

### **PROLIFERATED DRONES**

## **Drone Proliferation and the Use of Force**

An Experimental Approach

## Introduction

As more countries acquire drones, will their widespread availability lead to greater military adventurism and conflict? Will countries be more willing to put a drone in harm's way? If so, how will other nations respond? Would they be more willing to shoot down a drone than a human-inhabited aircraft? And if they did, are those incidents likely to escalate?

To help answer these questions, in 2016 the Center for a New American Security conducted a survey experiment to better understand how experts and the general public viewed the use of force with drones. The survey evaluated expert and public attitudes about the willingness to use force in three scenarios: (1) deploying an aircraft into a contested area; (2) shooting down another country's aircraft in a contested area; and (3) escalating in response to one's own aircraft being shot down. For each scenario, half of the survey respondents read questions where a drone was used and half of the survey respondents read questions where a human-inhabited aircraft was used.

This experimental design was intended to better understand how the introduction of drones into militaries' arsenals might *change* expert and public attitudes about the use of force relative to human-inhabited aircraft. Given the continuing integration of robotics into national militaries, as well as the proliferation of drones, this is a critical question for global politics. Moreover, while several studies approach the topic by looking at public opinion in the United States, we know less about how communities of foreign policy experts view drones.

## **Survey Scenarios**

CNAS' survey analysis centers on how respondents answered the following set of three hypothetical questions. Respondents were randomly selected into one of two experimental conditions: "drone" or "inhabited." In both conditions, the hypothetical scenario was the same except the version in the "drone" condition asked about drones being deployed or shot down and the version in the "inhabited" condition asked about manned military aircraft being deployed and shot down. The three questions are listed below:

- 1. Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your military proposes deploying [unmanned military drones/manned military aircraft] into the disputed territory. The probability that those [unmanned military drones/manned military aircraft] will be shot down is 50%. What is your opinion of deploying the [drones/aircraft]?
- 2. Your country (or a close ally) is in the midst of an important territorial dispute with another country. The other country deploys [unmanned military drones/manned military aircraft] into the disputed territory. Your military proposes shooting down the other country's [unmanned military drones/manned military aircraft]. What is your opinion of shooting down the [drones/aircraft]?
- 3. Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your country deployed [unmanned military drones/manned military aircraft] into the disputed territory. The other country shot down one of your country's [unmanned military drones/manned military aircraft]. In response, your military proposes shooting down the next military plane flown by the adversary country into the disputed territory, whether unmanned or manned. What is your opinion of undertaking this action?

# How do drones change attitudes about using force and escalating a conflict?

To begin, CNAS recruited 259 respondents from the U.S. population (via Amazon's Mechanical Turk service, meaning it is a convenience sample, rather than representative of the U.S. population). Figure 1 shows the percent of respondents who approved of the use of force for each of our three questions: (1) deploying military forces into a potentially hostile area; (2) shooting down adversary forces; and (3) escalating in response to an adversary shooting down the respondent's country's aircraft.

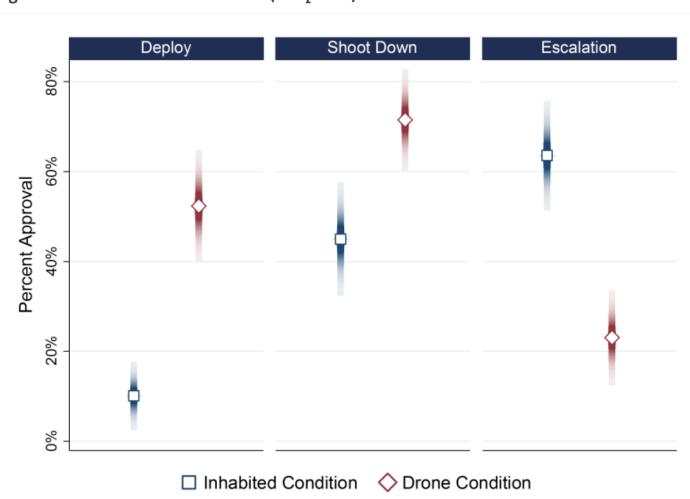


Figure 1: Drones v. Inhabited Aircraft (U.S. public)

Data point extensions represent 95% confidence intervals.

