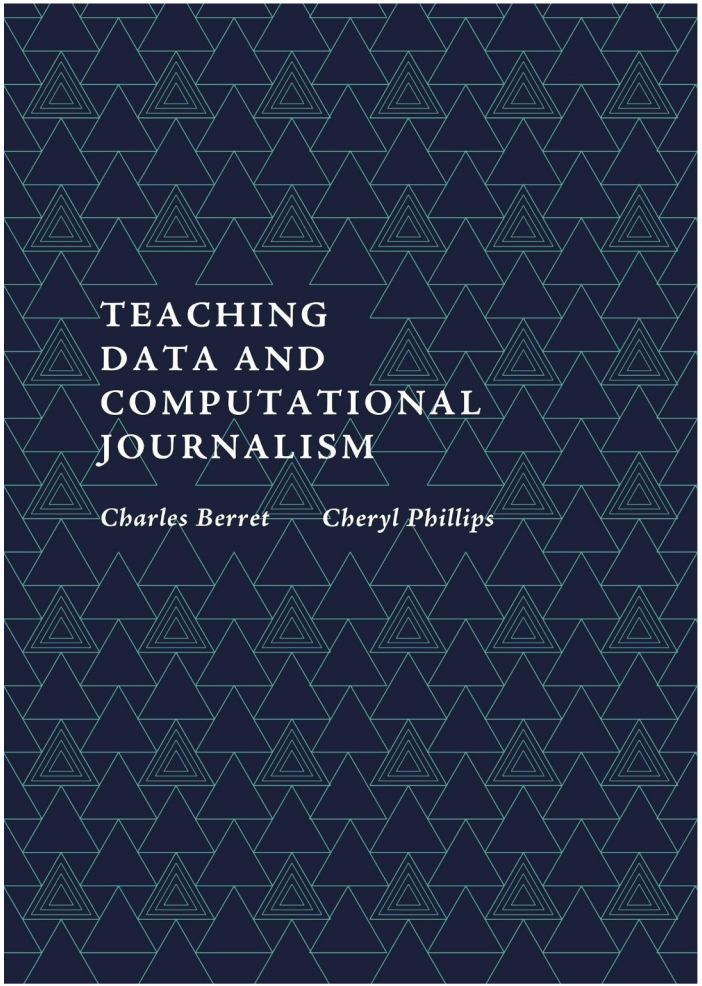


The State of Data and Computational Journalism Instruction: A Nationwide Study

Cheryl Phillips Berret
Stanford University

Charles
Columbia University

Knight Foundation

“What we’re really seeing now is that this is a durable change in the structure of information, and therefore a need to durably change a journalist’s knowledge in order to carry out their core democratic function. Not to build a business model, not to reach more people, not to have more followers, but to actually discover the truth — you need to learn this.”

– Steve Coll

Four Key Areas of Data Journalism

Data Reporting

- obtaining, cleaning and analyzing data for use in telling journalistic stories

Data Visualizations and Interactives

- using code for digital publishing and database management to build maps, visualizations, and other interactive content.

Computational Journalism

- the use of algorithms, machine learning, and other computational methods to accomplish journalistic goals

