Instructor: Dr. Shawna K. Metzger
Lecture: WF, 10:00-11:35am
Location: Cinnamon South Learn Lobe, SR1

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"Time is nature's way of keeping everything from happening at once." – *variously attributed*

Module Description

Whether an event happens is a relevant question for multiple disciplines. Will a recession occur? Will a politician publicly support a legislative bill before the final vote? Will a patient die of a disease? Will a machine part break down? Will a married couple get divorced? Will an unemployed worker find a job? Will a patient experience depression? Will a student graduate from college? Will a cease-fire hold? Will a household own a car? Often, we hypothesize that some factor (x) affects the probability of the event occurring (y). Econometric models—regression, specifically—permit us to assess whether our hypothesis has empirical support.

However, for any question where we can ask "whether" something happens, we can also ask *when* it happens. For example: How long until a recession occurs? How long until a politician publicly supports a legislative bill before the final vote? How long before a patient dies of a disease? How long before a machine part breaks down? How long until a married couple gets divorced?

In this module, we are concerned with "when" questions. What got people thinking about time's effect on events in the first place? Why were existing tools insufficient to assess hypotheses about time's effect? What makes the passage of time so special? What tools *can* we use to assess hypotheses about time? The module starts with simple tools and builds upward, ultimately arriving at more complex econometric models than anything students see in QRF.

The course is broadly divided into three thematic components:

    I.   Econometrics 101
   II.   Survival Models
 III.   Assumption Violations

The first component reviews the basics of econometric analysis from QRF. In the second component, we cover new econometric tools—survival models[1]—that are best suited to answering questions about when something happens. In the final component, we discuss the various assumptions associated with these new econometric tools, how to assess whether these assumptions are violated, and how to implement the appropriate corrections. We use politics-related phenomena as running examples, with students using additional datasets to practice employing the techniques we discuss.

This module counts as one of the four required Inquiry-level modules in the Sciences and Technologies domain for USP students. Additionally, this module is a Writing Concentration Module. Across all three module components, you will repeatedly work on your ability to write about the various quantitative analyses we discuss in accessible, non-technical, but precise prose.

Course Objectives

Upon completing the module, you should able to:
1. Identify and understand the challenges that "time" poses for hypothesis testing with linear regression
2. Understand how to make accurate inferences from survival models
3. Interpret the results from any quantitative tools we discuss using accessible, non-technical, but precise language, particularly with regards to hypothesis testing

Course Expectations

I have four broad expectations regarding your knowledge of the material and your degree of effort. First, I expect you to learn the material. Second, learning the material comes from putting effort into preparing for the relevant assignments each class. For that reason, I expect you to prepare for class that day, regardless of the nature of the assignment. Third, if a concept does not make sense in class, or if you are unsure about an assignment, I expect you to contact me. Finally, class starts at the top of the hour. Be here on time.

In return, you can expect certain things from me. First, I will be prepared for each class so the information is presented as coherently as possible to you. Second, I will not waste your time with menial readings or other coursework. Third, assignments will be graded fairly and returned promptly. Promptness also extends to email responses, where you can expect a reply to any emails you send within 36 hours on weekdays, unless told otherwise. Finally, class ends at 35 past the hour. I will always make a serious effort to end class at that time.

In short: If I am willing to put forth the effort to make the class work, I expect no less from you.

Use of Technology during Class

Electronic devices—computers, tablets, mobiles, MP3 players—have revolutionized our lives. The classroom is no exception. While these devices have many beneficial qualities, they can create a discordant learning environment if they are used inappropriately during class.

Examples of inappropriate behavior include, but are in no way limited to: wearing headphones during class, sending SMSes, ringing phones, playing games on your mobile, checking your email, surfing the internet (e.g., Facebook, Twitter, Tumblr), and working on coursework for other classes. Such usage is distracting to your fellow students, and it is disrespectful to the professor.

