Rulers, Elections and Irregular Governance Dataset (REIGN) Codebook

Clayton Besaw (cbesaw@oneearthfuture.org)

January 22, 2021

The Rulers, Elections and Irregular Governance Dataset (REIGN) collects data concerning the political leadership, regime characteristics and electoral outcomes for every country around the globe since January 1950. REIGN is measured at the leader-month unit of analysis and contains 137219 observations as of January, 2021.

REIGN is updated monthly with public updates released typically on the first Tuesday of every new month. This codebook serves as a living document for navigating REIGN measurements and is subsequently updated each month alongside the new REIGN data updates.

REIGN was originally created and curated by Curtis Bell, who has since moved on to lead his new research and policy program called Stable Seas. REIGN is now curated and maintained by the One Earth Future Political Forecasting program with on-going support and improvements planned for a long-term lifespan.

REIGN builds off a number of previous data projects alongside its own original data collection. For more details on the sources that underpin REIGN and similarities/differences, please consult our extended technical notes here

Citation

When using REIGN, please use the following citation:

Bell, Curtis, Besaw, Clayton., Frank, Matthew. 2021. The Rulers, Elections, and Irregular Governance (REIGN) Dataset. Broomfield, CO: One Earth Future. Available at https://oefdatascience.github.io/REIGN.github.io/

CODEBOOK AND MEASURE DESCRIPTIONS

Country and Time Measures

- **ccode**: ccode is a one to three digit number that uniquely identifies each of the 201 countries included in the dataset. These numbers align with those used by other large cross-national datsets, including Correlates of War. The ccode is most useful for merging REIGN with other datasets that also share a cow country code.

- **country**: country provides the full colloquial name for the country observed in the row. Not all country names are full legally recognized country names.

- **year**: year is the calendar year, ranging from 1950 to 2021.

- **month**: month identifies the month number ranging from 1 (January) to 12 (December)

Political Leader Characteristics

- **leader**: Provides the de-facto leader's name. *Note: Leader names are not unique, so any sorting or panel identification should be done using country and time characteristics to identify unique leader periods.*

- **elected**: elected is a binary measurement that indicates whether the de facto leader had previously been elected (1) or not (0) to their respective office. Individual leaders can have tenure periods in which they were both not-elected and elected. This happens when a leader comes to power through a non-electoral mechanism (resignation, death of incumbent, coup, etc) and is eventually elected later on through a national election event.

Elected?	N	Percent
0	47440	34.57
1	89779	65.43
All	137219	100.00

- **age**: age is an approximation of the leader's age calculated by subtracting the leader's birth year from the current year. This does not account for a leader's specific birth date. It takes the same value for each month in a calendar year. In the rare event that a leader's birth date is not known, we estimate it using peer leader multiple imputation using a Random Forest algorithm.

	N	Mean	SD	Min	Max
Leader Age	137219	57.24	11.23	17.00	95.00

- **male**: male is a dummy variable to account for the sex of the de facto leader. This measure equals 1 if a leader is male and 0 if the leader is female.

Leader Sex	N	Percent
0	3939	2.87
1	133280	97.13
All	137219	100.00

- **militarycareer**: military career is equal to 1 if the leader's primary career and/or source of authority comes from their career in the military, police force or defense ministry. Previous service is not necessarily sufficient for coding this. Rather, this designation is reserved for those whose primary affiliation prior to taking power can be described by a long-term career in the previous three categories

Military Officer?	N	Percent
0	110695	80.67
1	26524	19.33
All	137219	100.00

- **tenure_months**: tenure_months counts the number of months that a leader has been in power during their current tenure period. Typically, a leader's inaugural month will start at 1 and continue until resetting during a leader change. However, some leaders in 1950 will have tenure months that reflect their previous tenure before January 1950.

	N	Mean	SD	Min	Max
Leader Tenure (Months)	137219	82.46	95.93	0.00	672.00

Elections and Leader Change

- **anticipation**: anticipation is a dummy variable that equals 1 if there is an election for the de facto leadership position coming within the next six-months. **All election anticipation measures are constructed using official announcement dates and/or constitutional deadlines/scheduling when available.**

Election Anticipated? (Any)	N	Percent
0	122672	89.40
1	14547	10.60
All	137219	100.00

- **ref_ant**: ref_ant is a dummy variable that equals 1 if there is a constitutional referendum coming within the next six-months.

Election Anticipated? (Referendum)	N	Percent
0	135747	98.93
1	1472	1.07
All	137219	100.00

- **leg_ant**: leg_ant is a dummy variable that equals 1 if there is a legislative election to determine the de facto leader coming within the next six-months.

Election Anticipated? (Legislative)	N	Percent
0	135747	98.93
1	1472	1.07
All	137219	100.00

- **exec_ant**: ref_ant is a dummy variable that equals 1 if there is an executive election to determine the de facto leader coming within the next six-months.