The results demonstrate clear and statistically significant differences in attitudes among survey respondents. While almost 52 percent of respondents were willing to deploy drones into airspace over contested territory, that number dropped by 10 percent if it involved human-inhabited aircraft. Respondents were much more willing to put a drone into a contested area in which it might get shot down. A similar, but much smaller, divide existed when it came to

shooting down an adversary's military aircraft. Seventy-two percent would support shooting down an adversary aircraft in disputed territory if it was a drone, but only 45 percent would support that action if there were a person in the cockpit.

There was a stark difference in how willing respondents were to escalate in response to an attack on their country's aircraft depending on whether it had a person in the cockpit or not. Only 23 percent of respondents were willing to shoot down an adversary aircraft, whether manned or unmanned, if a drone was shot down, compared to 64 percent willing to do so if an adversary shot down a military aircraft with a person in the cockpit. This shows how the U.S. public values military personnel well beyond the cost of lost equipment from attacks.

Only 23 percent of respondents were willing to shoot down an adversary aircraft, whether manned or unmanned, if a drone was shot down, compared to 64 percent willing to do so if an adversary shot down a military aircraft with a person in the cockpit.

How does this snapshot of the American public compare to experts, as well as respondents not in the United States? To answer this question, CNAS also surveyed two additional groups using the same questions and methodology, an expert group and a foreign group. The "expert" sample represents 656 respondents recruited by CNAS through email, the web, and social media. These respondents differed from the average U.S. population in ways that suggest they are more knowledgeable about military affairs and national security in general and drones in particular, making them a uniquely important sample to survey. For example, while about 7.3 percent of the U.S. population has served in the military, 48 percent of the CNAS expert sample had some military service. Similarly, 46 percent of the CNAS survey participants had professional experience working with drones, compared to just 4 percent in the U.S. population.

The CNAS survey respondents also differed in other ways. Seventy-six of the respondents were male. Moreover, of those respondents in the United States, CNAS respondents were more likely to identify with a political party: 42 percent identified as Democrats and 34 percent as Republicans (compared to about 29 percent and 26 percent, respectively, in the general population, according to Gallup). Respondents to the CNAS expert survey were also highly

educated. Over 52 percent of the expert survey respondents had some kind of advanced degree beyond a bachelor's degree, compared to 12 percent in the general U.S. population.

Finally, to get a foreign perspective, CNAS recruited 263 respondents from India, again using Amazon's Mechanical Turk service, to see how the general public from another country might have similar or different views from the U.S. public

What do these results look like when broadening out to include the other survey populations? Figures 2 through 4 show basic approval data across the three survey populations.

Figure 2: Support for Deploying Aircraft into Contested Area (all groups)

Line extensions represent 95% confidence intervals.

All three survey populations responded in similar ways to the question about deploying drones in a contested conflict situation. In all populations, shifting from an inhabited aircraft to a drone led to a statistically significant increase in support for deploying the aircraft. The difference was

largest for the non-representative sample of the U.S. public. The effect was smaller, yet still statistically significant, for respondents to the CNAS expert survey and the Indian general public. This suggests that the U.S. public in particular has a strong reticence to placing U.S. troops in harm's way without further context. The effect may be lower in the CNAS survey because of the high proportion of military personnel in survey respondents (6.5 times higher than the general U.S. population).

Figure 3: Support for Shooting Down Enemy Aircraft in Contested Area (all groups)

Line extensions represent 95% confidence intervals.

Inhabited Condition

The findings for the question about whether to shoot down an adversary aircraft look, overall, similar to those for the deployment question. The U.S. public sample, expert population, and Indian public sample all were more likely to approve of shooting down an adversary aircraft when there was not a person in the cockpit. The Indian public sample, however, does demonstrate some potential cross-national differences in beliefs about the use of force. The

**Drone Condition** 

Indian public was more likely to approve of shooting down an adversary aircraft when it was a drone, but that difference was small and not statistically significant. This result could potentially reflect the legacy of the long-running dispute between India and Pakistan over the Kashmir region. Perhaps the Indian public is more willing to target even a human-inhabited aircraft in a contest over disputed territory because it happens more regularly in Kashmir. Thus, because they worry about real-world incursions into disputed territories such as Kashmir, perhaps Indian respondents are more willing to fire on an aircraft, even if there is a human onboard.

