Online Appendix A: Data appendix for Vietnam NES analyses

All dependent variables for the NES analyses use the 1974, 1976, 1978, 1980 and 1982 NES surveys. All data was taken from the NES cumulative data file. Adjusting the time horizon of the years analyzed yields virtually identical results across specifications. Summary statistics for all dependent and independent variables used in the NES models are presented in Table A-1.

To construct our main independent variable of interest – each respondent's county casualty rate – we used data on Vietnam War deaths provided by the National Archives. The COFFELT database tracking Vietnam casualties provides home state and city, not county (which is the lowest geographical unit included in the NES), information for each casualty.[1] Aggregating from the city to county level generally posed few problems, as we were able to assign counties based on cross-referenced census data. For some cases, additional steps were necessary. For single cities, such as New York City, which span two or more counties in a single state, we followed two methods. The first method, which we report in this article, evenly divided such casualties for each city among all of the counties it spanned. The second method assigned each casualty to each county spanned by the city under the premise that deaths from a city spanning multiple counties could affect residents of all counties involved. The results across specifications for both the NES and SCBS analyses are virtually identical regardless of which casualty rate operationalization is used. For towns, such as Bethlehem, Pennsylvania, for which there is more than one city of the same name in a single state (less than 5% of the total), we also used two methods. First, we dropped all such casualties and ran our models. We then ran

[1] The home town of record is the home town listed by each soldier prior to entering the military. An analysis of the data suggests that military hometowns are not frequently listed as home towns of record. Indeed, the greatest difficulty with the home town data identified by Barnett, et. al. (1992) is that residents of very small, rural communities may have listed the closest sizeable town as their home of record. Aggregating from the town to the county level should alleviate such concerns.

alternative models in which we randomly assigned each casualty to one of the towns. The two methods yielded nearly identical results. In this article, we report models using the first method.

To construct county casualty rates, we divided each county tally by its adult male population, ages 18-34. Over 90% of all casualties reported in the COFFELT database were men between 18 and 34 years of age. Re-estimating the models with casualty rates calculated in terms of casualties per 1,000 males aged 18-24 or per 1,000 total inhabitants yields virtually identical results across specifications in both the NES and SCBS analyses. Summary statistics for all variables in the NES analyses are reported in Table A-1.

One issue that we were particularly sensitive to is the non-random distribution of combat casualties across the country. This distribution gives rise to two concerns. First, it raises the possibility that political engagement is simply decreasing in socio-economically disadvantaged communities during this period for reasons unrelated to the war. However, our analysis begins to account for this possibility by controlling for community income and unemployment levels, as well as non-white population. Additionally, the non-random distribution of casualties raises the question of whether we would observe the same participatory effects on other communities that did not experience high casualty rates – in essence, it questions whether our analysis is only observing the "effect of the treatment on the treated." While Vietnam and Korean casualty rates *are* disproportionately concentrated in socio-economically disadvantaged communities, the variance is not as great as the conventional rhetoric of a "class war" sometimes suggests. For example, Barnett, Stanley and Shore (1992) for a stratified sample of Vietnam casualties compared the income levels of the deceased soldiers' census tracts or block groups to national averages and found that the lowest three income deciles had casualty rates 1.5 times as high as those in the top three income deciles. Similarly, in our own county-level analysis of all soldiers

who died in the Korean and Vietnam conflicts, we found that the lowest three county income deciles suffered 35% and 37% of casualties, respectively, compared to the 25% and 26% suffered by the top three income deciles. In terms of county-level educational attainment, the bottom three deciles suffered 35% and 37% of the casualties in Korea and Vietnam respectively compared to the 27% and 23% suffered by the top three education deciles (Kriner and Shen forthcoming). While this variance in casualty rates along socio-economic lines is real and normatively and politically important, it is not the case that *only* poor, low education communities suffered high casualty rates in both Korea and Vietnam. Given this distribution, and the fact that we explicitly control for income, unemployment, and racial demographics, it is highly unlikely that our results are spurious artifacts of an omitted variable that is decreasing participation among socio-economically disadvantaged communities.[2] Similarly, there is little reason to believe that the effects we observe of high casualty rates depressing political engagement would only apply to a small, socio-economically underprivileged segment of the citizenry.

