

National Service as Civic Education?

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Abstract

Nearly all studies that seek to uncover the effects of military service on the individual are plagued with the self-selection bias that comes with studying the all-volunteer-force. In order to solve this problem, this paper takes advantage of the natural experiment afforded by the suspension of the French National Service program to produce unbiased causal analyses of the effect of national service on a range of civic engagement measures. The results of the natural experiment indicate that participation in national service does affect individual levels of civic engagement in a statistically significant way. However, the degree to which mandatory national service can be considered a desirable form of civic education depends upon the relative importance one assigns to participation in activities that reflect responsibility to the collective, foster attitudinal development, or are official forms of political participation.

“The most extreme instances of the military denying themselves, and advocating a military program for nonmilitary reasons, were in their postwar campaign for universal military training. As the prospects of congressional approval for such a plan rapidly receded after 1920, the arguments advanced in its favor became more and more removed from military requirements. In the end the officers were advancing UMT (universal military training) as more or less the universal panacea for all the social ills which beset America. It would strengthen national unity, promote the amalgamation of ethnic groups, and encourage democracy and tolerance. It would be physically beneficial and would virtually eliminate illiteracy in the United States. Far from injuring industry or retarding the development of occupational skills, it would have just the reverse effects. The Army would discharge its recruits with a basic training in law, commerce, transport, engineering, or anyone of a number of other technical fields. Most important were the moral benefits to be derived from universal training. At the same time that it was quite rapidly espousing the values of a commercial civilization, the officer corps could still retain some elements of the old sense of the moral superiority of the military to the business way of life. Loyalty, patriotism, honor, discipline, fairness, a respect for law could be inculcated in the youth of the nation through military training. In short, the officers proved conclusively the need of universal service for every reason except military ones” (Huntington 1957, 285-286).

The above excerpt from Samuel Huntington’s treatise on civil-military relations describes the extremes to which the United States Military was attempting to maintain its newfound relationship with mainstream American society during the years after the First World War. This excerpt also outlines the variety of arguments used to advocate the benefits of mandatory national service on the individual. During the interwar years, the United States Military eventually withdrew into its prewar isolation from the daily lives of ordinary American civilians. However, the arguments for the civic virtues of national service advocated above remain relevant and are actively promoted by proponents of universal national service today.

In the post World War II era, the United States government flirted with universal conscription during the Korean War and later towards the end of its engagement in Vietnam. Each time the U.S. stopped short of requiring universal service participation

and instead settled on some form of a selective draft. When the draft was terminated in 1973 in favor of an All-Volunteer Force (AVF), the national discourse regarding military service had permanently changed from one of national obligation to one of economic compensation.¹ Yet, there are still those who advocate for a conscript military in terms of the civic externalities thought to be associated with service participation. Indeed, many Western Democracies maintained a policy of conscription long past its Cold War function to protect against the threat of a large-scale ground invasion in order to foster a sense of solidarity and nationhood amongst their respective populations.²

While there exists a wealth of anecdotal evidence, the selection bias that accompanies service program participation makes it difficult to adequately test the ability of national service to function as a form of civic education (Bachman et al. 1987; Hammill et al. 1995). The research presented in this paper attempts to solve this problem by leveraging the natural experiment afforded by the suspension of the French National Service program where an arbitrary date of birth cutoff for conscription eligibility allows an individual's probability of service to be as good as randomly assigned. This designation for conscription eligibility is then used as an instrument to estimate the causal effects of national service on an individual's propensity for civic engagement.

The aim of this paper is to measure the downstream effects of being conscripted into a mandatory national service program on a range of civic engagement measures. National service, as used throughout this study, is characterized by the participation of citizens or potential citizens in an official state service program. In the program under

¹ For a discussion on the discourse surrounding the suspension of the draft and the move to an All-Volunteer Force see Cowen (2006).

² See Malesic (2003) and Joenniemi (2006) for an overview of the state of conscription in Europe.

evaluation, the majority participants are called to serve as conscripts in the military. For those who wished to pursue alternate avenues of service, there also existed non-military (civilian) options. While it would be preferable to separately discuss the effects of military and non-military forms of service, the overwhelming majority of quantitative studies regarding service programs focus exclusively on military service. Even studies that employ data generated from participants in countries that utilize non-military forms of service do not differentiate between the various avenues of service available to the participant. Given these limitations, this paper proceeds by examining the literature that attempts to measure the effect of military service on the individual. It then describes the regression discontinuity motivated research design and the original survey instrument implemented to take advantage of the policy discontinuity afforded by the suspension of the French National Service program. Next, it details the survey questions and the resulting civic engagement measures. The estimation and results follow and the paper ends with a discussion.

