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## POS6933 Conflict Forecasting Seminar

Instructor: David S. Siroky  
Meeting: Thursday 11:50-3  
Location: WEIM1092  
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Term: Spring 2024  
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### COURSE DESCRIPTION:

Empirical research in political science in general – and conflict research in particular – has historically focused more on testing hypotheses by which scholars often imply an ‘explanation’ of events, and have devoted much less attention to forecasting incidents and predicting political behavior. This is changing. Efforts to build and test predictive models of many types of political events, including conflict and violence, have become more common and have gained greater acceptance in the discipline. This seminar offers an introduction to this approach, some of its applications and core tools, as well as ongoing debates. The participants will engage with recent scholarship and produce their own forecasting project research design.

### REQUIREMENTS:

It is crucial to read carefully assigned papers for each week. Preparation is essential. Students will be responsible for leading the discussion of the papers for a particular week and also for preparing a research design paper that you will present in preliminary form at the end of the term.

### PROCEDURES FOR EVALUATION:

Participants will be evaluated based on three items: 1) their discussion of a particular week (25%), 2) their general contribution to class (25%), 3) presentation of their final research design (25%), and the final research design paper (25%) due **April 27<sup>th</sup>, 2024 by midnight EST (before April 28<sup>th</sup>)**. More details on these assignments and their due dates will be given during class.

### POLICY ON PERSONS WITH DISABILITIES:

Students requesting classroom accommodation must first register with the Dean of Students Office. It will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. Anyone with a disability should feel free to see me during office hours to make the necessary arrangements. Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Disability Resource Center info is here: <https://disability.ufl.edu/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

## POLICY ON CHEATING AND PLAGIARISM:

All students should observe the University of Florida's standards of academic honesty. In the event that a student is found cheating or plagiarizing, he/she will automatically fail the course and will be reported to Student Judicial Affairs and to the Department Chair and Graduate Coordinator for possible dismissal from the program. Acts of Plagiarism include:

- Turning in a paper or another assignment that was written by someone else (i.e., by another student, by a research service, or downloaded off the Internet);
- Copying, verbatim, a sentence or paragraph of text from the work of another author without properly acknowledging the source through a commonly accepted citation style and using quotation marks;
- Paraphrasing (i.e., restating in your own words) text written by someone else without citing that author;
- Using a unique idea or concept, which you discovered in a specific reading, without citing that work.

## ATTENDANCE

See <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/> to read the university attendance policies.

## GRADING POLICY

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

## EVALUATION OF THE COURSE

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## TECHNICAL ISSUES:

<https://helpdesk.ufl.edu/> for resolving technical issues (e.g. visit the helpdesk website or call 352-392-4357)

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## ***SUBJECT TO MODIFICATION.***

### **COURSE OUTLINE**

#### **Week 1: Overview and discussion of expectations** (Jan 11)

*Readings*

*Tools/Skills*

*Discussants/Questions*

*Out of class work*

*Final Paper*

#### **Week 2: Explanation, Prediction and the ‘Two Cultures of Statistical Modeling’** (Jan 18)

*Core Reading:*

Breiman, L. (2001). Statistical modeling: The two cultures. *Statistical Science* 16 199–215.

Adler, R. (2001). The crystal ball of chaos. *Nature* **414**, 480–481.

Shmueli, G. (2010) To explain or to predict?, *Statistical Science* 25(3), 289–310.

Hofman, J.M. *et al.* (2017) Prediction and explanation in social systems. *Science* **355**,486-488

*Questions/Topics:*

1. *Is a good explanation also a good prediction, and/or vice versa?*
2. *What output do we want/ need from our models?*
3. *What are some of the dis/ advantages of each ‘statistical culture’?*

#### **Week 3: The (Im)possibility of predicting politics (and specifically, conflict)** (Jan 25)

*Core Reading:*

Reichhardt, T. (2005) Harder than Rocket Science. *Nature* **435**, 1024–1025.  
<https://doi.org/10.1038/4351024a>

Ward, M.D., (2016) Can We Predict Politics? Toward What End? Michael D. Ward, *Global Security Studies*, doi: 10.1093/jogss/ogv002 Review Essay  
<https://predictiveheuristics.com/Downloads/CanWePredictPolitics.pdf>

Cederman, L-E, and N.B. Weidmann. (2017). “Predicting Armed Conflict: Time to Adjust Our Expectations?” *Science* 355 (6324): 474–76

*Supplemental Reading:*

Hegre, H; Metternich, NW; Nygård, HM; Wucherpfennig, J; (2017) Introduction: Forecasting in peace research. *Journal of Peace Research*, 54 (2) pp. 113-124.

