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**“Combatant Socialization and Norms of Restraint: Examining Officer Training at the U.S. Military Academy and Army ROTC.”** *Journal of Peace Research* (2021)

## Appendix

### Survey Background.

USMA surveys were administered in person using paper surveys and Qualtrics survey software to freshmen in EN101 “Introduction to English Composition” classes in October 2012 and October 2013. Surveys were administered in person using paper surveys and Qualtrics survey software to senior cadets in the MX400 “Officership” class in April 2012 and April 2013. Both MX 400 and EN 101 are mandatory core courses to which cadets are randomly assigned. In each implementation of the survey instrument, the researcher introduced the survey with no discussion regarding its intent or subject matter to minimize any priming or contamination effect regarding the survey topic. The survey was voluntary, but based on instructor assessments, participation rate is estimated to have been well over 90-95 percent. The instrument surveyed approximately 10 percent of the senior classes (classes of 2012 and 2014) and 10 percent of the freshmen classes (classes of 2016 and 2017).

ROTC surveys were administered both in person and remotely using paper surveys and Qualtrics surveys software. ROTC instructors were instructed to use an identical introduction script to prevent priming. Freshmen MS I cadets were surveyed in October 2013 and senior MS IV cadets were surveyed in April 2013. Based on ROTC battalion commander assessments, ROTC surveys had an approximate 90-95 percent response rate. ROTC battalions were chosen for inclusion in the survey based on variation in characteristics such as public/private nature, geographic location, student selectivity, urban/rural setting, and religious affiliation. Surveys were conducted at the following ROTC battalions: Brigham Young University, Duke University, University of North Carolina-Chapel Hill, Georgetown University, George Mason University, Howard University, Iowa State University, Johns Hopkins University, Liberty University, University of Maryland, University of Mississippi, and the University of Virginia.

This Combat Ethics Survey was pre-tested with a focus group of Army ROTC cadets in March 2012 to ensure neutrality and objectivity throughout the language of the survey. To reduce response-set bias based on response ordering, survey question prompts were varied to make the responses evidencing greater sensitivity toward civilians equal “Agree/Strongly Agree” at times and “Disagree/Strongly Disagree” at other times. The Combat Ethics Survey also included seven other questions regarding adherence to rules of engagement and the reporting of law of war violations. The results of all survey questions not included here support the results presented in this paper, demonstrating strong norms shifts for USMA cadets and weaker norms shifts for ROTC cadets.

**Table I:** USMA-ROTC Survey Descriptive Statistics

Variable	<i>N</i>	Mean	SD	Min	Max
Mission	1047	3.66	1.16	1	5
Save Soldier	1046	2.84	1.22	1	5
Risk Self Limit CD	1039	2.05	0.88	1	5
Risk Unit Limit CD	1038	3.11	1.15	1	5
Prior Military	1023	0.13	0.34	0	1
Male	1023	0.76	0.43	0	1
Religious Services	1021	3.24	1.73	1	7
Outside US	867	0.25	0.43	0	1
Parent College	1021	0.87	0.34	0	1
Parent Military	1021	0.17	0.38	0	1
Race	817	4.64	1.08	1	7
Party Identification	816	5.13	2.20	1	9
Observations	1078				

Source: USMA-ROTC Survey Data

**Table II:** USMA Demographic Variables *t*-test Results

	Difference	Freshman	Senior	SE	<i>t</i>	<i>p</i>	DF
Male	0.01	0.86	0.85	0.03	(0.42)	0.674	412
Parent Military	-0.03	0.19	0.22	0.04	(-0.65)	0.516	414
Religious Services	0.69***	3.56	2.87	0.16	(4.32)	0.000	413
Parent College	0.02	0.90	0.87	0.03	(0.77)	0.443	414
Party Identification	0.37	5.61	5.23	0.25	(1.46)	0.145	210
Race	-0.09	4.62	4.72	0.14	(-0.67)	0.503	209
Observations	416						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table III:** ROTC Demographic Variables *t*-test Results

	Difference	Freshman	Senior	SE	<i>t</i>	<i>p</i>	DF
Male	-0.06	0.75	0.81	0.04	(-1.53)	0.126	457
Parent Military	-0.01	0.18	0.19	0.04	(-0.22)	0.824	453
Religious Services	0.23	3.59	3.36	0.17	(1.34)	0.181	454
Parent College	-0.05	0.82	0.86	0.04	(-1.32)	0.186	454
Party Identification	-0.02	5.44	5.46	0.21	(-0.10)	0.924	452
Race	-0.15	4.64	4.79	0.10	(-1.51)	0.133	454
Observations	459						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table IV:** USMA-ROTC Freshmen Demographics *t*-test Results

