

Autonomous Weapons Systems

New Zealanders' opinions on the use and control of autonomous weapons systems: Awareness, knowledge, support, and perceived benefits and concerns

Organisation: Ministry of Foreign Affairs and Trade
Attention: Alex Thomson
From: Alexis Ryde and Mike Dunne
Date: 23 July 2021

Table of Contents

1. Background to the research	1
2. What we wanted to know	1
3. How we did the research.....	1
3.1 Online Survey	1
3.2 Sample composition and weighting	2
3.3 Reporting.....	3
3.4 Comparisons to the Human Rights Watch study	3
4. Summary	4
5. Awareness and Knowledge.....	5
5.1 Awareness	5
5.2 Level of knowledge.....	6
5.3 What people know about autonomous weapons systems.....	6
6. The use of Autonomous Weapons Systems in war	9
6.1 Level of support.....	9
6.2 Benefits	10
6.2.1 Differences in perception between opposers and supporters of AWS.....	11
6.3 Concerns	12
6.3.1 Differences in perception between opposers and supporters of AWS.....	13
Advocacy for controls on the development and use of autonomous weapons systems	14
7.1 Level of support.....	14
7.2 Reasons for support	16
7.2.1 Differences in perception between opposers and supporters of New Zealand advocating for controls of AWS	16
7.3 Concerns with New Zealand advocating for controls of AWS.....	18
7.3.1 Differences in concerns between supporters and opposers of advocacy for controls	19

1. Background to the research

Globally there is growing debate around the legal, political and ethical implications of the use of autonomous weapons systems (AWS). There are multiple countries involved in this debate, and while some are actively developing their AWS capabilities, others have called for a total ban on both their use and development. Given this, the Ministry of Foreign Affairs and Trade (MFAT) is in the process of developing a policy position on AWS that will enable the New Zealand government to better engage with the issue internationally.

In 2020, the Human Rights Watch conducted surveys in 28 countries to gauge public opinion on the use of AWS in war. While the level of opposition varies between countries, in all but one of them (India) the majority of the population oppose AWS.

While polls and surveys of the public have been conducted overseas, including the Human Rights Watch 2020 survey, none of these have included a New Zealand voice. This research opens an opportunity to hear the views of New Zealanders on AWS to inform policy development.

Kantar Public (formerly Colmar Brunton) were commissioned to conduct a survey with a sample of the New Zealand population to understand their stance on the development, use and control of AWS.

2. What we wanted to know

The overarching objective of this research was to understand the New Zealand public's sentiment towards AWS in order to inform policy development. Specifically we wanted to understand:

- what New Zealanders know about AWS
- the level of support or opposition for their use in war
- the perceived benefits and concerns with their use.

In addition, it is important to understand the level of support New Zealanders have of the New Zealand government advocating for national and international controls on the regulation of AWS as well as the benefits and concerns with this advocacy. Further, we also set out to understand how results compare to the Human Rights Watch 2020 survey in order to gauge where New Zealand sits in relation to other countries.

3. How we did the research

3.1 Online Survey

The research was conducted via an online survey with a nationally representative sample of New Zealanders aged 18 and over using both the Colmar Brunton and Dynata research panels. The Colmar Brunton panel includes over 100,000 New Zealanders who have agreed to take part in research for Flybuys points. Dynata is the other leading panel provider in New Zealand.

Respondents received an email inviting them to complete the survey in exchange for Flybuys. Targeted reminders were sent to those who did not initially respond.

All interviewing took place between 28 June and 9 July 2021.

A total of 2,000 respondents aged 18 and over completed the survey. Results from a sample this size have a maximum margin of error of +/- 2.2%.

3.2 Sample composition and weighting

Interviewing targets were put in place for age by gender, region, ethnicity and household income by household size to ensure we spoke to a range of people across the New Zealand population. To account for sample imbalances created by the sampling process, the final sample was post-weighted to match the New Zealand 18+ population as per the 2018 Census.

Sample profile below:

	Unweighted		Weighted	
	n	%	n	%
All New Zealand (total sample)	2000	100%	2000	100%
Males	977	49%	970	49%
Females	1018	51%	1024	51%
Gender Diverse	5	0.3%	6	0.3%
18-29 year olds	438	22%	434	22%
30-39 year olds	336	17%	342	17%
40-49 year olds	343	17%	341	17%
50-59 year olds	340	17%	340	17%
60-69 year olds	272	14%	274	14%
70 years and over	271	14%	270	13%
NZ European	1493	75%	1471	74%
Māori	370	19%	260	13%
Pacific	153	8%	120	6%
Asian	233	12%	300	15%
Other ethnicity	111	6%	104	5%
Northland	76	4%	76	4%
Auckland	673	34%	669	33%
Waikato	196	10%	195	10%
Bay of Plenty	132	7%	131	7%
Gisborne	20	1%	20	1%
Hawke's Bay	69	3%	71	4%
Taranaki	51	3%	50	2%
Manawatu-Whanganui	102	5%	102	5%
Wellington	218	11%	216	11%



Tasman	22	1%	22	1%
Nelson	20	1%	22	1%
Marlborough	18	1%	20	1%
West Coast	11	1%	13	1%
Canterbury	258	13%	255	13%
Otago	94	5%	96	5%
Southland	40	2%	41	2%

3.3 Reporting

This document outlines the survey findings. It summarises the findings overall and makes comparisons between sub-groups such as age, gender, ethnicity and region.

Any differences noted in the report between sub-groups are statistically significant, unless otherwise stated. This means we are 95% confident the difference is genuine, rather than a chance result that can occur from surveying a sample of the population.

Statistically significant differences are also denoted in the charts by the following symbols:

  If a triangle is pointing upwards then it is significantly higher, and if it is pointing downwards significantly lower.

3.4 Comparisons to the Human Rights Watch study

In some sections of the report comparisons are made between this study and the research conducted for the Human Rights Watch. The Human Rights Watch study was conducted online, and the methodological section of the report noted that for 18 of the 28 countries surveyed¹ the sample could be considered representative of the total adult population of that country. The report also noted that the sample from the remaining 10 countries² were more connected than the general population and that results from these countries should not be considered fully nationally representative.

We suggest caution when making comparisons between the current research and the Human Rights Watch research. This caution is advised because of potential, but unknown, methodological differences.

¹ Countries in the Human Rights Watch study with high internet penetration: Argentina, Australia, Belgium, Canada, France, Germany, Hungary, Italy, Japan, Netherlands, Poland, Norway, South Korea, Spain, Sweden, Switzerland, Great Britain, and the U.S.A.

² Countries in the Human Rights Watch study with lower internet penetration: Brazil, Mainland China, India, Israel, Mexico, Peru, Russia, Saudi Arabia, South Africa, and Turkey

4. Summary

New Zealanders have low awareness and knowledge of AWS

Only 15% of the population say they have a good or basic understanding of what AWS are. Seventy-nine percent of the population say they either haven't heard of AWS before or aren't sure whether they have.

