

PLAN 720: Planning Methods

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Teaching Assistants:	Kshitiz Khanal E-mail: kshitiz@live.unc.edu Office Hours: TBA Saumitra Sinha E-mail: saumitra@live.unc.edu Office Hours: TBA
Class Sessions:	2:30 pm – 3:45 pm (EST), Monday/Wednesday, Aug. 18-Dec. 1 Woollen Gymnasium, Room 304 <i>There will be no class sessions on Sept. 6 and Nov. 24.</i>
Lab Sessions: <i>selected weeks only</i>	Mondays, 10:30 am – 11:30 am (EST) New East, Room 102 Thursdays, 2:00 pm – 3:00 pm (EST) New East, Room 102 Fridays, 3:10 pm – 4:10 pm (EST) New East, Room 102
Recitation: <i>selected weeks only</i>	Fridays, 11:00 am – 12:00 pm (EST) FedEx Global Center, Room 1005

**The exam period for PLAN 720 is 12:00 pm on Dec. 3; however, this course has no exam.*

Course Overview

Professional planners frequently are asked to collect, analyze, and communicate data to inform the making of public decisions. Describing the composition of a city's population, projecting future statewide economic conditions, forecasting future trends if an environmental regulation is adopted, and evaluating the effectiveness of a programmatic intervention targeting an at-risk population—these are just some of the research tasks assigned to professional planners working in the public, private, and nongovernmental sectors.

In truth, the answer to all such questions is, "It depends." Even under stable conditions, results hinge on the definitional and research design choices made by analysts, the data available, the time constraints, the political environment, and the knowledge and interest of the decisionmakers. Unforeseen developments also may intervene. Population projections can be upended by, say, a global pandemic, while a city's system of land use regulation may prove inadequate when new technologies facilitate novel business activities like short-term rentals.

Even if a single “right” answer is impossible to discern, professional planners still are expected to offer informed appraisals of the questions asked of them. A systematic research approach rooted in fields like statistics can help planners extract meaning from real world data, describe meaningfully the data, draw credible inferences, test theories, offer conclusions, and share those conclusions in a manner accessible to decisionmakers and the public.

Studies based on quantitative data analyzed with statistical techniques traditionally have been seen as the research “gold standard.” Yet when dealing with applied social and economic research, strictly quantitative approaches can mask just how “messy” and uncertain the data are. If not supplemented by qualitative analysis, such data may yield erroneous conclusions and harmful policies even if every calculation is performed perfectly. Planners therefore need an appreciation of both quantitative and qualitative methods and of how each strand’s strengths can be weaved together to offer deeper insights.

PLAN 720 offers graduate students a survey of different research methods and techniques they are apt to encounter in their careers. This is more challenging than it appears given the variety of approaches, the strengths and limitations of each one, and the diverging interests of the students enrolled in the course. Some students have deep research backgrounds, while others are approaching research methods for the first time. Some students are familiar with one set of techniques (typically, quantitative ones) without ever having been exposed to others. Meanwhile, some students hope to perform research-intensive roles after graduation, while others aspire to roles in which they will serve primarily as consumers and interpreters of research generated by others. And those roles likely will change over the course of a career. There is no realistic way in which one course can satisfy all these stakeholders.

Think of PLAN 720 as a course that provides the first-year cohort with a common language and framework for using research methods to approach complex economic and social subjects. Although much of the course focuses on quantitative techniques, that is because they often are new to our students and commonly are source of unease. And, rightly or wrongly, a grounding in such methods is considered a baseline professional competency. With this foundation, students can acquire deeper skills in concentration classes like PLAN 671.

More specifically, the semester-long goals for PLAN 720 are the following:

- Impart a common language and framework for appreciating research studies
- Foster an appreciation for the strengths and weakness of different techniques
- Practice using different foundational research tools and techniques
- Equip students to be discerning consumers of research
- Prepare students to develop and manage an applied research study
- Improve abilities to analyze, interpret, visualize, and communicate data
- Appreciate ethical issues related to research in a community setting.

