Supplementary Material for "Aid as a Tool against Insurgency: Evidence from Contested and Controlled Territory in Afghanistan" (Renard Sexton, 2016)

Replication files for this article are located at the Harvard Dataverse at the following location:
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Appendix A: Results by CERP Project Category

In this subsection, I present the results for the eight largest project categories of CERP spending in Afghanistan during the study period. The first two are featured in the Results section, where predicted effects tables are presented to illustrate the results. The latter five are substantive consistent with the average effects shown in the Results section, except for Education projects, which show substantively null effects. These estimates come from the ADL-1 specification, detailed in Section 5. In terms of interpretation, the effects are changes in incidents per $100,000 CERP spending.

Table 1: Main Results: "Protective Measures" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.23*	0.50*	0.08
	(0.09)	(0.25)	(0.05)
CERP * L.Controlled	-0.08	-0.47+	0.12
	(0.12)	(0.26)	(0.09)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.18*	-0.44	-0.03
	(0.08)	(0.24)	(0.04)
L.CERP * L2.Controlled	0.16	0.46	-0.18
	(0.12)	(0.26)	(0.09)
L2.Controlled	0.04*	0.11	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 2: Main Results: "Other Humanitarian" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.13	0.07	0.17
	(0.11)	(0.18)	(0.11)
CERP * L.Controlled	0.45	0.30	0.49
	(0.38)	(0.50)	(0.64)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	0.10	0.01	0.06
	(0.08)	(0.14)	(0.08)
L.CERP * L2.Controlled	-0.33	0.57	0.61
	(0.28)	(0.64)	(0.64)
L2.Controlled	0.04*	0.11	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.15***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 3: Main Results: "Healthcare" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.30*	0.09	0.23**
	(0.13)	(0.08)	(0.07)
CERP * L.Controlled	-0.58**	-0.13	-0.51*
	(0.22)	(0.20)	(0.21)
L.Controlled	-0.01	-0.04	0.07
	(0.02)	(0.05)	(0.05)
L.CERP	-0.08	0.02	-0.04
	(0.05)	(0.06)	(0.09)
L.CERP * L2.Controlled	0.25	0.07	-0.38*
	(0.17)	(0.22)	(0.15)
L2.Controlled	0.04*	0.11	0.04
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 4: Main Results: "Telecommunications" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.37	2.23	0.58+
	(0.24)	(1.99)	(0.34)
CERP * L.Controlled	-0.61*	-4.53*	-1.62***
	(0.25)	(2.10)	(0.46)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	0.02	-2.67	0.37
	(0.24)	(1.64)	(0.39)
L.CERP * L2.Controlled	-0.14	2.68	-0.46
	(0.26)	(1.80)	(0.63)
L2.Controlled	0.04*	0.11	0.04
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 5: Main Results: "Other" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.26*	0.30	0.41
	(0.12)	(0.18)	(0.36)
CERP * L.Controlled	0.23	-0.75	-0.76
	(0.31)	(0.51)	(0.40)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.06	-0.28	-0.31
	(0.07)	(0.19)	(0.32)
L.CERP * L2.Controlled	-0.11	1.47	1.43*
	(0.29)	(0.88)	(0.63)
L2.Controlled	0.04*	0.10	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.15***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 6: Main Results: "Transportation" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09	0.04	0.14
	(0.06)	(0.04)	(0.12)
CERP * L.Controlled	-0.33*	0.18	-0.34
	(0.15)	(0.31)	(0.20)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.07	-0.05	-0.14
	(0.06)	(0.04)	(0.11)
L.CERP * L2.Controlled	0.31	-0.28	-0.13
	(0.18)	(0.62)	(0.24)
L2.Controlled	0.04*	0.11	0.04
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.07)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 7: Main Results: "Education" Projects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.12	-0.22	-0.13
	(0.15)	(0.19)	(0.14)
CERP * L.Controlled	-0.11	0.24	0.10
	(0.15)	(0.20)	(0.15)
L.Controlled	-0.01	-0.04	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.10	-0.14	-0.13
	(0.15)	(0.17)	(0.15)
L.CERP * L2.Controlled	0.06	0.12	0.12
	(0.15)	(0.18)	(0.17)
L2.Controlled	0.04*	0.11	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Appendix B: Alternative Specifications

