

GOV 339L: Research Methods in Government

(Fall 2022)

Current August 17, 2022

Professor Kenneth Greene	TA:	Class meets: T TH 12:30-2
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Office hours online T TH 10:30-12	Office hours	

This course provides an introduction to the methods used in political science (AKA Government) for making *causal* arguments (i.e., why outcomes of interest occur or do not occur). Most of these methods are common to research in all social science disciplines. After learning about the building blocks of causal analysis, we will examine three empirical research strategies: 1) experiments, 2) “large N” or quantitative studies that use statistics, and 3) “small N” studies that typically analyze qualitative data. The goals of the course are to provide students with the analytic tools to critically evaluate social science research and causal arguments found in everyday life, as well as improve students’ ability to pose and answer research questions on their own.

How to succeed in this course: The content of this course builds throughout the semester. It is crucial to keep up consistently and ensure that you understand the content of each session before moving on. Please re-read the last sentence and believe it. Specifically, I offer the following advice:

- Attend all sessions live and focus during lectures. Experience suggests that students struggle significantly to complete the class if they miss any session.
- Take detailed notes.
- Quiz yourself on the content after every lecture to make sure you understand the material. I suggest re-writing your notes as part of this process. One exposure to the material is rarely sufficient. The course reading is light on the assumption that you will spend time out of class reviewing, questioning, and thinking through the lecture material.
- Watch recorded lectures again, as needed. Unless required due to illness, I strongly encourage you to attend live lectures.
- Ask questions to clear up uncertainties right away. Do not plan to make sense of the material later, only when you need it for graded assignments. Don't let that nagging uncertainty slip by. You may ask questions during lecture, in office hours, or by e-mail (though this is the least preferred option).
- Complete the self-guided and non-graded practices noted in the syllabus with the symbol \Rightarrow
- Optionally participate in the online discussion group on Canvas and/or form study groups (but always write your own answers for all graded material). Discussions are mainly student generated and moderated. The TA and I will check in every once in a while. Content should be aimed at understanding the material; sharing homework and exam re-write answers is not permitted.
- Plan your semester so that you do not fall behind. Again, keeping up consistently is crucially important for success in this course.

Pandemic policies

Assignment due dates. I understand that the pandemic has created added economic, emotional, and physical challenges for many people. We will do everything we reasonably can to help you continue toward your goal of graduating from UT. If you need help, get in touch with us as early as you can. Our options rapidly diminish as due dates approach and typically disappear after due dates have passed. Treating all students in the course fairly and adhering to university policies are overriding concerns for us. Within that context, we will work as hard as we reasonably can on your behalf.

Attendance. Because mastering the course material requires keeping up consistently, attendance is graded (see below); however, there is flexibility to allow you to stay home and seek appropriate medical care if you feel ill. I will record lectures using Zoom, with access through the course Canvas page. Our classroom is not properly equipped for this purpose, so I cannot guarantee quality. Lecture slides will be posted on Canvas.

Classroom protocols

- You are strongly encouraged to wear a high-quality and well-fitted mask to in-person sessions. If you do not have a mask and want one, I will have basic surgical masks available.
- If space allows, please leave an empty seat between you and the next student, unless by mutual agreement.
- No seating in the first row.
- Students that prefer not to wear a mask are asked to sit in the back two rows.
- For personal reasons, I ask that you give me at least six feet of space at all times. I recognize that this may be contrary to habit and may require you to reserve private conversations for office hours.
- Free COVID-19 vaccines are available through UT-Austin. That and other information is available at <https://protect.utexas.edu/>

Grading. Plus/minus grading will be used. Final grade percentages of $\geq 0.5\%$ will be rounded up to the next whole number. The final grade will be determined as follows:

<u>Graded assignments</u>	<u>Percent of grade</u>	<u>Calculation of final grades</u>	
Exam 1 (Sept 20)	20%*	A	93-100%
Exam 2 (Oct 18)	15%*	A-	90-92%
Exam 3 (Dec 1)	20%	B+	87-89%
Homework (6 @ 5% each, due dates below)	30%	B	83-86%
Attendance (0.5% for each session)	10%	B-	80-82%
At least one office hours visit (Sept 1-Nov 29)	2%	C+	77-79%
Student survey – entry (Sept 1)	1%	C	73-76%
Student survey – exit (Nov 17)	1%	C-	70-72%
Reflection 1-pager (Sept 8)	1%	D+	67-69%
		D	63-66%
		D-	60-62%
		F	Below 60%

* See below regarding exam re-writes

Exams. There are three exams. Unless the pandemic requires a change, these exams will be held in-class. Early exams will not be given. One exam may be postponed for up to six days due to a genuine emergency. Please notify me ahead of time unless you are truly unable to do so.

