

Socioeconomic Inequality in Afghanistan Casualties

In the manuscript, we reported results of an original analysis of home of record data on every American soldier killed in Afghanistan from October 2001 through July 4, 2011. We matched this home of record information with place-level data from the United States census to assess whether fallen soldiers have come disproportionately from communities at the bottom of the socioeconomic ladder. However, for some casualties in the data (133 of 1610, or less than 10%), place-level census data for their home town was not available (because the town was too small and/or not listed as a census-incorporated place). To generate the percentages prepared in the text, for these soldiers we mapped their home towns and used the census data for the most geographically proximate community in the place-level census data.

To insure that this process did not skew our results, we here conduct two rounds of robustness checks. First, we re-estimated our percentages of casualties in each income or education decile omitting these 133 casualty records from the data. When dropping these observations, we find that the bottom three income deciles sustained 35% of the Afghan war casualties, versus only 23% for communities in the top three income deciles. Similarly, 40% of the Afghan war's casualties hailed from communities in the bottom three education deciles, versus only 24% from the top three education deciles. These numbers are virtually identical to those presented in the text.

As a further robustness check we examined the relationship between socioeconomics and casualties at the state, instead of the place level. Strongly consistent with the results presented previously, a state's Afghan war casualty rate is negatively correlated with its median family income ($r = -.32$) and percentage of residents with a college degree ($r = -.21$).

Alternative Operationalizations of Casualty Sensitivity

In our first experiment, respondents were asked a series of open-ended questions (within the range of 0 to half a million casualties) of how many casualties they would tolerate to achieve a series of foreign policy goals. To insure that outlying values do not skew our results, we grouped responses into three categories that represent a high degree of casualty sensitivity (0-50 casualties), a low degree of casualty sensitivity (more than 5,000 casualties) and an intermediate level of casualty sensitivity (51-5,000 casualties). This approach eases comparisons in the high and low casualty sensitivity groups.

Feaver and Gelpi (2004, 108-109) follow a similar approach, but employ six categories: 0; 1–50; 51–500; 501–5,000; 5,001–50,000; and more than 50,000. To insure that our results are not merely the product of our operationalization of the dependent variable, we replicated the ordered logit models in Tables 2 and 3 using Feaver and Gelpi’s six point scale. Results are presented in Appendix Tables 1 and 2. In both tables, the results are very similar to those presented in the text. Most importantly, in Appendix Table 1, the coefficient for the inequality treatment is negative and statistically significant in the Liberia and Al Qaeda in Somalia models, and the difference between the inequality and shared sacrifice cues only narrowly fails to meet conventional levels of statistical significance in the Iran scenario. In Appendix Table 2, the coefficient for the inequality cue/high Iraq casualty rate state interaction is negative and statistically significant in all four scenarios.

In the models presented in the manuscript, we followed Feaver and Gelpi (2004) and treated respondents who would not accept any casualties in all four missions as “spoiled ballots” that were not included in the analysis. As a final robustness check, we re-estimated the models presented in Tables 2 and 3 of the text, but included these respondents who answered 0 in all

four cases. The results, which are presented in Appendix Tables 3 and 4, are virtually identical to those presented in the text.

A final issue involves non-response rates; our telephone survey asked subjects an open-ended casualty tolerance question, but subjects were free to refuse to answer. As in similar casualty sensitivity studies, a significant number of respondents (ranging from 11% to 14%) refused to answer the question in each of our scenarios. However, we found little evidence that refusal rates were systematically higher or lower in the control or inequality or shared sacrifice treatments.

Inequality Cue and Income Interactions

In the manuscript, we argued that Americans' response to information about casualty inequalities is critically mediated by the lens through which they viewed the costs of the Iraq War. Specifically, we showed that the inequality cue had a much greater effect on Americans from states that had suffered high casualty rates during the Iraq War than on Americans from low casualty states. An alternative hypothesis is that a subject's income level might be the key mediating factor. High income Americans might be less responsive to information about inequality in sacrifice than low income Americans, and because casualty rates are significantly correlated with communities' socioeconomic demographics, the results we observed in the text could be spurious. To test this alternative hypothesis, the models in Appendix Table 5 replicate those of Table 3 in the text, but instead include the interaction of the inequality cue with each subject's self-reported income. In none of the models is the coefficient for the inequality cue/income interaction statistically significant. These results strongly suggest that the local lens through which subjects experienced the human costs of the Iraq War, not their personal

socioeconomic status, is the most important factor mediating their response to information about inequality in sacrifice.

