National Service as Civic Education?*

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Abstract

Historically, conscription has been the preferred method of manpower recruitment for democratic and non-democratic regimes alike. Many modern Western democracies have relied on national service to provide their citizens with a sense of solidarity and nationhood, traits that are thought to be essential to the preservation of a healthy democracy. Yet, 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, I take advantage of the natural experiment afforded by the termination of the French national service program to produce unbiased causal analyses of the effect of national service on a range of civic engagement measures. Implementation of the natural experiment consisted of an original national survey of the last cohort of French citizens to be conscripted and the first cohort that was no longer subject to conscription. The results of the natural experiment indicate that conscription does indeed socialize individuals in a number of important ways. However, the degree to which mandatory national service can be considered a desirable form of civic education depends on the relative normative importance that one assigns to such measures of civic engagement as voting, good will towards others, communal participation, and respect for the rule of law.

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Historically, mandatory national service programs are considered to be powerful forms of civic education. Dating back to Hellenic democracies, military service and the right to citizenship have been intrinsically linked. Many modern Western democracies have relied on national service to provide their citizens with a sense of solidarity and nationhood, traits that are thought to be essential to the preservation of a healthy democracy.[1] Studies that seek to test the externalities associated with participation in national service cite beneficial relationships that are strikingly similar to the opportunities or character traits believed to encourage civic engagement.[2] Additionally, national service is thought to allow participants to broaden their interactions and experiences while providing a bridging environment from adolescence into adulthood.[3]

However, not all scholars agree that participation in a national service program results in beneficial downstream socialization effects on the individual. It has been argued that conscripting young people, thereby removing them from their life trajectories against their will, can cause feelings of resentment against government and detachment from civic society.[4] In the extreme case, it has also been argued that combat training may lead to an increased likelihood of violent response to situations of conflict in civilian life.

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[1] Even the pacifist philosopher William James thought soldiering brought out the best qualities of social man. He writes, "Martial virtues must be the enduring cement; intrepidity, contempt of softness, surrender of private interest, obedience to command, must still remain the rock upon which states are built." (James 1910)

[2] Numerous works have cited beneficial effects of national service on civic engagement. These include, but are not limited to: increased level of interest in government and overall political involvement in people who enlisted in the military vs. those who did not and did not go to college (Segal et. al., 2001); increased voting turnout (Teigen 2006, Segal et. al. 2001); reduced risk of violence for minorities (Bouffard 2005); a lower overall rate of incarceration (Greenberg, Rosenheck and Desai, 2007), increased national pride and identification **(**Janowitz 1983, Whiteley 1999).

[3] Elder et. al. (1998)

[4] President's Commission on an All Volunteer Force (1970)

Moreover, if a national service program is not universal, conscripts may view their service as a result of bad luck and not as an opportunity to serve their country.[5]

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 in this paper, is characterized by the participation of citizens or potential citizens in an official state service program. In general, the majority of participants in these programs are called to serve as conscripts in the military. However, for those who wish to pursue alternate avenues of service, there also exists non-military (civilian) options of service. Previous studies that have sought to illuminate the socialization effects of participation in national or military service largely suffer from the self-selection bias that comes with studying voluntary service programs, the All-Volunteer-Force (AVF), or comparing veterans with non-veterans in the general population.[6] The research presented in this paper attempts to solve this problem by utilizing regression discontinuity analysis to create a natural experiment 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.

Section I examines the socialization literature and why one would expect to national service to have a socializing effect on participants. Section II describes the research design and how it can be used to uncover the treatment effect associated with participation in national service. Section III explains why France presents a good case

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[5] Cohen (1985, 68)
[6] Bachman et. al (1987), Hammill et al. (1995)

for studying mandatory national service and how the termination of its national service program meets the assumptions of regression discontinuity analysis. Section IV provides background information on conscription in France and the data collected for this analysis. Section V presents the Instrumental Variables estimation strategy. Section VI details the survey measures used in the analysis and how the variables were constructed. Section VII presents the results of the Instrumental Variables regressions and Section VIII ends with a discussion.

