2025 MLS Champions

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Muskrat United Five-Year Summary

Welcome to Our House, the home of the MLS' most successful expansion club, Muskrat United. Fan experience is the single most important factor in increasing ticket sales and overall club revenue from partnerships, tickets, concessions, and merchandise. Providing the best possible fan experience is accomplished with a data-centric focus. Club success and increased revenue comes from a comprehensive strategy that collects, mines, analyzes, and utilizes data.

THE HORDE APP is the core of our ability to provide an exceptional fan experience. It was created to make the Muskrat United experience much more than just attending a soccer game. THE HORDE APP makes game day an event to remember. Fans primary interaction with the club is through THE HORDE APP and creating a positive fan experience is centered around THE HORDE APP. It enables a premium, cashless in-stadium experience and allows fans to purchase and upgrade digital tickets, to purchase concessions and merchandise, to participate in social media campaigns, and to interact with the Muskrat United partners, club, and fan base.

The grand opening of Our House was completed for our 2020 inaugural season (seating capacity of 23,500), and due to the overwhelming success of THE HORDE APP, the first stadium expansion was completed in 2023 and increased capacity to 27,500. The final expansion will be completed by 2026 with a final seating capacity of 30,000. The first phase of expansion allowed our total club revenue to grow 36% from $15M to $20.5M with a 2026 projection of $26M.

THE HORDE APP was developed by a staff of five (data scientists and soccer operations) for $523K and was completed in a year. Ongoing management requires a two person CRM analytics team and $48K-180K per year.

THE HORDE APP collects data detailing each fan's journey with the club on game day, throughout the season, and from year to year. The data is mined, analyzed, and utilized to provide valuable experiences that are targeted for each fan to provide them with unique opportunities to deepen their relationship with Muskrat United. Go Blue!

Greenfield Development

Why Not Leverage a Partnership?
- Muskrat United considered a broad, comprehensive partnership with Manchester United
- ManU is a successful global soccer leader, but they were not able to provide the key digital piece that lies at the core of our innovative, new club strategy

Innovative Muskrat United Strategy
- In order to optimize fan experience, Muskrat United integrated all functions across the club through THE HORDE APP, which also leads to decreased expenses and increased revenue
  Club Functions: Strategy, Fan Engagement, Marketing, Sales, Analytics, and Operations
  Club Revenue Sources: Partnerships, Tickets, Concessions, and Merchandise

THE HORDE APP
- It's a user-friendly, digital application that provides an unprecedented experience to our loyal fans
- THE HORDE APP was such a big success for Muskrat United that it is now available through the MLS League Office to all clubs

MUSKRAT UNITED

A New Fan Experience

At Muskrat United we knew that the fan experience would be the driving force behind generating extra revenue and getting the necessary data to propel us into the future… enter THE HORDE APP!

With THE HORDE APP, we gather information about everything that our fans do while at "Our House" at the individual fan level
- How much they spend on concessions
- How much they spend on merchandise
- Who they attend games with
- How often and to which locations do they move around the stadium
- When they arrive and leave the stadium

This data allowed us to dynamically shift our fan engagement model and send push notifications of spontaneous promotions and events real time

THE HORDE APP Development Costs

Before our inaugural MLS season we hired an app development service, a Sr. Data Scientist, and Sr. Machine Learning Engineer to build THE HORDE APP

We partnered with our local university, providing MLS BI opportunities to two rotating interns to work alongside our senior staff while continuing to develop and maintain our data warehouse and THE HORDE APP

To satisfy our data needed, we utilized AWS Business solutions and upon expansion of our stadium in 2023 we were forced to migrate to AWS Enterprise

Expense	2020 Salary	2021 Salary	2022 Salary	2023 Salary	2024 Salary	2025 Salary
Sr Data Scientist	$ 135,000	$ 140,000	$ 145,000	$ 150,000	$ 155,000	$ 160,000
Sr Machine Learning Engineer	$ 135,000	$ 140,000	$ 145,000	$ 150,000	$ 155,000	$ 160,000
Data Science Intern (rotating)	$ 40,000	$ 50,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000
Machine Learning Intern (rotating)	$ 40,000	$ 50,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000
App SW Developers	$ 125,000	$ -	$ -	$ -	$ -	$ -
AWS Package	$ 48,000	$ 60,000	$ 72,000	$ 180,000	$ 180,000	$ 180,000
Total	$ 523,000	$ 440,000	$ 482,000	$ 600,000	$ 610,000	$ 620,000

THE HORDE APP Ranking Points

We decided to turn attending games into a ranking system to reward our most loyal supporters while also allowing us to gain insights on what the general non-season ticket holder does most when at the games. The earlier you showed up to the stadium, the more points you received