A.2.1: Serial Correlation Tests

In order to feel secure that the appropriate model has been specified, particularly in the face of serial correlation, I carry out Breusch-Godfrey Lagrange Multiplier (LM) tests for serial correlation for each of four alternative model specifications. In Table 8 I show the LM test statistics for four specifications: a basic two way fixed effects model, a first differences model, a one-lag ADL model and a two-lag ADL model. The high levels of serial correlation in the residuals of the fixed effects and first difference models indicate that OLS estimates from those models are biased. The single-lag ADL model barely fails to pass the LM test (with a trivial 0.01 correlation of the residuals), necessitating checking the two-lag model. The results, as it turns out, are almost identical, with the coefficients of interest in the second lag small and insignificant, and consistent across periods t and $t-1$. For ease of presentation and inference, I include the one-lag model as the main results, and show the ADL-2 results below for robustness.

Table 8: Lagrange Multiplier Autocorrelation Test

Residuals	Fixed Effects	First Differences	ADL-1	ADL-2
L.Residuals	0.16***	-0.47***	-0.01*	-0.004
	(0.004)	(0.004)	(0.005)	(0.004)
Covariates	X_{it}	X_{it}	$X_{it,t-1}$	$X_{it,t-1,t-2}$
			Y_{it-1}	$Y_{it-1,t-2}$
LM test statistic (N*R^2)	1247.4	10542.8	4.9	2.0
P-value	0.00	0.00	0.03	0.35

A.2.2: ADL-2 Results

As seen in below in Table 9, the results from an ADL model with two lag previous verify in line with the main model specification in the Results section.

Table 9: Main Results with ADL-2 Model

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09**	0.06+	0.13
	(0.03)	(0.04)	(0.09)
CERP * L.Controlled	-0.09**	-0.08*	-0.18*
	(0.03)	(0.04)	(0.09)
L.Controlled	-0.01	-0.03	0.04
	(0.02)	(0.05)	(0.05)
L.CERP	-0.07+	-0.07+	-0.11
	(0.04)	(0.04)	(0.10)
L.CERP * L2.Controlled	0.07+	0.09+	0.16
	(0.04)	(0.05)	(0.11)
L2.Controlled	0.01	-0.00	-0.02
	(0.01)	(0.02)	(0.04)
L.Violence	0.14***	0.50***	0.35***
	(0.03)	(0.06)	(0.04)
L2.Violence	0.07**	0.14***	0.19***
	(0.02)	(0.03)	(0.02)
L2.CERP	0.01	-0.00	-0.02
	(0.01)	(0.02)	(0.04)
L2.CERP * L3.Controlled	0.02	0.06	0.04
	(0.03)	(0.04)	(0.04)
L3.Controlled	0.02	0.05	0.01
	(0.03)	(0.03)	(0.05)
Districts	396	396	396
r2	0.22	0.57	0.48
N	47916	47916	47916

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

A.2.3: Arellano-Bond (1991) Estimator

In order to further verify that the results are robust, I report the results from an Arellano-Bond (1991) generalized method of moments (GMM) estimator, using two lag periods as instruments for the variables of interest As seen in below in Table 10, the results are in line with the main model specification in the Results section.

Table 10: Main Results with Arellano-Bond Estimator

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.12***	0.09*	0.15
	(0.03)	(0.04)	(0.10)
CERP * L.Controlled	-0.20***	-0.26***	-0.38***
	(0.04)	(0.07)	(0.10)
L.Controlled	0.07**	0.07	0.20***
	(0.03)	(0.05)	(0.06)
L.CERP	-0.02	-0.04	-0.07
	(0.06)	(0.03)	(0.08)
L.CERP * L2.Controlled	-0.06	-0.10*	-0.06
	(0.06)	(0.05)	(0.10)
L2.Controlled	0.26***	0.42***	0.43***
	(0.04)	(0.11)	(0.08)
L.Violence	0.09*	0.50***	0.30***
	(0.05)	(0.06)	(0.05)
L2.Violence	0.01	0.16***	0.16***
	(0.04)	(0.03)	(0.02)
Districts	396	396	396
N	48312	48312	48312

SE clustered at the district level; * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population. A-B specification using two lags periods as instruments.

