August 2022 Corinne L. Townsend

This report investigates the relationship between events and application yield for the Fall 2022 admissions cycle. To investigate application yield, we analyzed data both at the person level, as well as at the school level. For the person level analysis, we looked at event attendance by contacts with events held prior to the application deadline and found that students who attended events had higher application rates than those who did not, and more event types attended was related with higher application rates.

The school level analysis investigated the relationship between the number of events held at a school prior to the application deadline and *found* that schools with more events had more applications than those with fewer events.

We recommend investing in additional recruitment staff to increase the number of events at schools in the Los Angeles region within 300 miles from UC Merced, and schools in the Northern California region within 120 miles. To break even on the investment in additional staff, we would need to enroll only an additional 31 students, while we expect to enroll approximately 160 additional students.

Background

The Office of Undergraduate Admissions has multiple events for prospective students during the application cycle and was interested in whether event attendance by prospective students was associated with higher student yields, and if holding events for high schools was associated with higher applicant yields. Specifically, we investigated the following questions at the prospective student level:

I) Is pre-application event attendance by prospective students associated with higher application rates?

2) What event types attended by prospective students are associated with the highest application rates?

And we investigated the following research questions at the school level:

I) Does holding events with or at a school lead to more applications from a school?

2) Are events associated with larger increases in application yield for certain regions, high school clusters, or for schools located closer to UC Merced?

Application Yields

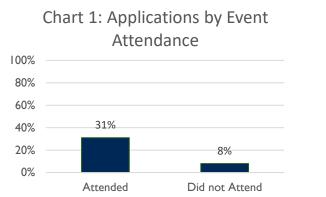
To investigate application yield at the prospective student level, we considered events held in 2021 (for the fall 2022 Admissions cycle) that took place prior to November 1, 2021, and Frosh applications with a start term of Fall 2022. Note that we only looked at events from the Office of Undergraduate Admissions. By "events" we refer to entries in the Salesforce "Events" data, which consist of various in-person, Online, and other experiences (such as Drive-Thru Campus Tours) put together by the Office of Undergraduate Admissions for prospective students.

Events data: A total of 167 distinct event names, categorized into 15 event types, were attended by between 1 and 247 contacts per event name, and between 1 and 550 per event type.

2,097 unique contacts attended at least one event out of 317,057 total prospects (with an anticipated start year and term of Fall 2022), meaning only 0.7% of prospects attended at least one event.

Of those contacts, most (98%, N = 2,059 students) attended only one event type, while 2% (N = 38 students) attended two or more types of events.

Overall, 31% of the 2,097 contacts that attended an event applied for admission, which was significantly¹ higher than the 8% application rate of contacts that did not attend events; see Chart 1:





Students who attended more than one type of event (N = 38 students) were significantly¹ more likely to apply than those who only attended one type of event (see Chart 2, to the right); 30% of those attending only one type of event applied, while 52% of those attending two or more event types applied.

The most common event type attended was the "UC Merced Presentation" series, with 550 contacts attending, while the event type most correlated with application rate was the "Family Tours" series, of which 66% of attendees applied for admission. See Table I, below, for details on attendance and application rates by event types:

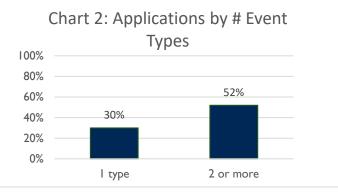
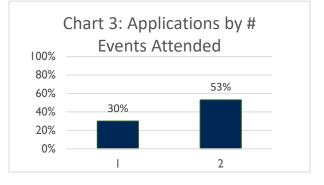


Table I. Event Types, Total Attendance, and Application Rate Total Applied

	Total	Applied		
	Attendance	••		
UC Merced	550	96	17%	
Presentation				
Webinar	539	214	40%	
Application	365	120	33%	
Workshop				
Group Tour	156	30	19%	
Ambassador Visits	129	70	54%	
Virtual Group	116	19	16%	
Tours				
Family Tours	105	69	66%	
College/	63	21	33%	
Information Fair				
Become a Bobcat	50	11	22%	
Special Event	24	4	17%	
Appointments	23	0	0%	
Drive Thru Tours	11	6	55%	
Self-Guided Tours	3	Ι	33%	

We also investigated whether the number of distinct events attended was related to application rates; for example, a student might attend multiple webinars, which is only one event type, but more than one experience. The number of distinct events attended was also significantly I related to application rate; while 30% of those who attended only one distinct event applied, over half of those attending 2 or more distinct events applied; see Chart 3, to the right:

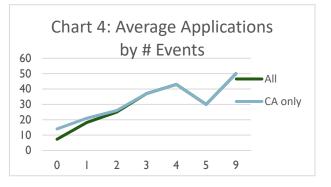
Note that most students attended one event (1998), with only a few (79) attending two events, and only a handful (14) attending three or more events.



