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# Assessment and Perceptions of the Built Environment among College Aged Runners

Sarah Nacci

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# Assessment and Perception of the Built Environment among College Aged Runners

Sarah Nacci [Mentor: Wendy Bjerke]  
College of Health Professions  
Department of Physical Therapy and Human Movement Science

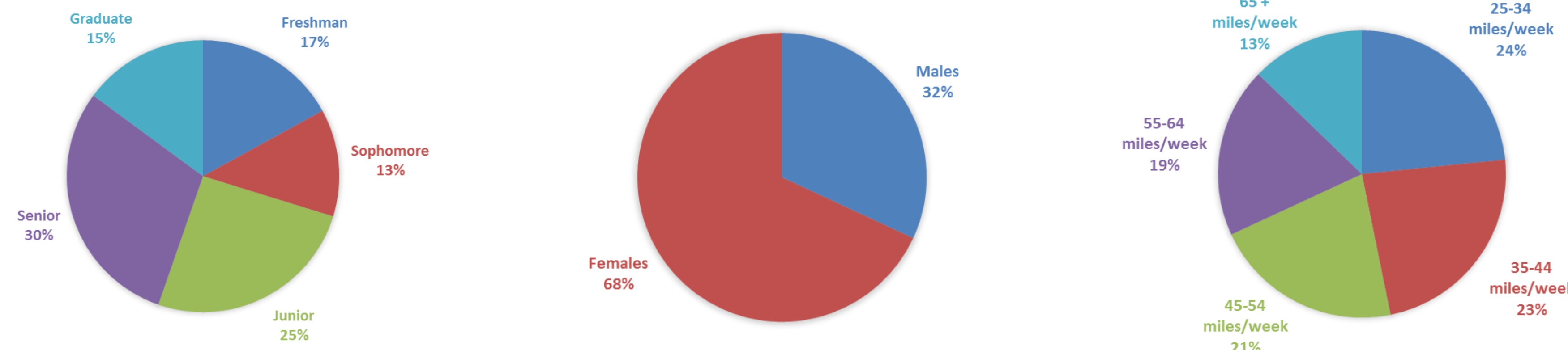


## ABSTRACT

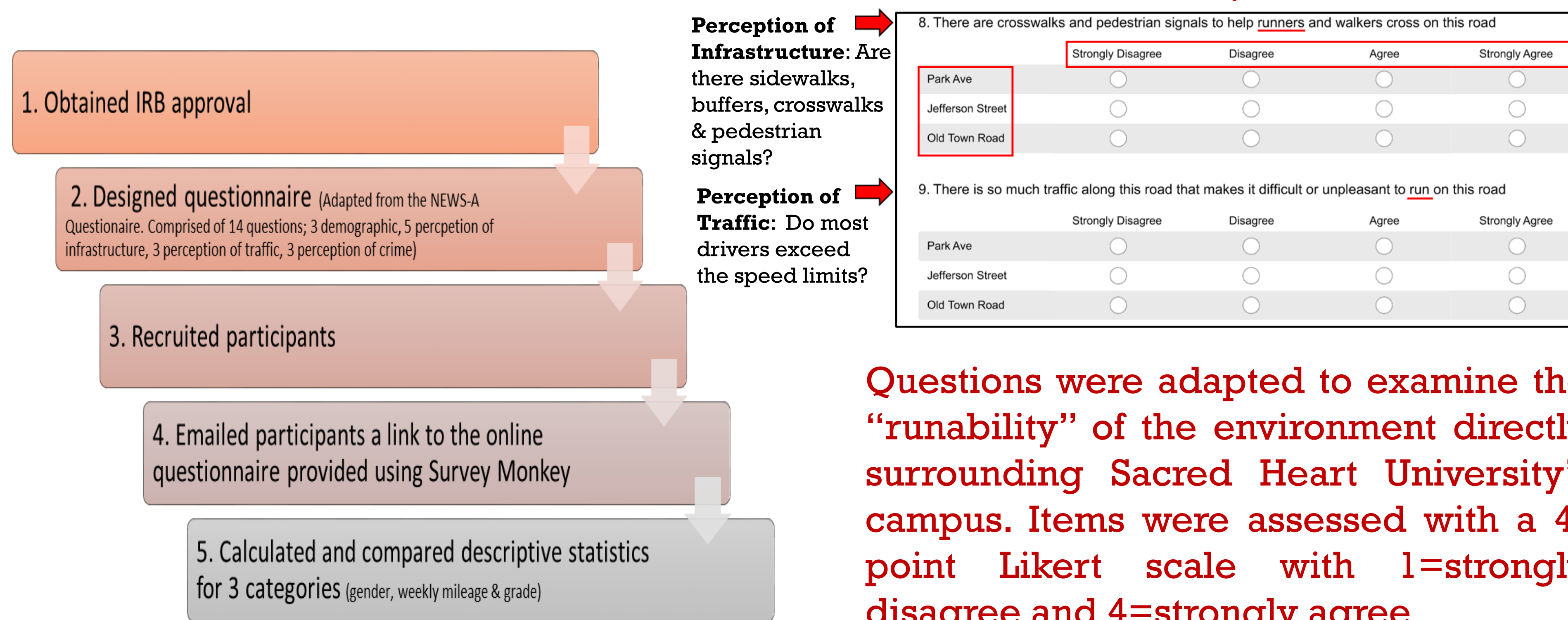
**Background:** The built environment (BE) is the physical, man-made constructs of communities.<sup>1</sup> BE is associated with health and has a strong influence on pedestrian safety. Factors such as presence of sidewalks, crosswalks, and the speed of traffic are all vital in this relationship. Most BE studies assess the walkability of neighborhoods. However, no researchers have assessed the “runability” of environments including college campuses and surrounding areas where students run. **Objective:** This research compared perceptions of “runability” to variables including gender, weekly mileage and grade using a survey that assessed infrastructure features and the speed of traffic of the roads surrounding Sacred Heart’s campus. **Methods:** Collegiate runners (n=47) recruited from the Men’s and Women’s D1 Cross Country Teams at Sacred Heart University were assessed using a NEWS-Abbreviated questionnaire.<sup>2</sup> Descriptive statistics were calculated and compared for each category; gender, weekly mileage, and grade. **Results:** Male average score: 2.298 for infrastructure, 2.867 for traffic. Female average score: 2.10 for infrastructure, 2.889 for traffic. Low mileage average score: 1.921 for infrastructure, 2.93 for traffic. High mileage average score: 2.244 for infrastructure, 2.889 for traffic. Freshman average score: 2.358 for infrastructure, 2.861 for traffic. Graduate average score: 2.048 for infrastructure, 2.873 for traffic. **Conclusion:** These scores in aggregate assess the runability of Sacred Heart University and surrounding areas. Among compelling observations included females having a lower runability score compared to males and low mileage runners having a lower runability score compared to high mileage runners. As a result, variables such as gender and weekly mileage may influence how perceptions of runability are formed.

## PARTICIPANTS

- 47 participants were recruited from the Men’s and Women’s D1 Cross Country Team at Sacred Heart University