As a final robustness check, we investigated whether high income and low income residents of high casualty states responded differently to information about socioeconomic inequalities. Toward this end, we re-estimated the models in Appendix Table 5, but only for residents of high casualty states. In each model, the coefficient for the inequality/income interaction was substantively small and failed to reach statistical significance. This is consistent with our argument that rich and poor residents of high casualty states alike reacted to information about inequality in sacrifice, on average, by becoming increasingly unwilling to accept significant numbers of casualties in future military missions to achieve a range of policy objectives. This effect is not limited to low income respondents whose reaction to information about casualty inequality is influenced primarily by self-interest concerns.

Follow-Up Experiment

As a robustness check on the results of our first survey experiment that was conducted on a nationally-representative sample of Americans recruited through an RDD telephone survey, we embedded a pair of additional experiments on an online survey administered to a sample of respondents recruited via Mechanical Turk. The demographic characteristics of this sample are summarized in Appendix Table 6.

As described in the manuscript, this follow-up experiment made several innovations upon the design of the first experiment. First, instead of asking all respondents about all four scenarios, it randomly assigned respondents to either the Ukraine scenario, or the Al Qaeda in Somalia scenario; this eliminates concerns that answers to prior scenarios might skew casualty

sensitivity assessments for later scenarios. Second, the Ukraine scenario was explicitly designed to query casualty sensitivity about a mission of much greater scale that could realistically result in many more casualties than the mission types in the first experiment. Third (following Feaver, Gelpi and Reifler 2009), freed from the constraints of the RDD telephone survey, we used a new method of asking sequential questions to measure casualty sensitivity that did not require respondents to volunteer a level of “acceptable” casualties. And finally, in the online format we were able to strengthen our treatments by including graphical evidence for the casualty inequality and shared sacrifice treatments. Complete wordings for these treatments are presented in Appendix Figure 1.

Finally, full results for the ordered probit models referred to in the text are presented in Appendix Table 7. In the Al Qaeda in Somalia scenario, the coefficient for the casualty inequality treatment is negative, as expected, and statistically significant. The coefficient for the shared sacrifice coefficient is also negative, however, it is small and statistically insignificant.ⁱ The model for the Ukraine scenario yielded very similar results. In the Ukraine model, respondents informed about inequality in military sacrifice in the Iraq and Afghanistan wars were also significantly less willing to accept substantial numbers of casualties to defend Ukraine from Russian aggression than those in the control or shared sacrifice treatment.

Finally, in both scenarios, the estimated size of the casualty inequality treatment is substantively significant. For example, first differences derived from simulations show that the casualty inequality cue increased the predicted probability of the median independent respondent tolerating less than 50 casualties in the Al Qaeda in Somalia scenario from .57 in the control group baseline to .72. Similarly, in the Ukraine scenario the casualty inequality treatment increased the predicted probability of the median independent respondent tolerating less than 50

casualties in the Ukraine scenario from .60 in the control group to .78.

Appendix Table 1: Models With 6-Point Dependent Variable

	Liberia	Darfur	Iran	Al Qaeda
Inequality	-0.357** (0.164)	-0.062 (0.145)	-0.168 (0.153)	-0.261* (0.152)
Shared sacrifice	-0.076 (0.161)	0.009 (0.137)	0.054 (0.148)	0.022 (0.138)
Republican	-0.375 (0.439)	-0.179 (0.487)	-0.186 (0.453)	0.347 (0.262)
Democrat	-0.505 (0.439)	-0.149 (0.483)	-0.612 (0.460)	0.113 (0.243)
Male	0.041 (0.134)	0.079 (0.117)	0.330*** (0.118)	0.090 (0.117)
Education	0.005 (0.045)	0.022 (0.044)	0.023 (0.040)	0.007 (0.047)
Income	-0.024 (0.026)	-0.004 (0.022)	0.016 (0.025)	-0.027 (0.026)
White	-0.092 (0.224)	-0.172 (0.221)	-0.048 (0.248)	-0.284 (0.200)
Black	-0.145 (0.319)	-0.493* (0.281)	-0.388 (0.296)	-0.570* (0.331)
Latino	0.222 (0.243)	0.144 (0.244)	0.099 (0.236)	0.048 (0.170)
Age	-0.069*** (0.021)	-0.036** (0.018)	-0.034** (0.017)	-0.035* (0.019)
Married	-0.303** (0.150)	-0.195 (0.145)	-0.374*** (0.135)	-0.079 (0.158)
Observations	537	518	515	532

Robust standard errors in parentheses. All significance tests are two-tailed.

