



Collegiate EMS as a Supplement to Local EMS at Large-Scale Campus Events

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ABSTRACT

Introduction:

College football games draw substantial crowds to campuses, necessitating collaboration between local and collegiate Emergency Medical Services (EMS) for effective management. This study evaluates the effectiveness of the University of Florida's Collegiate EMS unit, Gator Emergency Medical Response Unit (GEMRU), as a supplementary resource to local EMS during the 2023 Fall football season.

Methods:

Official incident reports from GEMRU calls during Fall 2023 home football games were analyzed. Key metrics, including response time, on-scene time, and overall call disposition, were compared to the unit's overall response averages.

Results:

On game days, GEMRU initiated patient care, as compared to county EMS, at a 24% higher rate than average. GEMRU response time also decreased 60.5% from average. Furthermore, 32% more of the calls were BLS only, requiring no additional county EMS.

Discussion/Conclusion:

Collegiate EMS, even at a BLS only level, has an essential role in addressing the surge of patients on campus during large events. Anticipating areas of high patient concentration and responder geographical knowledge allows GEMRU to arrive on scene more quickly than local EMS, allowing for BLS cases to be treated without local EMS, ensuring ALS care remains available for more critical cases.

INTRODUCTION

College football games attract significant crowds to campuses. 1At the University of Florida (UF), the Ben Hill Griffin Stadium hosts an impressive 89,000 fans on game days, accompanied by thousands more gathering on the campus lawns. This substantial influx of people across UF's 3.1 square mile campus places heightened demands on critical resources, notably EMS. These large events raise concerns about the potential for delayed or hindered access to individuals requiring medical attention. To meet the increased demand effectively, UF mobilizes both local EMS and collegiate EMS to standby on campus throughout the day.

Effective management of EMS resources has been essential to the overall safety of attendees. Therefore, the primary objective of this study is to assess the response ability of UF's collegiate EMS unit as a supplementary component to local EMS response during game days. By doing so, the study aims to provide insights that may serve as a guide for enhancing response strategies and fostering improved collaboration efforts between local and collegiate EMS entities.

METHODS

Official incident reports from GEMRU calls during Fall 2023 home football games were analyzed. Key metrics, including response time, on-scene time, and overall call disposition, were compared to the unit's overall response averages through Fall of the previous year.

- Response Time: The total time between being dispatched and reporting On-scene
- On-Scene Time: The total time between reporting on-scene and calling back in service.
- Overall Call Disposition: The level of care provided to the patient.
 - Minor Care: BLS arrives on scene. Patient required only minor BLS care. No ALS called.
 - Refusal: BLS arrives on scene and assesses patient. Patient refuses further ALS care.
 - Care Transferred: BLS arrives on scene and assesses patient. BLS calls ALS or Patient requests ALS.
 - ALS on Scene: ALS arrives on scene and assesses patient.

Additionally, GEMRU's current operational strategy was examined to outline the key characteristics which contribute to the change observed in the aforementioned metrics.

RESULTS

Figure 1: Overall Disposition of Calls on Game Days as Compared to Unit's Long-Term Average

