ANNUAL OVERVIEW: FALL 2017-SPRING 2018

SOCIAL SCIENCES QUANTITATIVE LABORATORY

ELLA FOSTER-MOLINA

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SOCIAL SCIENCES QUANTITATIVE LABORATORY OVERVIEW

The broad goal of the Social Sciences Quantitative Laboratory (SSQL) is to increase quantitative skills for social sciences students already involved in quantitative learning and to entice students unfamiliar with quantitative methods to dive in. It has used three services to meet these goals: workshops, one-on-one meetings with students, and support for faculty in developing curricula and homework.

The first service is a series of workshops designed to deliver concrete data analysis skills. The SSQL allows unusual flexibility in designing the curricula for these workshops. The topics spanned introductory sessions on statistical programming and regression basics through more advanced topics such as preparing for data analysis interviews and digital methods in social science. A full description of each workshop is found in the "Workshops Offered" section of this document. This year the laboratory ran 19 unique workshops. In total, Ella spent 116 hours teaching data analysis skills in 58 two-hour workshops. Approximately 270 unique students attended these workshops.

Each programming workshop employed a student to help debug the programs attendees created. This allowed the student employee to sharpen their skills working with others on common data issues as well as review their own data analysis skills. These student employees provided invaluable support for the workshops. All workshop participants designed their own programs during these workshops. Programming tends to create idiosyncratic errors that can leave individuals far behind if an expert does not help them fix the issue. The two sessions that lacked a student employee lasted 20-30 minutes longer and were less cohesive because it took longer to ensure all participants were able to progress to the next step.

The second service is one-on-one meetings with students who would like help on research projects and homework. This year 81 students met with Ella across 150 meetings. These students received help on program debugging, homework, survey design, statistical methods, research projects, and more. They engaged with many interesting projects: public opinion on climate change, the gender pay gap in South Korea, alumni donation patterns, student happiness based on dorm residence, and differences in attitudes towards campus protest culture based on racial identity. The laboratory provided students with support and skills to tackle more advanced homework assignments, design more sophisticated research questions, and analyze their class readings more effectively.

One useful benefit of the small workshops was that Ella was able to identify six students who seemed to have had minimal expertise with computers prior to this semester. She reached out each to encourage them to come to the laboratory's office hours. All of them did so and subsequently scheduled at least one more meeting on their own volition. Ella also worked with Econ 001 teaching assistants regarding methods that have been shown to improve inclusiveness for students of all backgrounds.

The third service the SSQL provided is support for faculty in developing curricula and homework. Ella met with faculty and staff more than 117 times to discuss course objectives, how to incorporate statistical techniques into their classes, and how the laboratory could assist their students. She sat in on 13 class sessions to support the material being delivered. For example, she provided technical support to Professor Laurison in the classes in which the students were learning to program in R. She explored different methods for providing quantitative support by meeting and/or exchanging emails with 6 staff and faculty members associated with quantitative analysis institutes at Yale, Wellesley, and Bowdoin, as well as a data science specialist in Haverford's computer science department.
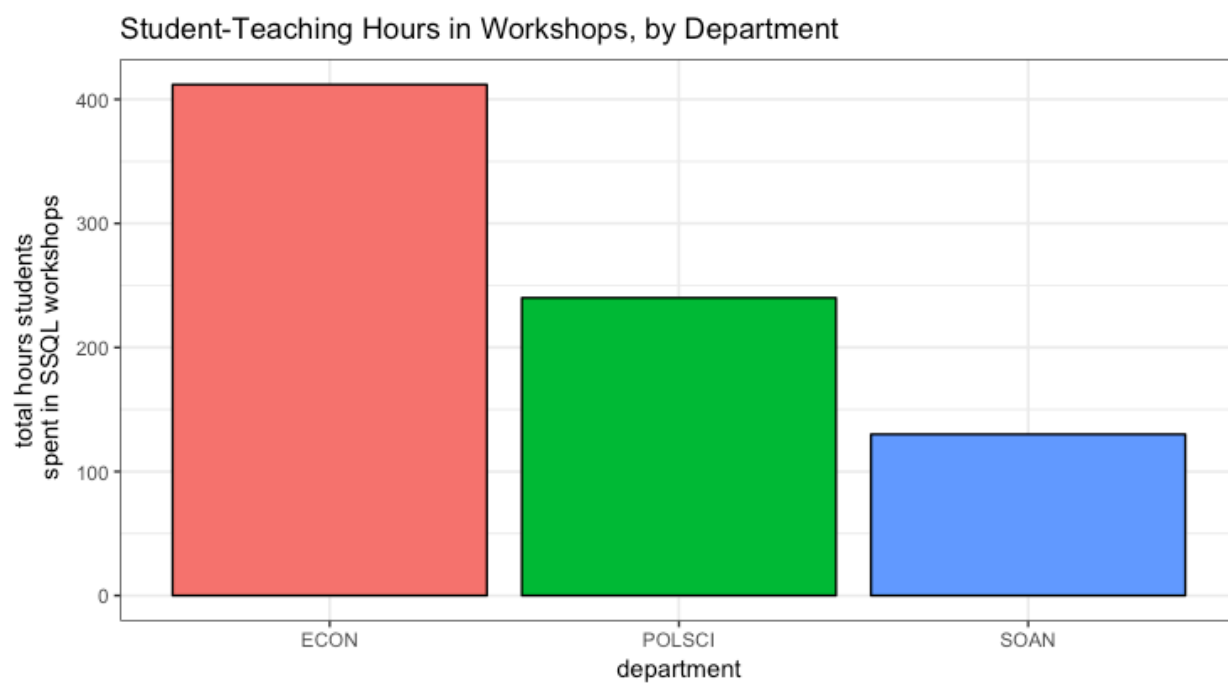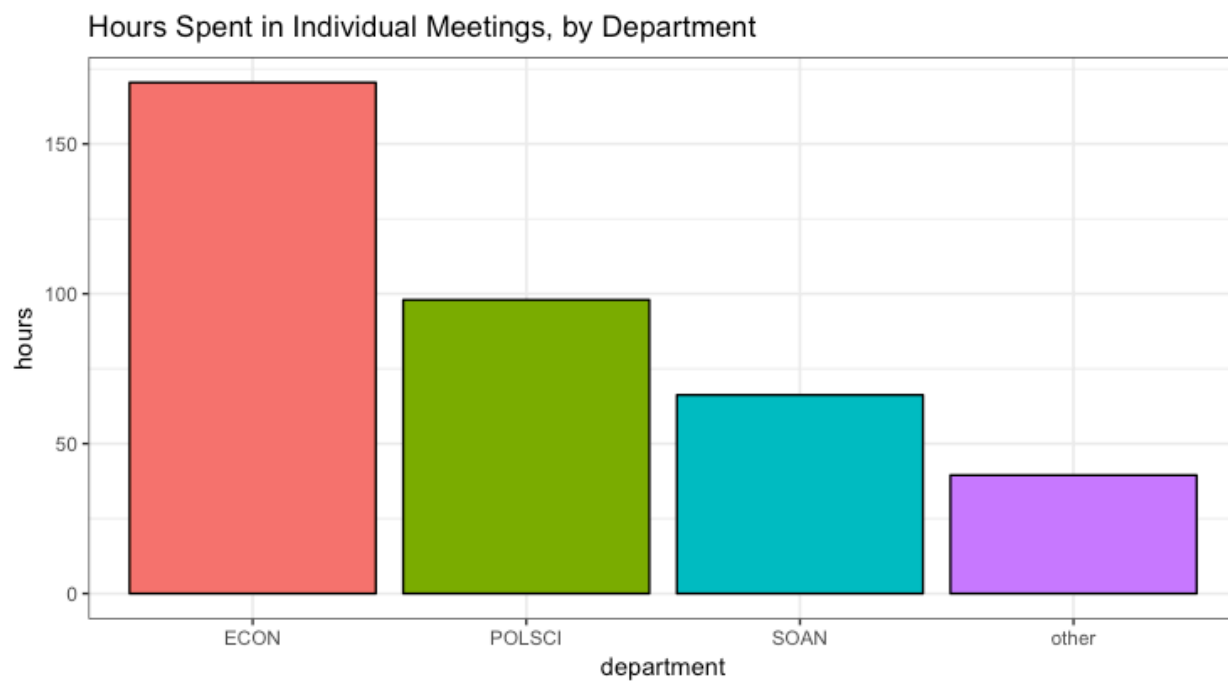
Job Description: Social Science Quantitative Laboratory (SSQL) Associate