To promote a positive learning environment, anyone caught using electronic devices inappropriately during class will be penalized. **Your final course grade will be lowered by one half-letter grade for every infraction.** For example, if your final course grade is an A-, but you are caught texting once, it will be lowered to a B+. If you are caught twice, it will be a B.

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[1] Also known synonymously as "duration models" and "event history analysis."

You are allowed to use your laptop to take class notes. I only ask that you be considerate and sit toward the sides or back of the classroom, so that no one behind you will be distracted by your screen. However, if you are caught doing anything other than notetaking, the same penalty applies.

This policy applies to everyone, no exceptions. Even I silence my mobile before class starts. In the rare event of *truly* exigent situations (e.g., family emergency), where you cannot avoid violating this policy, you must let me know before class starts. I will <u>not</u> hear appeals after the penalty is assessed. I will point you to this paragraph, albeit sympathetically.

<u>Reading Material</u>

The course makes use of four books, available online to all NUS students via LINC:

Box-Steffensmeier, Janet M., and Bradford S. Jones. 2004. *Event History Modeling: A Guide for Social Scientists*. Cambridge: Cambridge University Press. (Abbreviated "*EHM*" in the course outline.) http://linc.nus.edu.sg/record=b3277563

Kellstedt, Paul M., and Guy D. Whitten. 2009. *The Fundamentals of Political Science Research*. Cambridge: Cambridge University Press. (Abbreviated "K&W" in the course outline.) http://linc.nus.edu.sg/record=b3278448

Mills, Melinda. 2011. *Introducing Survival and Event History Analysis*. Los Angeles: Sage. (Abbreviated "Mills" in the course outline.) http://dx.doi.org/10.4135/9781446268360

Singer, Judith D., and John B. Willett. 2003. *Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence*. Oxford: Oxford University Press. (Abbreviated "S&W" in the course outline.) http://dx.doi.org/10.1093/acprof:oso/9780195152968.001.0001

Finally, I have assigned some additional readings to supplement the required books above. These readings are available digitally on IVLE, under "Additional Readings" in the "Course Documents" Workbin.

Optional Reference:

Greene, Anne E. 2013. *Writing Science in Plain English*. Chicago: University of Chicago Press.

<u>Statistical Software</u>

We will be using Stata to estimate the econometric models from this module. You will need Stata to complete the problem sets, for instance. As part of the module, you will learn how to use Stata to extract the information you need.

There are three ways you can gain access to Stata:
1. By using USP's Multimedia Lab computers. All Lab computers have Stata 14 installed.
2. Install the package on your own computer by purchasing a 6-month license of Stata's "student" variant ($35 USD).[2] The student variant can handle up to 1200 observations.
3. Install Stata on your computer, but pay an additional cost to purchase a permanent license.

If you are well versed in another statistical software package (e.g., Matlab, R, SAS, SPSS), you are welcome to use it in lieu of Stata. However, you do so with the understanding that:
- All class demonstrations will be done in Stata.
- All the relevant estimation commands will be given in Stata only.
- Prof technical support will be available for Stata only.
- You are responsible for determining the equivalent commands in your package, on your own time. The packages generally have the same functionality, but not always. Your problem sets are still due at the same time as everyone else's. Budget your time accordingly.

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[2] See http://www.stata.com/order/new/edu/gradplans/student-pricing-nodl/ for pricing details. Note that all prices are in US dollars.

- The output from different packages sometimes differs in its interpretation. You are responsible for ensuring that you understand what your package is reporting, and interpreting this output correctly. Cross-package differences are not an acceptable excuse for an incorrect interpretation in a problem set.

In short: Stata is the only officially supported statistical software package for this module. If you want to use another package, that is fine, but you are on your own. Caveat utilitor.

Course Grade and Assessments

A student's final course grade is composed of four elements:

1. Seminar Participation   5%
2. In-class Activities   15%
3. Project: Duration Data   55%
4. Final Practicum   25%   * Given in class

Incomplete course grades ("IC") will not be given, except in extenuating circumstances.