Emerging Technologies

- drones, sensors, AR/VR, and whatever comes next

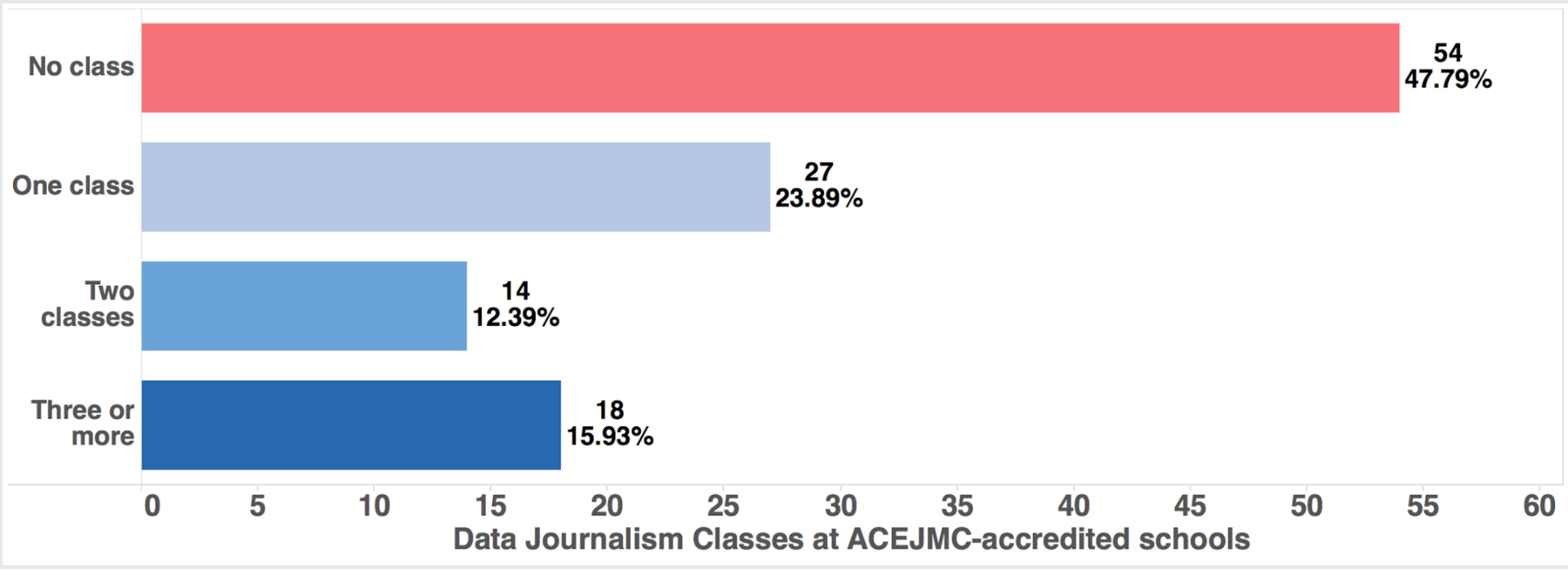
Among our findings

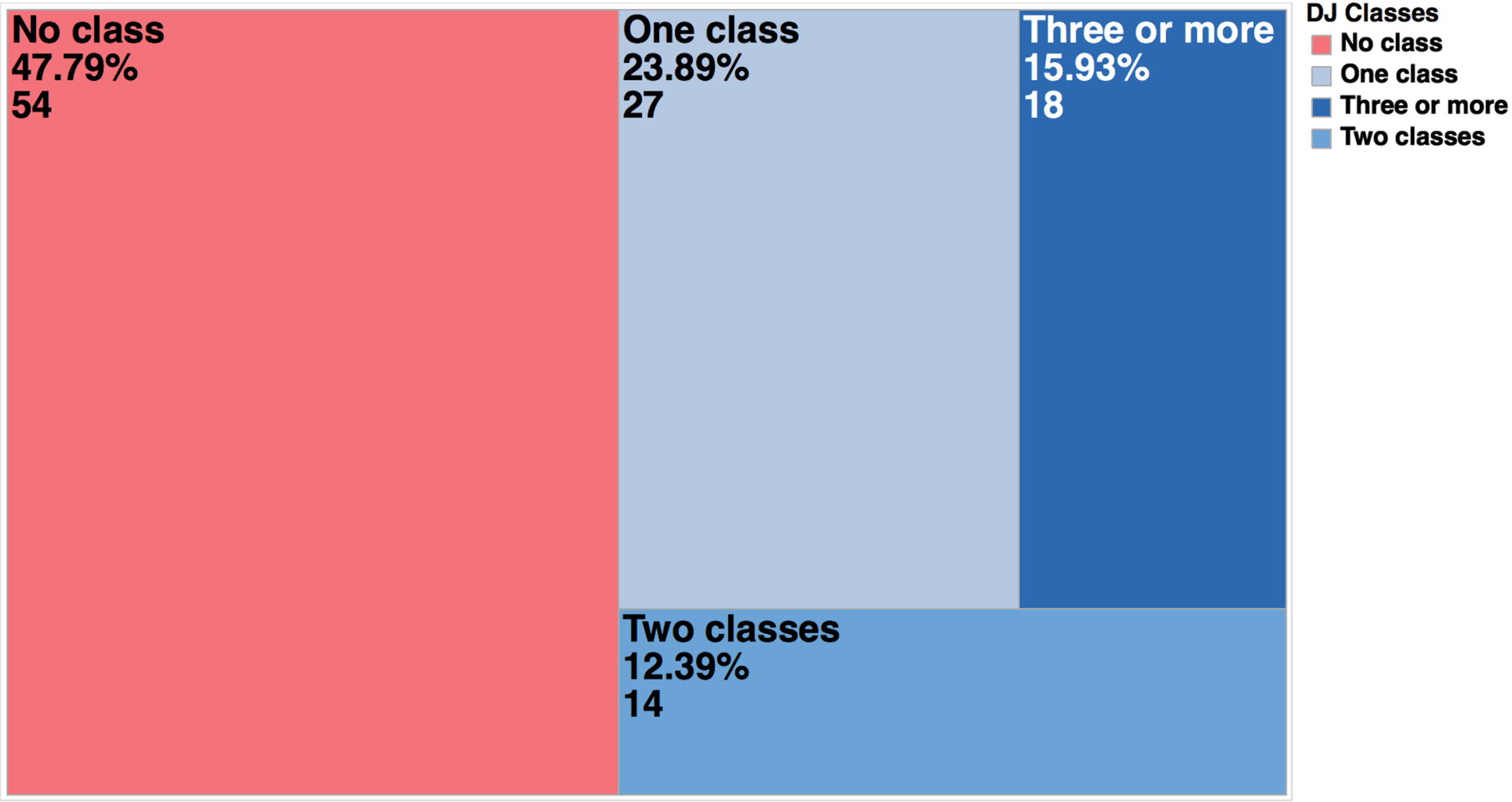
- Many journalism programs offer few courses in data journalism, and nearly half offer no classes at all.
- The classes offered are largely introductory.
- A handful of foundational textbooks are used in most data journalism classes, but few options for teaching advanced skills or the history of the field.
- Many journalism schools do not have a faculty member skilled in data or computational journalism. Qualified applicants are hard to find.
- Graduates with data skills tend to do better on the job market compared to peers without data skills.

