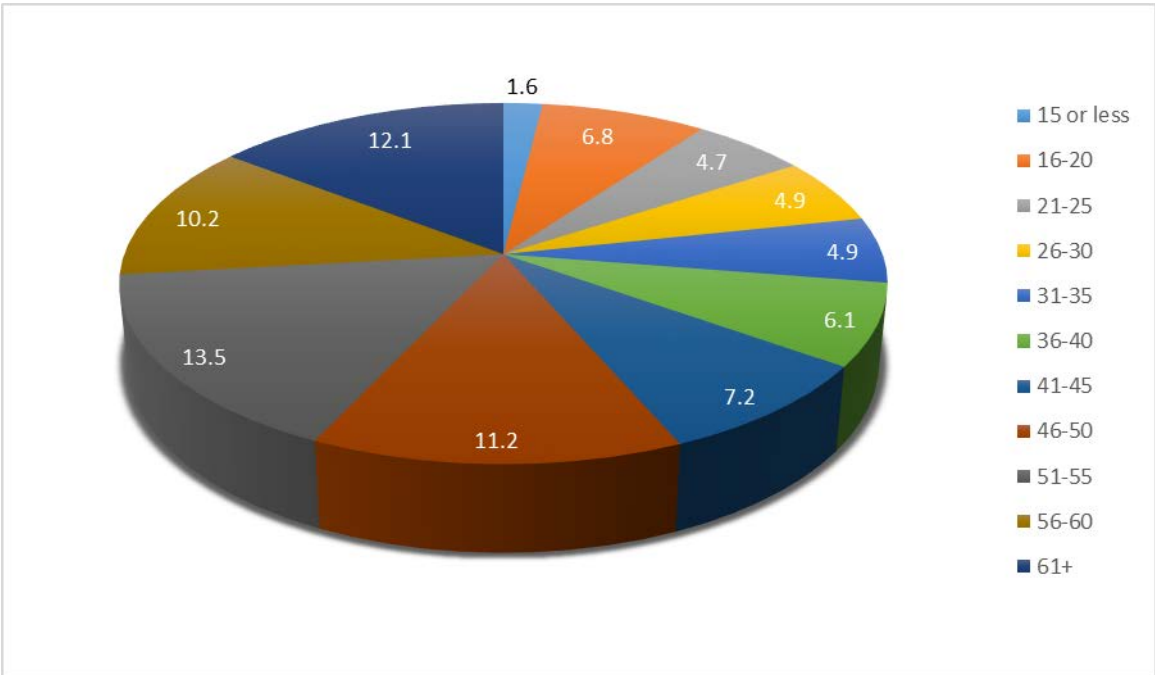


Figure 1. Participants by age categories as a percentage of the overall sample.

