Visualizing Political Data
AKA Sloppy Stats and Lousy Graphs

Fall 2022

Instructor: Sarah Moore (she/her)	**Time:** T & TH 11:00-12:20
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Course Pages:

1. Course schedule and additional course information:
   https://github.com/sarah-moore/lousy-graphs

2. https://canvas.northwestern.edu/

Drop In Hours: Mondays 2:00-4:00 or Thursdays 10-11 and 12:30-1:30, **Scott 404**

Main References: There are no texts that are required to purchase for this course. However, you might find these texts useful as guides to learn and troubleshoot in R.

- Healy (2018) *Data Visualization* https://socviz.co/lookatdata.html

- Wickham (2019) *ggplot2* https://ggplot2-book.org/

- Moore (in development), *Computational Programming for the Social Sciences* https://nupolisci.github.io/nu_socscir/index.html

Objectives:

How do data savvy experts make quantitative research on political topics readable to the broader public? We'll focus on ways to accurately capture and convey complex topics while unpacking misleading, uninformative, and otherwise unsatisfactory graphs and statistics. This course will broadly focus on two primary components of meaningful research engagement with headline political topics: data literacy and honest, concise description. Over the quarter, students will be exposed to different theories of data science and visualization paired with applied examples of the portrayal of data in popular media. Particularly, we will hash out the dos and don'ts of writing about political or potentially controversial topics for broad audiences, as well as how to dispel misinformation with your own analyses. Students will then learn how to translate these skills into data-informed, public scholarship of their own. Using reputable public opinion data or broadly accessible political science datasets, students will engage with data journalism and author their own public-facing pieces that are in conversation with relevant political headlines—mindful of maintaining rigor while speaking to a diverse audience.

An entry level empirical statistics course, such as POLISCI 210 or the statistics department equivalent, are required. Basic familiarity with statistical programming in R is encouraged.

Course Learning Outcomes

1. Applied management of data:

   This course will ask students to apply their computational skills to the wrangling, analysis, interpretation, and visualization of different types of data from disparate contexts. The assignment load requires that, by the end of the course, students will have worked with several data sources, computational packages in R, and troubleshot coding problems by themselves or with peers, such that they can engage in similar tasks independently.

2. Writing for public audiences:

   All writing and visualization tasks in this course will require that students speak about political topics in different tones and registers. The assignments will require that students adapt their interpretation and visualization of political data for different audiences, as well as think about how to reconfigure existing academic literature toward more public facing consumption.

3. Critical engagement with concepts in political science:

   Students will be exposed to political science concepts that they must not only understand substantively, but also engage with toward the end of meaningful visualization in relation to other concepts and variables. Students will address how to think about measurement, scaling, and utility of different variables in relation to the political science concept that they are trying to model.

4. Project management and peer review:

   The deliverables of the course will all be subject to peer review and constructive criticism. This will require that students engage thoughtfully in building out their portfolio over time and the design space that they choose. Furthermore, peer review relationship will require that students build rapport with one another to offer substantive comments to classmates regarding their work, building professional skills about how to offer constructive, helpful comments that are within the scope of the writer's and course's goals.

Statement on Democratic Design

This is a preliminary draft of the syllabus. I have opted to allow students to have direct engagement with the learning outcomes by empowering them to help modify the syllabus. Students are encouraged to submit feedback and ideas for changes in the syllabus related to their desired learning experience during a comment period. During the comment period, students should submit suggestions, requests, and modifications to this form: https://forms.gle/AeYFFMwgwqXYbMJm7.

The comment period will take place over the first week of the class. Student should ensure that the comments relate to the course learning outcomes outlined above and the spirit of the overarching course. Upon reasonable incorporation of the feedback obtained during the comment period, I will ask that the students vote by majority in the second week to approve the modified syllabus. The modified

syllabus will serve as the course contract for the remainder of the quarter.

Graded Materials:

1. **Build a Blog—Process (80% total)**

   Over the course of the quarter, students will be required to build a site—the privacy of which is up to the student, so long as it is available to the class. The build of this site will be phased through the quarter. Students are highly encouraged to read how to make these sites accessible to individuals with different abilities.

   (a) *Initial site build and accessibility*- 10%

   (b) *Visualization Dump*- 15%

   Throughout the quarter you will have 3 opportunities to submit a visualization blog of the week. Each visualization blog will contain 3 data visualizations: 1 that you love, 1 that you hate, 1 of your own. Include the visualization's context, an evaluation, and citation of each of these visualizations or the data source. Each blog week will focus on a specific theme, designated in the week preceding the post by the instructor. These themes will focus on both a current event as well as a specific element of data visualization.

