

WHAT MATTERS TO FANS ORDERING CONCESSIONS?: DETERMINING THE
IMPORTANCE AND UTILITY OF MENU CATEGORIES AND ITEMS

by

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What Matters to Fans Ordering Concessions?: Determining the Importance and Utility of
Menu Categories and Items

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by

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DEDICATION

This is dedicated to my parents, my grandparents, as well as Domenic and Samantha, for trying to keep me grounded and focused during this process.

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I would like to thank the many friends, relatives, and supporters who have made this happen. Dr. Green, thank you for helping me pivot mid-project and for always believing that I would finish on time, even when I was most overwhelmed. Your countless hours on Zoom with me over the last year has pushed me to create a thesis that was better than I could have ever dreamed of. Dr. Chalip, thank you for your help with data analysis and for always asking questions that help to propel my work forward. Dr. Aylsworth, thank you for your editing and insight throughout the process.

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ABSTRACT

WHAT MATTERS TO FANS ORDERING CONCESSIONS?: DETERMINING THE IMPORTANCE AND UTILITY OF MENU CATEGORIES AND ITEMS

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Concessions are a key part of the game experience for sport fans. However, little research has examined consumers' choice of concessions and particular menu items. By understanding consumers' preferences for different types of concessions and the importance they place on each, sport venues can better meet the needs of their fans and enhance the overall game experience. This study aims to determine how concession choices contribute to the overall game experience. An online survey was distributed to a convenience sample of adults in the United States. Participants ($n = 175$) evaluated concession bundles for a choice-based conjoint analysis of concession attributes and preferences, and responded to measures of sport event attendance, concession purchase behaviors, and demographics. Relative importance of the attributes and part-worth utilities were calculated. Cluster analysis identified three fan segments based on concession preferences: traditional game food, specialty food items, healthy food options,

diet specific options, vouchers, and traditional and healthy beverage options. Gender effects were explored via MANOVA; Women reported different preferences than men and placed more relative importance on the availability of foods for special diets than men did. This study is the beginning in understanding consumers' concession choices. Overall, a high importance and preference existed across all groups for traditional game foods, but one segment also wants healthy foods, and one segment also wants foods that cater to special diets. Based on this, sport organizations should focus their concessions inventory and marketing on foods that appeal to each of the three market segments.

CHAPTER ONE: INTRODUCTION

Game experience is a critical part of attracting and retaining fans at a sporting event and spectators may be more likely to share their experience by word-of-mouth, after a sporting event that meets their expectations (Jensen, Haskell, & Larson, 2018). While no single element of the sportscape stands out as a significant predictor of attendance, as a whole they do increase the prediction of future attendance intention (Hill & Green, 2000). Organizations want consumers to come earlier and stay longer, something with which concession stands can help. After the Atlanta Falcons lowered their concession stand prices for the 2017 NFL season, the entire game-day experience was impacted (Rovell, 2018). The Falcons reported that on average 6,000 more fans arrived two hours before the game, which created more time sell both food and beverages, but also reduced waiting times at concession stands (Rovell, 2018) creating a better overall experience for fans.

Concessions are an important aspect of the sporting event experience (Seaman, 2021), an experience that seems to affect fans of all ages. Slavich, Rufer, and Greenhalgh (2018) found there was no statistically significant difference between age group and both food and beer motivation. The researchers also found that neither food nor beer directly motivated fan attendance. Instead, they were associated with other motives affecting attendance. Food maintained the strongest relationship with entertainment and beer maintaining the strongest relationship with escape motivation (Slavich et al., 2018). One of the highest-correlated motives for both food and beer was being social. While food and

beer may not be a direct motive for attendance at sporting events it is clear that both are an important part of the sporting event experience due to entertainment, escape, and social functions. Slavich et al. (2018) found a moderate relationship between food and entertainment which “suggests that organizations may have an opportunity to satisfy spectators’ desire to be entertained by offering unique food items” (p. 176). While, the researchers did not find a difference between food and beer motivation based on attendance frequency, new fans may be interested in attending games because of the variety of concession items (Slavich, et al., 2018).

Whisenant, Dees, Bolling, and Martin (2013) found that consumers were likely to spend more on concession items when the home team was ahead at halftime. The researchers’ results “lend credence to a new prospective of immediate basking in reflected glory in which consumer mood (and therefore purchasing decisions) was affected by the score of a game as it was happening” (Whisenant et al., 2013, p. 6). They also stated that the home team halftime lead may elevate both the consumer’s mood and emotion and increase the likelihood of the fan both leaving their seat (physical activity) and making a purchasing decision (cognitive activity) (Whisenant et al., 2013).

Whisenant et al. (2013) also found that consumers spent more in the first half of the season than the second half of the season. Food and beverages may not directly be a motive for sporting event attendance, but it is still a significant aspect of the sporting event experience. In addition, the circumstances and timing of the game itself also plays a factor in consumers’ concessions purchases.

Despite what is known about motivation and the importance of concessions as a part of the game-day experience, little research has examined consumers' choice of concessions and particular menu items. The aim of this study is to determine the importance of concession menu categories, and the utility placed on specific menu items when placing concession orders.

Statement of Problem

Sportscape, the holistic experience of both the social and physical environment, is a tool to understand the consumers' game experience, including satisfaction and attendance intentions (Shin, Chiu, & Lee, 2018). The purpose of this research is to determine how concession choices contribute to the overall game experience. This gap in research is a problem and presents an opportunity for new knowledge to be gained by the industry. Concessions are a critical component in creating an immersive entertainment environment (Seaman, 2021). Teams will see a benefit from tailoring their offering to the needs of the consumers, but the most significant impact will come from retaining fans and ensuring they return to the sport venue. Understanding consumers' desires for different concession types and the importance they place on each can assist sport venues to better meet the needs of their fans and enhance the overall game experience.

Purpose Statement

The aim of this study is to determine the relative importance of the availability of different concessions attributes and identify market segments based on their preference for specific concession offerings.

Research Questions

1. What is the relative importance of traditional game food, specialty food items, foods for special diets, vouchers, and beverages for people's game experience?
2. What are participants' preferences for the availability of traditional game food, specialty food items, healthy food options, diet specific options, group/family food discount vouchers, and traditional and healthy beverages options?
3. Are there distinct market segments based on item preferences?
4. If market segments exist, what differentiates the segments?
5. Does gender affect the importance placed on food and beverage attributes, preference for specific food and beverage options, attendance behaviors, or concession purchase habits?
6. What is the relationship between concession spending, household income, and preference for a discount voucher?

CHAPTER TWO: LITERATURE REVIEW

This chapter outlines the importance of consumer choice and describes common models of consumer choice. It goes on to provide a brief history of concession stands in sport. It then identifies the potential attributes of concessions that matter to consumers today.