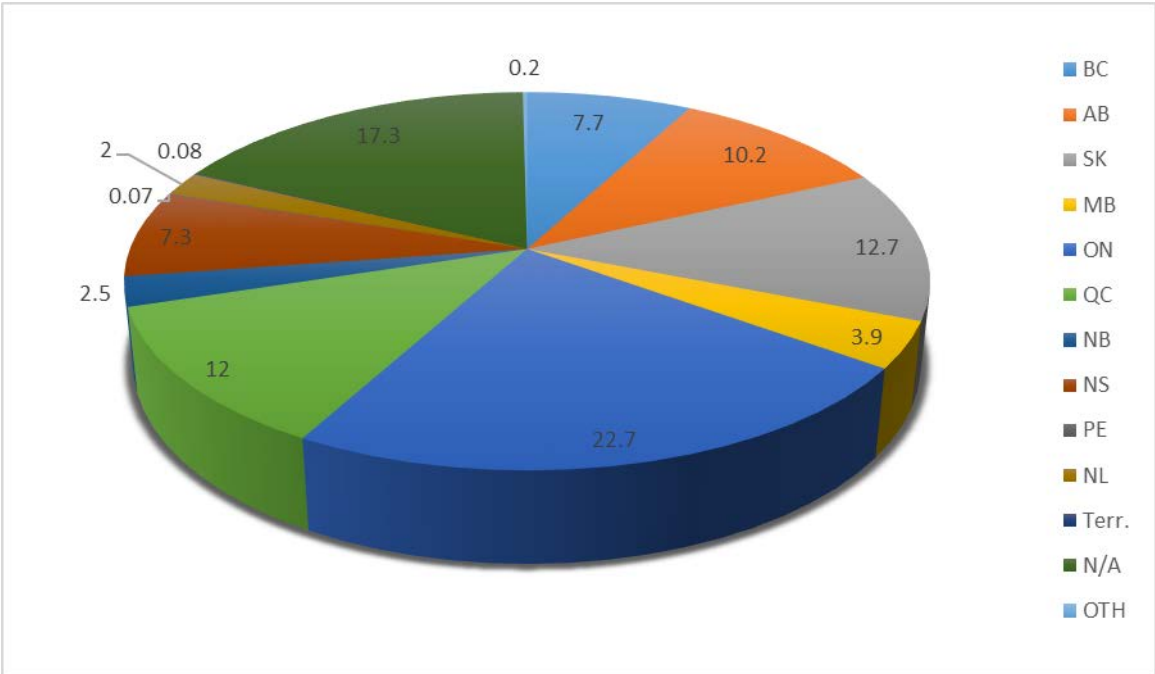


Figure 2. Participants by province or territory of residence as a percentage of the overall sample.

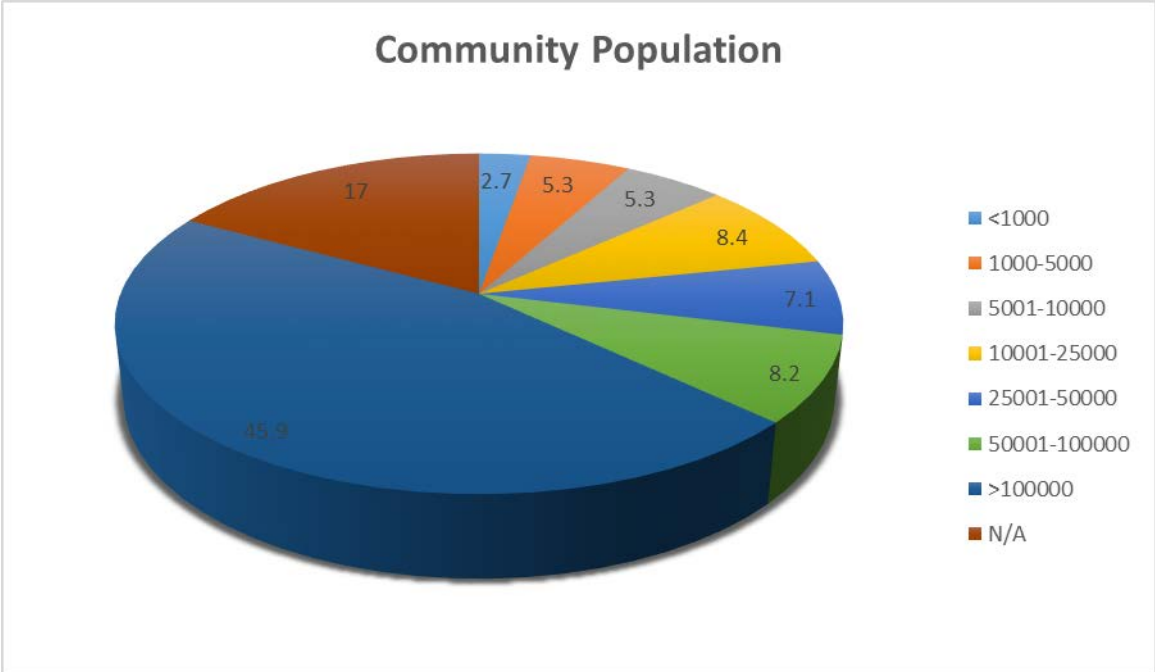


Figure 3. Participants by size of the community in which they live as a percentage of the overall sample.