The SSQL associate will promote students' quantitative and computational skills by providing tutorial services that support the coursework and research component of courses in the social science curriculum. The associate's responsibilities include the following:

-- Familiarizing students with statistical software such as Stata, Matlab, R, Excel, Qualtrics, and SAS widely used in the social sciences.

--Being available Fall, Winter, Spring, and Summer to meet with social science faculty teaching quantitative courses to collaborate on how best to support their work with students and their course expectations.

-- Assisting students with the identification, manipulation, and analysis of data sets.

-- Offering mini-courses on essential dimensions of independent research such as data-cleaning, merging data sets, creating visual representations of data, creating and editing variables, and exporting data analyses into various platforms.

-- Being available during regular office hours and at other times for data management advice and support to students at all stages of their empirical research.

-- Creating opportunities for students with less experience in quantitative and computational methods to develop skills and confidence.

Qualifications: Master of Arts/Science (MA or MS) in Statistics, Computer Science, Applied Mathematics, or Economics. Programing experience in Stata, Matlab and/or R. Some familiarity with social scientific application of quantitative methodologies is strongly preferred.

Total Time Students and Faculty Spent with SSQL

Hours Spent in Individual Meetings, by Department

Student-Teaching Hours in Workshops, by Department

Average Hours Students and Faculty Spent with SSQL

Hours in individual meetings, weighted by department size*

Average Hours Spent with Each Faculty Member in a Department

average hours meeting with faculty member — department: ECON, POLSCI, SOAN

Average Hours Spent with Each Major in a Department

average hours each major spent in SSQL office hours — department: ECON, POLSCI, SOAN
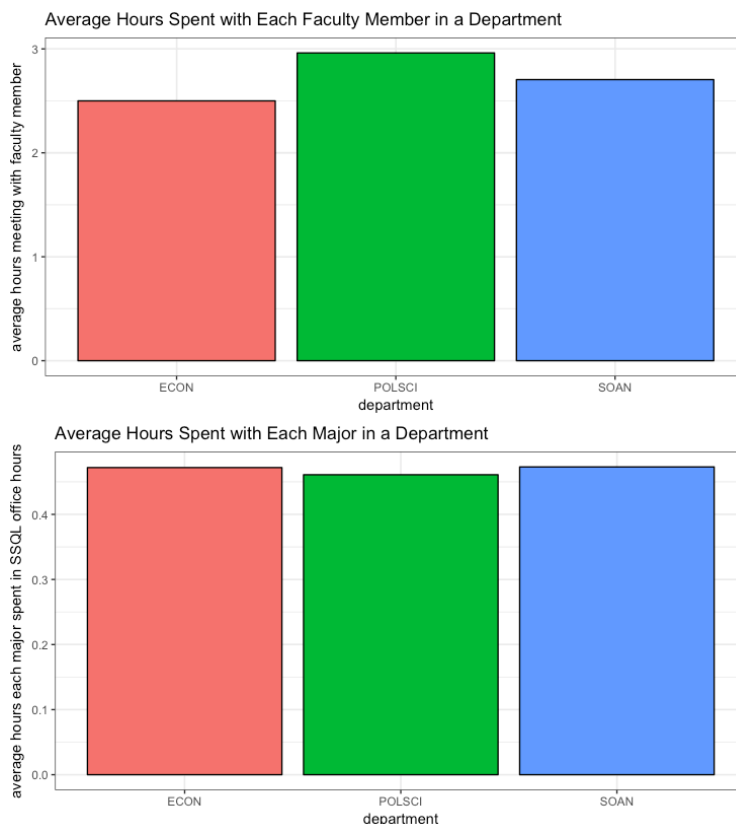
Hours teaching, weighted by department size*

Average Hours Spent Teaching Each Major in a Department

average hours each major spent in SSQL workshops — department: ECON, POLSCI, SOAN
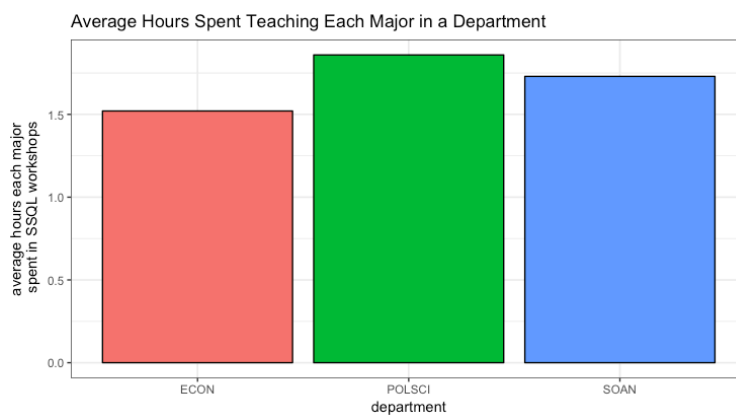
*These graphics are intended to give an estimate of how much time was spent with each department relative to the overall size of the department. Faculty hours are weighted by the number of faculty in each department: 17 in Economics, 13 in Political Science, and 11 in Sociology/Anthropology. Major-hours are weighted by the number of majors (Sophomores, Juniors and Seniors) in each department as of April 2018: 267 for Economics, 128 for Political Science, and 74 for Sociology/Anthropology. This latter category is a rough approximation for the number of students in each department, as the SSQL worked with majors and nonmajors alike.

