

Download Understanding Statistical Error

Let's begin by defining some very simple terms that are relevant here. First, let's look at the results of our sampling efforts. When we sample, the units that we sample -- usually people -- supply us with one or more responses. Some statistical rules of thumb that smart consumers might think apply in polls are more nuanced than they seem. As is often true in life, it's complicated. Statistics is a branch of mathematics dealing with data collection, organization, analysis, interpretation and presentation. In applying statistics to, for example, a scientific, industrial, or social problem, it is conventional to begin with a statistical population or a statistical model process to be studied. An Illustrative Example: Voting Intentions. Let's undertake a simple model building task. We wish to create a model for the percentage of people who will vote for a Republican president in the next election.