



The University of Mississippi
Department of Mathematics

Statistics Seminar

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**Estimating Proportions by Group Testing:
*A Frequentist Approach***

Abstract: Group testing is a statistical method for estimating proportions of a factor in a population by testing pools of subjects rather than individuals. Although group testing has been in the literature since 1943, the use of the method has increased dramatically in the last two decades because of the development of screening methods based on DNA amplification by PCR. The probability model for this approach is presented and a short history of the method and a survey of known results are given. Two cases are distinguished; when the pool sizes are equal and when they are not equal. A new approach to finding point and interval estimates in the case of unequal pool sizes is described and the statistical properties of the estimators are explored.

Time: 2:15 P.M.

Date: Friday, November 2, 2012

Place: Hume 331

Faculty, staff and students are welcome to attend