Course Format

This class has three components. The **main course** (PLAN 720-001) meets on Mondays and Wednesdays in **Woollen Gymnasium #304** and is mandatory. Individual class sessions will combine lectures, class discussions, speakers, and in-class activities. Lectures will be used to organize materials from the readings in a systematic manner and to explore certain topics in more depth. Because the in-class activities and readings complement each other, class attendance is not a substitute for completing the readings (or vice versa). Class sessions, meanwhile, will provide students with opportunities to raise questions, share experiences, and connect the course materials to their interests.

The **lab sessions** associated with the course (PLAN 720-401, -402, and -403), which will be facilitated by the teaching assistants, are optional, although attendance is strongly encouraged. A list of lab topics will be shared early in the semester. As a reminder, the departmental lab is located in **New East #102**. During the official course periods, the labs are blocked out for students in PLAN 720. For access at other times, use [this booking link](#). Note that lab sessions will not be held every week of the semester; the dates will be shared and updated in Sakai.

The **recitation session** associated with the course (PLAN 720-601), which will be facilitated by the teaching assistants, are optional, although attendance is encouraged. The recitation session will meet in the **FedEx Global Center #1005**. Note the recitation session will not be held every week of the semester; the dates will be shared and updated in Sakai.

As of August, all course sessions are expected to meet in-person. Given the uncertain state of the COVID-19 crisis and shifting university policies, some or all course components may shift online during the term. Any changes will follow university guidelines and be communicated.

Special Note for Fall 2021

While it goes without saying, the Fall 2021 semester once again will differ from “normal” due to the COVID-19 pandemic. University policies and practices are changing regularly, and this requires all of us to be flexible and to adapt together.

At the same time, the health, economic, and social upheavals stemming from the pandemic are affecting all of us in deeply personal ways. I recognize that and want to work with the class to adjust the course and its elements to fit with our changing lives. I am open to modifying things as we go based on your input. If you have a question or suggestion, please let me know.

While you do not “owe” me (or your classmates) any information, I want to be supportive. If you are struggling with something, I will do what I can to help. I know the adjustment to graduate school can be stressful enough before factoring a pandemic, recession, political uncertainty, and social unrest into the equation. Lastly, I request your patience with me. I am just as in the dark as you are about changes in university policies and procedures. I typically learn about them when you do, but I will do whatever I can to adapt.

COVID-19 Community Standard

For this academic year (2021-22), all members of the UNC-Chapel Hill community must adhere to the [COVID-19 Community Standards](#). As of early August, all students must wear face coverings at all times while inside any university building. For PLAN 720, the wearing of face coverings is required during all class, lab, and recitation sessions.

Office Hours and Scheduling

Instructor office hours during the Fall 2021 semester will take place **online on Thursdays from 11:30 am to 1:00 pm**. Please make an appointment in advance via this [booking link](#). The confirmation will include the applicable Zoom link. Appointments are available in 15-minute slots, and students can book two consecutive slots. Students unable to attend normal office hours should [email](#) for an alternate appointment.

Information about the teaching assistants' availability will be posted separately on Sakai.

Communication

Outside of office hours, the best way to reach the instructor or teaching assistants is through their university email accounts. When emailing a member of the teaching team, please include "PLAN 720" in the subject line. For emails received prior to 6:00 pm, we will aim to reply within one business day. Please do not wait to the last minute to communicate with the teaching team regarding course assignments. And, please contact the instructor as soon as possible if you need any accommodations for medical, personal, family, or religious reasons.

Technology Requirements

A financial/scientific calculator, preferably a stand-alone one, will be important for completing many of the assignments and exercises in the course. While a number of useful statistical computer programs exist—some of which must be purchased (STATA, SPSS) and some of which are open source (R), you will be able to complete all of the coursework using the statistical functions contained in Microsoft Excel. (Many of the lab sessions will focus on Excel.) All UNC students can obtain the most recent versions of Microsoft Excel/Office via [this link](#) from ITS.

While technology can help students complete many of the tasks associated with PLAN 720, it also can be a distraction. Please turn off all mobile phones at the start of each class, lab, and recitation session. If you must have access to your phone for a pressing personal reason (*e.g.*, child care, family illness), please set your phone to a silent setting. When using laptops in class, please limit your usage to course-relevant applications like Excel and Sakai.

