ENVIRONMENTAL SUSTAINABILITY PRACTICES IN U.S. NCAA DIVISION III ATHLETICS DEPARTMENTS

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ABSTRACT

Sport personnel are called to action in regard to environmental issues despite various constraints placed on them. The purpose of this study was to examine environmental sustainability practices, strategies, and personal perspectives with U.S. NCAA Division III athletics department personnel. Further, the data was compared to responses of Division I athletics department personnel from a previous study by the authors utilizing a similar instrument to provide further context. The descriptive data provides insight into prioritization, planning, decision-making, and implementation of specific environmental initiatives within Division III. A MANOVA compared the DIII responses with Division I universities. Three key themes from the data specific to DIII involve issues of resource allocation (or lack thereof), environmental decision-making resting solely on athletic director, and a greater need for strategic planning and knowledge related to environmental actions.

KEYWORDS

Collegiate Sporting Events; Environmental Sustainability Practices; Managerial Actions

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INTRODUCTION

Sustainability issues are difficult to address in the best of circumstances as they take time, effort, and resources. Within sport, organizational personnel are called to action in regard to environmental issues despite various constraints placed on them (e.g., budgets, staff size) (Chard, Mallen, & Bradish, 2013; Mincyte, Casper, & Cole, 2009; Natural Resources Defense Council: NRDC, 2013a). However, each sport organization is a unique case requiring environmentally-oriented goals, objectives, and tactics tailored to its contextual issues that also align with an organization's overall strategic plan (Inoue & Kent, 2012; King, 2008; Pfahl, 2011).

With the inception of the American College and University Presidents' Climate Commitment (Climate Commitment) and subsequent acceptance of its guide to addressing on campus sustainability issues by many universities and colleges across the United States, more and more campus units (e.g., athletics department) are examining their role in greening the campus and events (American Colleges and University Presidents' Climate Commitment, 2013; Emanuel & Adams, 2011; Swearingen White, 2009). Athletics departments, as a high profile member of many campuses, are being called to join with other campus units to formulate plans and initiate environmental change efforts within their campus events (Figueredo & Tsarenko, 2013; Jin, Mao, Zhang, & Walker, 2011; NRDC, 2013a).

There are three main athletic levels sanctioned within U.S. NCAA athletics: Division I (DI), Division II (DII), and Division III (DIII). The focus of this study is on athletics departments at the DIII level. The environmental situation at the DIII level involves similarities and differences with other intercollegiate levels (e.g., Division I or II) that need to be understood and compared with other divisions as part of a holistic assessment of the state of environmental strategy, budgeting, community outreach, and many other aspects of athletics department life (Casper, Pfahl, McSherry, 2012; Mallen & Chard, 2011; Mallen, Stevens, & Adams, 2011; Nicolaides, 2006). Division III athletics departments are dedicated to offering broad-based programs with a high number and wide range of athletics participation opportunities and events and facilities for spectatorship, but the scale is smaller than counterpart DI programs (NCAA 2013a). This study continues efforts to understand how athletics department personnel view environmental issues and work to address them within and among athletics department contexts (Casper et al., 2012; Inoue & Kent, 2012).

The purpose of this study was to examine environmental sustainability practices, strategies, and personal perspectives with U.S. NCAA Division III athletics department personnel. Further, the data was compared to responses of Division I athletics department personnel from a previous study by the authors utilizing a similar instrument to provide further context. Additionally, the results are compared against a DI sample that used an identical survey administered by the authors (Casper et al., 2012) to identify similarities and differences between the athletic divisions and to provide additional context regarding the DIII schools. The results of this study will identify important information as to the ways athletics department personnel plan for and conduct environmental activities in events and with their department. Doing so provides a foundation for analysis into the DIII context as well as providing a baseline of information to compare with other intercollegiate levels.

LITERATURE REVIEW

Sport provides a robust context to study environmental issues given its high profile in most cultures (Chard, Mallen, & Bradish, 2013; Hums, Barr, & Gullion, 1999; Inoue & Kent, 2012; Kellison & Kim, 2014). It has a visible and substantial environmental impact (e.g., sport venues and facilities, events) creating a tension between the natural environment and the strategic conduct of sport or recreation opportunities (Mallen, Adams, Stevens, & Thompson, 2010; Schmidt, 2006; Spaargaren, 2003). For this study *environment* refers to the natural environment (all non-man made aspects of the world) (Pfahl, 2011; Suzuki, 2007). The term *sustainability* refers to the ability to meet the existing needs of life while working to ensure the best possible future for our society's subsequent generations, all other things remaining equal (Mallen & Chard, 2011; Pfahl, 2011; United Nations, 1987).

Sport personnel who undertake environmental action within the respective sport organizations (e.g., facility managers, community outreach coordinators, marketing personnel) are challenged to balance immediate and long term organizational needs within their purview (e.g. revenue generation, community relationship development, winning) with environmental needs (Casper et al., 2012; Chard, Mallen, & Bradish, 2013). This is done through strategic planning and tactical implementation tailored to fit the context and competitive environment (e.g., developing green facilities) across any and all related levels of a sport organization because a green team leader will have different roles and responsibilities to that of a senior facility manager as an example

(Casper et al., 2012). This section examines the linkages between sport and the natural environment, awareness and knowledge of environmental issues, and how awareness and knowledge impact environmental actions within intercollegiate athletics, with an emphasis at the DIII level.

Characteristics of DIII athletic departments

Division III consists of colleges and universities that choose not to offer athletically related financial aid (athletic scholarships) to their student-athletes. There are 444 member institutions, making it is the largest division in the NCAA DIII schools range in size from fewer than 500 to over 20,000 students (NCAA, 2013). DIII schools compete in athletics as a non-revenue-making, extracurricular activity for students; hence they may not redshirt freshmen and they may not use endowments or funds whose primary purpose is to benefit athletic programs. All DIII schools must field athletes in at least ten sports (NCAA, n.d.). Across the board, DIII athletic departments have fewer staff members and smaller operational budgets are than DI, but still require full-time senior administrators (Athletic Director and at least one Associate/Assistant Athletic Director) and oversee a similar number of events (NCAA, 2013).