*** p<0.01
 ** p<0.05
 * p<0.10

Note: Dependent variable is a six point ordinal scale measuring respondents' self-reported casualty tolerance in each mission (0 casualties; 1-50; 51-500; 501-5,000; 5,001-50,000; more than 50,000 casualties).

Appendix Table 2: High Casualty State Interactions, 6-Point Dependent Variable

	Liberia	Darfur	Iran	Al Qaeda
Inequality	-0.029 (0.206)	0.230 (0.179)	0.170 (0.204)	0.107 (0.177)
Inequality * high casualty state	-0.642** (0.265)	-0.568** (0.257)	-0.651*** (0.248)	-0.704*** (0.257)
Shared sacrifice	-0.081 (0.159)	0.009 (0.137)	0.049 (0.147)	0.021 (0.139)
Republican	-0.340 (0.430)	-0.132 (0.463)	-0.170 (0.417)	0.401 (0.256)
Democrat	-0.479 (0.434)	-0.137 (0.464)	-0.624 (0.425)	0.131 (0.239)
Male	0.048 (0.133)	0.091 (0.116)	0.349*** (0.117)	0.111 (0.116)
Education	-0.011 (0.044)	0.015 (0.041)	0.010 (0.039)	-0.005 (0.044)
Income	-0.019 (0.026)	-0.007 (0.021)	0.017 (0.024)	-0.030 (0.026)
White	-0.100 (0.215)	-0.234 (0.214)	-0.085 (0.233)	-0.341* (0.187)
Black	-0.203 (0.305)	-0.564** (0.273)	-0.440 (0.279)	-0.639** (0.321)
Latino	0.214 (0.233)	0.091 (0.241)	0.068 (0.221)	0.001 (0.156)
Age	-0.068*** (0.021)	-0.036** (0.018)	-0.033** (0.017)	-0.035* (0.019)
Married	-0.303** (0.145)	-0.172 (0.138)	-0.361*** (0.134)	-0.052 (0.154)
High casualty state	0.291* (0.150)	0.016 (0.137)	0.161 (0.146)	0.054 (0.140)
Observations	537	518	515	532

Robust standard errors in parentheses. All significance tests are two-tailed.

*** p<0.01
 ** p<0.05
 * p<0.10

Note: Dependent variable is a six point ordinal scale measuring respondents' self-reported casualty tolerance in each mission (0 casualties; 1-50; 51-500; 501-5,000; 5,001-50,000; more than 50,000 casualties).

Appendix Table 3: Casualty Sensitivity Models, Including Respondents Who Answered Zero to All Four Scenarios

	Liberia	Darfur	Iran	Al Qaeda
Inequality	-0.237* (0.145)	0.011 (0.136)	-0.143 (0.142)	-0.278** (0.135)
Shared sacrifice	-0.006 (0.150)	0.026 (0.135)	0.102 (0.141)	-0.006 (0.142)
Republican	-0.022 (0.326)	0.333 (0.413)	0.260 (0.324)	0.471** (0.238)
Democrat	-0.306 (0.323)	0.190 (0.411)	-0.191 (0.327)	0.169 (0.231)
Male	0.243* (0.125)	0.297*** (0.113)	0.431*** (0.117)	0.268** (0.114)
Education	0.009 (0.042)	0.027 (0.040)	0.038 (0.040)	0.031 (0.040)
Income	-0.016 (0.024)	0.012 (0.021)	0.010 (0.022)	-0.020 (0.023)
White	-0.201 (0.217)	-0.142 (0.213)	-0.064 (0.229)	-0.311 (0.195)
Black	-0.040 (0.288)	-0.176 (0.270)	-0.196 (0.305)	-0.231 (0.302)
Latino	0.232 (0.236)	0.218 (0.233)	0.152 (0.230)	0.130 (0.176)
Age	-0.075*** (0.020)	-0.044** (0.018)	-0.047*** (0.018)	-0.049** (0.019)
Married	-0.322** (0.131)	-0.176 (0.130)	-0.323** (0.127)	-0.136 (0.124)
Observations	749	730	727	744

Robust standard errors in parentheses. All significance tests are two-tailed.

