



Analysis of Attendance Trends at the Valparaiso University Hesse Center

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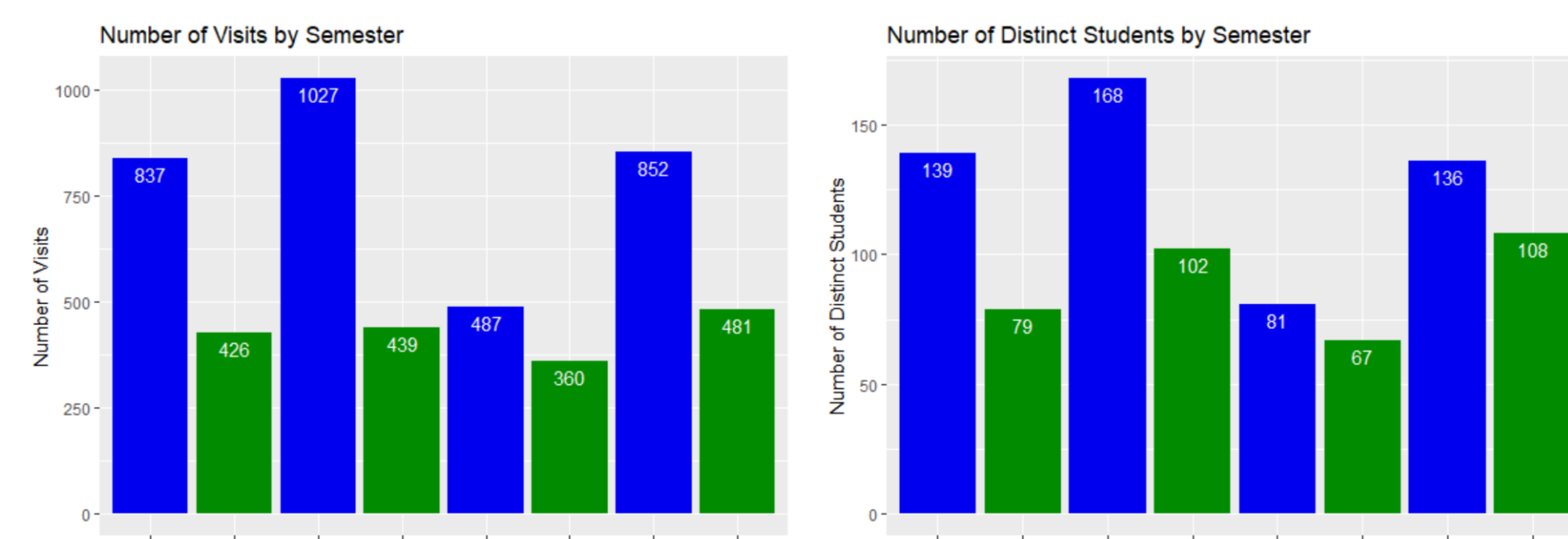
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Introduction