High opposition to the use of AWS in war

The vast majority of New Zealanders oppose the use of AWS (72%). When comparing this result to the Human Rights Watch study, New Zealand has the third highest level of opposition to the use of AWS (behind Sweden and Turkey). Interestingly, the more knowledge someone perceives they have about AWS the more likely they are to say they support their use.

Unreliability, morality and unaccountability are the greatest concerns with the use of AWS

The greatest concern New Zealanders have with AWS is that they would be subject to technical failures, with six in ten New Zealanders feeling this way. Additionally, just over half the population are concerned about (a) the moral line AWS would cross and (b) the lack of accountability that comes with taking human control out of the equation.

New Zealanders are split in their support of New Zealand advocating for national and international controls

New Zealanders are less united in their views around New Zealand advocating for controls on the development and use of AWS. While half support New Zealand advocating for controls, 30% of the population are in opposition.

Nearly half of New Zealanders think we should be taking the threat of AWS seriously

Forty-seven percent of New Zealanders believe New Zealand should be taking the threat of AWS seriously, and a further 39% think New Zealand should be taking a firm position on the control of AWS. Just over a third of the population give New Zealand's legacy in taking the lead in issues such as this as a reason for supporting controls (36%).

There are concerns about the risk controls pose to New Zealand's security

The risk to New Zealand's security is by far the biggest concern when it comes to advocating for controls on the development and use of AWS with 32% of the population feeling this way.

5. Awareness and Knowledge

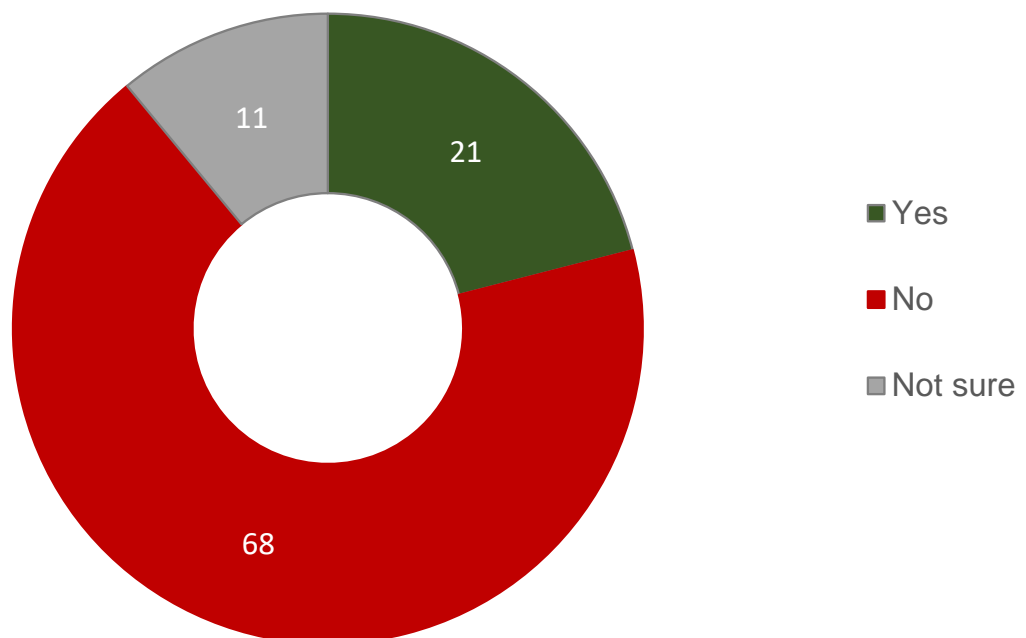
To contextualise the findings around support and perceptions of AWS we first asked whether respondents were aware of AWS and how much knowledge they thought they had about them.

5.1 Awareness

The majority of New Zealanders are unaware of AWS with 21% having heard of them before.

Figure 1: Awareness of Autonomous Weapons Systems

Q Before today, have you heard of Autonomous Weapons Systems?
%



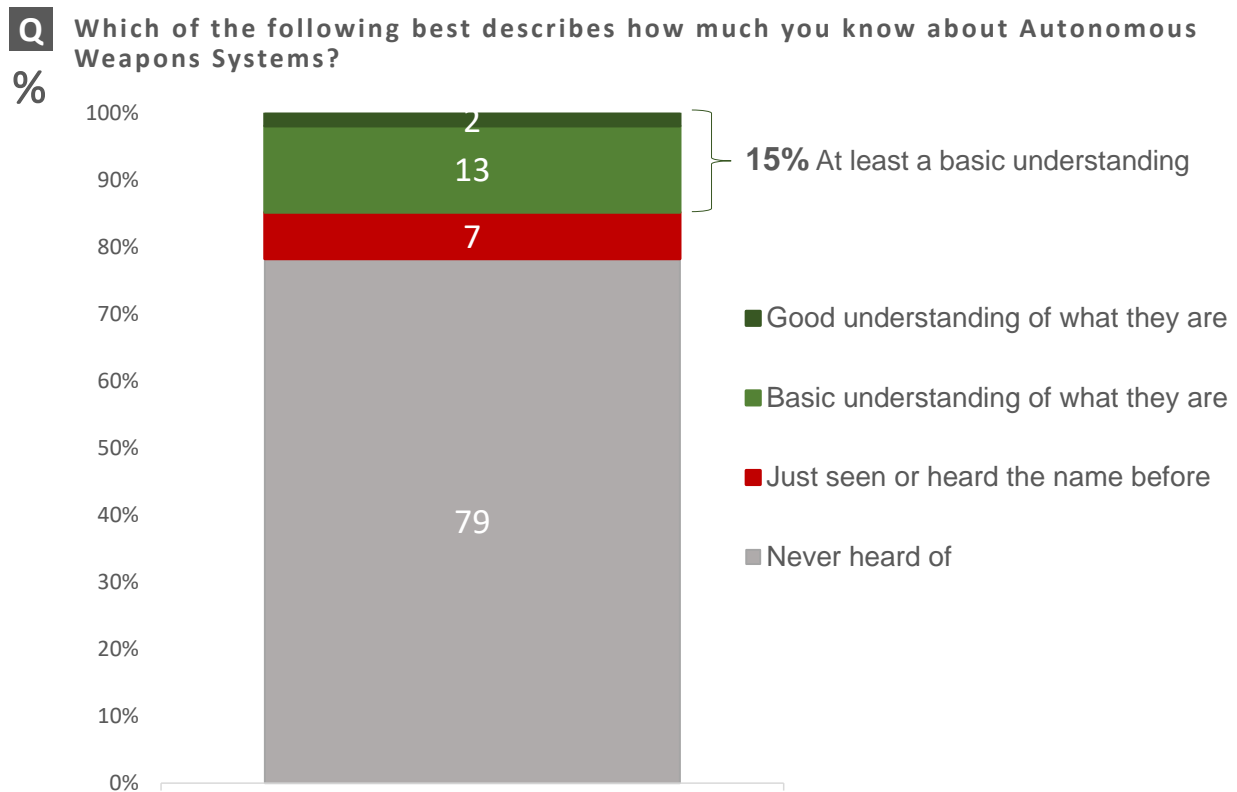
Base: All New Zealanders aged 18+ (n=2,000)