Sport Personnel and the Natural Environment

The diversity of sport organizations and events affecting and being affected by the environment drives the need to explore approaches to environmental action taken within various sport contexts (Chard, Mallen, & Bradish, 2013; Hums, Barr, & Gullion, 1999; Inoue & Kent, 2012; Pfahl, 2011). Sport personnel continuously (re)develop their perceptions about the environment through intrapersonal reflection and by (co)constructed societal norms, needs, and wants (Cialdini, Reno, Kallgren, 1990; Graumann & Krause, 1990; Gummesson, 1998, 2006; McCullough & Cunningham, 2010; Pfahl, 2011). *Awareness*, a first key component of a person's environmental perspective, is defined in this study as an understanding of an issue rather than acknowledging that an issue exists (Casper et al., 2012). *Knowledge*, a second key component, refers to a deeper understanding of the causes and effects of environmental issues and ways to address them at a given moment (Casper & Pfahl, 2012). Awareness and knowledge eventually manifest themselves in planning and strategic decision-making (Dunlap & Van Liere, 1978; Dunlap, Van Liere, Mertig, & Jones, 2000; Hansla, Gamble, Juliusson, & Gärling, 2008; Porter & Reinhardt, 2007; Stern, 2000).

This study was influenced by elements of environmental studies as a way to learn more about strategic decision-making and choices (i.e., resource allocation) in organizational and event contexts (Dunlap & Van Liere, 1978; Dunlap, Van Liere, Mertig, & Emmet Jones, 2000; Smart & Wolfe, 2000; Stern, 2000; Stern, Dietz, Abel, Guagnano, & Kalof, 1999; Stern, Dietz, Kalof, & Guagnano, 1995). In the DIII context, given the variety of stakeholders working with a given athletics department (e.g., university units, suppliers), there is a need to make discretionary decisions about strategic and tactical implementation of environmental plans such as what resources to use or which environmental efforts with which to start (i.e., prioritization) (Etzion, 2007; Hambrick, 2007; Hambrick, Finklestein, & Moody, 2005; Smart & Wolfe, 2000). DIII institutions offer their campus communities a unique educational experience and have cultural elements and environments. They also have similarities to other intercollegiate athletics levels, offering another important context within which to learn more about environmental efforts at the DIII level (Jin et al., 2011; Nicolaides, 2006).

The result of linking awareness and knowledge of environmental issues with immediate environmental and organizational needs is a discretionary decision-making frame that must balance environmental issues with other organizational priorities (Hambrick, 2007; Hart, 1995). Key areas of organizational and event management that impact the environment include, among others, transportation, foods waste, lighting, non-food waste, supply chain and vendor personnel, air quality, financial and budget issues, water usage, legal requirements, and codes and standards (both organizationally and at a macro/league level) (Casper et al., 2012; Kellison & Mondello, 2012; Kellison & Kim, 2014). The DIII context illustrates these issues because it encompasses a variety of resources under athletics department management that impact the environment (e.g., playing fields, public and private financing issues) and can be a high profile member of higher education institutions (Burton & Peachy, 2009). This raises the question as to whether or not a different set of strategic environmental priorities exists at the DIII level? In other words, while the main areas of need (i.e., strategic environmental priorities) might have surface similarities (e.g., facility maintenance, community engagement) between DI and DIII institutions, the aforementioned question can help to uncover the similarities or differences in discretionary decision-making, financial support, administrative support among many others between athletics departments. Do, for example, DIII athletics department personnel place the same strategic importance on recycling as DI institutions (Casper et al., 2012)? These strategic issues also impact tactical issues including environmental activities undertaken as well as how they are prioritized and implemented by athletics department personnel.

Resource Enablers and Constraints to Environmental Action
Institutional resources, especially those used to conduct sporting events (e.g., water use) are of primary importance to sport personnel for both daily operation of stadia and event venues and the events themselves (e.g., baseball game) (Dolles & Söderman, 2010; Mallen, Adams, Stevens, & Thompson, 2010). Given their position as resource aggregators, stadia and event management, through sport organizations and events, becomes a key area where work is being done to integrate environmental issues into sport operations (Kellison & Mondello, 2012; Kellison & Kim, 2014). This area includes the construction of new sport venues and the maintenance and renovation of existing ones in addition to any efforts surrounding the events themselves (Kellison & Mondello, 2012; Mallen, Adams, Stevens, & Thompson, 2010; NRDC, 2013b; NRDC, 2012). Environmental work is a mix of initiative and strategic necessity (e.g., corporate social responsibility) because laws, regulations, and requirements for environmentally sound design and management of sport venues is becoming more common (Babiak & Trendafilova, 2011). This particular aspect is important to intercollegiate athletics personnel who oversee a variety of playing surfaces under university management compared with professional sport teams that might have a single venue to maintain.

As noted earlier, athletics department personnel face enabling and constraining choices in terms of resource allocation, especially in light of tangible tactics related to environmental issues (e.g., waste management). In light of contextual changes, athletics department personnel are beginning to undertake environmental initiatives (e.g., evidence indicates that recycling is among the first to be adopted) (Casper et al., 2012; NRDC, 2013a). An exploration of DI athletics departments (Casper et al., 2012) found a significant disconnect between the athletics department and the university/college administration in relation to environmental issues. Such a disconnect is significant and influences environmental actions (or inactions). The study also found

that resource usage is shown through the types of actions and activities undertaken through environmental efforts. From a strategic standpoint, this disconnection is at a foundational level for the environmental planning and actions across sport.

Additionally, the multiple venues found within DI, DII, and DIII athletics departments' care are significant revenue and cost generators requiring a substantial investment in resources (Bonham-Carter & Niemuth, 2010). Intercollegiate sport offers another level of understanding as to how sport personnel engage with the environment within a resource and strategy space located between big budget mega events with multiple venues (e.g., Olympic Games, World Cup) and local area sporting organizations and events with a concentrated environmental footprint (e.g., Major League Baseball team stadium). Tracking the impacts of the resources (e.g., financial, environmental) is a strategic perspective available to athletics department personnel. In cases where athletics facilities are among the campus showpieces, environmental action can be a significant statement by a university and athletics department (Babiak & Trendafilova, 2011). DI athletics personnel noted the resource and budget problems and concerns as being a hindrance or mitigating factor for undertaking environmental actions (e.g., solid, measurable ROI) (Casper et al., 2012).