I. National Service and Socialization

Proponents of mandatory national service often romanticize the citizen-soldier as the selfless defender of the republic from tyranny and oppression. In direct contrast, opponents claim that the military is a purveyor of violence and loose morals. Indeed, the debate surrounding socialization process of military service is generally centered on whether the results of socialization are beneficial or detrimental, not on whether there is any actual long-term socializing effect on the individual. A more thorough investigation into the various potential avenues of socialization is in order to understand how participation in national service might function as a conduit for civic education. Borrowing from the socialization literature, this paper details four mechanisms through which national service programs may affect participants: timing, separation, isolation, and in the military case, a highly disciplined environment and the accompanying martial value system.

While there is debate over attitudinal stability with regard to duration and type, there is a general consensus that the time around the transition to adulthood is a

particularly formative period in an individual's life.[7] Perhaps most prominent among the competing hypothesis for attitudinal stability over the life cycle is the impressionable years hypothesis. The impressionable years hypothesis states that attitude instability is highest between the ages of eighteen and twenty-five.[8] Since participation in national service programs nearly always occurs during this period of life, if this hypothesis is correct, one would expect participants to be especially susceptible to the socializing experiences provided by their time in service.[9]

The second potential mechanism through which national service programs socialize participants is separation from the participant's familiar relations and surroundings. A participant's induction into such a program is usually the first time that the participant is separated from his parents or away from his hometown for an extended period of time. This corresponds with the timing element in that separation is generally the first time that young adults are free to make their own choices and exercise their ability to participate in the political process.[10] In terms of national service, but more specifically in terms of military service, this separation is paired with isolation from existing social networks and civilian society in general.[11] Since all participants are isolated from familiar social ties, it is thought that any resulting shared socialization experiences will create strong normative bonds among the new soldiers.[12]

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[7] See Visser and Krosnick (1998)
[8] Sears (1975); Alwin et. al. (1991); Krosnick and Alwin (1989); Sears and Funk (1996)
[9] Elder et. al. (1998)
[10] Niemi and Sobiezek (1977)
[11] While not all of the mechanisms can be said to affect individuals equally across differing forms of service, those that are a product of military service carry disproportionate weight due to the fact that the majority of participants in mandatory national service programs are called to serve in the military.
[12] Franke (2000)

The final and possibly the most powerful potential socialization mechanism advanced in this paper is the highly disciplined environment and subsequent martial values which participants are exposed to during military service. The rigidity of the chain of command, the emphasis of the collective over the individual, and the extreme discipline that is needed for unit cohesion in battle have been argued to generate a very distinctive set of values. This system of values has been termed the "professional military ethic" and has been thought to be the basis of military subordination to civilian leaders in democracy.[13] In his seminal work on civil-military relations, Samuel Huntington observed:

> "Both because it is his duty to serve society as a whole and because of the nature of the means which he employs to carry out his duty, the military man emphasizes the importance of the group as against the individual. Success in any activity requires the subordination of the will of the individual to the will of the group. Tradition, *esprit*, unity, community – these rate high in the military value system. The officer submerges his personal interests and desires to what is necessary for the good of the service."[14]

The "professional military ethic" is not to be confused with violence or combat experience. While exposure to either violence or combat experience may have a profound affect on the participant, these potential mechanisms are distinct from the

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[13] Huntington (1957), Janowitz (1960): These books provide competing theories of profesionalization but both hinge civilian control of the military on the professional ethic of the soldier.

[14] Huntington (1957, 63)

military ethic and not necessary for the socialization of the participant.[15] Indeed, these experiences are left out of the socialization discussion because in nearly all of the mandatory national service programs that were operational in Western democracies during the last quarter of the 20th century, conscripts could only be mobilized for defense of the homeland and were unlikely to experience combat or combat related violence. Thus, from the proceeding discussion, one can see why it is generally accepted that national service programs are powerful agents of socialization and why participation in these programs may have an impact on an individual's propensity for civic engagement. What remains to be determined is the degree to which these programs affect the individuals who pass through them.

