

**SEMINAR SERIES**  
**Department of Quantitative Analysis and Operations Management**  
**University of Cincinnati**

**Political Engineering - Optimal Political Platform Design and the 2004 US Presidential Election**

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**Friday, April 14, 2006**  
**12:30 PM**  
**214 Lindner Hall**

We treat the problem of finding the optimal political platform for a U.S. Presidential candidate as a special case of the share of choices problem. We first formulate the problem as a maximal covering problem with special ordered sets that represent the various positions candidates may assume on each salient issue. We then use this formulation to find the projected winner in each state, estimate variance and bias of the estimated Electoral College votes for each candidate, assess the sensitivity of each candidate's support to changes in his position on various issues, find the optimal platform for each candidate relative to the positions assumed by his opponent(s), and identify key issues of the 2004 U.S. Presidential election.

James J. Cochran received B.S. degrees in Economics and Business Administration from Wright State University in 1982, an M.S. in Economics from Wright State University in 1984, an M.B.A. from Wright State University in 1985, and a Ph.D. in Quantitative Analysis from the University of Cincinnati in 1997. Currently at Louisiana Tech University, he has previously been on the faculty at Wright State University, Drexel University, Miami University, and the University of Cincinnati. He has also held the position of Visiting Scholar with the Statistics Department of Stanford University. Professor Cochran teaches courses in statistical methods, regression analysis, experimental design, multivariate statistics, linear models, categorical data analysis, statistical consulting, operations research methods, and mathematical programming. His research interests include statistical methods (particularly general linear models), statistical learning, and sample-based optimization. Journals in which his research has been published include *Management Science*, *The Journal of the Operational Research Society*, *The American Statistician*, *The Journal of Statistics Education*, *INFORMS Transactions on Education*, *Clinical Orthopaedics and Related Research*, and *The Journal of Arthroplasty*. Companies for whom Dr. Cochran has served as a consultant include Procter & Gamble, Ralston-Purina, Jergins, J. Walter Thompson, Heinz, General Foods, Quaker, Gibson Greetings, Texas Instruments, Friendly's Restaurants, Whittle Communications, Kenner Toys, Marriott, and Nabisco. Professor Cochran has served as President, Vice President - Projects, and Vice President - Meetings of INFORM-ED (INFORMS' Forum on Education). As founding Chair of INFORM-ED's International Education Initiative, Professor Cochran is currently organizing and preparing to co-chair the first ALIO-INFORMS Joint Teaching Effectiveness Colloquium, to be held in conjunction with the 2006 Latin-Ibero-American Conference on Operations Research in Montevideo, Uruguay in November 2006. He was General Chair of INFORMS 2005 Conference in New Orleans/San Francisco; is the founding Chair of INFORMS OR in SpORts section; and is a member of INFORMS Publications, Education, Student Affairs, and Strategic Marketing Committees. He established and has organized INFORMS' Teaching Effectiveness Colloquium series and annual Case Competition. Professor Cochran serves on the Advisory Board for *INFORMS Summer Workshop on Teaching Management Science* as well as the Editorial Boards for *Interfaces*, *INFORMS Transactions on Education*, *INFORMS Case and Teaching Materials Collection*, *The Journal of Quantitative Analysis in Sports*, and *Operations Management Education Review*.

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