There are some clear demographic differences between those who are aware of AWS and those who are not. Men have significantly higher awareness than women (36%, compared to 8%), and men aged under 60 have higher awareness than men aged 60+ (39%, compared to 25%). Education also plays a role in how aware New Zealanders are of AWS. Those who have no formal qualifications or who have achieved secondary school or equivalent as their highest educational attainment are significantly less likely to have heard of AWS than those with higher educational attainment (11%, compared to 26%).

5.2 Level of knowledge

Low awareness translates into little knowledge of AWS across the New Zealand population. Fifteen percent of New Zealanders have some understanding of AWS. This is comprised of 2% who have a good understanding and 13% who have a basic understanding, while 7% have just seen or heard the name before. As previously noted, the majority of the population have no knowledge of AWS (79%).

Figure 2: Knowledge of Autonomous Weapons Systems in total population



Base: All New Zealanders aged 18+ (n=2,000)

Men are more likely than average to say they have some knowledge of AWS (25%), although still only 3% would say they have a good understanding (compared to 2% of the general population). Again, men aged under 60 are more likely than average to feel they have knowledge than their older counterparts (28%, compared to 19% of men aged over 60). NZ Europeans are more likely than average to say they have knowledge, while Asian New Zealanders are less likely (16% and 10% respectively).

5.3 What people know about autonomous weapons systems

Before showing respondents any information about AWS, we first asked an open ended question of those who had heard of them before, asking them to describe what they knew. Their responses were then coded. While many were able to describe AWS as being weapons systems that don't need humans to control them, confusion does exist about how they work and their difference to drones and other types of weapons. People who had previously stated to have some knowledge of AWS were likely to describe AWS more accurately. However, even some people who claim to

have good knowledge compare AWS to drones when describing them. Some of the comments from respondents are below:

"A weapon system that can be pre-programmed to engage a certain type of target and engage without human approval when that target comes into range or detection area."

Male, 30-39, NZ European, Canterbury, Good understanding of AWS

"Used in the military in the form of robots or drones that can be remotely controlled to open fire or drop bombs."

Male, 30-39, NZ European, Bay of Plenty, Good understanding of AWS

"Robot weapons systems that can operate independently of human input, to seek and engage targets."

Male, 50-59, NZ European & Māori, Canterbury, Good understanding of AWS

"Vehicles/devices (such as drones) capable of carrying out attacks unmanned."

Male, 40-49, NZ European & Samoan, Auckland, Basic understanding of AWS

"Things like drones, machines that wage war without having people involved."

Female, 60-69, NZ European, Otago, Basic understanding of AWS

"Drones and robots that can hunt without direct human control."

Male, 30-39, NZ European, Hawke's Bay, Basic understanding of AWS

"Automated robots or machines that kill based on their own artificial intelligence without human control."

Male, 50-59, Another European ethnicity, Bay of Plenty, Basic understanding of AWS

"They are systems that function on their own - they do not require a person to deploy the weaponry."

Female, 30-39, NZ European, Wellington, Basic understanding of AWS

"They are killer robots run by algorithms."

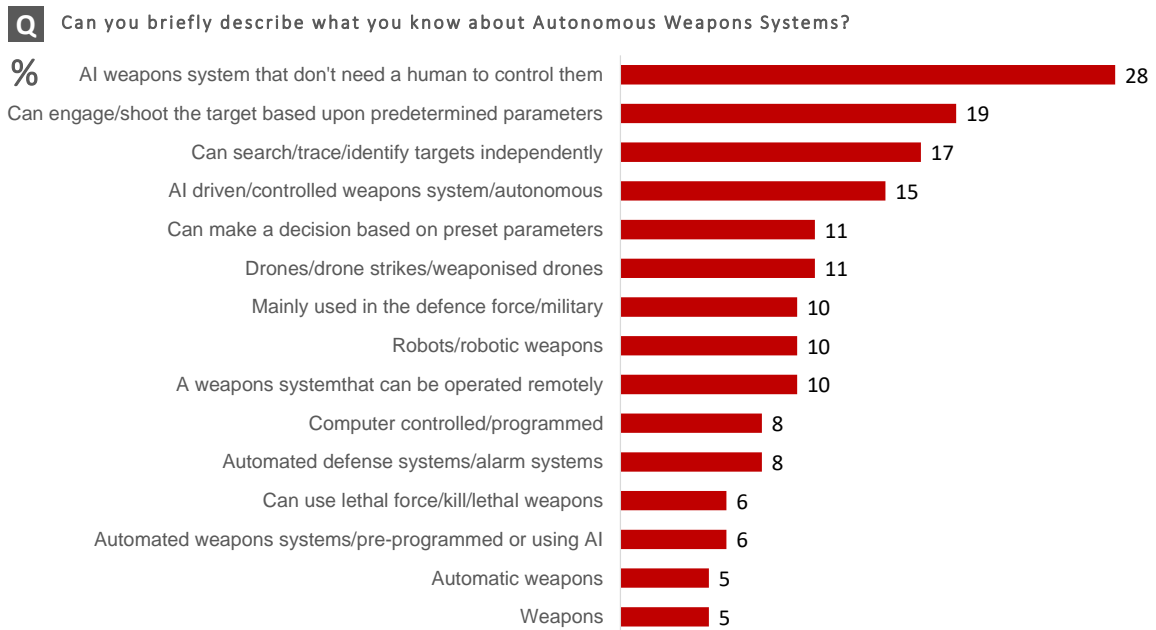
Male, 60-69, NZ European, Bay of Plenty, Just seen or heard the name

"It basically means robotic weapons, killer robots or slaughterbots, operate in the air, on land, on water, under water, or in space, which turns a defensive system with artificial technology to identify the target which to be destroyed."

Male, 18-29, Chinese, Auckland, Just seen or heard the name

Twenty-eight percent of people described AWS as being AI weapons systems that don't need a human to control them, while 19% described them as being able to engage / shoot based on predetermined parameters. Seventeen percent described them as being able to search, detect or identify targets independently. People who had already stated to have some knowledge of AWS were significantly more likely to use these descriptions (34%, 24% and 21% respectively). Additionally, 10% described AWS as being robots or robotic weapons. Conversely, 10% of people described AWS as being drones.

