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**ANALYZING THE IMPACT OF EXPENSES AND NONFINANCIAL FACTORS**

**ON US MASTER SWIMMING MEMBERSHIP**

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**ABSTRACT**:

This study investigates the factors that influence membership in U.S. Masters Swimming (USMS), a membership-based organization responsible for adult swimming in the United States. Both financial and non-financial variables contributing to membership growth were examined. The research analyzed the financial statements of 49 regional organizations from 2018 to 2022 and found that the programs offered by USMS are crucial for attracting and retaining members. The study emphasizes the importance of competitions, particularly open water events, organized by USMS and Local Masters Swimming Committees (LMSCs) in driving membership. Trained coaches were also identified as playing a significant role in shaping the overall service quality experienced by members. Organizations that invested in diverse and well-structured programs and provided expert coaching support tended to have more engaged and satisfied members, leading to long-term retention and loyalty. Additionally, the research revealed a correlation between the number of members and the presence of a paid registrar, highlighting the benefits offered to members through the registrar's services. Lastly, geographical, and sociocultural factors, such as demographics, socio-economic status, and weather conditions, were found to impact membership growth. The availability of sports facilities and neighborhood characteristics influenced sports participation, while adverse weather conditions discouraged individuals from engaging in outdoor exercise activities, potentially affecting their decision to participate in swimming and other outdoor sports.

**Keywords**: U S master swimming, membership-based, regional organizations

**INTRODUCTION**

As populations age, promoting adult exercise is essential to improve public health and prevent chronic diseases. Its importance goes beyond the individual’s health and is important to the organizations that promote health and to the cities that sponsor events involving older adults. Physical activity has been identified as a key preventative health practice, ensuring that individuals can lead active and fulfilling lives well into their later years.

These benefits extend beyond individual health improvements and apply to the organizations that promote fitness and wellness programs. Offering successful exercise programs can also be a significant financial advantage. Revenue generated from memberships, participation fees, and ticket sales help sustain and expand these programs. Additionally, organizations that host events can tap into various revenue streams. For instance, hosting an event attracts sponsors willing to pay for brand association and advertising during the event which can generate substantial revenue. Moreover, by organizing successful events and programs, these organizations can build a reputation that increases their chances of securing future sponsorships and funding.

Cities that host competitions and events for master athletes also experience economic benefits. The influx of tourists and visitors drawn by these events stimulates the local economy. Attendees spend money on accommodation, dining, entertainment, and other businesses, creating jobs and generating revenue for the city. Successful events can lead to a positive reputation for the city as a sporting hub, attracting more events in the future. As more events are hosted, the city's reputation grows, and the likelihood of securing future events increases, creating a positive cycle of success.

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## **Reasons Why People Exercise**

Masters athletic programs are sports and fitness programs specifically designed for adults who are typically over the age of 18, depending on the sport or organization. These programs cater to individuals who want to continue participating in competitive sports or engage in fitness activities as they age. Masters athletic programs promote an active and healthy lifestyle while accommodating the unique needs and interests of older adults and have seen considerable success due to several key reasons.

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### **Health Benefits**

Firstly, the programs offer numerous health benefits, making them attractive to older adults looking to maintain physical well-being. As individuals age, staying active becomes essential in preventing various health issues and promoting overall wellness. Masters athletics programs provide a structured and supportive environment for older adults to engage in regular exercise, helping them maintain their physical health and mobility.

### **Social Benefits**

Beyond physical benefits, masters athletics programs also offer valuable social advantages. Participation in these programs creates a sense of community and fosters social connections among older adults. This social aspect is particularly crucial for individuals who may be retired or have limited opportunities for social interaction. Engaging in sports and activities together enables participants to bond, share experiences, and build meaningful relationships, enhancing their overall well-being.

## **MOTIVATION TO EXERCISE**

### **Personal Goals**

Personal goals serve as powerful motivators for older adults in masters athletics programs. Many participants have specific objectives they wish to achieve, such as improving their fitness levels, setting personal records, or conquering new challenges. These personal aspirations drive them to stay committed and focused on their training, leading to a more rewarding and fulfilling experience in the program.