Lifetime, Seasonal, and Monthly rankings allowed the fans to see who their muskrat royalty are for each section of the stadium

For the most loyal supporters, we promoted additional season ticket renewal discounts and early access to new season tickets when they become available

Fan	Lifetime Points	2025 Season	Last 30 Days
Anthony Giove	7,382	1,748	145
Chadwick Schlett	7,199	1,751	141
Karl Zabel	7,197	1,698	150
Chris Brooks	2,999	498	0
Qiaozhu Mei	1,864	390	10
Colin Harman	451	150	0

Optimizing THE HORDE APP

As our data warehouse grew, our team of data science experts continued to optimize our fan experience through THE HORDE APP by implementing new forecast models of tickets sales and in-game revenue streams

The dynamic machine learning models allowed us to implement the following
- Dynamic in-game concession promotions sent via push notification on THE HORDE APP
- In-app concession ordering for seamless pickup within minutes
- Dynamic name your own price ticket purchasing model which allowed us to better understand the cost trade-offs of where individual fans sit and how much they spend
- Targeted promotions to attract fans back to the stadium after a sabbatical

The additional revenue generated by these methods was well worth the infrastructure cost to get it implemented

Stadium Sizing in MLS

- Population of 740,000 allows us to compare to similar MLS clubs including Portland, Seattle, Washington DC, and New England

Team	City	DMA	Population	Pop Rank	Income	Capacity	% Capacity	Avg Attendance
Muskrats	**Emelesville**	**1,882,948**	**740,000**	**2**	**$ 83,506**	**23,500**	**112%**	**26,244**
Timbers	Portland	1,112,500	677,000	6	$ 73,097	20,000	111%	22,155
Sounders	Seattle	1,764,680	744,000	1	$ 93,481	39,419	107%	42,287
DC United	Washington DC	2,351,930	702,000	4	$ 85,203	20,000	88%	17,591
Revolution	Foxborough	2,302,680	694,000	5	$ 71,834	20,000	94%	18,853

- In the US, professional sports stadiums are sized proportional to the size of their local Designated Marketing Area (DMA) because DMA most accurately forecasts fan attendance. Based on MLS clubs with similar populations we assumed a DMA of size 1.8M (see above). We therefore ran an analysis with similar teams

- Stadium will begin at 23,500 with 2 planned expansions
  - Phase One - Additional 4,000 seats
  - Phase Two - Additional 2,500 seats

- THE HORDE APP allows us to track movement within the stadium, allowing stand-alone vendors to be moved to optimal locations. The most popular concessions will also be stocked and staffed appropriately

"Our House" Ticket Strategy

Ticket Mix (By Seat Count & Revenue)
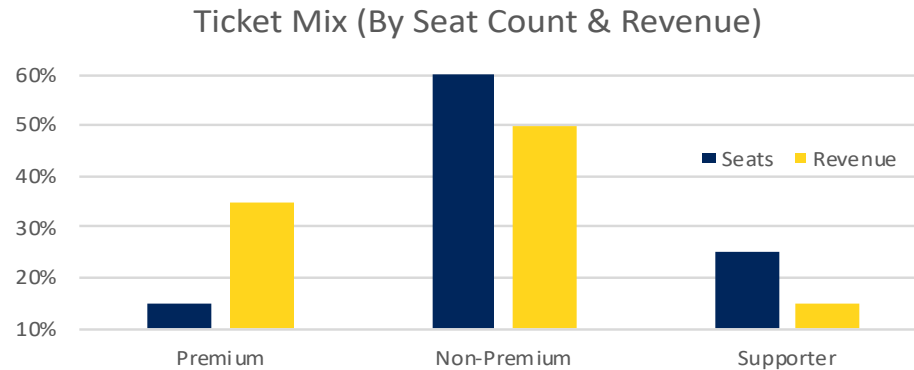
Ticket Mix
- Ticket mix differs between seat count and revenue because of the significant difference between the three ticket price ranges. Premium prices are 50% greater than Non-Premium which are 50% greater than Supporter
- Supporters are critical for creating the in-game fan experience, and we need keep the ticket prices artificially low in order so that they can afford to regularly attend games

THE HORDE APP
- Users with season tickets can view other season ticket holder "friends" seats in order to increase engagement. Allows users to send food/drink or surprises to each other during game
- Allows corporate sponsors to easily view and upgrade tickets when purchasing group tickets
- Group and single game tickets are purchased easily through the app and can be transferred should conflicts arise with patrons

"Our House" Stadium Map & Segmentation

Ticket Segmentation (By Seat Count)