IMPORTANT DATES OF NOTE
- Graded assessments ("Major Due Dates")
  o Duration Data – Segment #1   20 February 2017 (M)
  o Final Practicum   12 April 2017 (W)
  o Duration Data – Segment #2   18 April 2017 (T)
- Ungraded Duration Data assessments ("Minor Due Dates")
  o OLS   25 January 2017 (W)
  o PM: Choosing among   08 March 2017 (W)
  o PM: Interpretation   15 March 2017 (W)
  o PM: Diagnostics   22 March 2017 (W)

All assignments are due at 10am via IVLE. **Late assignments will not be accepted**. Plan accordingly.

SEMINAR PARTICIPATION
Most class periods will contain at least one activity, ranging from group work to silent self-reflection. These activities are intended to stimulate your thinking about the topic we have been discussing, so as to help you understand and learn it. You are expected to participate fully.

I reserve the right to hold pop quizzes at any time, should I suspect that anyone is not doing the course readings or is not paying attention. The quizzes contribute to this section of your grade.

PROJECT: DURATION DATA
The Duration Data project constitutes the bulk of your final module grade. It is composed of several smaller assignments. All the instructions for the assignment are included in the "Project Information" section at the end of the syllabus.

FINAL PRACTICUM
The final practicum assesses how well you have met the course objectives by testing your ability to practically apply the information you have learned in the module. The practicum is worth 25 percent of your final grade. It is cumulative.

In general, the practicum is composed of mainly short answer questions, but multiple choice questions are also possible. The emphasis is on applicability, meaning that material will come almost entirely from what we have discussed in class, particularly the material on the Day's Objectives slides. However, any assigned reading is also technically testable. Parts of it are deliberately written to be challenging.

If you understand the course's fundamentals well but have difficulty applying them to new situations, your exam grade will likely be a B/B+. Your ability to *apply* these fundamentals (the second segment) will push you into the A- or higher range.

Policies regarding absences from the scheduled in-class exams are identical to the University-level policies during examination periods. These policies are available for you to view under "Examination Directory" on myPortal.

Academic Integrity

All NUS students are bound by the Code of Student Conduct.[3] This includes academic integrity. Any violations (e.g., cheating, plagiarism) will be prosecuted fully according to University policy.[4]

You are allowed to confer with your classmates about the assignments as you complete them, as is typical in most USP classes. However, the work that you turn in must ultimately be your own. All of the assignments are to be completed by an individual, not a collective. Thus, any assignment must reflect your understanding of the subject matter—e.g., it must be in *your* words, with its organization reflecting *your* line of reasoning. Borrowing someone else's words is a form of plagiarism, as is borrowing their organizational structure. Both are possible in a QR class, because QR is concerned with not only obtaining the correct "numbers", but your ability to interpret the numbers, give them substantive meaning, acknowledge their potential flaws, and weave them back into a larger argument.

Academic integrity violations tend to happen when individuals feel like they have no other way to complete an assignment on time and/or correctly. If you ever feel lost, confused, overwhelmed, pressured, etc. by an assignment, please: do not cheat, plagiarise, etc. Your education is serious business, but it should not come at the cost of sacrificing your morals and personal integrity.

Instead, stop by to talk to me. My door is always open, and our conversations will remain between us. I am on your side at the end of the day, but I cannot help if you do not ask for it, nor can I help if you wait too long to ask. (I cannot work miracles.) I am willing to work with you to complete the assignment if you contact me *at least 24 hours before the due date*. This can include granting an extension, should I see fit. Some accommodations will entail point deductions, so as to be fair to your classmates, but your grade would still be higher than it would if you were caught cheating.

Simply put: you should never feel that academic dishonesty, cheating or otherwise, is your only option. If you engage in such behavior, I will come down on you. Hard.