Disability Accommodations

If you have a verified disability and need academic accommodations, let me know, so we can arrange the appropriate supports with the [Office of Accessibility Resources and Services](#).

Honor Code

Students are bound by the [Honor Code](#) and applicable university, school, and departmental

codes of professional and research conduct. Any examinations must be completed individually. For memo assignments and group assignments, students are encouraged to seek advice and suggestions from other class members. This includes exchanging drafts for feedback. However, students must cite all ideas, data, and information that are not their own, including data in tables, charts, graphs, etc. Information on how to properly [cite sources](#) is available through the UNC Writing Center, a link to which is enabled on the course Sakai site.

Texts and Readings

The **required texts** for the class are the following:

Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013)

Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015)

** A newer 9th edition of this book was published in 2019, but the differences aren't material enough to justify the price difference, in my opinion.*

The following **supplemental text** will help students develop their skills in conducting statistical analyses with Microsoft Excel.

Schmuller, Joseph, *Statistical Analysis with Excel for Dummies*, 4th edition (Hoboken, NJ: Wiley, 2016)

** The 3rd edition is available through UNC Libraries via [this link](#) and remains serviceable.*

All other readings and class materials will be available on the Sakai site under the “Lessons” tab.

Supplemental Resources: Training and Consulting Services

PLAN 720 offers students a broad survey of useful research methods. The trade-off is that it is difficult to cover many of those methods in the detail needed to satisfy every student’s specific research interests. Students who wish to learn more about specific methods can enroll for free in the “short courses” offered by the [UNC Odum Institute for Research in Social Science](#). The training schedule for the Fall 2021 semester is available via [this link](#).

The Odum Institute also offers consulting services for student researchers seeking support with such tasks as research design, data management, quantitative research, statistical analysis, survey research, qualitative research, mixed methods research, and data visualization. Students seeking consulting services should check the Odum Institute’s website for instructions.

Also, Duke University’s Social Science Research Institute sponsors [Duke Mod.U](#), a YouTube channel consisting of short videos covering various research methods. Some of the videos related to qualitative research are included as supplemental readings in this course, but students also may find some of the videos related to quantitative methods helpful.

Course Assignments

Student grades for the course will be based on five components. Further guidance on each assignment, including submission info, will be provided in class and on the course's Sakai site.

Class Participation: Students are expected to attend every mandatory class session (Monday/Wednesday) unless there is an uncontrollable medical or family emergency. Students are expected to have completed all of the required readings in advance and to participate in each session. Participation involves more than speaking frequently in class and can occur in any number of forms, both in class and through the sharing of materials via the course's Sakai site. Additionally, participation in lab and recitation sessions can "plus up" this component.

CITI Program Training: All graduate students at UNC-Chapel Hill must complete the CITI Training Course in order to undertake any research involving human subjects. This online course reviews basic issues of how to interact ethically with human subject. You can access the course online via [this link](#). You will need to login with your ONYEN so as to generate a record of completion. Complete Module #2, which is the "**Basic Course for Social and Behavioral Research.**" Note that a failure to complete the CITI Program Training will result in an "Incomplete" for the course regardless of performance on the other course assignments.

Individual Problem Sets: On six occasions during the semester, students will be asked to complete problem sets individually so as to demonstrate their growth in executing basic statistical calculations. Students will have a week to complete the problem sets. In those weeks, the recitation sessions will provide students with an opportunity to review prior to submission.

Team Memos: Working in groups of 3-4, students will complete three short memo assignments (approximately 3-5 pages in length) that apply the computational techniques developed in the problem sets to an actual problem in economic and community development. The assumed audience will be decisionmakers like a town manager or elected board. The first memo will focus on problem definition and descriptive analysis, the second on inferential statistics, and the third on regression analysis

Master Paper Design: At four points during the semester, students will write short memos exploring aspects of a potential individual MP project. (Click [here](#) for an overview of the MP project.) The first three deliverables will be between 2-3 pages in length and connect class materials to potential research designs. One paper will focus on research questions and design, one on quantitative data, and one on qualitative data. The final deliverable for the course will be a 5-page prospectus that sets out an initial research framework for an envisioned project.

