Election Analytics

This data-driven course seeks to understand how elections are won (and lost) in the United States. We will study research on campaigns and voting behavior and examine data from the current and past elections to understand what will happen in 2020 and future elections. Students will learn data analysis skills and will build a data-analysis project continuously throughout the semester. Select students will have an opportunity to participate in the next iteration of the Harvard Political Analytics Conference. Before enrolling students should have completed Gov 50 or an equivalent course.

*The **goal of the course** is for students to gain the skills and background knowledge to analyze election-related data for insights about campaigns, voters, and democratic processes that are important to them. This will be demonstrated by their successful analysis of election data.*

1 Basic Information

1.1 Teaching Team

Professor Ryan D. Enos
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Office Hours: Wednesday 11:00AM–12:00PM and by appointment

Soubhik Barari (Teaching Fellow)
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1.2 Class Meeting

1. Videocast: weekly, at your convenience
2. Discussion section (*students attend only one*):
   (a) Monday 3PM or
   (b) Wednesday 9AM

3. Laboratory session: TBD (*students attend only one*)
    (a) students in Monday discussion section attend Lab session on either Tuesday (morning or afternoon) or Wednesday afternoon
    (b) students in Wednesday discussion section attend Lab session on Thursday morning

1.3   Communication

1. All essential material will be posted on Canvas and course-wide announcements will be sent to the emails associated with Canvas.
2. **Course Slack: http://electionanalyticshq.slack.com** will be used for non-essential communication that may be of interest to students, including items from the news and discussion of the election. Use of the channel is optional, but encouraged. Anybody may post to the channel and it is also *the preferred way to communicate with the teaching team through Direct Messages.*

2   General Structure of Course

The learning in this course will primarily occur through the exploration of data and the creation and evaluation of models to predict the election. These predictions are in service of better understanding the forces underpinning the outcomes of elections in the United States. The data will focus on Presidential elections, but the understanding is intended to extend to any election, including those outside the United States. We will read and discuss academic articles that help us to understand how voters and politicians behave and how elections are administered.

The course has five weekly components: 1) asynchronous videocasts, 2) reading, 3) synchronous discussion of theory and models, 4) synchronous data lab meetings, 5) Predictive models and GitHub blog.

Videocasts   will be posted in the week prior to the discussion and data labs. The lectures will discuss the theory and prior research on the topic. Students are required to watch these videos and come prepared to discuss these in the discussion sections.

Reading   is drawn from academic articles and books. Students should carefully read each week before coming to the discussion sections and should consider how the readings inform their understanding of the current election and their modeling choices.

Discussions   consist of two synchronous sections led by Professor Enos. Students are to attend the same section each week. We meet and discuss as a group so that we can share knowledge and exchange ideas to make our analysis better.

These sections have two parts. First, a small group of students will present their data analysis and predictions from the previous week and we will use these predictions to generate a larger discussion. In most weeks, we will be joined by a guest, usually an expert in elections and campaigns, who will comment on the analysis.

Second, we will prepare for the upcoming laboratory session and the updating of our predictive models by discussing the readings from the week and the current campaign, introducing the data to be analyzed, and discussing how the previous research should inform our models using this data.

Laboratory Sessions meet once per week and will be led by the Teaching Fellows. Every student must enroll in one. During the session, students will explore data, learn new analysis and coding skills, and prepare their models and predictions for the week. Analysis will be completed in the statistical software R and students will be required to submit code each week.

Predictive Models and Blog will be updated weekly by each student and will be recorded on a dedicated GitHub. We will evaluate these models after the election and will also pool models to see how we did as a course.

3 Topics by Date

The course has three parts: 1) A brief introduction to the theory and motivation behind predicting elections. 2) Pre-election building of predictive models. 3) Post-election assessment of these models and the election generally.