Figure 3: Descriptions of Autonomous Weapons Systems



Base: New Zealanders aged 18+ who are aware of autonomous weapons systems (n=425)

6. The use of Autonomous Weapons Systems in war

6.1 Level of support

"We have a moral obligation to work towards peace as much as we can. This will never be achieved if we condone such systems."

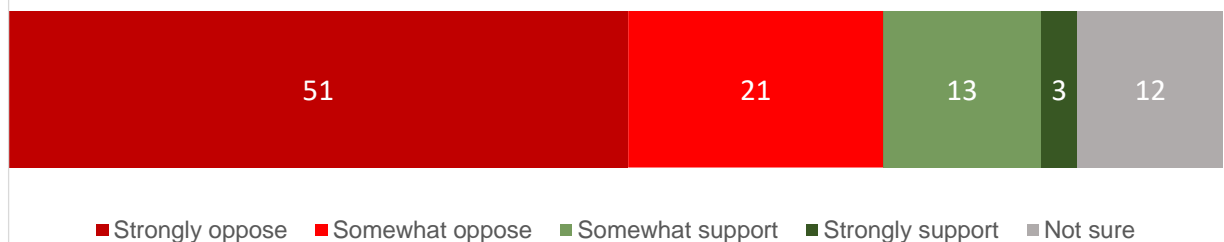
Female, 70+, NZ European & Māori, Canterbury

The majority (72%) of the New Zealand population oppose the use of AWS in war, in fact half strongly oppose their use. This puts New Zealand in the group of countries with the highest levels of opposition, behind only Sweden (76%) and Turkey (73%).³

Figure 4: Support and opposition for the use of AWS in war

Q How do you feel about the use of such autonomous weapons systems in war?

%



Base: All New Zealanders aged 18+ (n=2,000)

Across all demographic groups (based on gender, age, ethnicity, geographic location, income or educational attainment), more New Zealanders oppose AWS than support it. However, there are some demographic differences with regards to how strongly different groups are opposed to the use of AWS. Women are more likely than men to oppose the use of AWS (81%, compared to 62%). Age also plays a factor in how much a person opposes the use of AWS in war. As a person's age increases so too does their strength of opposition to AWS. Interestingly, NZ Europeans have higher than average opposition to AWS (74%) while Asian New Zealanders are less likely than average to oppose their use (63%).

There is a link between how much knowledge someone perceives to have about AWS and how much they oppose their use in war. People who have never heard of AWS before are more likely to be opposed than people who state to have some understanding of AWS (76%, compared to 62%).

³ Source: Human Rights Watch Survey 2020 <https://www.hrw.org/news/2021/02/02/killer-robots-survey-shows-opposition-remains-strong>

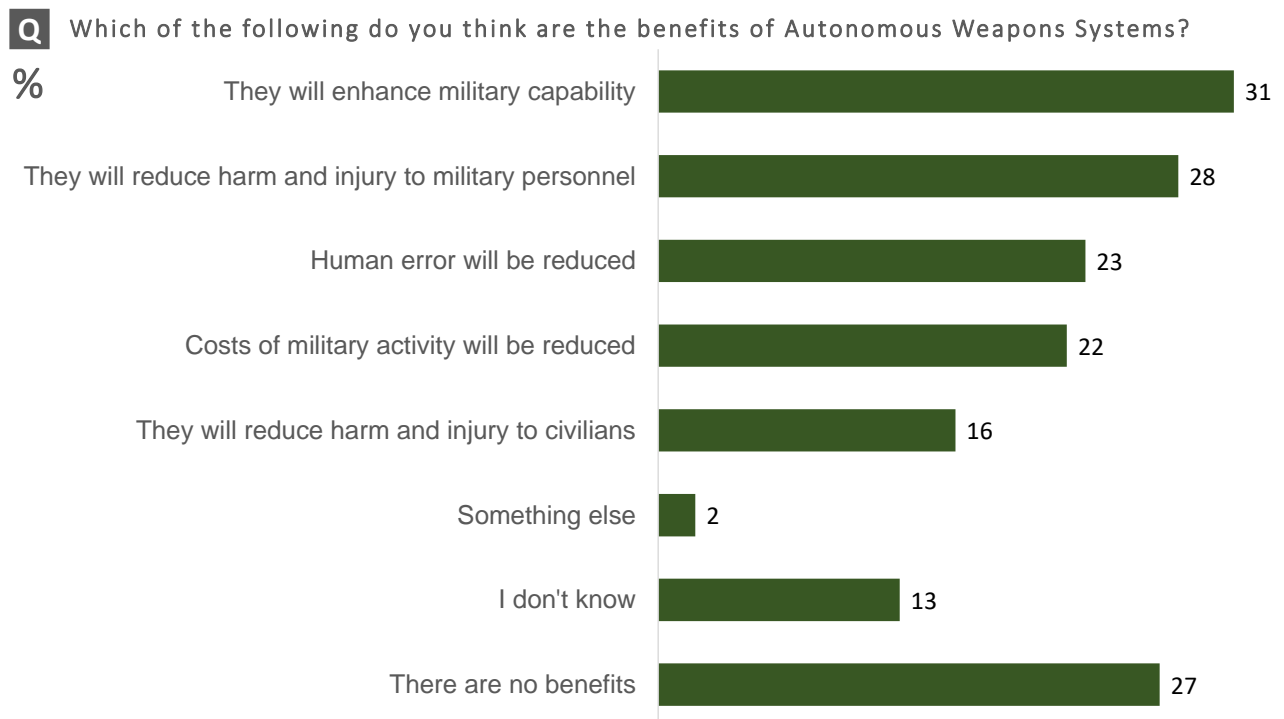
6.2 Benefits

“They are great for a country’s defence but using them to attack people is a different subject.”

Male, 40-49, NZ European & Māori, Auckland

Overall, the biggest perceived benefits of AWS are enhancement of military capability and reduction of harm or injury to military personnel (respectively 31% and 28% of the population perceive these to be benefits). Twenty-three percent of New Zealanders see the reduction of human error as a benefit, and 22% see a benefit in reduced costs of military activity. Sixteen percent of New Zealanders agree reduced harm and injury to civilians is a benefit of AWS. Conversely, 27% of the population do not see any benefit in the use of AWS.