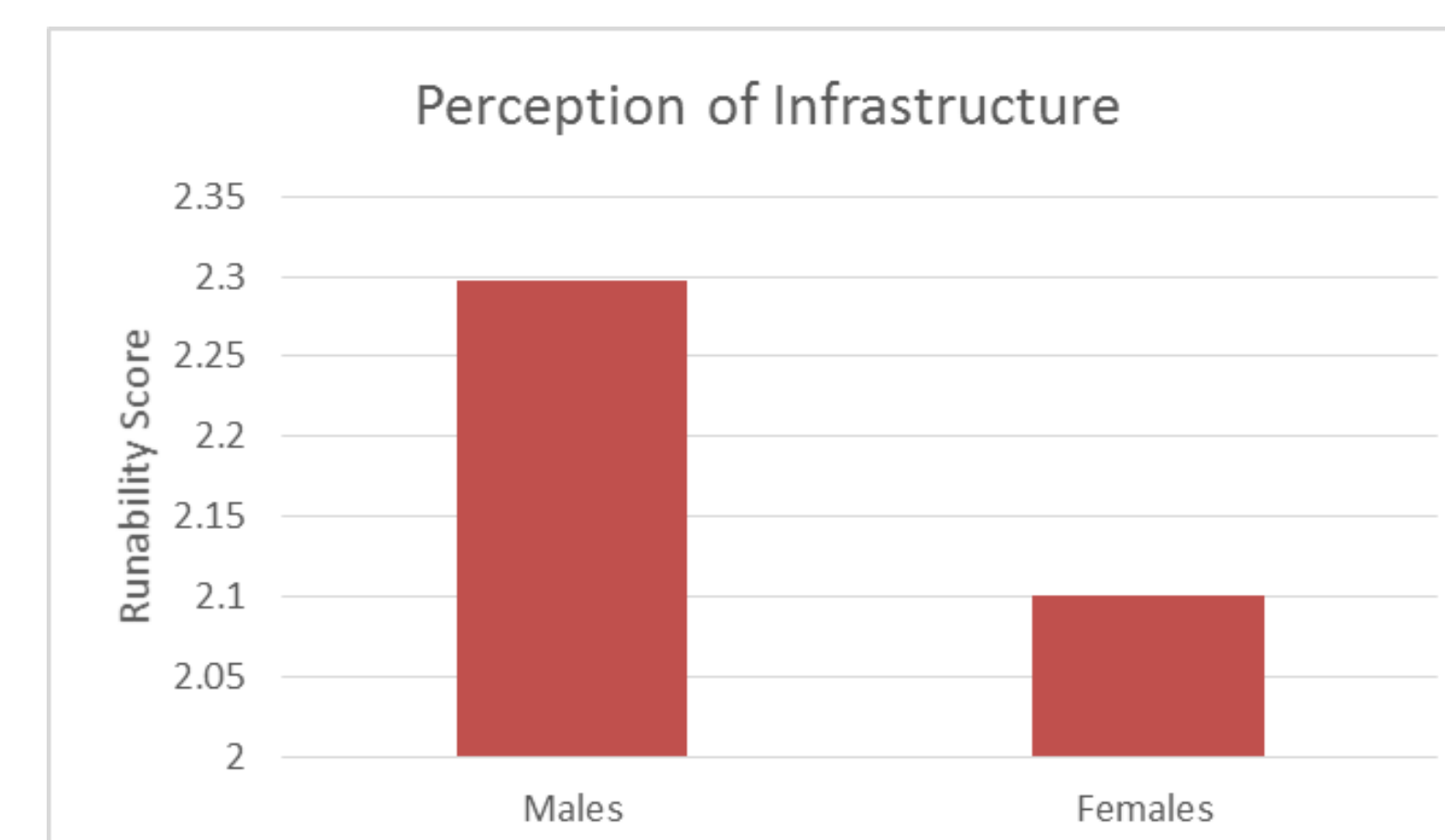


## METHODS

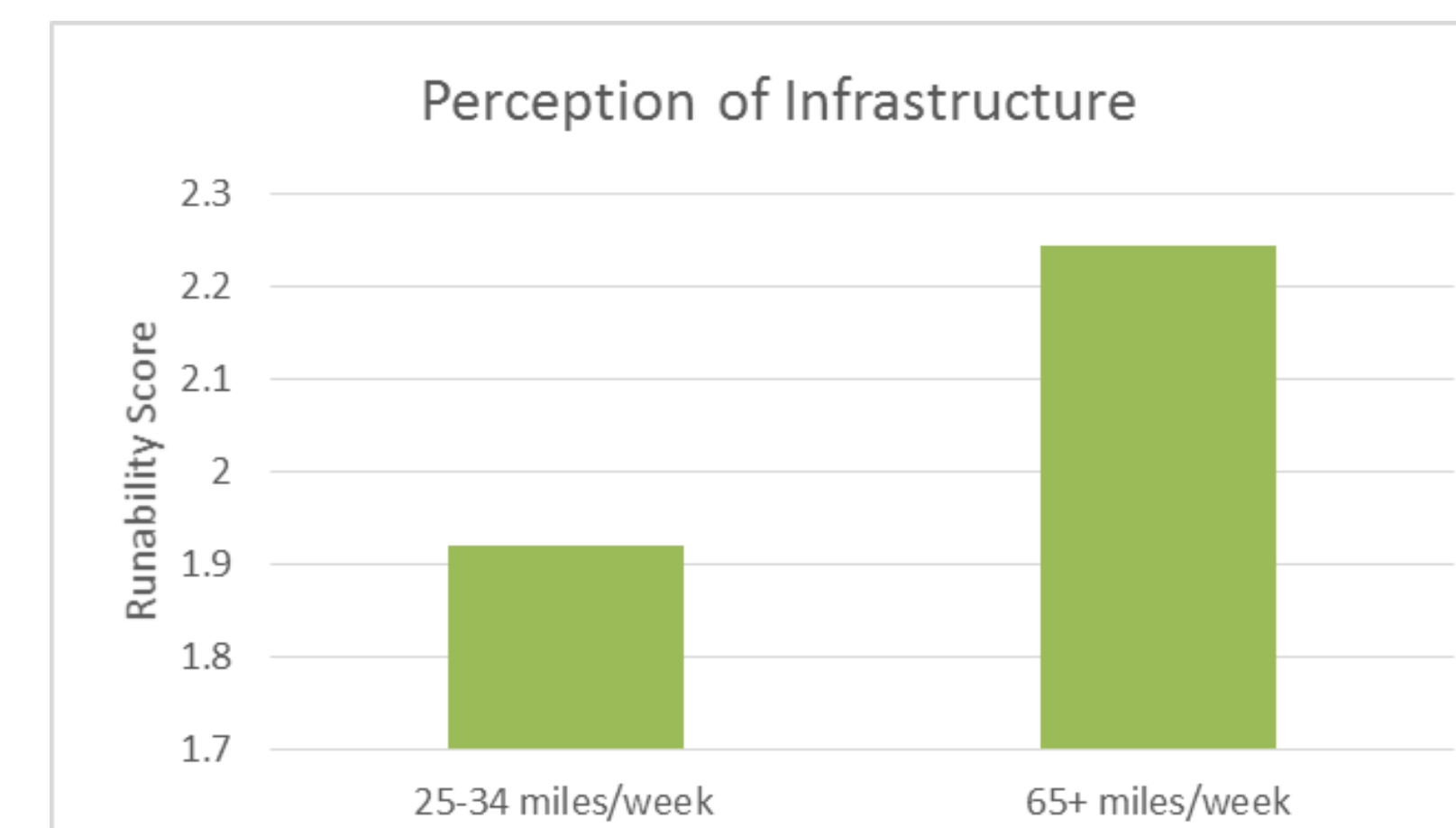


Questions were adapted to examine the “runability” of the environment directly surrounding Sacred Heart University’s campus. Items were assessed with a 4-point Likert scale with 1=strongly disagree and 4=strongly agree

