

Today: 1-D Categorical
Bar, Spine, Rose, Pie
Statistical Tests for Categorical Data
Wednesday: 2-D Categorical

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Via 538: Chances of Winning Iowa Republican Caucuses

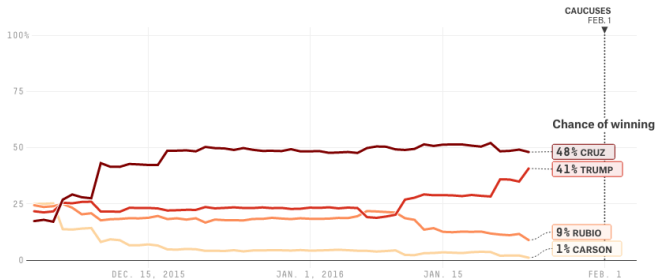
Iowa Republican caucuses

According to our latest **polls-plus** forecast, **Ted Cruz** has a **48%** chance of winning the Iowa caucuses.

Polls-plus forecast

Polls-only forecast

Chance of winning, based on state polls, national polls and endorsements.






Jeb Bush, Chris Christie, Rand Paul, John Kasich, Mike Huckabee, Carly Fiorina and Rick Santorum have less than a 1% chance of winning.

Our forecasts don't produce a single expected vote share for each candidate, but rather generate a range of possible outcomes, shown below. The range will be wider or narrower under certain circumstances: For instance, it narrows as the election gets closer. Our estimate of each candidate's chance of winning the state is based on these ranges.

Via 538: Chances of Winning in New Hampshire (Democrats)

Chance of winning New Hampshire

		POLLS-ONLY FORECAST	POLLS-PLUS FORECAST
	Sanders	86% ▲	61% ▲
	Clinton	14% ▼	39% ▼
	O'Malley	<1%	<1%

Chi-Square Test for Independence

Chi-squared test: Statistical test used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories (of a categorical variable).

2-D Categorical: Used to test differences in the conditional distributions (more on this Wednesday)

1-D Categorical: