Hailey Rosenthal

Statistics Prerequisite Waiver

MES Application

I am writing to request a waiver for the prerequisite in statistics for the MES program at Evergreen State College. In my current professional capacity as the Puget Sound recreational support biologist, I actively engage in statistical analysis as an integral part of my responsibilities. Here are some examples of how I use statistics in my current work:

I work alongside the Puget Sound Recreational Salmon Manager to model and interpret recreational encounter data to inform in-season management decisions based on available quota. Currently, encounter data comes from test fishing efforts when fisheries are open on Puget Sound. Throughout the past two years, I have focused on developing and implementing a new monitoring effort tailored to collect data for recreational salmon fisheries within Puget Sound. This effort is the Charter observer program. I developed a statistical approach for comparing the encounter data collected by charter observers with the encounter data from test fishing activities. In this approach, I've used a t-test, chi-squared test, and fisher's exact test depending on the variables and sample size.

My position is also the coordinator for the Puget Sound Recreational Fisheries Enhancement (PSRFE) program. I lead an oversight committee and analyze the hatcheries funded by the program. My specific duty is to conduct analysis of PSRFE funded hatchery programs and Puget Sound recreational salmon fisheries to determine contribution rates and develop recommendations for improvement. My tasks from my position description include:

1) Use coded-wire tag recoveries from the RMIS database to calculate survival and fishery contribution rates of PSRFE-funded salmon hatchery program releases.
2) Conduct a retrospective analysis of PSRFE funded hatchery programs to better understand their capabilities, limitations, and ways to increase the contribution rate.
3) Assist in the completion of a report that evaluates the new and experimental hatchery rearing and release strategies that improve survival and contribution to Puget Sound fisheries.

I believe the statistical techniques, such as null hypothesis testing, t-test, chi -square tests, used in my professional work align closely with the knowledge typically gained from a prerequisite course.