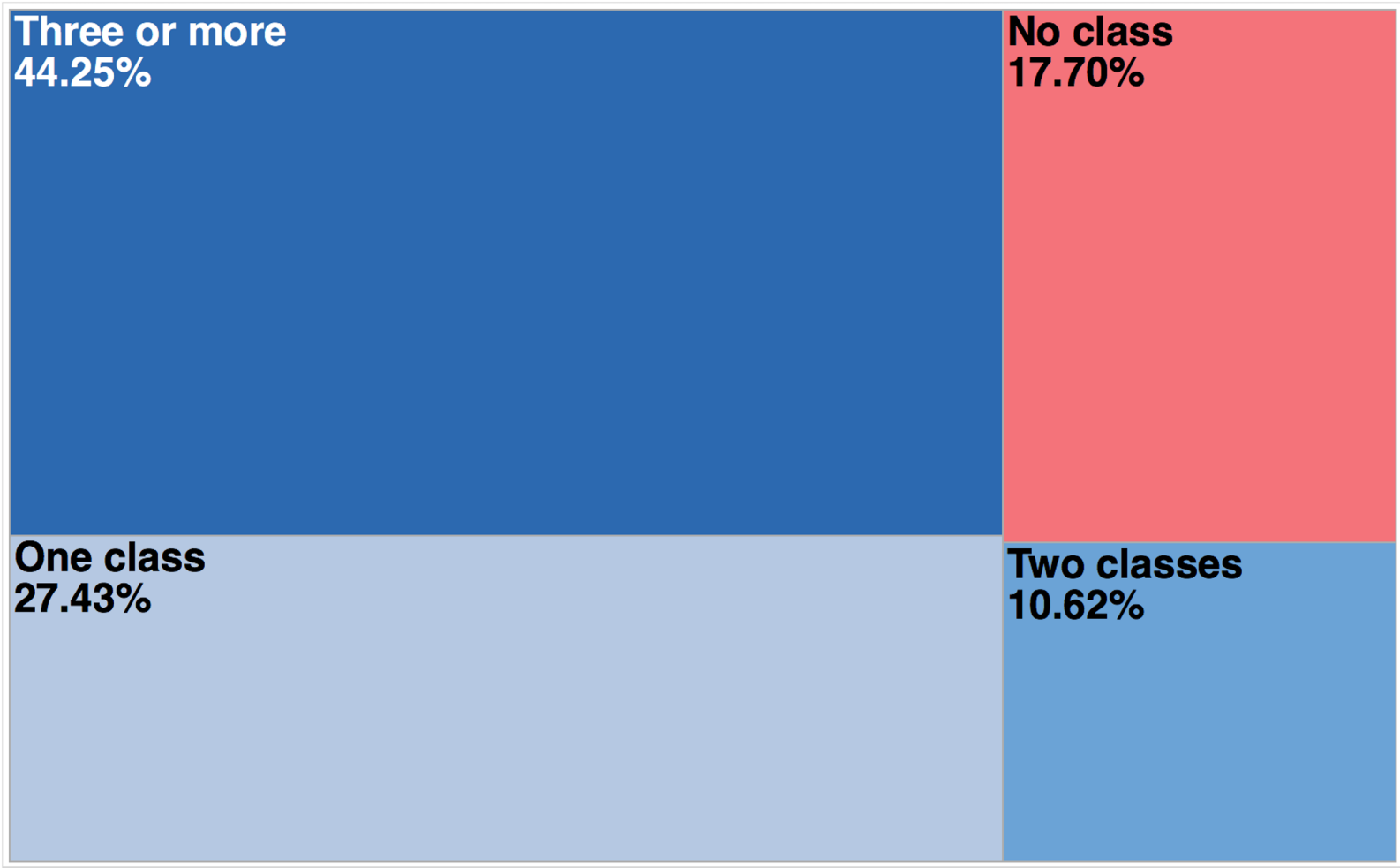
Methodology: Course Offerings

- Sample: the 113 graduate and undergraduate journalism programs accredited by ACEJMC
- We collected course offerings from each school through their online catalogs and web sites.
- For all schools where no data journalism class was listed, we followed up directly with the school to double-check.
- We went back and verified the data one more time.