COMPARISONS with COMPARABLE PROGRAMS at OTHER INSTITUTIONS

The task of teaching quantitative skills to a broad audience is increasingly relevant in the modern world. Colleges and universities across the country are working to find ways to adapt to the increased demand for quantitative knowledge and the new ways that quantitative skills are being used. One widely used model has been based on minor modifications of the statistics curriculum prepared for students seeking to major in mathematics or statistics. While this is appropriate for students who know they want to specialize in data analysis, a different approach can entice students who have not yet found beauty in quantitative patterns to explore new, quantitative ways of looking at the world around them. The Social Sciences Quantitative Laboratory (SSQL), and other similar programs across the country, has the opportunity adapt to the new environment and expand the audience for quantitative skills.

Comparable programs at other institutions have widely differing audiences and methods of providing quantitative support. Programs that support multiple departments face specific challenges in integrating information across multiple classes and fields, so this analysis will focus on programs designed to support multiple departments as opposed to programs that support individual departments

The SSQL has drawn on aspects of programs developed in other institutions. Wellesley's Quantitative Analysis Institute (QAI) operates out of the library and statistics department. They train students in quantitative analysis through coursework and tutorial services. The QAI also trains and matches quantitative research assistants with professors. Bowdoin's Quantitative Reasoning Program focuses on the college's structure for analyzing students' quantitative reasoning skills, matches quantitative research assistants to professors, and provides individual tutoring. Yale's StatLab operates out of the library. It provides consulting services delivered by graduate students and delivers standalone workshops focused on programming skills. Haverford's computer science department has developed a data science curricula that faculty in other departments, such as Biology and Psychology, use. The diversity of possible approaches to teaching quantitative skills has provided challenges, but also many opportunities to tailor an approach appropriate for Swarthmore.

The SSQL is distinct from comparable programs in two ways. For one, it focuses exclusively on social science undergraduates. For another, it is focused on supporting student coursework instead of faculty or graduate student research projects. This means that the approaches other institutions have used cannot be implemented without substantial modifications. In particular, it has focused more heavily on standalone workshops than the programs at Yale, Wellesley, and Bowdoin. This allows the laboratory to start to meet the demand for quantitative skills in social science disciplines.

The SSQL has repackaged and redesigned curricula that is often taught as a side effect of a traditional statistics curriculum or not at all. For example, many students design and/or interpret data visualizations during their studies, yet few students outside of statistics majors are taught the core skills needed to effectively create and analyze these graphics. The SSQL has developed such a workshop, including lessons on how graphics can be designed to deceive the viewer. For more advanced students, data management is a skill that is rarely formally taught yet is integral to research projects. The SSQL has a workshop that takes students through file management, data manipulation, saving data, and documenting research steps.

Unlike the traditional quantitative classes taught across the country, most (but not all) workshops provided by the SSQL are designed to stand on their own, instead of as cumulative lessons. This restructuring of the traditional quantitative curriculum provides core quantitative skills to students who would not otherwise be exposed to them. It allows the material to be refocused on the skills social science students need, and offers them the opportunity to explore further quantitative skills in a low risk setting.

In many ways, the material discussed in the SSQL workshops is complementary to a traditional statistics or econometrics class. For students who have limited quantitative backgrounds, it opens the door to those who had been hesitant to take a full class in statistics or econometrics, hopefully increasing the number who decide to pursue more quantitative knowledge in other venues. For those who have taken some statistics or econometrics, it strives connects many of the pieces of information they have learned in class, so that the pieces turn in to a whole picture. For example, students who take a single statistics or econometrics class typically encounter regressions at the end of the semester. They do not have the time to synthesize what a regression can do, yet a regression is the workhorse for most data analysis published in the social sciences. The workshop on "Interpreting Regressions" is designed to put the pieces together in a way that provides the big picture of how regressions are applied to real world scenarios, as well as the how to apply the limitations of statistical analyses that they learned early on in their classes. This workshop and others are accessible and useful to both students with a background in statistics and those without.

Lessons in this format lower the bar for becoming interested in quantitative reasoning. It also reimagines how quantitative skills are taught. There is beauty in the patterns around us, and quantitative skills can reveal them in new and informative ways. Thus, while the immediate goal of each workshop is to deliver a concrete skill, the broader goal is to entice students to think quantitatively and seek out more quantitative skills.

Social Sciences Quantitative Laboratory Workshops Offered
Default time: 2 hours

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ITEM	DESCRIPTION	NOTES
	DATA ANALYSIS WORKSHOPS (NO PROGRAMMING)	
Introduction to Interpreting Regressions	Many books and papers present regression results to support their arguments. There are some simple ways to scan these tables that let you quickly understand the main points and common pitfalls. We cover how to read regression tables and graphs efficiently, what the numbers for coefficients and statistical significance mean, and common ways regressions are misused.	Open attendance
		No prerequisite
Where to Find Data	Many research ideas are generated by creating questions answerable by existing data sources. We cover some commonly used data sites, how to navigate these sources, and how to search for specific questions in surveys. We also use Google Sheets to easily create some basic graphics to summarize data on public opinions of global warming.	Open attendance
		No prerequisite
Data Visualization: The Good, the Bad, and the Ugly	Data visualization is a powerful tool to communicate a point, but can also be misused. We discuss the history of graphics in data interpretation, how graphics can highlight important theories, how to create your own graphics using Google Sheets, and how graphics are used to misinform.	Open attendance
	Reference: Tufte, Edward, and P. Graves-Morris. "The visual display of quantitative information.; 1983." (2014).	No prerequisite
Sampling and the 2016 Election	Random samples are the basis for many statistical methods, including polling people to predict election winners. We use the 2016 election as an example of good and bad sampling methods, examining when the polls correctly predicted election results and why they sometimes got it wrong.	Open attendance
		No prerequisite
Digital Tools in Research	Text is everywhere, yet the systematic study of large quantities of text as a way to understand the world is still in its infancy. I demonstrate how I use some of these skills to reveal an aspect of why rich white men are better represented in policy. Tweets by members of Congress, the text of their budgetary documents detailing staffing resources, and the bills they create reveal that members of Congress from poor districts are distracted from policy because they spend more effort helping their constituents navigate the social safety net. Rich white men are represented, in part, because they require less help with the federal bureaucracy, freeing their politicians to make policy.	Open attendance