Theoretical Framework

Consumer choice combines aspects from marketing science and consumer research, as well as behavior analysis and behavioral economics (Foxall, 2003). Choice is classified not a singular event or action but as a set of behavior over time (Foxall, 2003). Consumer decision making involves five steps, need recognition, information search, evaluation of alternatives, purchase decision, and post purchase behavior (Tischler, 2017). It is generally believed that consumers know what they want and can obtain, process and use the available information necessary to make logical choices based on their objectives and desires (Foxall, 2003). Based on this perspective, preferences and beliefs are believed to be causally related to choice (Satz & Ferejohn, 1994). This perspective of consumer choice is also based on the idea that each action reflects a choice the consumer has made and maximizes both the beliefs and preferences of the consumer (Satz & Ferejohn, 1994). However, rational choice theory does not account for non-rational purchases. Although it is likely that a portion of concessions purchases are rationally determined, it is highly likely that they are also influenced by feelings such as excitement or nostalgia associated with sporting event attendance. Not all purchase

decisions are entirely logical. This is reflected in the models of consumer choice that evolved to explain purchase decisions.

There are four types of models of consumer choice: economic models, passive models, cognitive models, and emotional models (Tischler, 2017). The economic model of consumer choice is based on the assumption that consumers make rational choices based on costs and benefits (Thaler, 1980). It implies that only present cost, not past cost, and benefits should impact decision making (Thaler, 1980). A basic foundation of the economic model is that additional choices only have the potential to make someone better off, while additional constraints can only make a consumer worse-off (Thaler, 1980). However, this model does not do a good job of predicting how the average consumer behaves because the average consumer does not spend all of their time thinking about how to make decisions (Thaler, 1980). Rather, some purchases are made on impulse (Gültekin & Özer, 2012) and others are driven by experience (Bettman & Park, 1980) or current affective state (Chang & Tuan Pham, 2013). Economic models do not directly align with consumers' behavior at a sporting event, because more than present cost and the benefits are weighed by consumers at sporting venues. Their traditions or desire to treat themselves to a unique or unhealthy food may outweigh the present cost and benefits. Given the premium prices for food and beverages at sport venues, it could be argued that economic models would predict very low levels of purchase.

Passive models are considered the opposite of economic models because they frame consumers as objects of marketing manipulation who do not have an independent role in the decision process of a choice (Mihart, 2012). In addition, it is assumed that

consumers are irrational and are prone to making impulsive decisions (Tischler, 2017). Consumers, based on this model, buy products because they want them, not because they need them (Tischler, 2017). These models rely heavily on marketing manipulation and do not account for the presence of consumers' habits, traditions, or emotion towards a purchase. Given the increasing breadth of options available at sport venues, one would expect some cognitive evaluation of concessions purchases.

Cognitive models are based on the expectation consumers will use their cognitive resources in creating their beliefs about a product (Hansen, 2005). A more involved consumer is likely to process more cognitive information (Hansen, 2005). Central to the cognitive view of consumer behavior is evaluation by the consumer, similar to the economic model (Hansen, 2005). These models assume that the consumer goes through comprehensive cognitive processing prior to purchasing (Wang & Busemeyer, 2021). However, cognitive models suggest that consumers may not include all available information in their search but will make a decision when they believe they have a comfortable understanding of both the benefits and features of the item (Tischler, 2017). The cognitive model however does not take into account influences such as spontaneity, emotion, cravings, or habits and traditions (Wang & Busemeyer, 2021). This model does not align well with the consumption experiences of consumers purchasing concessions at sport venues because these factors are not taken into account.

Emotions reflect both consumers' connection to their social and physical environments and how consumers interpret that relationship in the context in which they find themselves (Achar, So, Agrawal, & Duhachek, 2016). Emotional or affective models

of consumer choice are based on the belief that emotions influence consumers' choices. Emotions are not a result of an evaluative procedure but are instead a response to consumers' exposure to a particular stimulus or stimuli (Hansen, 2005). Brands create marketing content that evoke emotions designed to evoke specific consumer responses (Achar et al., 2016). However, emotional influences are not limited to the ones set up by brands and marketers (Achar et al., 2016). For example, hope and other future focused emotions increase consumers' self-control and resulted in healthier choices (Achar et al., 2016). In addition, people who felt positive emotions including happiness and calmness had an enhanced response to a marketed message (Achar et al., 2016). Affective models align best with the highly emotional experience of game attendance, may better reflect how consumers attending a sporting event make decisions because they take into account the nostalgia and traditions that shape sport fans' food and beverage choices at sporting events.

The affective model of consumer choice most closely aligns with the many emotions a consumer may experience while attending a sporting event. The economic model does not factor in the emotions that a consumer may feel. The passive model does not account for the cognitive processing required to choose from the wide array of options at a sporting event. The cognitive model does not factor in the spontaneity, emotion, cravings, or habits and traditions that may be experienced during a sporting event.

Each model is a lens. It is not that one is truer than another; each model highlights complementary features of consumer choice. From a practical standpoint what matters in

particular is what consumers choose. The models suggest what can be explored to understand why they choose what they do. This study begins with consumer choice, and then explores correlates of those choices which may indicate why they make those choices.

A Brief History of Concession Stands

Early on in baseball, there were no organized concession stands and fans purchased food from locals that came and tried to sell their food, often buying handheld foods including ice cream and sandwiches (Landers, 2020). When Charles Weeghman opened his ballpark in Lakeview, he wanted to help spectators avoid the vendors yelling trying to get a sale, so he installed a concession kiosk behind the grandstand (Smith, 2018). The concept of a concession stand traveled with the Chicago Cubs when the team moved to Weeghman Park in 1916 and Wrigley Field in 1926, working off of a simple menu that included hot dogs, peanuts, popcorn, cigars, and cigarettes (Smith, 2018). Over time, however, concession stand offerings have changed at Wrigley Field, ranging from milk, malts, and a variety of sandwiches including egg and cheese, ham, and barbeque beef, with some sticking around and others not (Smith, 2018). Over time pizza and beef were added to the menu, in addition to Smokie Links that left the menu in 1985 (Smith, 2018). Nachos were introduced to the Texas Rangers' concession stands in 1976 and gained popularity after Howard Cosell raved about the snack during a 1978 Monday Night Football broadcast (Smith, 2013). The concession industry has grown and evolved over time, reaching \$3 billion in revenue in 2018 (Pilon, 2019). While hot dogs, peanuts, nachos, and other classic foods remain ballpark staples, new and unique food items are

now being offered as well (Landers, 2020). In 2018, several unique foods were offered at NFL concession stands across the country including a Dungeness crab pretzel in San Francisco, dessert nachos in Detroit, and fried peanut butter and jelly sandwiches in Buffalo (Joseph, 2018). Concessions are a critical part of sport venues, so much so that stadiums are being designed with food and beverage in mind in order to maximize both the sport experience and revenues (D.P. Smith, 2018). A variety of food and beverage options are necessary to appeal to multiple market segments. For this reason, it is necessary to understand preferences by market segment.