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### **Competition**

Competition is another appealing aspect of masters athletics programs. While some participants are content with recreational sports, others still possess a competitive spirit and enjoy challenging themselves against others in their age group. These programs offer a platform for older adults to engage in friendly competition, encouraging healthy rivalry and camaraderie among participants.

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### **Focus on older athletes**

Moreover, the accessibility of masters athletics programs plays a significant role in their success. These programs are thoughtfully designed to accommodate older adults of various fitness levels and abilities. The inclusivity ensures that everyone feels welcome and comfortable participating, regardless of their physical condition. This approach fosters a supportive environment that encourages older adults to remain active and engaged in sports throughout their lives.

Masters athletics programs thrive due to the multitude of benefits they offer to older adults. The focus on physical health, social connections, personal goals, friendly competition, and accessibility makes these programs appealing and successful. Organizations that provide older adults with opportunities to stay active, maintain social connections, and pursue personal achievements, masters athletics programs contribute significantly to the overall well-being and happiness of this age group.

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## **MASTERS PROGRAMS VS GYMS**

### **Social Aspects**

Masters athletics programs offer a host of advantages over individual gyms or fitness centers, making them particularly attractive to older adults seeking competitive sports opportunities. One key advantage is the social aspect that these programs provide. Participation in a group setting fosters camaraderie and social interaction, which is essential for the mental and emotional well-being of older adults. Being part of a supportive community can offer opportunities for social interaction and support, promoting adherence to physical activity among older adults [(Zimmer et al., 2022)](https://www.zotero.org/google-docs/?MwC741). In contrast, individual gyms or fitness centers may lack a sense of community and social support, potentially leading to feelings of isolation and reduced motivation to stay physically active (Wang, R. et al., 2018).

### **Tailored Programming**

Tailored programming is another significant advantage of masters athletics programs (Norton, K.L. et al., 2019). These programs consider the individual differences in physical ability and health status of older adults. They provide specialized training that caters to the needs of older participants, ensuring a lower risk of injury and a higher likelihood of achieving their fitness goals. By incorporating exercises and activities specifically designed to reduce the risk of injury in older adults, masters athletics programs prioritize the well-being and safety of their participants. As a result, older adults who participate in masters athletics programs have a lower risk of injury and a higher likelihood of achieving their fitness goals (Lepers & Stapley, 2016). On the other hand, individual gyms or fitness centers may not offer the same level of guidance and instruction on injury prevention (Gillespie, L.D. et al., 2012; Tarpada, S.P., 2018).

### **Trained Coaches and Injury**

The literature on trained coaches and injuries in athletes emphasizes the importance of coaching practices in injury prevention and management. One key consideration is the unique needs and characteristics of master-aged athletes. Young et al. (2014) highlight the importance of understanding the specific coaching approaches required for adult athletes. They emphasize the need for coaches to consider novel and innovative strategies when collaborating with master-aged athletes. Trained coaches who prioritize athletes’ well-being, collaborate with medical professionals, and contribute to evidence-based practices can play a significant role in reducing the risk of injuries and supporting athletes' recovery from injuries.

### **Purpose and Motivation**

Masters athletics programs also provide a sense of purpose and motivation to older adults. The competitive nature of these programs inspires participants to strive for their personal best, leading to increased dedication to their fitness goals. The sense of accomplishment that comes from participating in competitions or achieving personal bests can boost self-esteem and improve overall well-being (Stenner et al., 2020; Zimmer et al., 2022). This sense of purpose and motivation may be lacking in individual gym or fitness center users, leading to reduced adherence to physical activity (Deelen et al., 2017; Levy et al., 2020).

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## **MASTERS SWIMMING**

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### **Benefits of Exercise and Masters Swimming**

Masters swimmers have been found to have better health outcomes compared to the general population. Potdevin et al (2015) found that master swimmers had lower rates of obesity, greater peak expiratory flow values suggesting improved lung function, and more favorable scores on a health-related quality of life questionnaire. The study also noted that master swimmers used less medication, suggesting a positive impact on health outcomes.

