



Reducing Soccer Referees' Administrative Burden Utilizing Technology

Discovering whether REFSIX reduces a soccer referees' administrative burden, or not

10/8/2025

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Executive Summary

Technological advancements are made almost daily and from time to time one or more advancements become available and accessible to the amateur youth soccer landscape in America. REFSIX is one such technology. The Maryland State Youth Soccer Association (MSYSA) serves as the highest administrative authority for the amateur youth sport of soccer within Maryland and the District of Columbia and is on a mission to grow the game of soccer. Reducing a soccer referee's administrative burden may positively affect their experience, which may help to keep them in the game for longer. Results indicate that REFSIX reduced administrative burden on participants and resulted in a Net Promoter Score of 50. Further research is needed to measure and analyze the specific administrative aspects that are affected and to what extent.

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Introduction

Technological advancements are made frequently (Roser, 2023). Technology has been shown to help reduce administrative burden in various places to include the medical field (Rajaei, 2022), government (Lips, 2019), and education (Cockrill et. al., 2023). From time to time one or more technological advancements become available and accessible to the soccer landscape (Pazhoor, 2023). It is believed that REFSIX is one such technology. REFSIX is a downloadable application that tracks various performance metrics and aids a referee in recording various administrative aspects of a match to include substitutes, match incidents, and goals.

As no known research involving the REFSIX technology previously existed, this research was important to initially discover any potential impact that REFSIX may have on a soccer referee in terms of administrative burden. This was a first step to more fully understanding the extent to which administrative burden is affected by REFSIX which may have positive implications in terms of overall game management for the referee, which may increase retention, aide in development, and result in an enhanced experience for other participants to include players and coaches.

The Maryland State Youth Soccer Association (MSYSA) serves as the highest administrative authority for the amateur youth sport of soccer within Maryland and the District of Columbia as recognized by the National Governing Body for the sport of soccer in America, the United States Soccer Federation. MSYSA's mission is to grow the game and to use the game to transform the lives of all who participate. This research was made possible in part thanks to a partnership with REFSIX which provided free access to the REFSIX technology for all study participants during the study.

Methodology

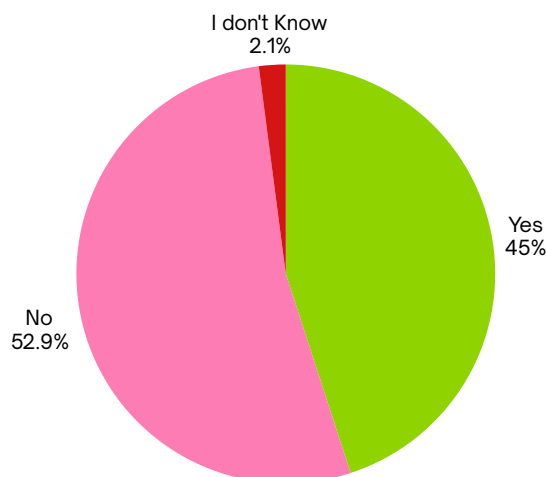
After receiving IRB approval from the Towson University IRB (approval #2660), an initial recruitment email (see Exhibit 1) was sent to all licensed soccer referees in Maryland on Friday, November 8, 2024. Recipients were informed about the study and were asked to please complete a brief questionnaire if they were interested in participating. Nineteen (19) responses were received by Wednesday, November 13 before a second email was sent on Thursday, November 21, which resulted in an additional twenty-three (23) responses bringing the total responses to 42.

Three duplicate responses were removed, and the remaining list of 39 individuals were reviewed and all were invited to participate in the study via an email (see Exhibit 3). This congratulatory email instructed the study participants to please download the REFSIX application and to begin using the technology at assigned matches. Additionally, the study participants and were asked to please complete an initial survey (see Exhibit 4). The congratulatory, instructional email was sent on Tuesday, December 10, 2024.