The Effect of Military Service on the Individual

The literature reviewed in this section is organized into two categories: the effect of military service on participants' values and social attitudes and its effect on participants' political attitudes and participation.³ Studies that deal with the effect of

³ In addition to the two categories discussed in this section, the effect of military service on socioeconomic achievement over the life course is a particularly influential line of research in that the official argument for ending the draft in the United States and switching to an All-Voluntary-Force was based upon the notion that being drafted was equal to paying a "conscription tax." The conscription tax was thought to result in a loss

military service on personal values are generally concerned with the socialization of officer cadets at the military academies. Since the officer corps is considered to be the stewards of the military ethic (Huntington 1957), scholars have developed a specific interest in the values of officer cadets relative to their civilian counterparts. Values of particular concern are those that would seem to be at odds with the maintenance of a democratic society such as the development of authoritarian predispositions, which then might be diffused to the enlisted ranks. An early effort to understand the relationship between military training and authoritarian attitudes comes from Campbell and McCormack (1957). Campbell and McCormack interviewed Air Force cadets in their first week of pilot preflight training and then once again a little over a year later while they were in advanced flight-training school. Using the F-scale measure of authoritarian personality trends, Campbell and McCormack found that the mean number of items on the F-scale answered in the authoritarian direction significantly decreased between the two periods, opposite of the hypothesized result.

Seeking to replicate the findings of Campbell and McCormack, Roghmann and Sodeur (1972) implement a nearly identical research design to West German soldiers. Using a twelve-item measure of authoritarianism that combined elements of the dogmatism scale and the F-scale, Rogmann and Sodeur find that measured authoritarianism significantly decreased in army conscripts by the end of their time in

of workforce experience equal to the time served (President's Commission on an All Volunteer Force, 1970). This literature is not extensively reviewed here, as it does not directly concern civic engagement. Early studies found a negative association between veteran status and earnings. More recently, scholarship in this area has challenged previous findings and argued that veteran status does not have an effect on lifetime earnings. See Angrist (1990), Angrist and Krueger (1994), Ibends and van der Klaauw (1995), Sampson and Laub (1996), Techman and Call (1996), Angrist and Chen (2007), and Maclean (2008).

service. Also conducting research on the German Bundeswehr, Lippert et al. (1978) interviewed draftees around three months into their service commitment and then about a year later. Lippert et al.'s results in aggregate support the notion that military service does not increase authoritarian predispositions in veterans.

While not directly testing the authoritarian predispositions of officer candidates, Stevens et al. (1994) undertook a longitudinal study of United States Coast Guard Academy cadets in order to measure the change in personal and interpersonal values that result from academy socialization. The authors find that cadets' value strength of practical mindedness, variety, recognition, independence, and leadership increased over their tenure in the academy, but that values of goal orientation, conformity, and benevolence weakened by the time they graduated. Similarly, in an attempt to understand the effect of military socialization on cadets' social identity, Franke (2000) surveyed each class of West Point cadets (1st years to 4th years) in October of 1995. Comparing the cadets across each of the four classes, Franke found that officer training did not have a detrimental effect on cadets' individual social identities and that traditional American values played a central role in the formation of cadets' reference group identification.

One of the earliest studies to examine the effect of military service on the individual was Stouffer et al.'s (1949) comprehensive study of the effect of WWII combat on soldiers' morale and overall opinions of their time in service. Stouffer et al. look at multiple aspects of military life, but most relevant to this discussion is their comparison of the attitudes' of white men in companies with varying degrees of Black soldier integration. The authors observe that white soldiers who were in a company

containing a Black platoon were most favorable to the mixed company organization, those who were in a regiment that contained a mixed company were somewhat favorable, and those who soldiered in all-white regiments were generally not favorable to the idea of serving in a mixed company. Keeping in this line of attitudinal research, Lawrence and Kane (1995) analyze data from the 1972 to 1991 General Social Surveys in order to study the relationship between veteran status and a variety of attitudes toward African Americans. On most measures, white veterans do not differ significantly from their civilian peers. However, white veterans were more likely than non-veterans to oppose barring interracial marriage, to have entertained an African American in their home, and to live in a racially integrated neighborhood. On the other hand, white veterans were less likely to believe that the federal government should offer special help to blacks. The authors argue that this negative opinion towards affirmative action type programs may be a result of the relative meritocracy of the military. These differences are small and the authors caution against any broad generalizations.

The last aspect of the values and social attitudes category examined in this section concerns the effect of military service on post-service criminal offenses. Bouffard (2005) tackles this question using data from the National Longitudinal Survey of Youth (NLSY) and finds that both white and black veterans are no more likely than their non-veteran peers to have reported being involved in violent behavior. However, Hispanic veterans are found to be significantly more likely to have reported involvement in such behavior. Contrary to Bouffard (2005), Greenberg et al. (2007) conclude that with the exception of white veterans in the thirty-five to forty-four and forty-five to fifty-four age categories, veterans did not exhibit a significantly higher risk of incarceration than non-veterans.

Additionally, the majority of Black and Hispanic veterans had a lower risk of incarceration than would be expected given their relative shares of the general population.⁴

A second line of general inquiry deals with the effect of military service on veterans' political attitudes and rate of political participation. Studies of veterans' political attitudes are generally concerned with veteran vote choice, while examinations of political participation span the spectrum of potential avenues of civic engagement.

Two of the seminal studies of the effect of military service on political participation come from a longitudinal panel study implemented by M. Kent Jennings and Gregory B. Markus. Jennings and Markus (1976) concentrate on active forms of political participation such as voting, campaigning, contacting officials, evangelizing one's political opinions, demonstrating, and working with others to solve community problems. The authors employ a multiple regression approach to analyze the data and find that on the whole, there is no significant difference between those who have served in the military and those who have not. Scrutinizing the data further, however, yields a significant negative effect on active participation for veterans who served in Vietnam and a positive effect on communal participation for a number of the other service sub cohorts. Jennings and Markus (1977) shift their focus onto veterans' attitudes about the national government and fellow citizens. Veterans on a whole expressed less political cynicism and greater trust in the federal government in the context of the federal system.