Food and Beverage Preferences in Sport Venues

Food Selection

Food selection is a key aspect of the game experience. Sukalakamala et al. (2013) found that the most popular food items purchased by Generation Y consumers from stadium concession stands included hot dogs, nachos with cheese, French fries, pizza, hamburgers, pretzels, and popcorn. The researchers also found that nearly half the participants reported that beer was their favorite beverage to purchase, followed by soda, water, juice, cocktails, and energy drinks. The researchers found that participants preferred a combination of healthy and unhealthy food and that the five most preferred food items were salads, flavored French fries, sandwiches, fresh fruit, and sandwiches (Sukalakamala et al., 2013). The five most preferred beverage items were flavored water, draft and specialty beers, wine, juices, and sweet iced tea (Sukalakamala et al., 2013). Kelly, Baur, Bauman, King, Chapman, and Smith (2010) found that the top items sold at children's sports clubs in Australia were sports drinks, confectionery, soft drinks, sausage

sandwiches, meat pies, and pastries. Clearly there are traditions of food types and while they may vary by country or region, they are well known, and expected at sporting events, by the locals. Due to the traditional nature of them, there may be affective nostalgia around them for the consumers.

Ireland and Watkins (2009) found that the lack of variety in food and beverage options was a concern to parents and caretakers who brought their children to games. For example, a 34-year-old female said, “The thing is if you’re taking children to the game with you there’s nothing here for them, there wouldn’t be anything healthy for you to buy a child at all” (Ireland & Watkins, 2009, p. 684). Parry, Hall, and Baxter (2017) reported that the Sydney Cricket Ground (SCG) increased the variety of options offered, however, despite an increase in healthier options there were still few vegetarian options. Laroché et al. (2017) found students, even those that did not believe it was important to have healthy food options, were more pleased with the overall variety of foods available after changes were made to include healthy options at the concession stand. It is not clear whether the increased satisfaction was a result of increases in the number of choices available or the type of food items added to the menu.

In recent years sport concessionaires have added variety to the food and beverage options by adding specialty items that link to the regional identity of the team. The tie to the regional identity of the team enhances the game experience. For example, Dunkin’ Donuts Park, home of the Hartford Yard Goats, offers locally and team inspired items including bacon-wrapped Munchkins, the Glazed and Grazed burger (a beef burger with goat cheese and arugula on a glazed donut), and the GOht New England beer (Griffin,

2019). The Texas Rangers offer a grilled rattlesnake sausage on a hoagie roll and a pile of tostadas covered in pulled pork and chili called the Stack (Shea, 2021). The Great American Ball Park, home of the Cincinnati Reds, offer a spicy chicken sandwich (with “Cincinnati hot” sauce) on a corn meal bun and Wicked Sausage Nachos (nachos topped with wicked sausages from the Queen City Sausages, a local Cincinnati establishment) (WLWT Digital Staff, 2021).

Sukalakamala et al. (2013) found that nearly half of the participants in their study believed that there was little variety in the stadium food offered. In addition, the participants reported a desire to have more variety in the food and beverage options at the concession stands. It is clear that while sporting event attendees have favorite foods to order, variety is still important to them. While expanding the choices available at sport venues is appreciated, understanding which types of items should be included in any expansion is critical. Clearly fans appreciate and expect traditional game foods, therefore the availability of traditional foods is expected to be important to fans’ game experience. Similarly, increasing the variety of food and beverage options by providing specialty items is also expected to impact game experience.

Healthy Food Options

One of the key additions to the range of concessions has been healthy food options. Olstad, Goonewardene, McCargarl, and Raine (2014) conducted their study at a recreational pool and found that of the 6,175 items sold, 40.8% of them were healthy, demonstrating that there is consumer interest in ordering healthy foods. The researchers also found that the caloric value of purchases was statistically significantly higher when

only children were present than when adults alone or both children and adults were present (Olstad et al., 2014). In a follow up article, Olstad et al. (2015) stated that the proportion of healthy items sold was healthy was significantly higher during the intervention phase compared to the pre- and post-intervention phases. The researchers found that, “when few healthy foods were available, their sales were low. However, when a variety of healthy options were made available, healthy items sold in proportion to their availability, with no adverse effects on revenues” (Olstad et al., 2015, p. 5). This shows that food availability is a critical environmental determinant of if people will purchase certain foods or not, because healthy food cannot be purchased if it is not available. However, availability of healthy food is not enough to change consumers ordering habits, as a majority of the purchases remained unhealthy even after the intervention phase.

Laroche et al. (2017) found that even students who did not believe that healthy food options were important purchased healthier foods at a similar frequency to those who did believe having healthy food options were important. Sukalakamala, Sukalakamala, and Young (2013) found that participants would like to have healthier food and beverage options available at concession stands. The researchers found that college seniors had stronger opinions than the college freshman that the stadium food was unhealthy (Sukalakamala et al., 2013). Similarly, Dave, An, Jeffery, and Ahluwalia (2009) found that participants with a higher education level had a more negative perception towards fast food than participants with a lower education level. However, Sukalakamala et al. (2013) found that gender, employment status, and ethnicity did not

have a statistically significant impact on Generation Y consumers' perceptions of the healthiness of stadium food.

Consumers are interested in healthy food options; however, those options are not always made available at concession stands. It is expected that healthy food options will be important to fans' game experience.

Gender

Women are often more concerned with healthy food options than are men (Wardle et al., 2004). Ireland and Watkins (2009) found that female participants felt that food and beverage preferences were different than men's, and that their food and beverage choices might be healthier than men's. The female participants also complained about the alcohol choices, describing them as "beer or nothing" (Ireland & Watkins, 2009, p. 684). Some of the female participants in Ireland and Watkins' (2009) study said they chose not to eat at Citygreene Stadium. Parry et al. (2017) found that the tradition of eating meat pies and similar foods may be more deeply embedded for males than for females. Further, they found that nearly three-quarters of the female participants indicated they attended games with family. Females often have primary responsibility for meal planning and family health (Kurz & Johnson-Welch, 2001). Consequently, females may affect families' preferences for healthy food options. They also indicated a need for future research that looks at female and family food preferences and determine if food availability was a barrier for attendance for females (Parry et al., p. 2017). In contrast, Sukalakamala et al. (2013) found no significant differences in how Generation Y

consumers perceived the variety of food available at the stadium based on gender. It is expected that concession preferences will differ based on gender.

Price

Concessions vary in price, and often exceed the price of the same items purchased outside of the stadium or arena. Unsurprising, concessions are an important revenue source in the sport industry (Pilon, 2019). Concession revenues are higher when they align with consumer preferences. Therefore, understanding consumers' preferences for food and beverage options not only impacts consumers' game experience, it also impacts revenues.