Assignment Due Dates

The due dates for the assignment are the following:

CITI Program Training:	Sept. 1 @ 5:00 pm
Problem Sets:	Sept. 27, Oct. 11, Oct. 18, Oct. 25, Nov. 1, & Nov. 8 @ 5 pm

Team Memos: Oct. 8, Oct. 22, and Nov. 5 @5 pm
MP Components Sept. 17, Oct. 29, Nov. 19, and Dec. 3 @ 5 pm

Late Submission Policy Assignments

To keep the course on schedule, it is essential that all assignments be submitted on time. Exceptions will be made only in the case of a medical or family emergency. Should an emergency arise, let the instructor know as soon as possible.

Course Grading

Grades at the graduate level offer feedback to students on their performance in a given course. This course will use the standard grading system employed in the Graduate School:

H: High Pass (Clear excellence)
P: Pass (Entirely satisfactory graduate work)
L: Low Pass (Inadequate graduate work)
F: Fail (Failure to perform graduate work)

Below is the contribution of each individual assignment toward the final class grade:

CITI Training:	mandatory / 0 points
Class Participation:	15 points
Individual Problem Sets	30 points (5 points per set)
Team Memo Assignments	30 points (10 points each)
MP Design	<u>25 points (5 points for #1-3 + 10 points for final)</u> 100 points

Students with a cumulative point total in excess of 95 will receive an “H” for the course, and those with a cumulative point total between 80 and 95 will receive a “P.” A cumulative point total between 60 and 79 equates to an “L,” and any lower total will result in a grade of “F.”

A failure to complete the CITI Program Training will result in a grade of “Incomplete” regardless of performance on other course assignments.

Course Schedule

The course schedule is subject to change based on class progress and scheduling issues (*e.g.*, inclement weather). Check the “Announcements” section on the course’s Sakai site for updates. As a reminder, there will be no class on **Sept. 6** and **Nov. 24** for university holidays.

Course Readings

The readings associated with each class session are listed below. The readings are divided into two categories. Readings marked as “**required**” should be read prior to the class. The readings marked as “**supplemental**” provide additional context and can be read as time allows, either in their entirety or via a “power read.”

Class #1: Introduction to PLAN 720 8/18

Required: Hand, David, *Statistics: A Very Short Introduction* (London: Oxford University Press, 2008), Chapter 1: Surrounded by Statistics (pp. 1-20) (available in “Lessons” tab)

Supplemental: Moskowitz, Tobias and Jon Wertheim, *Scorecasting: The Hidden Influences behind How Sports Are Played and Games Are Won* (New York: Three Rivers Press, 2008), Chapter: Go for It (pp. 31-58) (available in “Lessons” tab)

Class #2: Thinking about Social Statistics 8/23

Required: Best, Joel, *Damned Lies and Statistics*, 2nd edition, (Berkeley: University of California Press, 2012), Chapter 1: The Importance of Social Statistics (pp. 9-29) (available in “Lessons” tab)

Spriggs, William, “Is Now a Teachable Moment for Economists?” (Open Letter to the Federal Reserve Bank of Minneapolis), June 9, 2020 (available in “Lessons” tab)

Supplemental: Skidelsky, Robert, *What’s Wrong with Economics? A Primer for the Perplexed* (New Haven, CT: Yale University Press, 2020), Chapter 1: Why Methodology? (pp. 1-14) (available in “Lessons” tab)

Class #3: Research and Urban Planning 8/25

Required: Altshuler, Alan, “The Goals of Comprehensive Planning,” *Journal of the American Planning Association* 31:34 (1965): 331-338 (available in “Lessons” tab)

Davidoff, Paul, “Advocacy and Pluralism in Planning,” *Journal of the American Planning Association* 31:3 (1965): 186-195 (available in “Lessons” tab)

Innes, Judith, “Information in Communicative Planning,” *Journal of the American Planning Association* 64.1 (1998): 52-63 (available in “Lessons” tab)

Supplemental: Bolman, Lee and Terrence Deal, *Reframing Organizations: Artistry, Choice, and Leadership*, 2nd edition (San Francisco: Jossey-Bass, 1997), Chapter 11: Organizations as Political Arenas and Political Agents (pp. 194-211) (available in “Lessons” tab)

