

Appendix to Gartzke, Erik, and Jon R. Lindsay. "The Influence of Seapower on Politics: Domain- and Platform-Specific Attributes of Material Capabilities." *Security Studies*, Forthcoming.

We reproduce the results of Table 1 including dummy variables for dyads including the United States, pre-WWII MIDs, post-Cold War MIDs, and nuclear power status (based on Gartzke and Jo 2009) in table 1. While the dummy for pre-WWII variables is highly significant, the substantive results are much the same as in table 5 (A1). As a further falsification test, we repeat the same analysis using total rather than proportional tonnage in table 6 (A2).

We also replicate Table 2 taking into account the high class imbalance in this sample of rare events (MID initiation). Logit with very rare events can yield biased coefficient estimates if one or more covariates come close to perfectly separating positive and negative cases. This can manifest as explosively large coefficients, though we do not observe this in the logit models above. Gelman et al. (2008) propose a bayesian solution of applying a weakly informative Cauchy prior which they implement in the *bayesglm* function in the ARM package. The results of the replication of Table 2 appear in Table 7 (A3). None of the findings in Table 7 (A3) appear substantively different from Table 2, giving us confidence that the potential for bias from rare events is not an issue here.

Gartzke, Erik, and Dong-Joon Jo. "Bargaining, Nuclear Proliferation, and Interstate Disputes." *The Journal of Conflict Resolution* 53, no. 2 (2009): 209–33.

Gelman, Andrew, Aleks Jakulin, Maria Grazia Pittau, and Yu-Sung Su. "A Weakly Informative Default Prior Distribution for Logistic and Other Regression Models." *Annals of Applied Statistics* 2, no. 4 (December 2008): 1360–83. <https://doi.org/10.1214/08-AOAS191>.

Table 5: Replication of Table 1, Naval Capabilities on the Locations of Disputes (OLS, MIDs), with additional control variables for dyads including the United States, pre-WWII conflicts, and nuclear power status.. This table uses proportion of total naval tonnage.

	Model 1 Initiator	Model 2 Target	Model 3 Initiator	Model 4 Target	Model 5 Initiator	Model 6 Target	Model 7 Initiator	Model 8 Target	Model 9 Initiator	Model 10 Target
Naval Tonnage A (Prop.)	6.702*** (0.796)	-2.755* (1.207)	7.070*** (0.717)	-3.540*** (1.014)	6.956*** (0.751)	-3.838*** (1.045)	6.908*** (0.753)	-3.544*** (1.032)	6.955*** (0.755)	-2.512* (1.161)
Naval Tonnage B (Prop.)	-4.380*** (1.233)	9.069*** (1.025)	-4.050*** (1.123)	8.010*** (0.824)	-4.076*** (1.183)	7.788*** (0.825)	-4.115*** (1.194)	8.038*** (0.825)	-4.188*** (1.209)	9.224*** (0.982)
Spend A (10b USD)	0.042*** (0.012)	-0.047** (0.017)	0.043*** (0.012)	-0.051** (0.016)	0.043*** (0.012)	-0.053* (0.016)	0.044*** (0.012)	-0.055*** (0.016)	0.044*** (0.012)	-0.049** (0.016)
Spend B (10b USD)	-0.065** (0.021)	0.057* (0.023)	-0.064** (0.020)	0.052* (0.023)	-0.063** (0.021)	0.047* (0.023)	-0.062** (0.021)	0.045* (0.022)	-0.060** (0.021)	0.052* (0.024)
Distance (1000 km)	0.532*** (0.043)	0.493*** (0.050)	0.525*** (0.042)	0.475*** (0.047)	0.535*** (0.041)	0.478*** (0.046)	0.534*** (0.040)	0.485*** (0.045)	0.524*** (0.044)	0.485*** (0.053)
Dyad Including US	0.237 (0.511)	-0.929 (0.728)							0.157 (0.506)	-1.027 (0.720)
Pre-WWII MID			-0.851* (0.396)	-0.797* (0.378)					-0.985* (0.402)	-0.700 (0.389)
Nuclear Power					-0.046 (0.163)	0.368* (0.151)			-0.154 (0.171)	0.110 (0.174)
Post-Cold War MID							0.133 (0.198)	-0.610** (0.194)	0.263 (0.213)	-0.426 (0.224)
Intercept	585.814*** (158.315)	63.031 (180.783)	892.527*** (186.422)	302.687 (169.908)	572.356** (175.002)	209.035 (173.519)	503.352* (229.116)	446.577* (223.014)	673.620** (233.734)	661.258** (224.581)
Observations	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280
R <sup>2</sup>	0.592	0.569	0.596	0.570	0.592	0.568	0.592	0.568	0.597	0.575

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Table 6: Replication of Table 1, Naval Capabilities on the Locations of Disputes (OLS, MIDs), with additional control variables for dyads including the United States, pre-WWII conflicts, and nuclear power status. This table uses total naval tonnage.

