Do Extracurricular Activities Improve College Performance: A Preliminary Study
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Introduction
Anecdotal evidence suggest the most beneficial and most fulfilling experiences occur outside the classroom.

Our study seeks to use student data from the UM Data Warehouse to determine how extracurricular activities such as student teams and professional societies impact college success.

Quantitative Analysis
We want to study the differentiating characteristics (demographics, admission characteristics, and academics) between team participants and the control group and whether there a grade penalty or benefit for participation.

We compared student data obtained from the data warehouse of team participants (N=739) to those who do not participate (N=5395) in teams. The analyzed rosters were from the largest engineering-related student teams listed with the Center for Campus Involvement:

<table>
<thead>
<tr>
<th>Professional Societies</th>
<th>Competitive Design</th>
<th>Socially Conscious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society of Women Engineers, National Society of Black Engineers, Society of Hispanic Professional Engineers, Alpha Sigma Mu</td>
<td>Solar Car, Hybrid Racing, Baja</td>
<td>BLUElab</td>
</tr>
</tbody>
</table>

Gender
There were no differences between the teams and control for citizenship, residency, college, major, high school GPA, math SAT score, and legacy. However, there were significant differences in other areas. For instance, while the gender distribution for competitive teams is the same as for the control group, teams that focus on socially responsible design have significantly more women.

![Gender Distribution Chart]

Ethnicity
There is also a significant difference in the ethnic profile of team participants. There are more URMs participating in teams overall, but this is due to the inclusion of URM-centric groups (NSBE and SHPE). Once they are removed, the ethnic profile of team participants is similar to the control group.

![Ethnicity Profile Chart]

Academic Performance
Compared to the control, team participants have lower incoming Math ACT scores but higher GPA once they arrive on campus. Correlation Tests shows that for the most part, team participants have a stronger correlation between GPA and ACT Math than the control.

<table>
<thead>
<tr>
<th></th>
<th>Team</th>
<th>Control</th>
<th>GPA</th>
<th>ACT Math</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.29</td>
<td>3.18</td>
<td>31.84</td>
<td>32.32</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt; 0.001*</td>
<td>&lt; 0.001*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Family Background
Team participants are significantly less likely to require financial aid than the control, and significantly more likely to come from more affluent and educated families.

This is consistent with the idea that team participants had more opportunities prior to arriving at the University and continue to take advantage of them. In short, these students have higher social capital.

Future Work
We will study the compiled data to examine whether team members move through the curriculum differently than the control group. We will also develop a survey to determine what are the perceived benefits and value of participation.