Laroche et al. (2017) found that adding healthy foods to a high school concession stand menu with traditionally less healthy foods was well received and profitable. Aside from pretzels, the students were price sensitive for some of the new items and Laroche et al. (2017) noted that students were overall very price sensitive and predicted that cheap candy will continue to sell in large quantities when it is available. Ireland and Watkins (2009) found that all participants agreed that both food and beverage prices were too high; in addition, the participants were concerned that the organization relied on their customers' loyalty to ensure their patronage, no matter the price. Coates and Humphreys (2007) found that there was no statistically significant impact of concession stand prices on the attendance demand. This implies that concession stand items are priced so that they maximize concession revenues for which the researchers found weak evidence (Coates & Humphreys, 2007).

Participants in Parry et al.'s (2017) study described the prices of food and beverage items at sport venues as “extreme” and “exorbitant” (p. 210). The researchers also noted that both fans and the media have criticized the high price of food at concession stands in Australian stadiums, demonstrating that Australian fans want affordable concessions at sporting events (Parry et al., 2017). Sukalakamala et al. (2013) found no statistically significant difference toward price and gender, classification, employment, status, and ethnicity. Nearly three quarters of the participants believed that the portion size was too small in relation to the price (Sukalakamala et al., 2013). Fans’ perceptions of affordability are affected by their expectations as well as their income, which enables leisure spending such as concessions purchases at games. Therefore, it is expected that concession spending is associated with household income and a preference for discount vouchers.

Summary of Preferences

There are consumers interested in healthy food options at sporting events and overall consumers are interested in having a wide variety of options from which to choose. While some researchers found differences in preferences on gender, not all did. There was a consensus among consumers across the studies that the food and beverage options at sporting events are priced too high.

Preferences for food and beverages, perhaps the most important aspects by which concessions affect game experience, are not the only aspects. The initial development of concession stands was motivated by an attempt to improve the fan experience by helping fans avoid food vendors interfering with fans enjoyment watching the game. In effect, the

first concession stands removed the shouting associated with vendors selling food in the stands. Over time, fans became annoyed with standing in lines to purchase their concessions, as this interfered with their viewing and, ultimately, with their game experience (Ground Control, 2019). Sport venues continue to find ways to minimize the ways in which concessions purchases interfere with fans' enjoyment of the games by creating more convenient ways to obtain concession orders. In some ways, concession delivery has come full circle. Options for obtaining concessions at sporting events vary. Therefore, it would be useful to understand consumers' preferences for obtaining their food.

Obtaining Food

Consumers do not want to miss the game itself waiting in line to get food and have become more accustomed to having a variety of convenient options to obtain food and beverages, something consumers may soon expect in a sport setting (Oracle, 2019). Oracle Corporation found that 58% of fans surveyed said they would spend more on concessions if wait times were shortened and that 76% of fans surveyed said that in-seat delivery of concessions would improve their in-stadium experience (Oracle, 2019). For example, in 2016 Yankee Stadium began offering food ordering and in-seat delivery via the Yankee Stadium app, joining the San Francisco 49ers and Orlando Magic who also used VenueNext's technology (Kapustka, 2016). This is consistent with the broader changes in society in which people increasingly expect more convenient delivery of food.

Changes in Food Delivery

Cho, Bonn, and Li (2019) found that user-perceived value was positively correlated with both attitudes and intention to continuously use the food delivery apps. The researchers found statistically significant differences between convenience, design, price, food choices, and user-perceived value and single-person and multi-person households (Cho et al., 2019). Multi-person households had a statistically significant positive effect of convenience upon perceived value (Cho et al., 2019). The researchers also found that trustworthiness was the most significant and positive quality attribute of the consumer's perceived value (Cho et al., 2019). It was found by Cho et al. (2019) found that single-person households placed the most importance on variety of food choices, price, and trustworthiness, while multi-person households placed the most importance on design, convenience, and trustworthiness.

In a sporting event specific setting, Parry et al. (2017) found that the participants indicated the number of ways they could order and receive food was limited and that it led to difficulties around queuing for food and beverages that impacted the fan experience. In 2016, Oracle Corporation found that 40% of fans have left a concession line at least once in the last 12 months because the wait time was too long, showing a clear need for alternate ways to order and pick up their food and beverage orders (Oracle, 2019). In April 2021, the Cleveland Cavaliers began testing a mobile ordering program that includes pickup from heated food lockers (Muret, 2021). Fans order through the SeatGeek app and receive a text message with a four-digit code when their order is ready which they enter on a touchpad at the food lockers (Muret, 2021). After the code is

entered, lights flash, and the locker opens so the consumer can pick up their items (Muret, 2021). In addition, fans can place their order for pickup up to 12 hours before the event and pickup is organized in 10-minute increments across nine lockers (Muret, 2021). The Atlanta Braves debuted mobile concession ordering through the MLB Ballpark app that allows fans to order concessions from their seat, pay in the app, and pick up their order at several locations in the stadium (Staff Reports, 2021).

Overall, creating new ways for people to get their food is important to the sport industry and learning from the existing food delivery app industry will be key moving forward.

Synthesis of Literature

The existing research demonstrates that extensive research has been done on what people want to order from concession stands, though not specifically on their preferences. While not every consumer is interested in healthy food and beverage options, there are people who are, and healthy options need to be given if they are to be purchased. Consumers are interested in a variety of foods being offered. Gender differences were found in the food and beverage preferences of men and women, in some studies but not all. Price is also an important factor to fans and multiple studies found that food and beverage prices were too high. Creating new ways for consumers to get food and beverages from concession stands may be the next step to improve the concession stand industry. Lessons can be learned from the existing food delivery app industry as desire for alternate ways to purchase concessions increases. Given the existing knowledge it is necessary to try to find out what consumers want to order.

CHAPTER THREE: METHOD

Design and Procedures

A survey design with choice-based conjoint (CBC) modeling was used for this research. By using a survey more people were able to be reached, making the data more generalizable. This research was also able to be completed without interacting in person with another person, which is important due to the COVID-19 pandemic. CBC analysis provided the benefit of measuring tradeoffs during the course of the survey by offering a variety of packages.

The questionnaire was distributed to a convenience sample of potential participants (anyone 18 years or older) via the researchers' email, Facebook, and Twitter accounts. A recruitment paragraph was included in each email and post and consent language appeared on the landing page of the questionnaire. Potential participants had to click 'YES' to provide consent to participate in the study, then click that they are 18 or older to continue to the study questions. Participants indicated consent by clicking that they agree to participate and begin the survey. No identifying information was collected. After the data collection period closed, the data were downloaded as an SPSS file for analysis.

Sampling

Convenience sampling was used with a request for snowball sampling. The questionnaire was sent out by the researchers using email, Facebook, and Twitter

accounts. The respondents were asked to pass along the questionnaire to other eligible parties.

The sample consists of 175 adults. More than a third of participants (36.8%) reported living in two person households and the average household size reported was 2.63 people. The majority of the participants identified as female (62.0%); 65.8% were between the ages of 18 and 34; 85.0% identified as White; 49.1% hold a bachelor's degree; and 60.5% reported being employed full time. Participants reported a mean household income of between \$75,00-\$99,000. Prior to the COVID-19 pandemic 40.1% of participants reported attending between 6 and 10 sporting events per year; 26.4% of participants reported attending in a group of two and 27% of participants reported attending in a group of four with a mean group size of 4.51 people; 64.4% of participants purchased from a concession stand most or all of the time; 39.8% of participants preferred to order from their seat using an app on their phone and have the food delivered to their seat; and the participants spent an average of \$18.98 per person buying concessions per game.