School Application Yields

To investigate application yield at the high school level, we considered events held in 2021 (for the fall 2022 Admissions cycle) that took place prior to November 1, 2021, and Frosh applications with a start term of Fall 2022. Note that we only looked at events from the Office of Undergraduate Admissions, that were associated with high schools (as defined by having School data that linked with an Account ID in Salesforce "Accounts" data with a "High School" Account Type). By "events" we refer to entries in the Salesforce "Events" data, which consist of various in-person, Online, and other experiences (such as Drive-Thru Campus Tours) put together by the Office of Undergraduate Admissions for prospective students.

Events data: A total of 360 distinct events, categorized into 9 event types, were held with 258 total high schools, with between 1 and 9 events per high school (note that many high schools did not have any associated events). Of the 258 high schools with associated events, 74% had only one event, 18% had two, and 5% had three, and 3% had four or more events. Chart 4, to the right, shows the average number of applications per high school by the number of associated events; we can see that generally, more events were significantly² associated with more applications.

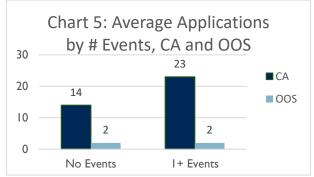


UNIVERSITY OF CALIFORNIA

We also looked at application numbers by location, in terms of whether the high

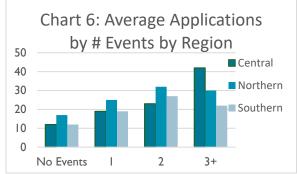
school was in California or out of state, California region, and by characteristics as captured by the College Board 'Cluster'.

California / OOS Schools: California high schools had more applications than out of state high schools, though the California schools were more likely to have events (out of state high schools ranged from 0 - 2 events; only 26 had any events, and only two had two events). As we can see in Chart 5, events were significantly³ associated with more applications for California high schools, but no effect was seen for out of state high schools. We would advise caution against concluding that events do not affect application behavior for out of state schools, however, due to the low volume of out of state schools with associated events (only 26 high schools). We would recommend focusing on improving events with out of state schools, tracking event attendance and other data as relevant.



Note that we removed one school as an outlier in the analyses as it had 0 events and 256 applications. We also collapsed 3 or more events into a single category due to small Ns, and we only considered California schools in the following analyses.

California Region: We mapped school counties to regions of the state and looked at the relationship between events, state region, and applications, finding a significant² effect for the Northern California region, but not other regions. Chart 6 shows the relationship between region, number of events, and applications; we can see Northern California has more applications at 0, 1, and 2 events; however, note that Central California had 14 schools with 3 or more events, while the other regions had only 3 schools each with 3 or more events.



UNIVERSITY OF CALIFORNIA MERCED

School Characteristics: We also looked at the effect of school characteristics, as captured by College Board's Cluster assignments. We did not find significant² effects of cluster on the relationship between events held and total applications; as illustrated in Chart 7, below, there were similar figures for clusters 73 and 65, while 64 and 70 were lacking in schools with 2 and 3+ events.

Distance: We also examined whether there was a significant effect of distance from UC Merced on the relationship between events and applications; we

found a significant² effect of distance, with longer distances associated with fewer applications. Note that in our analysis, we used distance as a continuous variable, while Chart 8, to the right, summarizes the data in terms of distance ranges for the purposes of visualization.

Chart 8 shows the relationship between distance, number of events, and applications, and we can see that high schools within 60 miles tend to have more applications than high schools farther away at each number of events. Note, however, that closer high schools had more events; 9 of the 19 schools with three or more events were located within a 60-mile radius, 5 were within 60 and 120 miles, and only 5 were at distances greater than 120 miles.

Closer schools had a higher mean number of events (.90 events per school within 60 miles), compared to farther schools (between .11 and .30 events per school for distances past 60 miles; see chart 9, to the right, for details.

When considering all variables, we found that number of events and distance from UC Merced were significantly² related to the number of applications (Northern California was no longer significant when considering distance in the analysis as well). We found that for each additional event, a school would have about 6 additional applications, and for every additional 100 miles from UC Merced, a school would have about 3 fewer applications.

Historical Comparison: The Office of Undergraduate Admissions noted that recruitment in the Sacramento area has suffered since losing a regional recruiter; a recruiter dedicated to the area was last employed in Fall 2018, for the Fall 2019 admissions cycle. This provides a concrete example of a region that has experienced varying numbers of events in recent years, and the opportunity for comparison. We can see that within Sacramento County, fewer events were associated with fewer applications (see Chart 11, to the right). In 2019, the cycle in which the region last had a dedicated recruiter, we found 40 events recorded as associated with schools within Sacramento County. This is contrasted with later years, such as 2020, which had the fewest events (10), and the fewest applications (262), and we see that across the last four years, more events were associated with more applications.