During exams, the following are not allowed: calculators that can calculate statistics (even if you do not know how to use these functions), cell phones, computers, and other communication devices. Cheating earns an F on the assignment and referral to the Dean of Students for disciplinary action with my recommendation for expulsion from the university. For more information on scholastic dishonesty, see <http://deanofstudents.utexas.edu/sjs>.

Exam re-writes. You may re-write your answers to Exam 1 and Exam 2 after initial grading and after we go over the answers in class. Fully corrected answers will receive 25% of the missing points back; partially correct answers get fewer points at the discretion of the TA; incorrect answers receive no additional credit. For example, if you earned an 80/100 on the exam initially and fully corrected all the initially incorrect answers, your new score for the exam would be $80 + 0.25 \cdot (100 - 80) = 85/100$. The worse you do initially, the more you stand to gain, but because you can only earn up to 25%, it is strongly in your interest to do as well as possible on each exam the first time around. Re-written exams are due one week after initial grades are returned (*anticipated* due dates are October 6 and November 3). There are no extensions. This option is not available for Exam 3.

Homework assignments. There will be six graded homework assignments. Each assignment is 5% of the final grade, regardless of the number of points on any particular assignment. Students will have one week to complete each homework. For certain assignments, as noted in the syllabus, no late assignments will be accepted for any reason and there are no make-ups. For others, late assignments can be accepted up to six days past the due if you have a genuine emergency and if you get approval from me before the original due date. Ten percent of the total point value will be deducted per day for late assignments without prior approval. No re-writes on the homework assignments.

Attendance. Students receive 0.5% of their final grade up to a maximum of 10 percentage points for attending each lecture session live and in-person starting August 25. Exam dates are not included. There are 24 grade-earning opportunities. You will get the maximum credit for attending 20. However, it is strongly encouraged that you do not miss ANY session during the semester. The two-session allowance is to allow you to stay home without penalty if you are feeling sick. No documentation of illness if required. There are no further "excused absences" for any reason.

Graded office hours visit. Students must attend at least one scheduled 15-minute office hour visit between Sept 1 and Nov 29 to discuss progress in the course and clear up any uncertainties about the material, worth 2% of the final grade. Students must sign up on their own initiative. Be aware that office hours fill up around exams and toward the end of the semester. I am not able to schedule extra office hours to accommodate late requests, so attending earlier in the semester is advised. Contact me ASAP if you have a regular schedule conflict.

Student survey. There are two surveys for you to fill out – one toward the start of the semester and one toward the end of the semester. They will only take a few minutes and each is worth 1% of the final grade. The surveys ask some personal questions and are not anonymous. If you want an alternative assignment, please contact me at least one week before the survey due date.

Reflection 1-pager. Type about a page on why it is important for you to learn social science research methods. Is it important so that you can understand the readings in your other classes? To prepare you for graduate school or law school? To become a more critical consumer of news, advertising, and arguments found in everyday life? If it's only important to fulfill a requirement and graduate, write that and say more about the lack of importance for understanding research for other aspects of your life. The point of the assignment is for you to think about why you are here and what you want to get out of the course. We would love to read your genuine thoughts, not what you think we might want to see. Nothing you write will impact your other grades in the course in any way.

Participation. Participation is not graded, but questions, comments, and clarification requests are strongly encouraged during lectures. Verbal participation in class is one of the few ways (other than body language, snoring, etc.) that I can gauge whether you understand the material.

Lecture recordings. Lecture sessions will be available for later streaming on Zoom with links on the course Canvas page.

Office hours: Office hours will be online. Instructions for scheduling time slots will be sent out at the start of the semester. These hours are for you and I encourage you to use them. I promise that I'm easy to talk with.

