HOW DO I EVALUATE DATA AND STATISTICS?
Ask 3 key questions

Who?

Why?

To address the issues of credibility and authority, ask yourself three key questions: Who? Why? and How?

How?
Who collected the information you’ll use in your research? Is the collector impartial or non-partisan? Has the information been gathered by an individual or organization with a particular viewpoint or agenda?
Visit the organization or advocacy group’s web page. Read its mission statement and find out who serves on the group's board of directors or other governing body. What affiliations do these members have? Are they associated with known entities like universities or government agencies?
Library resources may also help. For example, the PolicyFile database indexes studies and reports from think tanks and other policy groups.

Select PolicyFile from the Databases A to Z list on the library home page.
As shown in this illustration, PolicyFile allows you to filter reports by broad subject area and by organization political leaning.
How was the information collected?

It’s important to know about the methods used to conduct the survey, the sample size, etc. These are details that will help you assess the project.
How was the information collected?

Can you detect any biases in the selection of research participants?
Was the survey conducted by phone?
With the increasing prominence of mobile devices are landline surveys still representative?
Information about survey methodology is frequently included in the notes associated with charts, tables, and infographics.
Scholarly articles and research reports provide detailed descriptions of survey or study methodology and reference datasets or statistics used in the publication. In this article, the authors describe the measures they constructed to replicate interaction among Senators.
Who and how?

Some sources may answer more than one question about your data or statistical resource. This example shows a study from the Inter-university Consortium for Political and Social Research (ICPSR). In addition to discussing methodology, the text provides information about the Paul Simon Public Policy Institute. The Institute's mission is described and we learn that the Institute is also the primary source of project funding.
Why was the information collected?

Do the data collectors have a vested interest in a particular outcome?
Are they trying to advocate for a particular policy?
Are the data gathered as part of the process of governing, whether at the federal, state, or local level?
The data may have been gathered for administrative purposes. For example, federal government agencies collect Census data, unemployment numbers, corporate tax returns or airline on-time flight data on an ongoing basis.
When working with data or statistics, it's important to be aware of common pitfalls. Statistics and data presented out of context are confusing and subject to misinterpretation. This infographic on the changing racial and ethnic profile of the US uses a map to represent a concept that has nothing to do with geography.
Another common pitfall is the relationship between correlation and causation.

For example, if a school buys tablets for all students and standardized test scores rise, it’s tempting to think that tablets were the critical element. This may not be the case.
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