ITEM	DESCRIPTION	NOTES
		No prerequisite
Cherry Picking Data: The Widespread Problem of P-Hacking	P-hacking is a common way to cherry pick your results by selecting regressions and t-tests that are artificially significant. The kicker is that many people don't know they are doing it. We look at the connection, or lack of connection, between political parties and national economic health. We discuss how p-hacking happens, why it's a problem in social science research, and how to avoid it.	Open attendance
		No prerequisite
Game Theory in Social Science: When Philosophy meets Math	Game theory is mathematical philosophy for social science. We start with the classic prisoners' dilemma. Instead of prison terms we use a tastier incentive to reach the best outcome considering your opponent's best strategy of play: brownies. We discuss the ways that game theory has improved social science theory, and where it still needs improvement.	Open attendance
		No prerequisite
Theory and Data Analysis: Ever the Twain Shall Meet	From data selection, data cleaning, to the final statistical results, all data analysis relies on solid theoretical grounding. We discuss the role of theory in statistical analyses, but historically and in the modern era. We discuss papers that have developed strong theoretical justifications for their techniques. as well as papers that have data mined their way to results that fail to match their theoretical basis.	Open attendance
		No prerequisite
Experimental Methods	Experiments are often the gold standard method for uncovering causal connections; i.e., does donating to campaigns make them more likely to win? Yet they are tricky to pull off, and even trickier to apply to the relevant population. One common pitfall is experimenting on college students, then assuming that college students behave like the rest of the world. We discuss the relevance of experiments, and how they are implemented.	Open attendance
		No prerequisite

ITEM	DESCRIPTION	NOTES
	PROGRAMMING WORKSHOPS	
Introduction to Stata I	This introductory session is based on a survey conducted on workshop participants. We cover the basics of opening files, running commands, creating summary statistics and graphics, dealing with outliers, manipulating variables, and labelling variables. We also work through how to deal with errors (which are inevitable, but manageable, in any statistical package). This will be hands on, practical experience: each participant will be using the program in real time.	By reservation only
		No prerequisite
Introduction to R	This introductory session is based on a survey conducted on workshop participants. We cover the basics of opening files, running commands, creating summary statistics and graphics, dealing with outliers, and manipulating variables.. We also work through how to deal with errors (which are inevitable, but manageable, in any statistical package). This will be hands on, practical experience: each participant will be using the program in real time.	By reservation only
		No prerequisite
Introduction to Stata II	In this session we cover several additional basics of data analysis: scatterplots, boxplots, standard errors/standard deviations/the normal distribution, and the fundamentals of developing useful theories.	By reservation only
	*Note: Any programming workshop can be delivered in R or Stata	Prerequisite: Introduction to Stata I
Replicating Empirical Analyses in Stata	We uncover the complex relationship between unemployment and voter turnout. This session mplements and interprets regressions in Stata, as well as delves deeper into the interpretation of p-values, standard errors, and standard deviations. This replication highlights the importance of omitted variable bias and outliers: the results are fundamentally wrong when we exclude educational attainment, or include invalid data points.	By reservation only
	Paper: Burden, Barry C., and Amber Wichowsky. "Economic discontent as a mobilizer: unemployment and voter turnout." The Journal of Politics 76.4 (2014): 887-898.	Prerequisite: Introduction to Stata II or instructor permission
Stata: Visualizing data	Based on the classic work on visualization by Edward Tufte, this session extends the analysis of unemployment and voter turnout by looking at graphical methods for interpreting the relationship between education, unemployment, and voter turnout. This also serves as additional exploration of omitted variable bias in regressions. In addition, we explore the famous data in Anscombe's quartet to better understand how necessary data visualization is to any data analysis project.	By reservation only
	Paper: Burden, Barry C., and Amber Wichowsky. "Economic discontent as a mobilizer: unemployment and voter turnout." The Journal of Politics 76.4 (2014): 887-898.	Prerequisite: Replicating Empirical Analyses or instructor permission

ITEM	DESCRIPTION	NOTES
Stata: Exporting analyses into Tex/etc and for loops	We have learned how to run regressions and create graphics. The next step, covered in this workshop, is to present those results to others. This workshop introduces Latex, a versatile text formatting package, as one way to present regression results and images. We also use Word and Excel to format regression results and graphics. In the process we examine the importance of variable selection. Finally, a versatile programming method called for loops are introduced.	By reservation only
	Paper: Burden, Barry C., and Amber Wichowsky. "Economic discontent as a mobilizer: unemployment and voter turnout." The Journal of Politics 76.4 (2014): 887-898.	Prerequisite: Visualizing Data or instructor permission
Preparing for a Data Analysis Interview and Take Home Assignment, Part I: Data analysis	It is common to receive a take home assignment as part of a data science/data analysis interview. We cover many common requirements of such an assignment using a dataset from IMDB. This includes technical skills such as importing data, recoding variables, and creating graphics and regressions. More importantly, we discuss what to focus on (data validity, limitations, and theoretical development) and how to present both your results and code.	By reservation only
		Prerequisite: Exporting Analyses or instructor permission
Preparing for a Data Analysis Interview and Take Home Assignment, Part II: Data manipulation	This workshop covers a second type of take home assignment: data manipulation. Again using the IMDB dataset, we discuss how to create a new version of an existing dataset and why people would find this useful. We cover for loops and conditionals in more depth.	By reservation only
		Prerequisite:Preparing for a Data Analysis Inteview Part I or instructor permission
Best Practices in Data Analysis and Coding	This workshop covers the tools required to produce easily interpretable, reproducible code. This includes smart data cleaning practices, the importance of consistent output, how to structure a do file and comment smartly, variable naming conventions. Most importantly, we cover the importance of theoretical development for any data analysis project, and how to concisely describe the purpose of your code as it relates to your theory.	By reservation only
		Prerequisite: Instructor Permission

WORKSHOP ATTENDANCE: FALL 2017-SPRING 2018

workshop topic	total attendees	# POLSCI	# SOCANTH	# ECON	# sections	contact hours
Introduction to Stata	155	5	10	141	12	24
Stata2: Introduction to Stata, cont'd	13	1	5	7	3	6
Stata3: Replication	5	0	2	3	3	6
Stata4: Visualizing Data	6	0	3	3	2	4
Stata5: Exporting Analyses	5	0	2	3	2	4
Stata6: Prepping for Data Analysis Interviews	3	0	2	1	2	4
Introduction to R	27	3	14	10	4	8
Digital Methods	12	0	12	0	1	2
Introduction to ggplot	4	0	0	4	1	2
Interpreting Regression	66	54	7	5	6	12
Where to Find Data	35	32	0	3	7	14
Visualizing Data	1	1	0	0	1	2
Sampling and the Election	8	8	0	0	1	2
Senior thesis writers	10	0	7	3	4	8
Syon RAs	10	0	0	10	1	2
Cherry Picking Data	14	12	0	2	4	8
Game Theory in Social Science	4	2	0	2	1	2
Experimental Methods	3	0	0	3	1	2
Data Visualization	2	1	0	1	1	2
*Best Practices in Data Analysis**	*2*	*0*	*0*	*2*	*1*	*2*
TOTALS**	**385**	**119**	**64**	**203**	**58**	**116**

		approx 72	approx 27	approx 171	58 sections,	116 contact
	approx 270	unique POLSCI	unique SOAN	unique ECON	each 2 hours	hours in
19 unique workshops	**unique students**	**students**	**students**	**students**	**long**	**workshops**

*Estimated values. These workshops will take place throughout April 2018.

