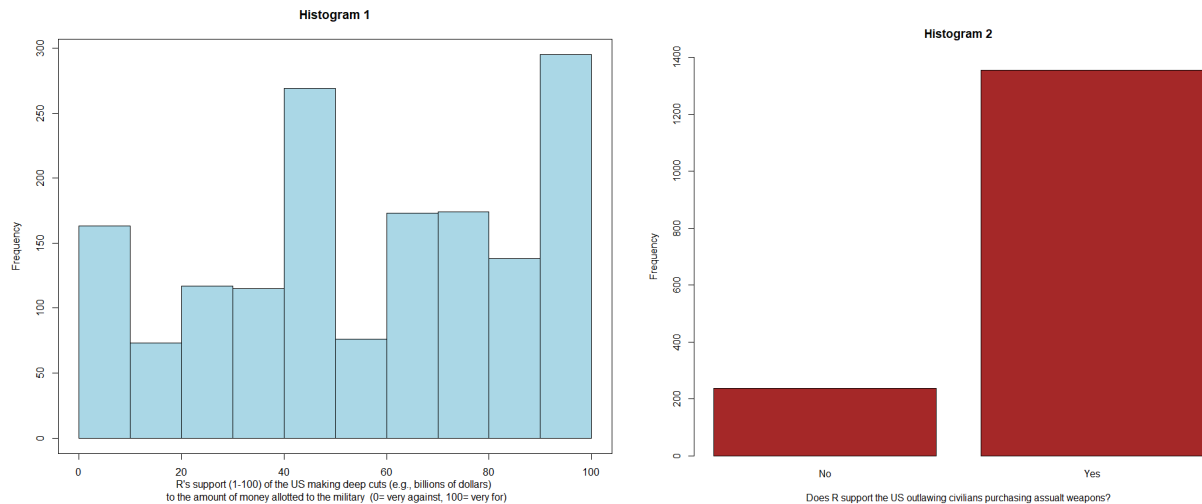# Sue, Grabbit and Runne

"What's a z-score?"

May 2, 2024
Dear National Rifle Association,

Thank you for contacting Sue, Grabbit, and Runne for your statistical needs. We are happy to show you what people think about the US making deep cuts to the amount of money allotted to the military and whether, or not people are supportive of the US outlawing civilians from purchasing assault weapons. Analysis attached below. Please note payment by Amazon gift card, (100$ USD) is due regardless of satisfaction.

Two sets of analysis are given below. The first looks at what factors predict whether respondents like the idea of the US making budget cuts to the military, on a scale of 1-100, with a higher number representing more support for the idea. The second analysis uses the variable of people's support for US military budget cuts to predict whether people are also supportive of the US outlawing civilians from purchasing assault weapons.

Histograms:

Starting with the graph on the left, higher numbers indicate more support for US military budget cuts. As the graph shows, there is quite a bit of a spread in favor. The mean value 58.15, with a rather large standard deviation of 30.79. With the graph on the right, respondents were asked if they supported outlawing US civilians from purchasing assault weapons on a scale from 0-100, with a higher number being more supportive. They were grouped into those that responded with a 50, or more, as in favor of outlawing US civilians from purchasing assault weapons, while those that responded lower than 50 were grouped as not supporting such legislation. I chose to group those that were an even 50 as for the legislation, as they obviously aren't convinced

against the legislation, which is what you as the NRA are looking for. 85% of respondents gave a response signifying support for such measures, while around 15% responded negatively. Although, around 8% of respondents gave an even 50 support rating, they could possibly be valuable swing voters. The results so far do seem to look bleak for gun-enthusiasts, at least in terms of public opinion.

Regression Analysis:

Now we can move on into the more interesting analysis, regression. This allows us to look at what the effects of each of these independent variables (IV) are on the dependent variable, while holding the other variables constant. The dependent variable (DV), is how much the respondent supports US military budget cuts. The IVs for this model are whether a respondent is a Democrat (51% are, only 13% responded as Republican); a dummy variable of whether the respondent is planning on voting for Trump, or not (10% are, compared to 37% for Biden…); and how much from 0-100, higher numbers being more supportive, the respondent supports a ban of the purchase of assault weapons.