Figure 5: Perceived benefits of AWS



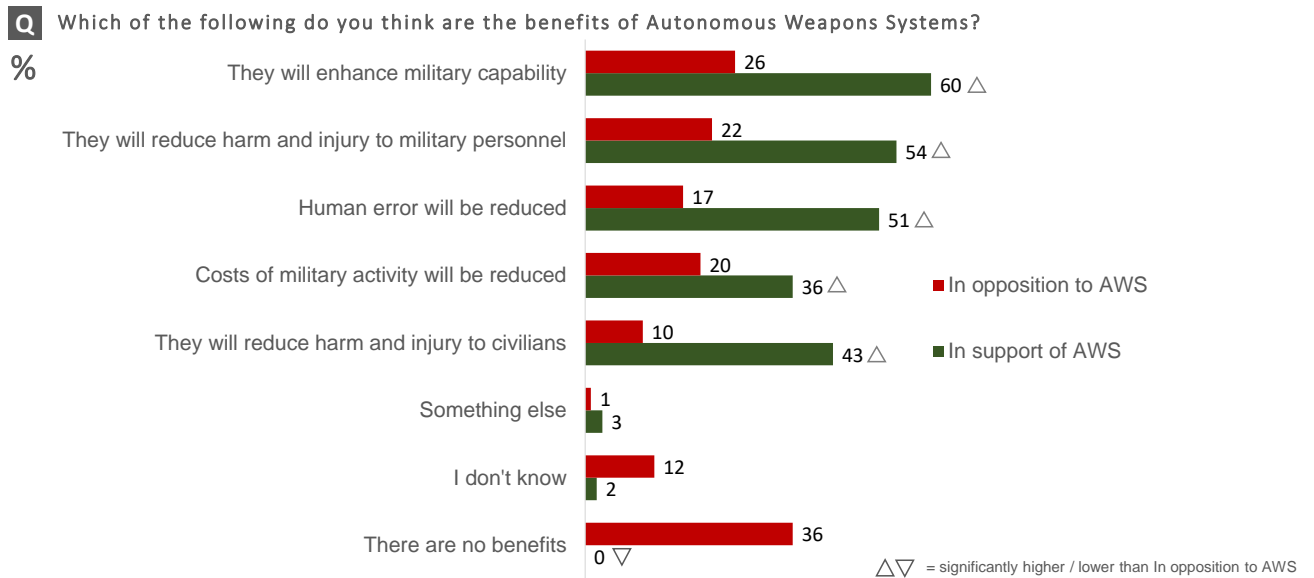
Base: All New Zealanders aged 18+ (n=2,000)

Women are more likely to see no benefit in the use of AWS (31%, compared to 27% on average), while men are more likely to see a range of benefits. New Zealanders aged 60+ are also more likely to see no benefit to AWS (41%).

6.2.1 Differences in perception between opposers and supporters of AWS

Unsurprisingly, those who support the use of AWS are much more likely to see their benefits compared to those who oppose.

Figure 6: Differences in perceived benefits between opposers and supporters of AWS



Base: New Zealanders in support of AWS (n=307), New Zealanders in opposition to AWS (n=1,453)

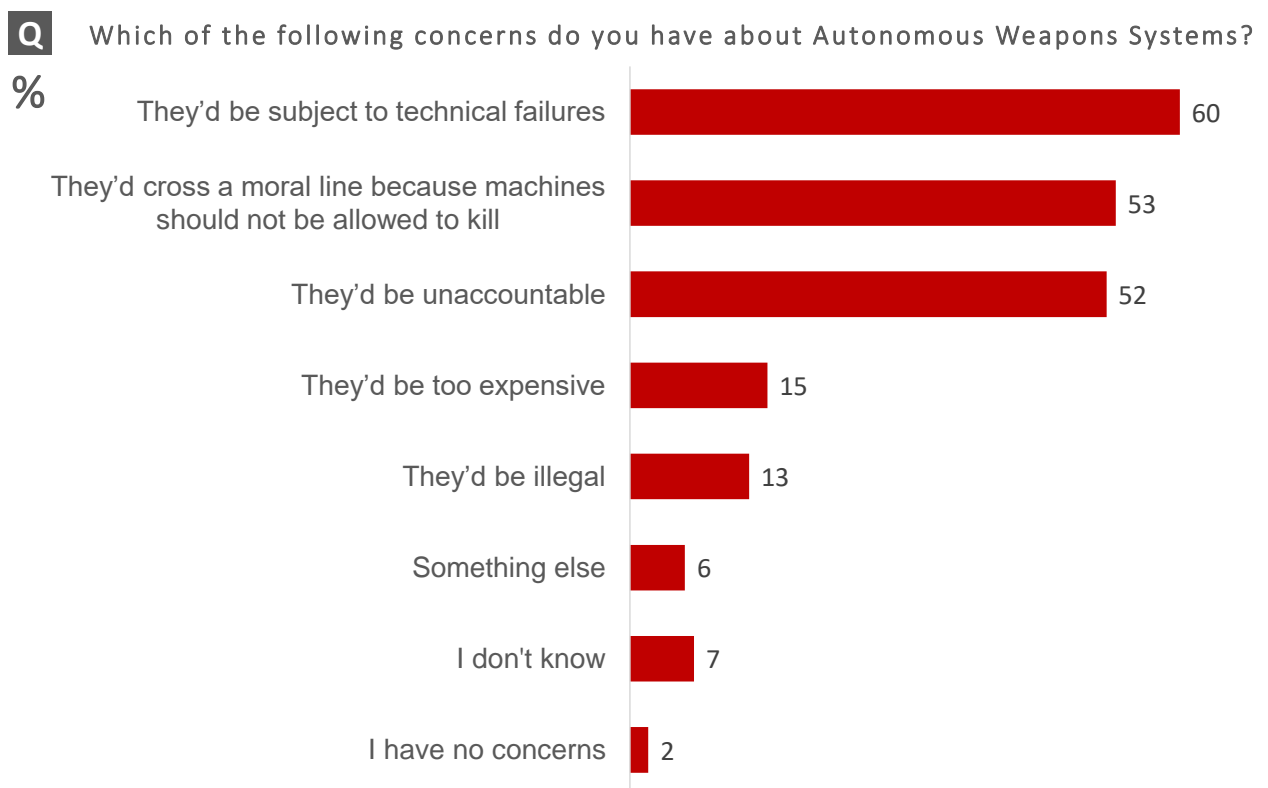
6.3 Concerns

“There is a place for them, but I have concerns around the reliability of the technology and their ability to be hacked.”

Male, 40-49, NZ European, Taranaki

There are three main concerns with AWS. Sixty percent of New Zealanders are concerned they would be subject to technical failures, while just over half are concerned about their morality and their lack of accountability (53% and 52%, respectively).

