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Elena Mihaela Buzaianu^{*} (etomsa@syr.edu), 215 Carnegie Hall, Syracuse University, Syracuse, NY 13210, and Pinyuen Chen (pinchen@syr.edu), 215 Carnegie Hall, Syracuse University, Syracuse, NY 13210. Curtailment Procedure for Selecting Among Bernoulli Populations.

Dunnett ("Selection of the best treatment in comparison to a control with application to a medical trial". In Design of experiments: Ranking and Selection (T. J. Santner and Tamhane, eds.)(1984), 46-66. Marcel Dekker, New York.) proposed a fixed-sample-size procedure for selecting the population with the largest probability of a success among k experimental Bernoulli populations and a control Bernoulli population. For the same selection goal we propose a vectorat-a-time sampling rule along with a curtailed stopping rule and a terminal decision rule. In showing our curtailment procedure reaches the same probability of a correct selection as Dunnett's procedure, we follow the ideas presented by Bechhofer and Kulkarni ("Closed adaptive procedures for selecting the best of $k \ge 2$ Bernoulli populations", In Proceedings of the Third Purdue Symposium on Statistical Decision Theory and Related Topics (S.S. Gupta and J. Berger, eds) (1982)), who considered a curtailed version of the fixed-sample-size procedure proposed by Sobel and Hyuett (1957). We compute the expected sample sizes numerically for our procedure in various cases and compare them with those for the original procedure. (Received September 25, 2005)