All study participants were over the age of 18 (100%, N=39) with more than half of the study participants not currently using the REFSIX technology (n=20, 51.3%), seventeen (n=17, 43.6%) reported being a current user, and two (n=2, 5.1%) reported being unsure (see Figure 1).

Figure 1: Percentage of Participants Currently Using REFSIX

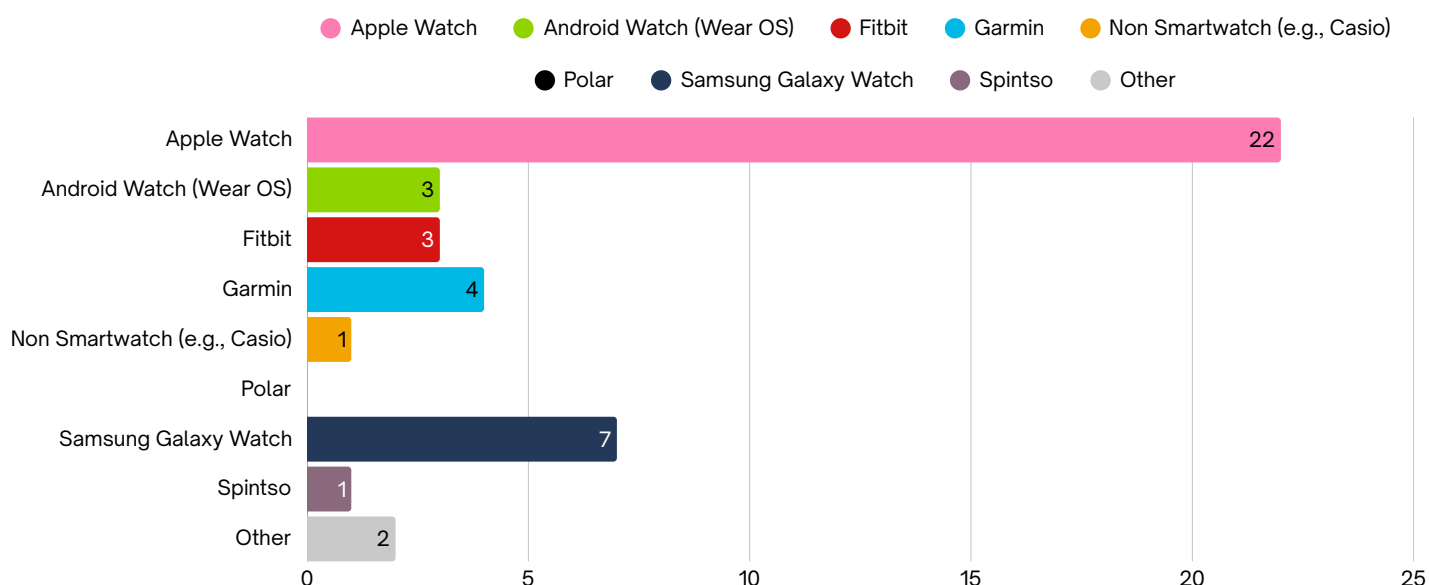
I am a current user of REFSIX



Participants reported using various smart watches with Apple Watch being the most common (56.4%, n=22), followed by Samsung Galaxy Watch (17.9%, n=7), and Garmin (10.3%, n=4). Android Watch (7.7%, n=3) and Fitbit (7.7%, n=3) rounded out the top five most common responses (see Figure 2).

Figure 2. Smart Watch Being Used by Participants

I currently use the following watch(es):



As participants (N=39) were permitted to select all that apply, two participants (n=2, 5.1%) selected two of the available options and one (n=1, 2.6%) selected three of the available options bringing the total options selected to 43.

Findings

After working assigned matches through June 2025, participants were asked to complete a brief post survey (see Exhibit 4 on page 11). As of Friday, September 19, 2025, a total of sixteen (16) responses (41.0%) had been received. Fifteen (n=15, 93.8%) participants reported that they had used REFSIX during one or more matches (see Figure 3) with thirteen (n=13, 81.3%) indicating that REFSIX reduced their administrative burden. Only one (n=1, 6.3%) disagreed and one (n=1, 6.3%) also reported not knowing (see Figure 4).

