

## BACKGROUND INFORMATION

- **Mission:**
  - Create an inclusive environment with engaging programs and essential services.
  - Enrich students' lives and foster memorable experiences.
- **Purpose:**
  - Provide co-curricular learning experiences that drive personal growth.
  - Act as a catalyst for student development and offer resources to enrich the campus community.
- **Project Introduction:**
  - Conduct a thorough analysis of diverse datasets related to student engagement.
  - Examine demographics, group characteristics, academic metrics, and event participation.
  - Find the correlation between student organizations and academic performance.
- **Motivations:**
  - Clarify the factors that make student organizations successful and attractive.
  - Investigate the relationship between participation in groups and GPA.
  - Generate recommendations to boost student engagement and organizational effectiveness.
  - Establish a foundation for future research and strategy development.

## RESEARCH METHODOLOGY

- Utilized R Studio for data analysis tasks
- Employed popular R libraries for data manipulation and visualization, including:
  - **GGplot2** for creating complex and aesthetically pleasing visualizations.
  - **Dplyr** for data manipulation, simplifying cleaning, and preparation.
  - **Tidyverse**, an integrated collection of R packages designed to make data science faster, easier, and more fun.

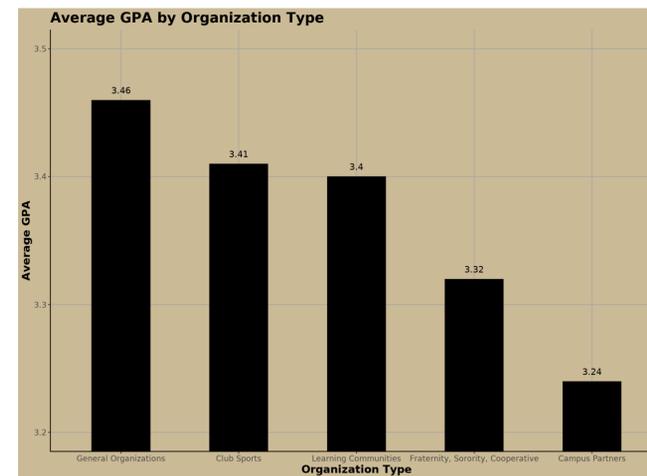


Figure 1

Figure 2

## FINDINGS

- Diverse range of student involvement across clubs.
- Disparities in gender representation within certain clubs.
- Significant international student participation.
- No large impact of club size on academic performance, suggesting a complex link between involvement and academic success. (Figure 3)

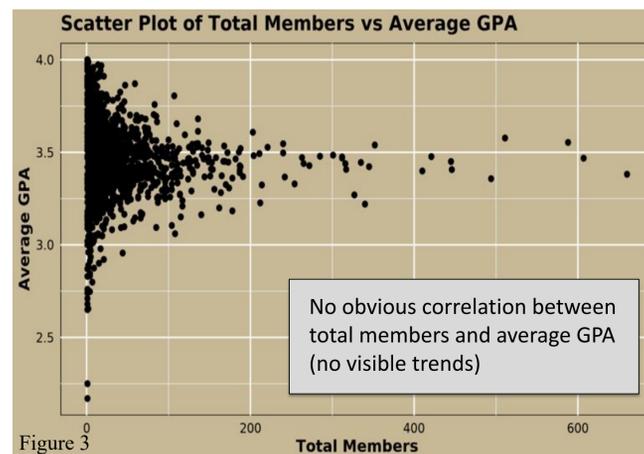


Figure 3

### Comparative GPA Analysis (Figure 1):

- General Organizations lead with an average GPA of 3.46.
- Campus Partners have the lowest at 3.28, prompting further investigation.
- Collective average GPA of 3.37 across all types indicates robust academic performance.

### Event Distribution Insights (Figure 2):

- Illustrates event distribution across Purdue University locations.
- WALC tops the chart with 732 events, indicating high facility utilization.
- The presence of online events underscores a trend towards virtual engagement.
- Insights can guide campus planning, especially for underutilized spaces like BRNG.