■ Season Tickets ■ Group Tickets ■ Single Tickets
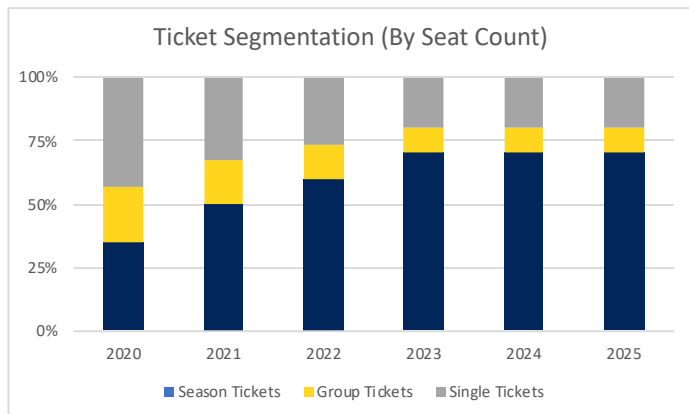
Segmentation Pricing levels
- All segmentation and pricing are dynamically updated via THE HORDE APP and can change manually or automatically based on club data
- As fan support increased during our first few years, we leveraged our HORDE ranking points to award additional season tickets and saw our season ticket base increase from 35% to 70%
- Ticket prices range from $25 to $250. Prices can vary up by as much as 100-200% (and down by 50-75%) Highest variability at LOWEST price points. Secondary marketplace informs actual ticket value and is included in club data
- Season tickets are provided at a 30% discount of single game cost (consistent with MLS clubs)
- Student Plan ($50 per month Registration Fee) allows gameday purchase at 50-75% discounts. Pricing based on availability and set using club data
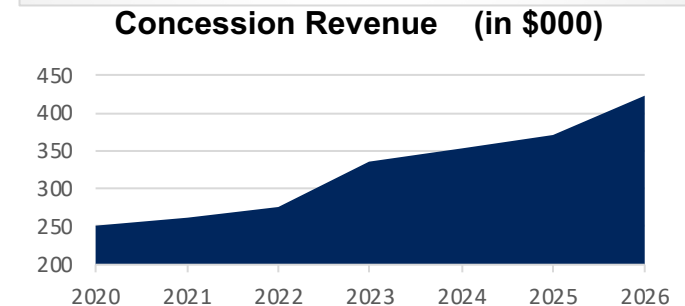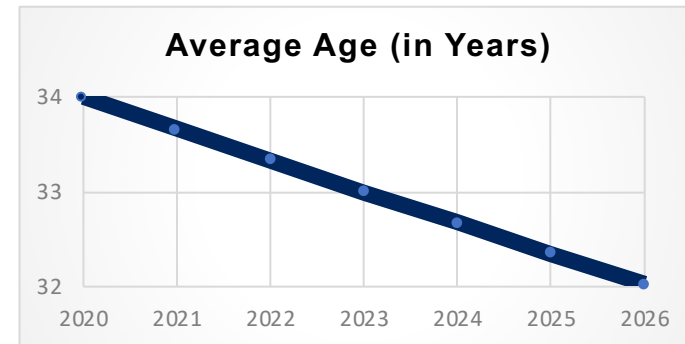
Target Audience

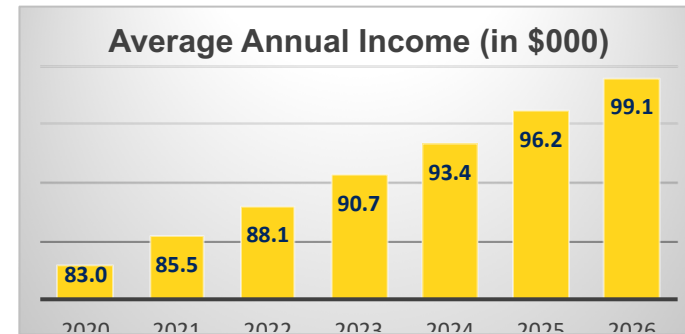## Muskrat United Demographics

- Based on MLS clubs with similar populations, our Muskrat United DMA is like some very intriguing cities (Charlotte, Sacramento, and Detroit) with excellent demographics. There is a large, successful corporate community and a highly educated, affluent fan base

THE HORDE APP Allows the Club to Reach Very Specific Demographic Targets – Increasing Fans' Average Income

- THE HORDE APP collects, mines, and analyzes data that the sales and marketing teams use to prospect for the best possible fans (i.e. more affluent fans). They could be new fans, occasional fans, or frequent fans. THE HORDE APP allows the sales and marketing team to better characterize individual fans so that they can be categorized and moved along the spectrum from new fan, to occasional fan, to frequent fan

THE HORDE APP Engages Existing Fans & Attracts New Fans – Reducing Fans' Average Age

