

MIAMI UNIVERSITY  
DEPARTMENT OF STATISTICS

WORLD STATISTICS DAY  
20.10.2010

The United Nations has declared Wednesday, October 20, 2010 to be World Statistics Day. To celebrate, the Statistics Department at Miami will be hosting an event beginning at 4:00 pm in Patten Auditorium (102 Benton Hall). All are welcome to come and learn more about this discipline and its contributions to our lives and society.

- 4:00 PM Welcome from Provost Skillings  
4:05 Speaker introductions from Department of Statistics  
Chair, A. John Bailer  
4:10 Dr. Robert B. Davis, Associate Professor, Department  
of Statistics, Miami University  
“Statistics, Simulation, and the Biggest Red Machine”

Simulation is a vital tool in statistics. In a simulation, a complicated probability-based system is broken down into simpler components. A randomization device of some sort is used to generate outcomes involving the simpler components, which are then aggregated to investigate how the entire system would behave. In this talk, we will consider how a baseball game could be simulated based on the statistics of individual players. We will also discuss what questions this might allow baseball fans to investigate.

- 4:35 Discussion

4:45 Dr. Emily S. Murphree, Associate Professor,  
Department of Statistics, Miami University  
“Statistics Goes to War”

During World War II, allied forces were critically interested in the size of the German tank arsenal. Working from the serial numbers of captured German tanks, statisticians arrived at estimates that were much lower than those proposed by allied intelligence. After the war, the statisticians’ estimates of German tank strength were confirmed to be much more accurate than the spies’. By simulating data, we can investigate several competing methods for estimating the total number of tanks.

5:10 Discussion

5:20 Reception