II. Research Design

The research design employed in this paper is motivated by the biases inherent in studying the socialization affects of voluntary service programs. In order to produce unbiased estimates of the effect of national service on its participants, one needs to examine service programs where the determinate of participation mimics assignment to treatment in a randomized experiment. Among some Western democracies, conscription as a form of manpower recruitment has been terminated in favor of an all-volunteer force structure. Given the existence of an abrupt termination, regression discontinuity analysis provides the ideal framework with which to examine the treatment effect of national

[15] Janowitz (1983)

service on an individual's propensity for civic engagement.[16] This quasi-experimental design is useful when applied to situations where treatment assignment is determined by an individual's position on a continuum in relation to a cutoff value. With respect to service programs, this identification assumption is met when recruitment is based on some sort of arbitrary rule that determines the likelihood of participation.

The case presented in this paper fits within the regression discontinuity analysis framework in that probability of treatment is determined by an individual's birth date relative to a January 1, 1979 cutoff value. All male citizens born prior to Jan 1, 1979 were subject to conscription and all those born after were not. This arbitrary cutoff generates a natural experiment because as date of birth approaches the cutoff value, an individual's birth date becomes uncorrelated with the outcome measures by design. As long as conscription eligibility is a deterministic function of date of birth, probability of treatment becomes as good as randomly assigned.[17] The counterfactual presented in this paper is that if conscription eligibility were not determined by a January 1st cutoff, then individuals who were born immediately after this date would have faced nearly identical probabilities of conscription of those born just before the cutoff. This variation can be used to generate the treatment effect of participation in national service on a range of civic engagement measures as long as differential probabilities of service are the only source of discontinuity around the cutoff value.

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

[17] Hahn et al. (2001)

III. Why France?

Of the limited number of western democracies that recently ended their mandatory national service programs,[18] France presents the best case to explore the causal relationship between national service and civic engagement. It does so for three reasons: it has a long history linking conscription to citizenship; the decision to end its mandatory service program was arbitrary thereby allowing the use of a regression discontinuity analysis motivated research design; and until the time of the transition to a professional army, it still conscripted a relatively large portion of its population.[19] The French history of conscription dates back to the very roots of its democracy. In dire need of men to fill out the military ranks, a decree was issued on February 24, 1793 stating that all men between the ages of 18 and 40 years old would be liable for military service. This large scale conscription, which became known as the "levée en masse," produced 300,000 new soldiers for the French army. Five years later, the *loi Jourdan* would codify this decree into law in 1798. During the next century, France experimented with various forms military recruitment. In 1905 France settled on what would be the basis of its military manpower policy for the duration of the 20th century, Le Service Militaire. However, during 1963 the first alternate form of service, the service of drafted scientists, was added as an option for qualified conscripts. While the policy of conscription that drove Le Service Militaire continued to be the main form of military manpower recruitment until last conscript completed his military service in 2001, the addition and expansion of non-

[18] Examples of Western Democracies that recently ended conscription: Netherlands, 1996; France, 1997; Spain, 2001; Portugal, 2004; Hungary, 2004; Italy, 2005; Slovak Republic, 2006.
[19] Bastide (1995)

military forms of service as alternatives to military service would lead to the creation of the more expansive notion of Le Service National.

The arbitrary nature of the decision to end mandatory national service in France with regard to the assumptions of regression discontinuity analysis rests on the choice of the cutoff value that assigns treatment, not the politics behind the decision. However, the French decision to end mandatory national service can also be considered arbitrary in that it was not taken to reflect overwhelming public opinion against the continuation of national service nor was it a result of actions taken by the elite designed to remove national service as the main avenue of military manpower procurement. The politics behind the decision are worth examining in that non-arbitrary circumstances surrounding the death of conscription may influence our interpretation of what it means to participate in mandatory national service. This is important because one could imagine that if a majority of the public was against the continuation of national service policy as it stood, that the effects of service would be influenced in some way by general negative feelings toward service. Additionally, if the elites, particularly the military brass, were not in favor of a conscript army, then one could imagine that they might have an incentive to institute policies within the armed services that were to the detriment of the conscripts and the institution of conscription. For instance, commanders might have an incentive to neglect conscript training or conscript barrack life in order to breed resentment or foster lack of discipline. They may do this to demonstrate the incompetency of the conscript model and provide leverage for the transition to an AVF. If such were the case, one could infer that these actions might have a profound effect on the conscript experience and may bias our examination of national service as civic education.

