# The Effect of Cohort on Women's Sport Participation: An Intergenerational Study of Collegiate Women Ice Hockey Players 

Carol J. Auster<br>Franklin and Marshall College


#### Abstract

The purpose of this paper was 1) to examine the effect of gender expectations on sport participation by considering the impact of cohort on women's choice to play collegiate ice hockey, a masculine and statistically male-dominated sport, and 2) to show how the "enrichment hypothesis," habitus, and recreational capital can be used as conceptual frameworks to explain this choice. The findings are based on a survey of 85 women who played collegiate ice hockey, a nontraditional sport for women. The respondents reported the importance of significant others; however, cohort effects were evident in the age at which they started playing ice hockey and extent to which friends or family members had influenced them as well as in the degree of participation in team sports and ice hockey, in particular, prior to playing ice hockey in college. The implications of these findings for practitioners as well as suggestions for future researchers are provided.


KEYWORDS: Gender, cohort, habitus, leisure constraints, ice hockey

## Introduction

Gender expectations of women and men have an impact on many choices in life, including the choice of leisure activities. Over the past several decades, changes have taken place in the United States with regard to gender expectations, particularly for women, which have led to more positive attitudes about women's participation in sports, one type of leisure activity. These attitudinal changes along with opportunities stimulated by the enactment of Title IX in 1972 have resulted in women's increased participation in sports, particularly at the collegiate level. For example, while in 1970 about 16,000 women participated on intercollegiate sports teams in the U.S., this grew dramatically to about 180,000 women by 2006. Similarly, while in the late 1970 s there were about 1400 women's intercollegiate teams in the U.S., there are now over 8700 women's intercollegiate teams (Carpenter \& Acosta, 2006).

Despite these changes, gender expectations and gender socialization continue to influence leisure preferences and result in gendered leisure choices for both men and women (Carpenter \& Acosta, 2006; Gill, 2002; Henderson, 1990; Henderson \& Bialeschki, 1993; Hultsman, 1993a; for review, see Shaw \& Henderson, 2005). The continued impact of gender expectations on leisure choices and sports participation is cur-

[^0]rently reflected, for example, in the large percentage of men as compared to women playing tackle football and hunting with bow and arrow and the large percentage of women compared to men involved in cheerleading and T'ai Chi/Yoga (U.S. Bureau of the Census, 2006, Table 604.) The effect of gender expectations is further reflected in perceptions of particular sports as feminine, gender-neutral, or masculine (Coakley, 2004; Koivula, 1995; Matteo, 1986; Metheny, 1965).

Gill (2002) explicitly points to the importance of taking into account the social and historical context in order to understand the impact of gender on sport participation. While birth cohort may have little effect on participation in some sports, it becomes a potentially salient variable when expectations shift and structural changes occur such that opportunities not available to an earlier generation become available for a later generation. This study of three cohorts of women who played collegiate ice hockey in the U.S. provides an interesting context in which to examine the effect of gender and cohort because of women's increased participation in sports during that time as well as the continued impact of gender expectations on perceptions of leisure activities.

Using either subjective or objective criteria (Standley \& Soule, 1974), playing ice hockey would be classified as a nontraditional sport for women. Subjectively, the game of ice hockey is typically thought of as a "male" sport (Kane \& Lenskyj, 1998, p. 193) and the typical ice hockey player is thought of as stereotypically masculine (Koivula, 1995; Laberge, 1995; Matteo, 1986). These notions are influenced by gendered perception of sports more generally and may be further influenced by televised and the admittedly mediated images (Duncan \& Messner, 1998) of male players fighting during National Hockey League games (Morra \& Smith, 1996). Although photographs document women playing ice hockey in the U.S. as early as 1892 (Avery \& Stevens, 1997), objectively, ice hockey still remains a statistically male-dominated sport with women and girls currently comprising only about $12 \%$ of players registered with USA Hockey, the national governing body of amateur hockey in the U.S. (USA Hockey, 2006). Nevertheless, women's participation and visibility in ice hockey have increased over time. In 1998, when women's ice hockey became an Olympic sport, women's games were televised on a major network for the first time. And in less than 15 years, the number of female teams has grown from less than 150 to 2,200 , and over 54,000 female players were registered with USA Hockey in the most recent season (USA Hockey, 2006). Currently, in the U.S., there are more than 80 NCAA varsity women's ice hockey teams with over 1600 players at various colleges and universities (NCAA, 2006).

The purpose of this paper was 1) to examine the effect of gender expectations on sport participation by considering the impact of cohort on factors associated with women's choice to play collegiate ice hockey, a masculine and statistically male-dominated sport, and 2) to show how the "enrichment hypothesis," habitus, and recreational capital can be used as conceptual frameworks to explain this choice.

## Literature Review

## Gendered Perceptions of Sports

Many works revealed the impact of gender expectations and gendered perceptions on various aspects of sport, including equity and participation (for review, see

Gill, 2002 and Coakley, 2004). In an early work on the effect of gendered perceptions on sports participation, Metheny (1965) identified femininity and masculinity as social constructs, noting how they may vary by time, place, and even subcultures within a society. These social constructs, gender ideologies, and gender stereotypes have the effect of making women's and men's potential participation in certain sports and recreational activities less acceptable or seemingly less appropriate than others (Coakley; Henderson, 1993, 1994; Metheny). The gender stereotyping of activities has an influence on leisure preferences (Hultsman, 1993a; Shaw, 1994), and early on, girls and boys may narrow their recreational options because they perceive that some sports are "inappropriate" for their gender (Kane, 1990).

Female athletes who have engaged in sports associated more with femininity and the display of the body in aesthetically pleasing ways (Metheny, 1965; Postow, 1980), such as figure skating (Ryan, 1995) or gymnastics (Matteo, 1986), have had an easier time finding acceptance of and support for their interests than female athletes pursuing sports perceived as more masculine (Coakley, 2004). On the other hand, bodily contact with an opponent (Metheny) and displays of strength (Coakley; Metheny) appeared to characterize sports that have been labeled as less acceptable for women. Sports, such as ice hockey, which were characterized by aggression, speed, and dominance, have been strongly associated with masculinity (Cahn, 1994).

Theberge described ice hockey as "a contact sport in which force and power feature prominently" (2003, p. 500), dimensions identified by both Metheny (1965) and Coakley (2004) as making a sport less acceptable for women. Even though full body checking is prohibited in women's ice hockey, "with or without body checking, hockey is a game of both skill and strength" (Theberge, p. 501). Moreover, the most consistent responses from the adolescent female players in her study were that their games were "aggressive" (p. 504) and that ice hockey was a "physical" sport (p. 506). Furthermore, the responses of subjects participating in a study of the gender-labeling of sports indicated that ice hockey was classified as a masculine sport (Koivula, 1995). Koivula's (2001) later research also showed that when 41 sports were rated on 12 scales, the subjects' mean rating of ice hockey on the "masculinity" scale was higher than the mean rating on that scale for any other sport, including football, rugby, weightlifting, and motor sports. Although girls' and women's teams as well as "old-timer" recreational men's teams typically engage in a version of ice hockey that is somewhat less aggressive and involves less physical contact, the sport continues to be most typically thought of as stereotypically masculine and it remains statistically dominated by boys and men.

## Gendered Choices and Constraints

In addition to studying others' perceptions of various sports, researchers have also studied the impact of gender on leisure constraints and discovered the ways in which gender has inhibited respondents' leisure preferences and participation (Henderson et al., 1988; Jackson, 2005a; Raymore et al., 1994; for review, see Shaw \& Henderson, 2005). Scholars have also considered the potential additive or interaction effect of gender with other identities, such as race and ethnicity, on leisure preferences and outcomes (Henderson \& Ainsworth, 2001; Johnson, Bowker, \& Cordell, 2001; Lee, Scott, \& Floyd, 2001; McKay, Messner, \& Sabo, 2000; Shinew \& Floyd, 2005; Shinew, Floyd, McGuire, \& Noe, 1995).

Early conceptualizations of leisure constraints emphasized intervening constraints, factors that intercede between a preference for a specific leisure activity and participation in that activity (see review, Goodale \& Witt, 1989). With regard to women playing ice hockey, the lack of an arena, practice time, or an all-female team might be perceived as an intervening constraint. However, later conceptualizations included antecedent constraints, factors that inhibit or negatively influence one's preference for or interest in particular leisure activities and, thus, precede the desire to transform leisure preferences into participation (Crawford \& Godbey, 1987; Henderson, Stalnaker, \& Taylor, 1988; Jackson, 1990; for review, see Jackson, 1988). Gender expectations and gendered perceptions of leisure activities can be thought of as potential antecedent constraints that may suppress pursuit of particular activities that may have matched an individual's talents and interests. If gender expectations and gender norms are strong enough and deeply internalized, it is unlikely that an individual would even develop a preference for an activity nontraditional for one's sex. More specifically, gender expectations and gendered perceptions of ice hockey as masculine may act as antecedent constraints. Unfortunately, past methodological approaches to studying leisure constraints were more likely to uncover intervening constraints, those that occur after one has developed a preference for an activity, because of the particular questions asked and the often already formulated lists of constraints (for review, see Auster, 2001). Consequently, most researchers have been unlikely to learn about some of the most important constraints, such as gender expectations, that may have led individuals to unknowingly overlook and exclude certain leisure activities.