In addition to the physiological benefits, masters swimming has been found to have positive effects on psychological well-being. Older adults who engage in regular exercise, including swimming, experience improvements in physical, psychological, and social functioning, leading to a higher quality of life and independent living (Mehra et al., 2016). Swimming as a form of exercise has been associated with improved psychological health, increased life satisfaction, and reduced stress, anxiety, tension, and sadness compared to other exercises (Rowe, 2023).

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### **Masters Swimming Organization**

U.S. Masters Swimming (USMS) is an organization that governs and organizes adult swimming in the United States. It is a membership-based organization that provides opportunities for adults, over the age of 18, to participate in organized swimming programs, competitions, and social activities.

Individuals interested in becoming part of USMS can join as members and receive benefits, including access to organized practices, coaching, sanctioned competitions, and social events. Members are typically affiliated with a Local Masters Swimming Committee (LMSC) and a particular swimming team.

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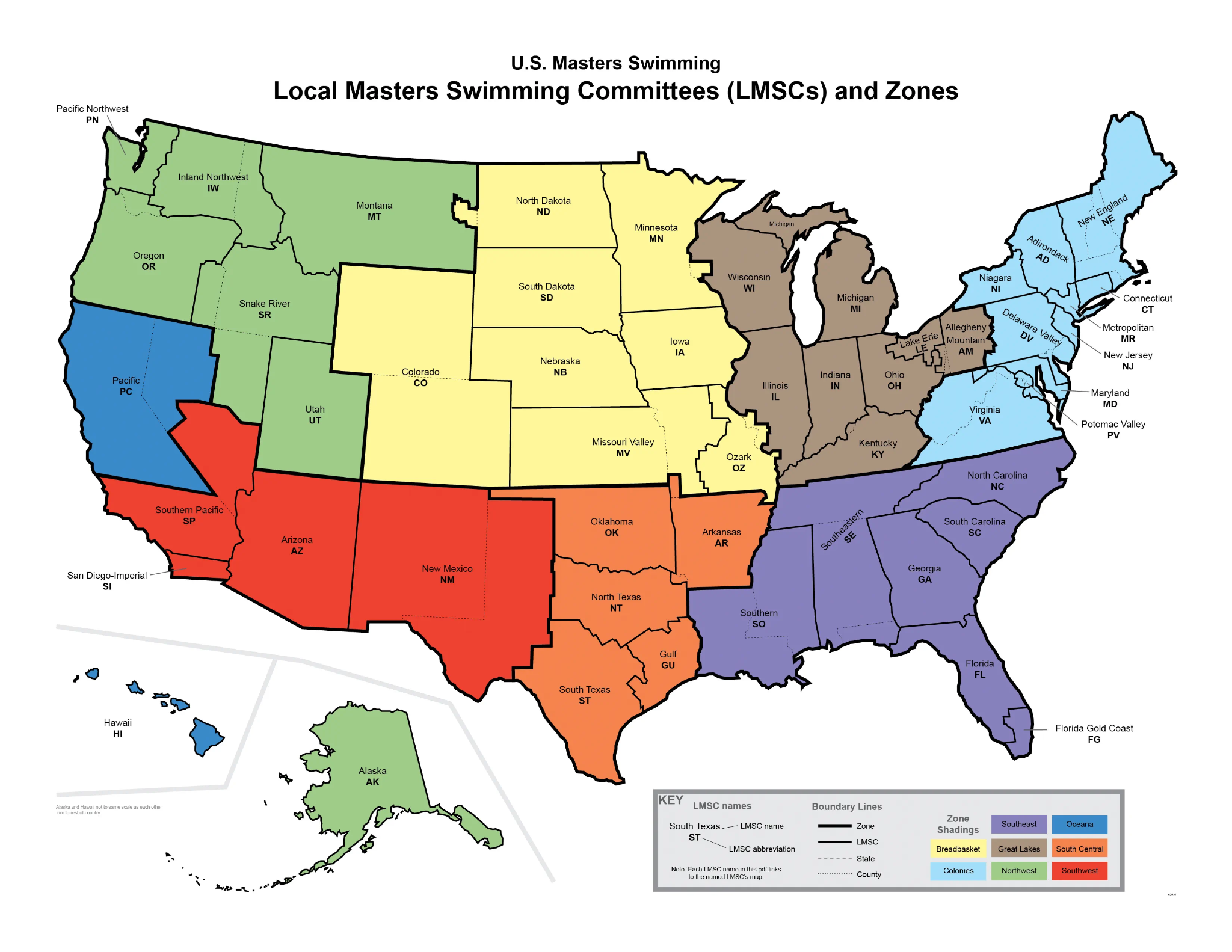
### **Local Masters Swimming Committee (LMSC)**