1. Introduction and Organization
   - **2/9 September**: How and why do we create predictive models?
2. Pre-election prediction
   - **14/16 September**: Fundamentals I: Economic forces
   - **21/23 September**: Polling
   - **28/30 September**: Fundamentals II: Incumbency
   - **5/7 October**: Campaigns I: The "Air War"
   - **12/14 October**: Campaigns II: The "Ground Game" (*October 12 is a holiday — all students should attend October 14 if possible*)
   - **19/21 October**: Shocks and Unexpected Events
   - **26/28 October**: Laws and Administration
3. **2/4 November**: *Election week, no regular class meetings*
4. Post-election assessment
   - **9/11 November**: Assessing our models: reviewing what went right and wrong with our predictions and why?
   - **16/18 November**: What was different this time? Comparing to past elections.
   - **23/25 November**: Assessing campaigns – did campaigns have the right message? (*November 25 is a holiday — all students should attend November 23 if possible*)
   - **30 November/2 December**: Testing narratives: Are the popular narratives correct? What does our data tell us that popular narratives may be missing?

4   Assignments

1. **Prediction Blog:** Each week is updated with new analysis and code. This will have relevant exploration of the new variables of interest and updates to their overall predictive model. The analysis will include discussion and justification for modeling choices and will cite relevant literature. These blogs are not graded on the accuracy of the models, but rather the logic and clarity of the approach and presentation.
2. **Sharing of Prediction Blog:** During each discussion session, a group of students will be asked to collaborate to build a model and share it. Each student will do this once during the semester.
3. **Final Predictive Model:** Each student will submit a final predictive model before the election.
4. **Post Election Analysis:** After the election, students will undertake two analyses:
   (a) A reflection on the accuracy of their predictive model and what it taught us about elections and voting behavior.
   (b) An assessment and critique of popular post-election narratives using available data.

5   Grades and Due Dates

All assignments will be submitted to students' GitHubs. Grades are based on the following:

Assignment	Due	Grade Percent
Discussion and presentation		15%
Blog	Tuesday Sections due Friday at 11:59PM, Wednesday Section due Saturday at 11:59PM, Thursday Section due Sunday at 11:59PM	50%
Final election prediction*	November 1 at 9PM Eastern	
Post-election reflection on model	November 23 at 9PM Eastern	17.5%
Post election narrative	December 6 at 9PM Eastern	17.5%

*To receive credit for the post-election reflection, the final election prediction must be submitted on time.

In the absence of extraordinary circumstances, work turned in after the due date will not be accepted and will receive no credit.

6   Participation and Other Expectations

All students are expected to attend every class and participate by talking during every class. When in class and sections, minimize distractions on your computer and keep your camera on, unless you have a compelling reason not to do so.

7   Collaboration

Collaboration is allowed in this class but students are responsible for writing their own code, blog entries, and other writing assignments. Copying from other students will be considered academic dishonesty.

8   Readings and Data by Date

Finding Books and Other Readings: All reading assignments are available through the hyper-links provided in the References section below. Most are accessed through the Harvard libraries and you must be logged-in as a Harvard user to gain access.

Data   will be available on Canvas.

Reference Material: To brush up on programming in R, see [Wickham and Grolemund, 2016] and for further clarification on statistical techniques, see [Ismay and Kim, 2020].

Date	Reading	Data	Guest
9-2/9 Introduction	1. [Sides and Vavreck, 2013] (Chapters 1 and 7) 2. [Fair, 2011] (Introduction and Chapters 1 and 2) *See Canvas site for this reading.* 3. [Enos and Hersh, 2017] 4. [Westwood et al., 2020]	1. Presidential popular vote average 1948-2016 2. Presidential popular vote by state 1948-2016	