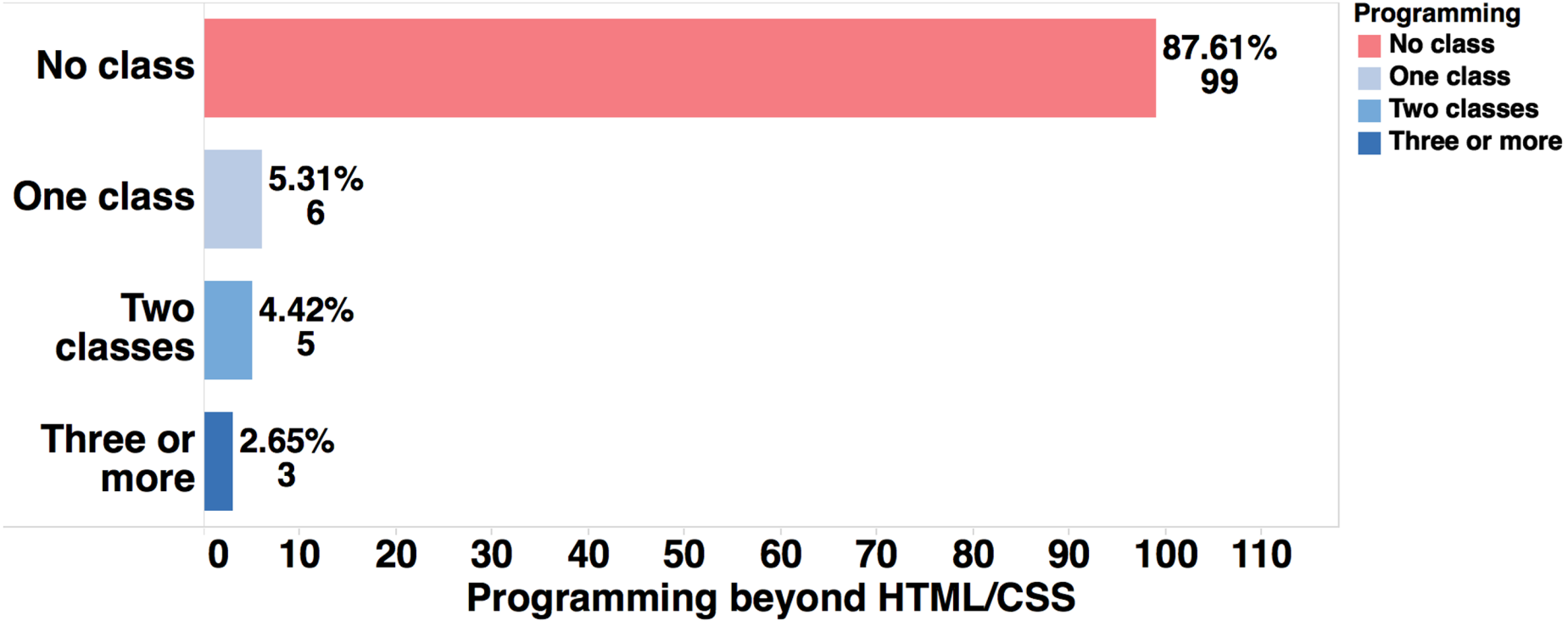
Data journalism classes at ACEJMC-accredited schools