Chadefaux, T., 2017. Conflict forecasting and its limits. *Data Science*, 1(1-2), pp.7-17.

*Questions/Topics:*

1. *Even if prediction is possible in some fields of inquiry, to what extent is it possible in the study of politics?*
2. *What are the unique challenges facing analysts and researchers interested in predicting politics?*
3. *What is special if anything about the prediction of armed conflict?*

#### **Week 4: Frequentists regression modeling and p-values** (Feb 1)

*Core Reading:*

Goldsmith, Benjamin E, Charles R Butcher, Dimitri Semenovich, and Arcot Sowmya. 2013. "Forecasting the Onset of Genocide and Politicide: Annual Out-of-Sample Forecasts on a Global Dataset, 1988–2003." *Journal of Peace Research* 50 (4): 437–52.

Ward, Michael & Greenhill, Brian & Bakke, Kristin. (2010). The perils of policy by p-value: Predicting civil conflicts. *Journal of Peace Research*. 47. 363-375. 10.1177/0022343309356491.

*Questions/Topics:*

1. *What are p-values and what they are not?*
2. *Why are out of sample assessments important?*
3. *What are potential issues with out of sample populations that make inference and prediction harder?*
4. *What are benefits and limits of frequentist model-based forecasting?*

#### **Week 5: The Early Days of Conflict Prediction** (Feb 8)

*Core Reading:*

Beck, N, G King, and L Zeng. 2000. "Improving Quantitative Studies of International Conflict: A Conjecture." *American Political Science Review*, 94, Pp. 21–36. Copy at <http://tinyurl.com/y6fey4vq>

De Marchi, S., Gelpi, C, and Grynaviski, JD. 2004. Untangling Neural Nets. *American Political Science Review*. 98(2): 371-378.

Beck, N., G. King, and L. Zeng. 2004. "Theory and Evidence in International Conflict: A Response to de Marchi, Gelpi, and Grynaviski." *American Political Science Review* 98, 379-389.

Tools: Neural Networks, Logistic Regression,  
Other Related Tools: Recurrent NN, Convolutional NN, Dynamic Elastic Nets

*Questions/Topics:*

1. *What tools are described for improving quantitative studies of international conflict?*
2. *How do these methods compare to other more familiar methods?*
3. *What are benefits and limitations of the proposed methods for studying conflict?*
4. *What role does theory play in this debate?*

*Supplementary readings*

Malone, Iris (2022) Recurrent neural networks for conflict forecasting. *International Interactions* 48:4, pages 614-632.

Patrick T. Brandt, Vito D'Orazio, Latifur Khan, Yi-Fan Li, Javier Osorio & Marcus Sianan. (2022) Conflict forecasting with event data and spatio-temporal graph convolutional networks. *International Interactions* 48:4, pages 800-822.

Fulvio Attinà, Marcello Carammia & Stefano M. Iacus. (2022) Forecasting change in conflict fatalities with dynamic elastic net. *International Interactions* 48:4, pages 649-677.

**Week 6: Forecasting Political Instability** (Feb 15)

*Core Reading:*

King, G. and Zeng, L. 2001 Improving Forecasts of State Failure, *World Politics*, 53(4): 623-658.  
<https://muse.jhu.edu/article/36484>

Goldstone, J. A., Bates, R. H., Epstein, D. L., Gurr, T. R., Lustik, M. B., Marshall, M. G., Ulfelder, J., & Woodward, M. (2010). A Global Model for Forecasting Political Instability. *American Journal of Political Science*, 54(1), 190–208.

Bowlsby, Drew, Erica Chenoweth, Cullen Hendrix, and Jonathan D. Moyer. (2019). "The Future is a Moving Target: Predicting Political Instability." *British Journal of Political Science* (February).