Flag and major requirements. The course carries the Quantitative Reasoning (QR) flag and fulfills the Tools requirement for the GOV major <http://catalog.utexas.edu/undergraduate/liberal-arts/degrees-and-programs/bachelor-of-arts-plan-i/government/>.

Special Needs: Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, <http://www.utexas.edu/diversity/ddce/ssd/>. Those who have official university accommodations or are absent due

to religious observance will be accommodated to the very best of our abilities. Please let me know at the beginning of the semester so that we can plan accordingly and schedule alternative rooms, if necessary.

Absence for Religious Holidays. Please let me know ahead of time if absences occur on days when homework assignments are due. Make sure to get notes from a classmate and talk with me about the in-class material you missed.

Guns: Pursuant to SB11 (<http://www.legis.state.tx.us/tlodocs/84R/billtext/pdf/SB00011F.pdf>) and UT-Austin Campus Carry Policy (<https://campuscarry.utexas.edu/> and <https://www.policies.utexas.edu/policies/campus-concealed-carry>), persons with a current legally valid Concealed Carry License may carry a concealed legal handgun on or about their person in this class. Neither open carry nor permitless carry are allowed on campus. Please take note of the following:

1. All legal provisions associated with concealed carry on campus must be followed without fail at all times. In addition to SB11 and UT-Austin Campus Carry policy, please review applicable law curated by TX DPS (<http://www.txdps.state.tx.us/InternetForms/Forms/CHL-16.pdf>).

Please take special note of two of the many legal provisions:

- a. Holstering requirements: “A license holder who carries a handgun on campus must carry it in a holster that completely covers the trigger and entire trigger guard area. The holster must have sufficient tension or grip on the handgun to retain it in the holster even when subjected to unexpected jostling” (UT-Austin HOP 8-1060, VII-A-2).
 - b. “On or about your person means a person licensed to carry a handgun must carry a handgun in a manner that the handgun is close enough to the license holder that he or she can reach it without materially changing position” at all times (UT-Austin HOP 8-1060, IV).
2. Open carry, including partially or wholly visible guns, is not permitted on campus at any time except “under circumstances in which the actor would have been justified in the use of force or deadly force” (SB11, Section 4 and Texas Penal Code, Section 46.035(a-1)). Violation is a Class A misdemeanor or a third-degree felony.

Other: You may use laptops and tablets in this class; however, please only have a word processing or data management program open so that you do not distract other students seated behind you. Also, please silence your phones during class. If an emergency requires you take a call or communicate via text etc., please step out of the classroom – no need to ask permission. During exams, computers, phones and other communication devices are not permitted.

Readings and equipment

- All readings will be uploaded to Canvas or linked directly from this syllabus. The amount of reading is light but the content is dense. I encourage you to read each selection twice. Read as you would read a math book, not as you would a novel.
- You will need a basic calculator (with square and square root functions) for the statistics segment. During exams, cell phones and other communication devices as well as graphing calculators or any device that can compute statistics are not allowed, even if you do not know how to use these functions.
- During class, well-fitted and high-quality masks such as KN95 are strongly encouraged. Research findings are unequivocal that masks help diminish the spread of COVID-19 and other contagious disease.

SCHEDULE

Introduction and Overview (August 23, August 25)

- Read this syllabus before coming to the first class meeting, taking note of all policies and due dates. Pay close attention to the section called “How to succeed in this course”.
- Adam Grant, *Think Again: The Power of Knowing What You Don't Know*. New York: Viking Press, 2021, pp. 15-31.
- Janet Buttolph Johnson, Richard Joslyn, and H.T. Reynolds, *Political Science Research Methods*, 4th edition, CQ Press, 2001, pp. 1-36.
- Listen to *Hidden Brain*, Episode 32: The Scientific Process, May 24, 2016. 28 minutes.
<https://www.npr.org/2016/05/24/477921050/when-great-minds-think-unlike-inside-sciences-replication-crisis>

Student survey – entry. Available on Canvas. Due September 1 by 12:00pm NOON

Homework 1 (“Asking ‘Why’ Questions”) available August 25, due September 1 by 12:00pm NOON

THEME 1: FUNDAMENTALS OF CAUSAL ANALYSIS

Criteria for Causality (August 30, September 1)