Course Outline: Topics, Reading List

The class will be a combination of lecture and seminar. I rely on PowerPoint as a structuring tool for discussion. The presentations have a small amount of text by design, and ***are not meant to be substitutes for taking class notes!*** They are meant to serve as a topical outline for the discussion, which—to reiterate—means they are not meant to capture each class word-for-word.

Presentations will be posted on IVLE by 6:00am on the day of class, should you want to print the slides for taking notes. Any abbreviations in the presentation are summarized on the last slide.

The readings are to be completed for the class under which they are listed. You may find it helpful to read them in the order they appear.

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[3] http://www.nus.edu.sg/osa/coc
[4] http://www.usp.nus.edu.sg/curriculum/plagiarism

Section I: Econometrics 101

1.)   <u>11 Jan</u>   <u>Introduction, Linear Regression</u>
        K&W, Sections 9.1-9.3, 10.3, 10.5

2.)   <u>13 Jan</u>   <u>Hypothesis Testing</u>
        K&W, Sections 9.4.6, 9.4.7, 9.4.9

3.)   <u>18 Jan</u>   <u>Introduction to Stata – Part 1</u>
        Getting Started with Stata (v14),[5] Sections 1, 8

4.)   <u>20 Jan</u>   <u>Introduction to Stata – Part 2</u>
        Getting Started with Stata (v14), Sections 10-12

5.)   <u>25 Jan</u>   <u>On Communicating Well</u>
        Miller, *The Chicago Guide to Writing about Multivariate Analysis* (1e), Ch. 14

Section II: Tackling Time

6.)   <u>27 Jan</u>   <u>Why worry about time?</u>
        Bueno de Mesquita, Koch, and Siverson, "Testing Competing Institutional
        Explanations of the Democratic Peace"

7.)   <u>01 Feb</u>   <u>Why are our existing tools ill-suited?</u>
        Mills, Section 1.5

8.)   <u>03 Feb</u>   <u>Introduction to Survival Models</u>
        S&W, Sections 9 (intro), 9.1-9.2.2 (skim 9.1.1-9.1.3), 9.2.3$_{\P1}$
        Mills, Sects. 1.1-1.4

9.)   <u>08 Feb</u>   <u>Lab Day: Descriptives and Kaplan-Meiers</u>
        CGGM, Sections 8.2.1, 8.2.7

10.) <u>10 Feb</u>   <u>Group Revisions, Lab Debrief</u>

11.) <u>15 Feb</u>   <u>Parametric Survival Models</u>
        Mills, Sects. 6.1-6.2, 6.4 (skip 6.4.3, 6.4.6)

12.) <u>17 Feb</u>   <u>Choosing among Parametric Models</u>
        EHM, Ch. 3, pp. 41-43

      <u>20/2-24/2</u>   <u>No classes, Recess Week</u>

13.) <u>01 Mar</u>   <u>Interpreting Survival Models</u>
        EHM, Ch. 3, Example 3.1 (pp. 27-31), Example 3.2 (pp. 35-37)

14.) <u>03 Mar</u>   <u>Lab Day: Parametric Models</u>
        CGGM, Sections 13.2, 13.4, 13.6 (skip all "Technical Notes")

Section III: "Hazards Gone Wild" – Assumption Violations

15.) <u>08 Mar</u>   <u>Model Diagnostics</u>
        EHM, Ch. 8, pp. 119-120, 122-123
        Mills, Sect. 7.4
        S&W, Sect. 12.7

16.) <u>10 Mar</u>   <u>Lab Day: Diagnostics</u>
        CGGM, Section 13.7

17.) <u>15 Mar</u>   <u>Graphics for Presenting</u>
        Miller, *The Chicago Guide to Writing about Numbers* (1e), Ch. 7
        Getting Started with Stata (v14),[5] Sections 14-15
        Stata Graphics Reference Manual (v14), "A Quick Tour" section (skim)[6]

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[5] To access from Stata: `help gs`. For Windows, choose [GSW]; Mac, [GSM].
[6] To access from Stata: `help graph_intro`. The PDF version of the manual includes visuals.