**Totals include estimated values.

Workshop Attendance, by Week: Fall 2017

semester	week	workshop topic	total attendees	# POLSCI	# SOCANTH	# ECON	# sections	contact hours
Fall '17	1	Introduction to Stata	99	5	10	85	7	14
Fall '17	2	Digital Methods	12	0	12	0	1	2
Fall '17	3	Introduction to Stata2	16	1	5	7	3	6
Fall '17	4	Interpreting Regression	28	25	2	1	3	6
Fall '17	5	Stata3: Replication	6	0	2	3	3	6
Fall '17	6	Where to Find Data	22	22	0	0	3	6
Fall '17	7	Introduction to R	16	2	14	0	2	4
Fall '17	8	Visualizing Data	1	1	0	0	1	2
Fall '17	9	Stata4: Visualizing Data	6	0	3	3	2	4
Fall '17	10	Sampling and the Election	8	8	0	0	1	2
Fall '17	11	Stata5: Exporting Analyses	5	0	2	3	2	4
Fall '17	12	Stata6: Prepping for Data Analysis Interviews	3	0	2	1	2	4
Fall '17		**TOTALS**	**222**	**64**	**52**	**103**	**30**	**60**

				approx 49 unique POLSCI students	approx 24 unique SOAN students	approx 87 unique ECON students	30 sections, each 2 hours long	60 contact hours in workshops
Fall '17		**12 unique workshops**	approx 160 unique students					

Workshop Attendance, by Week: Spring 2018

semester	week	workshop topic	total attendees	# POLSCI	# SOCANTH	# ECON	# sections	contact hours
Spring '18	1	Senior thesis writers	3	0	3	0	1	2
Spring '18	2	Introduction to Stata	49	0	0	49	4	8
Spring '18	2	Senior thesis writers	4	0	1	3	1	2
Spring '18	3	Syon Ras	10	0	0	10	1	2
Spring '18	3	Interpreting Regression	38	29	5	4	3	6
Spring '18	3	Senior thesis writers	2	0	2	0	1	2
Spring '18	4	Introduction to R	11	1	0	10	2	4
Spring '18	4	Senior thesis writers	1	0	1	0	1	2
Spring '18	5	Where to Find Data	13	10	0	3	4	8
Spring '18	6	Introduction to ggplot	4	0	0	4	1	2
Spring '18	7	Cherry Picking Data	11	9	0	2	3	6
Spring '18	9	Cherry Picking Data	3	3	0	0	1	2
Spring '18	10	Introduction to Stata	7	0	0	7	1	2
Spring '18	11	Game Theory in Social Science	4	2	0	2	1	2
Spring '18	12	Experimental Methods	5	0	0	5	1	2
Spring '18	13	Data Visualization	2	1	1	1	1	2
Spring '18	*14*	*Best Practices in Data Analysis**	*2*	*0*	*0*	*2*	*1*	*2*
Spring '18		**TOTALS**	**169**	**55**	**13**	**102**	**28**	**56**

				approx 35 unique POLSCI students	approx 9 unique SOAN students	approx 88 unique ECON students	28 sections, each 2 hours long	56 contact hours in workshops
Spring '18		**12 unique workshops**	approx 132 unique students					

*Estimated values. These workshops will take place throughout April 2018.

**Totals include estimated values.

INDIVIDUAL MEETINGS: FALL 2017-SPRING 2018

number	type	department	met in person	emailed	type of help	hours
1	professor	SOAN		11-Jul	syllabus format	2
2	professor	Wellesley	26-Jul		quantitative laboratory networking	2
3	professor	Wellesley	28-Jul		quantitative laboratory networking	2
4	professor	POLSCI	1-Aug		introduction	1
5	professor	ECON	1-Aug		introduction	1
6	staff	ECON	1-Aug		introduction	0.5
7	professor	POLSCI		2-Aug	introduction	4
8	professor	ECON	3-Aug		discuss planning	1
9	professor	POLSCI	3-Aug		introduction	2
10	professor	POLSCI	7-Aug		research design	0.5
11	staff	POLSCI	7-Aug		introduction	0.5
12	professor	ECON	8-Aug		weekly check in	1
13	staff	ITS	8-Aug		introduction	0.5
14	professor	POLSCI	9-Aug	11-Aug	data collection	1
15	professor	POLSCI	9-Aug		directed reading project	2
16	professor	ECON	9-Aug		introduction	1
17	professor	ECON	9-Aug		discuss planning	1
18	staff	facilities	9-Aug		introduction office furniture	0.5
19	staff	media services	9-Aug		introduction	0.5
20	staff	ITS	9-Aug		introduction	0.5
21	professor	POLSCI	10-Aug		introduction	2
22	professor	SOAN	11-Aug		introduction	1
23	student	SOAN	11-Aug	11-Aug	theory and method	4
24	professor	ECON	15-Aug		weekly check in	1
25	staff	SOAN	15-Aug		posters request	0.5
26	professor	ECON	17-Aug		introduction	1
27	professor	ECON	17-Aug		introduction	0.5
28	professor	SOAN	17-Aug		discuss gun violence	1
29	professor	COMPSCI	18-Aug		introduction	0.5
30	staff	MATH/STATS	18-Aug		introduction	0.5
31	professor	ECON	22-Aug		weekly check in	1
32	professor	ECON	22-Aug		introduction	1
33	professor	COMPSCI	23-Aug		introduction	1
34	professor	SOAN	24-Aug		introduction	2
35	professor	POLSCI	25-Aug		introduction	2
36	staff	library	25-Aug		introduction	1
37	professor	ECON	28-Aug		introduction	1
38	staff	MATH/STATS	28-Aug		introduction how stats supports	1
39	professor	ECON	29-Aug		weekly check in	1
40	professor	ECON	31-Aug		introduction/plans for Econ 31	1
41	professor	ECON	1-Sep		discuss intro econ	0.5
42	professor	SOAN	1-Sep		discuss Methods class	1
43	professor	SOAN	4-Sep		introduction	1
44	staff	library	4-Sep		discuss SOAN intro	1
45	professor	ECON	5-Sep		weekly check in	1