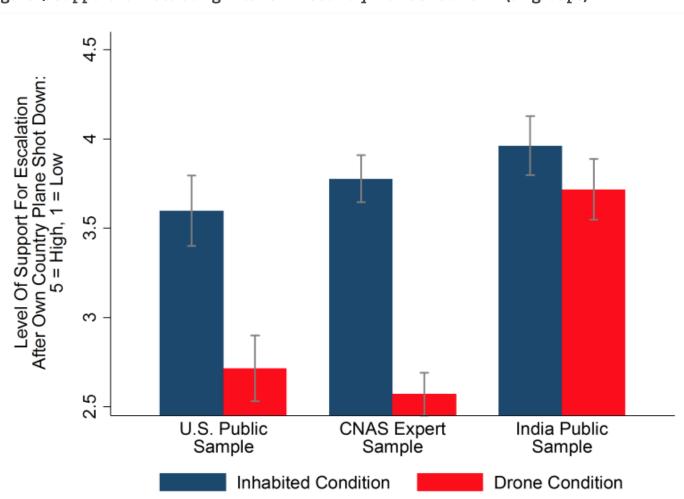


Figure 4: Support for Escalating After Own Country Plane Shot Down (all groups)

Line extensions represent 95% confidence intervals.

The results for the escalation question are similar to the shoot down question – while all three samples show similar general trends, the U.S. public and CNAS expert samples are extremely close to each other, while the Indian public sample looks very different. In all three samples,

respondents were more likely to escalate when an inhabited aircraft was shot down than when a drone was shot down. This reflects the premium placed on human life – escalation is seen as more legitimate and perhaps even necessary when soldiers are killed. Note, however, that the difference in the Indian public sample is once again not significant between the inhabited and drone conditions. The Indian public is substantially more supportive than the U.S. public and CNAS experts of escalating even when a drone is shot down. These differences might once again reflect a historical legacy in which the Indian public is simply more accustomed to cross-border conflict and even escalation, meaning they are more willing to respond to smaller uses of force with escalation.

## What do these findings mean for international politics?

Across multiple groups, respondents were more willing to deploy drones into dangerous areas and more willing to shoot down another country's drone in a contested area, compared to inhabited aircraft. Respondents were less willing, however, to escalate in response to their own country's drone being shot down than if it was an inhabited aircraft. This suggests that while drone proliferation may lead to more aircraft incursions and drone shoot downs, these incidents may not escalate into hostilities against inhabited aircraft.

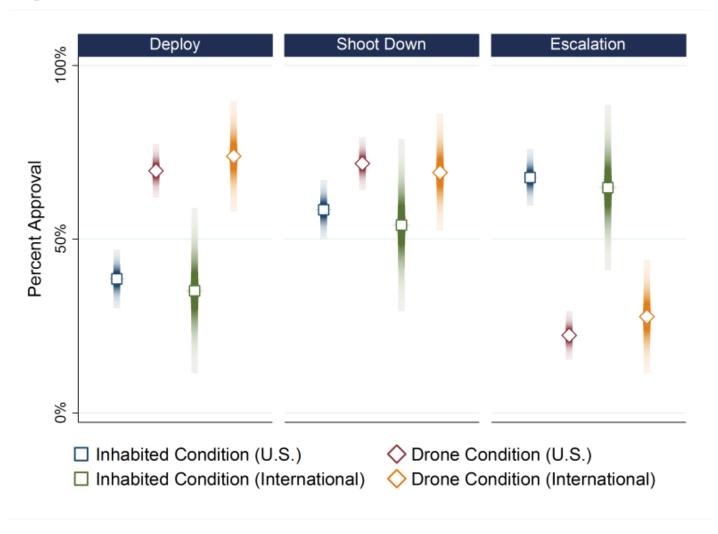
These survey experiment findings match initial observations of state behavior using drones. Multiple states and non-state groups have sent drones into others' territory. In some cases, this has led to drones being shot down. Israel has shot down multiple drones sent into its airspace. In 2015, Syria shot down a U.S. drone over its territory, Pakistan shot down an alleged Indian drone in Kashmir, and Turkey shot down a presumed Russian drone that crossed into Turkey from Syria. None of these incidents escalated further, however.

## Are American experts different from international experts?

Of the initial CNAS sample, 102 of the 656 respondents, or about 16 percent, were from abroad. Figure 5 shows the CNAS expert survey respondents' answers to all questions, breaking out respondents by whether they are American or not. It shows that the results are essentially the same across American and international respondents (the confidence intervals are larger for the

international respondents because there are fewer of them, which increases the margin of error for the proportional estimates).