Class # 4: Ethical Considerations in Planning Research 8/30

Required: American Institute of Certified Planners, *AICP Code of Ethics and Professional Conduct: 2016 Update* (available in “Lessons” tab)

Best, Joel, *Damned Lies and Statistics*, 2nd edition, (Berkeley: University of California Press, 2012), Chapter 2: Soft Facts (pp. 30-61) (available in “Lessons” tab)

Sandercock, Leonie, "Towards a Planning Imagination for the 21st Century," *Journal of the American Planning Association* 70.2 (2004): 133-141 (available in "Lessons" tab)

Supplemental: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 3: Research Ethics and Research Proposals (pp. 64-98) (required text)

Class #5: Research Design I: Formulating Questions and Theories 9/1

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 1: You Have a Question, So Now What? (pp. 1-15) (required text)

Supplemental: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 2: The Process and Problems of Social Research (pp. 30-63), and Chapter 6: Research Design and Causation (pp. 186-214) (required text)

Labor Day: No Class 9/6

Class #6: Research Design II: Concepts and Data 9/8

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 2: Muck around in the Numbers! (pp. 17-28)

Supplemental: Harford, Tim, *The Data Detective: Ten Easy Rules to Make Sense of Statistics* (New York: Riverhead, 2021), Chapter 12: The Golden Rule: Be Curious (pp. 265-79) (available in "Lessons" tab)

Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 4: Conceptualization and Measurement (pp. 100-146) (required text)

Class #7: Writing for Decisionmakers 9/13

Required: Miller, Jane, *The Chicago Guide to Writing about Numbers: The Effective Presentation of Quantitative Information*, 2nd edition (Chicago: University of Chicago Press, 2015) Chapter 2: Seven Basic Principles (pp. 13-36) (available in "Lessons" tab)

Evergreen, Stephanie, *Evaluation Report Guidance* (Kansas City, MO: Ewing Marion Kauffman Foundation, 2017) (available in Sakai "Lessons" tab)

Supplemental: Best, Joel, *Stat-Spotting: A Field Guide to Identifying Dubious Data* (New York:

Riverhead, 2021), Chapter H: What Do They Want Us to Think? (pp. 86-99) (available in “Lessons” tab)

Class #8: Descriptive Statistics I: Measures of Central Tendency 9/15

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 3: Bring Some Order to This Chaos (pp. 29-45) (required text)

Supplemental: US Government Accountability Office, *Quantitative Data Analysis: An Introduction* (Washington, DC: US Government Accountability Office, 1992), Chapter 2: Determining the Central Tendency of a Distribution (pp. 31-38) (available in “Lessons” tab)

Wheelan, Charles, *Naked Statistics: Stripping the Dread from the Data* (New York: Norton, 2013), Chapter 3: Deceptive Description (pp. 36-57) (available in “Lessons” tab)

Class #9: Descriptive Statistics II: Measures of Variability 9/20

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 4: The Picture Is Becoming Clearer (pp. 47-67) (required text)

Supplemental: US Government Accountability Office, *Quantitative Data Analysis: An Introduction* (Washington, DC: US Government Accountability Office, 1992), Chapter 3: Determining the Spread of a Distribution (pp. 39-50) (available in “Lessons” tab)

Wheelan, Charles, *Naked Statistics: Stripping the Dread from the Data* (New York: Norton, 2013), Chapter 8: The Central Limit Theory: The LeBron James of Statistics (pp. 127-42) (available in “Lessons” tab)

Class #10: Public Data Sources: A (Very Brief) Overview of the US Census 9/22

Required: Quinterno, John, *Running the Numbers: A Practical Guide to Regional Economic & Social Analysis* (New York: Routledge, 2014), Chapter 5: Demographics (pp. 101-132) (available in “Lessons” tab)

MacDonald, Heather and Alan Peters, *Urban Policy and the Census* (Redlands, CA: ESRI Press, 2011), Chapter 6: Analyzing Economic Data (pp.97-119) (available in “Lessons” tab)

Wang, Hansi Lo, “2020 Census Will Ask about Same-Sex Relationships,” Morning Edition, National Public Radio, 3:48, March 30, 2018 (available in “Lessons” tab)