⁴ For an extensive review of the literature on the relationship between military service and the life course, focusing on criminal careers, marital status, lifelong health, and socioeconomic attainment see MacLean and Elder (2007).

Additionally, the authors obtain a positive significant effect for military experience on sensitivity to geopolitical domains.

In addition to the results concerning the effect of military service on authoritarianism discussed with the previous category, Lippert et al. (1978) examine questions regarding veterans' social and political integration. Utilizing a difference in means analysis on their longitudinal study of German Bundeswehr conscripts, Lippert et al. find that near the end of their service period draftees were less socially isolated, less insecure, had lower scores on the neuroticism scale, and reported less intolerance of ambiguity. Furthermore, the authors find that draftees' reported political involvement increased and levels of political alienation, non-political behavior, and the perception of politics as a disrupting factor decreased. Langton (1984) explores the effects of military service on third world workers' political participation through interviews of nearly five hundred Peruvian mine workers from three underground mines in the central Andes of Peru. Langton's questions consisted of measures of protest participation and cognizance of class-consciousness. Controlling for a number of background characteristics, Langton finds that military service leads to decreased propensity to place blame for an individual's life condition on the social system, engage in strikes or demonstrations, and act in a militant way.

Attempting to develop a more complete understanding of the effect of military service on active political participation and civic engagement, Segal et al. (2001) employ multidimensional measures of civic participation made available by the Michigan Monitoring the Future survey. With respect to the effect of military service on various avenues of political participation, Segal et al.'s (2001) results are as follows: one to two

years out of high school, those in the military increased their level of interest in the government and their level of interest was higher than that of their college enrolled peers; for the 1986-1995 time period, those who went into the military had similar voting intentions as those who went to college, but those who neither went to college nor served in the military had a significantly lower intention to vote; men in the classes of 1976-1985 had significantly higher levels of political involvement as measured by a scale that included responses about writing political officials, contributing to campaigns, and working on campaigns than civilians who were not enrolled in college, but were not significantly different than collegians; men in the 1986-1995 time period were no different from their civilian peers, but exhibited lower levels of participation than those who were in college; and finally, no difference in political attitudes was found between the soldiers and the civilian groups.

Equally interested in the effect of military service on multiple avenues of civic engagement, Mettler (2002) sets out to differentiate between the downstream effects of military socialization and the impact of the GI Bill. The main finding is that taking advantage of the GI Bill has an independent positive effect on voluntary membership rates and official forms of political participation. In particular, the GI Bill was instrumental in spurring the civic involvement of veterans who grew up in a household with a low-medium to medium standard of living. Focusing only on turnout, Teigen (2006) takes advantage of the wealth of information contained in the Current Population Study Voter Supplement File for the years 1972 to 2004. Teigen's (2006) finds that veterans are slightly more likely to vote than non-veterans and that within the Veteran

cohort, Vietnam veterans are actually a little less likely to vote than their non-veteran peers.

Another variation in this literature concerns the effect of serving in the military on the political participation of minority groups. Ellison (1992) tests varying rates of political participation amongst African Americans and finds that veterans are no more likely than non-veterans to vote in presidential and local elections. However, combat experience leads to a significant increase in campaign participation versus non-veterans and veteran status in general is related to an increase in contacting public officials.

In the same vein as Ellison (1992), Leal (1999) tailors his exploration of the effect of military service on political participation to the American Latino population. Using logistical regression on data from the 1989-1990 Latino National Political Survey, Leal finds that Latino veterans were more likely to both register to vote and vote in congressional, presidential, and school board elections than their non-veteran peers. With respect to the non-electoral forms of political participation, the estimation produces significant positive results for the relationships between veteran status and signing a petition, attending a rally, wearing a political button, and donating money. Additionally, the author expands the analysis by breaking the veteran respondents into two groups: men who served during years when the draft was in effect and men who served during the AVF. The results from this second model produce significant positive effects of serving during the draft years on attending rallies, signing petitions, wearing political buttons, and voting in congressional, presidential, and school board elections. The effects of serving during the volunteer years were only significant for two variables: volunteers

were more likely to donate money and vote in congressional elections than their non-veteran peers.

Research Design and Data

Evaluations of service programs that recruit participants on a voluntary or a selective basis are particularly susceptible to selection bias. Bachman et al. (1987), Bachman et al. (2000a), and Bachman et al. (2000b) utilize Michigan Monitoring the Future project data to demonstrate the impact of self-selection on the effect of military service at the individual level. Individuals who plan on enlisting and actually do so view the military as an attractive occupation, meet the military specific “quality” requirements, and are less likely to plan on completing college (Bachman et al. 2000a). Veterans are on a whole more likely to come from disadvantaged socioeconomic backgrounds, be from minority racial and ethnic groups, grow up in a non-suburban residence, and come from areas other than the Northeast or Western United States (Bachman et al. 2000a). Additionally, both Bachman et al. (1987) and Bachman et al. (2000b) argue that the majority of findings on various aspects of military socialization are either muted or exacerbated by self-selection into the military.