Obligatory national service legally came to an end in France in 1997 with the last conscript leaving the military in 2001. Yet, until the public announcement was made in February, 1996 that France would be transitioning to an AVF, mandatory national service was still equated with the republican ideals of citizenship and solidarity in the French national psyche. For example, in a national survey conducted in 1991, 61% of the respondents thought that national service provided an enriching experience for the inductees.[20] Similarly, in a Louis Harris poll conducted in June of 1994, 67% of the people contacted thought that national service was generally useful and 60% had favorable attitudes towards the duration of service against 22% for shortening the duration and only 16% for its outright termination.[21] To illustrate the general acceptance of mandatory national service as a right of passage, it has been estimated that in total during the time leading up to the end of conscription, only about 25 to 30% of young men were hostile to the principle of national service. Conversely, about 30% of young men manifested a strong attachment to the principles of military service.[22] Thus, even those who were most susceptible to conscription were not particularly in favor of ending it. The attitude of the nation at the time could generally be stated as for the prestige and professionalism associated with an AVF, but against ending conscription to achieve it.

[20] Theiblemont (1997,35)
[21] Theiblemont (1996, 26)
[22] Theiblemont (1997, 29)

Table 1: French Public Opinion of National Service

1. Are you entirely favorable, somewhat favorable, somewhat unfavorable, or entirely unfavorable towards the principle of national service?

2. In general, is national service very useful, somewhat useful, somewhat not useful, or entirely not useful for the defense of the country?

	1-BVA/Sid 1991		2-Louis Harris 1994	
	% Favorable	Not Favorable	Useful	Not Useful
Total	68	29	67	32
15-17 yrs			64	32
18-24 yrs			51	48
Less than 25	64	35		
25-34 yrs	60	39	63	37
35-49 yrs	65	32	56	44
50-64 yrs	74	21	77	32
65+	78	17	87	12

This table is adapted from Theiblemont (1997)

The general mood of the elite towards mandatory national service can be summed up in the defense White Paper of 1994. Prepared by the Defense community as an evaluation of French defense strategy, the report argued that conscription played a vital role in fostering solidarity and creating a French national identity. It proposed that conscription be maintained until at least 2015 and advocated the expansion of the non-military components of the national service program.[23] Furthermore, during the period before the transition to an AVF, military leaders opposed disbanding mandatory service on both normative and cost based grounds. They felt that in addition to the quality

[23] Livre Blanc (1994)

recruits provided by conscription, the transition to an all-volunteer force would be discarding a highly symbolic tradition.[24]

Given the direct opposition of the elites and the slight opposition of the general population to the institution of an AVF, the question remains as to why France ultimately transitioned away from mandatory national service? While France's transition to an AVF was no doubt the product of many factors, it seems there was none more important than the pro-voluntary disposition of the new president, Jacques Chirac.[25] Upon entering office, Chirac commissioned the defense ministry to conduct a report on the feasibility of converting the military to an AVF. When the committee handed him a report that rejected a professional army due its potential cost and difficulty of recruitment, Chirac dismissed the report and unilaterally ordered a plan detailing the transition to an AVF.[26] On February 22, 1996 President Chirac appeared before the nation in a prime-time televised address and announced that France's military would be transitioned to an AVF by 2002. This announcement was so dramatic that it apparently took the defense minister by surprise.[27] Hence, Chirac used his power as the commander-in-chief to impose his desire for a professional army on the ministry of defense. A little over a year later on October 28, 1997 the French government passed a law that would end conscription for all men born after January 1, 1979. Men born before this date would fulfill their service as planned and the military would be transitioned to an AVF by 2002.

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[24] Boene (2003, 103)
[25] Boene (2003), Irondelle (2003), Lecomte (2006)
[26] Irondelle (2003)
[27] Boone (2003, 101)

IV. Background and Data

In principle, all men who were born before January 1, 1979 were subject to conscription. In practice however, a number of people were exempted for medical, administrative, or aptitudinal reasons. Furthermore, if a potential conscript could demonstrate particular hardships such has caring for a dependent or status as a sole provider they may be granted exemption from service. For the 1994 cohort, 19% were give medical exemptions, 4% were exempted on administrative grounds, and around 10% received individual exemptions. Despite the fact that around 30% of any given cohort would not serve, France had a relatively stable exemption rate and one of the lowest rates of any NATO country.[28] After the announcement that the military would transition to an AVF, exemption rates became much higher. The administration was at once trying to downsize the force and absorb new conscripts both from the current cohort and those that received deferments from previous cohorts.[29] This system proved to be unfeasible and as the timetable for professionalization drew near, a number of conscripts who could not be absorbed were exempted outright.