*** p<0.01
 ** p<0.05
 * p<0.10

Note: Dependent variable is a six point ordinal scale measuring respondents' self-reported casualty tolerance in each mission (0 casualties; 1-50; 51-5000 casualties; more than 50,000 casualties).

Appendix Table 4: High Casualty State Interaction Models, Including Respondents Who Answered Zero to All Four Scenarios

	Liberia	Darfur	Iran	Al Qaeda
Inequality	0.112 (0.188)	0.270 (0.177)	0.200 (0.184)	0.064 (0.168)
Inequality * high casualty state	-0.689*** (0.254)	-0.516** (0.240)	-0.682*** (0.247)	-0.684*** (0.231)
Shared sacrifice	-0.006 (0.149)	0.027 (0.135)	0.099 (0.140)	-0.008 (0.143)
Republican	-0.021 (0.314)	0.338 (0.398)	0.238 (0.306)	0.477** (0.233)
Democrat	-0.310 (0.313)	0.171 (0.398)	-0.228 (0.309)	0.148 (0.223)
Male	0.245** (0.123)	0.298*** (0.112)	0.436*** (0.115)	0.277** (0.113)
Education	-0.009 (0.041)	0.017 (0.039)	0.022 (0.039)	0.018 (0.038)
Income	-0.010 (0.024)	0.012 (0.021)	0.014 (0.022)	-0.019 (0.022)
White	-0.212 (0.212)	-0.187 (0.206)	-0.090 (0.219)	-0.355* (0.188)
Black	-0.103 (0.279)	-0.230 (0.262)	-0.251 (0.295)	-0.285 (0.294)
Latino	0.223 (0.230)	0.185 (0.228)	0.129 (0.218)	0.098 (0.168)
Age	-0.074*** (0.020)	-0.043** (0.018)	-0.045** (0.018)	-0.048** (0.019)
Married	-0.312** (0.129)	-0.155 (0.126)	-0.314** (0.126)	-0.110 (0.123)
High casualty state	0.337** (0.146)	0.095 (0.135)	0.281** (0.142)	0.148 (0.141)
Observations	749	730	727	744

Robust standard errors in parentheses. All significance tests are two-tailed.

*** p<0.01
 ** p<0.05
 * p<0.10

Appendix Table 5: Inequality and Income Interaction Models

	Liberia	Darfur	Iran	Al Qaeda
Inequality	-0.538* (0.312)	0.119 (0.308)	-0.183 (0.348)	-0.699** (0.333)
Inequality * income	0.035 (0.046)	-0.022 (0.043)	-0.000 (0.049)	0.050 (0.048)
Shared sacrifice	-0.044 (0.165)	0.013 (0.145)	0.138 (0.161)	-0.064 (0.154)
Republican	-0.371 (0.351)	0.053 (0.507)	-0.074 (0.361)	0.298 (0.259)
Democrat	-0.522 (0.344)	0.065 (0.506)	-0.462 (0.364)	0.117 (0.237)
Male	0.063 (0.137)	0.096 (0.123)	0.297** (0.127)	0.040 (0.126)
Education	0.005 (0.047)	0.022 (0.046)	0.045 (0.046)	0.033 (0.049)
Income	-0.028 (0.029)	0.022 (0.025)	0.016 (0.029)	-0.040 (0.030)
White	-0.169 (0.233)	-0.119 (0.227)	-0.021 (0.262)	-0.367* (0.222)
Black	-0.184 (0.312)	-0.362 (0.286)	-0.429 (0.352)	-0.503 (0.354)
Latino	0.192 (0.261)	0.149 (0.261)	0.077 (0.257)	0.008 (0.187)
Age	-0.078*** (0.021)	-0.039** (0.020)	-0.040** (0.019)	-0.048** (0.021)
Married	-0.341** (0.152)	-0.163 (0.149)	-0.395*** (0.144)	-0.091 (0.151)
Observations	537	518	515	532

Robust standard errors in parentheses. All significance tests are two-tailed.

*** p<0.01
 ** p<0.05
 * p<0.10

Note: Dependent variable is a three point ordinal scale measuring respondents' self-reported casualty tolerance in each mission (0-50 casualties; 51-5,000 casualties; more than 5,000 casualties).

