Abstract   Voting algorithms are used to choose candidates by an electorate. However, voter participation is variable and uncertain, and projections from polls or past elections are uncertain because voter preferences may change. Furthermore, electoral victory margins are often slim. Variable voter participation or preferences, and slim margins of decision, have implications for choosing a voting algorithm. We focus on approval voting (AV) and compare it to plurality voting (PV), regarding their robustness to uncertainty in voting outcomes. We ask: by how much can voting outcomes change without altering the election outcomes? We see fairly consistent empirical differences between AV and PV. In single-winner elections, PV tends to be more robust to vote uncertainty than AV in races with large victory margins, while AV tends to be more robust at low victory margins. Two conflicting concepts — approval flattening and approval magnification — explain this tendency for reversal of robust dominance between PV and AV. We also examine the robustness to vote uncertainty of PV in elections for proportional representation of parties.