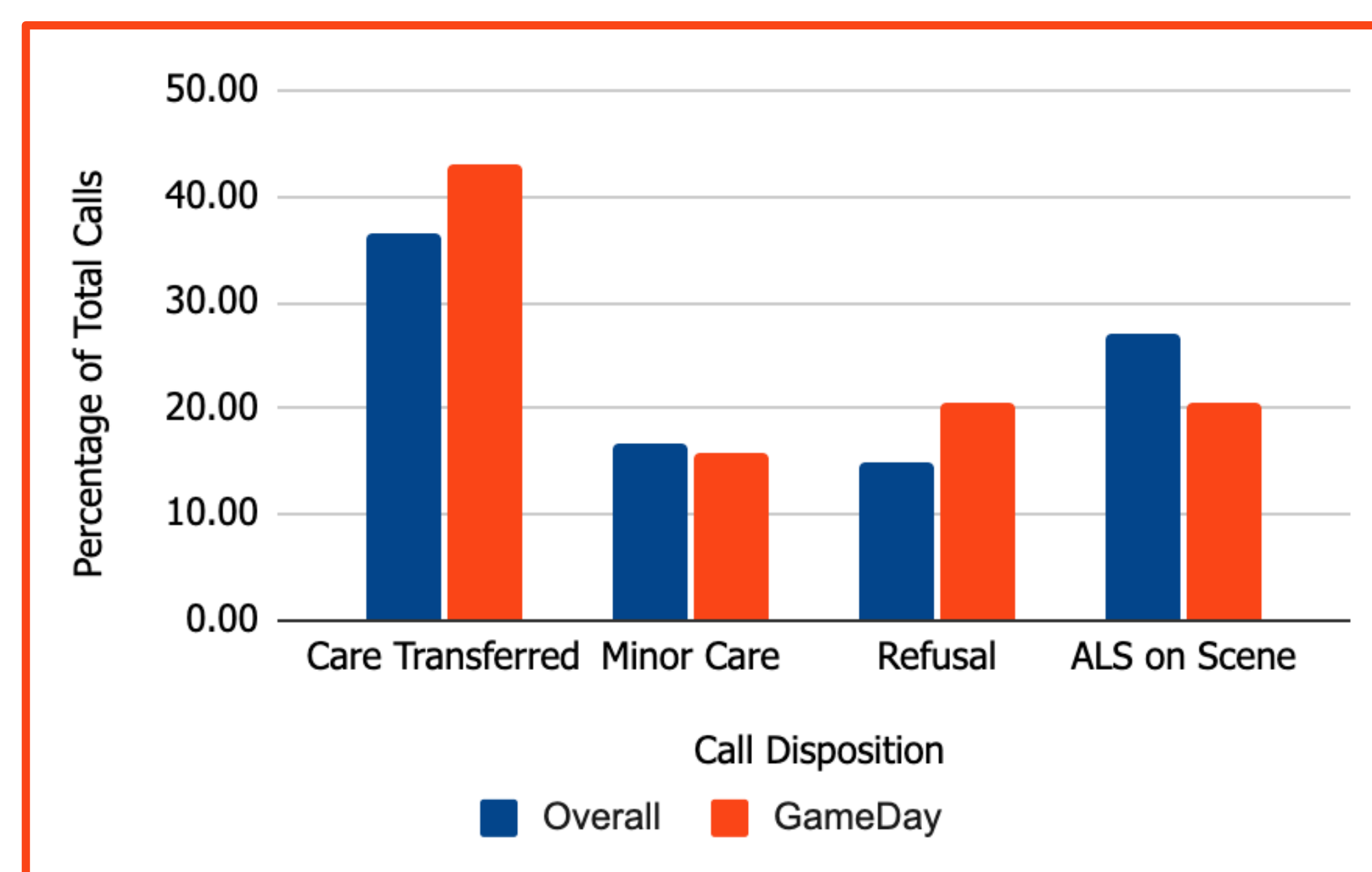


Figure 2: Percent Change of Disposition on Game Day as Compared to Unit's Long-Term Average