number	type	department	met in person	emailed	type of help	hours
46	professor	Writing	6-Sep		ask for information	1
47	student	SOAN	7-Sep		research project	1
48	professor	POLSCI	8-Sep		introduction	1
49	student	ECON	8-Sep		diversity inclusion	1
50	professor	POLSCI	11-Sep		discuss what I can do	1
51	professor	ECON	12-Sep		weekly check in	1
52	student	ECON	12-Sep		diversity inclusion	1
53	dept meeting	ECON	15-Sep		discuss recent activity	0.5
54	student	ECON	18-Sep		hw	1
55	professor	POLSCI	19-Sep		introduction	1
56	professor	POLSCI	19-Sep		directed reading	1
57	student	POLSCI	19-Sep		directed reading	1
58	student	POLSCI	19-Sep		directed reading	1
59	student	POLSCI	19-Sep		directed reading	1
60	professor	SOAN	19-Sep		stata r help	1
61	professor	ECON	19-Sep		weekly check in	1
62	staff	library	19-Sep		chat about resources	1
63	dept meeting	SOAN	20-Sep		discuss recent activity	0.5
64	student	ECON	21-Sep		diversity inclusion	1
65	professor	SOAN	26-Sep		research digital methods	2
66	professor	ECON	26-Sep		weekly check in	1
67	student	ECON	27-Sep		hw Econ 176	1
68	student	ECON	27-Sep		hw Econ 176	2
69	student	SOAN	28-Sep		research project	2
70	professor	POLSCI	5-Oct		directed reading	1
71	student	POLSCI	5-Oct		directed reading	1
72	student	POLSCI	5-Oct		directed reading	1
73	student	POLSCI	5-Oct		directed reading	1
74	professor	ECON	5-Oct		weekly check in	1
75	student	SOAN	5-Oct		research project	1
76	student	SOAN	7-Oct		study design data to capture	1
77	professor	POLSCI	10-Oct		directed reading	1
78	student	POLSCI	10-Oct		directed reading	1
79	student	POLSCI	10-Oct		directed reading	1
80	student	POLSCI	10-Oct		directed reading	1
81	professor	SOAN	10-Oct		stata r help	1
82	student	ECON	10-Oct		research project	2
83	student	ECON	10-Oct		research project	1
84	student	SOAN	10-Oct		research project	2
85	professor	SOAN	11-Oct		r code	1
86	student	POLSCI	11-Oct		regression workshop recap	3
87	student	SOAN	11-Oct		research project	1
88	professor	ECON	12-Oct		weekly check in	1
89	professor	SOAN	14-Oct		stata/r help	1
90	student	POLSCI	23-Oct		stat regressions	2
91	professor	SOAN	24-Oct		r code, inequality causes discussion	1
92	professor	ECON	24-Oct		weekly check in	0.5

number	type	department	met in person	emailed	type of help	hours
93	student	ECON	24-Oct		econometrics hw	1
94	student	ECON	25-Oct		econometrics hw	1
95	student	ECON	25-Oct		econometrics hw	2
96	student	ECON	25-Oct		econometrics hw	2
97	professor	SOAN	31-Oct		r/stata discussion	1
98	professor	ECON	31-Oct		weekly check in	1
99	student	POLSCI	31-Oct		resesarch design	1
100	professor	SOAN	2-Nov		help class R coding	2
101	professor	POLSCI	2-Nov		directed reading	1
102	professor	SOAN	2-Nov		r/stata discussion	1
103	student	ECON		6-Nov	workshop design	1
104	professor	SOAN	7-Nov		help class R coding	1
105	professor	ECON	8-Nov		weekly check in	1
106	professor	SOAN	9-Nov		help class R coding	1
107	student	SOAN	9-Nov		time banking data design	1
108	professor	POLSCI	10-Nov		directed reading	3
109	student	POLSCI	10-Nov		directed reading	3
110	student	POLSCI	10-Nov		directed reading	3
111	student	POLSCI	10-Nov		directed reading	3
112	professor	SOAN	14-Nov		help class R coding	1
113	professor	SOAN	14-Nov		r code, inequality causes discussion	1
114	professor	ECON	14-Nov		weekly check in	1
115	student	ECON	14-Nov		stata analysis design gender inequality s korea	2
116	student	POLSCI	15-Nov		r code study design	2
117	student	ECON		15-Nov	omitted variable bias	1
118	student	freshman, edu +?	16-Nov		study advice, dealing with workload	0.5
119	student	SOAN	16-Nov		r code analysis design	1
120	student	SOAN	16-Nov		r code	1
121	student	SOAN	16-Nov		r code analysis design	2
122	student	ECON	16-Nov		stata analysis help	2
123	student	ECON	16-Nov		stata analysis design	1
124	student	ECON	16-Nov		stata study design data acquisition	1
125	student	SOAN	16-Nov		r code	1
126	student	SOAN	17-Nov		r code	1
127	student	SOAN	17-Nov		r code	1
128	student	SOAN	17-Nov		r code	2
129	student	ECON	17-Nov		stata analysis design	1
130	student	ECON	17-Nov		stata analysis design	2
131	student	ECON	17-Nov		stata analysis design	1
132	student	ECON	17-Nov		excel analysis design	1
133	student	POLSCI	17-Nov		r code analysis design	2
134	student	ECON		17-Nov	data collection	1
135	student	ECON		17-Nov	data collection	1
136	student	ECON		17-Nov	ttest calculation	1
137	student	ECON		19-Nov	stata question	2
138	student	ECON		19-Nov	regression stata question	1
139	student	ECON		19-Nov	hypothesis testing	1