Instrumentation

The questionnaire was designed to gather data about respondents' attendance and concession stand habits at professional and collegiate sporting events. It was divided into four sections: conjoint analysis, sporting event attendance, concession purchase habits, demographics (See Appendix).

Conjoint Model

CBC analysis was used to create two measures: relative importance of attributes and preference for specific items. The relative importance of each attribute on participants' game experience requires participants to trade-off program attributes. This allows the researchers to determine the relative importance of each concessions attribute to the overall game experience (Orme, 2010). Five attributes were included in this study: 1) traditional game foods (presence or absence), 2) place-related specialty foods (presence or absence), 3) foods for special diets (healthy food options, diet-specific options, no special diet), 4) vouchers (presence or absence), and 5) beverages (traditional or traditional and healthy). The importance score summarizes the relative impact each attribute has on concessions attributes. The importance scores sum to 100 and are reported as percentages.

Preferences were measured by calculating part-worth utilities for each specific item via Sawtooth Software (Sawtooth Software, 2021). The utility scores for items within each attribute sum to zero, therefore only the part-worth values for the presence of the item are presented. A higher utility level indicates a greater preference for a specific item choice. Attributes and the item choices for each are shown in Table 1.

Table 1 Attributes and Options

Attribute	Items
Traditional game food	Traditional game food available Traditional game food not available
Specialty food items	Specialty food items available Specialty food items not available

Foods for special diets	Healthy food options available Diet specific options available No special diet foods available
Vouchers	Group/Family food discount vouchers available No discounts available
Beverages	Traditional beverage options only Traditional and healthy beverage options available

Four of the five attributes were represented by two choice options; foods for special diets included three options. Overall, there are 48 possible menu choice combinations ($2 \times 2 \times 3 \times 2 \times 2$). Test results using the Sawtooth Software CBC analysis package determined that eight questions with four concession options were sufficient to test all possible scenarios. Participants were prompted to choose their preferred concession package (one of four provided in each question). A none option was also provided. Below is an example question presented in Figure 1.

If these were the only concession stand options available at the game, which would you choose?

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Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	No special diet foods available	Healthy food options	Healthy food options
Vouchers	No discounts available	Group/Family food discount vouchers available	Group/Family food discount vouchers available	No discounts available
Drinks	Traditional and healthy drink options available (e.g., soda, beer, water, juice)	Traditional drink options only (e.g., soda and beer)	Traditional drink options only (e.g., soda and beer)	Traditional drink options only (e.g., soda and beer)
	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>

NONE: I wouldn't choose any of these.

Figure 1 Sample Question

Sporting Event Attendance

Four measures of sporting event attendance were included: frequency of attendance, frequency of attendance with others, size of group, and number of children in group. Number of sporting events per year was measured using five categories: zero, 1-5, 6-10, 11-15, more than 15. A five-point frequency scale ranging from never to always, was used to measure how often participants went to games with immediate family members, other family members, friends, significant others, and by themselves. Typical group size and number of people in their group under the age of 18 was measured by a linear numeric scale with the participants inputting the value.

Concession Purchase Habits

Five measures of concession purchase habits were included: frequency of concession purchase, average concession stand spending, how many people the concession purchase was for, preferred method of getting food, and typical concession order. Frequency of concession purchase was measured using a five-point frequency scale ranging from never to always. Participants were asked to input the amount in dollars they typically spend on concessions and the number of people for whom they typically buy. Spend per person was created by dividing the amount of dollars they typically spend on concessions by the number of people for whom they typically buy. The participants were asked to rank four methods of obtaining food at a sport venue: order and pick up at the concession stand; order from my seat using an app on my phone and pick up on concourse; order from my seat using an app on my phone, food delivered

to my seat; and order from seller roaming the stands. Typical concession stand order was categorized based on similarity and frequency.

Demographics

The questionnaire also included demographic questions including, the participants' age, gender, household income, ethnicity, household size, education level, and employment status. Age was measured via eight categories, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 85+. Participants selected the gender with which they identify from the following: female, male, nonbinary, other, and prefer not to say. Participants selected the ethnicity with which they identify from the following: White, Black or African American, Native American or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Hispanic or Latino, Middle Eastern, Multi-racial, or Other. If the participant selected other, they had the option to fill in how they identify. Household income was measured via seven categories, \$0-\$24,999, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$124,999, \$125,000-\$149,999, and \$150,000+. Household size was measured by measured by a linear numeric scale with the participants inputting the value. Education level was measured via seven categories, less than a high school diploma, high school degree or equivalent (e.g., GED), some college, no degree, Associate Degree, Bachelor's degree, Master's degree, and Doctorate or professional degree. Employment status was measured via nine categories, employed full time (40 or more hours per week), employed part time (up to 39 hours per week), unemployed and not currently looking for work, full-time student, retired, stay at home parent, self-employed, and unable to work.

Data Analysis

Data from the surveys was entered into SPSS. Descriptive statistics (e.g., mean, standard deviation, frequencies) were calculated for all demographic and scale data. Results, including descriptive statistics, were analyzed using quantitative and qualitative methods. In order to determine the relative importance of each concessions attribute to the participant's overall preference, CBC analysis was conducted, and an importance score was calculated for each attribute (Sawtooth Software, 2021). In order to estimate the relative importance of each concessions attribute and part-worth utilities for each option were calculated using Sawtooth Software.

Market segments were clustered based on the utility values for the items within all attributes. Two-step cluster analysis was used to determine the number of clusters. Then K-means cluster analysis was used to determine final cluster centers and assign participants to the cluster having the nearest centroid. A profile was then developed to describe each segment based on their preferences for traditional game food, specialty food items, healthy food options, diet specific options, vouchers, and traditional and healthy beverage options. A word cloud was created for each cluster to visually depict participants' typical concession order. The size of each word corresponds to the frequency it was mentioned such that more frequently mentioned words appear larger than infrequently mentioned words.

Gender effects were examined via a series of four MANOVAs. Although four categories of gender were included on the survey, only male and female were used in the analyses as there were not enough respondents in the other categories. The first examined

the effect of gender on five measures of relative importance (traditional foods, specialty foods, special diets, discount vouchers, and beverage options). The second identified gender effects on preference for specific concession options as measured by the part-worth utilities. The third examined gender effects on attendance behaviors (frequency of attendance, frequency of attendance with immediate family, frequency of attendance with other family members, frequency of attendance with friends, frequency of attendance with a significant other, frequency of attendance alone, typical group size, and number of members of the group that were under 18). The fourth examined concession purchase behaviors (frequency of concession purchase, preferred method of getting concession, and the amount in dollars spent per person).