[2] We have also re-estimated all of the models with a variety of alternative contextual control variables, many of which are highly correlated, including: percentage of residents living in urban areas, population density, median education, median age, etc. All results are virtually identical across specifications.

Table A-1: Summary Statistics for Variables in National Election Study Analyses

	Mean	Standard Dev.	Min	Max
Dependent Variables				
Federal Government Performance	3.839	1.528	0	8
Trust Federal Government	2.520	.637	1	4
Trust Federal Government Least	.399	.490	0	1
Interest in Politics	2.781	1.048	1	4
Voted in Last Election	.604	.489	0	1
Independent Variables				
Vietnam Casualty Rate (per 1k Men 18-34)	3.523	3.291	0	26.573
Korea Casualty Rate (per 10k residents)	2.299	4.976	0	42.010
World War II Casualty Rate (per 10k residents)	22.934	9.561	0	87.252
Republican	.338	.473	0	1
Democrat	.532	.499	0	1
Education	3.267	1.768	1	7
Income	2.895	1.160	1	5
White	.861	.346	0	1
Male	.441	.497	0	1
Married	.678	.467	0	1
Age	45.357	16.959	17	99
Own Home	.678	.467	0	1
Length in Community	28.437	29.451	0	90
% Non White in County, 1970s	.111	.118	0	.590
Median Family Income in County (in $1,000s), 1970s	9.465	2.175	3.612	16.708
% Unemployed in County, 1970	.044	.018	.013	.115
% Non White in County, 1950	.084	.123	0	.844
Median Family Income in County (in $1,000s), 1950	2.941	.880	.471	5.489
% Unemployed in County, 1950	.046	.023	.013	.194

Online Appendix B: Robustness Check for National Election Studies (NES) Models

All statistical analyses are plagued by the lurking danger of omitted variable bias, and too often there are few even partial solutions. Fortunately, we were able to re-estimate three of our five NES models in Table 2 with pre-war data. The 1964 NES analyses presented in Table B-1 provide considerable support for the contention that residents of counties that suffered high casualty rates in Vietnam only began to exhibit lower levels of trust in government and political participation *after* the war's conclusion. None of the casualty rate coefficients were statistically significant, and indeed in two of the three models the relevant coefficient was actually positive. Unless some other unobserved factor common to all residents of these counties, (aside from minority population, median income and unemployment, all of which are controlled for in the models), also began driving respondent behavior precisely in the period after the war's conclusion, the combination of results in Tables 2 and B-1 provide compelling evidence that individual respondents' local experience with the war greatly influenced their relationship with the federal government and their patterns of political engagement and participation in the years immediately following the U.S. withdrawal.

As a further robustness check, we collapsed both pre-war and post-war NES data to perform a difference in differences analysis on changes in trust in government, interest in politics and patterns of voting at the county level. Through this differencing approach we are able to control for unmeasured county-level characteristics omitted from the previous analyses that could potentially be producing a spurious result. The three dependent variables are the change in the average level of trust in government, interest in politics and voting observed at the county level from the pre-1966 surveys to the five post-Vietnam surveys from 1974 to 1982. The change

in each county's casualty rate from 0 in the pre-war years to its post-war value is the main independent variable of interest, while the change in all of the other individual-level control variables included in the analysis in Table 2, except home ownership and length of residence in the community, are also added as controls. Results from the difference in differences analyses are presented in Table B-2.

Simple summary statistics of the dependent variables show that across all counties, on average, levels of trust in government and voting decreased considerably from the pre to the post-war period, while overall interest in politics remained virtually unchanged. Yet, the results in Table B-2 strongly suggest that, on all three dimensions, the decreases in political engagement and participation were most severe in counties that experienced high casualty rates in Vietnam. As in the individual level models, the estimated effect of a county's casualty rate on its respondents' average level of trust in the federal government is negative, though the resulting coefficient is not statistically significant. However, in both the interest in politics and voting models, the casualty rate coefficient is negative and statistically significant. A ten point increase in a county's casualty rate decreased a county's average level of interest in politics by more than .70 standard deviations and decreased the average turnout rate in a county by more than 10%, a .68 standard deviation decrease. Thus, even after differencing out county means to control for unmeasured contextual characteristics, we find considerable evidence that political engagement and participation decreased from the pre-Vietnam years to the post-war era and that these decreases were sharpest among residents from counties that shouldered a disproportionate share of the burden in the costly war.