This study examined DIII athletics department environmental perceptions and efforts as both resource usage/deployment (e.g., recycling) and the impact of using such resources on athletics department strategic planning and actions. At this level, athletics programs are smaller and have fewer revenue generation opportunities (on average) than at DI programs, but the will to undertake and/or requirement for environmental action can still be seen (Hart, 1995; Hart & Milstein, 2003; Jin, Lunhua Mao, Zhang, & Walker, 2011). The DIII athletics department context, unlike that of many major and regional professional teams (i.e., minor league), oversee the maintenance, and when needed, the construction of a variety of venues and playing fields with various surfaces and ages (Mallen, Adams, Stevens, & Thompson, 2010). DIII personnel, in particular, are often limited by fewer revenue generation opportunities or a less commercialized culture, yet still have to manage multiple venues like their counterparts at other levels of sport (Horne, 2006).

In summary, the literature showed there are various facets to consider when evaluating environmental efforts conducted by sport personnel. Linking them together to utilize a holistic approach provides a broad and deep analytical lens. The connections between individual levels of awareness, knowledge, and action, all of which are grounded in the contextual elements surrounding an individual helps to understand discretionary decision-making and choices (i.e., tactics) that relate to various organizational and/or personal goals and objectives. With such an approach, environmental issues become part of an organization's strategy and resource needs (Hart & Milstein, 2003; Pfahl, 2011; Wheaton, 2007). With sport managers working to balance existing organizational needs with emerging environmental ones analysis of the individual level decision making within organizational strategic planning and tactical implementation processes is important.

Analytical Lenses
To examine the multifaceted environmental relationship between sport organizations, their events, and the natural environment, an analytical framework that allows for macro and micro

analyses to be conducted is useful (Hart, 1995; Hart & Milstein, 2003; Stern, 2000). The literature showed how complex decision making, strategic planning, and tactical execution of environmentally related activities can be. The complexity shown requires a similar analytical framework to understand how decisions are made and actions taken in this study.

A first theoretical and analytical frame is to examine DIII environmental actions within a strategic framework comprised of organizational institutional and discretionary (i.e., upper eschelon) theories. With normative actions in the process of being developed in relation to environmental issues (e.g., recycling, stadia design) (NRDC, 2013a), organization personnel increasingly model their actions after policies and processes that are successful (Dacin, 1997; McCullough & Cunningham, 2010). This lens helps to ground the explanation of how and why strategic choices are/were made (e.g., competition, organizational survival) within a context (Dacin, 1997). Contextual factors create action frames that include coercive isomorphism (i.e., formal and informal pressure), mimetic isomorphism (i.e., imitation of others), and normative (i.e., legitimized action) (Cunningham & Ashley, 2001; DiMaggio & Powell, 1983; McCullough & Cunningham, 2010). Selected approaches to understanding the environmental impact of sporting events is growing more common as researchers and practitioners come to terms with the contextual nature of the events themselves (Hart, 1995; Hart & Milstein, 2003; Inoue & Kent, 2012). Decisions made about immediate environmental needs (e.g., during events) must be balanced against the various levels of *legacy* that is left once the event is complete (Chappelet, 2008; Girginov, 2011; Mol, 2010). Organizational institutional and discretionary (i.e., upper eschelon) theories will provide a framework to examine the ways decisions are made based upon varying levels of personal and contextual knowledge while factoring in immediate needs and those of the future.

A second theoretical lens is needed to understand resource choices and contextualize discretionary decision making of resource use and allocation as noted in the literature. This lens is grounded in a natural resource base view of an organization (NRBV) (Hart, 1995; Hart & Milstein, 2003). The NRBV perspective is a way to examine the interconnected systems of organization operations and stakeholders (Hart, 1995; Pfahl, 2011; Shrivastava & Scott, 1992). It accounts for a broad range of inputs (e.g., energy usage) and the effects of these inputs, not only on outputs (e.g., game experience), but also the resource cost of such efforts (i.e., environmental impact). Combining this framework with the strategic imperative discussed earlier, enables a holistic view of perspective – planning – action (i.e., awareness, knowledge, action) processes (Casper et al., 2012; Hart, 1995; Hart & Milstein, 2003; Inoue & Kent, 2012; Stern, 2000).

The purpose of this study was to examine environmental sustainability practices, strategies, and personal perspectives with U.S. NCAA Division III athletics department personnel. The data was compared to responses of Division I athletics department personnel from a previous study by the authors utilizing a similar instrument to provide further context. Due to the exploratory nature of this study no specific hypotheses are made, but the theoretical framework of this study and the questions derived from the literature review act to guide the exploration of the environmental context of DIII athletics departments (Maxwell, 2012). The possible discretionary challenges (e.g., multiplicity of stakeholders, budget issues) for athletics department personnel and continues to build a foundation for analysis in terms of understanding environmental problems and developing a strategic approach to addressing them (Casper et al., 2012; Hambrick, 2007; Pfahl,

2011; Sharma, 2000; Shrivastava & Scott, 1992). Understanding how awareness and knowledge levels of DIII athletics department personnel influence the actions taken will help sport personnel understand ways of addressing environmental issues (Hart, 1995; Hart & Milstein, 2003; Stern, 2000). It will also provide further data about decision making, strategic planning, actions taken, and evaluations conducted (e.g., measures of success, return on investment: ROI), which will enable cautious contextual comparisons between DI and DIII athletics departments as well as any new ideas and concepts about environmental awareness, knowledge, and action that arise (Casper et al., 2012; Inoue & Kent, 2012).

METHOD

Participants and Procedure

To target DIII athletic department administrators, the Executive Director of the National Association of DIII Athletic Administrators (NADIIIAA) was contacted for assistance. The NADIIIAA operates a listserv that enabled a survey instrument to be sent to all members (http://www.uaa.rochester.edu/nadiiiaa/index.html). According to the Executive Director, the list serve membership represents 348 members working in DIII athletic departments. Within DIII, there are 446 total institutions and 43 DIII conferences.