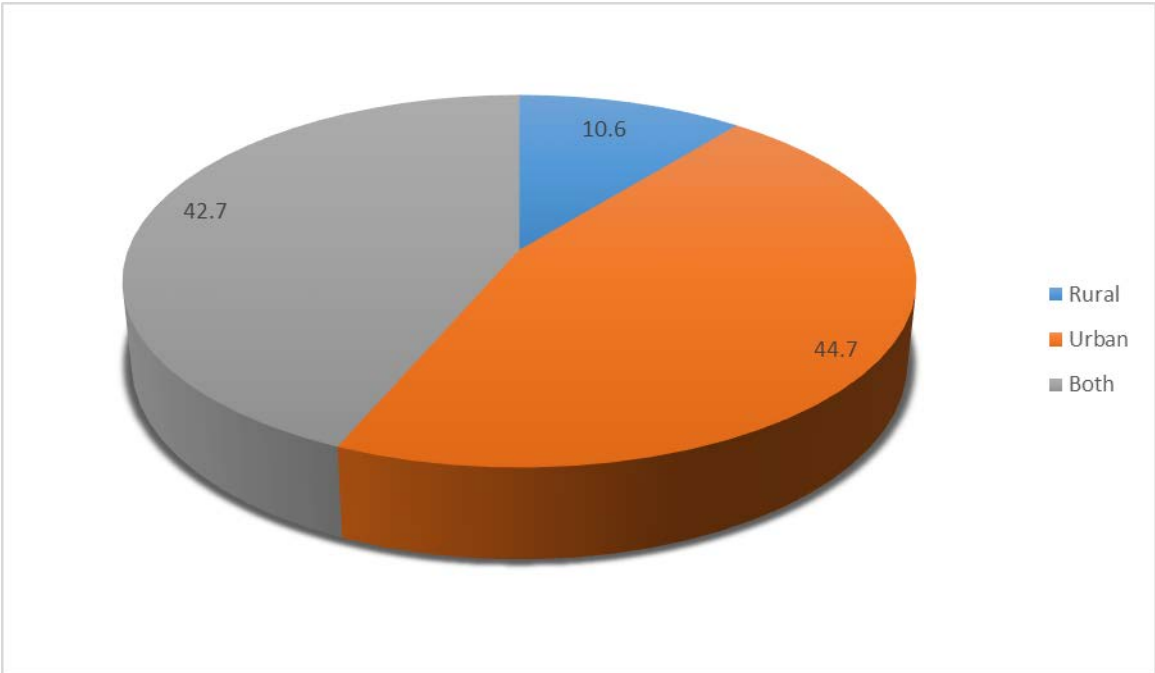


Figure 4. Type of community in which participants officiate as a percentage of the overall sample.

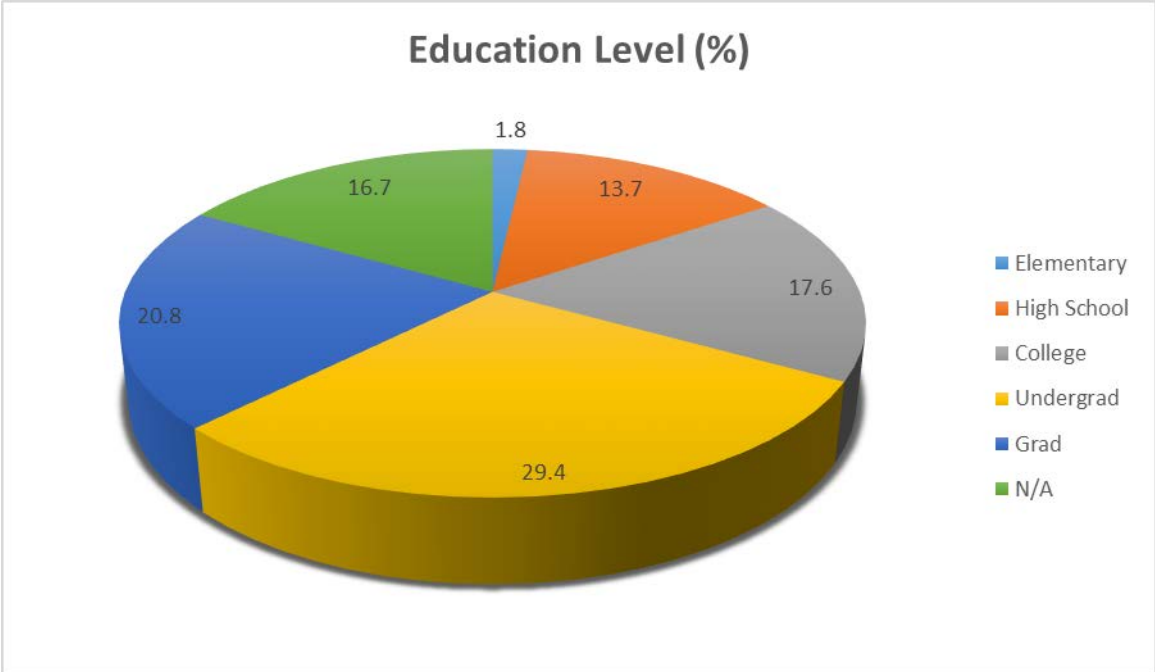


Figure 5. Highest level of education achieved by participants as a percentage of the overall sample.