- Millennials (24-39 yrs old) and GenX (40-54 yrs old) are the core members of the current fan base. Millennials are tech-savvy and embrace THE HORDE APP while GenXers are slowly warming up to it

- THE HORDE APP perfectly fits the GenZ user profile, making it easy for new fans to discover Muskrat United. GenZ (under 24 yrs old) fans are mobile and live on social media making it easier for the club to actively market to potential new GenZ fans

Average Annual Income (in $000)

Year	Value
2020	83.0
2021	85.5
2022	88.1
2023	90.7
2024	93.4
2025	96.2
2026	99.1

Average Age (in Years)

(Line chart declining from 34 in 2020 to 32 in 2026)

Concession Revenue (in $000)

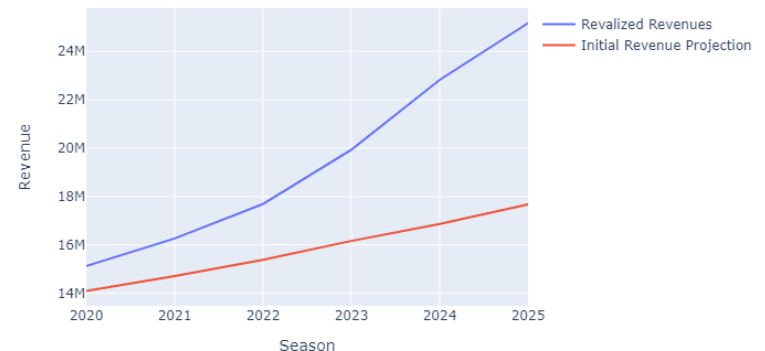(Area chart rising from ~250 in 2020 to ~420 in 2026)

Revenue Projection

- Ticket revenues grew exponentially after our first year due to increased fan loyalty through THE HORDE APP

- THE HORDE APP exceeded our expectations vastly with our revenues, even in the first year, significantly higher due to increased purchases inside the stadium through the app and increased access to corporate sponsors

- THE HORDE APP increased not only ticketing revenues but also contributed to increases in
    - Concessions/Merchandise – Fans able to order through app for quick pickup during stoppage of play or halftime
    - Sponsorship - Sponsors are significant revenue source. The analytics of THE HORDE APP is an envy by sponsors who wish to market to our fans

- Partnerships – according to our sources with the Portland timbers, partnership revenues can be 50% of total revenue for a team. THE HORDE APP helps to bring these partners valuable insights to our fans

Effect of Horde App on Avg. Ticket Revenue

— Revalized Avg. Ticket Revenues
— Initial Avg. Ticket Revenue Projection
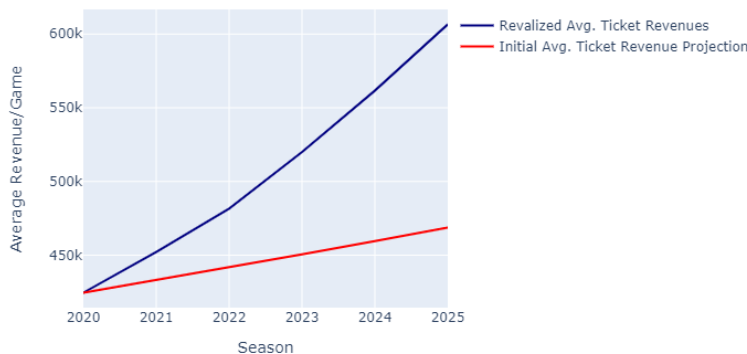
Revenue gained due to The Horde App

— Revalized Revenues
— Initial Revenue Projection

Value of Data

Data Analytics via THE HORDE APP

- Individualized trends of gameday plans
  - Arrival time, departure time, time at concessions, etc.
- Purchase Trends & Frequencies
  - Concessions, restaurants & merchandise
  - Preferences for food & drink in order to maximize inventory efficiencies
- Social media
  - Shared experiences, "tagged people" enable analytics to offer group packages to "friends"
  - Increased marketing efforts via ads
  - Collecting views, likes, comments on social media
- Beacon signaling to send stadium-only promotions and trivia to fans devices

Thank You for Your Ongoing Support!

Muskrat United is working to make your fan experience even better

Leveraging THE HORDE APP - Plans for the Next 5 Years

- Expand App League-wide
  Allows all MLS clubs to collect data and provide a premium fan experience to all home AND visiting fans

- Introduce Advanced Dynamic Seat Pricing
  Allows Muskrat United to individually, dynamically price seats by section by row by <u>seat</u> for each game for higher value to the fans and increased club revenue

FIGHTIN' MUSKRATS