The NADIIIAA Executive Director agreed to send out email invitations to the entire membership subscribed to the listserv database. Included in the invitation was a brief description of the study, verification of IRB approval, and approximate time required to complete the survey. The emails were sent directly from the Executive Director to help with legitimacy of the study to maximize response rate. The initial email was sent to membership on April 2, 2013. A reminder was sent on April 9, 2013 and the survey closed on April 15, 2013. At the survey deadline, a total of 141 responses were returned, but only 78 responses were complete (24% response rate). Incomplete responses were removed if more than 25% of the items were left blank or missing (e.g., 54 respondents did not continue after first page; statistical comparisons of first page responses of retained versus removed found no significant differences). Based on email addresses, there were no multiple responses from members of the same institution.

Details about the sample are reported in Table 1. Respondents represented 37 out of the potential 43 conferences. All major geographic regions (Northwest, Southwest, Midwest, North East, and Southeast) were represented in the sample. The largest percentage of administrators represented colleges with an enrollment between 1,001 – 2,500 students. A majority of respondents were Athletic Directors who were male, 50 years old (SD = 10 years), and averaged 18 years (SD = 9.5) in athletic administration. These figures closely match NADIIIAA membership (R. Rasmussen, personal communication, March 24, 2014).

Instrument

Examining the context of DIII athletics in relation to the environment was augmented by a comparative analysis with previous data collected from DI athletics departments because the quantitative items in both studies were identical (Casper et al., 2012). To begin, there were four major sections of the survey: 1) prioritization, 2) planning, 3) decisions makers' perspectives, and 4) initiatives and implementation. The categories were created based on awareness, knowledge, and actions linkages as well as strategic and contingency attributes related to environmental issues from both the managerial-side (prioritization, planning, and perspectives) and the applied-

side of current operations (initiatives and actual implementation) (Etzion, 2007; Vastag, Kerekes, & Rondinelli, 1996). All items were stated the same as the survey directed at DI athletic departments (Casper et al., 2012) allowing direct comparisons to be made.

Prioritization
Two survey items related to prioritization asked respondents about the priority of sustainability initiatives within the university and then within the athletic department. A third item related to emphasis on initiatives with the athletic departments (emphasis increasing to emphasis decreasing).

Planning and decision-maker perspectives
One item asked respondents if their athletic department had a strategic plan with short and long-term objectives. An additional item asked who (e.g., athletic department) would be responsible for development of a plan (see Table 2). Questions were also asked to determine if there was an established green team and if there was an athletic department staff on a campus-wide green team. Lastly we asked if they were aware of their college/university president signing the Climate Commitment. Two items were included related to the respondents view about perspectives key decision-makers have when it comes to environmental initiatives and feeling about them affecting the bottom line (costs/budgets). An eight-item Likert-scale was then used to assess concerns that key decision-makers about implementation of an environmental program (see Table 3).

Initiatives and implementation
Twelve Likert-type items related to the emphasis on environmental initiatives and implementation within departments (see Table 4). Actual initiative implementation was categorized into five themes (Casper et al., 2012). *Energy reduction* items use of solar-photovoltaic; solar-hot water; wind turbine(s); geothermal systems; biomass systems; occupant behavior training; lighting - compact fluorescent; lighting – LEDs; lighting - occupancy sensors; lighting - daylight sensors; alternative energy vehicles; purchase of "green" energy through utility companies; and purchase of carbon offsets. *Recycling* items related to implementation of: office/training - bottles & cans; office/training - white paper*; office/training cardboard; events - bottles & cans; events - packaging/cardboard; events - promotion announcements; events - in-game proactive collection, buildings and operations, and athletic department education and purchasing. *Water conservation* items related to implementation/use of: low flow faucets; low flow showers; waterless urinals; Low-flow toilets; Rain water capture; graywater systems; soil moisture/irrigation control systems; Xeriscaping; and setting water reduction goals. *Green building and operations initiatives* items related to implementation/use of: adopting LEED-NC standard for New Building Construction; adopting LEED-EB standard for existing building operations; adopting British Standard 8901 for sustainable events; use of green cleaning supplies; event concessions - offering organic food; Event concessions - offering local food; event concessions - food composting; and green turf management practices. *Environmental practices* items related to implementation/use of: buying recycled content paper for offices; buying recycled content paper for restroom supplies; educating employees on green issues; student volunteers helping in green program; incentivizing mass transport for game attendees; other efforts to reduce fan travel energy; and promoting your green strategy with sponsors and advertisers. Quantitative ordinal and nominal items (e.g., Yes; No; In progress; I don't know) were

used in the survey instrument. The ordinal items utilized several Likert-type scales (e.g., 1- very low priority to 5-very high priority; 1-minimal effort to 4-maximum effort). Actual initiatives implementation was based on a 4-point scale (none, minimal, moderate, and extensive). For each of the items (except initiative emphasis) a nonsubstantive response category (e.g., "I don't know" or "Unknown") was included.

Data Analysis

In order to provide a baseline to better understanding sustainability issues within DIII athletics departments and to further understanding of environmental awareness, knowledge, and action in intercollegiate athletics overall, the data analysis was primarily descriptive following other exploratory athletic sustainability-focused research (Casper et al., 2012, 2013; Gummesson, 2003; NRDC, 2013a, 2013b; Pinoniemi, 2009). Analyses included frequencies, means, and standard deviations of the items. For comparisons of responses based on DIII data and DI data, multivariate analysis of variance (MANOVA) was used for Likert-scale items and excluded respondents that answered "I don't know" or "Unknown" (percent of these are reported in tables). Chi-square estimates were used for nominal items.

RESULTS

This study provides a baseline of environmental prioritizing, planning, decisions-making, and initiative implementation with DIII athletic departments. Primarily, the results provide an initial glimpse of where many DIII institutions are at related to environmental sustainability and identifying common themes and areas of emphasis (or lack thereof) that may be important for future actions. The data gathered from the DIII athletics departments were analyzed not only within its own context, but also against that of DI programs as baseline data was available (Casper et al., 2012).