Scholars of leisure constraints also introduced the concept of negotiation to explain how individuals overcome a variety of constraints (Henderson \& Bialeschki, 1993; Jackson, Crawford, \& Godbey, 1993; Jackson \& Rucks, 1995). Early conceptualizations of negotiation implied that individuals consciously and actively responded to constraints they encountered (Jackson et al., 1993). Samdahl (2005) argued that this focus on individualized responsibility often ignored the importance of the historical context and the imposed social order, which here could include gender expectations. More recent works described other ways in which antecedent constraints were overcome, either unconsciously or subconsciously (Crawford \& Jackson, 2005; Samdahl). Auster (2001) suggested that rather than consciously negotiating constraints, individuals may have transcended antecedent constraints by having been exposed to an "enriched" social environment, such as a family setting, that offered opportunities and support for an activity that outweighed the effects of expected antecedent constraints, such as gender expectations and gendered perceptions of that activity. This implies that although ice hockey was perceived as nontraditional for women, changing gender expectations, significant others, or other aspects of an environment conducive to ice hockey could have eased the path to participation.

## Gender and Cohort

Previous research showed that cultural expectations associated with a particular age (Bennett, 1985; Hultsman, 1993a, 1993b; Jackson, 1990, 1993; Raymore et al., 1994), stage of life (Brown et al., 2001; Jackson, 1993), or life transition (Jackson 2005b) and their interaction with other identities, including gender, may have led to particular leisure constraints and subsequent leisure choices (Henderson \& Bialeschki,
1993). The focus of my research on collegiate women ice hockey players was on cohort, which emphasizes one's age at a particular time in social history. Elder (1994) described the life course perspective as one that encompasses, among other things, the interplay between the historical times and human lives. This interplay becomes particularly salient in times of social change. Such social change may cause those in one birth cohort to have made different choices and engaged in different behaviors than those in another birth cohort (Putnam, 2000). The importance of a life course perspective, which incorporates the historical setting and societal changes, has been acknowledged by a number of researchers (Henderson, 1993, 1994; Pronovost, 1998; Scott \& Willits, 1988). Mills (1959) further explained that the life of each individual represents the intersection of biography and history. While each individual has a unique biography, that biography also reflects societal expectations associated with the historical conditions of a particular era. Similarly, Bourdieu and Wacquant (1992) noted that history has an impact on the process of socialization which influences the path of individuals.

Over the past several decades, women's and men's roles in American society have changed in a variety of ways, reflected most notably in women's increased participation in the labor force. In particular, women's educational achievement and employment in previously male-dominated fields has also grown. For example, women received 8\% of medical degrees awarded in 1970 compared to over $40 \%$ of medical degrees in the current decade (U.S. Bureau of the Census, 2006, Table 291). Later birth cohorts have also encountered different gender expectations as they relate to sports participation and there has been increased acceptance of female athletes over time (Snyder \& Spreitzer, 1983). In the late 1960s and early 1970s, many high schools fielded some intramural teams for women but few, if any, interscholastic sports teams for women. When such teams existed, they tended to be for individual sports, such as golf, tennis, and swimming. Consequently, cheerleading often served as one of very few team-like athletic outlets for women (Coakley, 2004). On the other hand, the number of women in high school who participated in varsity sports rose from almost 300,000 in 1971 to 2.8 million in 2002 (Coakley, 2004, p. 240). In addition, the number of women participating in intercollegiate athletics has increased tenfold in almost 30 years and the number of colleges and universities with women's intercollegiate teams in a variety of sports has increased dramatically (Acosta \& Carpenter, 2006).

Although the most noticeable increases in women's participation in ice hockey in the U.S. occurred over the approximately 30-year period in which the respondents in our sample played collegiate ice hockey, women have been playing ice hockey in North America for over 150 years (for a detailed history, see Avery \& Stevens, 1997). Lord Stanley, best known as the namesake of the Stanley Cup, held parties at which women and men alike participated in pick-up hockey games in Canada in the late 1800s. In the U.S., although it was not a university-sponsored team, women students at the University of Alaska played as a pick-up team as early as 1908. However, it was not until 1964 that Brown University officially sponsored the first U.S. women's intercollegiate ice hockey team (Avery \& Stevens).

In the U.S. in the 1960s and 1970s, ice hockey teams for young women were in their infancy in areas in which ice hockey for boys and men was already a popular sport, such as northern New York, Wisconsin, and Minnesota, and were not available
elsewhere. Although statistics on the number of girls and women playing hockey in the 1970s and 1980s were not available, changing gender expectations and Title IX led to new opportunities for young women's participation in sports in general as well as in ice hockey. As a result, many collegiate women's ice hockey teams appeared for the first time in the 1970s, 1980s, and even the 1990s (Avery \& Stevens, 1997; Women's Hockey Web, 2006). However, even in the 1990-91 season, the 6,336 women and girls who were registered with the USA Hockey comprised less than $4 \%$ of the USA Hockey organization's registered players (USA Hockey, 2006). Women's participation in ice hockey, however, has been on the rise, particularly at Division I and Division III institutions. While only $3.5 \%$ of Division I schools and $2.5 \%$ of Division III schools offered women's intercollegiate ice hockey in 1992, this increased to nearly $12 \%$ for both divisions by 2006 (Carpenter \& Acosta, 2006). Currently, there are more than 80 NCAA varsity women's ice hockey teams with over 1600 players at various colleges and universities (NCAA, 2006).

While the above figures indicate the increased participation of women over time, they also serve as a reminder that ice hockey is still a statistically male-dominated leisure activity. Because of these two features, a study of three cohorts of collegiate women ice hockey players may reveal how factors associated with the choice to participate in this particular sport have changed over time. For example, players in the earliest cohorts may have begun as figure skaters, a more traditional sport for women on ice (Ryan, 1995), while later players may already have had experience on sports teams and as hockey players before they began their collegiate hockey careers. Weiss and Barber's (1995) study of women collegiate volleyball players in 1979 and women volleyball and basketball players in 1989 offered support for the effect of cohort. Compared to the athletes in the 1979 sample, the athletes in the 1989 sample reported more encouragement from a great variety of sources, thus revealing the impact of societal change on sources of support. Thus, women ice hockey players in earlier cohorts may have been influenced by different significant others than those in later cohorts.

With few exceptions, the factors that influence individuals to choose leisure activities and sports nontraditional for their gender, particularly by cohort, have been largely overlooked. Theberge (2000) provided an in-depth look and insightful analysis of an elite women's ice hockey team in a book-length monograph, but her focus was not on the aspects of interest here, the initial choice to play ice hockey or variations that might exist by cohort. Pelak (2002) studied women ice hockey players, but her focus was on the role of collective action in the development of a collegiate club rather than on individuals' choice to participate in ice hockey. Auster (2001) examined the choice of women to become motorcycle operators, a nontraditional leisure choice, and explored the impact of the women's age on a number of attitudes, but she did not examine the effect of cohort on the initial choice of this leisure activity. One reason that nontraditional leisure choice has been largely overlooked was the methodology typically used to study leisure constraints. Most of the past empirical research and conceptualizations of leisure constraints have focused on activities in which respondents would like to participate and then explored their inability or reluctance to do so (Crawford \& Godbey, 1987; Henderson et al., 1988; Jackson, 1990). Consequently, we know little about those who have overcome antecedent leisure constraints (for review, see Auster, 2001) or the conditions that enable (Chick \& Dong, 2005), afford (Kleiber, Wade, \& Loucks-

Atkinson, 2005; Mannell \& Kleiber, 1997), or facilitate (Raymore, 2002) particular leisure opportunities, including sport participation.

## The "Enrichment Hypothesis," Habitus, and Recreational Capital

Almquist and Angrist's (1970) "enrichment hypothesis" was developed to explain women's choice of nontraditional occupations for their gender and suggested that some women are surrounded by significant others, including family members, who provide a "broadening" influence that causes them to recognize additional options available to women. This "enrichment hypothesis" was supported by research on women in maledominated occupations (for reviews, see Auster \& Auster, 1981; Lemkau, 1979) and on occupational choice (see, for example, Cooper \& Robinson, 1985; Gruca, Ethington, \& Pascarella, 1988; Lemkau, 1983). An extension of the "enrichment hypothesis" to leisure activities, including sports participation, would suggest that some women are exposed to significant others who provide alternatives for leisure that transcend traditional gender role expectations. This implies that the "enriched environment" may cause some women to have a preference for and ultimately participate in certain sports that others lacking this "enriched environment" might feel are inaccessible. Auster's (2001) study of women who chose to become motorcycle operators, a nontraditional leisure choice, revealed the importance of significant others, particularly family members, thus supporting the extension of the "enrichment hypothesis" to the choice of leisure activities.