18.) <u>17 Mar</u>   <u>Group Revisions, Lab Debrief</u>

19.) <u>22 Mar</u>   <u>Semi-Parametric Estimation</u>
Singer and Willett, Section 14.2

20.) <u>24 Mar</u>   <u>The Cox Model</u>
Mills, Sects. 5.1 (intro), 5.1.1, 5.1.3, 5.2.3

21.) <u>29 Mar</u>   <u>Lab Day: Cox</u>
CGGM, Sections 9.0 (intro), 9.1.1-9.1.2 (skip "Technical Notes")

22.) <u>31 Mar</u>   <u>Group Revisions, Lab Debrief</u>

23.) <u>05 Apr</u>   <u>Study/Work Day</u>

24.) <u>07 Apr</u>   <u>Course Wrap, Review</u>
EHM, Ch. 11

25.) <u>12 Apr</u>   <u>Final Practicum</u>

26.) <u>14 Apr</u>   <u>No Class: Good Friday</u>

19.) <u>22 Mar</u>   <u>Semi-Parametric Estimation</u>
Singer and Willett, Section 14.2

20.) <u>24 Mar</u>   <u>The Cox Model</u>
Mills, Sects. 5.1 (intro), 5.1.1, 5.1.3, 5.2.3

Project Information: Duration Data

Overview
This class is concerned with duration models. However, it is also concerned with your ability to write about duration models, in the service of evaluating a claim you have made. We have focused on claims about some factor *x* being correlated with our duration of interest. "Writing" about duration models includes, but is not limited to, discussing what models you are estimating, the rationale behind your modeling choices, the results from whatever model(s) you estimate, generating graphs displaying meaningful quantities, describing the model's assumptions, and any tests you perform to assess whether the assumption(s) are violated.

The challenge is making your prose accessible to a non-quantitative audience without sacrificing your prose's precision. You must make decisions about what information is necessary to include, what would be nice to include as bonus information, and what is superfluous to include. All writing genres require you to make these decisions as you write, but quantitative analyses heighten the stakes. Rightly or wrongly, quantitative evidence takes more background training to understand and interpret correctly. If your reader does not have a background in quantitative analysis, and your prose does not adequately, accessibly, or accurately explain and interpret your quantitative evidence, your reader cannot assess your claim's veracity regarding whether you find supportive evidence or not.

Accordingly, the major project for this module combines both these elements:
1. It requires you to apply what you have learned about duration models by analyzing a dataset, from a list below. Each dataset has a hypothesis associated with it. You will use the same dataset throughout the semester to demonstrate your ability to use the tools we discuss to evaluate this hypothesis.
2. You must then demonstrate your ability to write well about the quantities these tools return as output, **with the rhetorical aim of communicating whether the hypothesis you are investigating finds supportive evidence**.

You will iteratively revise your writing throughout the semester, culminating in two major due dates. The project amounts to 55% of your final module grade, with the first major due date's work constituting 25% of your grade and the final major due date's work constituting the remaining 30%.

Procedural
DUE DATES
- All assignments are due on the date listed by 10am for *all* students.
- You will submit all your work via IVLE (see below).
- **Late assignments will not be accepted. Plan accordingly.**

FORMATTING
- You should use word processing software to type your assignments.
- In line with standard academic practice, you should appropriately cite any sources to which you refer or paraphrase. This includes, but is not limited to, the textbook and any other supplemental reading from the course. You may use whatever citation format you prefer. Simply be consistent.
- Your document should:
  - Have 1-inch margins
  - Be double spaced
  - Use a serif or sans-serif font face
  - Have a font size no smaller than 12 points
- Each individual component of the project (see "Content" section) can be completed in 1-2 double-spaced pages, not including pages for tables or graphs. **You should make a serious effort to aim for that range**. You may turn in a maximum of 3 pages, double spaced, not including tables or graphs, unless explicitly told otherwise.