Appendix C: Robustness Checks

C.1: Measurement of 'Control' vs 'Contested'

As discussed in the Data section, there may be concern that the ISW measure for 'control' may be inaccurate. Specifically, there may be cases in which an observation is coded as 'contested' but is only unoccupied by US troops because the government already has full control. In addition, a district-week may be coded as 'controlled' but in fact is far from it, as US troops have been deployed to wrest control from insurgents.

The following section shows two robustness checks for the 'control' variable, in order to verify that it is, in general, measuring what we think it is.

First, I regress implemented civilian aid per capita, as reported by the Afghan Ministry of Rural Reconstruction and Development, on the control measure, to see if controlled district-weeks are more likely to experience civilian aid implementation. Civilian aid projects, especially large projects, implemented through government agencies and its humanitarian partners, require sufficient control of the area by the government.

In the following table, I show that civilian aid expenditure per capita is AFN 3250 (about $65) higher in districts coded as controlled, more than double the AFN 1623 ($32) in districts coded as contested. The second column shows that the probability of any spending increases from 52% to 70% in districts coded as controlled.

Relationship of 'Controlled' to Civilian Aid

	Afghanis (~$0.02)	Probability of any spending
'Controlled'	1626.93*	0.18*
	(765.88)	(0.08)

Predicted Civilian Aid by 'Control' Status

	Afghanis (~$0.02)	Probability of any spending
'Controlled'	3249.6***	0.70***
	(71.4)	(0.008)
'Contested'	1622.6***	0.52**
	(694.5)	(.08)

Second, I conduct a test that redefines the control variable to reflect that a district is secured only after a battalion or larger unit has been in place for two or three months. In Table 11 I show that the results are robust to redefining the control variable such that a district as 'controlled' after there has been a FOB or larger in place for a number of periods, such as 8 or 12 weeks.

Table 11: Robustness of estimates to a lagged 'control' definition

	Control defined as Battalion plus:		
	Immediately	after 8 weeks	after 12 weeks
CERP	0.08**	0.08**	0.08**
	(0.03)	(0.03)	(0.03)
CERP * Controlled	-0.08*	-0.08*	-0.07*
	(0.03)	(0.03)	(0.03)
Controlled	0.03*	0.03**	0.02**
	(0.01)	(0.01)	(0.01)
L.Bombings	0.16***	0.16***	0.16***
	(0.03)	(0.03)	(0.03)
L.CERP	-0.05	-0.05	-0.05
	(0.03)	(0.03)	(0.03)
L.CERP * L.Controlled	0.06	0.07	0.07*
	(0.04)	(0.03)	(0.03)
L.Controlled	0.05*	-0.00	-0.01
	(0.02)	(0.03)	(0.03)

C.2: Aggregation to two and four weeks

The following section shows the main results for the bombings outcome after the data are aggregated to two and four week periods, as compared to one week periods. Table 12 shows comparable cumulative effects over $100,000 per week of CERP spending over two and four weeks, which shows consistent results across the aggregations. Table 13 shows the coefficient estimates for each aggregation, from which the predictions are generated. The regressions using higher levels of aggregation are underpowered relative to the district-week approach, as the sample size is reduced, but the effect estimates are nonetheless statistically significant. The aggregation also changes the nature of serial correlation in the data, as we note by the change in the coefficient on the lagged dependent variable; in short, the two and four week aggregations are incorporating the second week effects of spending in their first period coefficient.

Table 12: Predicted effects at multiple levels of aggregation

		Aggregation		
Control Status	**Weeks after**	One week	Two weeks	Four weeks
Unsecured	2	0.12**	0.08*	0.10*
		(0.03)	(0.03)	(0.05)
	4	0.18**	0.17*	0.22*
		(0.06)	(0.06)	(0.10)
Secured	2	-0.02	-0.03	-0.05
		(0.02)	(0.07)	(0.08)
	4	-0.05	-0.06	-0.09
		(0.05)	(0.13)	(0.15)

Standard errors estimated from 1000 simulated draws of the coefficients.