Table B-1: Robustness Check for National Election Studies Using 1964 NES Data

		Trust Fed Govt.	Interest in Politics	Voted in Last Election
Future Vietnam Casualty Rate		-.040 (.049)	.036 (.038)	.052 (.042)
Republican		-.152 (.127)	.574*** (.112)	.789*** (.150)
Democrat		.161 (.127)	.381*** (.114)	.691*** (.130)
Education		.040* (.022)	.198*** (.024)	.112*** (.024)
Income		.036 (.036)	.130*** (.035)	.079* (.044)
White		-.168 (.172)	-.129 (.132)	-.112 (.152)
Male		.118* (.062)	.383*** (.066)	.018 (.088)
Married		-.005 (.079)	-.038 (.083)	.108 (.089)
Age		-.001 (.003)	.014*** (.002)	.010*** (.002)
Own home		-.099 (.074)	-.033 (.077)	.350*** (.086)
% Non White in County		-.003 (.007)	.004 (.008)	.003 (.008)
Median Family Income in County		-.000 (.000)	-.074* (.077)	-.043 (.087)
% Unemployed in County		2.410 (2.476)	-2.332 (3.330)	-.446 (2.181)
Constant		--	--	-3.115*** (.500)
Log-likelihood		-1181.873	-1563.591	-740.868
N		1,343	1,359	1,458

All models estimated with state and year fixed effects; all models report robust standard errors clustered on county. All significance tests two-tailed.

* $p < .10$
** $p < .05$
*** $p < .01$

Table B-2: Robustness Check for NES Data Using Difference in Differences Analysis of the Change in County-Level Engagement and Participation

		Trust Fed Govt.	Interest in Politics	Voted in Last Election
Vietnam Casualty Rate		-.023 (.022)	-.033** (.019)	-.013* (.009)
Δ Republican		-.479** (.239)	1.439*** (.379)	.533*** (.113)
Δ Democrat		-.379** (.213)	1.293*** (.355)	.422*** (.122)
Δ Education		-.056 (.048)	.130** (.064)	.014 (.024)
Δ Income		.071 (.072)	-.097 (.103)	.031 (.063)
Δ White		.207** (.125)	.068 (.259)	-.051 (.147)
Δ Male		.243* (.167)	.327 (.271)	.138* (.085)
Δ Married		.080 (.265)	.224 (.375)	.120 (.120)
Δ Age		.008** (.004)	-.013 (.010)	.009*** (.003)
Constant		-.522*** (.097)	.129* (.088)	-.066* (.040)
R^2		.19	.25	.26
N		109	110	110

All models estimated using OLS regressions with standard errors clustered on state. All significance tests one-tailed.

* $p < .10$
** $p < .05$
*** $p < .01$

Online Appendix C: Data and Robustness Checks for SCBS Analyses

While the Social Capital Benchmark Study provides unique opportunities to explore the influence of local communities' Vietnam War experiences on their residents' behavior across a full range of participatory activities, the very innovativeness of the survey means that we are unable to replicate our models with pre-war data as we were with many of the NES models. However, in the article we discussed one partial robustness check on our results in which we disaggregated the SCBS sample into short and long-tenured residents of their current communities and replicated the analyses on each group. A more complete discussion of that robustness check and full model results are presented here. Summary statistics for all variables used in the SCBS analyses are provided in Table C-1 below.

The article's theoretical logic suggests that individuals' personal experience with the war, as filtered through the community in which they lived at the time, fundamentally reshapes their relationship with government, which affects their subsequent willingness to participate in political life. With more than twenty-five years having passed between the end of American involvement in Vietnam and the conducting of the SCBS, many individuals may have moved in the interim and many respondents may have been too young to have had any direct experience with the war. It is certainly possible that even a more recent newcomer to a community may still be affected by that community's wartime experience, even if he or she did not experience it directly. Neighbors' attitudes and patterns of participation may inexorably influence one's own. However, at the very least we would expect the negative effects of casualty rates on participation to exist at the same or even higher levels for long time residents of high casualty rate communities who lived there during or in the immediate aftermath of Vietnam itself.