SUBMISSION
- Please submit assignments as <u>PDF files</u>.
- Please <u>include your name and matric number</u> somewhere on your assignment.
- Please <u>place all tables and graphs at the end of your document, one per page</u>. In the text, write "Insert Table/Figure # here" to signify where the table/figure should go. Doing so will make your document formatting efforts much easier.
- <u>Upload your files</u> to the "Assignment Submissions" Workbin on IVLE.
- Each assignment has its own submission folder; the folders are organized within the Workbin by project. Make sure that you upload your assignment to the <u>correct location</u>. Uploading files to the wrong folder is not an acceptable excuse for late assignments.

FEEDBACK
We will be engaging in group revision exercises in class. I may look at the drafts you submit on minor due dates to ensure they are complete, but feedback will be minimal.[7] There are two times during the semester when I will read what you write for a grade. I will mark all your assignments electronically. You will receive feedback through IVLE.

A NOTE ON CLASS USAGE
We will be working with your drafts in class. You should always have a copy of your submitted assignment with you, either in hard copy or digitally. There will be some classes where you must bring hard copies. When this occurs, I will announce it the class before.

Content
As I mentioned above, your broad rhetorical task for every assignment is **communicating whether the hypothesis you are investigating finds supportive evidence**.

Your hypothesis is assigned based on the dataset you select from a list. Sometimes, the tool in question is descriptive only, intended to give your reader a sense of what your dataset looks like before you use it to formally test your hypothesis of interest. Nonetheless, remember that everything you discuss is eventually in service of discussing your hypothesis—specifically, whether it finds empirical support.

The project's major and minor due dates are as follows:

Assignment Topic	*Draft*	*Revised*
OLS	W, 25JAN	M, 20FEB
Kaplan-Meier	M, 20FEB	
Revision examples: OLS		M, 20FEB
Parametric Models: Choosing among	W, 08MAR	T, 18APR
Parametric Models: Interpretation	W, 15MAR	T, 18APR
Parametric Models: Diagnostics	W, 22MAR	T, 18APR
Cox Models	T, 18APR	
Revision examples: Parametric		T, 18APR

Light shaded = minor due date, dark shaded = major due date

You will submit your work for grading in two segments, by compiling each segment's relevant pieces into one PDF file for submission.

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[7] See "Final Closing Remarks" section for additional details.

- Segment #1 (25% of grade) – 20 February 2017 (M)
  - Draft Kaplan-Meier
  - Draft OLS (unrevised, from submission on 25JAN)
  - Revision example: OLS
    Give three concrete examples of sentences you revised from your draft OLS. Provide the unrevised sentence and revised sentence. <u>Briefly</u> explain what revisions you made, why you did so, and whether you believe your efforts were successful. Responses should be less than 1 double-spaced page, depending on your sentences' length. Maximum of 2 pp.
  - Revised OLS
- Segment #2 (30% of grade) – 18 April 2017 (T)
  - Draft Parametric Models: Choosing among (unrevised, from submission on 08MAR)
  - Draft Parametric Models: Interpretation (unrevised, from submission on 15MAR)
  - Draft Parametric Models: Diagnostics (unrevised, from submission on 22MAR)
  - Draft Cox models
  - Revision example: Parametric models
    Give three concrete examples of sentences you revised from any combination of your draft "Parametric Model" assignments. Provide the unrevised sentence and revised sentence. <u>Briefly</u> explain what revisions you made, why you did so, and whether you believe your efforts were successful. Responses should be less than 1 double-spaced page, depending on your sentences' length. Maximum of 2 pp.
  - Final write-up
    Combine the three "Parametric Model" assignments into one document, and revise the document appropriately. Can be done in 5-7 double-spaced pages, not including pages for tables, figures, and works cited. Maximum of 10 pp.

Grading

RUBRIC DIMENSIONS

A major aspect of what I am assessing is your ability to determine what information is necessary to include, what would be nice to include as bonus information, and what is superfluous to include, given the rhetorical task at hand. Your ability to do so in an accessible, correct, non-technical way, without sacrificing your prose's precision, is a strong secondary component.