Respondents' relative importance and preference for discount vouchers could logically be affected by their income and spending behaviors. Therefore, Pearson product-moment correlations were calculated to identify any significant associations of household income and concession spend per person with relative importance and preference for discount vouchers.

CHAPTER FOUR: RESULTS

The purpose of this study was to investigate the importance of concession types and preferences for menu items when attending sporting events, and to identify distinct market segments based on concession choices. This chapter includes a description of study results, including a profile of the segments identified.

Importance of Concessions Attributes

Conjoint analysis revealed the relative importance sport attendees placed on each concessions attribute in relation to the participant's overall preference (see Table 2). The relative importance of each attribute is reported as percentages that sum to 100.

Examination of Table 2 shows that traditional game food had the largest relative importance (33.78%). Specialty food items (20.55%) and foods for special diets (20.79%) were moderately important. Vouchers (12.34%) and Beverages (12.53%) were not considered very important by the consumers.

Table 2 Relative Importance of Attributes

Attribute	Total (n = 117)
Traditional Game Food	33.78%
Specialty Food Items	20.55%
Foods for Special Diets	20.79%
Vouchers	12.34%
Beverages	12.53%

Preference for Specific Items

Each participant's rankings for the concession packages were analyzed using conjoint analysis in order to obtain the utility value for the five concessions attributes. The utility values are shown in Table 3. Utilities can be interpreted relative to one another. For example, consumers preferred traditional game foods approximately four times more than they did healthy food options. Traditional and healthy beverage options were preferred half as much as specialty food options.

Table 3 Utility values from conjoint analysis

Attribute	Utility Value
Traditional Game Food	84.09
Specialty Food Items	48.24
Healthy Food Options	19.48
Diet Specific Options	17.22
Vouchers	19.93
Traditional and healthy beverage options	24.51

Segmentation

In order to ascertain if participants could be meaningfully segmented based on their utilities for each concessions attribute, the utility values were cluster analyzed using the two-step cluster procedure with Schwarz's Bayesian Clustering Criterion and a K-means cluster analysis. Three clusters were extracted as shown in Table 4. Inspection of Table 4 shows that the healthy eaters market segment placed the highest utility on having both traditional and healthy beverage options. The healthy eaters market segment also placed a high utility on the availability of traditional game food and healthy food

options. The special dieters market segment placed the highest utility on having diet specific options available. The special dieters market segment also places a high utility on the availability of traditional game food. The local traditionalists place the highest utility on the availability of traditional game food. The market segment also valued the availability of specialty food items.

Table 4 Segmented utilities

	Healthy Eaters n = 29 (24.78%)	Special Dieters n = 26 (22.22%)	Local Traditionalist N = 62 (53.00%)
Traditional game food	50.94	73.93	103.26
Specialty food items	38.69	46.61	52.83
Healthy food options	52.07	-19.94	19.50
Diet specific food options	-22.39	86.58	6.80
Vouchers	17.83	6.49	26.60
Traditional beverage options	64.22	15.80	10.37

Consumer Profiles

Each of the three groups represents a distinct market segment and were classified as the healthy eaters, special dieters, and local traditionalists. The profiles include household size, gender, age, ethnicity, education, employment, household income, frequency of attendance, group size, frequency of concessions stand purchase, method of ordering preference, and amount of money spent per person.

Healthy Eaters Profile

In the healthy eaters group (n = 29), the mean household size was 2.5; 62.1% of the group identified as female; 34.5% reported being between the ages of 25 and 34; 86.2% of the participants identified as White; 55.2% reported holding a bachelor's degree; 48.3% of participants reported being employed full time; and 27.6% (n = 27) reported a household income of \$150,000 or more. In addition, 48.3% of the healthy eaters market segment reported attending more than 15 games per year prior to the COVID-19 pandemic; reported attending games with a mean group size of 2.79 people with 48.3% of people attending in two-person group; 31.0% reported buying concessions most of the time, 31.0% reported buying concessions about half the time, and 31% reported buying concessions sometimes prior to the COVID-19 pandemic; 44.8% preferred to order from their seat using an app on their phone and have the food delivered to their seat; and the market segment had an average spend per person of \$16.13. As shown in the word cloud, healthy eaters most frequently ordered water, a healthy beverage option (see Figure 2). However, they also traditional foods such as hot dogs, pretzels, popcorn, and chicken tenders.



Figure 2 Word Cloud representing the regular concession orders of the healthy eaters market segment.

Special Dieters Profile

In the special diets market segment ($n = 26$), 34.6% of the participants reported a household size of two and a mean household size of 2.62 people; 72.7% identified as female ($n = 22$); 44.0% were between the ages of 18 and 24 ($n=25$); 87.5% of the participants identified as White ($n = 24$); 40.0% hold a bachelor's degree ($n = 25$); 64.0% are employed full time ($n = 25$); and 34.0% reported a household income of \$150,000 or higher. Of the participants in the special dieters market segment 38.5% attended between 1 and 5 sporting events per year; attended games in a mean group size of 3.69 with 42.3% of the market segment attending in a group of four; 50.0% of the market segment reported ordering concessions most of the time; 34.6% prefer to order from their seat

using an app on their phone and pick up the food on the concourse; and spent an average of \$19.86 per person. Some of the most common concession orders reported by participants in the special dieters market segment included hot dogs, nachos, and fries, all traditional game foods, as shown in the word cloud (see Figure 3).



Figure 3 Word Cloud representing the regular concession orders of the special dieters market segment.

Local Traditionalists Profile

In the local traditionalists market segment ($n = 62$), 33.3% of the participants reported a household size of two people and a mean household size of 2.70 people ($n = 60$); 35% are between the ages of 18 and 24 ($n = 60$); 83.3% identified as female ($n =$

60); 50.0% hold a bachelor's degree (n = 60); 65% reported being employed full time (n = 60); and 22.8% reported a household income of between \$75,00-\$99,999 and 26.3% reported a household income of \$150,000 or more (n = 57). Of the participants in the local traditionalists market segment, 37.1% attended between 1 and 5 sporting events per year; attended games in a group with a mean size of 5.4 people; 41.9% purchased from a concession stand most of the time and 30.6% always purchased from a concession stand; 41.1% prefer to order from their seat using an app on their phone and have the food delivered to their seat (n = 61); and spent an average of \$19.93 per person at concession stands. As shown in the word cloud, the local traditionalists reported frequently ordering soda, hot dogs, chicken tenders, popcorn, beer, and fries, several also reported an interest in a specialty or local item (see Figure 4).



Figure 4 Word Cloud representing the regular concession orders of the local traditionalists market segment.