Table 13: Results at multiple levels of aggregation

	Aggregated to		
	One Week	Two Weeks	Four Weeks
CERP	0.08**	0.03*	0.04*
	(0.03)	(0.01)	(0.02)
CERP * Controlled	-0.08*	-0.06	-0.08+
	(0.03)	(0.04)	(0.06)
Controlled	0.03**	0.01	0.00
	(0.01)	(0.01)	(0.01)
L.Bombings	0.16***	-0.00	-0.01
	(0.03)	(0.01)	(0.01)
L.CERP	-0.05	0.01	0.01
	(0.03)	(0.01)	(0.01)
L.CERP * L.Controlled	0.06	-0.01	-0.00
	(0.04)	(0.01)	(0.01)
L.Controlled	0.01	0.01	0.00
	(0.01)	(0.01)	(0.01)
Districts	396	396	396
R2	0.21	0.27	0.38
N	50688	27650	14220

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

C.3: Placebo test for reporting bias

Some readers may be concerned that the events being reported by ANSO could be subject to measurement error that is correlated with CERP spending, a type of reporting bias that could bias the regression estimates above. In order to test for this kind of reporting bias or correlated measurement error, I conduct a placebo test on ANSO's reporting of other kind of incidents that we would not expect to have any relationship to CERP spending or government control. In Table 14 the results indicate that there is no effect of CERP or control on non-bombing incidents reported by ANSO, and we can feel much more confident that there is no reporting bias related to the treatment.

Table 14: Reporting Bias Placebo Test

	Non-bombing ANSO-reported incidents
CERP	-0.01
	(0.03)
CERP * Controlled	0.02
	(0.03)
Controlled	0.01
	(0.03)
L.Non-bombing incidents	0.23***
	(0.03)
L.CERP	-0.02
	(0.03)
L.CERP * L.Controlled	0.04
	(0.03)
L.Controlled	0.01
	(0.03)
Fixed Effects	Yes
Clustered SE	Yes
Districts	396
N	45936

C.4: Outliers and influential observations

This section presents robustness checks to verify that the results are not being driven by a small number of influential observations, or outlier districts with respect to CERP spending. First, I estimate the empirical specification while removing the 5 districts that have mean CERP spending that is more than 2 standard deviations above the mean. Second, I generate Cook's Distance scores for the sample on each outcome variable, and rerun the main regressions while dropping the 34 observations that fail the 4/N Cook's D threshold.[1] In Tables 15 and 16 I present the results, showing they are consistent with the main results, though with some attenuation the results for the Enemy Action and Explosive Hazards outcomes.

Table 15: Main Results Excluding High Spending Districts

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.08*	0.06+	0.12+
	(0.03)	(0.04)	(0.08)
CERP * L.Controlled	-0.08*	-0.04	-0.18*
	(0.04)	(0.06)	(0.10)
L.Controlled	-0.01	-0.04	0.07
	(0.02)	(0.05)	(0.05)
L.CERP	-0.02	-0.09*	-0.09
	(0.02)	(0.04)	(0.08)
L.CERP * L2.Controlled	0.03	0.16+	0.18+
	(0.03)	(0.09)	(0.10)
L2.Controlled	0.04*	0.11	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	391	391	391
r2	0.21	0.57	0.47
N	49657	49657	49657

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

[1] In total 70 observations are dropped, due to the multiple lags in the regression specification.

Table 16: Main Results Excluding Influential Observations

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.08**	0.04+	0.09*
	(0.03)	(0.02)	(0.04)
CERP * L.Controlled	-0.08*	-0.04	-0.05+
	(0.04)	(0.05)	(0.03)
L.Controlled	-0.01	-0.03	0.07
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.05*	-0.03
	(0.04)	(0.03)	(0.02)
L.CERP * L2.Controlled	0.04	0.13+	0.07+
	(0.04)	(0.07)	(0.05)
L2.Controlled	0.04*	0.11	0.04
	(0.02)	(0.06)	(0.06)
L.Violence	0.15***	0.52***	0.40***
	(0.02)	(0.04)	(0.04)
Districts	396	396	396
r2	0.22	0.52	0.45
N	50222	50222	50222

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

C.5: Geographic Sub-Samples: South and East

The following presents the main results from two important sub-regions of Afghanistan, the Southern region (Helmand, Kandahar, Nimroz, Uruzgan and Zabul) and the eastern zone of Regional Command East (Nangarhar, Khost, Paktika and Paktiya) bordering Pakistan. The results from the South are substantively identical to the full-sample results, though with larger effects on the U.S. military-targeted outcomes, and about the same effects for all-target bombings. The results from the East are in line with the overall average effects for the bombing outcomes, but with no effects on the SIGACT outcomes. For both sub-samples, the reduced sample size (50 clusters for the former, 51 in the latter) reduces the power of the analysis.