The scholarship presented in the previous section relies on either cross-sectional or longitudinal data to analyze the effect of military service on the individual. Multiple studies have shown that when confronted with selection bias, non-experimental methods are generally not able to recover the treatment coefficient generated by experimental designs (LaLonde 1986; Heckman et al. 1987; Heckman and Hotz 1989; Franker and

Maynard 1987; Arceneaux et al. 2006; Glazerman et al. 2003). The challenge for research attempting to evaluate the effects of a service program on the individual is to find a way to collect experimental data on service participants. While this problem poses significant difficulties, a handful of studies have been able to exploit service selection rules that produce natural experiments where service participation is as good as randomly assigned (Angrist 1990; Angrist and Krueger 1994; Imbens and van der Klaauw 1995; Angrist and Chen 2007). This paper attempts to overcome the problem of selection bias by taking advantage of the natural experiment afforded by the suspension of the French National Service program to produce a causal analysis of the effect of national service on a range of civic engagement measures.

Although a number of Western democracies have phased out their mandatory national service programs in favor of an AVF in recent years, the suspension of the French National Service program provides a unique opportunity to test the individual level effects of mandatory national service.⁵ France provides the ideal case to study the effects of mandatory national service on program participants for three reasons: the right to French citizenship and conscription eligibility are historically intertwined (Burbaker 1992); France conscripted a relatively large portion of its male population until the mandatory national service requirement for male citizens was suspended (Bastide 1995); and the decision to suspend conscription in France was arbitrary, allowing the use of a regression discontinuity (RD) research design (Boene 2003; Irondelle 2003; Lecomte

⁵ Examples of Western Democracies that recently ended conscription: Netherlands, 1996; France, 1997; Spain, 2001; Portugal, 2004; Hungary, 2004; Italy, 2005; Slovak Republic, 2006; Germany, 2011.

2006).⁶

Data used in this study were generated from a survey that was specifically implemented to take advantage of the RD analysis framework.⁷ This framework makes use of the fact that all French male citizens born prior to January 1, 1979 were subject to conscription and all those born after were not. In order to effectively exploit the policy discontinuity, the survey's target population was restricted to French male citizens born within one year of either side of the January 1st cutoff.⁸ The resulting quasi-experimental design is able to leverage the date-of-birth cutoff value that determines conscription eligibility because as date of birth approaches the cutoff, an individual's birth date becomes uncorrelated with outcome measures by design. Within this framework, as long as conscription eligibility is a deterministic function of an individual's date-of-birth, probability of treatment will be as good as randomly assigned (Hahn et al. 2001). Given that differential probabilities of service are the only source of discontinuity around the date-of-birth cutoff value, this variation in treatment probability can then be used to estimate the treatment effects of national service participation. More specifically, conscription eligibility becomes an instrument for service participation.

⁶ It must be noted, however, that in regard to the assumptions of regression discontinuity analysis, the arbitrary nature of the decision to suspend conscription in France is not dependent on the political process behind the decision, but on the choice of the cutoff value that assigns treatment (Rubin, 1977).⁶

⁷ Regression Discontinuity analysis originated with Thistlethwaite and Campbell (1960). For a history of RD see Cook (2008) and for a guide to practice see Imbens and Lemieux (2007).

⁸ Survey data used in this study were collected in November of 2008 and consist of 1500 randomly selected respondents from the target population (French male citizens born in 1978 and 1979), 750 in each age cohort with a response rate of 80%.

Survey Measures

The survey instrument utilized in this study was designed to capture an individual's level of civic engagement through various measures of participation in civic society.⁹ Civic engagement measures presented in this paper can be organized into five categories: organizational involvement, communal participation, social participation, political participation, and a variety of attitudinal measures.¹⁰

Measures of organizational involvement consist of three variables: *Organizational Involvement*, *Friends in Organizations*, and *Diversity of Organizations*. The variable *Organizational Involvement* is a summed index variable of a series of yes or no questions about whether or not the respondent donated money, held membership status, actively participated, or volunteered time for a given organization during the last twelve months.¹¹ The organizations included in this battery of survey questions consist of the following: a sports club or club for outdoor activities; an organization for cultural or hobby activities; a business, professional or trade organization; an organization for environmental protection, aid, or human or animal rights; a religious organization; a political party; an organization for science, education, or a teachers and parents association; a social club or fraternal organization; and any other type of organization not listed. The resulting

⁹ Many of these questions have been adapted from the European Social Survey and Grootaert et al. (2004). "Measuring Social Capital: An Integrated Questionnaire."

¹⁰ In addition to the possible responses listed below, respondents were allowed to not answer, refuse to answer, or simply respond with "don't know" for all questions across all measures.

¹¹ Indexed variables created by Factor Analytic techniques produced similar IV regression results across all summed variables. Due to ease of interpretation, indexed variables created by simple summation are presented in this paper.

indexed measure is on a scale of 0 to 36 by increments of 1. Respondents received a score of 1 for donating money, 2 for being a member, 3 for actively participating, or 4 for volunteering their time to the organization. Respondent scores ranged from a minimum of zero to a sample maximum of 22.