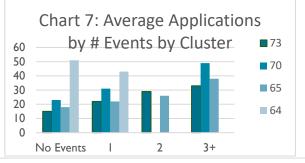
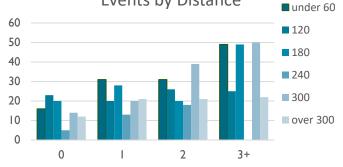


Chart 8: Average Applications by # Events by Distance



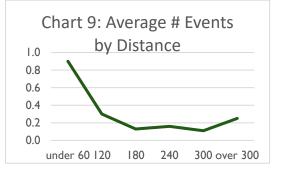


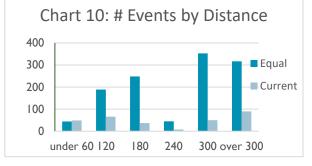
Chart 11: Sacramento Applications by # Events



UNIVERSITY OF CALIFORNIA MERCED

Cost/Benefit Analysis: For the following scenarios, we used the following assumptions – first, that each recruitment FTE can hold a total of 88 events each fall (8 per week for 11 total weeks), that estimated salaries + benefits are 75k per FTE (assuming 50% of salary costs for benefits), and that each additional enrolled student adds approximately 10k in year 1 tuition revenue.

Adding events across California: This scenario allocates the same .90 average events across the state (the same average events as the schools within 60 miles). Chart 10, to the right, shows the current total of events in light blue, and the amount that would bring each distance range to .90 average events per school.



This requires a total of 1196 pre-application events, an increase of 896 above the

current total. We would expect to see an increase of 5196 applications, which at our current ~8% application to enrollment yield would net 416 additional enrollments. This would require 10 additional FTE, for a cost of \$750,000, while bringing in an additional 4.16 million in first year tuition revenue. To break even on the cost of 10 FTEs, we would need to enroll just 75 additional students; see Table 2 on the following page for details.

We would recommend a more targeted approach focusing on a few areas with more enrollment potential; two potential options worth considering are detailed in Table 2, which focus on Los Angeles schools within 300 miles, and Northern California schools within 120 miles. We recommend focusing on schools within a 300-mile radius, as events did not have much impact outside of that range, and we recommend focusing on Los Angeles and nearby Northern California as events could host a larger number of students in those regions.

Scenario	Additional Events	Required FTEs	FTE Expense	Application Growth	Enrollment Growth	Year I Tuition	Year I Return	Break-even enrollment
Statewide	896	10	\$750,000	5196	416	\$4,160,000	\$3,410,000	75
Los Angeles within 300 miles	264	3	\$225,000	1500	120	\$1,200,000	\$975,000	23
Northern California within 120 miles	90	I	\$75,000	514	41	\$410,000	\$335,000	8

Table 2. Financial Analysis of Example Scenarios

Holding additional events will also provide us valuable data with which to better understand the relationship between events, distance, California region, and other factors on the number of applications received from each high school; currently our events data is somewhat limited because we have smaller numbers of events outside of the local area; a larger proportion of schools within Central California have associated events (~20%) compared to schools in Southern and Northern California (~10%); at the more detailed regional level, it varies from a high of 28% of schools in North San Joaquin Valley to a low of 0% of schools in the regions of Inyo-Mono, Superior California, and the Upper Sacramento Valley.

Next Steps

At the student level, event attendance rates should be considered as early indicators for predicting application rates. Additionally, strategies to increase event attendance may be a way to increase application yields from prospective applicants. We recommend focusing efforts on high attendance pre-application events such as Webinars and Application Workshops, as well as encouraging attendance at high yield events with currently lower attendance rates such as the Family and Drive Thru Tours.

At the school level, the number of events associated with a school was significantly associated with application numbers, as was distance from UC Merced. Increasing the number of events associated with schools should increase application numbers and may be more effective for schools closer to UC Merced (in particular, schools over 300 miles did not appear to increase application numbers for more than one event).



Conclusion

Overall, we found that students who engaged with events had higher application yields compared to students that did not engage with events prior to the application deadline.

As in prior analyses, while engagement is associated with higher application rates and may be useful as an additional tool in projecting yields, these findings should be interpreted with caution, as causality cannot be determined. For example, students who are more interested or committed to attending UC Merced may be more likely to attend events, and efforts to increase event engagement, while worthwhile to explore, may lead to smaller than anticipated increases in yields.

Additionally, we found that schools with more associated events had higher application numbers compared to schools with fewer associated events. Due to small numbers of associated events, we were not able to distinguish if certain event types were more effective, nor were we able to determine differences in effectiveness for Virtual or In Person events as that data was not collected in the Events data. Improvements in data collection would allow future analyses to investigate potential differences in the effectiveness of Virtual and In Person events, as well as examine the relationship between event attendance numbers and application numbers.

Increasing events associated with high schools is expected to increase application rates and will also provide us with additional data on the impact of events on application rates and will provide more information on the impact of other factors, such as whether different regions of the state have different expected returns from events.

ENDNOTES

- I. Based on Chi-Square analysis, p<.05.
- 2. Based on Linear regression analysis, p<.05
- 3. Based on Analysis of Variance, p<.05

Contact Us

University of California, Merced Institutional Research and Decision Support IRDS.UCMERCED.EDU