As a robustness check, the models in Table C-2 replicate the two political participation models estimated in Table 5, but divide the respondents into those who have lived in their community for twenty or more years and those who have not. For both long-tenured residents and shorter-tenured residents, higher local casualty rates in Vietnam are strongly correlated with lower levels of electoral and non-electoral forms of political participation. However, the results in Table B-1 demonstrate that the negative effect of casualty rates on political engagement was on average almost 50% larger for respondents who had lived in their current communities for more than twenty years than it was among respondents who were more recent arrivals to their communities. While not conclusive proof of a direct causal link between Vietnam and respondents' behavior twenty years later, the larger effects for long-tenured residents are a further observable implication consistent with our theoretical argument.

As a final robustness check, we re-estimated the electoral and non-electoral participation models in Table C-2 for a third category of respondents, the 1,650 respondents who moved to their current communities within the last year. While it is certainly plausible that shorter-tenured residents of a high casualty community may also exhibit depressed levels of political participation even if they didn't live in that community during the war because of interactions with neighbors and others through social networks, any indirect effect of a community's war experience should be weakest among the most recent newcomers to a community. In this final re-analysis, the coefficients for a community's casualty rate are again negative, however neither is statistically significant ($p = .66$ and $p = .18$, respectively). Collectively, the SCBS analyses, like the NES and aggregate turnout analyses, provide further evidence for the theoretical contention that the Vietnam War significantly depressed political engagement in the United

States, and that its effects were most acute in communities that experienced the costs of the government's failed war policies most directly.

Table C-1: Summary Statistics for Variables in Social Capital Benchmark Survey Analyses

	Mean	Standard Dev.	Min	Max
Dependent Variables				
Electoral Politics Index	3.058	1.324	0	5
Non-Electoral Politics Index	1.125	1.387	0	7
Organizational Activity Index	.067	1.038	-.893	7.089
Charitable Activity Index	5.202	4.305	0	21.375
Independent Variables				
Vietnam Casualty Rate (per 1k Men 18-34)	3.523	3.291	0	26.573
Education	3.652	1.840	1	7
Income	3.179	2.052	0	7
White	.729	.443	0	1
Male	.412	.492	0	1
Married	.511	.500	0	1
Age	44.756	16.703	18	118
Own Home	.696	.460	0	1
Length in Community	3.572	1.485	1	6
% Non White in Community	.282	.155	.043	.671
Mean Family Income in Community (in $10ks)	3.168	.357	2.291	3.940
% Unemployed in County	.037	.016	.011	.275

Table C-2: Robustness Check on Social Capital Benchmark Survey Models Disaggregating by Length of Residence

		Electoral Politics Index, 20+ Years	Electoral Politics Index, < 20 Years	Non-Electoral Politics Index, 20+ Years	Non-Electoral Politics Index, < 20 Years
Vietnam Casualty Rate		-.014* (.008)	-.010* (.006)	-.020* (.011)	-.013** (.006)
Education		.183*** (.008)	.214*** (.008)	.187*** (.011)	.187*** (.009)
Income		.076*** (.008)	.092*** (.006)	.062*** (.008)	.060*** (.006)
White		.080** (.039)	.324*** (.040)	-.309*** (.051)	-.087** (.038)
Male		.110*** (.021)	.163*** (.019)	.107*** (.029)	.061*** (.020)
Married		.181*** (.027)	-.000 (.022)	.036 (.028)	-.166*** (.030)
Age		.024*** (.001)	.025*** (.001)	-.003*** (.001)	-.001 (.001)
Own Home		.266*** (.038)	.145*** (.023)	.035 (.050)	.083*** (.022)
Length in Community		-.045* (.028)	.134*** (.010)	-.067** (.032)	.087*** (.014)
% Non White in Community		.223 (.181)	.263 (.166)	.598** (.309)	.199 (.263)
Mean Family Income in Community		-.057 (.061)	.063 (.067)	-.084 (.108)	-.099 (.121)
% Unemployed in County		-2.178** (1.013)	-1.864*** (.754)	-.408 (1.634)	-2.195* (1.316)
Constant		1.324*** (.293)	-.171 (.278)	1.126*** (.420)	.466*** (.482)
R^2		.31	.33	.12	.11
N		8,633	16,612	8,633	16,618

All models estimated using OLS regressions with state fixed effects and standard errors clustered on county. All significance tests two-tailed.