Gender Differences

Gender differences in the importance placed on food and beverage attributes, preference for specific food and beverage options, attendance behaviors, and concession purchase habits were examined via MANOVA. The effect of gender on importance was significant, $F(4, 103) = 2.67, p = .037$. Univariate tests revealed a significant gender effect on the importance of food for special diets [$F(1, 106) = 8.04, p = .005$], with women reporting higher importance ($M = .232, SE = .015$) than men ($M = .165, SE = .019$). Gender had a small but significant multivariate effect on preferences, $F(6, 101) =$

2.27, $p = .043$, but none of the univariate tests were statistically significant. It is concluded that women and men may differ in their underlying constellation of preferences, but no single menu element drives that difference. There were no significant effects of gender on attendance behaviors, $F(8, 89) = 1.18$, $p = .317$ or concession purchase behaviors, $F(3, 99) = .271$, $p = .846$.

Concession Spending

As consumer preferences could be affected by their capacity to spend, Pearson product-moment correlations were calculated to examine the relationship between concession spend per person and household income on the one hand, and importance of discount vouchers for the game experience and preference for a discount voucher on the other. Preliminary analyses were performed to ensure there were no violations of the assumptions of normality, linearity, and homoscedasticity. There were not. There were no significant correlations between the household income and spending variables and the importance of or preference for a discount voucher (see Table 5). Importance and preference for discount vouchers are not related to income or spending.

Table 5 Correlations between discount vouchers' utility, household income, and spending

N=114	Importance of Discount Voucher <i>r</i>	Preference for Discount Voucher <i>r</i>
Spend per person	.02	-.02
Household income	.09	.06

CHAPTER FIVE: DISCUSSION

The intent of this research study was to explore what attributes of concessions are important to fans' game experience, and to determine the utility of particular concession items by market segments. The data analysis revealed three market segments that each have different concessions preferences. Concessionaires should cater to each of the three market segments and larger sports venues should have concessions options for each market segment to ensure the largest profitability.

While consumers indicate a preference for healthy and special diet foods, there is a disconnect between what consumers say they prefer and what food and beverages they buy. Given this, the choices consumers are making seem to be, to some degree, rational based on how they articulate what is important to them. It is clear they are cognitively processing the options in front of them. However, the decision is clearly not an entirely rational decision. Rationally, hot dogs and nachos are neither healthy nor logical choices, especially when compared to specialty items on a menu. The concession choices people make are not rational choices in their entirety, despite the fact that people think clearly and can articulate the importance of elements that matter to them. The significant preference for traditional foods has to suggest that these choices are being impacted by some sort of non-rational factors.

Attending a sporting event is an experience rooted in tradition and consumer's memories of sporting events they attended in years past really do seem to affect their choices in the present day. The experiences and traditions that get established in their

family and their past carry on. The impact of nostalgia has not been measured, but in future research the impact of nostalgia on consumers' concession choices should be explored. While it is not known whether people's concessions purchases are a function of availability or true free choice, if people really valued healthy options, it should be more present in their purchase behavior. However, it is not.

It is possible that while consumers may want to make the healthy choice at a concession stand but are instead drawn to the foods they remember eating in childhood. Consumers may also be interested in healthy or special diet versions of traditional concessions, such as a burger on a gluten-free bun. Additional research will need to be done in order to find out if the consumers that show an interest in healthy foods or special diet foods in addition to traditional food options are interested in different versions of the traditional food options.

In addition, consumers may expect themselves to make a healthy choice at a concession stand but, in the moment, make an impulse decision and purchase a traditional food. The consumers may also be drawn back to the nostalgic memories of previous game experiences and make the choice to purchase a traditional food. Similarly, consumers may believe they are interested in a specialty food item but when faced with the decision in the moment they may revert back to wanting the universal experience that a traditional food may provide.

Limitations

Several limitations exist within this study. One limitation is sample size, with 175 respondents the data may not be representative of the population. In a future study the

sample size should be larger in order to gather a broader range of perspectives. Additionally, 85.0% percent of the participants identified as White, and in future studies efforts should be made to increase the racial diversity of participants. Most of the data analysis was done through quantitative measures. More qualitative data analysis would have allowed the researchers to generalize about the specific game-day experiences of participants. By using primarily quantitative data, the researchers were limited to data that required the participant to choose one of several options. Another limitation is participants may have shown an interest in healthy or special diet foods, but those items were not reported as foods the participants ordered at sporting events due to a lack of availability, impacting the data collected on specific foods participants have ordered. In a future study a question should be added asking the participants if the healthy and special diet food they desired was available, and if not, what options they would like to see added.

Implications

This research begins to lay the foundation for what people are looking for in concessions and it is clear there is a need for more research in this field. There is also a need for additional marketing strategies to target each of the market segments found. Items catering to each market segment should be added to the menus and advertised around the venue. In addition, a story on the new concessions options should be pitched to local news outlets in order to ensure that as many potential consumers know about the new options as possible. It was found that not only did participants look for traditional food and place specific food items, but they were also interested in healthy foods and

foods for specific diets. Concessionaires should ensure that there is a plethora of traditional food options available to consumers, as well as healthy and special diet foods. The options of healthier and special diet adapted traditional food options should also be explored by concessionaires.

APPENDIX

This research is being conducted to see what aspects of concession stands draw people to them. If you agree to participate, you will be asked to complete an online survey. There are no foreseeable risks or benefits for participating in this research. The data in this study will be confidential. The survey is anonymous and takes less than 10 minutes to complete. Your answers will not be identifiable. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission. Your participation is voluntary, and you may withdraw from the study at any time and for any reason. You must be at least 18 years old to participate in the survey. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party. The de-identified data could be used for future research without additional consent from participants.

The research is being conducted by Natalie Heavren and Dr. Christine Green from the School of Sport, Recreation, and Tourism Management at George Mason University. They may be reached at nheavren@gmu.edu and bgreen21@gmu.edu for questions or to report a research-related problem. You may contact the George Mason University Institutional Review Board office at 703-993-4121 or IRB@gmu.edu if you have any questions or comments regarding your rights as a participant in the research. The IRBNet number is 1734715-1. The Institutional Review Board (IRB) committee that monitors

research on human subjects may inspect study records during internal auditing procedures and are required to keep all information confidential.

☐ I am willing to participate in the study

☐ I am not willing to participate in the study

Are you at least 18 years old?

☐ Yes

☐ No

Please answer the following questions about your concession stand habits at professional and collegiate sporting events.

Have you ever attended a sports event and ordered from a concession stand?

☐ Yes

☐ No

Prior to the COVID-19 pandemic, how often did you usually attend sporting events (per year)?

☐ Zero times

☐ 1-5 times

☐ 6-10 times

☐ 11-15 times

☐ 15+ times

Prior to the COVID-19 pandemic, what sport did you attend the most frequently and at what venue?

(For example, NFL football at FedExField)

Prior to the COVID-19 pandemic how often did you attend games with each of the following?

	always	most of the time	about half the time	sometimes	never
Immediate family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Significant other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prior to the COVID-19 pandemic, what was the typical size of your group attending games?

Prior to the COVID-19 pandemic, how many people in your group were under 18?

When you attended sporting events Prior to the COVID-19 pandemic, how often did you buy concessions?

