## Identifying the Impact of Collective Action on US Federal Nuclear Energy Policy Between 1975 and 1990

James Sanders, Chris Dann, Rafae Qazi, Jintao Zhu, Irene Kyoung, David Zhu Department of Government

Our research aims to quantify the impact of protest size on the probability of legislative change. Specifically, we formulate a formal two-period model to explain the behaviour of legislators when faced with a variety of protest turnouts and preferences of the median voter. We theorise that legislator payoffs are nonlinearly affected by (1) the size of protests; (2) the preferences of the median voter; and (3) the legislator's own preferences toward policy and civil unrest. Instead of being purely office-seeking, a legislator's payoff is negatively impacted by civil unrest which allows turnouts that represent a lower proportion

of the electorate to still have large impacts on behaviour. Our study takes place within the context of anti-nuclear energy protests in the United States throughout the 1970s and 80s. Legislative change is operationalised via the Nuclear Regulatory Commission (NRC) budget, which is debated and voted upon in the House and Senate. The NRC is an independent agency established in 1974 and tasked with protecting public health and safety related to nuclear energy. We use a lagged time series model to estimate the impact of protests on the proceeding year's NRC budget.