number	type	department	met in person	emailed	type of help	hours
140	student	ECON	20-Nov		stata analysis design	2
141	student	ECON	20-Nov		stata analysis design	2
142	student	ECON	20-Nov		stata analysis design	1
143	student	ECON	20-Nov		t-test question	1
144	student	ECON	20-Nov		stata analysis design	1
145	student	ECON	20-Nov		stata analysis design	1
146	student	ECON		20-Nov	manipulating data coffee frequency	1
147	student	ECON	20-Nov		stata analysis design	2
148	student	ECON	20-Nov		stata analysis design	1
149	student	ECON	20-Nov		stata analysis design	1
150	student	ECON	20-Nov		stata analysis design	1
151	student	ECON	21-Nov		stata analysis design interaction effects	1
152	student	ECON	21-Nov		stata analysis design	1
153	student	POLSCI		24-Nov	data discovery	2
154	student	ECON		25-Nov	japanese general social survey download	1
155	student	POLSCI		26-Nov	plotting, triple interactions	1
156	staff	Yale	27-Nov		quantitative laboratory networking	3
157	student	ECON		27-Nov	stata variable manipulation	1
158	student	ECON		27-Nov	economics reading statistical interpretation	1
159	professor	ECON	28-Nov		weekly check in	1
160	student	POLSCI	28-Nov		r code interaction effects	1
161	student	POLSCI	28-Nov		google sheets data analysis	1
162	student	ECON	28-Nov		stata graphics	1
163	student	ECON	28-Nov		stata analysis design	1
164	student	POLSCI		28-Nov	plotting, triple interactions	2
165	student	ECON		28-Nov	t test	1
166	student	ECON	29-Nov		stata analysis std errors deviations	2
167	student	ECON	29-Nov		data analysis	1
168	student	POLSCI		29-Nov	plotting, triple interactions	1
169	professor	POLSCI	30-Nov		discuss student research project	1
170	professor	POLSCI	30-Nov		directed reading planning	2
171	student	ECON		30-Nov	standard deviations outliers	1
172	student	SOAN	30-Nov		research project analysis	1
173	student	ECON		2-Dec	ttest calculation	1
174	professor	POLSCI	4-Dec		directed reading planning	1
175	professor	SOAN	5-Dec		stata r help	1
176	professor	ECON		5-Dec	update on student	0.5
177	professor	ECON	7-Dec		discuss focus	0.5
178	professor	ECON	11-Dec		discuss next semester	1
179	staff	SOAN	11-Dec		financial overview	0.5
180	professor	EDU	12-Dec		survey design	2
181	professor	ECON	12-Dec		weekly check in	1
182	professor	SOAN	12-Dec		stata r help	1
183	student	EDU	12-Dec		survey design	2
184	student	SOAN	14-Dec		stata graphics data manipulation	1
185	student	SOAN	15-Dec		stata graphics data manipulation	2
186	student	SOAN		17-Dec	stata triple interaction	1

number	type	department	met in person	emailed	type of help	hours
187	professor	POLSCI	18-Dec		directed reading	3
188	student	POLSCI	18-Dec		directed reading	3
189	student	POLSCI	18-Dec		directed reading	3
190	student	POLSCI	18-Dec		directed reading	3
191	professor	SOAN	18-Dec		next semester planning	1
192	professor	ECON		18-Dec	planning next semester	1
193	professor	POLSCI	18-Dec		planning next semester	1
194	student	ECON		18-Dec	manipulating data	1
195	professor	ECON	19-Dec		planning next semester	1
196	professor	ECON	19-Dec		weekly check in	1
197	professor	POLSCI	19-Dec		planning next semester	1
198	professor	POLSCI	19-Dec		planning next semester	1
199	professor	SOAN	19-Dec		planning next semester	1
200	professor	ECON	19-Dec		planning next semester	0.5
201	professor	ECON	18-Jan		discuss type of help	1
202	professor	POLSCI	22-Jan		workshop planning	1
203	professor	LING	24-Jan		syllabus consultation	2
204	student	SOAN	24-Jan		Multi	1
205	student	SOAN	24-Jan		Multi	1
206	student	EDU	25-Jan		survey consultation	1
207	professor	ECON	25-Jan		biweekly meeting	1
208	student	ECON	25-Jan		discuss statistical coursework	1
209	student	SOAN	25-Jan		discuss statistical evidence for thesis	2
210	professor	POLSCI	26-Jan		workshop planning	1
211	student	ECON	29-Jan		discuss statistical coursework	1
212	professor	ECON	31-Jan		workshop planning	1
213	student	ECON		31-Jan	stata question	0.5
214	student	ECON	5-Feb		stata question	0.5
215	student	ECON	5-Feb		stata question	0.5
216	professor	SOAN	6-Feb		research and teaching discussion	1
217	student	ECON	7-Feb		data science trajectory	2
218	student	POLSCI	8-Feb		white collar govt	2
219	professor	ECON	8-Feb		biweekly meeting	0.5
220	student	POLSCI	12-Feb		data collection	1
221	student	POLSCI	16-Feb		data analysis and manipulation	2
222	visitor	ECON		19-Feb	beta regressions	1
223	student	SOAN	22-Feb		graphics in stata	2
224	professor	LING		25-Feb	data analysis	1
225	student	ECON		25-Feb	data analysis	1
226	professor	ECON		26-Feb	homework revision	1
227	student	ECON	26-Feb		data analysis , comparative advantage	2
228	student	ECON	26-Feb		stata hw	2
229	professor	LING		26-Feb	data analysis	3
230	student	POLSCI	1-Mar		data collection	1
231	student	POLSCI	1-Mar		data analysis	1
232	student	SOAN	1-Mar		stata graphics	2
233	student	POLSCI		1-Mar	finding data	2

number	type	department	met in person	emailed	type of help	hours
234	professor	LING	2-Mar		data analysis	1
235	professor	ECON		4-Mar	scheduling workshop	1
236	student	ECON	5-Mar		data analysis	2
237	student	POLSCI		7-Mar	python code	2
238	professor	SOAN		8-Mar	workshop attendance	1
239	professor	ECON	8-Mar		biweekly meeting	1
240	student	ECON		19-Mar	python code	8
241	student	ECON	21-Mar		data analysis	2
242	student	POLSCI		21-Mar	workshop info	1
243	student	ECON		21-Mar	stata code	1
244	professor	POLSCI		21-Mar	polarization	1
245	student	ECON		21-Mar	reshaping data	2
246	professor	ECON	22-Mar		biweekly meeting	1
247	student	ECON	23-Mar		data analysis	1
248	professor	ECON	23-Mar		workshop planning	1
249	professor	SOAN		25-Mar	inequality	0.5
250	student	ECON		27-Mar	stata code	1
251	student	ECON	28-Mar		stata hw	2
252	student	ECON	28-Mar		excel data	0.5
253	professor	ECON		29-Mar	workshop info	1
254	student	ECON		29-Mar	arcGIS document	4
255	professor	ECON	29-Mar		biweekly meeting	0.5
256	professor	COMPSCI		30-Mar	loops, lists, teaching	2
257	student	FILM		31-Mar	general advice	1
258	student	ECON		1-Apr	regression analysis	1
259	professor	COMPSCI	2-Apr		loops, lists	1.5
260	professor	ECON	5-Apr		biweekly meeting	1
261	student	ECON		5-Apr	census information	2
262	student	unknown		5-Apr	workshop info	0.5
263	professor	LANG		5-Apr	SSQL info	1
264	student	ECON	5-Apr		regression analysis	2
265	student	ECON	9-Apr		stata code	2
266	student	ECON	9-Apr		clustering question	0.5
267	student	ECON	13-Apr		Stata intro	1.5
268	student	ECON	13-Apr		stata code	1.5
269	professor	ECON	13-Apr		performance review	1
270	student	ECON	16-Apr		arcGIS document	1.5
271	professor	SOAN	18-Apr		discuss SSQL	0.25
272	student	ECON	19-Apr		stata code	1
273	professor	COMPSCI	23-Apr		discuss quant teaching at Haverford	0.5
274	student	ECON		23-Apr	stata help	0.5
275	student	ECON		23-Apr	stata help	0.5
276	student	ECON	23-Apr		stata help	2.5
277	student	POLSCI	23-Apr		networking at Upenn	0.5
278	professor	ECON	24-Apr		biweekly meeting	0.5
279	professor	LANG	24-Apr		SSQL info	1
280	student	ECON	24-Apr		stata help	1.5