Election Anticipated? (Presidential)	N	Percent
0	129748	94.56
1	7471	5.44
All	137219	100.00

- **irreg_lead_ant**: irreg_lead_ant is a dummy variable that equals 1 if an irregular election to determine the de facto leader is expected within the next six months.

Election Anticipated? (Irregular)	N	Percent
0	134873	98.29
1	2346	1.71
All	137219	100.00

- **election_now**: election_now is a dummy variable that equals 1 if there is an election for the de facto leadership position taking place in that country-month.

Election This Month?	N	Percent
0	134403	97.95
1	2816	2.05
All	137219	100.00

- **delayed**: delayed is a dummy variable that equals 1 if a previously scheduled/expected election is cancelled by choice or through exogenous factors (e.g. regime change).

Election Cancelled	N	Percent
0	136165	99.23
1	1054	0.77
All	137219	100.00

- **lastelection**: lastelection is an inverted decay function that measures the time since the last election for the de facto leadership position within the country. The measure is 0 when election_now equals 1. The number grows following the election until it resets at the next successfully held election. Higher values indicate longer periods since the last successfully held election.

	N	Mean	SD	Min	Max
Time Since Last Election	137219	3.33	1.31	0.00	8.12

- **election_recent**: election_recent is a dummy variable that equals 1 if there is an election for the de facto leadership position that took place in the previous six months.

Election Held Recently?	N	Percent
0	121913	88.85
1	15306	11.15
All	137219	100.00

- **leg_recent**: leg_recent is a dummy variable that equals 1 if there is a legislative election took place in the previous six months.

Election Held Recently? (Legislative)	N	Percent
0	130207	94.89
1	7012	5.11
All	137219	100.00

- **exec_recent**: exec_recent is a dummy variable that equals 1 if there is an executive election took place in the previous six months.

Election Held Recently? (Presidential)	N	Percent
0	130258	94.93
1	6961	5.07
All	137219	100.00

- **ref_recent**: ref_recent is a dummy variable that equals 1 if there is a constitutional referendum took place in the previous six months.

Election Held Recently? (Referendum)	N	Percent
0	135589	98.81
1	1630	1.19
All	137219	100.00

- **direct_recent**: direct_recent is a dummy variable that equals 1 if a direct (popular) election took place in the previous six months.

Election Held Recently? (Direct)	N	Percent
0	123116	89.72
1	14103	10.28
All	137219	100.00

- **indirect_recent**: indirect_recent is a dummy variable that equals 1 if an indirect (elite) election took place in the previous six months.

Election Held Recently? (Indirect)	N	Percent
0	136108	99.19
1	1111	0.81
All	137219	100.00

- **lead_recent**: lead_recent is a dummy variable that equals 1 if any electoral opportunity (non-referendum) to change leadership took place in the previous six months.

Election Held Recently? (Non-Referendum)	N	Percent
0	123246	89.82
1	13973	10.18
All	137219	100.00

- **victory_recent**: victory_recent is a dummy variable that equals 1 if an incumbent political party/leader won an election in the previous six months.

Incumbent Electoral Victory Recently?	N	Percent
0	127526	92.94
1	9693	7.06
All	137219	100.00

- **defeat_recent**: defeat_recent is a dummy variable that equals 1 if an incumbent political party/leader won an election in the previous six months.

Incumbent Electoral Defeat Recently?	N	Percent
0	131797	96.05
1	5422	3.95
All	137219	100.00

- **change_recent**: change_recent is a dummy variable that equals 1 if the de facto leader changed due to an election in the previous six months. (note: the incumbent party can win and leadership change can still happen if the specific leader changes).

Leader Changed Recently? (Electoral)	N	Percent
0	130762	95.29
1	6457	4.71
All	137219	100.00

- **nochange_recent**: nochange_recent is a dummy variable that equals 1 if the de facto leader did not change following an election in the previous six months.

No Leader Change Recently?	N	Percent
0	128571	93.70
1	8648	6.30
All	137219	100.00

Country Characteristics

- **government**: government corresponds to the regime type of the country during the observed country-month. Government categories can correspond to 16 regime types that capture democracies, non-democracies and interim governments. These categories are: 1. presidential democracy, 2. parliamentary democracy, 3. personalist system, 4. monarchy, 5. single-party system, 6. oligarchy, 7. party-personalist hybrid, 8. military junta, 9. indirect military junta, 10. personalist-military hybrid, 11. party-military hybrid, 12. party-personalist-military hybrid, 13. warlordism, 14. foreign-occupation, 15. civilian provisional government, 16. military provisional government.