The significance of this "enriched environment" may be better understood by considering Pierre Bourdieu's (1984) notion of habitus. Habitus is the lens through which individuals see the world as a result of their experiences and the experiences and attitudes of those around them. "Habitus is a socialized subjectivity" (Bourdieu \& Wacquant, 1992, p. 126) and acts as a filter through which life is interpreted. In much of his work, Bourdieu focused on social class and explained the role of habitus in the reproduction of class inequalities. For example, if a group of lower class students saw that their significant others were unable to secure satisfactory employment despite their desire to do so, this could result in the lowering or leveling of their occupational aspirations (MacLeod, 1995). In other words, if individuals perceive that the chances of meeting their goals are low, they may reduce their occupational aspirations in an attempt to better match them with their assessment of realistic outcomes. Conversely, the habitus of upper-middle class individuals with their cultural background and cultural capital, including education, language, manners, and other modes of behavior, causes those in the upper-middle class to reasonably expect their aspirations to be fulfilled. The consequence of their aspirations being high at the same time that those of the lower class are low contributes to the reproduction of class inequalities. Despite Bourdieu's emphasis on social class, he noted that "genders" play a role in the development of "schemes of perception" (Bourdieu, p. 468) or habitus. Laberge (1995) further suggested that gender can be linked to Bourdieu's conceptualization because it is also "a fundamental structuring principle of social space" (p. 137). She further pointed to the importance of the notion of a gendered habitus, a view of the world shaped by gender expectations, and its potential impact on sports participation and others' perceptions of women and men in particular sports.

I draw on Bourdieu's notion of cultural capital and narrowly reformulate it in terms of recreational capital. In a general sense, I define recreational capital as that which
is needed to both have a preference for a particular leisure activity and be able to transform that leisure preference into actual participation. For example, when men statistically dominate a leisure activity, leisure constraints influenced by gender expectations and gender socialization may reduce the likelihood that women will have a preference for that activity or be able to transform that preference into participation, unless additional positive factors are present. Consequently, the notion of recreational capital may be helpful in explaining how women who are able to choose nontraditional leisure activities, such as ice hockey, have transcended the gender-related antecedent leisure constraints not faced by men interested in that same activity.

Since ice hockey is statistically dominated by males and the culture of ice hockey has been more conducive to men than women, it would seem that women choosing ice hockey would need to have more recreational capital than their male counterparts. This dynamic has parallels to differential asset conversion, the notion that transforming economic, social, and cultural capital assets into attainment may differ for women and for men, suggesting that the disadvantaged group may need additional assets to attain outcomes similar to those of the advantaged group (Persell, Catsambis, \& Cookson, 1992). Here, an "enriched environment" serves as a form of recreational capital that influences the habitus of individuals and increases their expectation of access to a leisure activity.

An "enriched environment" and recreational capital could take many forms. Growing up in a region where a sport was already popular or finding oneself in an environment, such as that of a college, where those of one's own social category, here women, were already participating might increase recreational capital with regard to a particular leisure activity. It may also be easier to choose a leisure activity dominated by the other sex if one knows someone well who is already involved in that leisure activity. Snyder and Spreitzer (1983) found that the level of familiarity with a sport reduced the degree to which the sport was thought of in terms of gender expectations. It is possible that significant others could provide that familiarity. Greendorfer (1977) discovered that family members were a significant source of support and encouragement for children's sport activities and choices. Weiss and Barber (1995) revealed that compared to a decade earlier, a later cohort of women garnered support for their athletic interests from a greater variety of individuals, including their mothers. In their review of the literature on gender-based influences on sport participation, Greendorfer, Lewko, and Rosengren (1996) most importantly pointed to the inextricable link between the social structure, cultural ideologies, and the resulting sport socialization. They also suggested that maternal employment and the potentially greater involvement of fathers in childrearing may lead to less stereotyped gender roles and an expanded range of sports perceived as appropriate for children of both sexes. The findings of these studies suggest that women who play ice hockey may report the influence of significant others, namely family or friends, some of whom are already ice hockey players. Later cohorts may have also received support from a greater variety of significant others.

In sum, since women comprise a small proportion of ice hockey players and many masculine traits are stereotypically associated with ice hockey, one would expect women to have experienced a variety of constraints with regard to choosing to be an ice hockey player. Women may have encountered antecedent constraints in the form of gender socialization, including notions of what constitutes femininity (Henderson, 1991) and the gender-labeling of leisure activities (Coakley, 2004; Henderson et al.,

1989; Koivula, 1995, 2001; Metheny, 1965). Changing gender expectations as well as changes in attitudes toward women's participation in team sports may have caused variations by cohort. For all of these reasons, an intergenerational study of women who played collegiate ice hockey, a nontraditional choice for their gender, offered the promise of contributing to the literature on the effect of gender and cohort on leisure choices and sport participation. Such a study could also offer insights into the ways in which an "enriched environment" may contribute to recreational capital, which, in turn, could influence their habitus, the filter through which these women perceive their options.

## Method

## Sample and Survey Instrument

The main source of data for this analysis was an intergenerational, cross-sectional study of women who had played intercollegiate ice hockey at a private, liberal arts college located in the northeastern United States. A working group composed of several former players and the current women's ice hockey coach developed a survey to examine the history of the women's ice hockey program and bring together several generations of women who had played ice hockey at this educational institution. The survey consisted of several sections that included topics such as past experiences with athletic teams, factors that influenced the decision to play hockey, and memories from the respondents' college hockey years. Other sections of the survey focused on involvement in hockey since graduation, current interest in the college's team, current hobbies, work and career interests, and willingness to become involved in providing guidance to current and former players in a variety of ways. Most of the questions on the survey were close-ended, but respondents were asked some open-ended questions and were also provided with space to elaborate on their responses.

In the summer of 2005 , the working group sent e-mails to the 176 women for whom e-mail addresses were provided by the ice hockey coach or the university's Office of Alumni Affairs. This e-mail as well as a follow-up e-mail requested participation and included a link to the web-based survey used as the data collection instrument. The responses of the 85 women who completed the survey were initially used to develop a web-based presentation of the history of women's ice hockey at the university (Colgate University, 2006a). As a former player on the team, I learned of the project after the survey instrument was already developed. However, I analyzed the quantitative data and played an integral role in the development of the web-based presentation, which included quantitative results and qualitative responses as well as a variety of archival materials.

For the purpose of this study, the focus was on those aspects of the survey instrument that provided insight about the "enriched environment," habitus, and recreational capital, including the athletic background of these women as well as a variety of factors associated with their choice to play ice hockey. Women's answers to the open-ended questions as well as additional comments were also considered. Although these qualitative data were not coded or quantitatively analyzed, some of the women's responses were woven into the presentation of the quantitative data. In order to maintain confidentiality, the names of the respondents were not revealed when their written
responses were utilized in this paper, but the respondent's year of college graduation was included to help put the response in historical context. In addition to the survey data, information was gleaned from archival materials that included photographs, yearbooks, and articles from the college's two newspapers. Information about the new recruits for the 2006-07 season was found on the team's website, and the head coach provided additional information. Finally, I considered the large pictorial display that greets ice hockey spectators as they enter the college's ice rink; it depicts the history of both men's and women's ice hockey at the college.

The quantitative analysis in this paper was based on the responses of the 85 women who completed the survey. The oldest respondents in the sample graduated from the college in 1974, at the end of the first year of the intercollegiate women's ice hockey program at the college, and the youngest respondents were currently enrolled students in the class of 2009. For the purpose of the analysis presented here, the respondents were divided into three cohorts, "early," "middle," and "recent" (see Table 1). Although the division of respondents into these three categories was admittedly arbitrary, it was intended to provide the greatest potential for examining patterns in the data by cohort. The women who comprised this sample were the ice hockey players at one institution of higher education who responded to a survey and were not presumed to be representative of other women hockey players nor even women collegiate hockey players. On the other hand, it is the only available intergenerational study of collegiate women ice hockey players to date.

TABLE 1
Division by Cohort

| Gohort Label | Year of Graduation | Percent |
| :--- | :---: | :---: |
| Early | $1974-1983$ | 34.5 |
| Middle | $1984-1999$ | 25.0 |
| Recent | $2000-2009$ | 40.5 |
|  |  | $\mathrm{~N}=85$ |

## Predictions and Measures

Since gender expectations and opportunities for women's sport participation and, in particular, ice hockey, have increased in the past three decades, one would expect that those in the early cohort would be more likely to have started playing ice hockey later, perhaps even in college, while those in later cohorts would have started participating in ice hockey when they were younger. This was measured using a closed-ended question that asked, "When did you start playing hockey?" Respondents were asked to choose one of four possible responses that ranged from "age 8 or younger" to "at college." The possibilities for sports participation that began emerging with Title IX would also suggest that those in the later cohorts would have been more likely to arrive
at college with previous experience on athletic teams, perhaps even on an ice hockey team. To address this, a question that asked respondents to indicate which of several statements best described their experiences with competitive athletic teams was used. One statement indicated that ice hockey at college was their first experience, while the statement at the other end of the continuum indicated that the respondent had played multiple team sports in both high school and college.

