Data Literacy 101

Sarah Krichels Goan, M.PP. Senior Research Associate

Data Innovation Project







Good morning!

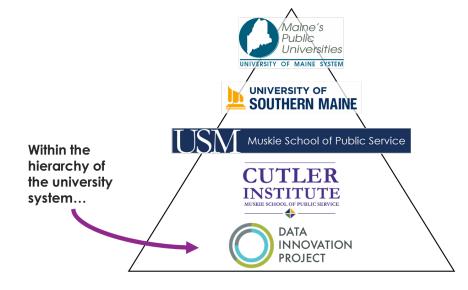
Our Story

Data Innovation Project (DIP)

Founded in 2016 to build the datainformed capacity of Maine's missiondriven organizations.

Our Vision

All Maine mission-driven organizations have the capacity to engage in data-informed decision making to benefit the health and wellbeing of Mainers.







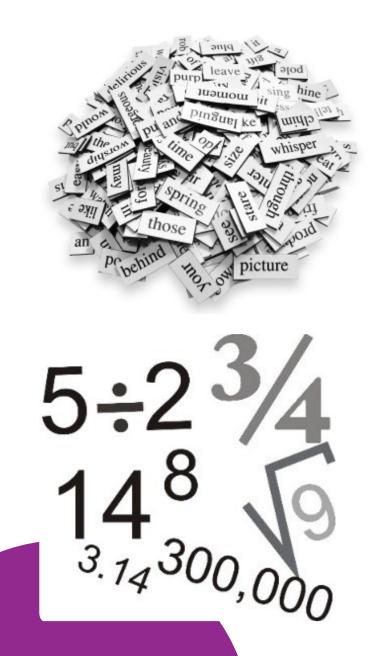
Today's Takeaways

- There are **many forms of data** and information
- Some data sources and research are **more credible** than others
- We have tips and tools and techniques to **identify** credible sources
- When in doubt, ask an **expert!**

- individual **facts**, **statistics**, or **items** of information collected together for reference or analysis
- things known or assumed as facts, making the basis of reasoning or calculation
- the recorded factual material commonly accepted in the scientific community as necessary to validate research findings

What is Data?





Types & Sources of Data

• **Primary (field):** Collecting new data (interviews, focus groups, scans, surveys/questionnaires, observations)

• **Secondary (desk):** Accessing existing sources (surveillance surveys, documents, databases, government or program records, reports)

We can have differences of opinion over how to best gather and interpret facts and information, or draw conclusions.

BUT...

Credible research and sources are clear about what facts and information have been used to draw conclusions (and how).



How do we know that the data and information we are using to inform our decisions is reliable and sound?

Some Guiding Questions



Who is the funder of the research? Who is the source?



What questions is the research trying to answer? How?



How many people does the research represent?



What are the sources of information?



Are there other ways to explain the findings?

Consensus is important.

Are there other studies or sources that support the claims?



What To Look For



Funding source and researcher affiliation clearly stated



Clear methods and information sources



Credible, reliable sources of information (e.g., US Census, rigorous surveys, peer reviewed articles, etc.)



Biases, flaws or limitations are stated

Claims TOO MUCH

NOT okay.

OKAY!

This is how the public feels about [our topic]...



These are the barriers to services...

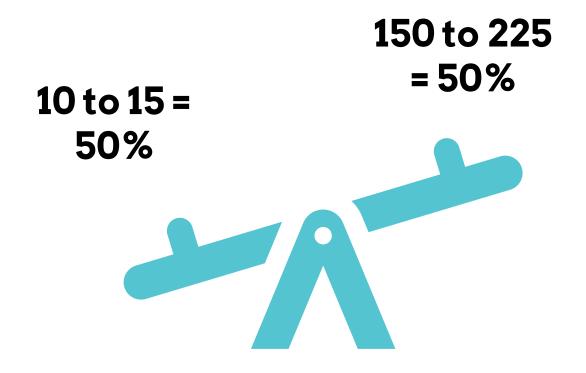


This is how people in our focus group (survey) *were willing to say (said)* they feel.

These are *the barriers identified* by survey respondents (or focus group participants).

Small Numbers, **BIG Claims**

"**E**nrollment in the program has increased by 50% since last year."



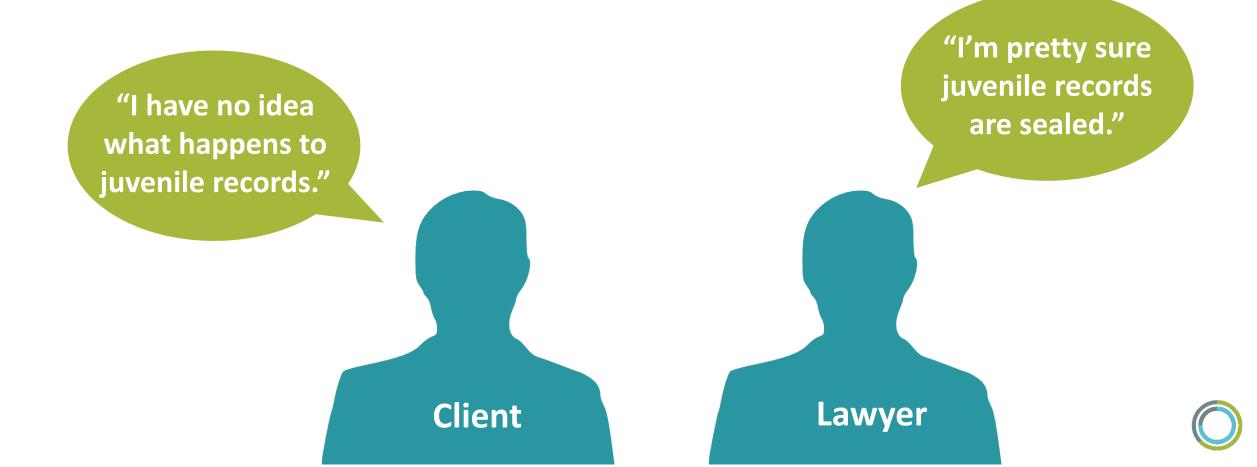
Causation versus Correlation

Fact: 100% of students who complete the DIP Applied Research Fellowship are employed afterwards.

> It is **NOT** a fact that they are employed BECAUSE of our fellowship!

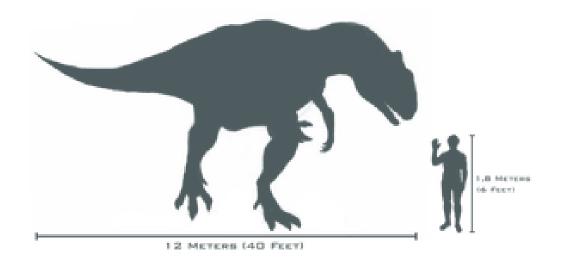


Lacks Important Context



Lacks Important Context

Compared to *what* (who, when)?



Another time, place, group, organization.



Resources

https://scienceisus.org/tools/how-can-i-tell-ifmy-evidence-is-sound/

https://datainnovationproject.org/data-scan/

https://www.unitedforalice.org/stateoverview/maine



Thank you!

Questions?

sarah.goan@maine.edu



Learn more at: www.datainnovationproject.org