Table 17: Main Results: Southern Provinces

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.12	0.45***	0.76**
	(0.14)	(0.12)	(0.22)
CERP * L.Controlled	-0.13	-0.46**	-0.83***
	(0.14)	(0.13)	(0.23)
L.Controlled	-0.04	-0.01	0.19
	(0.06)	(0.17)	(0.15)
L.CERP	-0.04	-0.54***	-0.81**
	(0.11)	(0.13)	(0.24)
L.CERP * L2.Controlled	0.07	0.59***	0.91***
	(0.11)	(0.16)	(0.25)
L2.Controlled	0.04	0.01	-0.11
	(0.05)	(0.17)	(0.18)
L.Violence	0.19***	0.70***	0.51***
	(0.04)	(0.05)	(0.09)
Districts	50	50	50
r2	0.21	0.70	0.54
N	6350	6350	6350

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Table 18: Main Results: Eastern Regional Command East

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.23**	-0.02	0.00
	(0.08)	(0.03)	(0.03)
CERP * L.Controlled	-0.15	0.01	0.07
	(0.07)	(0.03)	(0.08)
L.Controlled	-0.05	-0.00	-0.03
	(0.04)	(0.02)	(0.02)
L.CERP	-0.08	-0.05	-0.05
	(0.06)	(0.03)	(0.03)
L.CERP * L2.Controlled	0.05	0.06*	0.02
	(0.06)	(0.03)	(0.07)
L2.Controlled	0.05	-0.00	0.03
	(0.06)	(0.02)	(0.02)
L.Violence	0.15**	0.27***	0.18***
	(0.05)	(0.07)	(0.05)
Districts	51	51	51
r2	0.20	0.29	0.19
N	8255	8255	8255

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

C.6: Time Effects

The following tables show the results with alternative treatments of time: a linear and quadratic time trend, followed by two week, and four week fixed effects; the estimates are consistent in each case with the main specification.

Table 19: Main Results: Linear Time Trend

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09**	0.06+	0.11+
	(0.03)	(0.03)	(0.07)
CERP * L.Controlled	-0.09**	-0.07*	-0.16*
	(0.03)	(0.04)	(0.07)
L.Controlled	-0.01	-0.05	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.06	-0.09
	(0.03)	(0.03)	(0.07)
L.CERP * L2.Controlled	0.07	0.11*	0.16*
	(0.04)	(0.05)	(0.08)
L2.Controlled	0.04*	0.12	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.60***	0.46***
	(0.03)	(0.05)	(0.06)
Week	0.003***	0.003***	0.003***
	(0.001)	(0.001)	(0.001)
Districts	396	396	396
r2	0.20	0.56	0.46
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District fixed effects included. Outcomes incidents per 10,000 population.

Table 20: Main Results: Quadratic Time Trend

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09**	0.05	0.11+
	(0.03)	(0.03)	(0.07)
CERP * L.Controlled	-0.09**	-0.07*	-0.16*
	(0.03)	(0.04)	(0.07)
L.Controlled	-0.01	-0.05	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.06	-0.09
	(0.03)	(0.03)	(0.07)
L.CERP * L2.Controlled	0.07	0.11*	0.16*
	(0.04)	(0.05)	(0.08)
L2.Controlled	0.04*	0.12	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.60***	0.45***
	(0.03)	(0.06)	(0.06)
Week	0.00	0.00***	0.00***
	(0.00)	(0.00)	(0.00)
Week-sq	0.00*	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)
Districts	396	396	396
r2	0.20	0.56	0.46
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District fixed effects included. Outcomes incidents per 10,000 population.

Table 21: Main Results: Two week fixed effects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09**	0.05+	0.10+
	(0.03)	(0.03)	(0.07)
CERP * L.Controlled	-0.08**	-0.06+	-0.16*
	(0.03)	(0.04)	(0.07)
L.Controlled	-0.01	-0.05	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.08*	-0.10
	(0.03)	(0.03)	(0.07)
L.CERP * L2.Controlled	0.07	0.12*	0.17*
	(0.04)	(0.05)	(0.08)
L2.Controlled	0.04*	0.12	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.15***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.46
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and two week fixed effects included. Outcomes incidents per 10,000 population.