Recreational capital and the "enrichment hypothesis" imply that one needs more support, encouragement, and opportunity to enhance habitus such that one would have the expectation of access to a particular leisure activity. The family plays an important role in leisure preferences, both actively as an agent of socialization, and more passively as it places an individual in a social class culture. The attitudes and actions of parents and siblings may influence individuals' lives by providing recreational capital in the form of an "enriched" environment. Family members who have played ice hockey may have had a realistic image of what the sport entailed and realized that their daughters or sisters may be interested and able participants, regardless of the televised images of the NHL and the statistical infrequency of women who played ice hockey. Similarly, close friends might have provided further exposure to ice hockey or played a particularly influential role when family members were not available to do so. Thus, knowing people who showed an enjoyment of the activity and support for participation in that activity could have encouraged a woman to choose to play ice hockey. Women in the earlier cohorts may have made their decision to play ice hockey later, namely in college, and report the influence of friends, while women in the more recent cohorts, who started playing hockey earlier in their lives, may find family members rather than friends as more important significant others. The importance of various significant others was assessed by a question that asked, "What prompted you to play ice hockey?" A list of eight possible answers followed, five of which referred to people, such as friends and family members. Respondents were asked to check as many of the answers as they wished. Many of these experiences with significant others may have let a young woman see the reality of ice hockey and allowed her to evaluate her interest in and her ability to play that sport.

In addition to the direct or indirect influence of specific significant others, certain geographic locations, namely those with colder climates where hockey was already popular and possibly perceived as more acceptable for women, may have contributed to recreational capital by increasing exposure to and offering concrete opportunities to play. Here, I expected that more recent cohorts would be likely to mention this because of the changes in opportunities over time. While ice hockey may have been a popular sport in areas where those in the early cohort grew up, I doubted that they would have mentioned that this would have influenced them because they may well have perceived ice hockey as a popular sport for men only. The potential influence of geographic location was measured by one of the eight possible responses to the question of what prompted them to start playing ice hockey that stated, "It was a popular sport where I grew up."

The increased participation of women in many sports, including ice hockey, over the past three decades may have resulted in the early cohort experiencing the effect of gender on their entrance into and participation in ice hockey more so than later cohorts. Since figure skating was perceived as a more traditionally feminine form of
skating, I predicted those in the early cohort would be more likely than those in the later cohorts to have come to their ice hockey careers as former figure skaters. The best proxy for this was a question that asked the players whether they wore figure skates or hockey skates at two points in time, when they started and when they finished their collegiate hockey career. If players were wearing figure skates, it should not be presumed that this was due to a lack of hockey skates for women since such skates were available even in the 1970s. Moreover, the availability of hockey skates specifically designed for women was not necessary since the current head coach of women's ice hockey at the university reported that even now all of his players as well as those on other women's teams he knows wear boys' or men's skates (Scott Wiley, personal communication, January 29, 2007).

In sum, if the findings support the predictions described above, this would lend credence to the notion that an "enriched environment" contributed to recreational capital, which, in turn, influenced their habitus in such a way that it allowed them to transcend antecedent leisure constraints. It was particularly important to examine the variables mentioned above for variations by cohort. Throughout the analysis, chisquare will be used to test the significance of the relationship between variables.

## Results

This section will begin with findings on the impact of cohort on the age at which the respondents started playing hockey as well as their experiences prior to college on athletic teams and, in particular, on ice hockey teams. This is followed by an examination of the factors, including significant others, that prompted these women to begin playing ice hockey. Results regarding the popularity of the sport in the area in which they grew up in addition to whether they began their ice hockey careers on figure skates or hockey skates follow. Finally, the data concerning these women's continued involvement in ice hockey is described. The qualitative data, including the responses to open-ended questions, is interwoven with the quantitative data to provide further understanding of various dimensions of these women's choice to play ice hockey.

## Age and Prior Experience

The first prediction was that compared to players in the early cohort, those in the more recent cohorts would have progressively begun playing ice hockey at an earlier age. This prediction was supported and there were significant differences $\left(X^{2}(6, \mathrm{~N}=\right.$ 84) $=71.3, \mathrm{p}<.001$ ) by cohort in the age at which the respondents started playing hockey (see Table 2). Over $95 \%$ of players in the early cohort started playing hockey in college. While less than five percent of those in the early cohort started playing hockey by the age of 12 , this was true for about $20 \%$ of those in the middle cohort. In contrast, over half of those in the recent cohort started playing ice hockey at age eight or younger, and nearly $80 \%$ started playing by the age of 12 .

The second prediction was that compared to the early cohort, those in the later two cohorts would have had more experience with athletic teams and ice hockey before playing collegiate ice hockey. This prediction was also supported and the results showed that the respondents' prior experience playing on athletic teams was significantly $\left(X^{2}(4, \mathrm{~N}=65)=22.9, \mathrm{p}<.001\right)$ different by cohort (see Table 3 ). More than

TABLE 2
Starting Age for Playing Ice Hockey by Cohort

| Age | Early | Cohort <br> Middle | Recent |
| :--- | ---: | :---: | :---: |
| 8 or younger | 3.4 | 4.8 | 52.9 |
| $9-12$ years old | 0.0 | 14.3 | 26.5 |
| $13-17$ years old | 0.0 | 38.1 | 20.6 |
| At college | 96.6 | 42.9 | 0.0 |
|  |  | $\mathrm{X}^{2}=71.3, \mathrm{df}=6, p<.001$ |  |

TABLE 3
Athletic Team Experience by Cohort

| Team Sport Experience | Early | Cohort <br> Middle | Recent |
| :--- | :---: | :---: | :---: |
| College Hockey - First Team Sport | 53.6 | 4.5 | 0.0 |
| Multiple Team Sports in High School | 32.1 | 68.2 | 80.0 |
| Mulitple Team Sports in High School \& College | 14.3 | 27.3 | 20.0 |

$\mathrm{X}^{2}=22.9, \mathrm{df}=4, p<.001$
half of the early cohort reported that playing on this collegiate hockey team was their first team athletic experience, while this was true for less than five percent of those in the two later cohorts. A member of the first team explained, "We did it for fun and not to prove a point, for many of us it was our first experience in competitive team sports, and I loved every minute of it" - Class of 1976. In contrast, $68 \%$ of the middle cohort and $80 \%$ of the recent cohort had played multiple team sports in high school. The survey data will later show that all of the women currently joining this college's Division I team not only arrived with hockey skates, but they also already have extensive ice hockey experience. The following partial description, typical of one of the new recruits to this college's team, revealed a player's success in ice hockey prior to college. "She is a member of the Syracuse Stars, playing with them for the past five years. The team finished second in the New York State Girls Tier I playoffs this past year and was national runner-up in 2005..." (Colgate University, 2006b). Another recruit had 49 goals and 52 assists in her most recent high school season, thus confirming her prior success in hockey before coming to play collegiate ice hockey (Colgate University, 2006b).

The players in the earlier cohorts were keenly aware that while being a Division I team assures many resources, it also requires top-notch players ready to make a nearly professional commitment. This makes it impossible for an inexperienced player to join the current varsity team. One member of the Class of 1983 wrote, "How great it was
to be able to be involved in an intercollegiate sport with no prior experience - an opportunity unlikely to be available these days," while another who graduated the same year explained, "It was just a club sport when I played. The commitment and intensity were not the same as they are now. It was nice for those of us who had never done this before to give it a try." A player from the Class of 1979 acknowledged, "We certainly were not as skilled as today's women players, but we had lots of fun," while a 1976 graduate lamented, "Wish I could keep playing but I have no business on the ice with the gals who play today." Although the later ice hockey recruits came to the college as experienced athletes, team players, and importantly, already successful ice hockey players, a member of the recent cohort expressed her appreciation for the efforts of past players. "It was a difficult transition from a recreational game to a competitive, high-level sport. A lot of people put in a lot of time and effort and I'm very grateful to those who came before us..." - Class of 2000.