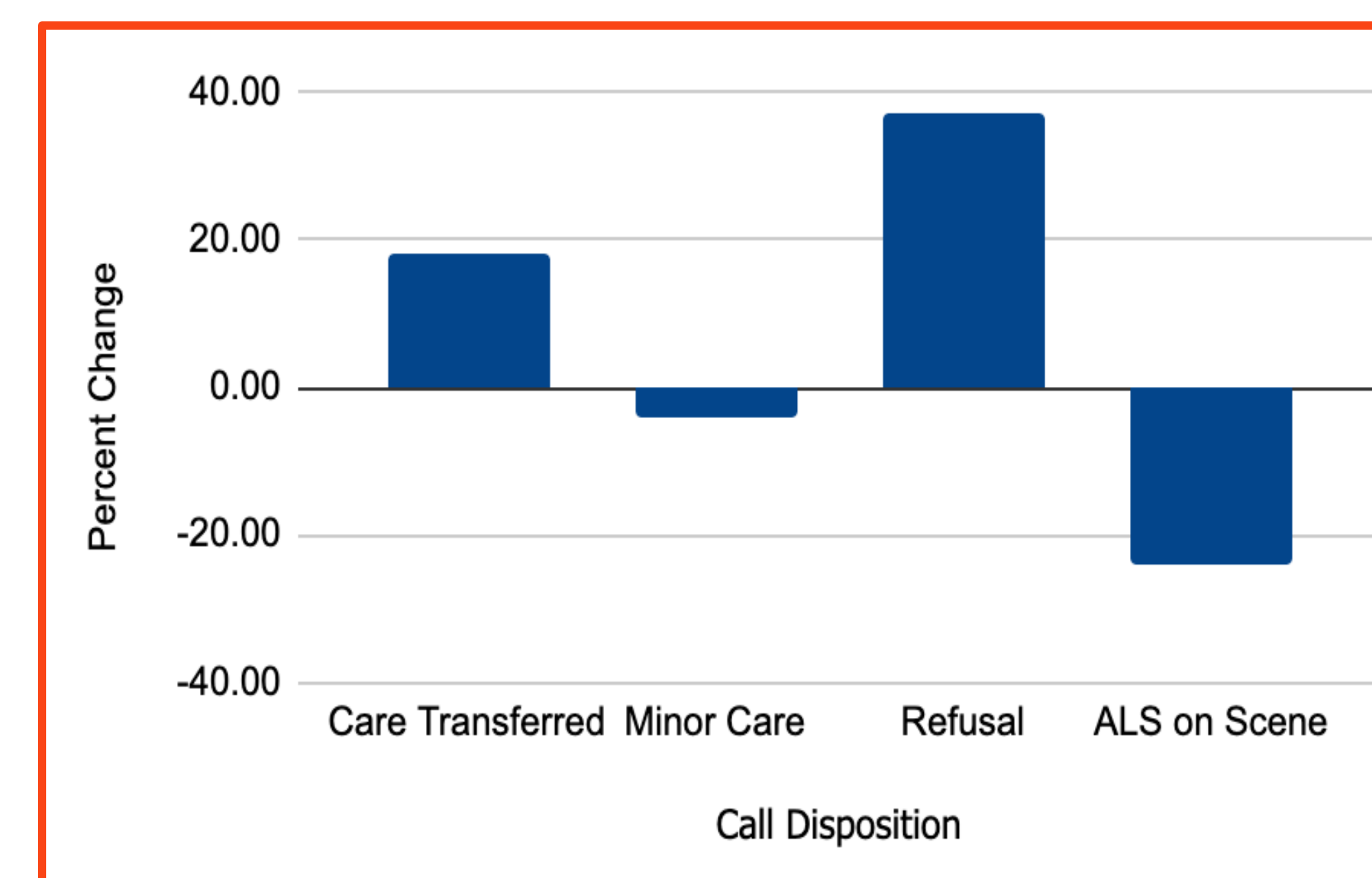


Figure 3: Game Day Response Time and On-Scene Time as Compared to Unit's Long-Term Average