In order to overcome any potential bias related to the exemption system or any other unobservables, data for this study was collected specifically to facilitate the use of regression discontinuity analysis. The value of the regression discontinuity design comes from the variation in treatment induced by a cutoff value along the continuum of some covariate, which in this case is date of birth. Given the research design, it is necessary for the respondents' date of birth to be in close proximity to the cutoff value. However, it is

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[28] Bastide (1995)

[29] Boene (2003), A large portion of any given cohort was allowed education deferments. In general up until the transition to an AVF took place, these individuals would still be responsible for fulfilling their national service responsibilities**.**

also important to generate a sample size large enough to provide the analysis with statistical power. To meet these demands, survey respondents were over-sampled on either side of the cutoff value creating a sample bandwidth of two years, one year on either side of January 1st cutoff.

Table 2: Types of Service

Military	Under Dept. of Defense*	Civilian
Armee de Terre	La DGA ou DCN	Le Service de la Cooperation
Armee de Air	Les Services Communs	Le Service de l'aide Technique
Armee de Marine	L'Administration Central	Le Service dans la Police Nationale
Gendarmerie	Les Services Divers	Le Service de Security Civil
	Les Protocoles Interministeriels	Le Service des objecteurs de Conscience
	Les Scientifiques du Contngent	L'Objection de Conscience
	Les Gendarmes Auxiliaires	
	Les Service Militaire Adapte (SMA)	
	Les Unites Militaires De La Securite Civile	

*These are generally civilian forms of service, but housed under the dept. of defense

Survey data used in this study were collected in November of 2008. The target population was French male citizens born in 1978 and 1979. The survey included 1500 randomly selected respondents from the target population, 750 in each age cohort. The survey was conducted through telephone interviews by a private research company, GFK Custom Research France. The survey instrument was presented to the respondents as an academic study of civic engagement. It consisted of a battery of questions commonly used as social capital measures that are intended to gauge levels of organizational

involvement, communal participation, social participation, political involvement, political ideology, and a variety of attitudinal measures concerning the respondents' idea of citizenship.[30] The survey is thought to representative of the target population in that sample vs. population comparisons across key indicators are nearly identical.

Table 3: Sample vs Men Age 25 to 29 in 2006

	Sample	Age 25-29 (Actual)
% Voting in Presidental Election	85.85	about 87%
Average Income	between 20 and 30k	28,417

Note: Individuals in the Sample were age 27-28 durring 2006

Table 4: Comparison of sample allocation of service to 1998 induction statistics

	% 1998 actual	Sample
Terre	54.7	55.36
Air	10.6	11.16
Marine	8.8	8.58
Gendarmerie	7.2	15.88
Services de Sante	2.1	0
Protocoles	3.6	0
Forms Civils	13.3	8.01

Note: Individuals in the smaple could have served any time between 1996 and 2001

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

V. Estimation

Estimation of the effects of mandatory national service on a given measure of civic engagement is modeled by the simple linear model:

$$Y_i = \alpha + \rho s_i + \eta_i \,. \qquad 1.1$$

Where ρ is the causal effect of an individual's participation in mandatory national service (s_i) on some measure of civic engagement, Y_i. s_i is a dummy variable indicating person *i's* participation in the French mandatory national service program, and η_i is the residual. Since (1.1) is a causal model, s_i and η_i may be correlated if there exists some covariates that belong in the model, but are unobserved and therefore not accounted for by the model. For instance, s_i may be correlated with η_i if conscription eligibility criteria are correlated with the individual level indicators of civic engagement or if people self-select into compliance with conscription based on unobserved characteristics.