It is important to recall that while DI and DIII athletics department data are being compared, it is more a contextual comparison than a direct one because, while the two areas are similar, they include elements that make a difference in this situation (e.g., revenue generation opportunities, resources available). The comparison is meant to inform and to guide in order to better situate future studies as few studies exist regarding athletics department work on environmental issues (Authors, in press; Casper et al., 2012; Jin et al., 2011; NRDC, 2012). The theoretical lens used in this study help to explain or support or refute the findings, but not to develop overarching theory. While differences exist in terms of size, resources, environmental impacts, and many other aspects of managing athletics operations, at the core, intercollegiate athletics departments across levels have facilities with environmental footprints, fans that make an environmental impact, and competing interests among a variety of stakeholders. While we compare the DI and DIII, it is done cautiously because the studies were conducted at different times meaning there might be an implementation lag in the DI schools studies (meaning the actions noted in 2012 could be substantially more advanced today). Additionally, athletics departments could have abandoned efforts in the interim as well. However, the instrument used in both studies is the same allowing for comparison, especially across the strategic and operational (e.g., recycling) aspects of the study. For ease of reporting, we discuss the main results for DIII and then discuss significant differences between levels within each major topic.

Participants

Table 1 depicts the demographic characteristics of the DIII sample. A majority of the respondents represented schools with an average enrollment size of 1,001 – 2500 students, served as the Athletic Director, male, average age was 50 years old, and had 18 years of experience in athletics administration. These statistics closely matched data on DIII athletic directors and associate athletic directors (NCAA, 2013b; Rasmussen & Rasmussen, 2003). The respondents represented 36 out the 45 total possible NCAA DIII conferences and covered all major regions of the United States. The comparative DI sample had higher student enrollments (92.4% had enrolments above 10,000 students) and most respondents were not athletic directors (85% were Associate Athletic Directors and only 2% were Athletic Directors). Age, gender, and years of experience were added to the DIII study and were not asked in the DI study.

Prioritization

Most of the DIII respondents (63%) believed university or college personnel were prioritizing environmental and sustainability initiatives as a high or very high priority (72%). In contrast, only 32% of the DI respondents believed that environmental and sustainability initiatives were a high or very high priority within the athletic department. With regard to emphasis increasing in the future, 51% DIII respondents believed there would be an increase. DI respondents believed about university prioritization, but believed athletics department prioritization was significantly higher (M (DI) = 1.82, M (DIII) = 1.50; F = 4.02, df = 1, p = .046). DI also reported emphasis within athletic department increasing significantly more (M (DI) = 2.95, M (DIII) = 2.55: F = 6.60, df = 1 p = <.001).

Planning

Respondents were asked about strategic environmental planning. Nearly 82% of personnel in DIII athletics departments stated they did not have plan in place, but 21% stated they were actively engaged in the process. Table 2 shows who would be responsible for development of a plan. The respondents believed that planning responsibility is most likely to fall on the athletic director or campus wide sustainability team and nearly a quarter of the DIII respondents believed it would come through a team of athletic and campus representatives. In relation to formation of a working group (or *green team*), a vast majority (94%) of the respondents stated they did not have one in place (only 4% had one in place and 2% are planning for one). Among those respondents with a campus-wide *green team*, 28.2% reported having an active athletics department member. In relation to understanding the university stance on planning, only 26.9% stated that they knew their institution was part of the University Presidential Climate Commitment indicating a lack of communication between the athletics department and the university. Comparing this data with DI, there were significantly more DI schools (25% for DI; 17% for DIII) that were in the planning process or had plan one in place (Chi-Square = 10.01; df = 4; p = .039). Division I respondents believed responsibility falls more under athletic facilities/operations. Additionally, DI reported a higher percentage of administrators who were committed to forming a green team (Chi-Square = 9.94; df = 3; p = .039).

Decision Making

A majority (79.5%) of respondents believed that decision makers in athletics departments have a positive perspective related to environmental initiatives. When asked about how environmental initiatives might affect the bottom-line, most believed that, overall, there would be a slightly negative to no effect on the bottom line with about 17% of believing there would be an

improvement in the bottom line. One interesting finding was that 57.7% of the DIII respondents reported that they have no plan to work with fans about environmental issues or to gauge their concern for environmental issues. There was little difference with DI respondents' positive perception or effect on the bottom-line, but all DI respondents reported they had plans to work with fans (Chi-Square = 94.21; df = 6; p < .001).

Table 1: Characteristics of DIII Sample

	Response Count	Response Percent
Student Enrollments		
Less than 1,000	9	11.5%
1,001-2,500	42	53.8%
2,501 - 5,000	9	11.5%
5,001 - 7,500	4	5.1%
7,501 - 10,000	1	1.3%
10,000 or more	6	7.7%
Missing	7	9%
Role In Organization		
Athletic Director	53	67.9%
Associate AD/SWA	11	14.1%
Assistant AD	4	5.1%
Facilities Director	2	2.5%
Missing	8	10.4%
Gender		
Female	33	42.3%
Male	37	47.4%
Missing	8	10.3%
Age in Years (N= 62)	M = 49.98	SD = 10.20
Years of Experience in Athletic Admin. (N = 66)	M = 17.91	SD = 9.55

Table 3 illustrates the concerns related to implementations of an environmental program. For DIII respondents, too little green experience and unclear ROI were the highest rated and most salient concerns. Differently, DI respondents believed that ROI was the most important concern. In all cases, except for green expertise, DI reported higher levels of concern than DIII.

Initiative Implementation - Emphasis
Respondents were asked about emphasis and implementation of environmental initiatives within all major categories of all operations including those related to energy, recycling, water conservation, building/operations, and internal organizational operations. The results show that efforts related to recycling and energy conservation were emphasized the most for DIII (Table 4).

Initiative Implementation - Current Implementation
For brevity, a summary of the current initiatives are discussed and significant differences between DIII and DI are reported. It is also important to note that in every initiative category, DIII reported a higher percentage of "unknown." Related to energy initiatives, the most common DIII initiative was use of efficient light bulbs (compact fluorescents and LED) and use of sensors to conserve energy when buildings/rooms are not in use. The use or purchase of alternative energy was minimal. A MANOVA found DIII reported significantly ($p < .05$) less occupant behavior training than DI. Recycling was clearly the most implemented DIII initiative.