Government Type	N	Percent
Dominant Party	20266	14.77
Foreign/Occupied	1858	1.35
Indirect Military	523	0.38
Military	3783	2.76
Military-Personal	3472	2.53
Monarchy	12280	8.95
Oligarchy	831	0.61
Parliamentary Democracy	42260	30.80
Party-Military	1757	1.28
Party-Personal	5414	3.95
Party-Personal-Military Hybrid	2306	1.68
Personal Dictatorship	17742	12.93
Presidential Democracy	22853	16.65
Provisional - Civilian	931	0.68
Provisional - Military	361	0.26
Warlordism	582	0.42
All	137219	100.00

- **gov_democracy**: gov_democracy is a dummy variable that equals 1 if the country is classified as either a parliamentary democracy or presidential democracy during that month. It is equal to 0 if the country is classified as any other government type during that month.

Democracy?	N	Percent
0	72106	52.55
1	65113	47.45
All	137219	100.00

- **dem_duration**: dem_duration is a numeric variable that measures the logged number of months that a country has had a democratic government. The value is 0 if a government is currently a non-democracy. Larger values correspond to longer periods of successive democratic governance.

	N	Mean	SD	Min	Max
Democratic Duration in Months (Logged)	137219	1.43	1.71	0.00	6.04

- **political_violence**: political_violence is a numeric variable that measures the relative level (z-score) of political violence experienced within the borders of a country for that year. Data is derived from the UCDP's georeferenced event dataset (up to 2019) and START's Global Terrorism Database (GTD) (up to 2018). Values of 0 correspond to historically average levels of political violence for that country-year. Positive values above 0 indicate more violence than historically expected, with values greater than 1.96 generally corresponding to a statistically significant increase in violence. Conversely, you can interpret negative values as indicating less than expected violence. As of January, 2021, ground-truth data ends at *Dec 2019*. Values in *2020* and *2021* are forecasted with country-specific ARIMA models.

	N	Mean	SD	Min	Max
Relative Level of Political Violence	137219	0.01	2.09	-0.36	108.96

- **prev_conflict**: prev_conflict is equal to the number of on-going violent civil and inter-state conflicts that the country was involved in during the previous month. The measure ranges from 0 (no previous conflicts) to any positive integer indicating existing conflicts. As of January 22, 2021 the maximum number of civil conflicts a country has faced is 9.

Previous Conflicts	N	Percent
0	119033	86.75
1	13508	9.84
2	2831	2.06
3	800	0.58
4	472	0.34
5	356	0.26
6	137	0.10
7	59	0.04
8	22	0.02
9	1	0.00
All	137219	100.00

- **precip**: precip measures the Standardized Precipitation Index (SPI) for each country month. You can interpret precip like a Z-score. Values of 0 correspond to historically average levels of rainfall for that country-month. Positive values above 0 indicate more rainfall than historically expected, with values greater than 1.96 generally corresponding to a statistically significant increase in rainfall. Conversely, you can interpret negative values as indicating less than expected rainfall. The underlying data comes from NOAA's PREC/L observation data, with future months forecasted by using country-specific optimized ARIMA models. As of January, 2021, ground-truth data ends at *Dec 2020*, with the forecast taking place from *January 2021* to *December 2021*.

	N	Mean	SD	Min	Max
Standarized Precipitation Index (SPI)	137219	-0.03	0.78	-4.80	4.92

- **pt_suc**: pt_suc is a dummy variable that equals 1 if a successful coup event took place in that month.

The new leader, installed by the coup, must have been in power for at least 7 days for it be considered successful. Coup events are based on Powell and Thyne's (2011) definition of a coup.

Successful Coup Event	N	Percent
0	136985	99.83
1	234	0.17
All	137219	100.00

- **pt_attempt**: pt_attempt is a dummy variable that equals 1 if a coup attempt, regardless of success, took place in that month.

Attempted Coup Event	N	Percent
0	136751	99.66
1	468	0.34
All	137219	100.00

- **couprisk**: couprisk is an estimated probability of the risk of a military coup attempt taking place in the country-month. couprisk is estimated by using machine-learning classification and a stacking algorithm that combines the individual predictions of a (a) random forest algorithm, (b) logistic regression model and (c) linear probability regression model. A Generalized estimating equation is then used to combine the weighted probabilities of each previous model to take advantage of each model's strengths while minimizing poor predictions. Model training is performed through rolling-origin cross-validation using 1950 - 1974 as the initial training window. As such, couprisk estimates only begin in January, 1975 until January, 2021.

	N	Mean	SD	Min	Max
Structural Risk of Coup Event (Raw)	137219	0.00	0.00	0.00	0.17

- **pctile_risk**: pctile_risk corresponds to the percentile risk for each country's estimated risk of a military coup attempt that month. This is a standard risk percentile that ranges from 0 (risk lower than 100% of countries that month) to 1 (risk higher than 100% of all other countries that month). Since our couprisk measure is somewhat conservative, pctile_risk provides a way to examine more coup risk in relation to all other countries that month.

	N	Mean	SD	Min	Max
Structural Risk of Coup Event (Percentile)	137219	0.54	0.31	0.00	1.07