## "Talking Peace, Making Weapons: IAEA Technical Cooperation and Nuclear Proliferation" Replication Data Codebook

Robert L. Brown, Temple University (brownrl@temple.edu) Jeffrey M. Kaplow, University of California, San Diego (jkaplow@ucsd.edu)

Included in this supplement are a data file with all variables used in our analysis and an R file that replicates of our results.

This document describes the variables used in our analysis. Each explanatory variable is lagged either 1 year or 3 years, depending on the model specification. These lagged measures are denoted by  $\_lag$  and  $\_lag3$ , respectively.

ccode:	Correlates of War country code.
country:	Country name.
econ:	Index of economic capacity; the average of a state's proportion of energy consumption and coal and steel production in a given year, multiplied by 100 (Jo and Gartzke 2007).
hasprog:	A dichotomous variable that takes on the value of 1 if a state is pursuing nuclear weapons in a given year, and 0 otherwise (Jo and Gartzke 2007).
hasprogsw:	A dichotomous variable that takes on the value of 1 if a state is pursuing nuclear weapons in a given year, and 0 otherwise (Singh and Way 2004).
hasnuke:	A dichotomous variable that takes on the value of 1 if a state has a nuclear weapon in a given year and 0 otherwise (Gartzke and Kroenig 2009).
hasnukesw:	A dichotomous variable that takes on the value of 1 if a state has a nuclear weapon in a given year and 0 otherwise (Singh and Way 2004).

<i>lib3</i> :	Change in the state's trade ratio over the previous three years (Gleditsch 2002).
midslast5ma:	5-year moving average of the number of militarized interstate disputes per year in which a state was involved (Ghosn, Palmer, and Bremer 2004).
n_ cap7:	Composite index of latent nuclear weapons production capability (Jo and Gartzke 2007).
NCAtodate:	The cumulative number of nuclear cooperation agreements that a state has signed as a recipient, including nuclear safety agreements (Fuhrmann 2009).
NCA2todate:	The cumulative number of nuclear cooperation agreements that a state has signed as a recipient, excluding nuclear safety agreements (Fuhrmann 2009).
NCAyr:	The number of nuclear cooperation agreements that a state signed as a recipient in a given year (Fuhrmann 2009).
nonprogyears:	Count of the number of consecutive years the state has been without a nuclear weapons program. Squared ( <i>nonprogyears2</i> ) and cubed ( <i>nonprogyears3</i> ) measures are also used.
npt_rati:	A dichotomous variable that takes on the value of 1 if the state has ratified the Nuclear Nonproliferation Treaty and 0 otherwise.
nucass:	A dichotomous variable representing sensitive nuclear supply; the measure takes on a value of 1 when a state receives sensitive nuclear assistance in a given year, and 0 otherwise (Kroenig 2009).
nukedate:	The year that the state acquired nuclear weapons (Gartzke and Kroenig 2009).
nukedatesw:	The year that the state acquired nuclear weapons (Singh and Way 2004).

nukepact:	A dichotomous variable that takes on the value of 1 if the state has a defense pact with a nuclear weapons state and 0 otherwise (Gibler and Sarkees 2004).
nukeprodany:	A dichotomous measure that takes on the value of 1 if the state generated any electricity from nuclear sources in a given year and 0 otherwise (World Bank 2008).
nukeriv:	A dichotomous measure that takes on the value of 1 if the state has a rival with nuclear weapons and 0 otherwise (Klein, Goertz, and Diehl 2006).
open:	The state's total trade (imports plus exports) as a share of GDP (Singh and Way 2004), using data from Gleditsch (2002).
progstate:	A dichotomous measure that takes on the value of 1 if the state has ever had a nuclear weapons program and 0 otherwise (Jo and Gartzke 2007).
progyears:	Count of the number of consecutive years the state has had a nuclear weapons program. Squared ( <i>progyears2</i> ) and cubed ( <i>progyears3</i> ) measures are also used.
tcfc:	Count of active fuel cycle-related TC projects in a given year (IAEA 2011). We include in this variable all of IAEA TC categories 3 ("Fuel Cycle and Waste Management") and 4 ("Nuclear Engineering and Technology"), except for the nuclear waste-related subcategories 3H through 3N.
tcfctodate:	Cumulative fuel cycle-related TC projects (IAEA 2011).
tcnofc:	Count of active TC projects in a given year that are not fuel cycle- related (IAEA 2011).
year:	Year.

## References

- Fuhrmann, Matthew. 2009. "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements." International Security 34(1): 7–41.
- Gartzke, Erik and Matthew Kroenig. 2009. "A Strategic Approach to Nuclear Proliferation." Journal of Conflict Resolution 53(2): 151–160.
- Ghosn, Faten, Glenn Palmer, and Stuart A. Bremer. 2004. "The MID3 Data Set, 1993– 2001: Procedures, Coding Rules, and Description." Conflict Management and Peace Science 21(2): 133–154.
- Gibler, Douglas M. and Meredith Reid Sarkees. 2004. "Measuring Alliances: The Correlates of War Formal Interstate Alliance Dataset, 1816–2000." Journal of Peace Research 41(2): 211–222.
- Gleditsch, Kristian Skrede. 2002. "Expanded Trade and GDP Data." Journal of Conflict Resolution 46(5): 712–724.
- IAEA. 2011. "Query Projects By Country." http://tc.iaea.org/tcweb/abouttc/default.asp. (accessed 1 December 2011).
- Jo, Dong-Joon and Erik Gartzke. 2007. "Determinants of Nuclear Weapons Proliferation." Journal of Conflict Resolution 51(1): 167–194.
- Klein, James P., Gary Goertz, and Paul F. Diehl. 2006. "The New Rivalry Dataset: Procedures and Patterns." *Journal of Peace Research* 43(3): 331–348.
- Kroenig, Matthew. 2009. "Importing the Bomb: Sensitive Nuclear Assistance and Nuclear Proliferation." Journal of Conflict Resolution 53(2): 161–180.
- Singh, Sonali and Christopher R. Way. 2004. "The Correlates of Nuclear Proliferation: A Quantitative Test." *Journal of Conflict Resolution* 48(6): 859–885.
- World Bank. 2008. "World Development Indicators." http://www.worldbank.org/research.