## Influential Factors and Significant Others

In response to the question asking what prompted them to play ice hockey, about half of the entire sample indicated that, "It just seemed like a fun thing to do," though the recent cohort $(35.3 \%)$ was less likely than the other two cohorts $(59.1 \%$, $58.6 \%$ ) to check this item (see Table 4). However, many of the other possible responses made reference to significant others, such as friends, siblings, and parents (see Table 4). The notion that family members would become progressively more important for more recent cohorts was supported. While over $75 \%$ of those in the recent cohort indicated that their brother(s) or sister(s) played hockey, this was true for only $36 \%$ of the middle cohort, and less than $15 \%$ of the early cohort $\left(X^{2}(2, \mathrm{~N}=85)=25.7, \mathrm{p}<.001\right)$. One member of the Class of 1991 revealed that both of her older sisters had played ice hockey at the college. Those in the recent cohort ( $35.3 \%$ ) were also more likely than those in the middle cohort ( $13.6 \%$ ) or the early cohort ( $3.4 \%$ ) to indicate that the fact that their father or mother played ice hockey prompted them to play ice hockey ( $X^{2}(2$, $\mathrm{N}=85)=10.9, \mathrm{p}<.005$ ). Unfortunately, we do not know whether it was their father or mother who played, except in the case of one current member of the team, whose father and mother both played ice hockey for the college under study here. Over $90 \%$ of the women in the recent cohort with at least one parent who played hockey also reported that they had siblings who played hockey. One former player explained, "I had a lake in my backyard and a group of kids were always out playing hockey. I built a goal with 2 by 4 wood and chicken wire with my brother and father, and everyone came to play near our backyard" - Class of 1984. Another wrote, "I was cut from the field hockey team and was looking for a team. I had some figure skating experience and brothers that played hockey so..." - Class of 1980. Family influence also occurred in unexpected ways, as revealed by the following:

> My mom had a traumatic experience learning how to skate on figure skates, so she got me hockey skates because she thought they would be more stable... [those teaching] figure skating lessons wouldn't let me in because I didn't have a toe-pick. [Hockey] Pretty much snowballed from there. - Class of 2002
> I found my uncle's old leather skates in my grandmother's basement, headed to the pond and jammed my feet in. - Class of 1998

# TABLE 4 <br> Factors Prompting the Respondent to Play Ice Hockey by Cohort 

| Factors | \% Checked |
| :---: | :---: |
| My friends convinced me to play. | 24.7 |
| Early | 41.4 |
| Middle | 18.2 |
| Recent | 14.7 |
|  | $\mathrm{p}<.05$ |
| My brother(s) or sister(s) played hockey. | 44.7 |
| Early | 13.8 |
| Middle | 36.4 |
| Recent | 76.5 |
|  | $\mathrm{p}<.001$ |
| My mother or father played hockey. | 18.8 |
| Early | 3.4 |
| Middle | 13.6 |
| Recent | 35.3 |
|  | $\mathrm{p}<.005$ |
| Liked to skate so it seemed like a natural. | 35.5 |
| Early | 34.5 |
| Middle | 54.5 |
| Recent | 23.5 |
|  | ns |
| It was a popular sport where I grew up. | 27.1 |
| Early | 20.7 |
| Middle | 22.7 |
| Recent | 35.3 |
|  | ns |
| It just seemed like a fun thing to do. | 49.4 |
| Early | 58.6 |
| Middle | 59.1 |
| Recent | 35.3 |
|  | ns |

The importance of family members' ice hockey experiences to many of these women may be linked to the significant differences $\left(X^{2}(6, \mathrm{~N}=84)=71.3, \mathrm{p}<.001\right)$ by cohort in the age at which the respondents started playing hockey. Given the relatively young age at which the women in the recent cohort starting playing hockey, it was not surprising that these women would indicate that family members' experiences with ice hockey were part of what prompted them to play ice hockey.

I predicted that peers would be a more important influence for those in the early cohort than the other two cohorts because those in the early cohort were likely to have started playing hockey in college. The findings displayed in Table 4 offered support for this prediction and revealed that those in the early cohort (41.4\%) were significantly $\left(X^{2}(2, \mathrm{~N}=85)=6.7, \mathrm{p}<.05\right)$ more likely to mention that their friends convinced them to play ice hockey than those in the later two cohorts (less than $20 \%$ ). The consequence of starting to play hockey in college was that peers were more influential than family members as indicated by the following statement: "My dorm's intramural team needed a goalie, so I played on borrowed figure skates that broke in the first five minutes. But I stopped every shot and was hooked" - Class of 1979. "My boyfriend/husband (later) was a hockey goalie" - Class of 1979. "We started just for fun. My friend, [from northern New York state], had played all of her life..." - Class of 1975. One woman disclosed that it was the potential for a romantic relationship that prompted her to play, "I wanted to date someone on the men's team" - Class of 1976.

## Gendered Skating and Skates

When asked about what prompted them to play ice hockey, about one-third of the respondents checked a close-ended response stating, "Because I liked to skate, it seemed like a natural" (see Table 2). But, I predicted that gendered skating experiences, including past experience with figure skating and figure skates, would be more evident among those in the early cohort than those in the more recent cohorts. This was supported by the reported experiences of some of the players as well as by the skates they wore as collegiate ice hockey players. A number of players started as figure skaters, revealing the gendered aspects of skating. The move from figure skating to ice hockey became relatively easy once these women found themselves surrounded by a culture that was supportive and provided women with concrete opportunities to play ice hockey. A player from the early cohort explained,

In my era, boys played hockey and girls figure skated. Although I was an athletic figure skater, I was not a graceful figure skater. Sometime after I arrived at college, I learned there were already eight intramural women's ice hockey teams and I thought it sounded like a good use of my athletic skating. - Class of 1976

A player from a later cohort wrote, "My high school had a girls' team, and I had been figure skating since I was a kid, so the transition was pretty easy" - Class of 1993.

I expected that those in more recent cohorts would be more likely to report that ice hockey as a popular sport in the area in which they grew up prompted them to play ice hockey. Although this was not supported by significant differences by cohort, those in the most recent cohort ( $35.3 \%$ ) were more likely to report its influence than those in the middle $(22.7 \%)$ or early $(20.7 \%)$ cohorts (see Table 2$)$. One player described her initial exposure to women's ice hockey in her hometown this way, "__ College women's hockey was the best team in the country at the time and I practically lived at
$\qquad$ Arena, so it seemed like playing hockey was the thing to do" - Class of 2004. In fact, all of the players for the 2006-07 season listed hometowns that were at latitudes above the $39^{\text {th }}$ parallel, which passes through Colorado, Ohio, and New Jersey. Thus, being in a geographic or cultural area conducive to women playing ice hockey can contribute to recreational capital and habitus.

On the other hand, growing up in an area where hockey was popular and having a family member who played hockey did not necessarily result in participation as a child. Some of the responses clearly reflect the role of gender expectations in repressing or discouraging a possible leisure preference. One respondent explained,

Ironically, my brother played from age five in Minneapolis where we grew up and my high school had a rink...it never occurred to me to start [playing hockey]. I was sure glad I did because I still play at 40. - Class of 1988.
The continued effect of gender expectations was also evident in the following comment:

While it has gained tremendous popularity, it is still not very mainstream even today.
When I tell people I played women's ice hockey back in 1981-1985, they are amazed.
Someone even commented/teased me once that I was a 'pioneer' of the women's game. That has stuck and become a sort of motto for my participation. - Class of 1985

Archival materials as well as survey responses further revealed that the early cohort displayed more evidence of traditional skating for women than later cohorts. First, there was a significant relationship between cohort and the kind of skates women wore when they started to play hockey at the college $\left(X^{2}(2, \mathrm{~N}=66)=25.1, \mathrm{p}<.001\right)$. Table 5 shows that $62.1 \%$ of the early cohort reported starting to play collegiate ice hockey wearing figure skates compared to none of those in the most recent cohort. Moreover, a yearbook picture taken late in the season of the college's first women's ice hockey team in 1973-74 showed all of the players in team uniform, but it also revealed the impact of traditional expectations of women on ice as figure skaters. Although only the skates of those sitting in the front row were visible, three women were wearing dark-colored hockey skates and three women were still wearing bright white figure

TABLE 5
Type of Skates Worn for Collegiate Ice Hockey by Cohort

| Types of Skates | Early | Cohort <br> Middle | Recent |
| :---: | :---: | :---: | :---: |
| Started Wearing |  |  |  |
| Figure skates | 62.1 | 9.1 | 0.0 |
| Hockey skates | 37.9 | 90.9 | 100.0 |
| Ended Wearing |  |  |  |
| Figure skates | 17.2 | 0.0 | 0.0 |
| Hockey skates | 82.8 | 100.0 | 100.0 |
|  |  |  |  |

skates, including the assistant captain. Thus, the wearing of figure skates indicated these women had an earlier association with a more traditional type of skating for women, figure skating.

To explain how figure skates were used for ice hockey, one early player wrote, "We taped the points of the girls' figure skates..." - Class of 1975. Even now, a large display of the history of ice hockey at the college greets all entrants to the seating area in the college's arena and includes a telling picture. The depiction of women's first efforts at intercollegiate ice hockey at the college showed two players skating down the ice during a game, one wearing hockey skates and one wearing figure skates. One player from the early cohort reported, "We were enthusiastic but pure amateurs! Most of us wore figure skates..." - Class of 1979. Yet, as one early player pointed out, "...Even if they were still using figure skates, they were the best defensive players because they could skate backwards" - Class of 1980.