number	type	department	met in person	emailed	type of help	hours
281	student	ECON		24-Apr	survey design	1
282	professor	POLSCI	24-Apr		data discovery help	1
283	student	ECON	24-Apr		data discovery	1
284	student	ECON	25-Apr		stata help	1.5
285	student	ECON	25-Apr		stata help	0.5
286	student	ECON	25-Apr		survey design	1
287	student	ECON	26-Apr		stata help	1.5
288	professor	ENGIN	26-Apr		p-hacking	0.5
289	student	POLSCI	26-Apr		research design	1.5
290	staff	library	26-Apr		research design	0.5
291	student	ECON	27-Apr		stata help	2.5
292	professor	MATH/STATS	27-Apr		discuss teaching	1
293	student	ECON		27-Apr	stata help	0.5
294	student	ECON		30-Apr	stata help	0.5
295	professor	BIO	30-Apr		First gen summer program	1
296	professor	ENGLISH	1-May		o4s context	0.5
297	*professor*	*ECON*	*3-May*		*biweekly meeting*	*
298	*professor*	*PHYSICS*	*7-May*		*data science at Swat*	*
TOTALS						**355.75**

all italicized events have not yet occurred

WORKSHOPS and LECTURES ELLA ATTENDED:
FALL 2017-SPRING 2018

	Workshops and Lectures	Date	Department
1	Econ workshop	2-Aug	ECON
2	Faculty benefits	3-Aug	all
3	R workshop lunch	15-Aug	ITS
4	faculty orientation	30-Aug	all
5	Drupal fundamentals	29-Aug	ITS
6	Drupal fundamentals	1-Sep	ITS
7	New faculty meeting	6-Sep	all
8	Ben Goossen Nazis paraguay	7-Sep	history
9	Board reception faculty	15-Sep	all
10	Failure: How to do it well	20-Sep	all
11	Faculty lunch	20-Sep	all
12	Constitution day	21-Sep	POLSCI
13	New faculty lunch	25-Sep	all
14	New Faculty Happy Hour	29-Sep	all
15	Lynne Schofield research	27-Sep	Math/Stats
16	Grad school info NSSR	5-Oct	SOAN
17	Teach in Charlottesville	5-Oct	all
18	Budget Essentials	27-Oct	all
19	Steve Walt Foreign Policy	26-Oct	ECON
20	Trotter Hall Crawl	27-Oct	POLSCI
21	Eboo Patel	1-Nov	POLSCI
22	Fall welcome reception	2-Nov	all
23	Discover Swarthmore lunch	3-Nov	all
24	Budget Essential	3-Nov	all
25	LALS dinner	8-Nov	Latino LALS
26	Econ dinner and talk Nancy Rose	9-Nov	ECON
27	Budget Essentials	10-Nov	all
28	Women LINC Computing	14-Nov	COMPSCI
29	Understand population trend	17-Nov	Physics astronomy
30	Uncle Sam's Closet	21-Nov	POLSCI
31	Tensors and eigenvectors	28-Nov	Math/Stats
32	Tensors and method of moments	29-Nov	Math/Stats
33	SocAnth Senior Thesis Writers Posters	4-Dec	SOAN
34	PolSci holiday party	10-Dec	POLSCI
35	Burrito Bash	12-Dec	ECON
36	Kohlberg Holiday Party	15-Dec	SOAN
37	mentoring toast	15-Dec	all
38	Holiday party	15-Dec	all
39	Holiday party	16-Dec	Econ/classics
40	NCFDD Solo Success all day	19-Jan	all
41	Dystopias	25-Jan	SOAN
42	Faculty lunch	31-Jan	all
43	New faculty lunch	19-Feb	all
44	Pierson lecture	19-Feb	ECON

45	Climate Justice and Civil Rights	2-Mar	POLSCI
46	Searching for Sanctuary	7-Mar	Educational studies, latinx
47	Immigration Theory at Upenn	19-Mar	POLSCI
48	Islam in Russia	19-Mar	History
49	Morehouse Glee Club	22-Mar	Music
50	Race and Reparations	22-Mar	POLSCI
51	Maya Nadkarni research discussion	22-Mar	SOAN
52	Bartik Instruments	23-Mar	ECON
53	Class Ceiling	23-Mar	SOAN
54	Polarization and Parties	25-Mar	POLSCI
55	New Faculty lunch	26-Mar	all
56	Teaching the Climate Generation	29-Mar	ENV studies
57	WOCKA mentoring lunch	30-Mar	all
58	racial justice	30-Mar	POLSCI
59	CS21: Lists and loops	2-Apr	COMPSCI
60	Daniel Ellsberg	3-Apr	POLSCI
61	Arduinos	4-Apr	ITS
62	Faculty lunch	4-Apr	all
63	Spring Welcome Reception	5-Apr	all
64	Modern Environmental Politics	9-Apr	POLSCI
65	Free Trade v Nationalism	10-Apr	ECON
66	Immigration and Democracy	11-Apr	POLSCI
67	Multi conference	13-Apr	Multi
68	Arms on Legs Robots	16-Apr	COMPSCI
69	productivity growth OECD	16-Apr	ECON
70	Do (Not) Attend this Talk	18-Apr	all
71	I'm Not a Racist	18-Apr	POLSCI
72	Hidden Figures panel	19-Apr	STEM
73	Senior Lang Scholars	20-Apr	LANG
74	Happy Hour Junior Faculty	20-Apr	all
75	Mark Hetheringon, Upenn	23-Apr	POLSCI
76	P-Hacking	24-Apr	Math/Stats
77	Whither Critical Race Studies	24-Apr	SOAN
78	Job talk SoAn	25-Apr	SOAN
79	Faculty lunch data governance	25-Apr	all
80	Global Ethnographies	26-Apr	SOAN
81	LALS End of Year	27-Apr	LALS
82	Katherine McCabe, Upenn	30-Apr	POLSCI
83	Candidates Forum Gun Policy	30-Apr	POLSCI
84	Presidents Sustainability Fellows	1-May	Env studies
85	*Job talk SoAn*	*2-May*	*SOAN*
86	*Annual IC award dinner*	*2-May*	*all*
87	*WOCKA Mentoring lunch*	*4-May*	*all*
88	*Econ Dept Picnic*	*4-May*	*ECON*
89	*Publishing Pipeline*	*8-May*	*all*
90	*ENLACE banquet*	*8-May*	*LALS/ENLACE*
91	*SOAN Honors Examiners*	*21-May*	*SOAN*

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