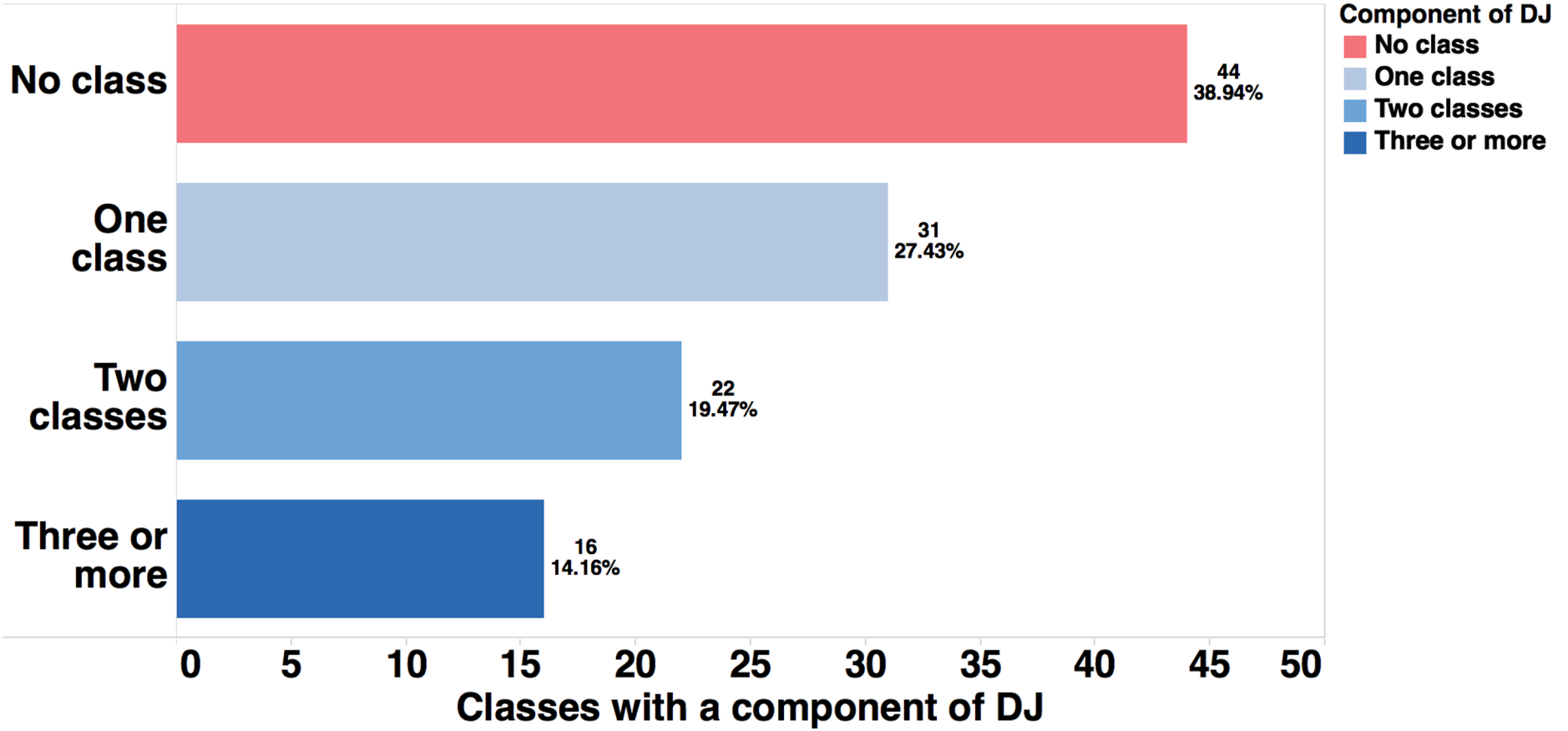

No class
47.79%
54
One class
23.89%
27
Three or more
15.93%
18
Two classes
12.39%
14
DJ Classes
No class
One class
Three or more
Two classes


Three or more
44.25%
No class
17.70%
One class
27.43%
Two classes
10.62%
Multimedia
No class
One class
Two classes
Three or more