*Supporting data and documentation:*

<https://scip.gmu.edu/a-global-model-for-forecasting-political-instability/>

[https://en.wikipedia.org/wiki/Political\\_Instability\\_Task\\_Force](https://en.wikipedia.org/wiki/Political_Instability_Task_Force)

<https://www.systemicpeace.org/inscrdata.html>

<https://www.systemicpeace.org/inscr/PITFProbSetCodebook2018.pdf>

Themes: Constant Effects over Time, Reassessment

*Questions/Topics:*

1. *What are the strongest predictors of political instability across the globe?*
2. *What kinds of issues and threats to modeling do you see (or not see)?*
3. *How has this research agenda evolved and what does its future look like?*
4. *What is the quality of data, how is it collected and how well does it reflect reality?*

**Week 7 - Machine Learning Compared to Classical Approaches** (Feb 22)

*Core Reading:*

D. Muchlinski, D. Siroky, J. He, M. Kocher (2016), 'Comparing random forest with logistic regression for predicting class-imbalanced civil war onset data', *Political Analysis* 24, 87–103.

Blair, R. A., & Sambanis, N. (2020). Forecasting Civil Wars: Theory and Structure in an Age of “Big Data” and Machine Learning. *Journal of Conflict Resolution*, 64(10), 1885-1915. <https://doi.org/10.1177/0022002720918923>

Beger, A., Morgan, R. K., & Ward, M. D. (2021). Reassessing the Role of Theory and Machine Learning in Forecasting Civil Conflict. *Journal of Conflict Resolution*, 65(7-8), 1405-1426. <https://doi.org/10.1177/0022002720982358>

Blair, R. A., & Sambanis, N. (2021). Is Theory Useful for Conflict Prediction? A Response to Beger, Morgan, and Ward. *Journal of Conflict Resolution*, 65(7-8), 1427-1453. <https://doi.org/10.1177/00220027211026748>

*Supplementary readings*

Jonas Vestby, Jürgen Brandsch, Vilde Bergstad Larsen, Peder Landsverk & Andreas Forø Tollefsen. (2022) Predicting (de-)escalation of sub-national violence using gradient boosting: Does it work?. *International Interactions* 48:4, pages 841-859.

*Tools/Techniques:* Random forests, CART, Boosting, Bagging

Siroky, DS. (2009) Navigating Random Forests and related advances in algorithmic modeling." *Statistical Surveys* (3) 147 - 163, 2009.

Montgomery, J. M., & Olivella, S. (2018). Tree-Based Models for Political Science Data. *American Journal of Political Science*, 62(3), 729–744. <http://www.jstor.org/stable/26598778>

*Questions/Topics:*

1. How well can we forecast civil war onset with ML tools like RF compared to logistic regression modeling?
2. How much can/ does theory contribute to these modeling?
3. What are some advantages of tree-based methods such as CART and RF?
4. How do/ should we interpret the results and graphs?
5. What kinds of things should we worry about when using these methods?

**Week 8** – Ensemble and Committee Methods (Feb 29)

*Core Reading:*

Montgomery, Jacob M, Florian M Hollenbach, and Michael D Ward. 2012. “Improving Predictions Using Ensemble Bayesian Model Averaging.” *Political Analysis* 20 (3): 271–91.

Ettensperger, Felix. (2022) Forecasting conflict using a diverse machine-learning ensemble: Ensemble averaging with multiple tree-based algorithms and variance promoting data configurations. *International Interactions* 48:4, pages 555-578.

*Tools/Techniques: Ensemble models and committee methods*

*Questions/Topics:*

1. *What is an ensemble method and how does it work?*
2. *What are its (dis)advantages?*
3. *What is model averaging and what does it provide its users?*
4. *What is the added value of the Bayesian component of BMA?*

### **Week 9: An Escalation Prediction Competition** (March 7)

*Core Reading:*

Hegre, Håvard, Paola Vesco & Michael Colaresi (2022) Lessons from an escalation prediction competition, *International Interactions*, 48:4, 521-554

Vesco, Paola , Håvard Hegre, Michael Colaresi, Remco Bastiaan Jansen, Adeline Lo, Gregor Reisch & Nils B. Weidmann (2022) United they stand: Findings from an escalation prediction competition, *International Interactions*, 48:4, 860-896,

*Questions/Topics:*

1. *How does the competition work and what are its rules?*
2. *Which of the lessons was least expected for you?*
3. *What did you learn from the competition?*
4. *What is special about predicting 'escalation'?*

### **Week 10: Spring Break (March 14)**

### **Week 11: Prediction Markets for Conflict** (March 21)

*Core Reading:*

Arrow, Kenneth J., Robert Forsythe, Michael Gorham, Robert Hahn, John O. Hanson Robinand Ledyard, Saul Levmore, Robert Litan, et al. 2008. "The Promise of Prediction Markets." *Science* 320 (5878): 877.

