UNDERGRADUATE STUDENT RETENTION PROJECT

TEAM 6  
MSBA 2022

CLIENT  
UNIVERSITY OF WASHINGTON  
TACOMA

• Founded 1990  
• Student enrollment 5400  
• Urban serving campus  
• Diverse, first-generation students

PROBLEM  
• UW Tacoma experiencing increase in student attrition & decline in student enrollment.

GOAL  
• Analyze factors affecting attrition in students and identify factors that will increase student recruiting.

SCOPE  
• To predict the at-risk undergraduates and present an analytical solution to improve the retention of students.

DESCRIPTIVE / DIAGNOSTIC

• Found correlation between the factors like demographics, majors, GPA etc. and graduation rate.
• Used Tableau to find the data distribution of potential factors that can influence student retention.
• Maximum attrition seen in quarters one to four and six to eight.

COGNITIVE SOLUTION

STUDENT SURVEY APP

• This proto-type of the App has sample questions. The actual survey questions will be different, aligned with predefined categories.
• This App will provide overall sentiments and identify at-risk students and help UWT to proactively correct the dissatisfaction rather than reacting on it later.

PREDICTIVE

• Developed predictive models in R.
• The process involved data clean-up – removing missing values, removing skewness etc. Data transformation – creating new categorical variables and trying multiple algorithms like logistic regression, decision trees etc. Best model was a logistic regression model that gave close to 90% accuracy in predicting whether a student will graduate or not.

RECOMMENDATIONS

• Integrate the Survey App with MyUW or Canvas platforms.
• Encourage more and more students to participate in the Survey.
• Design the survey questions specific to predefined categories.
• Add student helpdesk numbers and FAQ information in the Power App so that students have another way to refer it.
• A Mentorship/Buddy system should be introduced to help at-risk students.
• Constant Follow up sessions