The Friends in Organizations variable is a direct representation of the follow-up question, “Do you have any personal friends within these organizations?” Respondents were asked to answer yes or no, which were scored 1 and 0 respectively. Likewise, the Diversity of Organization variable is the summation of two follow-up questions to the organizational involvement measure. The first asks if members that compose one or more of the aforementioned organizations that a respondent participates in are from different social backgrounds and the second asks if they are from different ethnic backgrounds. In each of the diversity questions, the respondents could respond with yes (1) or no (0) answers creating an index variable that takes on values from 0 to 2 in increments of 1.

The second category of measures is concerned with communal participation and is relatively straightforward. Respondents were asked whether or not they have participated in work that was specifically for the benefit of the community in the last twelve months? Next, respondents were asked whether or not they would contribute time to a community project that did not directly benefit themselves? For each of these questions, the proctor requested that respondents give yes or no answers generating binary variables that take the values of 0 (no) or 1 (yes).

The third set of measures seeks to gauge the respondents’ social participation. The first variable in this group is derived from the direct representation of the responses

to the question, “How many times have you got together with people in the past two weeks for food and drinks?” Respondents could answer from 0 to 5+ creating a scale from 0 to 5 with increments of 1. The second variable in the social participation measure category, *Diversity of Social Friends*, is a summation of whether or not any of the people who the respondent had met for food or drinks in the two weeks preceding the survey were from a different linguistic background, a different social status, a different economic status, or from a different religious group. Each of these questions allowed yes (1) or no (0) answers creating an index variable that ranges from 0 to 4 in increments of 1.

Measures of political participation can be divided into two sub-categories, voting and non-voting forms of political participation. Non-voting political participation measures consist of two index variables, *Political Work* and *Societal Political Participation*. The Political Work variable is an index derived from whether or not the respondent had either worked on a political campaign or worked in a political organization during the twelve months prior to the survey. Answers to each of these questions were either yes (1) or no (0) producing a summed index variable that consists of values from 0 to 2 in increments of 1. The Societal Political Participation variable is an index of questions that consists of whether or not the respondent had contacted a politician or a local government official, worn or displayed a badge or sticker, signed a petition, attended a lawful public demonstration, boycotted a product, donated money to a political organization, or participated in political activities over the internet during the last twelve months. This index takes on values from 0 to 7 in increments of 1.

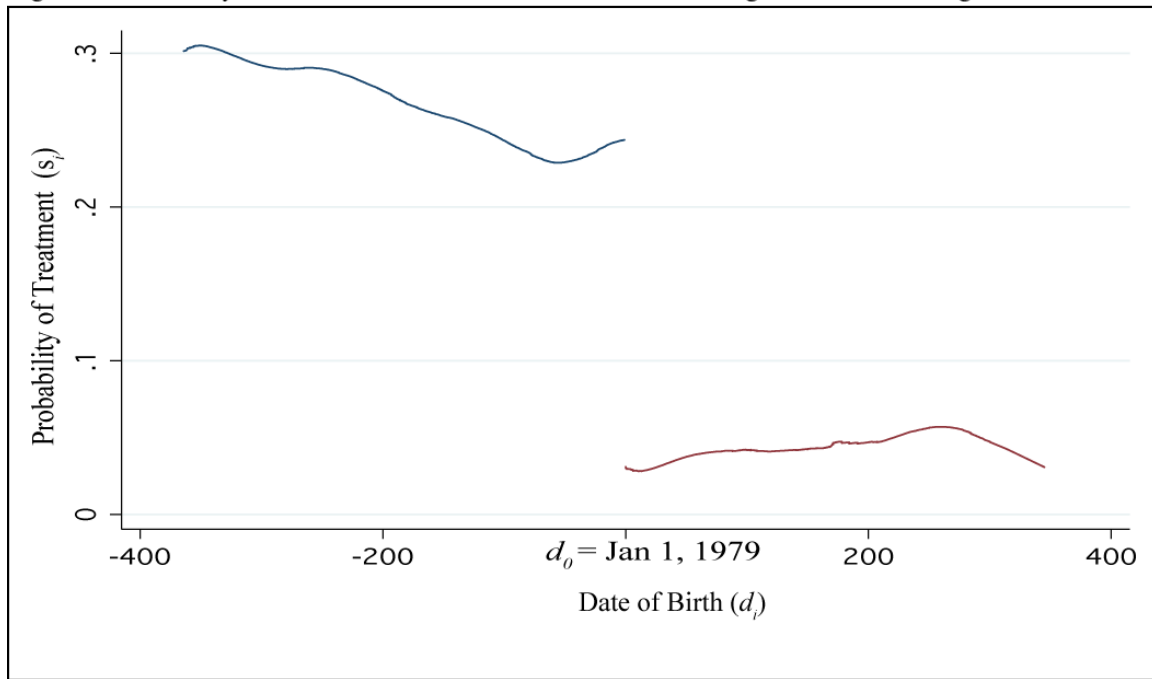
The final category of survey questions presented in this paper consists of a variety of attitudinal measures about the relative importance of various actions to the

respondent's conception of what it means to be a good citizen. In regards to being a good citizen, respondents were asked if they thought it was not important (0), somewhat important (1), or very important (2) for a person to: always obey laws and regulations; vote in elections; form his or her own opinion; be open to new ideas; be active in politics; support people who are worse off than themselves; report a crime that he or she may have witnessed; and serve in the military when the country is at war. Each of these questions is considered independently and takes on values from 0 to 2 in increments of 1.