Table 22: Main Results: Four week fixed effects

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.09**	0.05+	0.10+
	(0.03)	(0.03)	(0.07)
CERP * L.Controlled	-0.09**	-0.07+	-0.16*
	(0.03)	(0.04)	(0.07)
L.Controlled	-0.01	-0.05	0.06
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.08*	-0.10
	(0.03)	(0.03)	(0.07)
L.CERP * L2.Controlled	0.07	0.12*	0.17*
	(0.03)	(0.05)	(0.08)
L2.Controlled	0.04*	0.12	0.04
	(0.02)	(0.06)	(0.06)
L.Violence	0.15***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Districts	396	396	396
r2	0.21	0.57	0.46
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and four week fixed effects included. Outcomes incidents per 10,000 population.

C.7: Including Government-administered Civilian Aid

The following table shows the results with an incomplete account (about 30 percent of foreign aid, as released by the Ministry of Rural Reconstruction and Development) of government-executed civilan aid first included as a covariate. The results indicate that by this (incomplete) measure, civilian aid is orthogonal to both CERP and violence, which strengthens our belief in both the main results and the measurement checks in Appendix C.1.

Table 23: Main Results: Including non-military civilian aid as a covariate

	(1) **Bombings**	(2) **Enemy actions**	(3) **Explosive hazards**
CERP	0.08**	0.05+	0.10+
	(0.03)	(0.03)	(0.07)
CERP * L.Controlled	-0.08*	-0.06	-0.15*
	(0.03)	(0.04)	(0.07)
L.Controlled	-0.01	-0.04	0.07
	(0.02)	(0.05)	(0.05)
L.CERP	-0.05	-0.07*	-0.10
	(0.03)	(0.03)	(0.07)
L.CERP * L2.Controlled	0.06	0.12*	0.17*
	(0.04)	(0.05)	(0.07)
L2.Controlled	0.04*	0.11	0.03
	(0.02)	(0.06)	(0.06)
L.Violence	0.16***	0.59***	0.44***
	(0.03)	(0.06)	(0.06)
Aid	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)
L.Aid	-0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)
Districts	396	396	396
r2	0.21	0.57	0.47
N	50292	50292	50292

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

C.8: Robustness to Missing ANSO Data

The following three tables show the results for bombings after imputing the four missing weeks of ANSO data with: 1) all zeros (just over 2 standard deviations below the mean) and 2) three standard deviations above the mean. In each case the results are almost identical with the main results table. "Enemy actions" and "explosive hazards" do not have missing data and thus are not included here.

Table 24: Main Results: Robustness to four missing ANSO weeks

	(1)	(2)
	Missing data imputed as:	
	All zeros	3 SD above mean
CERP	0.07**	0.07**
	(0.03)	(0.03)
CERP * L.Controlled	-0.07*	-0.07*
	(0.03)	(0.03)
L.Controlled	-0.01	-0.01
	(0.02)	(0.02)
L.CERP	-0.04	-0.04
	(0.03)	(0.03)
L.CERP * L2.Controlled	0.05	0.05
	(0.03)	(0.03)
L2.Controlled	0.04*	0.04*
	(0.02)	(0.02)
L.Violence	0.15***	0.15***
	(0.03)	(0.03)
Districts	396	396
r2	0.20	0.20
N	54252	54252

SE clustered at the district level; + p<0.1 * p<0.05, ** p<0.01. District and week fixed effects included. Outcomes incidents per 10,000 population.

Appendix D: Event Coding

Using the CIDNE database of U.S. military incidents in Afghanistan, events were coded using pre-existing categories assigned by Centcom. "Enemy Actions" are defined as live fire attacks by insurgents against pro-government troops that are recorded by international military forces. These may be against fixed installations, military units on patrol, or others. "Explosive Hazards" refer to IEDs and bombs that are encountered by pro-government forces, whether they explode or not.

For each event, the first entry (the initializing event) was used in the case that there were multiple events included in the same geo-coded location at the same time. For example, if a U.S. convoy experienced live fire from insurgents and then called in air support, resulting in an airstrike, this event would be coded as an "Enemy Action."