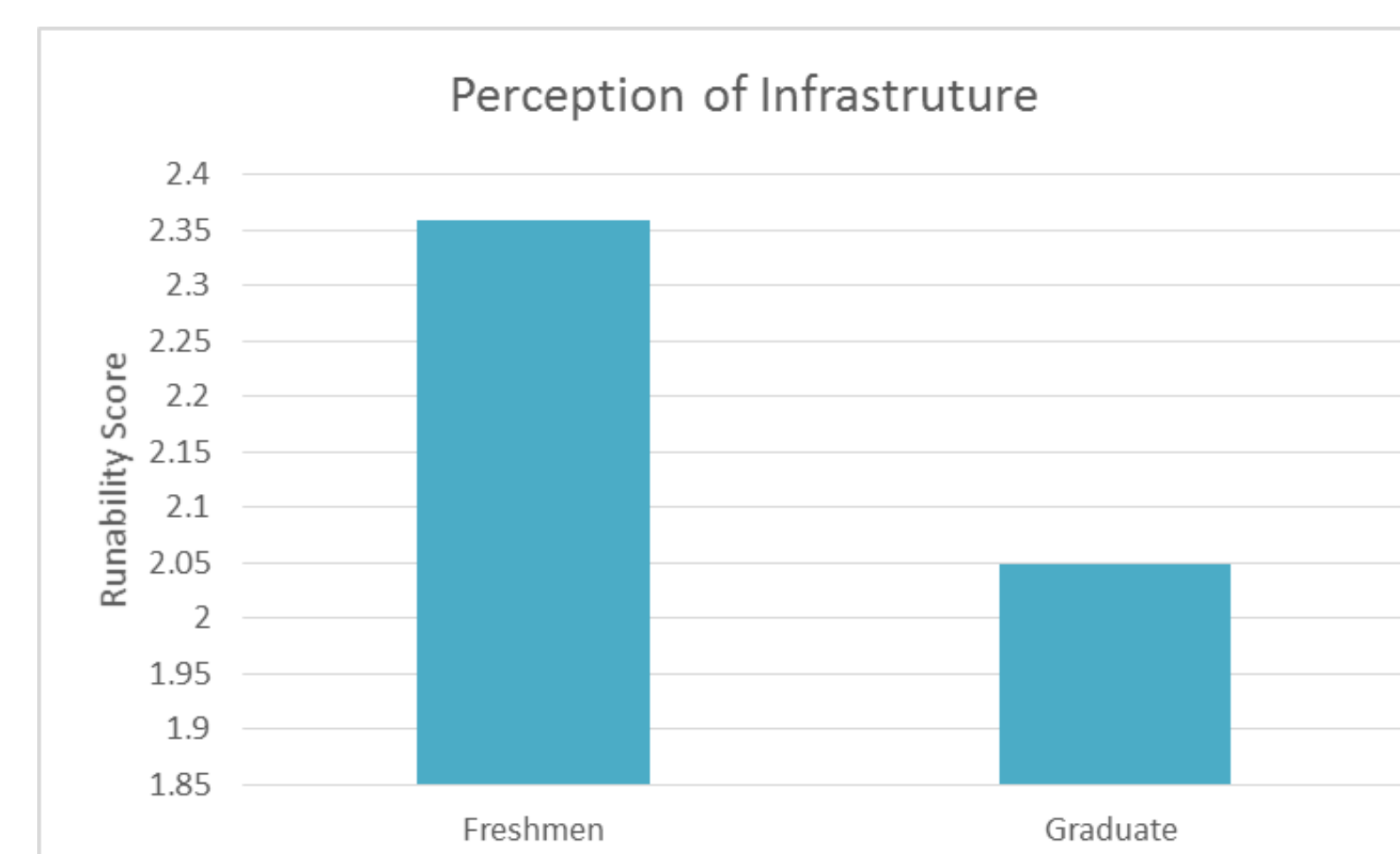
## RESULTS



Graph 1: Gender differences in perception of infrastructure.



Graph 2: Weekly mileage differences in perception of infrastructure.



Graph 3: Grade differences in perception of infrastructure.

**Key:**  
\*Runability scores range 1-4  
\*Lower score (1) denoting lower runability  
\*Higher score (4) denoting higher runability

## DISCUSSION

- Data was analyzed from 2 subscales of questions: perception of infrastructure & perception of traffic.
- Greatest differences were observed in the perception of infrastructure subscale
- Study hypotheses:
  - Females would have lower runability scores vs males
  - Low mileage runners would have lower runability scores vs high mileage runners
  - Freshmen would have lower runability scores vs graduate
- Graph 1 shows females having a lower runability score compared to males
  - Difference of 0.189
- Graph 2 shows low mileage runners having a lower runability score compared to high mileage runners
  - Difference of 0.323
- Graph 3 shows freshmen having a higher runability score compared to graduate students
  - Difference of 0.31
  - Did not coincide hypothesis

## TAKE HOME MESSAGES

- Built environment strongly affects pedestrian safety
- Environments w/ sidewalks, crosswalks and buffers from the road can positively impact runner’s safety
- Differences between gender, weekly mileage and grade variables show that not everyone perceives the environment in the same way
- Information from this study can aid in future developments of runability assessments in environments, especially of college campus environments

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