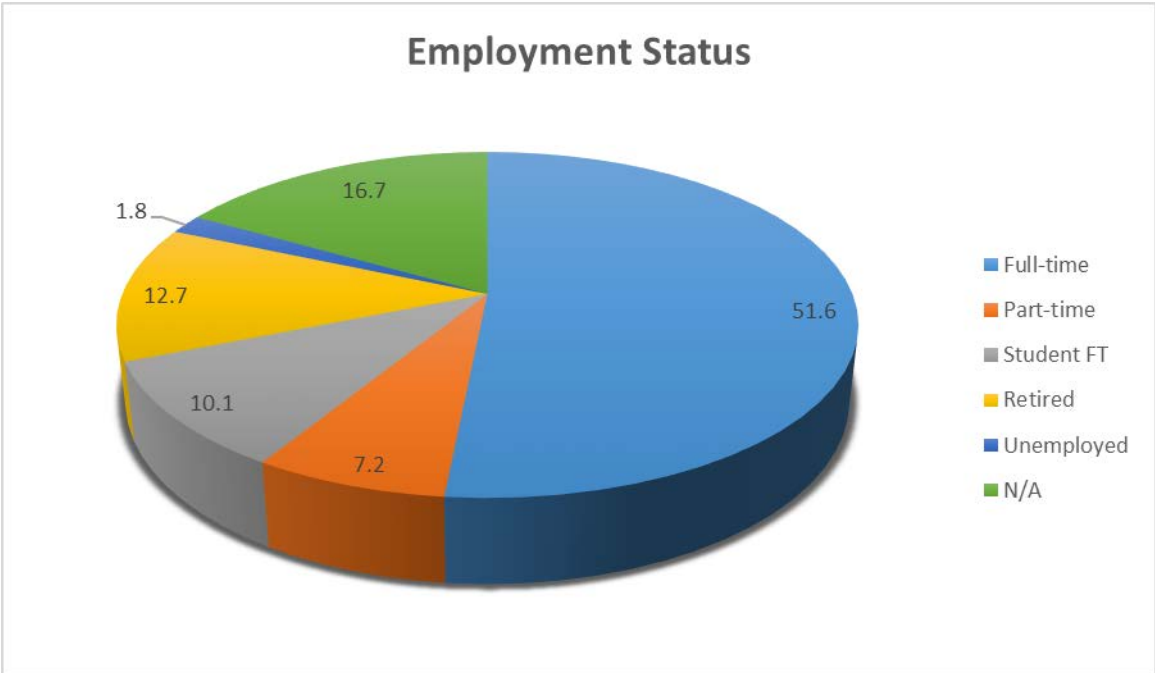


Figure 6. Level of employment or training of participants as a percentage of the overall sample.