Figure 7: Concerns with AWS



Base: All New Zealanders aged 18+ (n=2,000)

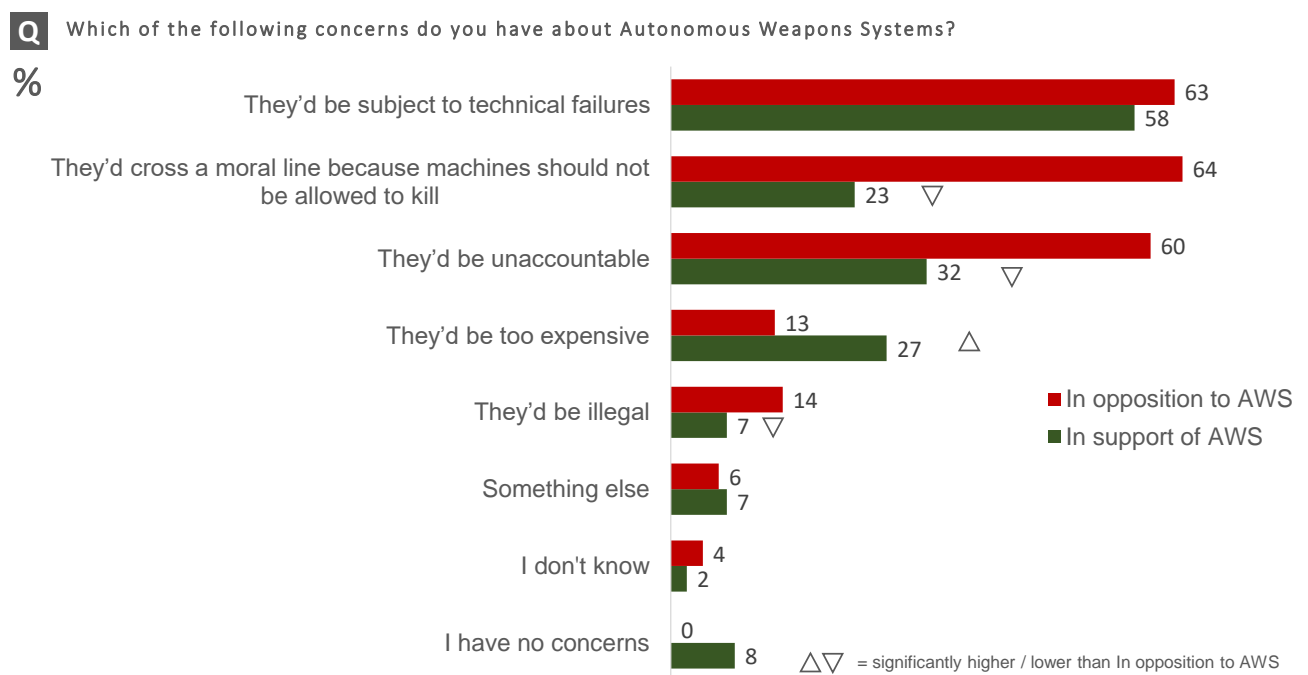
Men and women differ in their concerns with AWS. Women are more likely to be concerned with their morality (57%, compared to 49% of men) and less likely to be concerned with their cost (13%, compared to 18% of men). Further, younger New Zealanders (aged 18-29) are more likely than average to be concerned with the costs and legality of AWS (22% and 20%, respectively).

6.3.1 Differences in perception between opposers and supporters of AWS

While supporters and opposers are generally in agreement in their concern with the possibility of AWS being subject to technical failures, that is where the similarity ends. Opposers of AWS are much more concerned with the morality and lack of accountability of AWS compared with people who support AWS. In contrast, supporters of AWS are more concerned with the financial cost of AWS.

Notably, the ranking of concerns differs when compared to the Human Rights Watch 2020 survey. Opposers of AWS have a similar level of concern for morality, technical failures and unaccountability (64%, 63% and 60%, respectively) compared to the total results in the Human Rights Watch survey which had morality as the top concern above unaccountability and technical failures (66%, 53% and 42%, respectively).

Figure 8: Differences in concerns between opposers and supporters of AWS



Base: New Zealanders in support of AWS (n=307), New Zealanders in opposition to AWS (n=1,453)

Advocacy for controls on the development and use of autonomous weapons systems

7.1 Level of support

“New Zealand is currently in a very good position to act as a leader due to how well the pandemic has been managed so far. It is important to capitalize on this. Tackling AWS could be a good use of this respect and esteem.”

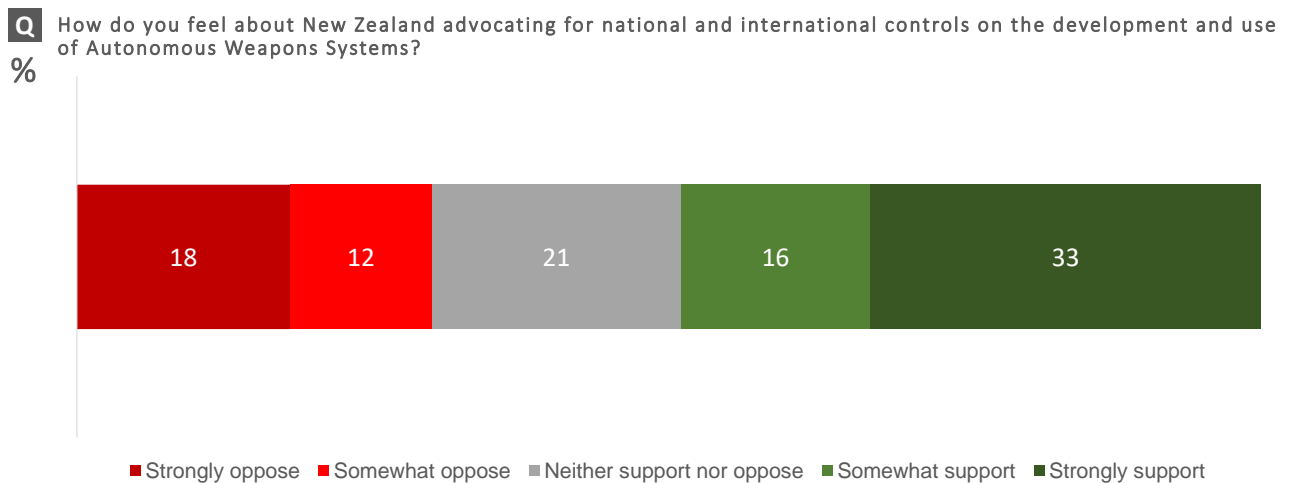
Male, 30-39, Another ethnicity, Otago

“This is not our fight, we should support dialogue/discussion and advocate for a framework, but not push for controls....”

Male, 18-29, NZ European, Wellington

New Zealanders are split in their support of New Zealand advocating for national and international controls on the development and use of AWS. While 49% support advocacy, 30% of the population are in opposition and a fifth (21%) do not have a view either way.