## Continued Involvement in Ice Hockey

While the "enriched environment" and recreational capital that influenced the respondents to play collegiate ice hockey have been the focus of the data analysis, it seemed important to look ahead to the impact they may have on the habitus of potential young women players as well as for women in their 30 s , 40s, or even 50 s . On the survey, respondents were asked about their involvement with hockey after graduation as a player, coach, hockey parent, or any other role. Two-thirds of the players reported having had some involvement with ice hockey since they graduated from college, and nearly half of the recent cohort is currently playing or coaching ice hockey. The women from this college played on teams in medical school and as graduate students or employees at University of Pennsylvania, Princeton University, Dartmouth College, Colgate University, Hamilton College, University of California at Berkeley, and Ohio State. One woman, who played on her graduate department's intramural team when she was in her twenties, reported picking up hockey again at the age of 50 after a lapse in playing of over 20 years.

Since they graduated, the respondents have played on teams in New Hampshire, New York, Pennsylvania, Maryland, Colorado, Connecticut, Wisconsin, Minnesota, Florida, Arizona, and Washington, DC. They reported coaching at colleges and universities, public high schools, boarding schools, youth programs, and for their own children's teams. One former player who started a new team wrote, "I started a team at a southern all-girls boarding school. A bunch of southern belles who couldn't skate, it was a blast!" Another revealed, "I still play and have coached for 15 years!" - Class of 1980. In short, the women's continued involvement in ice hockey after their graduation from college showed how their experiences snowballed and subsequently they became part of someone else's "enriched environment" and recreational capital, thus recreating a habitus conducive to making ice hockey a viable choice for other women.

## Discussion

One of the objectives of this research was to examine the effect of gender expectations on sport participation by considering the impact of cohort on women's choice to play collegiate ice hockey, a masculine and statistically male-dominated sport. The
profiles that emerged for the earliest and later cohorts were quite different. The patterns in the profiles showed the changing nature of women's sports in general and of ice hockey in particular. For a majority of the women in the early cohort, playing a team sport was a new experience. In fact, only one of those in that cohort who responded to the survey had played hockey before coming to college. Those in the more recent cohorts started skating at a younger age and came to collegiate ice hockey with more experience on athletic teams and with ice hockey, in particular. For example, all of those in the most recent cohort played a team sport and played ice hockey before coming to college with over half playing ice hockey by the time they were eight years old. These shifts over time were undoubtedly due to increased opportunities for women's participation in sport, stimulated by changing gender expectations and the passage of Title IX. Although most of the players in all three cohorts finished their collegiate ice hockey careers on hockey skates, almost two-thirds of the early cohort began their collegiate ice hockey careers wearing figure skates, an indication of gendered notions of skating in that era. Not surprisingly, $100 \%$ of those in the recent cohort started their collegiate ice hockey careers wearing hockey skates. Furthermore, while the additional comments provided by those in early cohorts showed the impact of gender expectations as a leisure constraint, this was less often the case with the comments of more recent cohorts. In general, a variety of aspects of the profiles showed the importance of looking at certain leisure choices by cohort. In this study, changing gender expectations, changing attitudes toward women and sports, and concrete opportunities for women to play ice hockey varied by cohort. These variations by cohort were evident not only in the experiences these women had before starting to play collegiate ice hockey, but also in what influenced them to do so.

Another purpose of this research was to evaluate the usefulness of the "enrichment hypothesis," recreational capital, and habitus as conceptual frameworks for examining and explaining women's choice to play collegiate ice hockey. The notion of the "enriched environment" implied that these women would need a special social environment that would enable them to transcend potential antecedent leisure constraints, namely gender expectations and the male-domination and masculine image of the sport. The indicators of this potentially "enriched environment" included whether the respondent reported that a significant other, either a friend or family member, prompted them to play ice hockey. The pattern of responses to all of these questions showed the importance of significant others as recreational capital and offered support for the "enrichment hypothesis." Nevertheless, the results showed significant differences by cohort in the percent of respondents who indicated that their friends, parents, or siblings prompted them to play ice hockey. Those in the early cohort were much more likely to indicate that their friends convinced them to play ice hockey. Undoubtedly, this was the result of the relatively late age at which these women starting playing ice hockey. On the other hand, those in later cohorts were more likely to reveal the importance of siblings and parents who played ice hockey. In fact, $35 \%$ of the players in the recent cohort were at least second-generation ice hockey players in their own families. In addition to the direct influence of friends and family members, Samdahl and Jekubovich (1997) found that many respondents' desire to spend time with these significant others served as the motivation to overcome leisure constraints; that desire may well have been influential here, too.

Moreover, exposure to a culture that supports ice hockey was evident. While those in the early cohort reported the importance of their college friends in their decision, all of the players on the roster for the 2006-07 season came from northern climates conducive to providing outlets for ice hockey. Significant others as well as a cultural environment that specifically supported ice hockey for women increased these women's recreational capital. Arguably, this then had an impact on their habitus in a way that allowed them to expect or understand they could have access to a venue that would let them to transform their leisure preference into participation. For those in the early cohort, it seems that the participation by friends was what changed the habitus and had the effect of creating the leisure preference.

The main findings suggested that individuals became aware of and were prompted to pursue leisure choices by significant others, such as family members and friends, whose perspectives mattered the most to them even when their leisure interests might not have been perceived as viable options by others with more narrow views of gen-der-appropriate sports participation. Here, the behavior and attitudes of significant others contributed to the habitus or filter through which individuals evaluated their recreational aspirations and options and superceded the most prominent gendered perceptions of ice hockey. These findings suggested that potential antecedent leisure constraints were transcended as a result of the "enriched environment" that contributed to recreational capital. This lends further support to the idea that it is not imperative for one to overtly and consciously negotiate leisure constraints (Auster, 2001; Crawford \& Jackson, 2005; Samdahl, 2005). Rather, these factors help enable (Chick \& Dong, 2005) and afford (Kleiber et al., 2005; Mannell \& Kleiber, 1997) individuals additional leisure opportunities. The finding that recreational capital varied by cohort affirms the importance of considering the societal setting and historical era as opposed to focusing on negotiation only as the product of individualized responsibility for overcoming potential leisure constraints (Samdahl). The findings also lend support to the importance of considering gender as an element of habitus (Laberge, 1995).

## Conclusions

This analysis has focused on women choosing a masculine and statistically maledominated leisure activity with a study of collegiate women ice hockey players, but there were a number of limitations to this study. Since all of the women in this sample attended the same college, future research should evaluate the extent to which these findings are representative of other collegiate women by cohort or even more broadly, women who play or have played ice hockey. In terms of potential response bias, of course, the women who responded to the survey were those interested enough to do so and may have differed from the population of former women collegiate ice hockey players at the college.

Another limitation was the wording of some of the questions on the survey. Understandably, this occurred because the survey was developed by others and not specifically to explore the research questions of interest here. For instance, it was not possible with these data to discover whether the family members who prompted the respondents' decision to play ice hockey were male or female because the close-ended responses were "Mother or Father" and "Brother(s) or Sister(s)". Moreover, since the
close-ended responses about family members were only about those who played ice hockey, we do not know the extent to which parents or siblings who did not play ice hockey influenced these women positively or negatively with regard to this leisure choice. While many of the women in the most recent cohorts came from families in which someone played ice hockey, it would have been interesting to know whether the gender of the family member was male or female. Future researchers should develop measures that reveal the gender of significant others who are influential in the leisure choice.

There are other unanswered questions that emerge as a result of this research. For example, to what extent do gender expectations, as potential antecedent constraints, cause individuals who might have been interested in nontraditional leisure activities to unknowingly overlook such activities? Obviously, such larger questions about leisure activities can only be answered with a large sample and methodology conducive to studying the interest or lack of interest in many different types of activities. However, an antecedent constraint that entirely suppresses a leisure preference may not even be recognized as a constraint by respondents. Furthermore, a comparative study of women and men in ice hockey or other leisure activities dominated by one gender could be used to evaluate whether there is an "enrichment" gap. Perhaps men who play ice hockey initially need less recreational capital than women because this sport is more congruent with their gender. Would this congruence make it easier for men than women to take up ice hockey on their own without the influence of family members or friends who played ice hockey? Would men who choose female-dominated sports, such as figure skating, also need to transcend antecedent constraints?

This research on women ice hockey players also raises interesting questions more generally about those who choose leisure activities nontraditional for their gender or other social or demographic categories to which they belong. Would those in the statistical minority in other leisure activities, by age or race/ethnicity, for example, have required an "enriched environment" that contributed to their recreational capital to create a habitus that reduced "social distance" and "cultural distance" (Floyd et al., 1993; Marger, 1985)? Would the consequence of this habitus be that they would feel that their recreational aspirations would be met? If individuals could become more familiar with the culture and "social world" (Stebbins, 1996) of those already participating in a leisure activity by knowing significant others, that could conceivably increase their interest and likelihood of participation.