Supplemental: US Census Bureau, *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (Washington, DC: US Department of Commerce, 2018), Chapters 6-11 (pp. 44-69) (available in Sakai “Lessons” tab)

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 5: How Much Is Not Much? (pp. 69-85) (required text)

Supplemental: Haigh, John, *Probability: A Very Short Introduction* (London: Oxford University Press, 2012), Chapter 3: Historical Sketch (pp. 27-42) (available in “Lessons” tab)

Moskowitz, Tobias and Jon Wertheim, *Scorecasting: The Hidden Influences behind How Sports Are Played and Games Are Won* (New York: Three Rivers Press, 2008), Chapter: The Myth of the Hot Hand (pp. 215-29) (available in “Lessons” tab)

Class #12: Inferential Statistics I: From Samples to Populations

9/29

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 6: That Picture Doesn’t Look a Thing Like Me! (pp. 87-106) (required text)

Supplemental: Spiegelhalter, David, *The Art of Statistics: How to Learn from Data* (New York: Basic, 2019) Chapter 9: Putting Probability and Statistics Together (pp. 229-52) (available in “Lessons” tab)

US Government Accountability Office, *Quantitative Data Analysis: An Introduction* (Washington, DC: US Government Accountability Office, 1992), Chapter 5: Estimating Population Parameters (pp. 74-90) (available in “Lessons” tab)

Class #13: Inferential Statistics II: Hypothesis Testing with One Sample

10/4

Required: Meier, Kenneth, Jeffrey Brudney, and John Bohte, *Applied Statistics for Nonprofit Administration*, 9th edition (Stamford, CT: CENGAGE Learning, 2015), Chapter 11: Hypothesis Testing (pp. 183-203) (available in “Lessons” tab)

Supplemental: Spiegelhalter, David, *The Art of Statistics: How to Learn from Data* (New York: Basic, 2019) Chapter 10: Answering Questions and Claiming Discoveries (pp. 253-304) (available in “Lessons” tab)

Class #14: Inferential Statistics III: Hypothesis Testing with Two Samples

10/6

Required: Meier, Kenneth, Jeffrey Brudney, and John Bohte, *Applied Statistics for Nonprofit Administration*, 9th edition (Stamford, CT: CENGAGE Learning, 2015), Chapter 13: Testing the Difference between Two Groups (pp. 212-33) (available in “Lessons” tab)

Supplemental: None

Class #15: Inferential Statistics IV: Taking a Representative Sample 10/11

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 7: The Poll Numbers Are In, and in the Lead Is ... (pp. 107-121) (required text)

Supplemental: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 5: Sampling and Generalizability (pp. 147-185) (required text)

US Government Accountability Office, *Using Statistical Sampling* (Washington, DC: US Government Accountability Office, 1992), Chapter 4: Basic Estimation Procedures and Further Sample Design Considerations (pp. 47-68), and Appendix II: A Comprehensive Description of Sampling Procedures (pp. 144-79) (available in “Lessons” tab)

Class #16: Analyzing Nominal & Ordinal Data I: Contingency Tables 10/13

Required: Meier, Kenneth, Jeffrey Brudney, and John Bohte, *Applied Statistics for Nonprofit Administration*, 9th edition (Stamford, CT: CENGAGE Learning, 2015), Chapter 14: Construction and Analysis of Contingency Tables (pp. 237-57) (available in “Lessons” tab)

Supplemental: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 9: Quantitative Data Analysis (pp. 331-44 ONLY) (required text)

Class #17: Analyzing Nominal & Ordinal Data II: Interpreting Contingency Tables 10/18

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 8: Can We Please Start to Actually Conclude Something? (pp. 123-39) (required text)

Supplemental: Meier, Kenneth, Jeffrey Brudney, and John Bohte, *Applied Statistics for Nonprofit Administration*, 9th edition (Stamford, CT: CENGAGE Learning, 2015), Chapter 15: Aids for the Interpretation of Contingency Tables (pp. 258-86) (available in “Lessons” tab)

Spatz, Chris, *Exploring Statistics: Tales of Distributions*, 12th edition (Conway, AK: Outcrop Publishers, 2019), Chapter 14: Chi Square Tests (pp. 303-27) (available in “Lessons” tab)