Chadefaux, T., 2017. Market anticipations of conflict onsets. *Journal of Peace Research*, 54(2), pp.313-327.

*Questions/Topics:*

1. *What is special about prediction markets?*
2. *How do they differ from prediction competitions?*
3. *Why do markets fail to predict sometimes?*

4. *What less obvious aspects of markets are relevant to conflict forecasting?*

**Week 12: Taking Stock** (March 28)

*Core Reading:*

Håvard Hegre, Håvard Møkleiv Nygård, Peder Landsverk, (2021) Can We Predict Armed Conflict? How the First 9 Years of Published Forecasts Stand Up to Reality, *International Studies Quarterly*, 65:3, 660–668.

Rød, Espen Geelmuyden, Tim Gåste, Håvard Hegre, (2024) A review and comparison of conflict early warning systems, *International Journal of Forecasting*, 40:1, Pages 96-112.

*Questions/Topics:*

1. *What are the main lessons to take home/carry forward?*
2. *What has been achieved and what has not?*
3. *What are the most and least promising approaches?*
4. *What are the key challenges facing conflict forecasting, now and in the future?*
5. *What is the next frontier of research on conflict forecasting?*

**Week 13:** Presentations with Q&A 1 (April 4) : *n/3 presentations*

**Week 14:** Presentations with Q&A 2 (April 11)

**Week 15:** Presentations with Q&A 3 (April 18)

**Classes End April 24**

**Final Papers Due April 27<sup>th</sup>, 2024 by midnight EST**

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### ***Other relevant readings***

- Bueno de Mesquita, Bruce. 2002. *Predicting Politics*. Columbus, OH: Ohio State University Press.
- Bueno de Mesquita, Bruce. 2009 *The Predictioneer's Game*. New York: Random House.
- Chadefaux, T., 2014. Early warning signals for war in the news. *Journal of Peace Research*, 51(1), pp.5-18.
- Germann M, Sambanis N. Political Exclusion, Lost Autonomy, and Escalating Conflict over Self-Determination. *International Organization*. 2021;75(1):178-203.
- Harff, B., & Gurr, T. R. (1998). Systematic Early Warning of Humanitarian Emergencies. *Journal of Peace Research*, 35(5), 551-579.
- Hegre, H°avard, Joakim Karlsen, H°avard Moksleiv Nyg°ard, H°avard Strand, and Henrik Urdal. Predicting armed conflict, 2010–2050. *International Studies Quarterly*, 57(2):250–270, 2013
- Helbing, D., Brockmann, D., Chadefaux, T., Donnay, K., Blanke, U., Woolley-Meza, O., Moussaid, M., Johansson, A., Krause, J., Schutte, S. and Perc, M., 2015. Saving human lives: What complexity science and information systems can contribute. *Journal of statistical physics*, 158(3), pp.735-781.
- Mueller, Hannes, and Christopher Rauh. 2018. “Reading Between the Lines: Prediction of Political Violence Using Newspaper Text.” *American Political Science Review* 112 (2): 358–75.
- Pearl, J. and D. Mackenzie (2018) *The Book of Why*. New York: Basic Books.
- Pinckney, Jonathan & Babak RezaeeDaryakenari (2022) When the levee breaks: A A forecasting model of violent and nonviolent dissent, *International Interactions*, 48:5, 997-1026
- <https://predictiveheuristics.com/>
- Redl, Chris and Sandile Hlatshwayo, 2021, Forecasting Social Unrest: An LM approach, International Monetary Fund, Issue 263(29) Working paper, pp. 1018-5941.  
<https://doi.org/10.5089/9781557758873.001>  
<https://www.elibrary.imf.org/view/journals/001/2021/263/article-A001-en.xml?ArticleTabs=fulltext>
- Schneider, Gerald, Nils Peter Gleditsch and Sabine C. Carey. 2010. Exploring the past, anticipating the future: A symposium . *International Studies Review* 12: 1-7
- Schrodt, P. A., & Gerner, D. J. (1994). Validity Assessment of a Machine-Coded Event Data Set for the Middle East, 1982-92. *American Journal of Political Science*, 38(3), 825–854. <https://doi.org/10.2307/2111609>
- Schrodt, Philip A., and Deborah Gerner. 2000. Cluster based early warning indicators for political change in the contemporary Levant. *American Political Science Review* 94(4): 803-818.