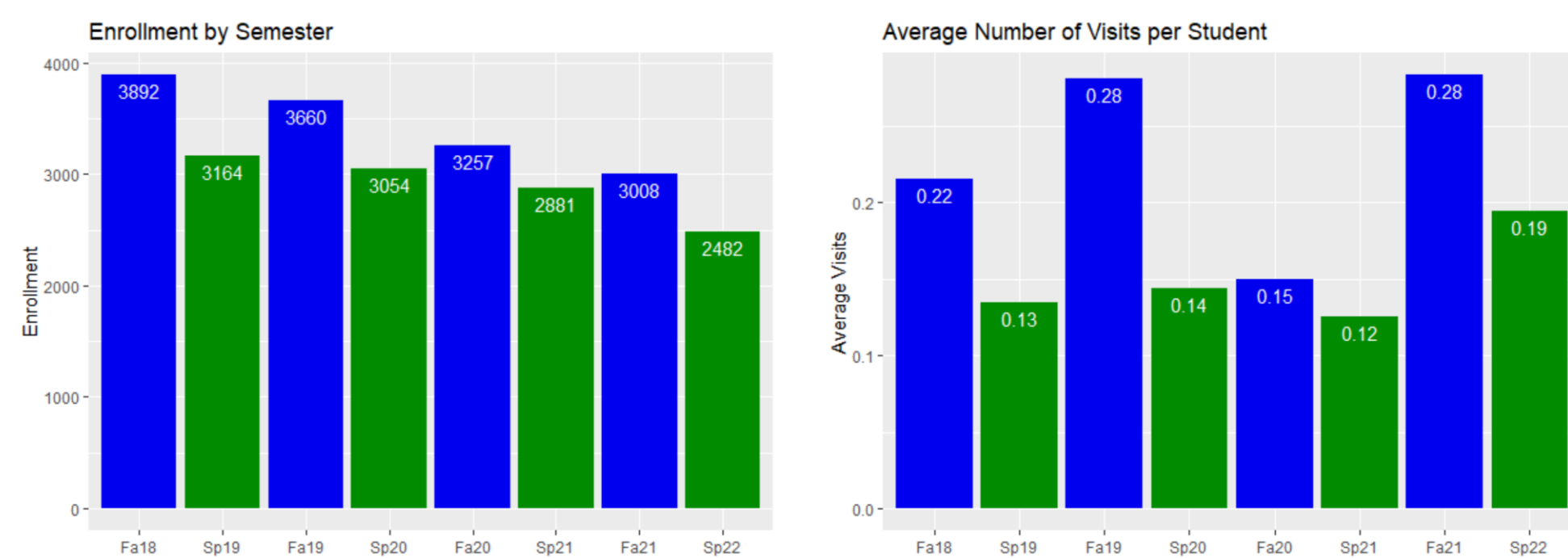
This project seeks to help the Valparaiso University Hesse Center optimize its resources to better support students in need of academic assistance. Located in Gellersen Hall, the Hesse Center offers help sessions and walk-in tutoring for students in mathematics, statistics, engineering, and physics courses. The data for this project was obtained from Laura Sanders, the Director of the Hesse Center. Before entering the Hesse Center, students are required to swipe in with their Valparaiso University student ID card and provide information about their visit. After receiving tutoring, they are instructed to swipe out. This process allows information such as the course and the time of day to be collected. By analyzing attendance trends based on the semester, appointment type, course, weekday, and time of day, the Hesse Center can be better prepared to meet the needs of students.

Attendance by Semester

This section highlights how attendance varies by semester from Fall 2018 to Spring 2022. The first graph to the right shows the total number of visits to the Hesse Center based on the semester. Since some students may visit more than once, the second graph illustrates the total number of *distinct* students based on the semester.