Estimation and Results

The RD analysis research design circumvents the problems posed by the exclusion of unobserved covariates by taking advantage of a policy discontinuity to simulate random assignment. Since the research design articulated above relies upon the discontinuity of treatment *probability* conditional on an individual's date of birth, the effect of service participation on the individual is analyzed as a Fuzzy RD. Under the nonparametric version of Fuzzy RD, the conditional covariate (date of birth) becomes an instrumental variable for treatment status (Angrist et al. 1996; Hahn et al. 2001; Angrist and Pischke 2009). As estimated below, Fuzzy RD constrained to a one year interval around the cutoff value is equivalent to using Instrumental Variables (IV) estimation where the instrument is a dummy variable for whether an individual was born in 1978 (1) or 1979 (0).

Figure 1: Probability of treatment as a function of date of birth using Lowess smoothing



IV estimation in this paper is carried out using Two Stage Least Squares (2SLS). The first stage of the IV regression is represented by equation (1) where s_i is a dummy variable indicating person i 's participation in the French National Service program, z_i is a year of birth dummy that serves as an instrument for service participation, and ε_i is the residual.

$$s_i = \delta + \pi z_i + \varepsilon_i. \quad (1)$$

The second stage (reduced form) is constructed by substituting the fitted values of s_i into the causal regression model:

$$Y_i = \alpha + \rho s_i + \eta_i. \quad (2)$$

If the IV identification assumptions hold—that z_i is correlated with s_i , that z_i is uncorrelated with ε_i , that z_i affects Y_i only through s_i , and that z_i only affects s_i in one direction—then the population parameter of interest (ρ) will produce consistent estimates of the effect of an individual’s participation in mandatory national service (s_i) on a range of civic engagement measures (Y_i). This population parameter (ρ) can be interpreted as the Local Average Treatment Effect (LATE)—the effect of national service participation on those who were compelled to serve through conscription, but would not have participated otherwise (Imbens and Angrist 1994).¹² Using the vocabulary of LATE, these individuals are designated as “compliers” and will be referred to as “conscripts” for the remainder of this discussion.

¹² A brief explanation of the IV identification assumptions is in order. The first assumption, z_i is correlated with s_i , states that there exists a first stage relationship between year of birth and probability of service (see Table 1). The independence assumption, z_i is uncorrelated with ε_i , states that the instrument is a good as randomly assigned. In the case under consideration, the independence assumption holds so long as the date of birth cutoff was not determined by some reason related to inherent characteristics of the 1979 cohort. The exclusion restriction, z_i affects Y_i only through s_i , holds so long as French men born in 1978 do not differ from French men born in 1979 in some other way than having an increased probability of being conscripted. Finally, the monotonicity assumption, z_i only affects s_i in one direction, is satisfied as long as the probability of being conscripted is always higher for men born in 1978 than men born in 1979 (see Figure 1). For a more detailed explanation of the IV identification assumptions see Angrist and Pischke (2009).

Table 1: First Stage Regression

	Coefficient	Standard Error	P > t	F Statistic
z_i	-0.227	0.017	0.000	159
constant	0.271	0.012	0.000	

Table 1 reports the results for the first stage regression, which is consistent across all IV regressions described in this section. The value of z_i 's coefficient demonstrates that there is an 80 percentage point drop in probability of service as year of birth moves from 1978 (1) to 1979 (0). This relationship is indicative of the fact there were a small number of volunteers from the 1979 cohort even though they were not subject to conscription. The only first stage value that varies substantially between regressions is the F statistic, which changes in relation to the significance in the difference from zero of the first stage coefficient of the instrument (z_i). As it pertains to this data set, the variation in the F statistic can be attributed to differences in the number of observations across outcome variables. The number of observations for outcome variables may be different because some questions were asked as follow up questions only if respondents gave a particular answer to the previous question. It is important to note that for all results presented below, the F statistics are far larger than the threshold value of $F > 10$.¹³

¹³ F Statistics represent the strength of the relationship between the instrument and the dependent variable in the first stage. F Statistics above 10 generally indicate strong instruments (Staiger and Stock, 1997).

Table 2: Organizational Involvement Measures

	IV Coefficient	Standard Error	F Statistic	n
Organizational Involvement	-0.22	0.63	159	1492
Friends in Organizations	-0.14	0.14	92	932
Diversity of Organizations	-0.14	0.21	88.25	888

Instrumental Variables coefficients were calculated with robust standard errors.
 F Statistics are a measurement of instrument strength in the first stage.

As described in the previous section, the Organizational Involvement variable is constructed from a summation of questions inquiring about the respondent's involvement in various organizations. In addition to level of involvement, follow up questions were asked about whether or not the respondents had friends in the organizations and if in general the members of these organizations were from different ethnic or social backgrounds. As shown in Table 2, the level of Organizational Involvement for the conscripts is not statistically different from those who were not subject to conscription. Similarly, there is no difference between the conscripts and the control group with respect to having friends within the organizations and the diversity of the members of these groups.

