Title
How Poker, Baseball, and Fermat Teach Us the Best Way to Elect the President

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Scale is critical in many realms, but in none more so than in the design of democratic elections to assure large fair individual voting power.   Simple raw undistricted voting can work in small, bloc-free elections, but not at presidential scale because of the Law of Large Numbers: Voting power is, e.g., much greater under the Electoral College than it would be under raw popular voting. The principal defect of our present system is, not that votes have unequal weight, or that the winner may have won fewer popular votes--those anomalies support individual voting power-- but that it counts heads, not votes. A state's electoral vote should be the number of votes it casts (for all candidates). This would suddenly give impotent voters in poorly-contested states (i.e., most states in most elections) large and fair power: A voter who detests her state's dominant candidate could cast a blank ballot which would not count for him nationally; a supporter's ballot would advance his national cause by one vote. Neither voter has any impact whatever now.   By contrast, the Senatorial Electoral votes (two per state) should be kept, at their present level (i.e., ¼ of the average popular vote per state) because small numbers of votes have disproportionately small power per vote. Senatorial Electoral votes usually cancel one another in close elections, but they force candidates to pay attention to small-state voters.   Under such a count, if 6 million popular votes are cast in Florida for all candidates (as against 2 million in the average state),   Florida's winner would receive precisely those 6 million (+ ¼ of 2 million) =6.5 million votes altogether.   Finally, since a too-close state election (e.g., Florida, 2000) can create a national crisis vulnerable to criminals and terrorists, candidates should be forced to win a clear victory in order to earn the presumption of moral unanimity that justifies giving him all of the state's electoral votes.   Failing that, the state's votes should be divided essentially equally between the candidates, Solomonically, according to a rule suggested by the great French mathematician Fermat.   This robust counting, uniformly applied to all states, would avert deadlocks and protect the legitimacy of the result. It would also have reversed the presidential result of 2000.