	Difference	ROTC	USMA	SE	<i>t</i>	<i>p</i>	DF
Male	-0.12**	0.75	0.86	0.04	(-3.27)	0.001	500
Parent Military	-0.02	0.18	0.19	0.04	(-0.44)	0.662	498
Religious Services	0.03	3.59	3.56	0.16	(0.20)	0.841	498
Party Identification	-0.17	5.44	5.61	0.24	(-0.69)	0.489	386
Parent College	-0.08*	0.82	0.90	0.03	(-2.47)	0.014	498
Race	0.01	4.64	4.62	0.11	(0.12)	0.901	386
Observations	502						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table V:** USMA-ROTC Senior Demographics *t*-test Results

	Difference	ROTC	USMA	SE	<i>t</i>	<i>p</i>	DF
Male	-0.04	0.81	0.85	0.04	(-1.04)	0.298	369
Parent Military	-0.03	0.19	0.22	0.04	(-0.79)	0.433	369
Religious Services	0.49**	3.36	2.87	0.18	(2.77)	0.006	369
Party Identification	0.22	5.46	5.23	0.24	(0.92)	0.358	276
Parent College	-0.01	0.86	0.87	0.04	(-0.21)	0.834	370
Race	0.07	4.79	4.72	0.13	(0.55)	0.581	277
Observations	373						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table VI:** USMA Dependent Variables *t*-test Results

	Difference	Freshman	Senior	SE	<i>t</i>	<i>p</i>	DF
Mission	-0.75***	3.43	4.18	0.10	(-7.27)	0.000	430
Save Soldier	-0.70***	2.64	3.34	0.12	(-6.01)	0.000	429
Risk Self Limit CD	0.04	1.96	1.92	0.08	(0.48)	0.633	428
Risk Unit Limit CD	0.46***	3.04	2.59	0.11	(4.22)	0.000	428
Observations	432						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table VII:** ROTC Dependent Variables *t*-test Results

	Difference	Freshman	Senior	SE	<i>t</i>	<i>p</i>	DF
Mission	-0.38***	3.48	3.86	0.11	(-3.38)	0.001	463
Save Soldier	0.12	2.65	2.52	0.11	(1.10)	0.273	463
Risk Self Limit CD	-0.10	2.00	2.10	0.09	(-1.16)	0.248	457
Risk Unit Limit CD	0.12	3.38	3.26	0.11	(1.10)	0.270	456
Observations	465						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table VIII:** USMA-ROTC Freshmen Dependent Variable *t*-test Results

	Difference	ROTC	USMA	SE	<i>t</i>	<i>p</i>	DF
Mission	0.05	3.48	3.43	0.10	(0.49)	0.627	535
Save Soldier	0.01	2.65	2.64	0.10	(0.11)	0.914	535
Risk Self Limit CD	0.04	2.00	1.96	0.07	(0.58)	0.563	530
Risk Unit Limit CD	0.34***	3.38	3.04	0.10	(3.36)	0.001	529
Observations	537						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table IX:** USMA-ROTC Senior Dependent Variable *t*-test Results

	Difference	ROTC	USMA	SE	<i>t</i>	<i>p</i>	DF
Mission	-0.32**	3.86	4.18	0.11	(-2.85)	0.005	358
Save Soldier	-0.81***	2.52	3.34	0.12	(-6.54)	0.000	357
Risk Self Limit CD	0.18*	2.10	1.92	0.09	(2.03)	0.043	355
Risk Unit Limit CD	0.67***	3.26	2.59	0.12	(5.80)	0.000	355
Observations	391						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: USMA-ROTC Survey Data

**Table X:** “It is Justifiable to Kill Civilian if Necessary:”

	For Mission		To Save a Soldier	
	USMA (M1)	USMA (M2)	USMA (M1)	USMA (M2)
Senior	1.240*** (0.192)	1.327*** (0.289)	0.632*** (0.205)	0.985*** (0.276)
Parent Military	-0.051 (0.224)	-0.352 (0.358)	0.287 (0.250)	-0.083 (0.341)
Male	-0.020 (0.255)	-0.105 (0.380)	0.472* (0.242)	-0.643* (0.378)
Religious Services	-0.035 (0.056)	-0.022 (0.086)	0.037 (0.057)	0.067 (0.085)
Party Identification		-0.121 (0.182)	-0.332*** (0.120)	-0.361*** (0.119)
<i>N</i>	413	184	355	183
<i>AIC</i>	1132.184	504.567	1043.949	576.723
chi2	47.195	24.693	19.627	31.134
				1043.700
				14.607

Cutpoints for ordered logit models not shown. Standard errors in parentheses.

Source: USMA-ROTC Survey Data

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ , two-tailed test

Questions regarding party identification were included in only one round of USMA surveys. Models are displayed excluding (M1) and including (M2) party identification.

