

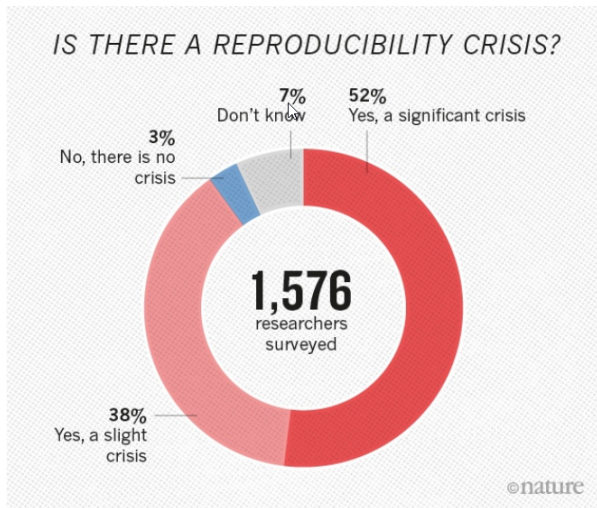
Statistics and R Computing Workshop Using IBIS Data

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UNC-Chapel Hill and IBIS Network

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Reproducibility in the Computing Age



Evidence shows low reproducibility of scientific research despite

- 1 Extensive professional specialization
- 2 Well-developed methodology for study design and data analysis
- 3 Explosion in open source statistical software and computing tools
- 4 Software supported by extensive documentation

How can we turn the tide on the reproducibility issue?

My part:

Principled and detailed statistical consulting and education

Goals with IBIS:

NOT to:

- 1 Teach scientists to be self-reliant statistically
- 2 Use statistical jargon scientists and expect them to decipher

YES to:

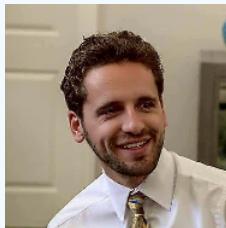
- 1 Teach scientists about fundamental statistical methods and concepts
- 2 Teach scientists good programming practices for data management and visualization
- 3 Focus less on jargon and more on concepts of statistical analysis

Welcome

Motivation for class:

Acting on goals for **whole IBIS network**

About Me



PhD student in Biostatistics

UNC at Chapel Hill

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Basketball and Green Bay Packers enthusiast

Structure for class:

- Lecture and Q+A sessions - 1 hour, twice a month
- Office Hours - 2 hours, twice a month, open
- No slides filled with code, **NO** droning on about coding
- Focus on **live and conceptual programming**
- **All lectures and code publicly available**



"But before we move on, allow me to belabor the point even further..."

Goals for class:

- 1 Primary: Promote the understanding of statistical concepts and mindset
- 2 Secondary: Teach tools in R software for
 - 1 data management
 - 2 data visualization/tabulation
 - 3 exploratory analysis
 - 4 **reproducibility**
- 3 Make statistics and coding less intimidating and more exciting!

Welcome

Class materials: [link](#)

Text for class: [link](#)

Code for text: [link](#)