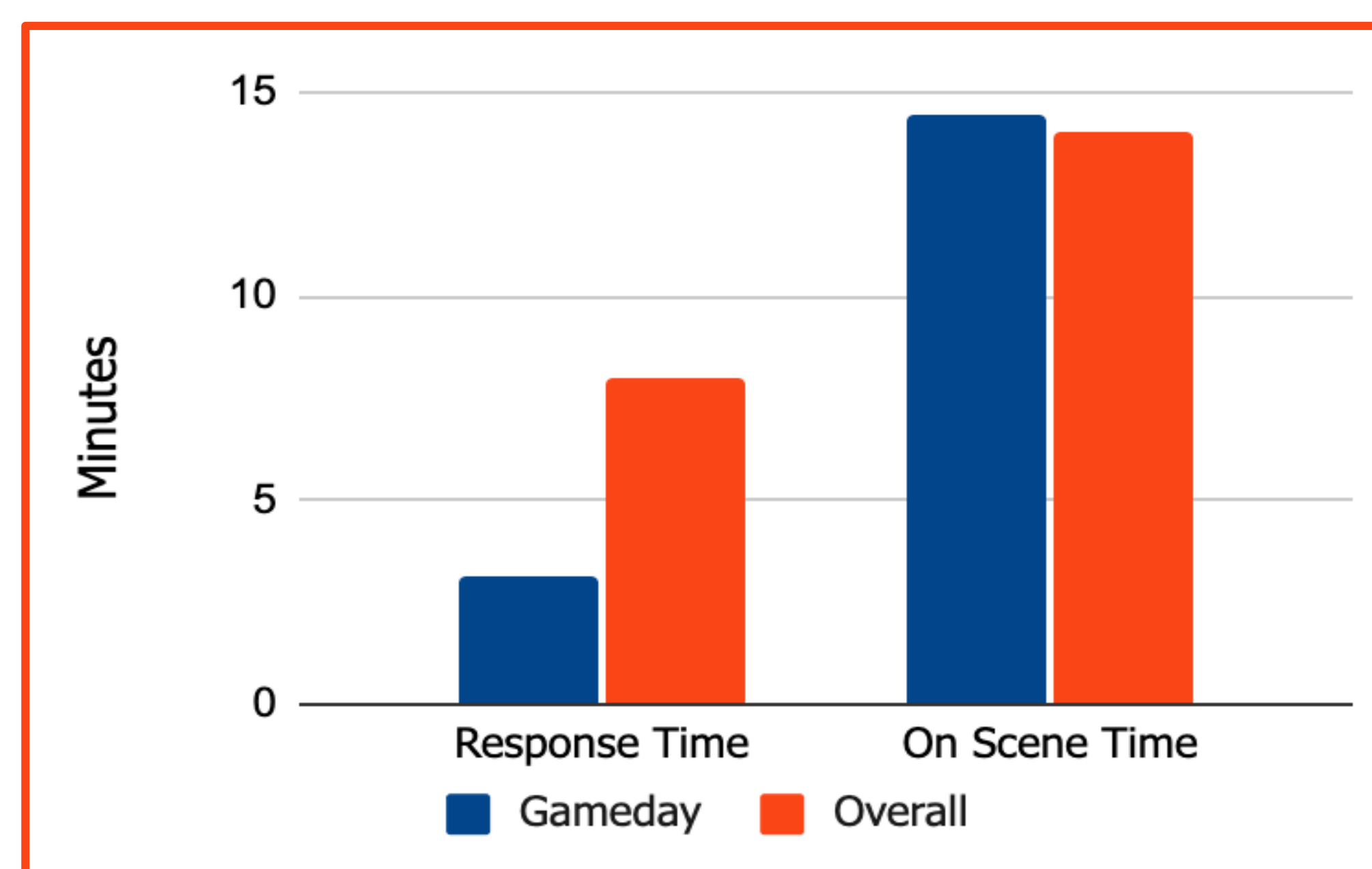