**Table XI:** “I Would Risk Own/Unit Safety to Limit Collateral Damage.”

	Own Safety			Unit Safety		
	USMA (M1)	USMA (M2)	ROTC	USMA (M1)	USMA (M2)	ROTC
Senior	-0.061 (0.196)	0.087 (0.292)	0.021 (0.212)	-0.712*** (0.184)	-0.700** (0.278)	0.030 (0.203)
Parent Military	0.125 (0.235)	0.104 (0.365)	-0.300 (0.261)	0.051 (0.227)	-0.325 (0.353)	0.310 (0.253)
Male	-0.305 (0.269)	-0.119 (0.388)	-0.012 (0.250)	-0.563** (0.258)	-0.960** (0.387)	-0.162 (0.240)
Religious Services	-0.114* (0.060)	-0.027 (0.091)	-0.167*** (0.060)	-0.004 (0.056)	-0.003 (0.089)	-0.027 (0.057)
Party Identification		0.078 (0.194)	0.205 (0.125)		0.153 (0.190)	0.324*** (0.119)
<i>N</i>	413	184	355	413	184	355
<i>AIC</i>	924.237	430.768	853.842	1213.533	542.892	1054.218
chi2	4.938	0.575	10.539	20.238	13.513	9.067

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Cutpoints for ordered logit models not shown. Standard errors in parentheses.

Source: USMA-ROTC Survey Data

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ , two-tailed test

Questions regarding party identification were included in only one round of USMA surveys. Models are displayed excluding (M1) and including (M2) party identification.



**Civilian Control Surveys.** To provide a baseline control for the USMA and ROTC survey responses, the Combat Ethics Survey was also administered to 166 freshmen and senior civilian university students at Duke University and the University of North Carolina-Chapel Hill between April 2013 and April 2015. Surveys were administered through the political science research pool for each institution, under which which students could voluntarily participate in surveys in order to earn extra credit for participation in the CES survey.

Duke and UNC were chosen for control surveys due to several factors. First, based on the selectivity of both universities, students from both Duke and UNC-Chapel Hill share with USMA cadets strong levels of academic and extracurricular achievement. Second, the civilian student sample drawn from the populations of a selective private school (Duke) and selective state school (UNC-Chapel Hill) provides closer approximation to the overall USMA cadet population. USMA’s admission rate approximates the highly-selective admit rate of Duke, while admission test scores for entering USMA cadets approximate scores of students entering UNC-Chapel Hill.

**Table XII:** Duke-UNC Chapel Hill-USMA Comparison

	Duke	UNC-CH	USMA
Admit %	12%	27%	10%
SAT-Reading	690 - 760	590 - 700	580 - 690
SAT-Math	690 - 790	600 - 710	600 - 700
SAT-Writing	690 - 780	580 - 690	600 - 700
ACT-Composite	31-34	27 - 32	26 - 31

25-75th percentiles for class of 2020; source: The Princeton Review

**Table XIII:** Civilian Student DV *t*-test Results

	Difference	Freshman	Senior	SE	<i>t</i>	<i>p</i>	DF
Mission	-0.18	3.45	3.63	0.19	(-0.93)	0.352	148
Save Soldier	-0.12	3.18	3.30	0.20	(-0.60)	0.550	148
Risk Self Limit CD	-0.14	2.33	2.46	0.16	(-0.85)	0.399	148
Risk Unit Limit CD	-0.20	3.13	3.33	0.18	(-1.11)	0.268	148
Observations	150						

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , two-tailed test

Source: Civilian Student Survey Data

**Table XIV:** Matching Analysis

USMA:	ATT	SE	<i>t</i> score
Mission	0.758	0.169	4.47*
Save Soldier	0.710	0.188	3.78*
Risk Own Safety	-0.046	0.131	-0.35
Risk Unit Safety	-0.485	0.177	-2.74*

  

ROTC:	ATT	SE	<i>t</i> score
Mission	0.436	0.126	3.46*
Save Soldier	-0.066	0.127	-0.52
Risk Own Safety	0.097	0.107	0.91
Risk Unit Safety	0.029	0.124	0.24