	Model 1 Initiator	Model 2 Target	Model 3 Initiator	Model 4 Target	Model 5 Initiator	Model 6 Target	Model 7 Initiator	Model 8 Target	Model 9 Initiator	Model 10 Target
Naval Tonnage A (Total)	0.553*** (0.061)	-0.236** (0.091)	0.579*** (0.057)	-0.311*** (0.082)	0.584*** (0.057)	-0.336*** (0.086)	0.576*** (0.057)	-0.307*** (0.082)	0.566*** (0.062)	-0.234** (0.090)
Naval Tonnage B (Total)	-0.379** (0.121)	0.700*** (0.069)	-0.355** (0.112)	0.610*** (0.069)	-0.345** (0.116)	0.594*** (0.068)	-0.352** (0.117)	0.617*** (0.069)	-0.371** (0.120)	0.697*** (0.072)
Spend A (10b USD)	0.066*** (0.012)	-0.057*** (0.015)	0.069*** (0.012)	-0.063*** (0.015)	0.068*** (0.012)	-0.066*** (0.015)	0.069*** (0.011)	-0.067*** (0.014)	0.069*** (0.012)	-0.058*** (0.015)
Spend B (10b USD)	-0.081*** (0.022)	0.100*** (0.027)	-0.077*** (0.021)	0.091*** (0.025)	-0.077*** (0.021)	0.086*** (0.025)	-0.076*** (0.022)	0.084*** (0.025)	-0.074*** (0.022)	0.096*** (0.028)
Distance (1000 km)	0.535*** (0.043)	0.492*** (0.050)	0.530*** (0.042)	0.477*** (0.047)	0.539*** (0.041)	0.480*** (0.046)	0.538*** (0.040)	0.485*** (0.045)	0.528*** (0.044)	0.486*** (0.051)
Dyad Including US	0.292 (0.491)	-0.891 (0.683)							0.244 (0.494)	-0.919 (0.692)
Pre-WWII MID			-0.769* (0.382)	-0.743* (0.355)					-0.930* (0.391)	-0.611 (0.374)
Nuclear Power					-0.104 (0.163)	0.363* (0.154)			-0.174 (0.174)	0.088 (0.179)
Post-Cold War MID							0.210 (0.195)	-0.607** (0.198)	0.318 (0.213)	-0.433 (0.227)
Intercept	746.028*** (168.654)	123.340 (203.575)	1,042.814*** (180.254)	281.259 (178.160)	731.755*** (172.405)	187.694 (186.229)	631.687*** (227.420)	448.066 (234.839)	772.991*** (231.283)	677.323** (241.164)
Observations	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280
R <sup>2</sup>	0.593	0.565	0.596	0.565	0.593	0.564	0.593	0.564	0.597	0.569

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Table 7: Replication of Table 2: Estimated Effects of Naval Capabilities on Dispute Initiation. The below uses a BayesGLM estimator instead of OLS.

	1	2	3	4	5
Tonnage A (absolute, millions)	0.366*** (0.012)				
Tonnage B (absolute, millions)	0.367*** (0.012)				
Tonnage A (proportion)		5.325*** (0.145)	3.913*** (0.196)	8.356*** (0.267)	4.249*** (0.173)
Tonnage B (proportion)		4.942*** (0.163)	3.900*** (0.221)	5.842*** (0.303)	3.820*** (0.192)
Battleships A			0.064*** (0.005)		
Battleships B			0.046*** (0.005)		
Aircraft Carriers A				-0.036*** (0.003)	
Aircraft Carriers B				-0.009*** (0.003)	
Submarines A					0.004*** (0.000)
Submarines B					0.004*** (0.000)
Mil. Expend. A (10 billion USD)	0.049*** (0.003)	0.023*** (0.004)	0.038*** (0.004)	-0.006 (0.005)	0.001 (0.005)
Mil. Expend. B (10 billion USD)	0.027*** (0.005)	0.006 (0.005)	0.018*** (0.005)	-0.004 (0.006)	-0.034*** (0.008)
Mil. Exp. A x B	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)
Distance	-0.175*** (0.006)	-0.174*** (0.006)	-0.164*** (0.006)	-0.166*** (0.006)	-0.172*** (0.006)
Contiguity	2.050*** (0.044)	2.092*** (0.043)	2.149*** (0.044)	2.126*** (0.043)	2.020*** (0.043)
AIC	38195.043	37881.448	37608.714	37693.118	37593.348
BIC	38341.552	38027.956	37779.641	37864.046	37764.275
Log Likelihood	-19085.522	-18928.724	-18790.357	-18832.559	-18782.674
Deviance	38171.043	37857.448	37580.714	37665.118	37565.348
Num. obs.	1482262	1482262	1482262	1482262	1482262

\*\*\* $p < 0.001$ , \*\* $p < 0.005$ , \* $p < 0.01$ ,  $p < 0.05$