Figure 5: Drones v. Inhabited Aircraft – Approval by U.S. or International Respondent (expert sample)



Data point extensions represent 95% confidence intervals.

## What influences public attitudes?

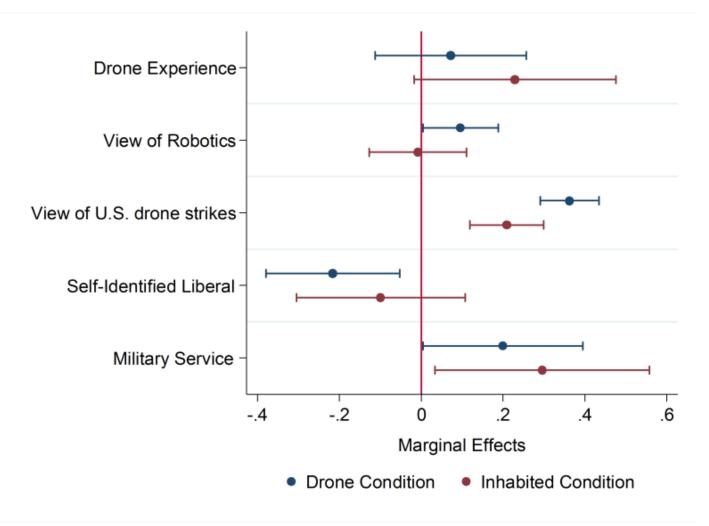
Finally, these results in general raise the question of which factors are most important in shaping public attitudes about the military's use of drones relative to inhabited aircraft. We therefore estimated a simple linear regression model where approval was the dependent variable. The independent variables were key demographic and experiential factors the survey asked about, such as age, gender, education, and prior military experience.

Using the output from the regression model, we then generated marginal effects for each model. Marginal effects show the relative importance of each of the variables in influencing overali attitudes among our survey respondents.

The results in Figure 6 show the marginal effects of each variable for the deployment question, Figure 7 shows them for the shoot down question, and Figure 8 shows them for the escalation question. In all the charts, the dots are averages and the lines are 95 percent confidence intervals. The further from zero, the larger the effect, meaning the larger the impact of that variable on overall public attitudes.

There are two ways to think about the important variables in the charts that follow. The first is to look for variables where, no matter the condition (drone or inhabited), a given variable had a large impact. The second is to look for variables where there was a statistically significant difference between the effect of the variable depending on whether respondents received the drone questions or the inhabited aircraft questions. The figures that follow only include those results deemed as most interesting, but the full figures are available upon request.

Figure 6: What Drives Deployment Approval?



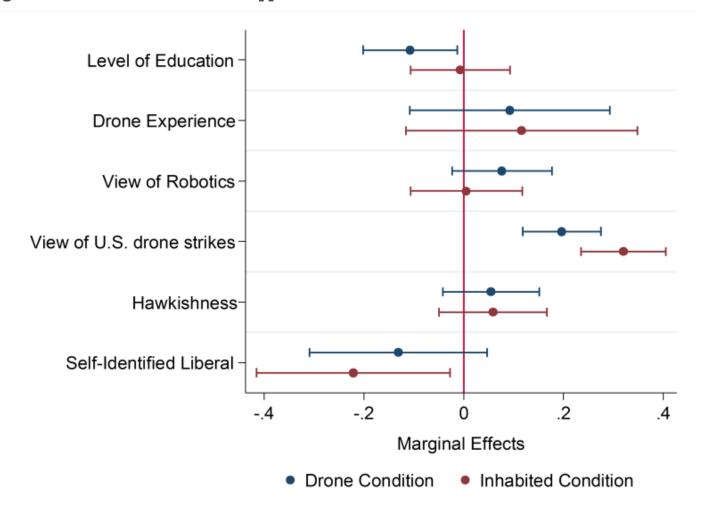
Data point extensions represent 95% confidence intervals.

The results for deployment approval demonstrate several variables playing a critical role in driving the results. Respondents with prior military service are more likely to approve of deploying force into disputed territory – a preference that exists regardless of whether respondents received the drone or inhabited aircraft condition. Those who approve of U.S. drone strikes against terrorists and insurgents also are significantly more likely to approve of deployments (even controlling for the overall hawkishness of the respondent). The relative effect of approving of U.S. drone strikes on approving of deployments in the survey is much stronger, though, for those that received the drone condition, since the marginal effect on approval in the drone condition is about .4, whereas it is only .2 in the inhabited aircraft condition.