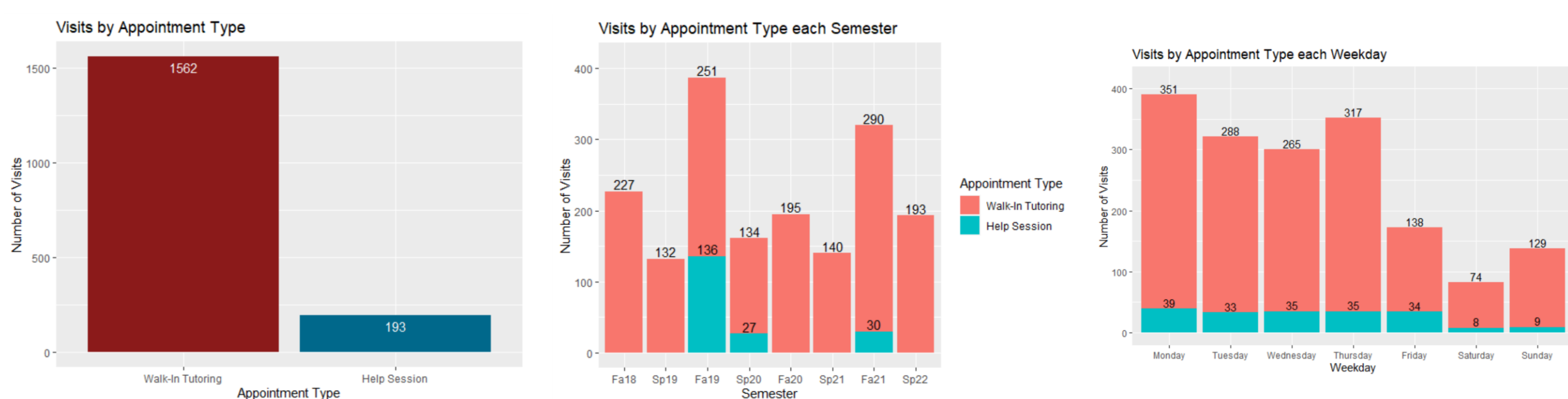


The graph furthest to the left displays the combined enrollment for all courses that the Hesse Center serves. The next graph shows the average number of visits per student, which is the total number of visits divided by the enrollment for each semester. While the enrollment decreases over time, the average number of visits is fairly stable, with consistently higher values in fall semesters.

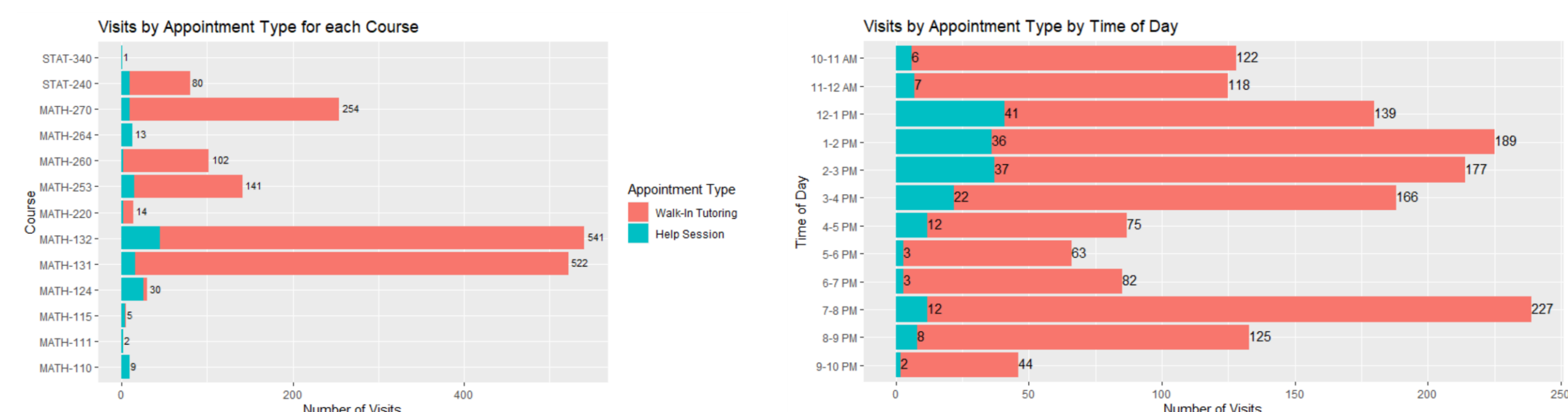


Attendance by Appointment Type

This section analyzes attendance by appointment type: walk-in tutoring or help sessions. The data here is restricted to only mathematics and statistics courses. Walk-in tutoring refers to when students visit the Hesse Center during any of its available hours, while help sessions are organized at specific times for students in specific courses to get help. During the 2018-2019 and 2020-2021 academic years, the help sessions were not held in the Hesse Center, so there are not help session attendance records from those years.



The graphs above demonstrate that overall there are significantly more students visiting the Hesse Center for walk-in tutoring than for help sessions. However, the bottom-left graph shows that for certain courses, such as MATH-124 (Finite Mathematics), students tend to visit the Hesse Center primarily during the specific help session times. The bottom-right graph shows that most help sessions are held during the afternoon. Yet 7-8 PM has the most walk-in appointments, so it may be beneficial for the Hesse Center to consider offering help sessions during that time range.



Attendance by Course

Each row of charts in this section corresponds to a specific set of courses, with mathematics and statistics courses first, followed by civil engineering, electrical and computer engineering, general engineering, mechanical engineering, and physics. Within each row, the graphs display the number of visits by course, the number of distinct students by course, and the average number of visits per student.