- △ Re-read the syllabus section above called “How to succeed in this course”.
- △ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Shively, pp. 73-76.
- Louise White, *Political Analysis: Technique and Practice*, 4th ed, Fort Worth: Harcourt Brace, pp. 126-130.
- Early Babbie, *The Practice of Social Research*, Belmont, CA: Wadsworth, pp. 72-77.
- *Sheryl Gay Stolberg, “Science, Studies, and Motherhood,” in *The New York Times*, April 22, 2001.
- *Associated Press, “How Grade Delay Affects Children,” October 7, 1997.
- *Associated Press, “Math adds up to College, Report Says”.
- *Bethany L. Peters and Edward Stringham “No booze? You may lose: Why drinkers earn more money than nondrinkers” *Journal of Labor Research*, December 2006, Volume 27, Issue 3, pp 411–42. Just read the one paragraph abstract here <https://link.springer.com/article/10.1007/s12122-006-1031-y> or this brief news report on the study here <https://reason.org/news-release/report-drinkers-earn-more-mone/>
- Mets Article, “You Gotta Believe,” *San Francisco Chronicle*.
- ⇒ Practice: a) Review and memorize the criteria for causality. b) Before class, see if you can identify which criterion the readings with asterisks violate. how the analyses in the readings above fulfill or fail to fulfill each criterion. c) Pay special attention to confounds. If you have time, find or think up your own examples of spurious correlations due to a confound. Examples could come from causal claims made in news articles, material in other social science classes, or from an example you invent. Note that the “Mets” example above and the “bizarre correlations” below are almost certainly due to coincidence (an issue we will discuss later) rather than confounds.
- Optional: Gina Kolata, “We’re So Confused: The Problems with Food and Exercise Studies” *New York Times*, August 11, 2016. Ky Harlin, “The 10 Most Bizarre Correlations” *Buzzfeed*, April 11, 2013. <https://www.buzzfeednews.com/article/kjh2110/the-10-most-bizarre-correlations> (Note that these are mainly for fun. The spurious correlations we worry about are ones that aren't obviously silly and that researchers think could be causal but are instead caused by confounds.)

Homework 2 (“Seeing Social Science”) available September 1, due September 8 by 12:00pm NOON

News items for homework assignment 2:

- “Prison Break,” *The New Republic*, October 21, 2002, p. 7.

- Gretchen Reynolds, "How You Felt About Gym Class May Impact Your Exercise Habits Today" *The New York Times*, August 22, 2018
- Greg Winter "More Schools Rely on Tests but Study Raises Doubts" *New York Times*, Dec 28, 2002.
- Toni Locy, "States with High Crime See More Guns Stolen," *USA Today*, December 17, 2002.
- Alison McCook, "More Suicide Deaths in High Altitude U.S. States," Reuters, October 8, 2002.

Cross-Sectional and Time-Series Designs for Testing Causal Arguments (September 6)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Shively, pp. 91-93
- Wilma Rule, "Women's Underrepresentation and Electoral Systems," *PS: Political Science and Politics* 27 (1994), pp. 689-692.
- Mike Schleeter, "Restrictions Miss the Point," *San Francisco Chronicle*, Sept. 23, 1997.
- Donald Campbell and H. Laurence Ross, "The Connecticut Crackdown on Speeding," in *The Quantitative Analysis of Social Problems*, pp. 33-53.
- ⇒ **Practice:** Study the annotations on the following article. Your goal is to be able to read other causal claims (whether in academic articles like this one or as found in everyday life) and pick out the elements without need of annotations. Kenneth F Greene "The Political Economy of Single-Party Dominance" *Comparative Political Studies* 43, 9 (September) 2010: 1-27. [ANNOTATED VERSION.]

Reflection 1-pager. Due September 8 by 12:00pm NOON.

Homework 3 ("Reading Social Science") available September 8, due September 15 by 12:00pm NOON. **NO LATE ASSIGNMENTS WILL BE ACCEPTED FOR HOMEWORK 3** because we will review answers in class.

