Matt Davis, Michael Orrison and Francis Edward Su* (su@math.hmc.edu), Department of Mathematics, Harvey Mudd College, 301 Platt Blvd, Claremont, CA 91711. Voting for Committees.

We examine the following voting situation. A committee of $k$ people is to be formed from a pool of $n$ candidates. The voters selecting the committee will submit a list of $j$ candidates that they would prefer to be on the committee. We assume that $j \leq k \leq n$. For a chosen committee, a given voter is said to be satisfied by that committee if her submitted list of $j$ candidates is a subset of that committee. We examine how popular is the most popular committee, i.e., we show there is always a committee that satisfies a certain fraction of the voters and examine what characteristics of the voter data will increase that fraction. (Received September 25, 2012)