Date / Topic	Readings	Data	Other
9-14/16 Fundamentals I: Economic forces	1. [Achen and Bartels, 2017] (Chapters 4 and 6) 2. [Healy and Lenz, 2014] 3. [Ardoin and Gronke, 2016] (read all articles in the "Symposium: Forecasting the 2016 American National Elections")	1. GDP growth (national): 1947-2020 (US Bureau of Economic Analysis, Department of Commerce) 2. Real disposable income (national): 1959-2020 (US Bureau of Economic Analysis) 3. Inflation – CPI (national): 1947-2020 (US Bureau of Labor Statistics, Department of Labor) 4. Unemployment (national): 1948-2020 (US Bureau of Labor Statistics) 5. Unemployment (state): 1976-2020 (US Bureau of Labor Statistics)	

9-21/23
Polling
	1. [Galton, 1907]
	2. [Gelman and King, 1993]
	3. Peruse the following:
	  (a) [Morris, 2020b]
	  (b) [Morris, 2020a]
	  (c) [Silver, 2020]
	  (d) [Trende, 2020]
	  (e) [Graefe, 2020]
		1. Presidential poll averages by state 1968-2016
		2. Presidential general election polls by state 2016
		3. Presidential general election polls by state 2020
			Amanda Cox, The UpShot, *New York Times*

9-28/30 Fundamentals II: Incumbency	1. [Brown, 2014] 2. [Donovan et al., 2019] 3. [Kriner and Reeves, 2012]	1. Federal grant allocation, 1984-2016 ([Kriner and Reeves, 2012]) 2. Presidential approval polls, 1941-2020 (Gallup)	Sean Trende, RealClearPolitics

10-5/7 Campaigns I: The "Air War"	1. [Gerber et al., 2011] 2. [Huber and Arceneaux, 2007]	1. Campaign ads by airdate, spending, and state 1996-2012 (Wesleyan Media Project) 2. Campaign spending at the national level: total 1980-2020, quarterly 2000-2016 (Federal Elections Commission)	Charlotte Swasey, Data for Progress
10-12/14 Campaigns II: The "Ground Game"	1. [Darr and Levendusky, 2014] 2. [Enos and Fowler, 2016] 3. [Enos and Hersh, 2015] 4. [Kalla and Broockman, 2018]	1. Field offices by state, 2004-2016 ([Darr and Levendusky, 2014] and [Darr, 2019]) 2. Turnout by state, 1980-2014 (United States Elections Project)	Lynn Vavreck, UCLA and *New York Times*
10-19/21 Shocks and Unexpected Events	1. [Achen and Bartels, 2017] (Chapter 5) 2. [Karol and Miguel, 2007] 3. [Healy et al., 2010] 4. [Fowler and Hall, 2018]	1. Covid-19 Daily cases and deaths since 01/22/2020 (US Center for Disease Control) 2. Covid-19 Daily governmental response since 01/01/2020 (Coronanet) 3. Iraq war casualties as of 2004 ([Karol and Miguel, 2007]) 4. Shark attacks by state, 1872-2012 ([Fowler and Hall, 2018]) 5. Sports outcomes 1960-2012 ([Fowler and Montagnes, 2015])	David Shor

10-26/28 Laws and Administration	1. [Li et al., 2018] 2. [Thompson et al., 2020]	1. Election performance index, 2016 (MEDSL) 2. Various election laws (photo ID, vote-by-mail, same-day-registration), TBD-2020 (various sources)	G Elliott Morris, *The Economist*
11/2 Election Week!			
11-9/11 Assessing our Models	[Campbell et al., 2017]	2020 Final Vote by State	
11-16/18 What was different this time?	[Hopkins, 2017] (Chapters 2 and 6)	Final Vote by State 1948–2020	Kabir Khana, CBS News
11-23/25 Assessing Campaigns	[Vavreck, 2009] (Chapters 3–6)	2020 Election Transcript Archive, Rev.com	
11-30/12-2 Testing Narratives	1. [Sides et al., 2019] (Chapter 8) 2. TBD	Exit Poll Data and other data TBD	Meg Schwenzfeier, Biden for President

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