Class #18: Regression Analysis I: An Overview of Linear Regression 10/20

Required: Berner, Maureen, *Statistics for Public Administration: Practical Uses for Better Decision Making*, 2nd edition (Washington, DC: ICMA Press, 2013), Chapter 9: Okay, Folks, What Is Causing the Problem Here? (pp. 141-57) (required text)

Supplemental: Lewis-Beck, Michael, *Applied Regression: An Introduction*, (Thousand Oaks, CA: Sage, 1980), Chapter 2: Bivariate Regression: Assumptions and Inferences (pp. 26-47, esp. pp. 26-30) (available in “Lessons” tab)

Spatz, Chris, *Exploring Statistics: Tales of Distributions*, 12th edition (Conway, AK: Outcrop Publishers, 2019), Chapter 6: Correlation and Regression (pp. 94-125, esp. pp. 116-25) (available in “Lessons” tab)

Class #19: Regression Analysis II: Multiple Regression 10/25

Required: Stock, James, and Mark Watson, *Introduction to Econometrics*, 3rd edition (London: Pearson, 2015), Chapter 6: Linear Regression with Multiple Regressors (pp. 228-62, esp. pp. 228-47) (available in “Lessons” tab)

Supplemental: Lewis-Beck, Michael, *Applied Regression: An Introduction*, (Thousand Oaks, CA: Sage, 1980), Chapter 3: Multiple Regression (pp. 47-74) (available in “Lessons” tab)

Class #20: Regression Analysis III: Interpreting Results 10/27

Required: “Basic Elements of a Regression Table,” *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2015) (4:08), and “How to Read Empirical Papers,” *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2015) (8:04) (available in “Lessons” tab)

Meier, Kenneth, Jeffrey Brudney, and John Bohte, *Applied Statistics for Nonprofit Administration*, 9th edition (Stamford, CT: CENGAGE Learning, 2015), Chapter 21: Regression Output and Data Management (pp. 421-40) (available in “Lessons” tab)

Supplemental: Miller, Jane, *The Chicago Guide to Writing about Numbers: The Effective Presentation of Quantitative Information*, 2nd edition (Chicago: University of Chicago Press, 2015) Chapter 3: Causality, Statistical Significance, and Substantive Significance (pp. 37-60) (available in “Lessons” tab)

Wheelan, Charles, *Naked Statistics: Stripping the Dread from the Data* (New York: Norton, 2013), Chapter 12: Common Regression Mistakes: The Mandatory Warning Label (pp. 212-24) (available in “Lessons” tab)

Class #21: Visualizing Data 11/1

Required: Cairo, Albert, *How Charts Lie: Getting Smarter about Visual Information* (New York: Norton, 2019), Chapter 1: How Charts Work (pp. 21-52) (available in “Lessons” tab)

Knaflic, Cole Nussbaumer, *Storytelling with Data* (Hoboken, NJ: Wiley, 2015), Chapter 2: Choosing an Effective Visual (pp. 35-69) (available in “Lessons” tab)

Supplemental: Evergreen, Stephanie, *Chart Chooser 3.0* (handout) (available in “Lessons” tab)

Evergreen, Stephanie, *Qualitative Chart Chooser* (handout) (available in “Lessons” tab)

Class #22: Qualitative Methods: Interviewing 11/3

Required: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 10: Qualitative Methods (pp. 354-96) (required text)

Supplemental: US Government Accountability Office, *Using Structured Interviewing Techniques* (Washington, DC: US Government Accountability Office, 1991), Chapter 3: Designing a Structured Interview (pp. 39-48) and Chapter 4: More on Interview Design: Avoiding Problems (pp. 49-76) (available in "Lessons" tab)

Class #23: Public Engagement: Considerations for Planners 11/8

Required: Arnstein, Sherry, "A Ladder of Citizen Participation," *Journal of the American Institute of Planners* 35:4 (1969): 216-24 (available in "Lessons" tab)

Day, Diane, "Citizen Participation in the Planning Process: An Essentially Contested Concept?," *Journal of Planning Literature* 11:3 (1997): 421-34 (available in "Lessons" tab)