Interestingly, personal experience using drones in a professional capacity is not related to approval of deployment, even in the drone condition, but those with a positive view of robotics are much more likely to support deploying drones into contested airspace.

Finally, self-identified liberals are less likely to approve of deployment, but the effect is only significant in the drone condition. This result is arguably somewhat surprising. Given that most respondents are American and Barack Obama, a Democrat, was the president at the time the survey was fielded, one would imagine that liberals, supporting Obama, would also be more supportive of deploying drones. Perhaps liberals are expressing their disapproval of the use of drones for targeted strikes, but there were separate questions asking about both that and overall hawkishness. One could argue these results are biased since they include respondents from the India sample and CNAS expert respondents who were outside the United States, meaning they might think of what it means to be a liberal or conservative differently from American respondents. Re-running the same model just on American respondents generated the same results, however. Thus, this is an interesting finding worthy of further investigation.

Figure 7: What Drives Shoot Down Approval?



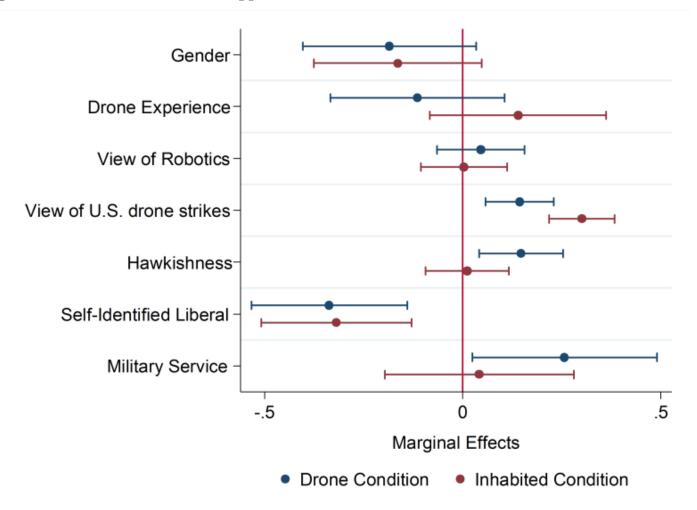
Data point extensions represent 95% confidence intervals.

For the shoot down question, the results look conceptually similar to the deployment question, but with a few differences. Once again, there is no effect from prior experience using drones. but more favorable views of robotics make support of action somewhat more likely only in the drone condition. Those who are more hawkish also are somewhat more likely to support the use of force in both conditions, as are those that support U.S. drone strikes in general.

A few demographic variables stand out in looking at the shoot down results. Higher levels of education make support for shooting down the adversary aircraft more likely in both conditions, though it is only statistically significant in the drone condition.

Once again, liberals appear less likely to support military action, but the effect is only significant in the inhabited aircraft condition. This could reflect that the desire to avoid adversary casualties is stronger among liberals, but it is difficult to explain given the other factors we control for, such as overall hawkishness and beliefs about drone strikes.





As with overall approval levels, the key variables for approval when respondents were asked the escalation question also differ from the deployment and shoot down questions. Notably, women and people who are more highly educated are less likely to approve of escalation in both conditions, though the effect is only significant (and barely significant, at that) in the drone condition.

Prior military service makes approval of escalation more likely, but only in the drone condition. This is interesting because one might imagine that those with military service would be significantly more supportive of escalation in the inhabited aircraft condition, since it would be an actual soldier that had been shot down. In that condition, however, their views are the same as respondents without prior military service. This might suggest that military personnel see less of a difference between drones and inhabited aircraft when it comes to responding to an adversary shoot down. In short, military personnel are more likely to want to escalate, even if it was just a drone that was shot down. They're more likely to view the act itself as hostile, even if no one is killed.

Military personnel are more likely to want to escalate, even if it was just a drone that was shot down. They're more likely to view the act itself as hostile, even if no one was killed.