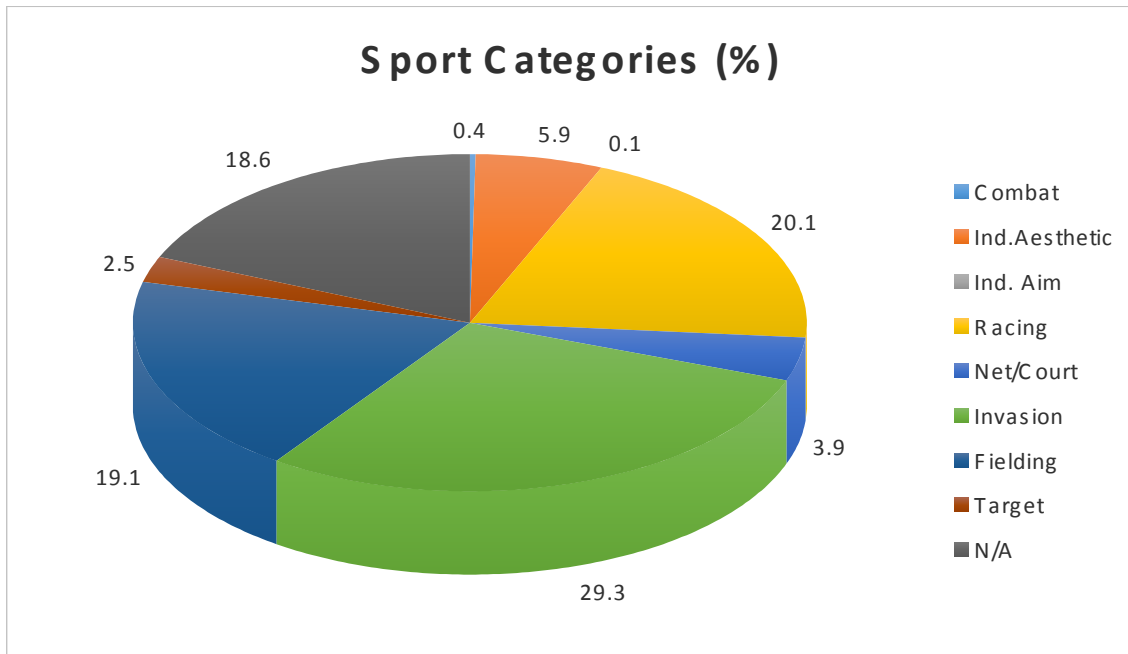


Figure 7. Primary sport category officiated within by participants as a percentage of the overall sample.

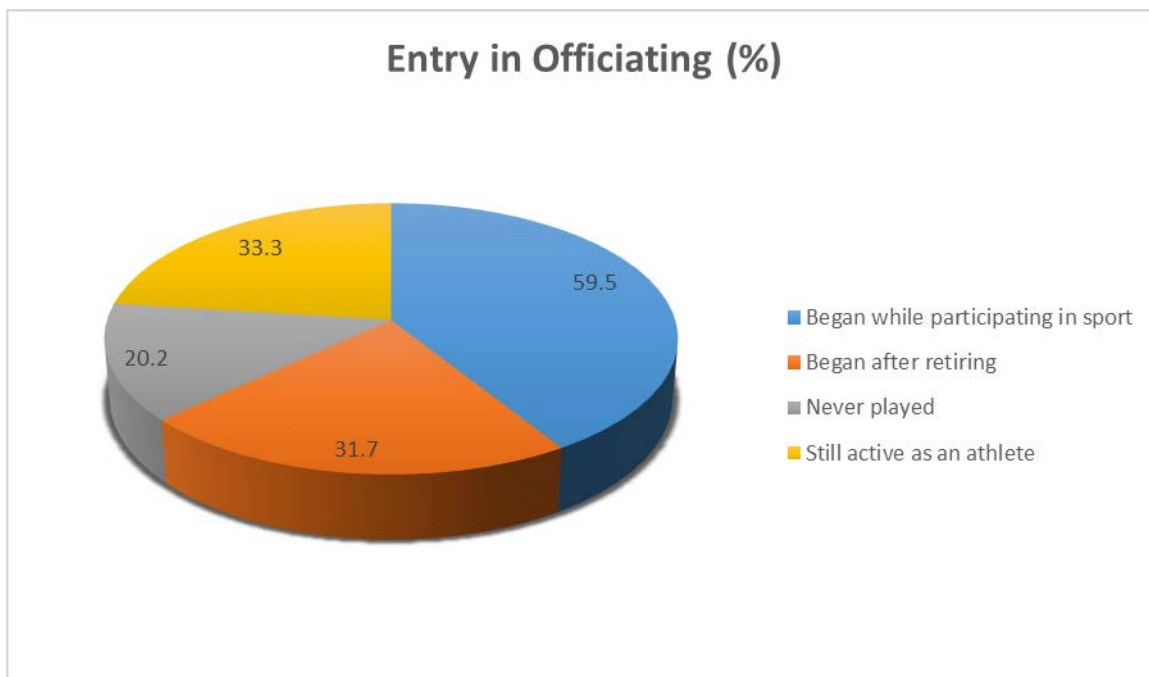


Figure 8. Entry point into officiating by participants as a percentage of the overall sample.