Schrodt, Philip A. 2006. *Forecasting conflict in the Balkans using hidden Markov models*. In *Programming for Peace: Computer-Aided Methods for International Conflict Resolution and Prevention*, ed. Robert Trappl, pp. 161-184. Dordrecht, Netherlands: Kluwer Academic.

Simone Pulver, Stacy D. VanDeveer; “Thinking About Tomorrows”: Scenarios, Global Environmental Politics, and Social Science Scholarship. *Global Environmental Politics* 2009; 9 (2): 1–13

Subrahmanian, V. S., Srijan Kumar, (2017) Predicting human behavior: The next frontiers. *Science* **355**,489-489.

Tetlock, Philip and Dan Gardner. *Superforecasting: The art and science of prediction*. Random House, 2016

Ulfelder, Jay Foreign Policy, 8 November 2012;  
<https://foreignpolicy.com/2012/11/08/why-the-world-cant-have-a-nate-silver/>

Wolfers, Justin, and Eric W. Zitzewitz. 2004. Prediction markets. *Journal of Economic Perspectives* 18(2): 107-126.

### ***Special Issue (2022):***

Johannes Bracher, Lotta Rüter, Fabian Krüger, Sebastian Lerch & Melanie Schienle. (2023) Direction Augmentation in the Evaluation of Armed Conflict Predictions. *International Interactions* 49:6, pages 989-1004.

Andreas Lindholm, Johannes Hendriks, Adrian Wills & Thomas B. Schön. (2022) Predicting political violence using a state-space model. *International Interactions* 48:4, pages 759-777.

Fulvio Attinà, Marcello Carammia & Stefano M. Iacus. (2022) Forecasting change in conflict fatalities with dynamic elastic net. *International Interactions* 48:4, pages 649-677.

Hannes Mueller & Christopher Rauh. (2022) Using past violence and current news to predict changes in violence. *International Interactions* 48:4, pages 579-596.

Christian Oswald & Daniel Ohrenhofer. (2022) Click, click boom: Using Wikipedia data to predict changes in battle-related deaths. *International Interactions* 48:4, pages 678-696.

Lisa Hultman, Maxine Leis & Desirée Nilsson. (2022) Employing local peacekeeping data to forecast changes in violence. *International Interactions* 48:4, pages 823-840.

Konstantin Bätz, Ann-Cathrin Klöckner & Gerald Schneider. (2022) Challenging the status quo: Predicting violence with sparse decision-making data. *International Interactions* 48:4, pages 697-713.

David Randahl & Johan Vegelius. (2022) Predicting escalating and de-escalating violence in Africa using Markov models. *International Interactions* 48:4, pages 597-613.

Patrick T. Brandt, Vito D’Orazio, Latifur Khan, Yi-Fan Li, Javier Osorio & Marcus Sianan. (2022) Conflict forecasting with event data and spatio-temporal graph convolutional networks. *International Interactions* 48:4, pages 800-822.

Paola Vesco, Håvard Hegre, Michael Colaresi, Remco Bastiaan Jansen, Adeline Lo, Gregor Reisch & Nils B. Weidmann. (2022) United they stand: Findings from an escalation prediction competition. *International Interactions* 48:4, pages 860-896.

Jonas Vestby, Jürgen Brandsch, Vilde Bergstad Larsen, Peder Landsverk & Andreas Forø Tollefsen. (2022) Predicting (de-)escalation of sub-national violence using gradient boosting: Does it work?. *International Interactions* 48:4, pages 841-859.

Vito D’Orazio & Yu Lin. (2022) Forecasting conflict in Africa with automated machine learning systems. *International Interactions* 48:4, pages 714-738.

Iris Malone. (2022) Recurrent neural networks for conflict forecasting. *International Interactions* 48:4, pages 614-632.

Cornelius Fritz, Marius Mehrl, Paul W. Thurner & Göran Kauermann. (2022) The role of governmental weapons procurements in forecasting monthly fatalities in intrastate conflicts: A semiparametric hierarchical hurdle model. *International Interactions* 48:4, pages 778-799.