\*  $p < 0.05$ , two-tailed test

**Table XV:** USMA and ROTC Freshmen: *t*-test Results for All Dependent Variables

	Diff	ROTC	USMA	SE	<i>t</i>	<i>p</i>	
Mission	0.05	3.48	3.43	0.10	(0.49)	0.627	535
Save Soldier	0.01	2.65	2.64	0.10	(0.11)	0.914	535
Risk Self Limit CD	0.04	2.00	1.96	0.07	(0.58)	0.563	530
Risk Unit Limit CD	0.34***	3.38	3.04	0.10	(3.36)	0.001	529
Risk Self Civ Danger	0.04	1.89	1.84	0.07	(0.64)	0.521	529
Report Killing	0.06	1.92	1.85	0.06	(0.99)	0.324	526
Report Necessary Killing	-0.11	2.60	2.72	0.09	(-1.32)	0.187	526
I Modify ROE for Mission	-0.03	3.29	3.31	0.09	(-0.31)	0.754	535
Unit Modify ROE for Mission	-0.05	3.59	3.64	0.09	(-0.59)	0.552	535
I Modify ROE to Save Soldier	0.01	2.26	2.25	0.09	(0.14)	0.887	535
Unit Modify ROE to Save Soldier	-0.02	2.45	2.47	0.09	(-0.19)	0.850	535
High Value Target	1.29	14.46	13.17	1.29	(1.00)	0.316	534
Observations	567						

Source: USMA-ROTC Survey Data

**Table XVI:** USMA and ROTC Seniors: *t*-test Results for All Dependent Variables

	Diff	ROTC	USMA	SE	<i>t</i>	<i>p</i>	DF
Kill Necessary	-0.32**	3.86	4.18	0.11	(-2.85)	0.005	358
Kill Save Soldier	-0.81***	2.52	3.34	0.12	(-6.54)	0.000	357
Risk Self Limit CD	0.18*	2.10	1.92	0.09	(2.03)	0.043	355
Risk Unit Limit CD	0.67***	3.26	2.59	0.12	(5.80)	0.000	355
Risk Self Civ Danger	0.23**	2.03	1.80	0.08	(2.87)	0.004	355
Report Killing	0.18*	1.78	1.60	0.08	(2.31)	0.022	354
Report Necessary Killing	0.37***	2.51	2.14	0.10	(3.61)	0.000	353
I Modify ROE for Mission	-0.36**	3.50	3.86	0.12	(-3.08)	0.002	358
Unit Modify ROE for Mission	-0.36***	3.92	4.28	0.10	(-3.73)	0.000	358
I Modify ROE to Save Soldier	-0.75***	2.31	3.06	0.12	(-6.27)	0.000	358
Unit Modify ROE to Save Soldier	-0.70***	2.69	3.39	0.12	(-5.66)	0.000	358
High Value Target	0.33	11.09	10.76	1.30	(0.25)	0.800	383
Observations	391						

Source: USMA-ROTC Survey Data

**Comparison of USMA with Top ROTC Programs.** According to 2012 U.S. News and World Report rankings, the following schools in the ROTC sample ranked in the top 30 of U.S. national universities: Duke (rank 8), Johns Hopkins University (10), Georgetown (22), University of Virginia (25), and the University of North Carolina-Chapel Hill (30). See Andrew G. Reiter, “U.S. News and World Report Historical Liberal Arts College and University Rankings,” available at: <http://andyreiter.com/datasets/>

Students at these schools report equivalent or higher levels of academic achievement as compared with the USMA cadet population. The academic profile of USMA cadets most closely matches the profile of students at UNC-Chapel Hill, the lowest ranked university in this subsample of top ROTC universities (national rank 30).

UNC Chapel Hill freshmen class profiles (class of 2016) show that matriculating UNC students had slightly higher levels of academic achievement (average SAT/ACT: 1938/29.9) than matriculating USMA cadets (class of 2016) (average SAT/ACT: 1887/29). For USMA and UNC Chapel Hill freshmen class profiles, see USMA Class of 2016 Class Profile 2012; Outlaw 2012.

Survey results show Top ROTC freshmen report statistically equivalent responses to USMA freshmen but Top ROTC seniors report divergent responses to USMA seniors. Survey results from cadets at Top ROTC programs are consistent with the overall ROTC sample.

**Table XVII:** USMA-Top ROTC Freshmen *t*-test Results

	Diff	USMA	Top ROTC	SE	<i>t</i>	<i>p</i>	DF
Mission	0.03	3.43	3.40	0.17	(0.18)	0.860	283
Save Soldier	-0.14	2.64	2.77	0.18	(-0.75)	0.454	283
Risk Unit Limit CD	-0.22	3.04	3.26	0.18	(-1.23)	0.220	282
Observations	285						

Source: USMA-ROTC Survey Data

**Table XVIII:** USMA-Top ROTC Seniors *t*-test Results

	Diff	USMA	Top ROTC	SE	<i>t</i>	<i>p</i>	DF
Mission	1.01***	4.18	3.17	0.23	(4.40)	0.000	222
Save Soldier	0.84**	3.34	2.50	0.27	(3.16)	0.002	221
Risk Unit Limit CD	-0.62**	2.59	3.21	0.23	(-2.71)	0.007	221
Observations	224						

Source: USMA-ROTC Survey Data