- ☐ always
- ☐ most of the time
- ☐ about half the time
- ☐ sometime
- ☐ never

Please rate the following concession stand attributes in terms of how desirable they are to your game experience.

	Makes the Game Experience Less Desirable	Somewhat Desirable Aspect of the Game Experience	Very Desirable Aspect of the Game Experience	No effect on my game experience
Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traditional game foods not available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No place-related specialty foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Makes the Game Experience Less Desirable	Somewhat Desirable Aspect of the Game Experience	Very Desirable Aspect of the Game Experience	No effect on my game experience
Healthy food options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diet specific options (e.g., nut-free, gluten- free, vegetarian)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No special diet foods available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Makes the Game Experience Less Desirable	Somewhat Desirable Aspect of the Game Experience	Very Desirable Aspect of the Game Experience	No effect on my game experience
Group/Family food discount vouchers available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No discounts available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Makes the Game Experience Less Desirable	Somewhat Desirable Aspect of the Game Experience	Very Desirable Aspect of the Game Experience	No effect on my game experience
Traditional drink options only (e.g., soda and beer)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traditional and healthy drink options available (e.g., soda, beer, water, juice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If these were the only concession stand options available at the game, which would you choose?

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Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	No special diet foods available	Healthy food options	Healthy food options
Vouchers				
Drinks	No discounts available	Group/Family food discount vouchers available	Group/Family food discount vouchers available	No discounts available
	Traditional and healthy drink	Traditional drink options	Traditional drink options	Traditional drink options

<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>
--	--	--	--

NONE: I wouldn't choose any of these.

Select

If these were the only concession stand options available at the game, which would you choose?

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Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods
Foods for Special Diets	Healthy food options	No special diet foods available	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	No special diet foods available
Vouchers				
Drinks	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional and healthy drink	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional and healthy drink

<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g, soda, beer, water, juice)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g, soda, beer, water, juice)</p> <p>Select</p>
--	---	--	---

NONE: I wouldn't choose any of these.

Select

If these were the only concession stand options available at the game, which would you choose?

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Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods
Foods for Special Diets	Healthy food options	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	Healthy food options	No special diet foods available
Vouchers				
Drinks	Group/Family food discount vouchers available	No discounts available	No discounts available	Group/Family food discount vouchers available
	Traditional drink options	Traditional drink options	Traditional drink options	Traditional and healthy drink

<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>
<p>NONE: I wouldn't choose any of these.</p> <p>Select</p>			

If these were the only concession stand options available at the game, which would you choose?

4 / 8

Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Healthy food options	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	No special diet foods available	Diet specific options (e.g., nut-free, gluten-free, vegetarian)
Vouchers				
Drinks	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional drink options	No discounts available Traditional and healthy drink

only (e.g., soda and beer)	only (e.g., soda and beer)	only (e.g., soda and beer)	options available (e.g, soda, beer, water, juice)
<div>Select</div>	<div>Select</div>	<div>Select</div>	<div>Select</div>

NONE: I wouldn't choose any of these.

Select

If these were the only concession stand options available at the game, which would you choose?

5 / 8

Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Healthy food options	Healthy food options	No special diet foods available	Diet specific options (e.g., nut-free, gluten-free, vegetarian)
Vouchers				
Drinks	Group/Family food discount vouchers available	No discounts available	Group/Family food discount vouchers available	Group/Family food discount vouchers available
	Traditional drink options	Traditional drink options	Traditional and healthy drink	Traditional drink options

**only (e.g., soda
and beer)**

Select

**only (e.g., soda
and beer)**

Select

**options
available (e.g,
soda, beer,
water, juice)**

Select

**only (e.g., soda
and beer)**

Select

NONE: I wouldn't choose any of these.

Select

If these were the only concession stand options available at the game, which would you choose?

6 / 8

Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Healthy food options	Healthy food options	No special diet foods available	Diet specific options (e.g., nut-free, gluten-free, vegetarian)
Vouchers				
Drinks	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional drink options	No discounts available Traditional and healthy drink	Group/Family food discount vouchers available Traditional drink options

<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>
<p>NONE: I wouldn't choose any of these.</p> <p>Select</p>			

If these were the only concession stand options available at the game, which would you choose?

7 / 8

Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods not available	Traditional game foods not available
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	No place-related specialty foods
Foods for Special Diets	Healthy food options	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	No special diet foods available	Healthy food options
Vouchers				
Drinks	Group/Family food discount vouchers available	No discounts available	Group/Family food discount vouchers available	No discounts available
	Traditional drink options	Traditional drink options	Traditional and healthy drink	Traditional and healthy drink

<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>	<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>
<p>NONE: I wouldn't choose any of these.</p> <p>Select</p>			

If these were the only concession stand options available at the game, which would you choose?

8 / 8

Traditional Game food	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)	Traditional game foods available (EX: hotdogs, chicken nuggets, popcorn, nachos, etc.)
Specialty food items	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)	Place-related specialty foods (e.g., Philly Cheesesteak in Philadelphia)
Foods for Special Diets	Healthy food options	No special diet foods available	Diet specific options (e.g., nut-free, gluten-free, vegetarian)	Diet specific options (e.g., nut-free, gluten-free, vegetarian)
Vouchers				
Drinks	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional drink options	Group/Family food discount vouchers available Traditional drink options	No discounts available Traditional and healthy drink

<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>only (e.g., soda and beer)</p> <p>Select</p>	<p>options available (e.g., soda, beer, water, juice)</p> <p>Select</p>
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NONE: I wouldn't choose any of these.

Select

How would you most like to get your food at the stadium/arena/ballpark? Please rank in order of preference by dragging the items into the box provided.

Items to Rank

Order and pick up at the concession stand

Order from my seat using an app on my phone, pick up on concourse

Order from my seat using an app on my phone, food delivered to my seat

Order from seller roaming the stands

Most Preferred

Least Preferred

The next few questions ask about you. This data will help us to understand how similar the group of people doing this survey are to the general fan populations in our area. None of your individual data can be linked directly to you.

What is your age?

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75-84
- ☐ 85+

How many people currently live in your household?

What is your gender?

- ☐ Female
- ☐ Male
- ☐ Nonbinary
- ☐ Other
- ☐ Prefer not to say

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BIOGRAPHY

Natalie Heavren graduated from Wethersfield High School, Wethersfield, Connecticut, in 2016. She received her Bachelor of Arts in Communication with a concentration in Journalism and minors in Sport Communication and Sports Analytics from George Mason University in 2020. In 2021, she earned her MS in Sport and Recreation Studies with a concentration in Sport Management from George Mason University. In April 2021 Natalie was named the Outstanding Graduate Student in Sport and Recreation Studies. Throughout her graduate and undergraduate studies Natalie participated in Green Machine, the university's renowned pep band. Natalie also restarted the Sports section of Fourth Estate, the university's student-run newspaper and held the position of Sports Editor for four semesters.