### Cross-Analysis Insights:

- Both graphs together offer a comprehensive view of student life dynamics.
- GPA analysis underscores the academic commitment across organization types.
- Event distribution data highlights student preferences and potential areas for infrastructure enhancement.
- Together, these insights inform strategies for academic support and campus development.

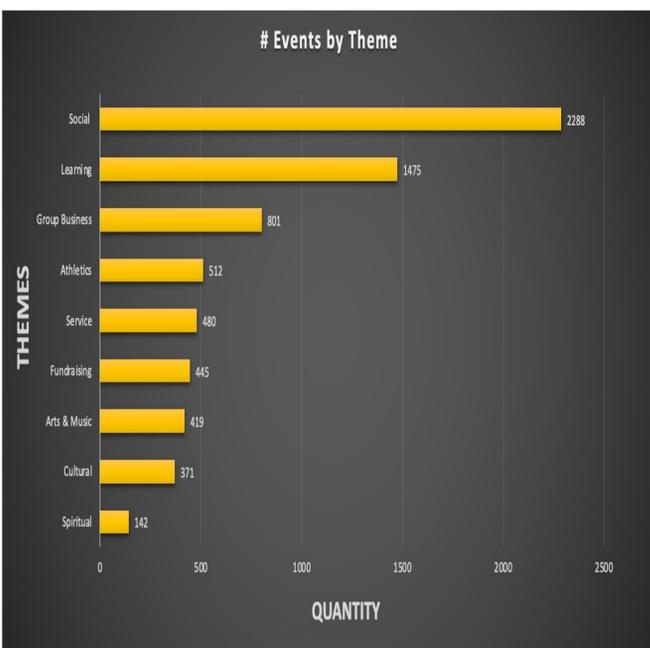


Figure 7

### Diversity of Interests (Figure 7):

- Graphical results: wide range of interests among the student body.
- Order of event frequency: Social, Learning, Athletics, Service, Fundraising, Arts & Music, Cultural, Spiritual.

### Insights and Recommendations:

- The popularity of Social events underscores the importance of community engagement.
- Learning events' popularity suggests a need for more resources for academic clubs and study groups.
- The lower frequency of Cultural and Spiritual events could indicate areas for growth or need for more support.
- The existence of spaces like the Meditation room in CoRec indicates efforts to support cultural and spiritual practices.

All Faculty/Staff Advisor Count

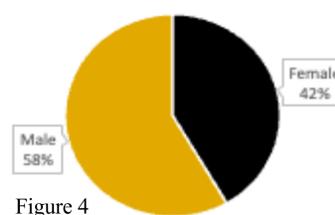


Figure 4

All Members

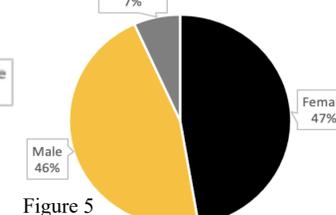


Figure 5

All Presidents and Vice Presidents Count

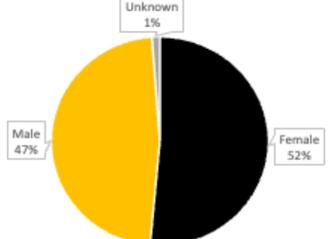


Figure 6

Pie charts (Figures 4-6) show a distribution of genders in faculty (top left), members of clubs (top right), and executive positions (bottom)

## SUGGESTIONS

1. **Better Data Collection Methods:** The current APF has many user text-inputs and many other qualitative variables that can be changed to selection boxes. Changing this would all for more data driven insights and a smoother experience for the clubs filling the form.
2. **Longitudinal Studies:** Implement tracking of club membership and activities to assess the long-term impact of involvement on academic and professional outcomes.
3. **Cultural Competency Training:** Provide training for club officers and faculty advisors to create an inclusive environment for all members.
4. **Enhanced Communication Channels:** Develop communication platforms to increase awareness and participation in SAO events, ensuring that information reaches a broad audience.