   (c) *2 Short Form Blogs with relevant, original data visualizations* (∼1,200 words)- 30%

   (d) *Final Blog Compilation*

      i. *Edit & Redesign* (10%): At the end of the quarter, you will redesign, edit, and proofread all previous blog submissions based on your peer and instructor review, as necessary.

      ii. *Academic Translation* (15%): As a final addition, you will also be required to translate a piece of already published political science work into a public-facing piece. This will be specifically interesting if you are able to nest it in historical news headlines—as if it were written when the headlines were relevant.

   As a note, the work may seem like a lot to begin with. However, you are welcome and encouraged to use drafts of your visualization dumps in your short form blogs!

2. **Participation (20%)**

   Attendance in class is mandatory. The participation grade will be dependent on participation in class AND peer-review of other students' materials. Over the quarter, you will have a class peer that will be your peer-reviewer for all submitted assignments, except for the weekly visualization dumps. The participation grade will reflect your satisfactory completion of peer-review tasks.

Important Dates:

Course Policy:

- **Academic Integrity Statement**

  Students in this course are required to comply with the policies found in the booklet, "Academic Integrity at Northwestern University: A Basic Guide". All papers submitted for credit in this course must be submitted electronically unless otherwise instructed by the professor. Your written work may be tested for plagiarized content. For details regarding academic integrity at Northwestern or to download the guide, visit: https://www.northwestern.edu/provost/policies/academic-integrity/index.html

- **Accessibility Statement**

  Northwestern University is committed to providing the most accessible learning environment as possible for students with disabilities. Should you anticipate or experience disability-related barriers in the academic setting, please contact AccessibleNU to move forward with the university's established accommodation process (e: accessiblenu@northwestern.edu; p: 847-467-5530). If you already have established accommodations with AccessibleNU, please let me know as soon as possible, preferably within the first two weeks of the term, so we can work together to implement your disability accommodations. Disability information, including academic accommodations, is confidential under the Family Educational Rights and Privacy Act.

- **COVID-19 Classroom Expectations Statement**

  Students, faculty, and staff must comply with University expectations regarding appropriate classroom behavior, including those outlined below and in the COVID-19 Code of Conduct. With respect to classroom procedures, this includes:

  Policies regarding masking and social distancing evolve as the public health situation changes. Students are responsible for understanding and complying with current masking, testing, Symptom Tracking, and social distancing requirements. In some classes, masking and/or social distancing may be required as a result of an Americans with Disabilities Act (ADA) accommodation for the instructor or a student in the class even when not generally required on campus. In such cases, the instructor will notify the class. No food is allowed inside classrooms. Drinks are permitted, but please keep your face covering on and use a straw. Faculty may assign seats in some classes to help facilitate contact tracing in the event that a student tests positive for COVID-19. Students must sit in their assigned seats.

  If a student fails to comply with the COVID-19 Code of Conduct or other University expectations related to COVID-19, the instructor may ask the student to leave the class. The instructor is asked to report the incident to the Office of Community Standards for additional follow-up.

- **COVID-19 Testing Compliance Statement**

  To protect the health of our community, Northwestern University requires unvaccinated students who are in on-campus programs to be tested for COVID-19 twice per week.

  Students who fail to comply with current or future COVID-19 testing protocols will be referred to the Office of Community standards to face disciplinary action, including escalation up to restriction from campus and suspension.

- **Exceptions to Class Modality**

  Class sessions for this course will occur in person. Individual students will not be granted permission to attend remotely except as the result of an Americans with Disabilities Act (ADA) accommodation as determined by AccessibleNU.

  Maintaining the health of the community remains our priority. If you are experiencing any symptoms of COVID do not attend class and update your Symptom Tracker application right away to connect with Northwestern's Case Management Team for guidance on next steps. Also contact the instructor as soon as possible to arrange to complete coursework.

  Students who experience a personal emergency should contact the instructor as soon as possible to arrange to complete coursework.

  Should public health recommendations prevent in person class from being held on a given day, the instructor or the university will notify students.

- **Recording Class Sessions**

  Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact AccessibleNU. Unauthorized use of classroom recordings – including distributing or posting them – is also prohibited. Under the University's Copyright Policy, faculty own the copyright to instructional materials – including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

- **Support for Wellness and Mental Health**

  Northwestern University is committed to supporting the wellness of our students. Student Affairs has multiple resources to support student wellness and mental health. If you are feeling distressed or overwhelmed, please reach out for help. Students can access confidential resources through the Counseling and Psychological Services (CAPS), Religious and Spiritual Life (RSL) and the Center for Awareness, Response and Education (CARE). Additional information on all of the resources mentioned above can be found here:

  https://www.northwestern.edu/counseling/

  https://www.northwestern.edu/religious-life/

  https://www.northwestern.edu/care/