Felix Ettensperger. (2022) Forecasting conflict using a diverse machine-learning ensemble: Ensemble averaging with multiple tree-based algorithms and variance promoting data configurations. *International Interactions* 48:4, pages 555-578.

## ***Conflict Data Resources (selected)***

### *ACLED*

<https://acleddata.com/resources/quick-guide-to-aced-data/>

[https://acleddata.com/acleddatanew/wp-content/uploads/dlm\\_uploads/2023/06/ACLED\\_Codebook\\_2023.pdf](https://acleddata.com/acleddatanew/wp-content/uploads/dlm_uploads/2023/06/ACLED_Codebook_2023.pdf)

[https://www.acleddata.com/wp-content/uploads/2019/09/ACLED-Comparison\\_8.2019.pdf](https://www.acleddata.com/wp-content/uploads/2019/09/ACLED-Comparison_8.2019.pdf)

### *ICEWS (Integrated Crisis Early Warning System)*

<https://www.lockheedmartin.com/en-us/capabilities/research-labs/advanced-technology-labs/icews.html>

<https://www.andybeger.com/icews/reference/index.html>

### Coups d'Etat, 1946-2021

<https://www.systemicpeace.org/inscrdata.html>

### Political Instability/State Failure

<https://www.systemicpeace.org/inscrdata.html>

### Major Episodes of Political Violence, 1946-2018

<https://www.systemicpeace.org/inscrdata.html>

### Significant Incidents against Americans Abroad: Introducing a New Dataset

<https://www.tandfonline.com/doi/full/10.1080/03050629.2023.2286448>

### Forcibly Displaced Populations, 1964-2008

<https://www.systemicpeace.org/inscrdata.html>

## ***Terrorism***

<https://www.start.umd.edu/data-tools/global-terrorism-database-gtd>

BAAD: <https://www.start.umd.edu/data-tools/big-allied-and-dangerous-baad-database-1-lethality-data-1998-2005>

RAND: <https://www.rand.org/nsrd/projects/terrorism-incidents.html>

ITERATE: International Terrorism: Attributes of Terrorist Events

## ***Ethnic Conflict***

EPR Dataset Family: <https://icr.ethz.ch/data/epr/>

*SDM: SDM: A New Data Set on Self-determination Movements with an Application to the Reputational Theory of Conflict*  
<https://journals.sagepub.com/doi/abs/10.1177/0022002717735364>

*Griffith's Data on Secession*: <https://www.ryan-griffiths.com/data>

*AMAR: Socially Relevant Ethnic Groups, Ethnic Structure, and AMAR*

Birnie Jóhanna K., Wilkenfeld Jonathan, Fearon James D., Laitin David D., Gurr Ted R., Brancati Dawn, Saideman Stephen M., Pate Amy, Hultquist Agatha S. 2015. "Socially Relevant Ethnic Groups, Ethnic Structure, and AMAR." *Journal of Peace Research* 52 (1): 110-15.

Birnie Jóhanna K., Laitin David D., Wilkenfeld Jonathan, Waguespack David M., Hultquist Agatha, Gurr Ted R. 2018. "Introducing the AMAR (All Minorities at Risk) Data." *Journal of Conflict Resolution* 62 (1): 203–26.  
<https://journals.sagepub.com/doi/full/10.1177/0022002717719974>  
<https://doi.org/10.1177/0022343314536915>

Gurr Ted R. 2000b. *Peoples versus States: Minorities at Risk in the New Century*. Washington, DC: US Institute of Peace Press.

MAR (Minorities at Risk) Project. 2009. "Minorities at Risk Dataset." Accessed May 27, 2014. <http://www.cidcm.umd.edu/mar/>.

[Minorities at Risk Organizational Behavior \(MAROB\) Middle East, 1980-2004](https://www.start.umd.edu/data-tools/minorities-risk-organizational-behavior-marob-middle-east-1980-2004)  
<https://www.start.umd.edu/data-tools/minorities-risk-organizational-behavior-marob-middle-east-1980-2004>

[Geography and War](https://growup.ethz.ch/)  
<https://growup.ethz.ch/>

ViEWS

**Media:**

Dr. Philip Schrodt, "Technical Forecasting of Political Conflict" (November 13, 2020)  
[https://iu.mediaspace.kaltura.com/media/1\\_frxfge0](https://iu.mediaspace.kaltura.com/media/1_frxfge0)

