Meeting: 1003, Atlanta, Georgia, MAA CP T1, MAA Session on Mathematics Experiences in Business, Industry, and Government

1003-T1-151 **Gregory Battle***, Morehouse College, PO Box 148, 830 Westview Drive, Atlanta, GA 30314. Office Management: A Markov Model.

This paper develops a markov model to structure the trafficking of tasks in a given governmental office consisting of three components. The theory of the markov model used is developed clearly to justify its implementation in a practicable manner. The Fleet Support Office of the Naval Personnel Research and Development Center is used as a typical case. The probabilities of predicted office states will be represented from the matrix equation $Q(k)=Q(0)P^{**}k$ for a given period k using an empirically constructed transition matrix P. The model allows government managers to assign tasks to a particular office component that predicts functional office states at acceptable productivity rates with more efficient use of manpower resources. (Received August 13, 2004)