1145-VK-1361 Nathan J Jewkes* (njjewkes@ncsu.edu), 5105 Fort Sumter Rd Apt P, Raleigh, NC 27606. Conditional Probability: Overcoming the Base Rate Fallacy.

This paper reports the analysis and interpretations of undergraduate statistics students' work on a conditional probability task in an after-class setting. The purpose of this task is to help students avoid confusion of the inverse and the base rate fallacy when interpreting diagnostic results. The focus of the analysis was to see how the task did or did not help students overcome some of these common misconceptions related to conditional probability. The data analyzed consisted of student's written responses and technology-generated simulations. (Received September 21, 2018)