Figure 9: Support and opposition for controls on the development and use of autonomous weapons systems



Base: All New Zealanders aged 18+ (n=2,000)

The following groups have higher than average support for New Zealand to advocate for controls on the development and use of AWS:

- Men (51%)
- Aged 50+ (56%)
- NZ Europeans (53%)

The following groups have higher than average opposition to New Zealand advocating for controls:

- Women (36%)

- Aged 18-29 (38%)
- Pacific people (40%)

There is a link between level of opposition to the use of AWS and support for New Zealand advocating for their control. New Zealanders who oppose their use are more likely than average to support advocacy (53%). Interestingly, this group is polarised as they are also more likely than average to oppose New Zealand advocating for controls (35%).

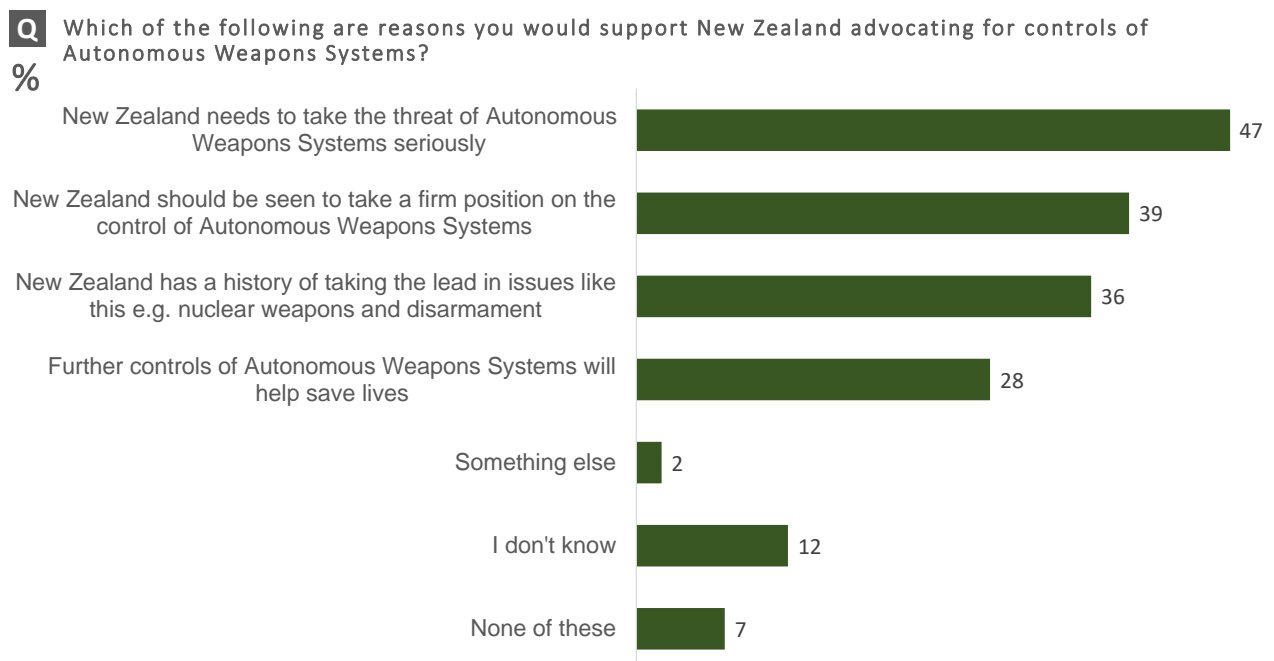
7.2 Reasons for support

“New Zealand should not be seen to be supporting anything that advocates for death of others.”

Female, 18-29, NZ European & Asian, Waikato

Nearly half (47%) of New Zealanders believe that New Zealand needs to take the threat of AWS seriously and a further 39% believe they should be taking a firm position on the control of AWS. There is also some sentiment that New Zealand is known for taking the lead in issues such as this, illustrated by 36% of people who cite this as a reason they would support advocacy of controls. Further, 28% of New Zealanders believe controls will help save lives.

Figure 10: Reasons for supporting advocacy for controls of AWS.



Base: All New Zealanders aged 18+ (n=2,000)

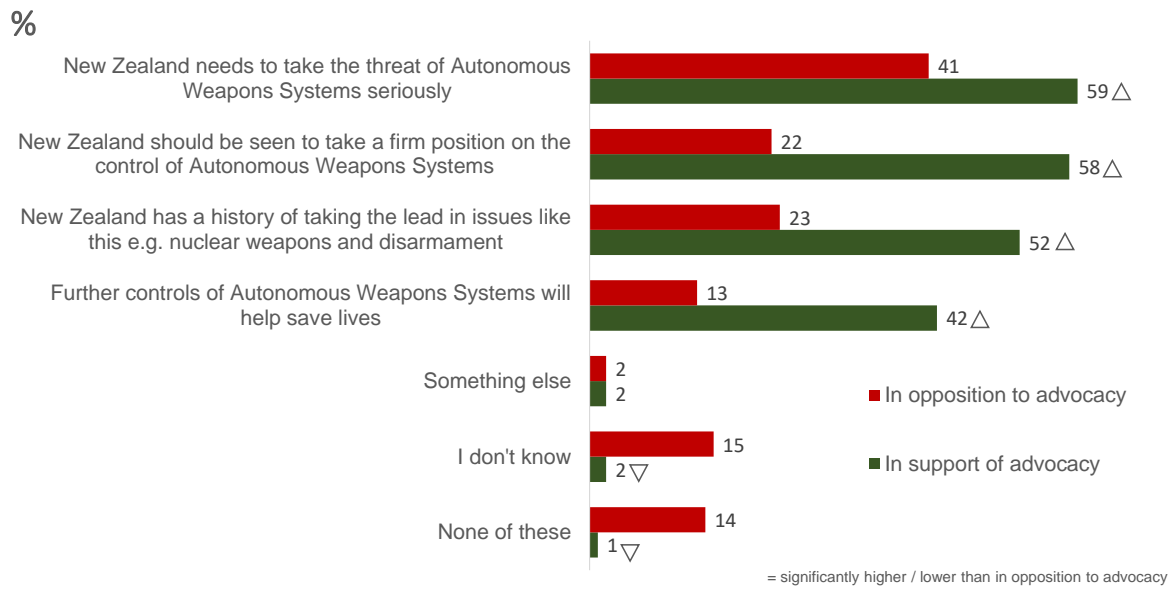
Men are more likely than average to say controls of AWS will save lives (31%). Women are more likely than average to think New Zealand should be taking the threat of AWS seriously (50%), and this increases to 59% of women aged 40-49.

7.2.1 Differences in perception between opposers and supporters of New Zealand advocating for controls of AWS

New Zealanders who support New Zealand advocating for controls of AWS are significantly more likely than opposers to feel it is New Zealand's place to do so. Particularly they believe New Zealand needs to take the threat seriously and be seen to take a firm position. They are also more likely than opposers to agree that New Zealand has a history in taking the lead in these issues and that controls will help save lives.

Figure 11: Differences in reasons for supporting advocacy

Q Which of the following are reasons you would support New Zealand advocating for controls of Autonomous Weapons Systems?