Table 2: Responsibility for development of an athletic sustainability plan

	Athletic Director	AD Facilities	Campus Facilities	Campus Sustainability	Athletic Mgmt. Team	None	Other
DI (n=94)	0.00%	28.70%	27.70%	10.60%	23.40%	9.60%	0.00%
DIII (n=78)	11.50%	7.70%	14.10%	28.20%	29.50%	6.40%	2.60%

Recycling in the office was reported to be moderate and recycling of bottles and cans at events was common. DIII reported significantly less recycling of office white paper than DI. For water conservation, the use of low flow systems such as faucets, showers, and toilets was common. The use of initiatives for non-lavatory use (e.g., water capture) was less common. There were no significant differences between DIII and DI. Related to building and operational initiatives, LEED standards for new building, use of green cleaning supplies, and green turf management were the most common initiatives. The only significant difference was DIII using less local sourced food within concessions.

The last section related to consumption and education efforts within or by the athletic department. The results show purchasing and employee education were in common. Incentives/efforts related to fan travel and working with sponsors/advertisers was uncommon. DIII were significantly less likely to have efforts to reduce fan travel, incentivize mass transportation, and promoting your green strategy with sponsors and advertisers.

DISCUSSION
By examining athletics department personnel in NCAA DIII level schools in relation to their environmental sustainability prioritization, key aspects of organizational planning, decision-making and practices were uncovered. As this study is the first to examine environmental sustainability within DIII, the discussion generalizes context and carefully compared findings with DI for a more comprehensive understanding.

Table 3: Decision makers concern related to environmental sustainability
Initiatives in the Athletic Department

Item	Mean (SD)		I Don't Know*	
	DI (n=94)	DIII (n= 78)	DI	DIII
Unclear return on investment	2.84 (.80)	2.58 (.97)	7.6%	11.8%
Distraction from the department's goals*	2.41 (1.01)	2.29 (1.01)	6.5%	5.2%
Green programs are just a passing fad	1.81 (.833)	1.68 (.903)	6.5%	3.8%
Too little green expertise within department*	2.31 (.88)	2.65 (.91)	5.4%	1.3%
Keeping ahead of other universities*	1.95 (.85)	1.66 (.825)	5.4%	1.3%
Negative reaction by at least some fans	1.98 (.91)	1.61 (.79)	6.5%	5.1%
Negative reaction by the press*	2.10 (.98)	1.37 (.62)	6.5%	2.6%
Interferes with the game enjoyment*	2.28 (.96)	1.58 (.76)	7.6%	7.7%

Note. Scale from 1 = low, 2 = moderate; 3 = high, 4 = very high.
* indicates significant ($p < .05$) difference between DI and DII based on MANOVA.

Administrative Prioritization and Decision-Making

This study sought to find decision-makers who have the authority to create, to control, and to implement environmental plans and initiatives. Discretionary theory illustrates the power of individual decision-making process and policy formation. Environmental activities blur lines between distinct management functions making it both a top-down and bottom-up issue at the same time. Thus, understanding normative actions, grounded in personal experiences and perspectives (Stern, 2000), helps to learn more about why decisions were taken. Managerial discretion is an individual action with multiple driver variables (e.g., organizational needs, external pressure) that exert influence over the decisions made (i.e., strategic planning, engagement with university sustainability units) (Hambrick, 2007). For DIII athletics department personnel, the athletic director appears to be the sole authority for initiating and administering environmental actions, thus a top-down approach function. This is different in DI where these decisions are made by primarily by associate athletic directors. Recognizing the multiple duties of an athletic director, the need for education in a direct in simplified manner (e.g., a *greening* guide) might be essential.

When it comes to *green* planning, DIII respondents believed the onus was more on the athletic director, whereas, by comparison, no DI program noted *green* planning as an athletic director's responsibility. At the DIII level, then, the data shows that more DIII directors believe that if it is going to get done, they have to do it. We believe that this distinction comes down to resource availability, time, and staff issues.

The individual nature of the expectation for environmental actions, especially those *required* of an athletics director, reveals the importance of understanding individual perceptions of the environment that drive decision making (Casper et al., 2012). Further, it appears there is a combination of coercive isomorphism and normative isomorphism. The former is the result of a probable combination of societal and administrative expectations such as the emphasis on prioritizing environmental issues within athletics department operations (e.g., strategic planning).

Table 4: Emphasis on the following environmental initiatives within the Athletic Department Facilities

	Mean (SD)		Don't Know	
	DI	DIII	DI	DIII
Energy conservation*	3.34 (844)	2.63 (.892)	24.5%	0.0%
Energy Efficiency*	3.38 (.852)	2.61 (.853)	16.0%	0.0%
Alternative energy	2.34 (.938)	1.79 (.809)	0.0%	7.8%
Green Building*	2.69 (.988)	2.09 (1.022)	9.6%	1.3%
Recycling – Office*	3.31 (.805)	2.96 (.871)	20.2%	0.0%
Recycling – events*	3.24 (.877)	2.34 (1.008)	18.3%	0.0%
Water conservation*	2.95 (.872)	2.34 (.917)	9.6%	0.0%
Green Cleaning*	2.86 (.883)	2.22 (.975)	7.5%	11.7%
Green turf Management	2.95 (.936)	2.51 (.885)	11.7%	9.2%
Natural/local food	2.07 (.845)	1.85 (.846)	1.1%	13.2%
Fan transportation*	2.42 (.951)	1.37 (.601)	6.5%	14.5%

Note. Scale from 1 = low, 2 = moderate; 3 = high, 4 = very high.
* indicates significant ($p < .05$) difference between DI and DII based on MANOVA.

However, normative isomorphism does affect the situation as actions were taken in the absence of comprehensive and holistic strategic planning processes since few athletics departments had strategic environmental plans or elements within broader unit planning processes (Dacin, 1997). Earlier, it was noted recycling is a popular first action by athletics department personnel. The desire to take action, versus plan to take strategic action, might be a result of the need to legitimize athletics department contributions in light of their high profile positions (i.e., expected behaviors as university gateways) (Cunningham & Ashley, 2001; DiMaggio & Powell, 1983; McCullough & Cunningham, 2010. The desire might also be attributed to the need to comply with university mandates and undertake a coordinated campus effort.