Regression discontinuity analysis is able to deal with any potential problems that may arise from the exclusion of unobserved covariates in the estimation of the effect of mandatory national service on civic engagement. Since this study deals with the discontinuity of treatment *probability* conditional on a covariate (date of birth), it is analyzed as a Fuzzy RD (Regression Discontinuity). Under the nonparametric version of Fuzzy RD, the discontinuity becomes an instrumental variable for treatment status.[31] As utilized here, Fuzzy RD with an interval of one year around the cutoff value is equivalent

[31] Angrist et al. (1996), Hahn et al. (2001), Angrist and Pischke (2009)

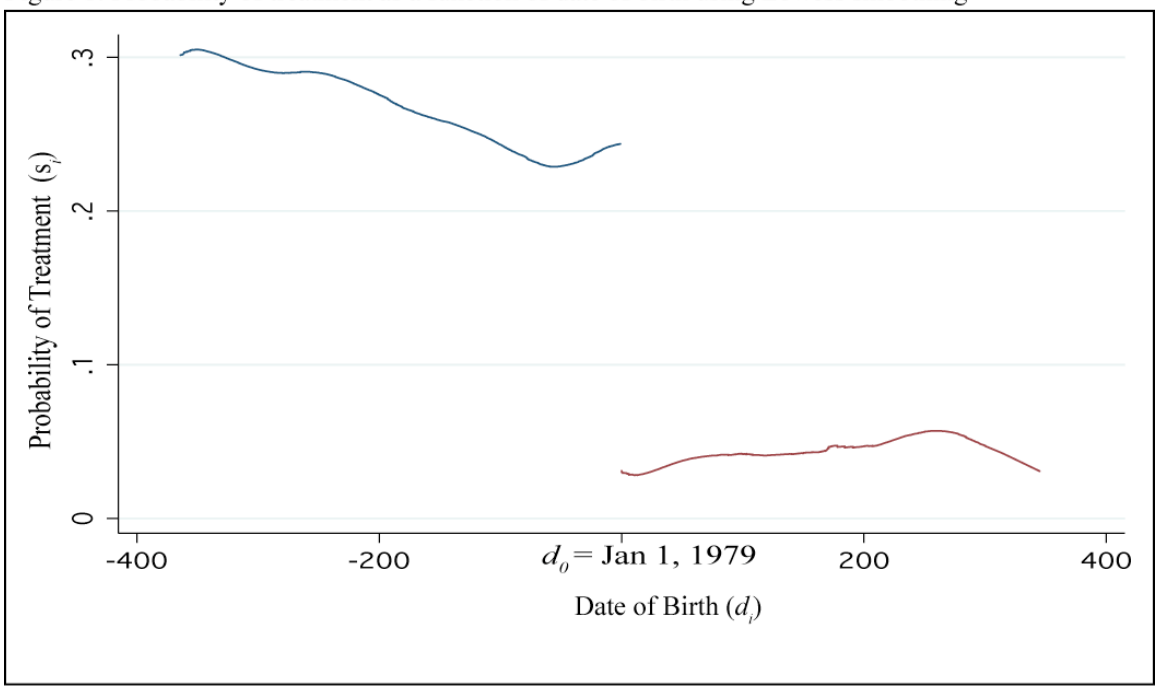
to using Instrumental Variables (IV) where the instrument is a dummy variable for whether an individual was born in 1978 (1) or 1979 (0).

To illustrate this concept, it is useful to examine the relationship between the Fuzzy RD estimator and the Instrumental Variables estimator. Parameters for both estimators can be derived using simple two stage least squares (2SLS). These estimators are presented using the notation from the simple linear model described above with the addition of a variable for date of birth, d_i. The disjuncture in probability of service (s_i) is represented by

$$P(s_i = 1 | d_i) = \begin{cases} g_1(d_i) & \text{if } d_1 < d_0 \\ g_0(d_i) & \text{if } d_1 \geq d_0 \end{cases}, \text{ where } g_1(x_0) \neq g_0(x_0) \quad . \qquad 2.1$$

The functions $g_1(d_i)$ and $g_0(d_i)$ can take on any form as long as they differ at the cutoff value of d_0. Additionally, it is assumed that $g_1(d_0) > g_0(d_0)$. As a result, $d_i < d_0$ makes participation in national service more likely. Figure 1 graphically depicts the sample probability of service (s_i) as a function of date of birth d_i using Lowess smoothing.