As with the other questions, those more supportive of drone strikes support escalation in both conditions, though the relative effect is much stronger in the inhabited aircraft question. Views of robotics do not matter in explaining responses to the escalation question, unlike in the deployment and shoot down questions. Prior experience with drones similarly is not significant. Hawkishness is most significant in the escalation condition, though only in the drone condition. This means that the overall reluctance of respondents to escalate when a drone is shot down is much weaker for more hawkish respondents, since they support the use of military force more in general.

Liberals, once again, are much less likely to support the use of military force, in this case escalation. This is consistent with societal views of liberals, though the results are interesting

given that we separately control for hawkishness, meaning if most liberals were simply not hawkish, that would be reflected in the hawkishness variable.

## Conclusion

The use of drones represents one of the most important new tools for the use of military force in the 21st century. The proliferation of drones also means that countries facing off around the world are increasingly likely to deploy drones, and in some cases deploy armed drones. This novel survey experiment provides evidence that, among a pool of both experts and the general population, the choice of using drones versus inhabited aircraft has significant effects on the willingness of respondents to start conflicts – as well as escalate them.

#### About the Authors

**Dr. Michael C. Horowitz** is an associate professor of political science at the University of Pennsylvania and an adjunct senior fellow at the Center for a New American Security.

**Paul Scharre** is a senior fellow and director of the Future of Warfare Initiative at the Center for a New American Security.

**Ben FitzGerald** is a senior fellow and director of the Technology and National Security Program at the Center for a New American Security.

## **Details About the Survey**

CNAS recruited two survey populations in September 2016 using Amazon's Mechanical Turk service: 259 respondents from the general U.S. population and 263 respondents from the Indian public. Mechanical Turk yields survey pools that are generally more liberal and younger than the average population, but academic research demonstrates that the effect sizes from Mechanical Turk samples in public opinion survey experiments are generally valid. Another survey group was recruited in the summer of 2016 via social media and email.

Respondents were randomly selected into one of two experimental conditions: "inhabited" or "drone."

In the "inhabited" condition, respondents received three questions (the full text of the questions is available in the appendix to this brief). The first described a territorial dispute and asked people whether they approved of their military deploying manned military aircraft into disputed territory, given a 50 percent probability that the plane would be shot down. The second question focused on a similar situation, but instead asked about approval of shooting down manned military aircraft that the other country in the territorial dispute had deployed. The third question described a scenario in which the other country in the territorial dispute had shot down one of your country's manned military aircraft, and asked whether respondents would approve of shooting down the next military plane flown by the adversary into the territory, whether manned or unmanned.

In the "drone" condition, respondents received the exact same questions, except they were asked about drones being deployed and shot down, rather than manned military aircraft.

Respondents in both conditions then answered a short battery of demographic questions, along with a few questions concerning their views of robotics and U.S. drone strike policy. The full text of questions is available here.

## **Appendix: CNAS Drone Survey**

## **Correlation Matrices**

Deployment Question Correlation Matrix

	Deployment
	Approval:
	5 = Approve
	1 = Disapprove
Hawkishness: 1 = Favor Diplomacy, 5 = Favor Military	0.106***
View of US drone strikes: 1 = Positive, 5 = Negative	-0.357***
View of Robotics: 1 = Positive, 5 = Negative	-0.176***
Gender: 1 = Male, 2 = Female	-0.106***
Ideology: 1 = Conservative, 3 = Moderate, 5 = Liberal	-0.237***
GOP: $0 = \text{No}$ , $1 = \text{Yes}$	0.148***
Democrat: 0 = No, 1 = Yes	-0.115***
Independent: 0 = No, 1 = Yes	-0.033
Drone Experience: 0 = No, 1 = Yes	0.191***
Observations	1178

<sup>\*</sup> Significant at 0.1, \*\* Significant at 0.05, \*\*\* Significant at 0.01

**Escalation Question Correlation Matrix** 

	Escalation Approval: 5 = Approve,
	1 = Disapprove
Hawkishness: 1 = Favor Diplomacy, 5 = Favor Military	0.100***
View of US drone strikes: 1 = Positive, 5 = Negative	-0.244***
View of Robotics: 1 = Positive, 5 = Negative	-0.102***
Gender: 1 = Male, 2 = Female	-0.108***
Ideology: 1 = Conservative, 3 = Moderate, 5 = Liberal	-0.221***
GOP: $0 = \text{No}$ , $1 = \text{Yes}$	0.124***
Democrat: $0 = No, 1 = Yes$	-0.171***
Independent: 0 = No, 1 = Yes	0.026
Drone Experience: 0 = No, 1 = Yes	0.052
Observations	1178