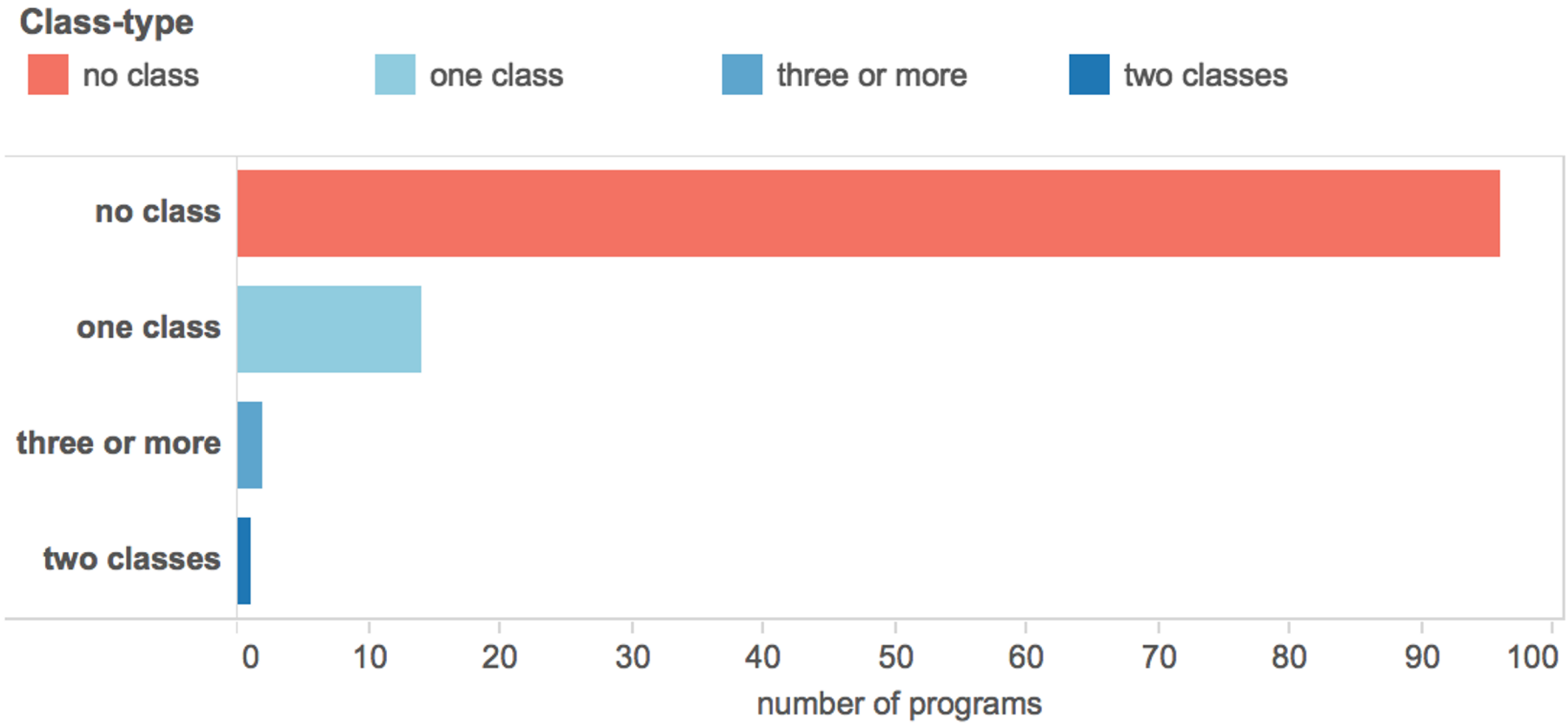
Programming classes (beyond HTML/CSS)



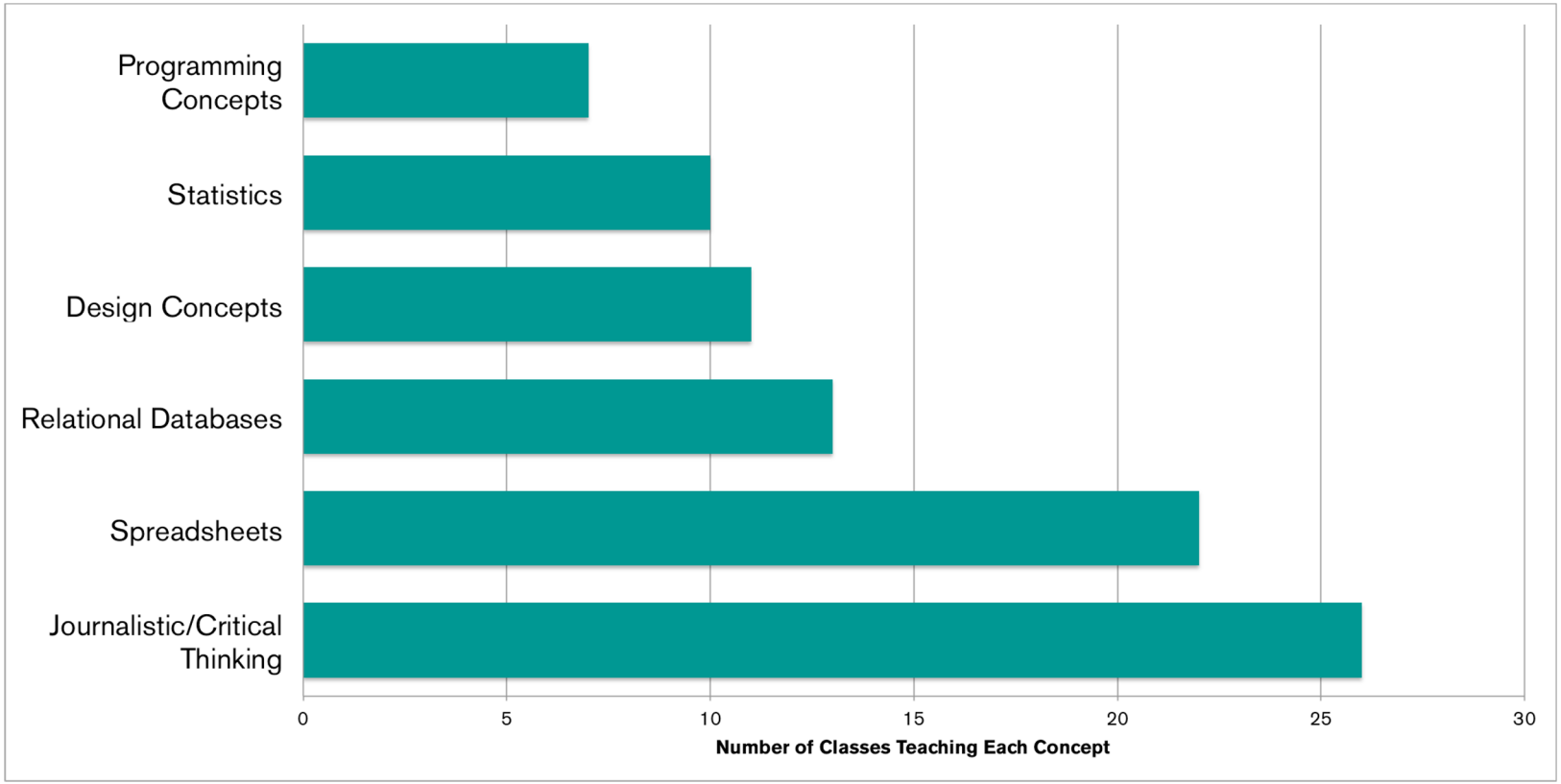
Classes that include a component of data journalism