Figure 3: REFSIX Utilization

I utilized the REFSIX technology during one or more soccer matches this season

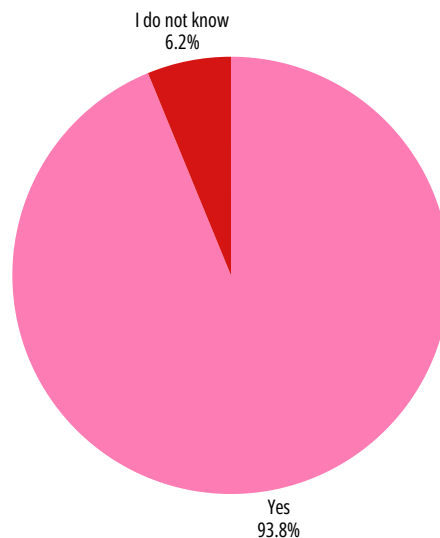
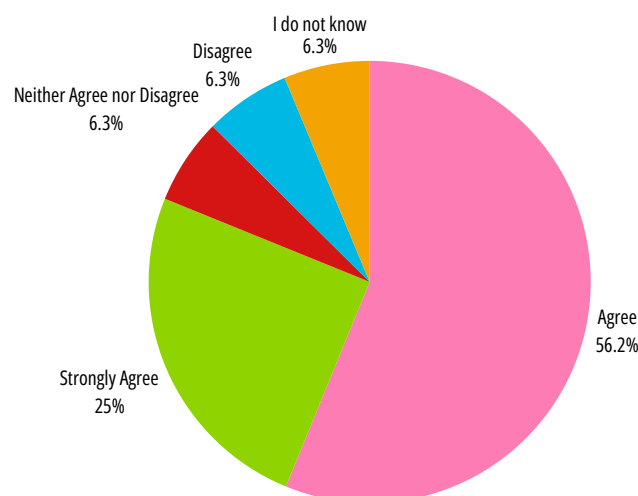


Figure 4: REFSIX Reduced Administrative Burden

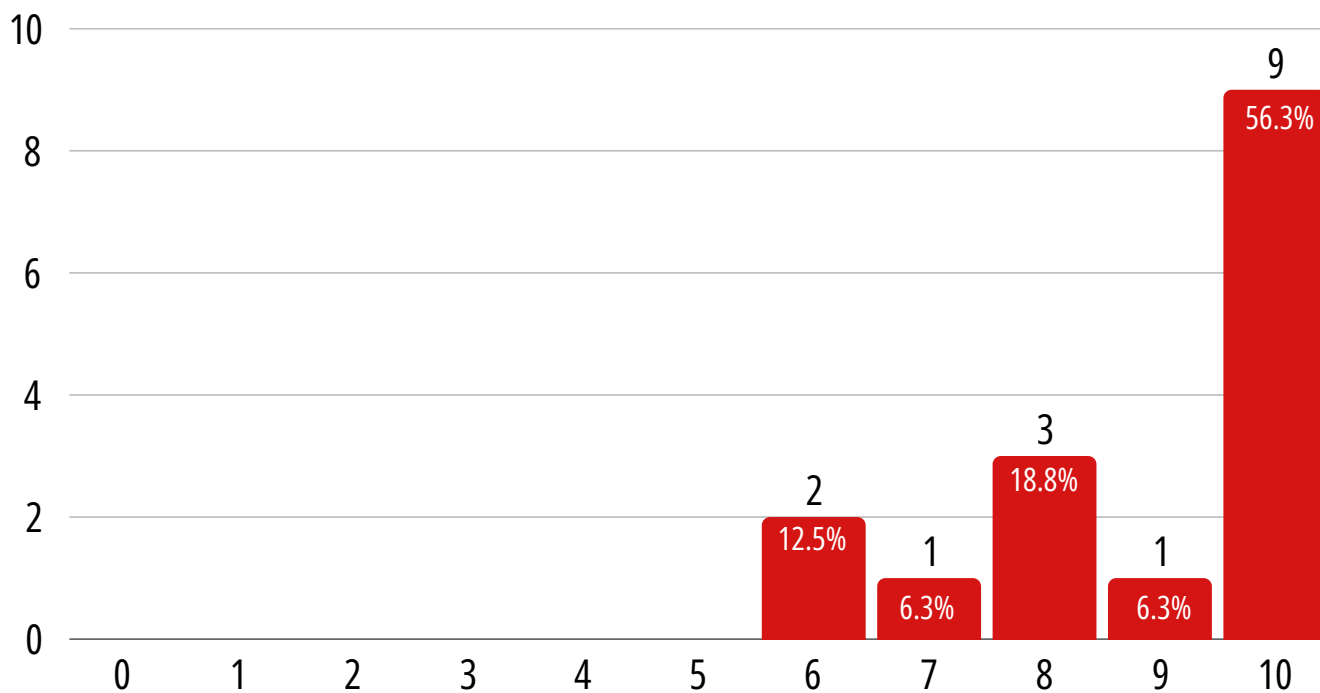
The REFSIX technology reduced my administrative burden.