The LMSC is the regional governing body that oversees Masters swimming activities within a specific geographic area in the United States. There are 52 LMSCs in the US and while they are typically per state, states have combined, and some large states have multiple LMSCs. The division into LMSCs is to efficiently manage and support Masters swimming programs, competitions, and clubs at the local level.

USMS members are often affiliated with their local club or team. Each club operates under the umbrella of USMS and provides training and competition opportunities for its members. These clubs are often based in local swimming facilities such as pools or open water venues.

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### **Zones**

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### **OFFERINGS OF MASTERS SWIM CLUBS**

#### **Certified Coaches**

Extending beyond social events, masters athletes have a desire to maintain physical fitness. As stated earlier, trained coaches understand masters age athletes and their knowledge of training may reduce the injuries that can be sustained during physical fitness activities. USMS is aware of these benefits and clubs are often led by certified coaches who design and oversee training programs for adult swimmers.

#### **Swim Meets and Events**

Participation in competitions and events represents not only a commitment to physical fitness but also a celebration of determination and passion (Kontro et al., 2022). Local clubs, LMSCs, and the national USMS organize a wide range of sanctioned swimming events throughout the year. These events categorize swimmers based on their age and include pool meets, open water races, and virtual competitions.

Beyond competitions and training, U.S. Masters Swimming clubs often organize social events and gatherings to foster camaraderie and build a sense of community among members. Some events focus on non-competitive aspects of swimming, such as stroke clinics, workshops, and social gatherings. These events are aimed at improving technique, enhancing fitness, and fostering a sense of community among USMS members and contribute to the overall experience of being part of the Masters swimming community

#### *LMSC sponsored events*

A Local Masters Swimming Club (LMSC) may extend its offerings beyond supporting team or club activities and incorporating various swim events into its programming. These events can complement or even replace a club sponsored meet to provide members with a diverse range of swimming experiences. Examples of such events include swim meets and open water swims.

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### **Membership**

The purpose of this study is to investigate the factors that influence membership in U.S. Masters Swimming (USMS) by examining both financial and non-financial variables. Several studies have shown that motivation, integration (both clinical and academic), and the presence of a supportive peer network emerge as important factors in promoting program retention (Dodge et al, 2009; Caldwell and Andereck, 1994).

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When an organization's offerings align with individuals' needs, they are more likely to be engaged and actively participate (Warwick-Giles et al., 2019). There are several factors under the organization's control that exert a significant influence on member retention. While specific research on member retention in athletic programs may be limited, certain studies offer valuable insights applicable to a broader context. Gruen et al. (2000) stress the importance of effective delivery of core services, referred to as "Service Quality." In the case of USMS programs, this concept encompasses elements like the range and quality of programs offered, the availability of coaching support, and overall member satisfaction and value derived from participation and individuals are more likely to engage with organizations that fulfill their social and mental health needs (Lei et al., 2022).

The financial contributions made by members toward these programs are tightly interlinked with the opportunities the organization can provide. These payments form the financial bedrock of the organization, empowering it to develop, sustain, and enrich the quality and breadth of its offerings. When organizations invest in their programs, they are investing in their own membership base (Steinberg, R., & Figart, D. M., 1999). This financial support not only grants members access to diverse opportunities but also plays a pivotal role in nurturing the organization's growth and sustainability. Consequently, this symbiotic relationship between membership contributions and opportunities paves the way for a thriving and mutually beneficial ecosystem, ensuring that these opportunities remain accessible to both current and future members.