Group identities held by an individual, such as those associated with gender or race/ethnicity, and the ways in which multiple identities interact are important, too (Henderson \& Ainsworth, 2001; Johnson et al., 2001; Lee et al., 2001; McKay et al., 2000; Shinew et al., 1995; Shinew \& Floyd, 2005). Continued exploration of the effect of multiple identities, along with cohort, would seem to be a fruitful path for future research, particularly with regard to nontraditional leisure choices. Though the particular combination of identities occurs at the individual level, it points to the role of the dominant group's ideology since the social meanings of those identities are influenced by that ideology. This makes it imperative that future research draws attention to the importance of the historical context and the imposed social order (Samdahl, 2005).

At some point in time, the notions of "enriched environment" and recreational capital could become less necessary if leisure activities become more integrated by
social categories, such as gender and race. This does not imply, however, that the patterns of leisure participation will or should be absolutely identical across varied groups. Since social class and income differentials are often associated with other socio-demographic variables, such as race, and are likely to persist, the unequal distribution of people across some leisure activities will probably continue. For practitioners, the goal should be to ensure that individuals have many types of leisure activities available to them and that their choices are not limited by leisure constraints that result from sociodemographic characteristics, social identities, or cultural backgrounds. Practitioners should provide recreational capital, in the form of both encouragement and opportunity, to individuals who are underrepresented in particular leisure activities. Participation in such activities may be empowering in the way Theberge (2003) found that ice hockey was empowering for girls and women. With regard to these former collegiate women ice hockey players, their positive experiences have spread to other cities, states, and teams where they serve as players, coaches, and supporters. Thus, the effect of the changing demographics of a leisure activity can snowball, increasing the aspirations and providing concrete recreational opportunities to potential recruits.

On the other hand, the increasing professionalization of both youth sports and varsity collegiate sports makes it nearly impossible for late teenagers who develop a new preference for a leisure activity to be able join a varsity team when they arrive at college. Division I teams are only open to the best in country, and Division II and Division III teams certainly expect to recruit experienced and successful players. Only in sports newer to some colleges, such as rugby or ultimate Frisbee, do we find beginners able to join intercollegiate teams. These players are participating at the club level that often accommodates those who are interested, regardless of their prior experience with the sport. Because of the increased professionalization of college sports, practitioners need to encourage and provide outlets for newcomers to specific sports by continuing to support intramural and club sport opportunities. Outside of the collegiate environment, opportunities should be provided for those with an interest in a sport. Recreational ice hockey for adult women, for example, exists on many levels. Some ice rinks offer ice hockey learning clinics as well as teams and leagues divided by level, some of which include women and men alike who are novices. Adult all-women's hockey leagues offer many levels of play and are open even to those women who may arrive as beginning skaters and inexperienced ice hockey players.

In a society where inequality persists, it is likely that there will continue to be leisure activities in which individuals comprise a minority and are thus making a nontraditional leisure choice. So, for the foreseeable future, those making such choices will need to transcend leisure constraints. This is most likely to happen for those who are the products of "enriched environments" that provide the additional recreational capital needed to alter an individual's habitus in a way that enhances the perception of access to recreational options and ultimately leads to participation.

## References

Almquist, E. M., \& Angrist, S. S. (1970). Career salience and atypicality of occupational choice among college women. Fournal of Marriage and the Family, 32, 242-249.
Auster, C. J. (2001). Transcending potential antecedent leisure constraints: The case of women motorcycle operators. Fournal of Leisure Research, 33, 272-298.

Auster, C. J., \& Auster, D. (1981). Factors influencing women's choice of nontraditional careers: The role of family, peers, and counselors. The Vocational Guidance Quarterly, 29, 253-263.
Avery, J., \& Stevens, J. (1997). Too many men on the ice: Women's hockey in North America. Custer, WA: Polestar.
Bennett, M. J. (1985). Constraints on leisure in middle age. In M. G. Wade (Ed.), Constraints on leisure (pp. 318-333). Springfield, IL: Charles C. Thomas.
Bourdieu, P. (1984). Distinction: A social critique of the judgement of taste. Cambridge, MA: Harvard University Press.
Bourdieu, P., \& Wacquant, L. (1992). An invitation to reflexive sociology. Chicago, IL: Chicago University Press.
Brown, P. R., Brown, W. J., Miller, Y. D., \& Hansen, V. (2001). Perceived constraints and social support for active leisure among mothers with young children. Leisure Sciences, 23, 131-144.
Cahn, S. K. (1994). Coming on strong: Gender and sexuality in twentieth-century women's sports. New York: The Free Press.
Carpenter, L. J., \& Acosta, R. V. (2006). Women in intercollegiate sport: A longitudinal, national study twenty-nine year update 1977-2006. Retrieved November 1, 2006, http://webpages.charter. net/womeninsport.
Chick, G. \& Dong, E. (2005). Cultural constraints on leisure. In E.L. Jackson (Ed.), Constraints to leisure (pp. 169-183). State College, PA: Venture.
Coakley, J. (2004). Sports in society: Issues and controversies. Boston: McGraw-Hill.
Colgate University (2006a). Colgate women's ice hockey history. Retrieved February 1, 2006, http:// athletics.colgate.edu/WHockey/centericeclub.htm.
Colgate University. (2006b). Women's hockey announces class of 2010. Retrieved May 30, 2006, http://www.gocolgateraiders.com/news/whock/2006/5/15/WHOCK051506.asp?path $=$ whock.
Cooper, S. E., \& Robinson, D. A. (1985). Students in highly technical careers: Sex differences in interpersonal characteristics and vocational identity. Fournal of College Student Personnel, 26, 215-219.
Crawford, D. W., \& Godbey, G. (1987). Reconceptualizing barriers to family leisure. Leisure Sciences, 9, 119-127.
Crawford, D. W., \& Jackson, E. L. (2005). Leisure constraints theory: Dimensions, directions, and dilemmas. In E.L. Jackson (Ed.), Constraints to leisure (pp. 153-167). State College, PA: Venture.
Duncan, C. D., \& Messner, M. A. (1998). The media image of sport and gender. In A. L. Wenner (Ed.), MediaSport (pp. 170-185). London: Routledge.
Elder, G. H., Jr. (1994). Time, human agency, and social change: Perspectives on the life course. Social Psychology Quarterly, 57, 4-15.
Floyd, M. F., Gramann, J. H., \& Saenz, R. (1993). Ethnic factors and the use of public outdoor recreation areas: The case of Mexican Americans. Leisure Sciences, 15, 83-89.
Gill, D. L. (2002). Gender and sport behavior. In T. S. Horn (Ed.), Advances in sport psychology (pp. 355-375). Champaign, IL: Human Kinetics.
Gobster, P. H. (2002). Managing urban parks for a racially and ethnically diverse clientele. Leisure Sciences, 24, 143-159.
Goodale, T., \& Witt, P. (1989). Recreation non-participation and barriers to leisure. In E. L. Jackson, \& T. L. Burton (Eds.), Understanding leisure and recreation: Mapping the part, charting the future (pp. 421-449). State College, PA: Venture.

Greendorfer, S. L. (1977). Role of socializing agents in female sport involvement. Research Quarterly, 48, 304-310.
Greendorfer, S. L., Lewko, J. H., \& Rosengren, K. S. (1996). Family and gender-based influences in sport socialization of children and adolescents. In F. L. Smoll \& R. E. Smith (Eds.), Children and youth in sport (pp. 89-111). Madison, WI: Brown \& Benchmark.
Gruca, J. M., Ethington, C. A., \& Pascarella, E. T. (1988). Intergenerational effects of college graduation on career sex atypicality in women. Research in Higher Education, 29, 99-124.
Henderson, K. A. (1990). The meaning of leisure for women: An integrative review of the research. Fournal of Leisure Research, 22, 228-243.
Henderson, K. A. (1991). The contribution of feminism to an understanding of leisure constraints. Fournal of Leisure Research, 23, 363-377.
Henderson, K. A. (1993). A feminist analysis of selected professional recreational literature about girls/women from 1907-1990. Journal of Leisure Research, 25, 165-181.
Henderson, K. A. (1994) Perspectives on analyzing gender, women, and leisure. Fournal of Leisure Research, 26, 119-137.
Henderson, K. A. (1997). A critique of constraints theory: A response. Fournal of Leisure Research, 29, 453-457.
Henderson, K. A., \& Ainsworth, B. E. (2001). Researching leisure and physical activity with women of color: Issues and emerging questions. Leisure Sciences, 23, 21-34.
Henderson, K. A., \& Bialeschki, M. (1993). Exploring an expanded model of women's leisure constraints. Fournal of Applied Recreation Research, 18, 229-252.
Henderson, K. A., Bialeschki, M. D., Shaw, S. M., \& Freysinger, V. J. (1989). A leisure of one's own: A feminist perspective on women's leisure. State College, PA: Venture.
Henderson, K. A., Stalnaker, D., \& Taylor, G. (1988). The relationship between barriers to recreation and gender-role personality traits for women. Fournal of Leisure Research, 20, 69-80.
Hultsman, W. Z. (1993a). The influence of others as a barrier to recreation participation among early adolescents. Fournal of Leisure Research, 25, 150-164.
Hultsman, W. Z. (1993b). Is constrained leisure an internally homogeneous concept? An extension. Fournal of Leisure Research, 25, 319-334.
Jackson, E. L. (1988). Leisure constraints: A survey of past research. Leisure Sciences, 10, 203-215.
Jackson, E. L. (1990). Variations in the desire to begin a leisure activity: Evidence of antecedent constraints? Fournal of Leisure Research, 22, 55-70.
Jackson, E. L. (1993). Recognizing patterns of leisure constraints: Results from alternative analyses. Fournal of Leisure Research, 25, 129-149.
Jackson, E. L. (2005a). Constraints to leisure. State College, PA: Venture.
Jackson, E. L. (2005b). Impacts of life transitions on leisure and constraints to leisure. In E.L. Jackson (Ed.), Constraints to leisure (pp. 115-136). State College, PA: Venture.
Jackson, E. L., Crawford, D., \& Godbey, G. (1993). Negotiation of leisure constraints. Leisure Sciences, 15, 1-11.
Jackson, E. L., \& Rucks, V. (1995). Negotiation of leisure constraints by junior-high and highschool students: An exploratory study. Fournal of Leisure Research, 27, 85-105.
Johnson, C. Y., Bowker, J. M. \& Cordell, H. K. (2001). Outdoor recreational constraints: An examination of race, gender, and rural dwelling. Southern Rural Sociology, 17, 111-133.
Johnson, C. Y., Bowker, J. M., English, D. B., \& Worthen, D. (1998). Wildland recreation in the rural south: An examination of marginality and ethnicity theory. Fournal of Leisure Research, 30, 101-120.