Participants reported a Net Promoter Score of 50.0%. See Figure 5.

Figure 5: Likelihood of Recommending REFSIX to Others

On a scale of 0-10, how likely are you to recommend REFSIX to other referees?



Conclusions:

The majority of participants reported that the REFSIX technology reduced their administrative burden when serving as a referee. Additionally, the REFSIX technology received a Net Promoter Score of 50 which indicates that the participants enjoyed their utilization of the technology and are likely to encourage others to utilize. Further studies looking to determine and measure the specific administrative burden(s) that are reduced and the measurable, positive impact that the reduction has is recommended.

Exhibit 1: Initial Email to All Maryland Referees

You are receiving this email as you are a licensed referee in Maryland. Thank you for serving as a referee!

The Maryland State Youth Soccer Association (MSYSA) has recently partnered with REFSIX. MSYSA serves as the highest administrative authority for the amateur youth sport of soccer within Maryland and the District of Columbia and REFSIX is a downloadable application that tracks various performance metrics and aids a referee in recording various administrative aspects of a match to include substitutes, match incidents, and goals.

As part of the relationship, MSYSA is looking to more fully understand the impact that REFSIX may have on reducing a referees' administrative burden. A total of up to fifty (50) referees aged 18 and older may be asked to participate.

There is no cost to participate, and the only time commitments above and beyond your typical, regularly scheduled soccer matches will be to complete one (1) questionnaire and two (2) surveys. Participation in this study is voluntary and declining to participate will have no adverse effect on your participation as a referee going forward.

To be considered for participation in this study, individuals must meet the following conditions:

- Be aged 18 or older
- Be a licensed Referee in Maryland
- Have access to a watch that is compatible with the REFSIX technology
- Accept the REFSIX Terms of Use and agree to the REFSIX Privacy Statement

If you are interested in participating, then please complete and return [this consent form](#) as a PDF via email to gabriel@msysa.org in addition to the following questionnaire:

<https://forms.gle/DjCewMetgNvemJ2YA>

This study has been approved by the Towson University Institutional Review Board (approval # 2660).

Please let me know if you have any questions. Thanks!

GABRIEL ADO

Maryland State Youth Referee Administrator (SYRA)

301-370-5211

Exhibit 2: Interest Form

Reducing Soccer Referees' Administrative Burden Utilizing Technology- Interest Form

Thank you for your interest in participating as a referee for this project designed to more fully understand the impact that REFSIX may have on reducing a referees' administrative burden.