Conceptualization and Measurement (September 8)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Lewis Carroll, "Humpty Dumpty and Alice Debate the Meaning of Words," *Through the Looking Glass*. Mineola NY: Dover Publications, 1999, pp. 54-60.
- Jorge Luis Borges, "On Exactitude in Science," adapted from Borges, *Collected Fictions*, (New York: MacMillan), 1968, <1 page.
- Jarol B. Mannheim, Richard C. Rich, and Lars Willnat, *Empirical Political Analysis*, 5th edition, (New York: Longman Press), 2002, pp. 51-56 and pp. 62-67.
- Johnson, Joslyn, and Reynolds, pp. 81-92 (except sections on reliability).
- John Horgan, "Your Analysis is Faulty," *New Republic*, April 2, 1990.
- Pamela Paxton "Women's Suffrage in the Measurement of Democracy: Problems of Operationalization" *Studies in Comparative International Development* Fall 2000, 35, 3: 92-106. Before diving in, read the abstract a few times and then the section headings. The article is straightforward if you pay attention to the big picture.
- ⇒ **Practice:** Think of a core concept in one of your other social science courses from this or a prior semester (examples include democracy, inequality, race, party identification, political representation, political participation). What are two different reasonable conceptual definitions? What are plausible operational definitions that follow from these conceptual definitions? Are they the only ones possible? For each, what is a reasonable indicator? Now, step back and ask how well the concrete indicator fits the initial concept. Does it fulfill the criteria for face and content validity? Do you imagine it would fulfill the criteria for construct validity?
- Optional: Malcolm Gladwell, "Examined Life: What Stanley Kaplan Taught us about the S.A.T." *The New Yorker*, December 17, 2001. This is an indirect example of "construct validity" that we probably won't have time to discuss.

Describing Data (September 13)

- ^ Re-read the syllabus section above called “How to succeed in this course”.
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Shively, pp. 61-78 (these page numbers refer to 3rd edition while others refer to 4th edition).
- Johnson, Joslyn, and Reynolds, pp. 305-324 and pp. 340-350 (except section on statistical independence).
- George Weinberg, John Schumaker, and Debra Oltman, Chapter 3: “Variability and Measures of Variability” in *Intuitive Statistics*, 4th edition. Belmont, CA: Wadsworth, 1981, pp. 28-40. Note: if your thoroughly understood Johnson et al. pp. 305-324, you may skip this reading.
- ⇒ Practice: See “Describing data practice” in the Practice folder on the course Canvas site.

Mostly Review Day (September 15)

- ^ Re-read the syllabus section above called “How to succeed in this course”.
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Today we will go over answers to Homework 3, review for Exam 1, and have time for Q&A.
- Some new material today as well: reading cross-tab tables.

Exam 1 in-class (September 20)

THEME 2: EXPERIMENTS

Experiment Designs (September 22)

- ^ Re-read the syllabus section above called “How to succeed in this course”.
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Babbie, pp. 237-251
- David Freedman, Robert Pisani, Rogers Purves, and Ani Adhikari, *Statistics*, 2nd ed. New York: W.W. Norton, pp. 3-18.
- James Druckman, Donald Green, James Kuklinski, and Arthur Lupia, “Experiments: An Introduction to Core Concepts” in J. Druckman, D. Green, J. Kuklinski, and A. Lupia (eds.), *Cambridge Handbook of Experimental Political Science*. Cambridge: Cambridge University Press, 2011, pp. 15-26.

Exam 1 review in class (September 27)

- ^ Re-read the syllabus section above called “How to succeed in this course”.
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- No readings.

Lab Experiments (September 29)

- ^ Re-read the syllabus section above called “How to succeed in this course”.
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Stanley Milgram, “Some Conditions of Obedience and Disobedience to Authority” *Human Relations* 18, 1965, pp. 57-76.
- *Obedience* (DVD 6963) is a companion documentary film to the Milgram reading above. We will watch it in class if we have time and, if not, you can watch it on your own time. It isn’t necessary for completing Homework 4 but will help visualize how lab experiments work.
- Optional: Shanto Iyengar “Laboratory Experiments in Political Science” in J. Druckman, D. Green, J. Kuklinski, and A. Lupia (eds.), *Cambridge Handbook of Experimental Political Science*. Cambridge: Cambridge University Press, 2011, pp. 73-88.

Homework 4 (“Experimental Design”) available September 29, due October 6 by 12:00pm NOON.