Table 3: Communal and Social Participation Measures

	IV Coefficient	Standard Error	F Statistic	n
Participated in Comunal Work?	-0.13*	0.08	161	1497
Would you contribute time to a communal project that did not directly benefit you?	0.17*	0.10	154	1468
How many times have you got together with people in the past two weeks for food and drinks?	-0.60	0.38	160	1495
Diversity of Social Friends	-0.20	0.35	160	1498

Instrumental Variables coefficients were calculated with robust standard errors.

F Statistics are a measurement of instrument strength in the first stage.

* significant at the 0.10 level

Communal participation was measured by asking the respondents whether or not they had participated in work to benefit the community during the last year. Conscripts were 13 percentage points less likely to report having done so, but were nearly 18 percentage points more likely than the control group to report that they would be willing to contribute time to a community project that did not directly benefit themselves.¹⁴ In contrast, being conscripted into the national service program did not produce significant differences between the two groups in the measures of social participation or in the measures of non-voting political participation (Political Work and Societal Political Participation).

¹⁴ These results are significant at the 0.10 level.

Table 4: Political Participation Measures

	IV Coefficient	Standard Error	F Statistic	n
Political Work	-0.03	0.04	159	1492
Societal Political Participation	-0.25	0.24	158	1489
Voted in First Round of the Previous Presidential election?	-0.13	0.08	163	1496
Voted in Second Round of the Previous Presidential election?	-0.16*	0.08	163	1495
Voted in the last local election	0.02	0.10	160	1492

Instrumental Variables coefficients were calculated with robust standard errors.

F Statistics are a measurement of instrument strength in the first stage.

* significant at the 0.10 level

The two groups did not vote at significantly different rates in the local elections or in the first round of the presidential election that preceded the survey's implementation. However, conscripts were 16 percentage points less likely to have reported voting in the second round of the presidential election than the control group.

Table 5: Attitudinal Measures

To be a good citizen, how important would you say it is for a person to...				
	IV Coefficient	Standard Error	F Statistic	n
Always obey laws and regulations?	0.22	0.14	160	1490
Vote in Elections?	-0.03	0.13	163	1494
Form his or her own opinion?	0.04	0.12	162	1494
Be open to new ideas?	-0.15	0.13	156	1485
Be active in politics?	-0.05	0.13	158	1486
Support people who are worse off than themselves?	0.09	0.12	161	1490
Report a crime that he or she may have witnessed?	-0.07	0.09	164	1485
For men to serve in the military when the country is at war?	0.07	0.15	164	1465

Possible responses were not important (0), somewhat important (1), very important (2)
 Instrumental Variables coefficients were calculated with robust standard errors.
 F Statistics are a measurement of instrument strength in the first stage.

Attitudinal measures of the respondents' views of what it means to be a good citizen are shown in Table 5. For these measures, there are no significant differences between conscripts and the control group. Interestingly enough, there was no difference between the groups on their respective attitudes toward the importance of military service when the country is at war. Both groups agreed that it is "somewhat important."

Discussion

The natural experiment created by the abrupt suspension of the French national service program is able to account for the selection problems inherent in evaluating the effect of service participation on civic engagement. While the program under question is termed “national” because it includes both military and non-military forms of service, the results presented in this paper are also valid for estimates of the effect of military service on the individual due to the fact that the overwhelming majority of participants in the French national service program were called to serve in the military. Contrary to the findings of increased rates of voting among United States veterans by Leal (1999), Segal et al. (2001), and Teigen (2006), participation in the French national service program led to a reduced rate of voting amongst conscripts in the second round of the preceding presidential election and no significant difference between the conscripts and the control group in the first round of presidential elections or the preceding local elections. Similarly, where Ellison (1992), Leal (1999), and Segal et al. (2001) found an increased level of political involvement amongst those who enlisted versus the comparable civilian population, the analysis in this paper produces no significant differences.

In their study of military academies as instruments of value change, Stevens et al. (1994) find that cadets’ value strength of benevolence weakened by the time they graduated. This result is at odds with the natural experiment’s indication that conscripts are more likely to be willing to participate in communal work when it does not directly benefit themselves than are non-conscripts. Campbell and McCormack (1957) and Roghmann and Sodeur’s (1972) results that participation in military service leads to a

decrease in authoritarian tendencies are not supported by the non-significant differences between the conscripts' and non-conscripts' attitudes toward the importance of someone forming their own opinion or being open to new ideas. Conversely, these results do confirm Lippert et al.'s (1978) finding that participation in service does not lead to an increase in authoritarianism.

With regard to community involvement, the results presented in this paper are mixed. This paper's findings that conscripts' level of organizational involvement is not significantly different from non-conscripts' and that conscripts are less likely to report participating in communal work than non-conscripts run counter to Jennings and Markus's (1976) finding that veteran status lead to increased communal involvement. However, the finding that conscripts are more likely to report that they would contribute time to a communal project that did not directly benefit themselves is in line with Lippert et al.'s (1978) finding that military service leads to an increase in societal integration. Additionally, Jennings and Markus's (1977) finding that veterans express less political cynicism than non-veterans seems to be contradicted by the product of this analysis, which indicates that veterans vote at either an equal or lesser rate than non-veterans.