Kane, M. J. (1990). Female involvement in physical recreation - gender role as a constraint. Journal of Physical Education, Recreation, and Dance, 61, 52-56.
Kane, M. J., \& Lenskyj, H. J. (1998). Media treatment of female athletes: Issues of gender and sexualities. In A. L. Wenner (Ed.), MediaSport (pp. 187-201). London: Routledge.
Kleiber, D. A., Wade, M. G., \& Loucks-Atkinson, A. (2005). The utility of the concept of affordance for leisure research. In E.L. Jackson (Ed.), Constraints to leisure (pp. 233-243). State College, PA: Venture.
Koivula, N. (1995). Ratings of gender appropriateness of sports participation: Effect of genderbased schematic processing. Sex Roles, 33, 543-557.
Koivula, N. (2001). Perceived characteristics of sports categorized as gender-neutral, feminine and masculine. Fournal of Sport Behavior, 24, 377-393.
Laberge, S. (1995). Toward an integration of gender into Bourdieu's concept of cultural capital. Sociology of Sport Fournal, 12, 132-146.
Lee, J., Scott, D., \& Floyd, M.F. (2001). Structural inequalities in outdoor recreation participation: A multiple hierarchy perspective. Fournal of Leisure Research, 33, 427-449.
Lemkau, J. P. (1979). Personality and background characteristics of women in male-dominated occupations: A review. Psychology of Women Quarterly, 4, 221-240.
Lemkau, J. P. (1983). Women in male-dominated professions: Distinguishing personality and background characteristics. Psychology of Women Quarterly, 8, 144-165.
MacLeod, J. (1995). Ain't no makin' it: Aspirations and attainment in a low-income neighborhood. Boulder, CO: Westview.
Mannell, R. C. \& Kleiber, D. A. (1997). A social psychology of leisure. State College, PA: Venture.
Marger, M. N. (1985). Race and ethnic relations: American and global perspectives. Belmont, California: Wadsworth.
Matteo, S. (1986). The effect of sex and gender-schematic processing on sport participation. Sex Roles, 15, 417-342.
McKay, J., Messner, M., \& Sabo, D. (2000). Masculinities, gender relations and sport. Thousand Oaks, CA: Sage.
Messner, M. \& Sabo, D. (2000). Masculinities and athletic careers. Gender and Society, 3, 71-88.
Metheny, E. (1965). Connotations of movement in sport and dance. Dubuque, IA: WM. C. Brown.
Mills, C. W. (1959) [1976]. The sociological imagination. New York: Oxford.
Morra, N., \& Smith, M. D. (1996). Interpersonal sources of violence in hockey: The influence of the media, parents, coaches, and game officials. In F. L. Smoll \& R. E. Smith (Eds.), Children and youth in sport (pp. 142-155). Madison, WI: Brown \& Benchmark.
NCAA. (2006). Women's Ice Hockey Ranking Summary. Retrieved July 15, 2006, from http://webl. ncaa.org/stats/StatsSrv/ranksummary
Pelak, C. F. (2002). Women's collective identity formation in sports: A case study from women's ice hockey. Gender © Society, 16, 93-114.
Persell, C., Catsambis, S., \& Cookson, P. (1992). Differential asset conversion: Class and gendered pathways to selective colleges. Sociology of Education, 65, 208-225.
Postow, B. C. (1980). Women and masculine sports. Fournal of the Philosophy of Sport, VII, 51-58.
Pronovost, G. (1998). Age, generations, and life-cycles. Current Sociology, 46, 47-55.
Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. New York: Simon \& Schuster.
Raymore, L., Godbey, G., \& Crawford, D. (1994). Self-esteem, gender, and socioeconomic status: Their relation to perceptions of constraint on leisure among adolescents. Fournal of Leisure Research, 26, 99-118.

Raymore, L. A. (2002). Facilitators to leisure. Fournal of Leisure Research, 34, 37-51.
Ryan, J. (1995). Little girls in pretty boxes: The making and breaking of elite gymnasts and figure skaters. New York: Doubleday.
Samdahl, D. M. (2005). Making room for 'silly' debate: Critical reflections on leisure constraints research. In E.L. Jackson (Ed.), Constraints to leisure (pp. 337-349). State College, PA: Venture.
Samdahl, D. M., \& Jekubovich, N. J. (1997). Critique of leisure constraints: Comparative analyses and understandings. Fournal of Leisure Research, 29, 430-452.
Scott, D., \& Willits, F. K. (1998). Adolescent and adult leisure patterns: A reassessment. Fournal of Leisure Research, 30, 319-330.
Shaw, S. M. (1994). Gender, leisure, and constraint: Towards a framework for the analysis of women's leisure. Journal of Leisure Research, 26, 8-22.
Shaw, S. M., \& Henderson, K. (2005). Gender analysis and leisure constraints: An uneasy alliance. In E.L. Jackson (Ed.), Constraints to leisure (p. 23-34). State College, PA: Venture.
Shinew, K., Floyd, M. F., McGuire, F., \& Noe, F. (1995). Gender, race, and subjective social class and their association with leisure preference. Leisure Sciences, 17, 75-89.
Shinew, K., \& Floyd, M. F. (2005). Racial inequality and constraints to leisure in the Post-Civil Rights era: Toward an alternative framework. In E. L. Jackson (Ed.), Constraints to leisure (pp. 35-51). State College, PA: Venture.
Snyder, E. E., \& Spreitzer, E. (1983). Change and variation in the social acceptance of female participation in sports. Journal of Sport Behavior, 6, 3-8.
Standley, K., \& Soule B. (1974). Women in male-dominated professions: Contrasts in their personal and vocational histories. Journal of Vocational Behavior, 4, 246-258.
Stebbins, R. A. (1996). The barbershop singer: Inside the social world of a musical hobby._Toronto: University of Toronto Press.
Theberge, N. (2003) "No fear comes": Adolescent girls, ice hockey, and the embodiment of gender. Youth EO Society, 34, 497-516.
Theberge, N. (2000). Higher goals: Women's ice hockey and the politics of gender. Albany, NY: SUNY Press.

USA Hockey. (2006). 2005-06 Season Final Registration Reports. Colorado Springs, CO: USA Hockey.
U.S. Bureau of the Census (2006). Statistical Abstract of the United States: 2006 ( $126^{\text {th }}$ edition). Washington, DC: U.S. Government Printing Office.
Weiss, M. R., and Barber, H. (1995). Socialization influences of collegiate female athletes: A tale of two decades. Sex Roles, 33, 129-140.
Women's Hockey Web. (2006). Women's college hockey in the USA. Retrieved May 30, 2006, http://www.whockey.com/univ/usa/.


[^0]:    Address correspondence to: Professor Carol J. Auster, Department of Sociology at Franklin and Marshall College Lancaster, PA 17604-3003. Phone: (717) 291-4042, Fax: (717) 358-4500, e-mail: causter@fandm.edu

    Author Notes: I wish to thank Joanne Spigner, Kelly Roos, and Scott Wiley for generously providing the data used for the empirical analysis. I also am grateful to the anonymous reviewers for their very helpful and detailed comments and suggestions.