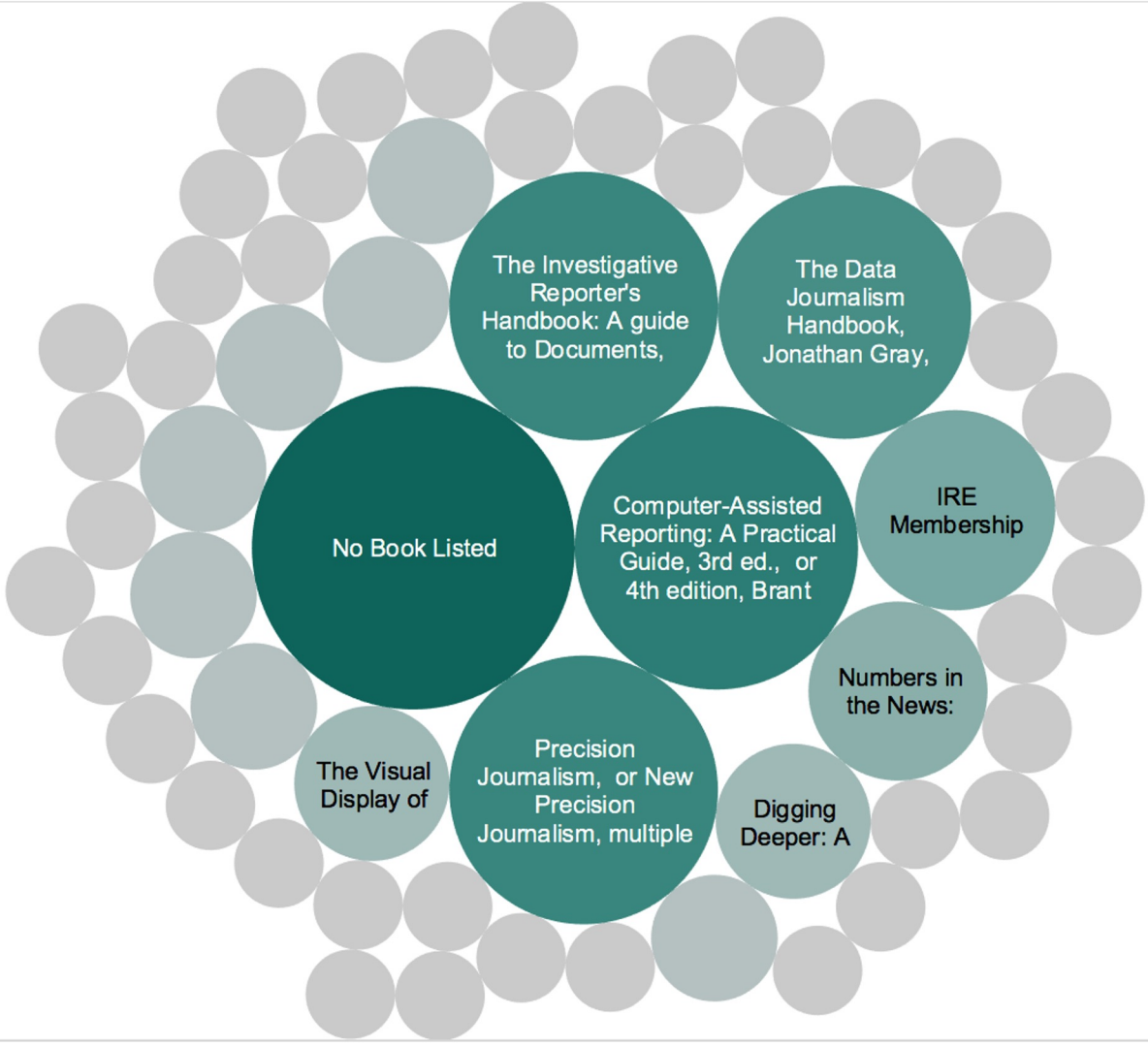


Programs offering data visualization classes



Topics represented in a collection of 63 data journalism syllabi




The Investigative Reporter's Handbook: A guide to Documents,
The Data Journalism Handbook, Jonathan Gray,
No Book Listed
Computer-Assisted Reporting: A Practical Guide, 3rd ed., or 4th edition, Brant
IRE Membership
Numbers in the News:
The Visual Display of
Precision Journalism, or New Precision Journalism, multiple
Digging Deeper: A

Five Model Curricula

1. **One Required Course: Foundations of Data Journalism**
2. **Integrating Data into Existing Courses**
    a. Media Law and Ethics
    b. History of Journalism
    c. Investigative Reporting
    d. Feature Writing and Long-Form
    e. Social Media
    f. Business Reporting
    g. Global Reporting
    h. Science and Environmental Reporting

Five Model Curricula

3. Concentration in Data & Computational Journalism

- adaptable to undergraduate and graduate levels

4. Expertise-Driven Reporting on Data and Computation