Attitudes toward other races or ethnicities were not tested by the survey instrument utilized in this study, nor were the effects of military service on veteran's incarceration rates or post-service violence. The only questions that approach this subject are those that asked about the diversity of a respondent's social friends or organizational groups. The results from these questions are consistent with Lawrence and Kane's

(1995) finding that there is little to no difference between veterans' and non-veterans' rate of personal interaction with other ethnic groups.¹⁵

The ability of national service to function as civic education is largely defined by the way the concept of civic education is understood. The Sociologist Moris Janowitz defines civic education as “exposing students to central and political traditions of the nation, teaching essential knowledge about the organization and operation of modern governmental institutions, and fashioning the identification and moral sentiments required for performance as effective citizens” (Janowitz 1983, 194). In general, the outcome measures of effective citizenship are measured in terms of an individual's relative level (quantity) of civic engagement. It is not clear, however, that quantity of engagement is the same as effective citizenship. Even if relative level of engagement is an accurate barometer of civic education, there are numerous factors that can reduce the amount of time an individual has to allocate toward civic participation that are unrelated to an individual's civic predisposition. It has been argued that such factors as suburbanization/sprawl and increased work intensity lead to a reduction in overall levels of societal engagement.¹⁶ Additionally, the number of children an individual has and

¹⁵ This result is derived from the lack of significant statistical difference between groups in the Diversity of Organizations variable and the Diversity of Social Friends variable.

¹⁶ Putnam (2000) argues that there are four main factors that lead to the decline of civic engagement: generational change, amount of time spent watching television, suburbanization/sprawl, and increased work intensity (both commute time and relative probability of having an opportunity to participate due to proximity of location are covered under suburbanization/sprawl). Generational change is not relevant to this study and television is not included in this discussion because it is essentially a substitute for civic engagement, not a direct cause of its decline. Putnam admits that due to lack of experimental evidence, it is not known if people actively choose to watch television over participating in civic activities or if people watch television because they are civically disengaged.

whether or not an individual's spouse works might have an effect on the time available for pursuing various avenues of civic engagement. One could contend that these factors should be included in the Instrumental Variables estimation as controls. However, including covariates' in an IV estimation means that the covariate will need to be included in both the first and second stages (Angrist and Pischke 2009). Including covariates in IV estimation is done to help insure that the instrumental variable is as good as randomly assigned. In other words, one should only include a covariate in the IV estimation above if the independence (z_i is uncorrelated with ϵ_i) of date of birth is conditional on the inclusion of that particular covariate. Since the independence of date of birth is not conditional on any of these competing factors, they are unable to be included as controls because they have no bearing on the randomization of the instrument.

In order to understand how the conscripts and non-conscripts fare in regard to these competing factors, random subsamples of the survey respondents were asked an additional battery of questions. Due to cost constraints, these questions were asked in sets of three to random subsamples of approximately five hundred survey respondents at the end of the full survey instrument. Given that the natural experiment failed to produce significant differences between conscripts and non-conscripts across many of the traditional measures of civic engagement, if there are differences between the groups with regard to these competing factors in a direction that indicates conscripts should participate less than non-conscripts, one could argue that the results of the natural

experiment are biased downward when it comes to the conscripts' overall level of participation.

Table 6: Competing Factors for Time Allocation

	IV Coefficient	Standard Error	F Statistic	n
Hours Worked	-0.66	0.41	39	499
Commute Time	0.46	0.51	35	488
Number of Children	0.78***	0.30	83	498
Hours Worked by Partner	-0.60	0.68	43	265

Instrumental Variables coefficients were calculated with robust standard errors.

F Statistics are a measurement of instrument strength in the first stage.

*** significant at the 0.01 level

Estimation of the variables that compete for an individual's time allocation is carried out using the same IV framework described in the estimation section above. The results of the IV estimation are presented in Table 6. *Hours Worked* is measured on a scale of 0 to 50+ in increments of 10. *Commute Time* is measured on a scale of 0 to 80+ minutes in increments of 20. The respondent's *Number of Children* is measured on a scale of 0 to 3+ and *Hours Worked by Partner* or spouse is measured on a scale of 0 to 50+ in increments of 10.

Of the results presented in Table 6, only those related to the Number of Children variable are significant. Conscripts are likely to have 0.78 more children than non-conscripts and this result is significant at the 0.01 level. If the Number of Children

variable is recoded into a dummy variable where 1 indicates that the respondent has at least one child and 0 indicates that they do not have any children, conscripts are 44 percentage points more likely to have children than non-conscripts.¹⁷ This result is interesting because one could imagine that if participation rate is a function of free time, free time that was once allocated to associational participation or social outings is repurposed towards the needs of the children. Thus, having more children and being more likely to have children in general might bias the natural experiment's estimates of the organizational, political, communal, and social participation measures downward for conscripts.

While these results may be an artifact of the French system, most of the national service programs that recently existed in Western Democracies share many of the same characteristics. Once again, it must be noted that these results are specific to conscripts that are not allowed to serve in combat outside of their home country. This study does not evaluate the effectiveness of combat as a form of civic education, nor does it evaluate military service as an affirmation of citizenship for minorities or disadvantaged groups. Similarly, this study cannot speak to the effect of participation in national service on women, as they were not called on to serve in the French program. What it does provide, is a causal examination of the relationship between participation in mandatory national service and a range of civic engagement indicators that is free of the self-selection bias inherent in evaluating program participation.

¹⁷ This result is significant at the 0.01 level.

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