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



Using 1.1 as the reduced form and 2.1 to describe the first stage relationship between d_i and s_i, the Fuzzy RD estimator (ρ) can be derived from 2SLS as

$$\lim_{\Delta \to 0} \frac{E[Y_i \mid d_0 - \Delta < d_i < d_0] - E[Y_i \mid d_0 < d_i < d_0 + \Delta]}{E[s_i \mid d_0 - \Delta < d_i < d_0] - E[s_i \mid d_0 < d_i < d_0 + \Delta]} = p \quad . \qquad 2.2$$

As it relates to the data analyzed in this paper, Fuzzy RD can be considered IV when Δ in equation 2.2 equals one year. This creates an instrumental variable for exposure to conscription (z_i) that equals 1 if an individual was subject to conscription (born in 1978) and 0 if and individual was not (born in 1979).

$$z_i = \begin{cases} 1 \text{ if } d_i < d_0 \\ 0 \text{ if } d_i \geq d_0 \end{cases} \qquad 3.1$$

The result of using a year of birth dummy (z_i) as an instrument for probability of service (s_i) as it relates to individuals born one year on either side of the date of birth cutoff (d_0) is the IV estimator,[32]

$$p = \frac{E[Y_i \mid z_i = 1] - E[Y_i \mid z_i = 0]}{E[s_i \mid z_i = 1] - E[s_i \mid z_i = 0]} . \qquad 3.2$$

Given that data was deliberately collected to construct a sample of individuals that were born within a one-year interval on either side of the date of birth cutoff value, the proper estimation approach to take advantage of the total information contained in the data set is Instrumental Variables regression. Instrumental Variables (IV) regression in this analysis is carried out through the use of 2SLS. Notation used in the IV analysis is preserved from the above discussion. The first stage of the IV regression can be expressed as

$$s_i = \delta + \pi z_i + \varepsilon_i . \qquad 4.1$$

[32] Angrist and Pischke (2001): A just identified IV estimator that uses a dummy instrument to estimate a model with one endogenous regressor an no covariates is known as a Wald estimator after (Wald,1940).

The reduced form (second stage) is constructed by substituting the fitted values of s_i into the simple linear model that was presented at the beginning of this section,

$$Y_i = \alpha + \rho s_i + \eta_i. \qquad 1.1$$

The identification assumptions required for consistent estimates of the parameter of interest (ρ) are that z_i is correlated with s_i, that z_i affects Y_i only through s_i, and that z_i only affects s_i in one direction. These assumptions can be presented formally as,

$$\text{Cov}\,[s_{i,}, z_i] \neq 0 \qquad \text{A1}$$

$$\text{Cov}\,[z_i , \varepsilon_i] = 0 \qquad \text{A2}$$

$$\text{Cov}\,[z_i , \eta_i] = 0 \qquad \text{A3}$$

$$s_{1i} \geq s_{0i} \text{ for all } i. \qquad \text{A4}$$

Further explanation of the identification assumptions is warranted. The first assumption, that z_i is correlated with s_i (A1), states that there exists a first stage relationship between z_i and s_i (eq 4.1). Since conscription eligibility is a function of date of birth, which is discontinuous at January 1, 1979, it follows that probability of service (s_i) is a function of year of birth (z_i).

The independence assumption (A2) states that the instrument is as good as randomly assigned and therefore independent of potential outcomes and potential treatment assignments. The motivating factor behind the use of regression discontinuity analysis is that the cutoff value that assigns probability of treatment is arbitrarily determined and therefore not correlated with the outcome measures near the point of

discontinuity.[33] Hence, as long as the year of birth cutoff was not determined by some reason related to the inherent characteristics of the 1979 cohort, the instrument can be considered as good as randomly assigned.

To satisfy the exclusion restriction (A3), it is assumed that year of birth (z_i) only affects the dependent variables of interest (Y_i) through participation in mandatory national service (s_i). In this case, the exclusion restriction would be violated if men who were born in 1978 differ from men born in 1979 in some other way than having an increased probability of being conscripted into the mandatory national service program. One concern may be that men who were subject to conscription may have stayed in school longer than they otherwise would have to postpone their induction into national service or to qualify for choice civil-service jobs. While this may be true on the margins, Table 6 shows that the mean education level of the sample is not significantly different between the two years. Being born in 1978 would not necessarily have made an individual more likely to seek out a surplus of education because it appears that an individual born in 1979 would have had to apply for educational deferments before he would have known that his service responsibility was going to be terminated. It must be noted, however, that the exclusion restriction is not necessarily violated even if those born in 1978 stayed in school longer as a result of conscription eligibility. As long as the probability of obtaining higher education is a result of conscription eligibility, estimates of the effect of participation in national service will be consistent.