For ANSO events, "Bombings" were coded using a keyword-based algorithm in Stata, done by searching the relevant event descriptions. ANSO uses three main keywords to indicate when bombings take place: 1) "IED," short for improvised explosive device detonations, 2) the "bomb" string, which may be in the word bombing or "bombed, and 3) the "mine" string, indicating pre-fabricated explosive devices (unlike the more artisanal IED). IED clearances by ANP, ANSF, and NATO (called "international military forces," coded "IMF," in the ANSO event reports), are identified using the codeword "defuse," which is what ANSO uses to denote explosive devices that do not detonate.

```
gen bombing=(regexm(incidentnarrative, "bomb") | regexm(incidentnarrative,
    "IED") |regexm(incidentnarrative, "explosive") |regexm(
   incidentnarrative, "mine"))
gen defuse=(regexm(incidentnarrative, "IED") & regexm(incidentnarrative, "
   defuse") & (regexm(incidentnarrative, "ANP")|regexm(incidentnarrative,
   "ANSF") ))==1
gen defuse2=(regexm(incidentnarrative, "IED") & regexm(incidentnarrative,
   "defuse") & regexm(incidentnarrative, "IMF") )==1
```

For non-insurgent political events, ANSOs AOG (armed-opposition group) tag was excluded, insuring that insurgents were not part of the incident. In addition, criminal violence is excluded. Then, typical code strings for violence are keyword searched.

```
gen criminal=(regexm(incidentnarrative, "kidnap") | regexm(
   incidentnarrative, "abduct") | regexm(incidentnarrative, "hijac") |
   regexm(incidentnarrative, "robb") | regexm(incidentnarrative, "stole")
   | regexm(incidentnarrative, "steal"))

gen political=((regexm(incidentnarrative, "attack") | (regexm(
   incidentnarrative, "fight") | regexm(incidentnarrative, "incident") |
   regexm(incidentnarrative, "shot") | regexm(incidentnarrative, "stab"))
   ==1 & criminal!=1 & aog!=1)
```

For “non-ied” ANSO reported events, events coded as bombings were subtracted from all ANSO reported events.

```
gen nonied=ansototal-bombing
```

Appendix E: Additional NDN Figures

Looking at districts in the four NDN provinces during the 12 weeks before the start of NDN shipments on 20 February 2009 and the 12 weeks following that start date, we see an increase in violence, both against all targets (Bombings) and U.S. military targets (Enemy Actions). Figures 5 and 6 illustrate this overall increase in attacks, with per week averages plotted (across districts in the four NDN provinces) and a local linear polynomial (gaussian kernel) fit over the observations before and after the first NDN shipment start date. In the average district in the four NDN provinces, with a population of 62,800, each week after the NDN began experienced one additional bombing and one additional enemy action.

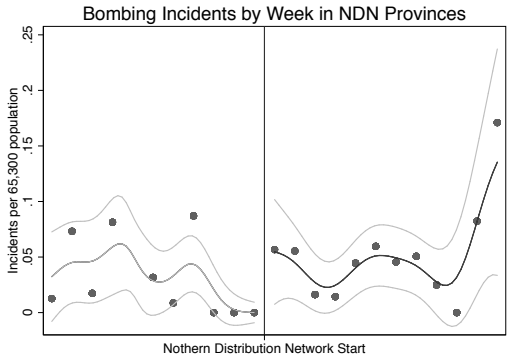

Figure 1: *Average per capita bombings against all targets by week in NDN provinces, with local linear polynomial fit before and after 20 Feb 2009. Rescaled to average district size of 62,800 population.*

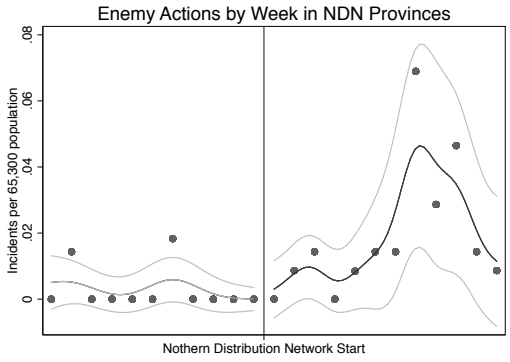

Figure 2: *Average per capita attacks against U.S. military targets by week in NDN provinces, with local linear polynomial fit before and after 20 Feb 2009. Rescaled to average district size of 62,800 population.*