Appendix Table 6: Summary Statistics for Online Sample for Follow-up Experiment

	Mean	Std. Dev.
% Democrats (including leaners)	.48	(.50)
% Republicans (including leaners)	.26	(.44)
% White	.76	(.43)
% Black	.06	(.24)
% Latino	.06	(.24)
% Male	.33	(.47)
% College graduate	.53	(.50)
Median income	\$20k-\$40k	
Median Age	29	

Appendix Table 7: Ordered Probit Analysis of Casualty Sensitivity, Follow-Up Experiment

	Al Qaeda	Ukraine
Inequality	-0.392*** (0.105)	-0.549*** (0.113)
Shared sacrifice	-0.115 (0.108)	0.117 (0.112)
Republican	0.591*** (0.117)	0.350*** (0.128)
Democrat	-0.125 (0.104)	-0.116 (0.106)
Male	0.208** (0.092)	0.404*** (0.105)
Education	0.014 (0.034)	0.018 (0.035)
Income	0.078** (0.035)	0.092*** (0.034)
White	0.311* (0.166)	0.241* (0.136)
Black	0.083 (0.254)	-0.056 (0.192)
Latino	-0.089 (0.208)	-0.180 (0.227)
Age	-0.004 (0.004)	-0.005 (0.004)
Observations	614	558

Robust standard errors in parentheses. All significance tests are two-tailed.

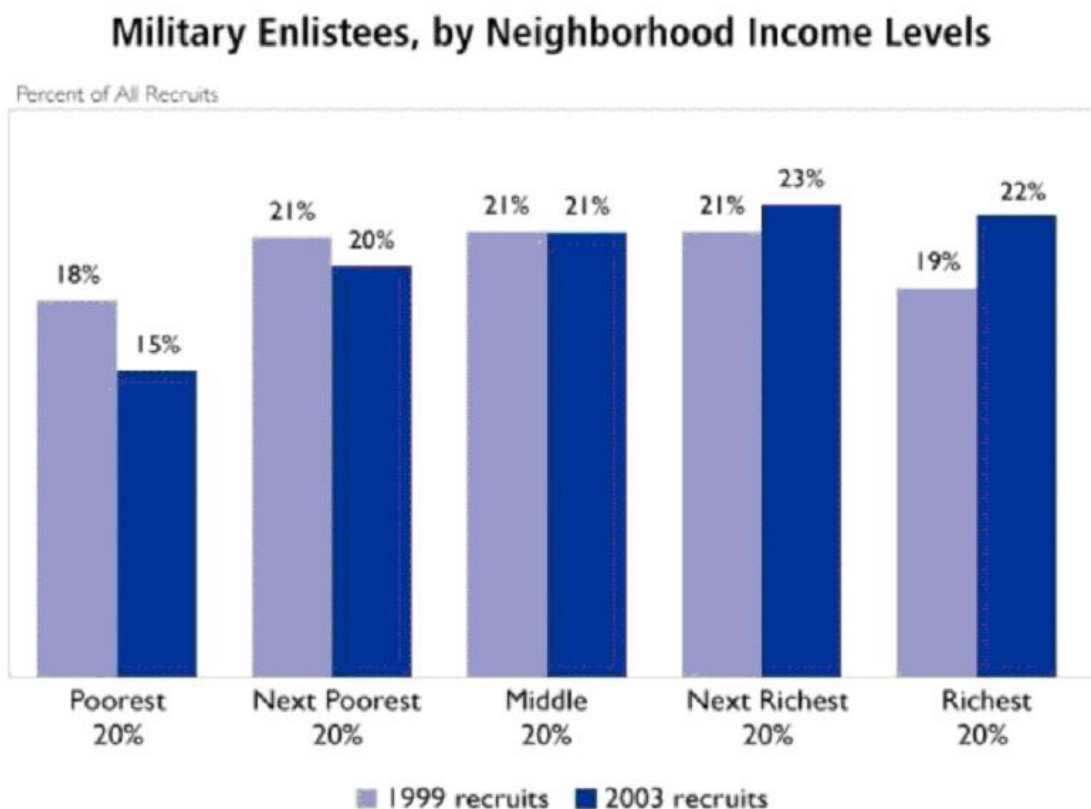
*** p<0.01
 ** p<0.05
 * p<0.10

Appendix Figure 1: Experimental Prompts Used in Follow-Up Experiment*Shared Sacrifice Treatment:*

When American troops are sent overseas, there are almost always casualties. For instance, roughly 36,000 Americans were killed in Korea, 58,000 in Vietnam, more than 4,000 in Iraq, and more than 1,000 in Afghanistan.

