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Some Surprising Properties of Power Indices

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While it is troubling when power index values change with the index, the problem is more severe; different indices can generate radically different rankings; e.g., a 15-player game exists with over a *trillion* different strict index rankings of the players. In contrast, with a fixed number of players certain indices always share the same ranking; e.g., the Shapley and Banzhaf rankings agree with three players, but they can have opposite rankings with more players. It is explained why index outcomes can be sensitive to assumptions and when players leave a game.