* $p < .10$
** $p < .05$
*** $p < .01$

Online Appendix D: Korea and WWII NES Analyses

The Korea casualty data was obtained from the "Records on Korean War Dead and Wounded Army Casualties, 1950 – 1970," maintained by the U.S. National Archives. We included in our Korea casualty tally soldiers listed as: Died nonbattle; Declared Dead (Missing in Action or Captured); Died as result of being gassed in action; Died as result of missile wound received in action; Died as result of nonmissile wound received in action; Died as result of radiation received in action; and Died of other injuries received in action. Because the 1950 census county data books did not include figures on the male population of military service age (18-34), the casualty rate measure for Korea is county casualties per 10,000 inhabitants. Replicating the Vietnam analyses with rates per 10,000 inhabitants yields virtually identical results.

Additional World War II Analysis

Our theory suggests that high exposure to the human costs of the war through the lens of one's local community should only decrease political engagement when the war is unsuccessful. Casualties sustained in a successful war should not cause citizens to re-evaluate their relationship with the federal government in the same way that casualties incurred in a failed war do. Therefore, if our theory is correct, we should observe no relationship between citizens' local casualty rate and their political engagement in the wake of a successful war.

To test this expectation, the final set of models presented in Table D-1 extend the analytic scope to investigate the local effects of a successful war by replicating the Interest in Politics and Voting in Presidential Elections Models from Table 5 with an additional covariate: each county's *World War II Casualty Rate*. The World War II casualty data was obtained at the county level

from the World War II Honor List of Dead and Missing Army and Army Air Forces Personnel maintained by the U.S. National Archives.[3]

In the augmented Interest in Politics Model, the coefficient for Korean War casualty rates remains negative and substantively and statistically significant. By contrast, however, the coefficient for a county's war experience in World War II is positive, though statistically insignificant. Local experience with World War II does not appear to have dampened interest in politics, not even in counties that suffered the greatest number of casualties. The revised Voting in Presidential Elections Model reveals a similar pattern. While the coefficient for Korean casualty rates remains negative and significant, the coefficient for a county's World War II casualty rate is again positive and only narrowly misses conventional levels of statistical significance. Consistent with Putnam, Skocpol, Mettler and others who have documented how World War II provided the impetus behind the long civic generation, our models suggest that respondents from counties with the most direct stakes in that conflict emerged, if anything, even more politically engaged than their peers from counties with lower casualty rates.

[3] See:http://www.archives.gov/research/arc/ww2/army-casualties/. One difference between World War II data availability and the other two wars is that records of Navy, Marine Corps, and Coast Guard personnel are available only at the state, and not county, level. Since the vast majority of casualties were experienced in the Army and Air Force, we do not expect this to bias our findings.

Table D-1: Relationship between Korean War and WWII Casualty Rates and National Election Study Measures of Political Participation, 1956-1964

		Interest in Politics	Voted in Pres Election
Korea Casualty Rate		-.025** (.013)	-.032*** (.011)
World War II Casualty Rate		.002 (.006)	.008 (.005)
Republican		.371*** (.088)	.508*** (.080)
Democrat		.259*** (.081)	.529*** (.075)
Education		.156*** (.017)	.165*** (.017)
Income		.133*** (.027)	.153*** (.027)
White		.004 (.094)	.295*** (.102)
Male		.390*** (.045)	.164*** (.054)
Married		-.014 (.065)	.158*** (.060)
Age		.011*** (.002)	.015*** (.002)
% Non White in County		.040 (.652)	.059 (.489)
Median Family Income in County		-.098 (.064)	-.142** (.071)
% Unemployed in County		-.342 (2.697)	-2.116 (1.723)
Constant		--	-1.866*** (.322)
Log-likelihood		-2848.595	-2076.596
N		2,444	4,284

All models estimated with state and year fixed effects; all models report robust standard errors clustered on county. All significance tests two-tailed.

* $p < .10$
** $p < .05$
*** $p < .01$