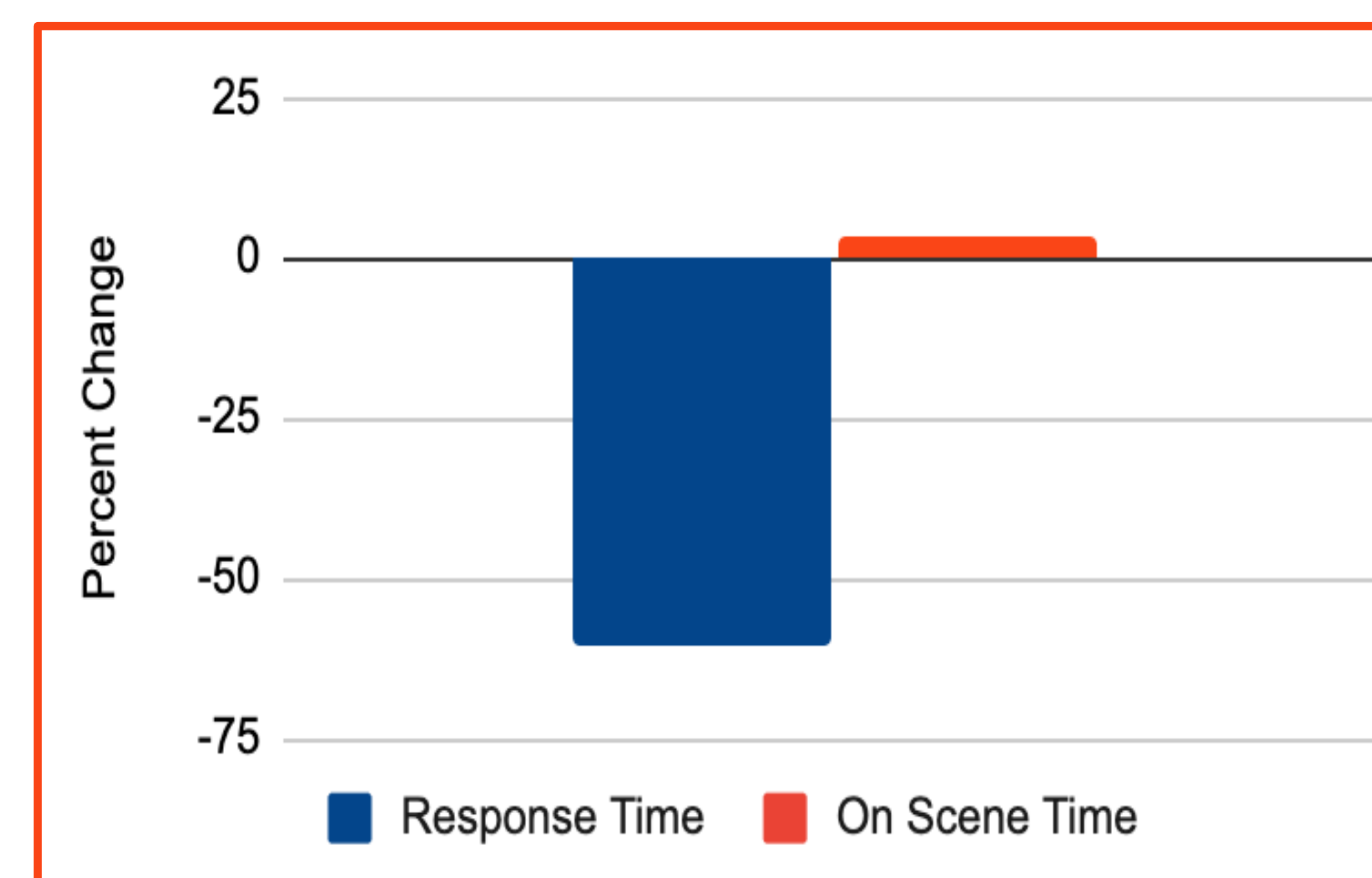