**RESEARCH HIGHLIGHTS**

**Relationships**

*Relationship 1*

Given the relationship between membership and programs offered - There is a positive correlation between the programs offered and membership with USMS

Several studies highlight the importance of value congruence and the fulfillment of individual needs in driving organizational affiliation and participation. Offering competitions or events is a goal of many masters athletes. Dionigi & O'Flynn (2007) explored the significance of competition for older athletes to resist the dominant notions of aging and leisure in later life. They examined the experiences of older athletes and how they negotiate their aging identity through their involvement in physically demanding, competitive sports. The study suggests that participation in competition holds meaning and value for older athletes, allowing them to express youthfulness and challenge societal expectations of aging.

The type of program offered influences membership as individuals are more likely to be involved when the organization’s offering is aligned with their individual needs (Ryan and Deci, 2000). As such, USMS also promotes fitness and wellness events that encourage swimmers to maintain an active lifestyle. These may include distance challenges, where swimmers aim to complete a specific number of miles over a set period, as well as swim meets, and open water swims.

LMSCs offer competitions or meets when certain factors or circumstances make it more practical or beneficial for it to be the sponsor rather than an individual club. When that occurs, the LMSC reports the revenue from that competition. If those competitions are desired by the members, those LMSCs will have higher membership.

*Relationship 2*

#### There is a positive correlation between the competitions offered and membership of USMS.

As stated earlier, a knowledgeable coach can tailor workouts to accommodate age-related changes in strength, flexibility, and recovery times, allowing swimmers to continue enjoying the sport safely and effectively. Therefore, the amount spent on programs and coaching assistance plays a significant role in shaping the overall service quality experienced by members. When organizations invest in diverse and well-structured programs and provide expert coaching support, members are more likely to feel engaged and satisfied with their experiences. As a result, they are more inclined to continue their membership, contributing to long-term retention and loyalty within the organization (Belleza, 2021).

#### *Relationship 3*

#### There is a positive correlation between coaching training and membership with USMS.

Fang et al. (2020) research provides additional insights into membership retention, focusing on the balance between peer and organizational identification (2020). In the context of nonprofit service organizations, which can include athletic programs with a community-oriented focus, this balance is essential for both retaining members and encouraging donations. When members feel a sense of belonging and identification with their peers and the organization, they are more likely to stay actively involved and contribute to the organization's goals and initiatives. This social bond and shared identification foster a supportive and engaging environment, leading to higher levels of retention and participation. Fang also showed peer identification influences member retention and donations in nonprofit service organizations. In the context of USMS, individuals identifying with the organization are more likely to donate.

#### *Relationship 4*:

#### LMSCs with higher membership have a larger number of contributions.

### Satisfaction of paying memberships is not well researched, but it is increasingly important as many organizations move towards adopting this form of relationship with their customers. Specifically, as sporting organizations seek to become more professional and self-funding, they are using paid registrars to increase member satisfaction (McDonald & Shaw, 2005).

LMSCs may appoint or hire a registrar to fulfill various administrative responsibilities. While the choice to pay a registrar is based on the unique circumstances and needs of each LMSC, they provide administrative efficiency, expertise, compliance, and reports to USMS. Additionally, they are a contact point for members with questions which can lead to member satisfaction. Finally, they are not paid a salary but a fee per member.

#### *Relationship 5*

#### LMSCs utilizing a paid registrar will have a larger membership.

There are demographics, socio-economic status, and sociocultural factors that play significant roles in determining sport participation resulting in a significant number of similar sport athletes in one location vs another (Støckel et al., 2010). While there isn’t research on all variables, Deelen et al. (2017) found factors such as the number of sports facilities, and neighborhood characteristics influence sports participation.