<sup>\*</sup> Significant at 0.1, \*\* Significant at 0.05, \*\*\* Significant at 0.01

#### Shoot Down Question Correlation Matrix

5 = Approv 1 = Disapprov Hawkishness: 1 = Favor Diplomacy, 5 = Favor Military View of US drone strikes: 1 = Positive, 5 = Negative View of Robotics: 1 = Positive, 5 = Negative Gender: 1 = Male, 2 = Female Ideology: 1 = Conservative, 3 = Moderate, 5 = Liberal	-
Hawkishness: 1 = Favor Diplomacy, 5 = Favor Military  View of US drone strikes: 1 = Positive, 5 = Negative  View of Robotics: 1 = Positive, 5 = Negative  Gender: 1 = Male, 2 = Female  0.108***  -0.310***  -0.154***  -0.068*	ve
View of US drone strikes: 1 = Positive, 5 = Negative View of Robotics: 1 = Positive, 5 = Negative Gender: 1 = Male, 2 = Female -0.310*** -0.154*** -0.068*	
View of Robotics: 1 = Positive, 5 = Negative -0.154***  Gender: 1 = Male, 2 = Female -0.068*	
Gender: $1 = \text{Male}$ , $2 = \text{Female}$ $-0.068^*$	
Ideology: 1 = Conservative, 3 = Moderate, 5 = Liberal -0.202***	
GOP: $0 = \text{No}, 1 = \text{Yes}$ 0.198***	
Democrat: $0 = \text{No}, 1 = \text{Yes}$ -0.164***	
Independent: $0 = \text{No}$ , $1 = \text{Yes}$ -0.053	
Drone Experience: 0 = No, 1 = Yes 0.108***	
Observations 1178	

<sup>\*</sup> Significant at 0.1, \*\* Significant at 0.05, \*\*\* Significant at 0.01

## **CNAS-Drone Proliferation Survey Text**

**Introduction:** The following questions ask for your opinion on issues related to the use of military force and for some demographic information. All identifying information will be kept confidential and destroyed once the data is exported from this site. Thank you in advance for your participation and please let us know if you have any questions.

### NOTE: ½ OF RESPONDENTS WOULD GET THE FOLLOWING 6 QUESTIONS

**ScenIntro** You will now read about a hypothetical foreign policy scenario involving your country of citizenship or residence. In this scenario, your country (or a close ally) is in the midst of an important territorial dispute with another country. Please consider the same country when answering all questions.

**Country1:** What is your country of citizenship or residence?

- United States of America (1)
- Other (2)

[CONDITIONAL IF 2] Country2: If you entered other, please list the country:

[FILL IN THE BLANK]

Country3: Are you a citizen of this country or is it your country of residence?

- I am a citizen of this country. (1)
- I am a resident of this country. (2)

**DeployDrone** Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your military proposes deploying unmanned military drones into the disputed territory. The probability that those unmanned military drones will be shot down is 50%. What is your opinion of deploying the drones?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

**ShootDrone** Your country (or a close ally) is in the midst of an important territorial dispute with another country. The other country deploys unmanned military drones into the disputed territory. Your military proposes shooting down the other country's unmanned military drones. What is your opinion of shooting down the drones?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

**EscDrones** Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your country deployed unmanned military drones into the disputed territory. The other country shot down one of your country's unmanned military drones. In response, your military proposes shooting down the next military plane flown by the adversary country into the disputed territory, whether unmanned or manned. What is your opinion of undertaking this action?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

### NOTE: ½ OF RESPONDENTS WOULD GET THE FOLLOWING 6 QUESTIONS

**ScenIntro** You will now read about a hypothetical foreign policy scenario involving your country of citizenship or residence. In this scenario, your country (or a close ally) is in the midst

of an important territorial dispute with another country. Please consider the same country when answering all questions.

**Country1:** What is your country of citizenship or residence?

- United States of America (1)
- Other (2)

[CONDITIONAL IF 2] Country2: If you entered other, please list the country:

[FILL IN THE BLANK]

Country3: Are you a citizen of this country or is it your country of residence?