This sacrifice has been shared by rich and poor communities all across America.

Consider the graphic below showing the distribution of military recruits during the Iraq War by community income levels:



The data presented in this graphic shows that, in both 1999 and during the Iraq War in 2003, recruits came almost evenly from rich and poor communities alike.

Imagine for a moment that a future president has decided to send American troops to kill or capture Al Qaeda operatives in Somalia.

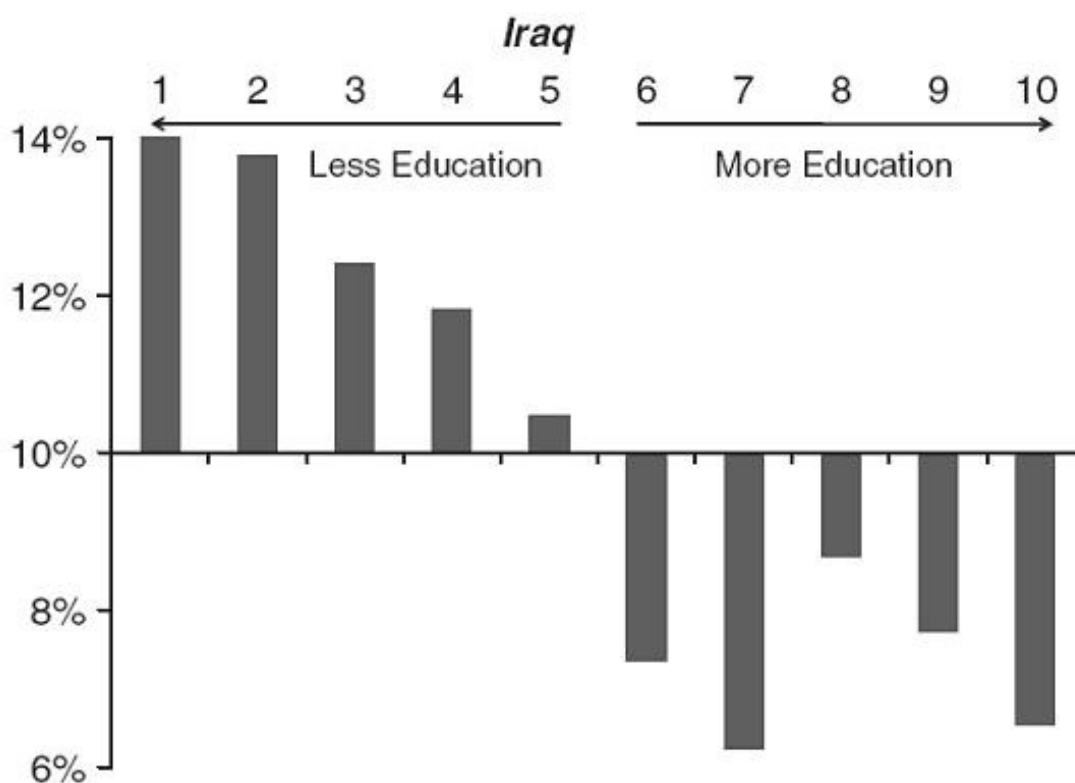
Knowing that all communities will likely share equally in the war burden, in your opinion, would this mission be acceptable if it resulted in no U.S. military deaths?

Casualty Inequality Treatment:

When American troops are sent overseas, there are almost always casualties. For instance, roughly 36,000 Americans were killed in Korea, 58,000 in Vietnam, more than 4,000 in Iraq, and more than 1,000 in Afghanistan.

Many of these casualties have come from poor communities with low levels of educational opportunity. In fact, in each of these wars America's poor and low education communities have suffered significantly higher casualty rates than America's rich and high education communities.

Consider the graphic below, based on a new bi-partisan research study, showing the distribution of Iraq War casualties by community education levels:



The data presented in this graphic shows that **low education** communities have suffered a disproportionately **high** share of the casualty total, and **high education** communities have suffered a disproportionately **low** share of the casualty total.

Imagine for a moment that a future president has decided to send American troops to kill or capture Al Qaeda operatives in Somalia.

Knowing that poor communities will likely bear a greater share of the war burden, in your opinion, would this mission be acceptable if it resulted in no U.S. military deaths?

ⁱ Wald tests reveal that the casualty inequality and shared sacrifice coefficients are statistically different from one another.