- stressing writing with and about data

5. Emerging Journalistic Techniques and Technologies

- graduate level study in new platforms and media innovation

Institutional Challenges

Resources

- Some students don’t have necessary equipment

Faculty Expertise

- Finding qualified faculty is often difficult

Incoming Skill Levels and Literacies

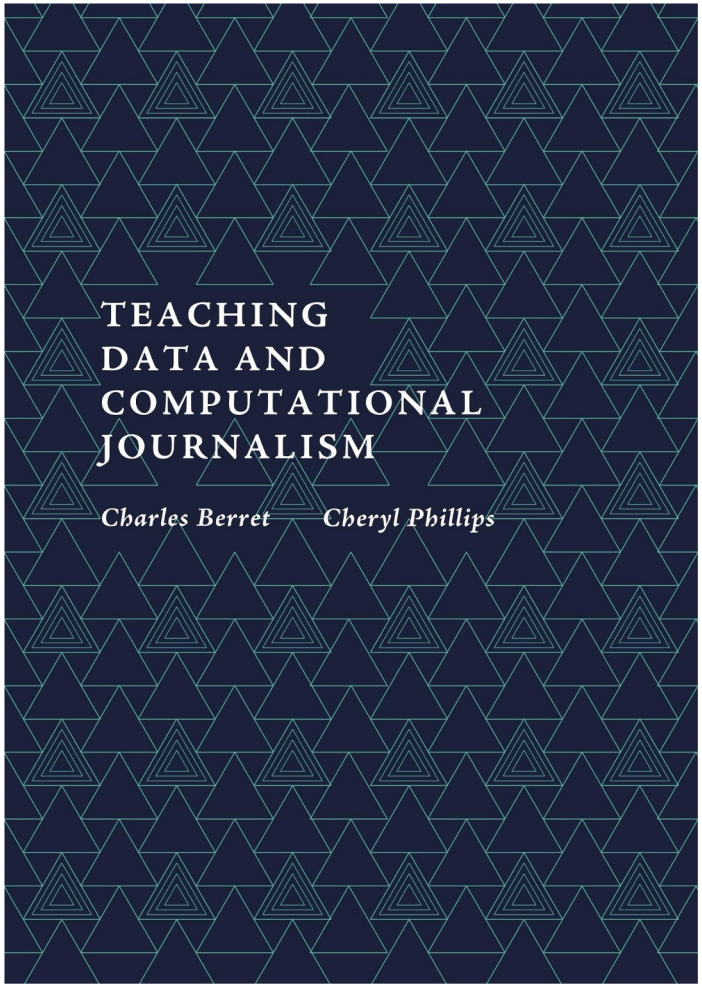
- Many students actively avoid math, stats, and other technical matters.

Student Engagement

- How to get students interested in learning data skills

Among our recommendations

- Every journalism program should have a core, required course on analyzing data to find stories. Advanced electives should be offered, if possible.
- Journalism schools should collaborate across the University.
- Journalism schools can integrate alternative teaching methods to help fill the gaps in their own faculty (team teaching, online course, independent tutorial packs).



PDF:

http://brwn.co/teachingdatapdf

GitBook:

http://brwn.co/teachingdata