Regression Model of Respondent Support for US Military Cuts			
Variable	Beta	Standard Error	P-Value
Vote Trump	-21.53	1.59	0.00
Democrats	7.39	1.56	0.00
Assault Ban	9.72	2.65	0.00
Intercept	51.73	1.33	0.00

Moving the vote trump variable from 0 (won't vote Trump) to 1 (will vote Trump), makes respondents support US military cuts drop by a bit more than 21 points. This is a rather large coefficient and one that is highly significant. This result makes a lot of sense as conservatives are the ones most likely to vote for Trump and are also big supporters of funding the US military. Trump is also very pro-military. The Democrats coefficient is significant and positive. Democrats are a bit more than 7 points more supportive than non-Democrats to support US military cuts. This makes sense as Democrats, which support more liberal policies, generally push for military spending to be spent in social services and are against some types of foreign military intervention. The assault ban coefficient is positive and significant, with those that support an assault purchase ban being almost 10 points more supportive of cutting military

spending. This makes sense as those that support an assault ban are more liberal and usually against armed violence, so it makes sense that they'd also support US military cuts.

Logistic Regression Analysis:

Now for the second part of this analysis: looking at what could explain respondents' support, or lack thereof, of a ban on the purchase of assault weapons. Again, those that are in support of a ban are labeled with a 1. In the following model, whether R supports an assault weapon ban is the DV, and the IVs are: a dummy variable of whether the respondent is planning on voting for Trump, or not; a dummy variable where 1 signifies the respondent is a male (36% of respondents were male); and 0 is anything else; and the DV from the last model, how much the respondent supports US military cuts from 0-100.

Logistic Regression Model of Whether R Supports an Assault-Weapon Ban			
Variable	Beta	Standard Error	P-Value
Vote Trump	-1.79	0.20	0.00
Male	-1.04	0.16	0.00
Military Cuts	0.02	0.00	0.00
Intercept	1.59	0.18	0.00

Since this model is logarithmic and not linear, I can't interpret the coefficients the same as was done above, but their direction and significance are still telling. For example, people who are planning to vote for Trump are less likely to support an assault weapon ban. This relationship is quite significant, as those that vote Trump are more conservative and are generally more likely to be in favor of gun ownership and the 2nd amendment. Men are less likely as well to support an Assault-Weapon Ban and this is also quite a significant relationship. It seems like your pro-gun campaigns which targeted males did a good job convincing them that owning a gun portrays masculinity. There is a positive, significant correlation between supporting military cuts and supporting an assault weapon purchase ban, which makes sense as the two are generally more liberally aligned concepts, so they'd share similar supporters and support.

Sue, Grabbit and Runne

"What's a z-score?"

Recommendations: Here are my suggestions for future developments.

- Take more effort in rallying support from women, instead of targeting just men so heavily, as they are a major untapped market of support if you can sway that demographic.
- Work on increasing support for the military within Democrat camps, as if the military budget gets cut, it shows a weak military and it cuts into the pockets of firearm and ammo manufacturers. Support for the military is also seemingly quite linked to support of gun rights, so increasing military support would likely also increase support for gun ownership and shift support against an assault weapons purchase ban.
- Targeting Democrats directly with campaigns for pro-gun ownership would be both hard and it would be tenuous to your relations with Republicans, so gaining support for ideas related to gun-ownership in Democrats, but not directly supporting Democrats owning guns, might be a much better route to slowly increasing support of gun ownership in Democrats.

I hope that these analyses hit the mark and our recommendations are worth taking a shot at. Please don't hesitate to shoot us an email if you have any further questions.

Respectfully,
Mathias R. P. Frazier
Owner and Head Analyst