Analyzing Experiments: The Chi-Square Test (October 4, October 6)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Shively, pp. 133-142.
- Johnson, Joslyn, and Reynolds, pp. 357-362.
- ⇒ Practice: See "Chi-square practice" in the Practice folder on the course Canvas site.

Field and Natural Experiments (October 11)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Johnson, Joslyn, and Reynolds, pp. 128-133.
- Thad Dunning "Improving Causal Inference: Strengths and Limitations of Natural Experiments" *Political Research Quarterly* 61, 2, June 2008, pp. 282-293. http://www.thaddunning.com/wp-content/uploads/2010/03/Dunning_PRQ.pdf
- Lynnley Browning, "Professors Offer a Reality Check for Politicians" *New York Times*, Aug. 31, 2002, 2 pages.
- Boffey (1984); Goleman (1991); Sherman and Harris (2014) on domestic violence field experiment, 6 pages.
- Alison McCook, "Errors Trigger Retraction Of Study On Mediterranean Diet's Heart Benefits" *National Public Radio and Retraction Watch*, June 13, 2018, 2 pages. <https://www.npr.org/sections/health-shots/2018/06/13/619619302/errors-trigger-retraction-of-study-on-mediterranean-diets-heart-benefits>
- Practice: Sketch out what a field experiment version of Milgram might look like. What would it do better and what would it do worse than a lab experiment? If you have time, also sketch out what the experiments described in Browning or Boffey would look like if done in the lab (note: this will take more creativity than moving from lab to field).
- Optional: Harold Gosnell, *Getting out the Vote: An Experiment in the Stimulation of Voting*. Chicago: University of Chicago Press, 1927, pp. 1-6 and pp. 12-22.
- Optional: Alan Gerber "Field Experiments in Political Science" in J. Druckman, D. Green, J. Kuklinski, and A. Lupia (eds.), *Cambridge Handbook of Experimental Political Science*. Cambridge: Cambridge University Press, 2011, pp. 115-140.
- Optional: Jasjeet S. Sekhon and Rocio Titiunik "When Natural Experiments Are Neither Natural nor Experiments" *American Political Science Review*, February 2012. <http://sekhon.berkeley.edu/papers/SekhonTitiunik.pdf>

Exam 2 review in-class (October 13)

Exam 2 in-class (October 18)

THEME 3: LARGE N ANALYSIS

Sampling and Statistical Inference (October 20)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Michael Kagay, "A Sample of a Sample," *New York Times*, November 4, 1999.
- Johnson, Joslyn, and Reynolds, pp. 197-210.
- Watch the following videos. Note that when Sal refers to the "probability distribution", he is talking about the distribution of a variable in the population. For instance, the distribution of political ideology among all U.S. adults.
- <https://www.khanacademy.org/math/ap-statistics/sampling-distribution-ap/what-is-sampling-distribution/v/introduction-to-sampling-distributions>
- <https://www.khanacademy.org/math/ap-statistics/sampling-distribution-ap/sampling-distribution-mean/v/central-limit-theorem>

- <https://www.khanacademy.org/math/ap-statistics/sampling-distribution-ap/what-is-sampling-distribution/v/sampling-distribution-of-the-sample-mean> (skip part 2 and don't worry about skew and kurtosis)
- ⇒ **Practice:** Demonstrate the Central Limit Theorem on your own. Obtain a bag of Skittles or equivalent. Put an equal number of each color ($N \geq 3$) in a bowl. Resist eating for now. Pick out a random sample of $N=10$ Skittles and record the proportion of red ones you got. Replace all Skittles and repeat 10 times. Now create a histogram by plotting the proportion of reds from each draw. Does it look like a normal curve? If yes, eat Skittles. If no, take more random samples before eating.
- Optional: Anthony Salvanto, *Where Did You Get This Number?: A Pollster's Guide to Making Sense of the World*. New York: Simon and Shuster, 2018. For an overview, listed to Salvato interview on *Think* at <http://think.kera.org/>.

Exam 2 review in class (October 25)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- No readings.