Please complete and submit this form to be considered for participation.

Please contact Gabriel Ado (gabriel@msysa.org) with any questions. Thanks!

* Indicates required question

- Your LAST name:*
- Your FIRST name:*
- I am age 18 or older.*
 - Yes
 - No
- I want to be considered to serve as a referee for this project.*
 - Yes
 - No
- I am a current user of REFSIX.*
 - Yes
 - No
 - I do not know
- I currently use the following watch(es):*
 - Apple Watch
 - Android Watch (Wear OS)
 - Fitbit
 - Garmin
 - Non Smartwatch (e.g., Casio)
 - Polar
 - Samsung Galaxy Watch
 - Spintso
 - Other

Please provide any additional feedback that you believe is important. Thanks!

Exhibit 3: Congratulatory Email to Participants

Congratulations!

You have been selected to participate in this project designed to more fully understand the impact that REFSIX may have on reducing a referees' administrative burden. Thank you for your willingness to participate. **If you have not done so already, then please sign and return the attached Consent form.**

At this time, if you do not already have the REFSIX app and an account, then please download the REFSIX- Soccer Referee app on your phone from wherever you download your applications (e.g., Google Play, the App Store).

- For new REFSIX users:
 - After downloading, select "Join now", for free, and then complete your profile information. It will then ask to pair your watch.
 - After completing the above step(s), provide me with your email/username and REFSIX will upgrade your account to the Pro version (at no cost).
- For current REFSIX users:
 - If you already have the Pro version, then REFSIX will provide you with a code that can be used at your next renewal which will cover the cost of the Pro subscription.
 - If you do not already have the Pro version, then provide me with your email/username and REFSIX will upgrade your account to the Pro version (at no cost).

Additionally, please complete this survey: <https://forms.gle/n2XPMJ3tgVSdXboq6>

As you receive match assignments over the coming months, please utilize the REFSIX app. Please let me know if you have any questions or run into any trouble.

In June, as this project comes to a close, you will be asked to complete one additional survey. Thank you again, and please let me know if you have any questions. Thanks!

Sincerely,
Gabriel Ado

Exhibit 4: Participant Email Requesting They Complete Post Survey

Hello Referees!

Thank you for participating in this project designed to more fully understand the impact that REFSIX may have on reducing a referees' administrative burden.

At this time, we are asking you to please complete this post survey: <https://forms.gle/ih9Lxa8j5CTVPSoLA>

Thank you again, and please let me know if you have any questions.

Sincerely,
Gabriel Ado

Exhibit 5: Post Survey

Reducing Soccer Referees' Administrative Burden Utilizing Technology- Post Survey

Thank you for participating in this project designed to more fully understand the impact that REFSIX may have on reducing a referees' administrative burden. Please answer the following questions to the best of your ability.

Please let Gabriel Ado (gabriel@msysa.org) know if you have any questions. Thanks!

* Indicates required question

- I utilized the REFSIX technology during one or more soccer matches this season.*
 - Yes
 - No
 - I do not know
- The REFSIX technology reduced my administrative burden.*
 - Strongly Agree
 - Agree
 - Neither Agree nor Disagree
 - Disagree
 - Strongly Disagree
 - I do not know
- I plan to continue refereeing soccer matches.*
 - Yes
 - No
 - I do not know

On a scale of 0 to 10, how likely are you to recommend REFSIX to other referees?

*

Not at all likely

0	5
1	6
2	7
3	8
4	9
5	10

Extremely likely

Please provide any additional information that you believe would be helpful pertaining to your experience using REFSIX. Thank you!

References

Cockrill, S., Richichi, M., and Salmatzidis, I. (2023). 2024 EDUCAUSE Top 10 #5: Administrative Cost Reduction. Retrieved from: <https://er.educause.edu/articles/2023/10/2024-educause-top-10-5-administrative-cost-reduction>

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This report was produced by:



MSYSA Soccer Lab
Shifting the anecdotal to empirical