Figure 4: Percent Change of Response Time and On-Scene Time on Game Day as Compared to Unit's Long-Term Average



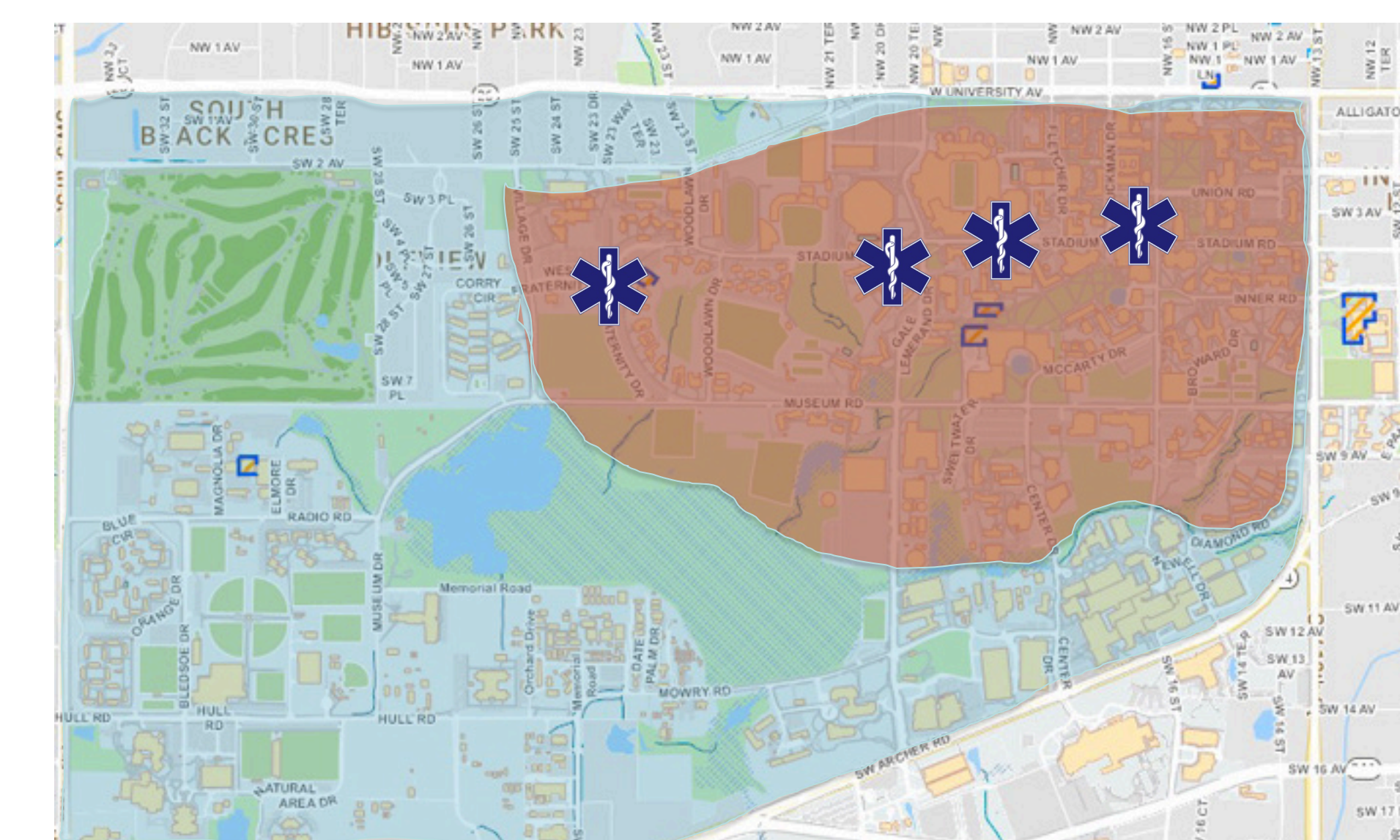
DISCUSSION

Leveraging historical patterns of crowd behavior is a critical component of GEMRU's successful emergency response strategy. By analyzing past events, GEMRU can identify high-volume areas on the campus where the likelihood of EMS demand is greater during large-scale events. This proactive approach allows the positioning of multiple mobile and stationary response teams strategically in these anticipated hotspots, ensuring a more rapid response to potential medical incidents.

Furthermore, the intimate familiarity that collegiate EMS, possesses with the campus layout plays a pivotal role in the effectiveness of their response. This familiarity enables swift navigation through the campus, reducing delays in locating patients, particularly in situations where abnormal traffic patterns or crowded areas might impede conventional emergency vehicle routes.

Unit placement and an intimate knowledge of campus allows GEMRU to arrive on scene and make patient contact more quickly than local EMS, allowing for minor cases to be treated and cleared without local EMS, ensuring transport units and higher-level care remain available for more critical cases, not just on campus but in the city as well.

Figure 5: Visual Representation of High-Volume Areas and GEMRU Unit Placement on Game Days.



CONCLUSION

Overall, This study's findings address effective strategies for managing large-scale events. It emphasizes the importance of anticipating areas with the highest concentration of cases and possessing a comprehensive understanding of the event's geographical layout, a perspective collegiate EMS is able to provide to local EMS in planning initiatives.

CONTACT INFORMATION

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References:

1. Students, local companies share game day routines and traditions. The Independent Florida Alligator. Accessed February 5, 2024. <https://www.alligator.org/article/2023/10/tailgating-in-the-swamp#:~:text=Saturday%20games%20in%20the%20swamp>
2. Put On Your Walking Shoes and Tour The University of Florida's Main Campus in Gainesville, Florida. Visit Natural North Florida. Published November 16, 2017. Accessed February 5, 2024. <https://www.naturalnorthflorida.com/blog/put-walking-shoes-tour-university-floridas-main-campus-gainesville-florida/>