

1096-G5-2284 **E. Cabral Balriera** and **Charles D. Wessell*** (cwessell@gettysburg.edu), 300 North Washington Street, Campus Box 402, Gettysburg, PA 17325-1400. *The Minimum Number of Contests Needed for a Ranking Method to Approach Optimal Performance.*

If there is a "true" ranking of players or teams competing with one another, how many games need to be completed before a ranking method can determine that true ranking? Is that number impractical for a typical sports league? Answering these questions first requires examining how often, in a particular sport, a truly better team or player loses to an inferior one. With this information and using the schedule constraints of the major U.S. sports leagues, thousands of simulated seasons can be played with rankings computed after each day of play. These simulations can help us determine the number of games needed before playoff teams in the NBA and NHL be confidently predicted and help identify ranking methods that are particularly good at this kind of prediction. (Received September 17, 2013)