More specifically, the grading rubric has six major dimensions, evaluating the degree to which you address the following:

1. What you are checking for, using this tool?
2. Why you are checking for it?
3. How you are checking for it?
4. What does this tool do that previous tools do not?
5. Discussing and interpreting the tool's relevant output correctly
6. The prose's accessibility (+ nicely displaying tables and/or figures, if appropriate)

AUDIENCE

While I am the person grading your assignments, you should envision your target audience as WCT professors—that is, well-trained academics capable of following a well-structured argument and assessing evidence critically, but without backgrounds in econometric modeling. Your prose needs to be accessible and intelligible to such a reader.

MISCELLANEOUS CLOSING REMARKS

- We learn through practice. Accordingly, I view drafts as pieces of writing intended as practice, to get you (1) thinking about some rhetorical task and (2) how you would go about accomplishing this task. The resulting prose will not be polished. It may be clunky. It may be many other undesirable things, like incorrect. All of this is acceptable for a draft, because drafts' primary purpose is not polished, final prose. Its purpose is to give you the opportunity to practice. Use the opportunity wisely.

- Drafts submitted on minor due dates are ungraded. The minor due dates are to ensure you are keeping up with the work because we will be using your drafts for in-class activities.
- Drafts submitted on major due dates are mainly being checked for completion and evidence of effort on your part, in line with bullet #1. I reserve the right to grade the drafts more carefully, particularly if it becomes evident that some students are submitting trivial filler text for minor due dates.
- Revised documents count much more heavily toward a segment's final grade, as these are pieces of writing we have worked with on multiple occasions during the semester.
- Rough tables/figures are acceptable for drafts. Screenshots of raw output are not. That said, I would suggest you practice creating nicely displayed tables and figures.
- Nicely displayed tables/figures are required for any revised document.

Datasets

You have one of five datasets to choose from. All are in the "Duration Data - Datasets" subfolder of the "Syllabus, Assignment Instructions" Workbin. Be aware that no more than five people may work with the same dataset, which I will enforce when we select datasets in class at the start of week 2.

Below each dataset is an optional peer-reviewed journal article for some background information about each dataset's phenomenon of interest and/or main independent variable. An article is *not* always a perfect match to that topic's corresponding research question. The article is intended only to provide you with more context than you would otherwise have. You have access to all the articles through LINC.

Load the dataset and type `notes` in Stata for basic details about the dataset's structure.

1. Democratic regime survival
   Do higher levels of GDP increase how long a country stays democratic?

   Maeda, Ko. 2010. "Two Modes of Democratic Breakdown: A Competing Risks Analysis of Democratic Durability." *Journal of Politics* 72 (4): 1129–1143.

2. Territorial disputes
   For countries involved in territorial disputes, do more democratic countries resort more quickly to peaceful settlement attempts?

   Hensel, Paul R. 2001. "Contentious Issues and World Politics: The Management of Territorial Claims in the Americas, 1816-1992." *International Studies Quarterly* 45 (1): 81–109.

3. Reelection of Members of European Parliament (MEPs)
   Do MEPs from non-federal countries serve longer in the EP than MEPs from federal countries?

   Scarrow, Susan E. 1997. "Political Career Paths and the European Parliament." *Legislative Studies Quarterly* 22 (2): 253–263.

4. Third-party intervention
   Did third parties wait longer to intervene in civil wars during the Cold War?

   Regan, Patrick M., and Allan C. Stam. 2000. "In the Nick of Time: Conflict Management, Mediation Timing, and the Duration of Interstate Disputes." *International Studies Quarterly* 44 (2): 239–260.

5. Joining international organizations
   Do states join international organizations with a security mandate more quickly?

   Boehmer, Charles, Erik Gartzke, and Timothy Nordstrom. 2004. "Do Intergovernmental Organizations Promote Peace?" *World Politics* 57 (1): 1–38.