Similarly, there is a link between temperature and exercise - and by default, swimming. External temperatures and other weather conditions can influence a person’s workout regimen. Prior research showed inclement weather significantly affects exercise preferences and decisions. For example, Wagner et al., (2019) found individuals who identified rain as their personal primary adverse weather condition displayed a higher inclination to engage in indoor workouts and/or postpone their exercise routine, in contrast to those individuals who cited heat as their personal unfavorable condition. They also found individuals who regarded ice or snow as unfavorable winter weather conditions were more prone to delaying their workouts compared to those who were concerned about the cold (Wagner et al., 2019). These findings underscore the notion that adverse weather conditions can discourage individuals from pursuing outdoor exercise activities.

This study finds race, age, and education exacerbate the negative effects of adverse weather conditions on the decision to exercise outdoors.

Individual characteristics are also pivotal in shaping how weather conditions impact exercise decisions and performance. Elements like race, age, and education can magnify the adverse effects of unfavorable weather conditions on the inclination to engage in outdoor exercise (Wagner et al., 2019). Additionally, psychological processes contribute to the evaluation of outdoor locations and weather, where weather conditions exert an influence on participants' subjective perceptions and emotional assessments of urban outdoor spaces. Weather parameters such as: air temperature, wind, and cloudlessness; and personal factors such as: environmental attitude and age do impact participants' perceptual and emotional estimations of exercising in outdoor urban places. (Knez et al., 2008).

*Relationship 6*

#### LMSCs membership is moderated by geographical and sociocultural factors.

Most nationwide masters swim meets are hosted in an LMSC area that has higher membership rates and larger facilities [such as pools, deck area, seating, and concession]. Not only that but these LMSC areas not only could have more members but have members that donate a lot more money to the swim club so that the club can venture into doing more things for their members [hosting swim meets, inviting more members, buying enough equipment, making sure members are in good health and social functions]. As a result, higher membership in an LMSC area results in that LMSC area being more profitable.

**ADDITIONAL ANALYSES AND CONCLUSION**

# The financial statements for all 52 LMSCs for the years 2018 through 2022 were examined with a focus on assessing the hypotheses related to factors impacting membership. This was the methodology used.

Each LMSC’s financial Statements for the years 2018 through 2022 are publicly available. USMS requires the LMSCs to use a standard set of financial statement accounts to ensure consistency, transparency, and accuracy in financial reporting. This includes separate revenue and expenses for membership revenue, open water revenue. The non-financial data was collected from several sources and each state was used to represent the information for the related LMSC. The weather data: January low temperature, July High temperature, the number of days of sunshine, and the number of days of precipitation were all obtained from the National Oceanic and Atmospheric Administration (NOAA) website. The Bureau of Economic Analysis shows the average disposable income by state, and the Center for Disease Control (CDC) aerobic fitness level data for each state.

The financial data were examined to ensure it was complete. Three LMSCs did not have complete information and were eliminated from the analysis to ensure accuracy and consistency. Initial results were analyzed and presented that the Spring 2024 SWAAA Conference that supported each of the research questions. However, there are limitations to the study.

There were a few data that we could not find. This includes finding the number of club pools for each area for calculating the equation and finding financial data for the areas of Hawaii, New Jersey and Southern. For the equation we were tasked to find the variables of a paid registrar, January and July temperature, days of sunshine and precipitation, percentage of aerobic fitness in the area, personal income of 2021 and 2022, population and population over 25 for each area. All these variables along with the number of club pools were going to be put into a pool accessible formula. The reason we could not find the number of club pools was because when someone would type “number of club pools (for specific area)” the result would be the number of all pools in the area (personal and town pools), or we would get the number of club teams in that area. As for the number of club teams in the area we couldn’t count each club as having one pool as most clubs have multiple pools in separate locations so at the end of the research we had to take out the number of club pools as it results in an inaccurate number to put into the formula. As for the financials of Hawaii, New Jersey and Southern there was income in past years that they did not report which would have to make the number zero hence throwing off the formula for those areas. The years of income data used in the analysis go as far back to 2018. Hawaii and New Jersey had missing financials for 2021 while the Southern area had missing financials for 2019.

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