

## Abstract

Riker's size principle for  $n$ -person zero-sum games predicts that winning coalitions will tend to be minimal winning (any player's defection negates its winning status) under certain conditions. Brams and Fishburn (1994) applied Riker's principle to weighted-majority voting games in which players have voting weights  $w_1 \geq w_2 \geq \dots \geq w_n$ , and a coalition is winning if its members' weights sum to more than half the total weight.

This paper extends and refines the earlier analysis by

- providing mathematical foundations for minimal and least winning coalitions (a subset of minimal winning coalitions);
- developing new data to examine relationships between voting weight and voting power; and
- applying different measures of voting power to these data.

All sets of minimal and least winning coalitions that arise from different voting weights for  $n \leq 6$  are identified. The analysis shows that large size is sometimes more harmful than helpful in least winning coalitions but, overall, players' voting power is fairly insensitive to their weights in such coalitions.

*Keywords:* coalitions; voting power; weighted majority games

*JEL classification system:* C71