Confidence Intervals and Statistical Significance Tests (October 27)

- ^ Re-read the syllabus section above called "How to succeed in this course".
 - ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
 - Moore, pp. 296-327.
 - <https://www.khanacademy.org/math/ap-statistics/estimating-confidence-ap/introduction-confidence-intervals/v/confidence-intervals-and-margin-of-error>
 - <https://www.khanacademy.org/math/ap-statistics/xfb5d8e68:inference-categorical-proportions/introduction-confidence-intervals/v/confidence-interval-simulation>
 - David Broockman, Joshua Kalla, Alexander Guerrero, Mark Budolfson, Nir Eyal, Nicholas Jewell, Monica Magalhaes, and Jasjeet Sekhon, "Broad cross-national public support for accelerated COVID-19 vaccine trial designs" *Vaccine* 39 (2021) pp. 309-316. This article demonstrates the use of surveys to measure attitudes about vaccine trials. Figure 3 shows the results as 95% confidence intervals.
- ⇒ **Practice:** See "Confidence intervals practice" in the Practice folder on the course Canvas site.

Correlation and Regression Analysis (November 1)

- ^ Re-read the syllabus section above called "How to succeed in this course".
 - ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
 - William Mendenhall, *Beginning Statistics A to Z*, (Belmont, CA: Wadsworth), 1993, pp. 280-297.
 - Edward Tufte, "Economic and Political Determinants of Electoral Outcomes," in *Political Control of the Economy*. Princeton: Princeton University Press. 1978, pp. 105-123, 136.
- ⇒ **Practice:** See "Correlation and regression data practice" in the Practice folder on the course Canvas site.

Homework 5 ("Understanding Statistics") available November 1, due November 8 by 12:00pm NOON.

THEME 4: SMALL N ANALYSIS

Causality in Small N Comparative Research (November 3 and November 8)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- David Collier, "The Comparative Method," in Ada Finifter (ed.), *Political Science: The State of the Discipline II*, American Political Science Association, 1993, pp. 105-119.
- Irving Copi, "Causal Connections: Mill's Methods of Experimental Inquiry," in *Introduction to Logic*, Second edition. New York: MacMillan, 1961, pp. 355-366, AND pp. 368-371, AND pp. 385-388.

- Jean Dreze and Amartya Sen, "China and India" *Hunger and Public Action* (Oxford: Clarendon Press), 1989, pp. 204-225.
- Optional: James Mahoney, "Nominal, Ordinal, and Narrative Appraisal in Macrocausal Analysis" *American Journal of Sociology* 4 (January, 1999), pp. 1154-1164.

Single Case Studies (November 10)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Seymour Martin Lipset, "Introduction" in Robert Michels, *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy* (New York: The Free Press), 1962, pp. 15-21.
- Steven Levitsky, "Institutionalization and Peronism: The Concept, the Case, and the Case for Unpacking the Concept" *Party Politics* 4 (1), 1998, pp. 77-92.
- Jerome Kirk and Marc Miller, *Reliability and Validity in Qualitative Research* (Beverly Hills: Sage), 1986, pp. 23-26 AND pp. 28-32.
- Optional: Henry Brady, "Data Set Observations versus Causal Process Observations: The 2000 U.S. Presidential Election" in H. Brady and D. Collier (eds.) *Rethinking Social Inquiry*, Oxford: Rowman and Littlefield, 2005, pp. 267-271.

Review Day (November 15)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- No readings
- Today we will go over answers to Homework 5, review troublesome concepts, and have time for Q&A.

Student survey – exit. Available on Canvas. Due November 17 by 12:00pm NOON.

Homework 6 ("Making Comparisons") available November 17, due November 29 by 12:00pm NOON.

Case-Selection in Small N Research (November 17)

- ^ Re-read the syllabus section above called "How to succeed in this course".
- ^ Ensure that you truly understand all prior material covered in class. Clear it up right away if not.
- Barbara Geddes, *Paradigms and Sandcastles: Theory Building and Research Design in Comparative Politics*. Ann Arbor: University of Michigan Press, 2003, pp. 89-106.
- Christopher Achen and Duncan Snidal, "Rational Deterrence Theory and Comparative Case Studies," in *World Politics* 41: 2 (January, 1989), pp. 143-153 AND pp. 160-169.

Thanksgiving Holiday November 21 - November 25

Exam 3 review in-class (November 29)

Exam 3 in-class (December 1)