# Abstract

This project designs a small scale transit system that runs between five wineries in San Luis Obispo. San Luis Obispo County is known for its many wineries ranging up and down the central coast. Transportation options for wine tasters are limited to tour bus, limousine, taxi, and private cars. This does not leave an option for wine tasters who prefer a cheaper mode of transportation than limo, tour bus, or taxis, and do not want the hassle of driving and worrying about how much alcohol they consume. Selection criteria methods were used to choose bus stop locations at a specified number of wineries. In order to do this, a survey of Cal Poly students and surrounding wineries was taken and analyzed. Operations research techniques were used to select an optimal route for the bus that will reduce travel time and waiting time for passengers. Finally, a simulation verified the proposed solution and determined an optimal number of buses and ticket price. The final design is integrated with the San Luis Obispo Transit System by connecting with the Downtown Transit Center in the city. Five year projections show that implementation of this system will result in profits of $354,829 while offering San Luis Obispo community members a safer, cheaper, more convenient way to wine taste.