Additionally, the data show how constraints in discretionary decision-making are related to this situation (e.g., job demands) (Hambrick, 2007; Hambrick, Finklestein, & Moody, 2005). The study showed, with resources constrained by the nature of DIII athletics, athletics director discretion and strategic planning to identify environmental issues and to integrate environmental aspects into strategic planning is challenged. This notion is reinforced with the high implementation of actions related to foundational activities (i.e., recycling, energy efficient lighting). At the same time, other activities were pursued at this time (e.g., fan engagement, select facilities maintenance actions).

A significant concern for DIII respondents was they have too little expertise within the department related to environmental programs. The people in the strongest position to affect

change in this area at the DIII level, at the worst, appear to not have the necessary awareness, knowledge, and skills sets (or even motivation) to address them, which impacts successful communication of efforts to various stakeholders (Benford, 2007; Sarkis, Gonzalez-Torre, & Adenso-Diaz, 2010; Smart & Wolfe, 2000). This seems to be an important difference between DI and DIII levels and raises issues as to how and from where expertise and knowledge will come. A lack of formalized environmental structures (e.g., few green teams), the activities reported look more ad hoc than strategically planned. More coordinated control over environmental planning and action are recommended moving forward, despite varying contextual issues within and among DIII athletics departments.

Taking Action(s): Strategic or Not
The data in this study shows that DIII athletics personnel emphasize foundational environmental practices (e.g., energy conservation, recycling). The coercive and normative isomorphism discussed earlier help to explain the focus on these *safer* common and more accepted practices, at least from resource allocation and communication perspectives (Cunningham & Ashley, 2001; Dacin, 1997; Death, 2011; DiMaggio & Powell, 1983; McCullough & Cunningham, 2010; Newlands, 2012). The only areas that were not commonly initiated were use of alternative energy, use of natural/local food at events, and fan transportation, which are more resource intensive and higher maintenance than recycling, for example (Hart, 1995).

Further, the data suggest that discretion is used to find immediate and actionable environmental tactics to employ, outside of a more comprehensive strategy, but one that still provides legitimacy to the athletics department at a lower resource use and cost, which is supports previous research (NRDC, 2012). While DI respondents reported higher emphasis on environmental initiatives than DIII respondents, actual implementation information shows there were few statistical differences between DI and DIII programs. Of note are the decisions to address internal operations (e.g., recycling in offices) and event oriented energy and recycling, which are visible to the general public, stakeholders, athletics department personnel, and university community members. Less emphasis and resource allocation is given to higher end actions indicating a resource constraint scenario. Energy conservation and recycling efforts of various types offer an understandable entrance into sustainability planning and action as both have been around for some time (awareness) and are relatively straightforward to understand how to implement and to manage (knowledge). The relative *safety* of these actions can be implemented at a low(er) cost, are able to be measured in cost effective manner, require minimal staffing, and are a common environmental aspect of many public spaces, all of which help to minimize risk to the athletics personnel (i.e., greenwashing, budget issues).

The data showed for nearly every initiative category, more of the DIII respondents were unsure or did not know about using (or planning to use) certain energy, recycling, water, or building and operations initiatives. This highlights the aforementioned awareness and knowledge gaps and significant role of discretion by decision-makers in athletics departments (Casper et al., 2012; Dacin, 1997; Hambrick, 2007; McCullough & Cunningham, 2010; Stern, 2000). The data offers a mixed set of understandings about differences in environmental awareness, knowledge, and action between DI and DIII contexts (Casper et al., 2012; Stern, 2000).

Organizational resources are of primary importance to sport personnel (Mallen, Adams, Stevens, & Thompson, 2010; Mincyte, Casper, & Cole, 2009). NRBV perspectives of natural resource usage is a primary issue in relation to sport and the environment for both daily operation of stadia and event venues and the events themselves (e.g., Olympic Games, baseball game) as are the time and knowledge resources of athletics department personnel (Dolles & Söderman, 2010). Deploying all of these resources in an effective and efficient manner is a challenge for athletics department personnel, including over time.

Adding further complexity is deploying the resources while considering the environmental impact or cost of undertaking various actions (Hart, 1995; Hart & Milstein, 2003; Shrivastava & Scott, 1992). Strategic planning becomes important compared with ad hoc programs and efforts that might be visible, but inconsistently activated or offer little return on the investment provided. Recycling, for example, is a common activity for sport organization personnel to undertake. It is visible, relatively inexpensive to enact and to maintain, and requires moderate social *training* to get fans and attendees to use the facilities. However, higher order tactics and activities are much more difficult to come by across all levels of sport as contextual constraints (e.g., financial, staffing, knowledge) drive perceptions, norms, and behaviors, which in turn drive actions (Casper, Pfahl, & McCullough, 2014; Stern, 2000). Environmentally oriented bounded rationality constrains decision-making, implementation, and measurements of success for any environmental effort. Research has shown that a result of current strategic and tactical efforts offer a mixed set of outcomes in terms of public perception and understanding in relation to impact on environmental issues facing athletics departments and beyond (Casper et al., 2014; Chappelet, 2008; Girginov, 2011).

In summary, the DIII athletics director is the person most likely to take charge of environmental initiatives and it is not surprising that his or her expertise, or even availability to learn more, is limited because of the smaller staff and demanding workload of the position. This is further demonstrated by the lack of a *green team* (Pfahl, 2010). Organizational learning competencies can be gained through developing relationships with campus (and other) stakeholders to improve awareness and knowledge of environmental issues (Casper et al., 2014). Yet, even with the potential for collaboration (e.g., sustainability offices), there is no guarantee of collaboration between them, so attention must be given to proactive relationship development (Owens & Halfacre-Hitchcock, 2006; Swearingen White, 2009; Woodland & Hutton, 2012). Such a situation calls for a more structured, strategic approach to environmental issues in order to learn more about them as well as how to collaborate or work alone to address the issues.

LIMITATIONS AND FUTURE RESEARCH

Future research can utilize this study to frame environmental planning and activities in DIII specifically. The results and discussion presented in this study also provide further information about and the natural environment and intercollegiate athletics more broadly, as the importance of environmental issues in sport continues to grow. This section examines limitations to the study and areas of future studies including developing individual and organizational competencies and structures and informed strategic planning processes and capabilities.