Lederman, Jacob, "The People's Plan? Participation and Post-Politics in Flint's Master Planning Process," *Critical Sociology* 45:1 (2019): 85-101 (available in "Lessons" tab)

Supplemental: "Preparing for Focus Groups: Qualitative Research Methods," *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2016) (4:41) (available in "Lessons" tab)

Preskill, Hallie, Efrain Gutierrez, and Katelyn Mack, *Facilitating Intentional Group Learning: A Practical Guide to 21 Learning Activities* (Boston: FSG, 2017) (available in "Lessons" tab)

Class #24: Qualitative Methods: Content Analysis 11/10

Required: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 13: Historical and Comparative Research and Content Analysis Methods (pp. 474-510; for this class, read only pp. 495-510) (required text)

Supplemental: US Government Accountability Office, *Content Analysis: A Methodology for Structuring and Analyzing Written Material* (Washington, DC: US Government Accountability Office, 1996), Chapter 2: Deciding Whether to Use Content Analysis (pp. 14-18) and Chapter 3: Planning a Content Analysis (pp. 19-29) (available in "Lessons" tab)

Class #25: Program Evaluation 11/15

Required: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 12: Evaluation and Policy Research (pp. 442-73) (required text)

Supplemental: Patton, Michael Quinn, *Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use* (New York: Guilford Press, 2011), Chapter 2: Developmental Evaluation as a Distinct Purpose and Niche (pp. 28-52) (available in “Lessons” tab)

US Government Accountability Office, *Designing Evaluations* (Washington, DC: US Government Accountability Office, 2012), Chapter 2: Defining an Evaluation’s Scope (pp. 10-17), and Chapter 4: Designs for Assessing Program Implementation and Effectiveness (pp. 31-49) (available in “Lessons” tab)

Class #26: Analyzing Qualitative Data 11/17

Required: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 11: Qualitative Data Analysis (pp. 397-441) (required text)

Supplemental: US Government Accountability Office, *Content Analysis: A Methodology for Structuring and Analyzing Written Material* (Washington, DC: US Government Accountability Office, 1996), Chapter 4: Coding the Textual Material (pp. 30-41), and Chapter 5: Analyzing the Data (pp. 42-45) (available in “Lessons” tab)

“What Is a Code?”, *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2016) (3:16); and “What Does Coding Look Like?”, *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2016) (4:42), and “How to Know You Are Coding Correctly,” *Duke Mod.U* (Durham, NC: Social Science Research Institute, 2016) (3:31) (available in “Lessons” tab)

Class #27: Survey Research in Brief 11/22

Required: Schutt, Russell, *Investigating the Social World: The Process and Practice of Research*, 8th edition (Thousand Oaks, CA: Sage, 2015), Chapter 8: Survey Research (pp. 251-305) (required text)

Supplemental: Dillman, Don, Jolene Smyth, and Leah Melani Christian, *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*, 3rd edition (Hoboken, NJ: Wiley, 2009), Chapter 2: The Tailored Design Method (pp. 15-40), and Chapter 3: Coverage and Sampling (pp. 41-64) (available in “Lessons” tab)

US Government Accountability Office, *Developing and Using Questionnaires* (Washington, DC: US Government Accountability Office, 1993), Chapter 5: Avoiding Inappropriate Questions (pp. 79-93), and Chapter 6: Writing Clear Questions (pp. 94-101) (available in “Lessons” tab)

Thanksgiving Break: No Class

11/24

Class #28: Mixed Method Research Designs

11/29

Required: Creswell, John, and Vicki Plano Clark, *Designing and Conducting Mixed Methods Research*, 2nd edition (Thousand Oaks, CA: Sage, 2011), Chapter 1: The Nature of Mixed Methods Research (pp. 1-18), and Chapter 3: Choosing a Mixed Methods Design (pp. 53-106; this section could be “power read”) (available in “Lessons” tab)

Supplemental: Hitchcock, John, “An Introduction to Mixed Methods Research” (Thousand Oaks, CA: Sage) (16:52) (available in “Lessons” Tab)

Class #29: Course Review

12/1

Required: none

Supplemental: none

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