- I am a citizen of this country. (1)
- I am a resident of this country. (2)

**DeployManned** Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your military proposes deploying manned military aircraft into the disputed territory. The probability that those manned military aircraft will be shot down is 50%. What is your opinion of deploying the aircraft?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

**ShootManned** Your country (or a close ally) is in the midst of an important territorial dispute with another country. The other country deploys manned military aircraft into the disputed territory. Your military proposes shooting down the other country's manned military aircraft. What is your opinion of shooting down the aircraft?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

**EscManned** Your country (or a close ally) is in the midst of an important territorial dispute with another country. Your country deployed manned military aircraft into that disputed territory.

The other country shot down one of your country's manned military aircraft. In response, your military proposes shooting down the next military plane flown by the adversary country into the disputed territory, whether unmanned or manned. What is your opinion of undertaking this action?

- Strongly approve (1)
- Approve (2)
- Neither approve nor disapprove (3)
- Disapprove (4)
- Strongly disapprove (5)

#### NOTE: All RESPONDENTS WOULD GET THE FOLLOW UP BLOCK

**Hawkishness:** Where would you place yourself on this scale about how your country should solve international problems?

- My country should always favor solving problems with diplomacy and international pressure and use military force only if absolutely necessary. (1)
- My country should mostly favor solving problems with diplomacy and international pressure. (2)
- My country should use diplomacy and military force equally. (3)
- My country should mostly favor solving problems with military force. (4)
- My country should always favor solving problems with military force since diplomacy and pressure often fail. (5)

**DroneUse:** Do you have any professional experience with drones?

- Yes (1)
- No (2)

DroneUse2: In what industry have you worked with drones? (Select all that apply)

- Military (1)
- National Security (Non-military) (2)
- Industrial (3)
- Consumer (4)
- Other (5)
- None (6)

DroneUse3: In what capacity have you worked with drones? (Select all that apply)

- Engineering/design (1)
- User/operational (2)
- Policy/regulatory (3)
- Other (4)
- None (5)

**Robotic Views:** Generally speaking, how would you describe your view of the use of robots in society?

- Very positive (1)
- Somewhat positive (2)
- Neither positive nor negative (3)
- Somewhat negative (4)
- Very negative (5)

**Drone Strikes:** Do you approve or disapprove of the United States conducting missile strikes from remotely piloted aircraft called drones to target extremists in countries such as Afghanistan, Pakistan, Yemen, and Somalia?

- Strongly approve (1)
- Somewhat approve (2)
- Neither approve nor disapprove (3)
- Somewhat disapprove (4)
- Strongly disapprove (5)

**Age:** Please enter your age below:

[FILL IN THE BLANK]

**Gender:** What is your gender?

- Male (1)
- Female (2)

**Education:** What is the highest level of education you have completed?

- High School (1)
- Bachelor's degree (for example: BA, AB, BS) (2)
- Master's degree (for example: MA, MS) (3)
- Professional degree or professional doctorate (for example: MD, DVM, JD, PsyD) (4)
- PhD (5)

• EdD (6)

**Education2:** For your most advanced degree, what was the primary concentration of your academic studies? (Example: Political Science)

#### [FILL IN THE BLANK]

**MilService:** Have you ever served in the armed forces of a national military (e.g. the United States military)?

- Yes, served in combat (1)
- Yes, served but did not participate in combat (2)
- No, have not served in the military (3)

**Ideology:** To what extent would you describe your political ideology, in general, as conservative, liberal, or moderate?

- Very Conservative (1)
- Somewhat Conservative (2)
- Moderate neither Conservative nor Liberal (3)
- Somewhat Liberal (4)
- Very Liberal (5)

USpol: If you are eligible to vote in the United States, do you generally think of yourself as:

- Strong Democrat (1)
- Weak Democrat (2)
- Independent, leaning Democrat (3)
- Independent (4)
- Independent, leaning Republican (5)
- Weak Republican (6)
- Strong Republican (7)
- Not eligible to vote in the United States (8)

**Occupation:** In which of the following professions do you currently work or have you ever worked? (Select all that apply)

- Academia/Education (1)
- Student (2)
- Private sector finance or consulting (3)
- Private sector technology (4)

- Government military (5)
- Government other (6)
- Government homeland security and law enforcement (7)
- Other (8)

**Occupation2:** If you entered other, please briefly describe your profession. (Type in N/A if you did not enter other).

[FILL IN THE BLANK]

Last: Thank you for participating in our survey!



Bold. Innovative. Bipartisan.