Developing Individual and Organizational Competencies and Structures

DIII personnel reported differences in responsibility structures related to environmental action and showed a clear concern for the environment that can be surrounded by a lack of environmentally related expertise (i.e., awareness, knowledge). Determining the *success* of environmental actions across time means the environmental awareness and knowledge of athletics department personnel involved in environmental operations must be better understood (Dacin, 1997). Without contextual examinations of environmental work, judgments as to their effectiveness are less complete.

Building on earlier suggestions, a more structured approach to understanding and acting upon environmental issues is needed. However, not all environmental action has to be undertaken at once. As competencies are developed, new levels of action can be added, but they need to be structured so as not to adversely affect past successes that continue on. Whether athletics department or collaborative initiatives, strategic needs should drive action, not just haphazard actions for their own sake (Marrone, Mancl, & Carr, 2001; Pfahl, 2010; Stern, 2000). This point is salient to a limitation of the study in that the majority of respondents were athletics directors, but not all. The smaller staff size of DIII athletics departments mean that non-athletics directors might be involved in environmental work to a varying degree. This situation is not a problem in and of itself, but future studies should work to better define the roles and responsibilities of respondents as their individual perceptions and knowledge levels (i.e., awareness) are important, but must be understood in relation to the capacity for action (i.e., discretionary decision making).

To develop greater understanding of the strategic nature of athletics department processes and actions, further study into the ways in which sport personnel develop awareness and knowledge about environmental issues is needed (e.g., through collaborative partnerships with sustainability offices) (Casper & Pfahl, 2015; Stern, 2000; Stern, Dietz, Abel, Guagnano, & Kalof, 1999; Stern, Dietz, Kalof, & Guagnano, 1995). These studies can examine individual and community levels, engagement between sport personnel and stakeholders of all types (e.g., sustainability departments, suppliers) (Casper & Pfahl, 2015). Context specific case studies and broader comparative ones across contexts can help to articulate common practices and principles related to strategic planning, implementation, and evaluation of environmental activities. Such studies can develop guidelines for action. Future work can also examine pre-hire socialization of sport personnel related to environmental issues (e.g., perspective development) prior to entering the workforce. Understanding these pre-hire perspectives act as window into future awareness, knowledge, and action development and decision-making processes (Casper et al., 2012; Hambrick, 2007; Jablin, 1987). In this study, existing conditions were examined as part of the study, but the conditions that developed those conditions were not as well explored. Examining, for example, the socialization elements sport personnel had upon entering an athletics department can be compared with existing ones to denote important changes.

Informed Strategic Planning Processes and Capabilities

The DIII data showed, despite a common implementation starting points (e.g., energy conservation, recycling) there are structural and decision-making challenges to address at the intercollegiate level (Casper et al., 2012; Ramus & Montiel, 2005). Environmental goals, objectives, tactics, and measures of success (i.e., data gathering metrics, green teams) are still lacking in or are inconsistent within DI and DIII athletics departments. The data found in this

study, and the information within the literature in general, indicate that environmental activity is increasing in sport and environmentally relevant planning and processes are becoming a part of sport organization culture (see Table 4). The question should now be how sustainable is this commitment to sustainability given resource enablers and constraints, competing operational needs, and the need for greater stakeholder inclusion?

Athletics departments are in an envious position when it comes to environmental activities because they are situated in academic contexts that offer the expertise, staffing/labor, and resources (although not always monetary) to begin to incorporate and to sustain environmental issues into their strategic planning and operations (Trendafilova, Pfahl, & Casper 2013; Benford, 2007; Smart & Wolfe, 2000; Swearingen White, 2009). A deeper investigation athletics department strategic processes related to environmental activities is needed. Earlier, it was noted that increased attention needs to be paid to individual awareness and knowledge framing action, but tying the ideas together at the organizational level becomes strategy (Porter & Rheinhardt, 2007). This study utilized an instrument tested in two intercollegiate athletics levels, but accommodations for the unique characteristics of DIII, while discussed, were not accounted for thoroughly. The data also showed a difference in organizational structure and the control of decision-making processes related to environmental issues. Thus, examinations into why strategic choices, and the constraints under which they were made, is just as important as what the choice was (e.g., installing low flow water systems, but not water capture and re-use systems) or the outcome of a choice or set of choices.

Additionally, it is suggested that future research continue to explore the differences in intercollegiate athletics divisions as well as the similarities in different contexts (e.g., collaboration with campus units, strategic planning processes, resource allocation, community educational outreach) (Babiak & Trendafilova, 2011; Casper & Pfahl, 2012; Emanuel & Adams, 2011; Inoue & Kent, 2012; NRDC, 2013a; Trendafilova et al., 2013). Given the variation in environment awareness and knowledge of athletics department personnel as shown in this study, contextual studies into environmental efforts in sport must be nuanced and holistic as well as comparative to provide useful insight (Casper et al., 2012; Gummesson 2003, 2006). An added benefit of increased contextualization will be to better understand the *effectiveness* of environmental processes and actions (e.g., examining resources available, strategic planning for green teams). Further, the examination, and possible addition of guidelines, tools, and communication frameworks for environmental activities at the intercollegiate level developed by the NCAA, NRDC, and the Green Sport Alliance will augment academic research (Trendafilova, et al., 2013). Examining the use and success of these efforts adds to environmental understanding at the intercollegiate level and can translate into examinations of contexts at other levels of sport. One significant challenge to this is time. Time changes strategic planning and actions affecting even the most carefully constructed contextual examinations. Overcoming this obstacle involves longitudinal studies of contexts as available as well micro level examinations (i.e., pre-/post-study) of actions themselves. With no finish line and shifting contextual sands, environmental research is complicated.

In conclusion, this study continued the examination into the state of environmental issues in intercollegiate athletics departments. Sport personnel in collegiate athletic departments are proactively and reactively engaging in environmental activities. The sustained practice and

determinants as to the success of these efforts is only just emerging. In the end, individuals will continue to bring their awareness and knowledge levels of environmental issues into strategic planning processes and determining the role of sport in creating and addressing environmental issues. Through their decisions and actions, sport will continue to impact the natural environment. The question remains as to whether or not environmental care or environmental damage will be ahead on the scoreboard throughout the process.

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