Base: New Zealanders in support of advocacy (n=975), New Zealanders in opposition to advocacy (n=608)

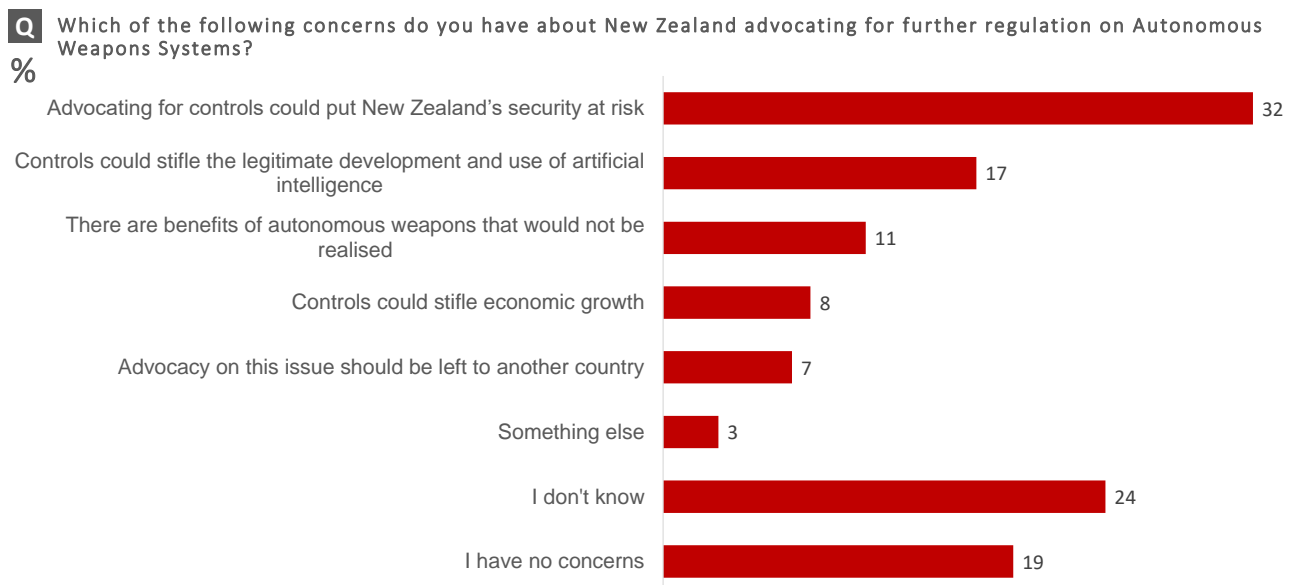
7.3 Concerns with New Zealand advocating for controls of AWS

"I hope the AWS does not proceed, it's a threat to humanity and the world."

Female, 30-39, Māori & Pacific, Waikato

The key concern New Zealanders have with advocating for controls of AWS is that it could put New Zealand's security at risk, with 32% feeling this way. To a much lesser extent there are concerns about inhibiting the development of artificial intelligence, not realising the benefits of AWS, stifling economic growth or that advocacy should be left to another country.

Figure 12: Concerns with New Zealand advocating for controls of AWS



Base: All New Zealanders aged 18+ (n=2,000)

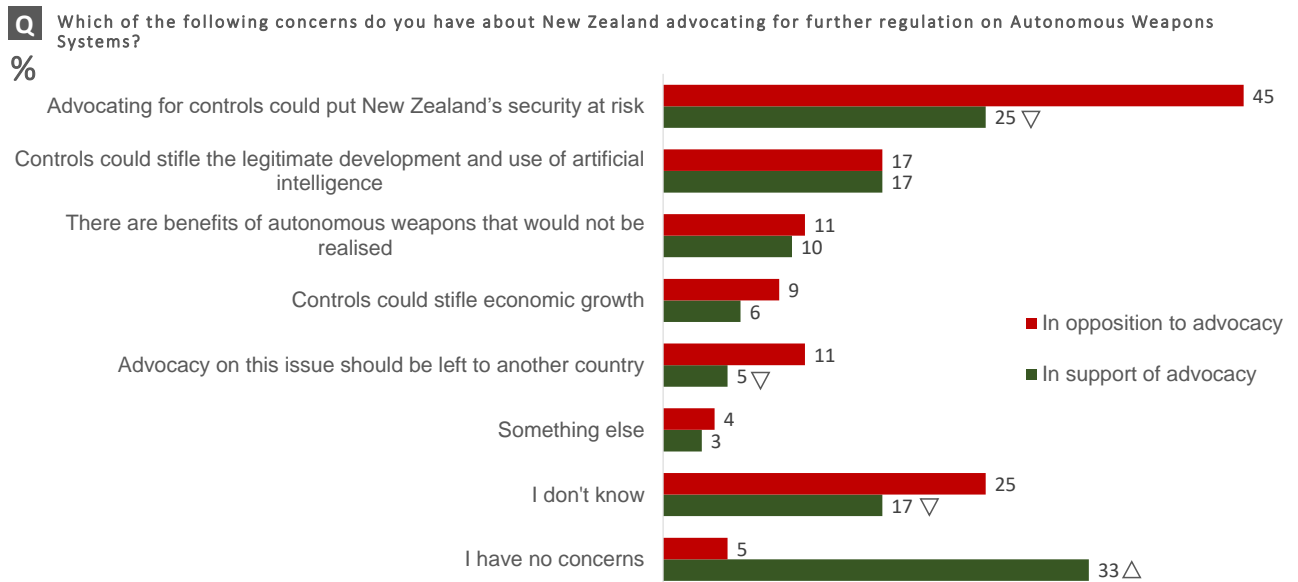
For those who have concerns, the potential threat to New Zealand's security is the greatest concern they have regardless of their background or demographic. However, this is with the exception of those who support the use of AWS in war. This group has greater concern for the legitimate development of artificial intelligence (32%) and the benefits that would not be realised if controls were in place (33%).

Women are more concerned than average about the risk to New Zealand's security (35%) and this is even stronger among women aged 18-29 (42%) and 30-39 (39%). Men are more concerned than average about controls curbing the development of artificial intelligence (20%), suppressing economic growth (11%) and not realising the benefits of AWS (16%). Men aged 50-69 are more likely than average to have no concerns about advocating for controls (30%).

7.3.1 Differences in concerns between supporters and opposers of advocacy for controls

New Zealanders who are in opposition to New Zealand advocating for controls of AWS are significantly more likely than supporters to be concerned about putting New Zealand's security at risk and are more likely to feel that advocacy should be left to another country. Those in support of advocacy are much more likely to have no concerns.

Figure 13: Differences in concerns with supporting advocacy



Base: New Zealanders in support of advocacy (n=975), New Zealanders in opposition to advocacy (n=608)