[33] Rubin (1977)

Table 5: Sample Education Statistics by year of birth

	1978	1979
Less than CAP or BEP	0.81	2.43
CAP, BEP [Less than High School]	17.48	20.56
Baccalauréat (général ou professionel) ou diplôme de niveau équivalent [High School or Equivalent]	28.46	29.55
Bac +2 (DUT, BTS, DEUG, etc.) [Some College]	26.83	24.7
Licence ou diplôme universitaire de 2e cycle [College Graduate]	6.91	6.88
Diplôme universitaire de 3e cycle ou grandes écoles [Advanced Degree]	19.51	15.79

Pearson chi2(5) = 3.8697 Pr = 0.568

The final assumption of the heterogeneous IV framework is that z_i only affects s_i in one direction (A4). This is referred to as the monotonicity assumption and in this situation means that the probability of being conscripted for any individual is always higher for those born in 1978 than in those born in 1979.[34] Since the probability of being conscripted for the 1979 cohort is zero, as long as there were not more volunteers among those born in 1979 than there were conscripts born in 1978, monotonicity will hold. One would see a violation of the monotonicity assumption if someone who was born in 1978 were a non-complier under a policy of conscription, but would be a volunteer if he was not subject to conscription. If all four of the above assumptions hold, then the coefficient

[34] Imbens and Angrist (1994)

(ρ) produce by the IV estimator can be interpreted as the Local Average Treatment Effect (LATE).[35]

The coefficients produced by LATE describe the effect of participation in national service on those who were induced to serve by conscription, but would not have served otherwise. In the language of LATE, these people are know as compliers, the segment of the treatment population that complied with the treatment. LATE does not provide treatment effects for those who found some way to escape their service responsibilities (never takers) and those who were assigned to the control population but chose to volunteer for service (always takers). The benefit of using LATE for this analysis is that the treatment effect on the compliant subpopulation is precisely the parameter of interest.

VI. 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. Measures presented in this paper can be organized into six categories: organizational involvement, communal participation, social participation, political participation, party identification, and a variety of attitudinal measures.[36]

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,

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[35] Imbens and Angrist (1994)

[36] 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.

held membership status, actively participated, or volunteered time for a given organization during the last twelve months.[37] 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 measure is on a scale of 0 to 36 by increments of 1. Respondents received a score of 1 for each type of participation with a total possible score of 4 for each 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 to the organizational questions, "Do you have any personal friends within these organizations?" Respondents were allowed 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 measures. The first asks if members that compose one or more of the aforementioned organizations are from different social backgrounds and the second asks if they are from different ethnic backgrounds? In each of these 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.

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[37] 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.

The second category of measures is concerned with communal participation and is very straightforward. Respondents are first asked whether or not they have participated in work 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 both 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).

Moving to the social participation measures, the first variable is the direct representation of the responses to the question, "How may 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 is the "Diversity of Social Friends" variable. This variable is a summation of whether or not any of the people who the respondent had met for food or drinks in the last two weeks 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 or no answers creating an index variable that ranges from 0 to 4 with increments of 1.

The political participation measures can be divided into two sub-categories, voting and non-voting. 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 within the previous twelve months. Answers to each of these questions were either yes (1) or no (0) producing a

summed index variable that takes on values from 0 to 2 with increments of 1. The "Societal Political Participation" variable is a 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 political ideology measure is based on the product of two questions. The first asked the respondents to indicated the party with which they most closely identify. If respondents refused to answer the party identification question, they were asked a follow up question about where they would place themselves on a seven point left (1) to right (7) political spectrum. The results from the party identification question were then scaled based on the traditional location of the French political parties on the ideological spectrum. Once scaled, these results were added to the data collected from the follow up question producing the resulting political spectrum that varies from 1 (extreme left) to 7 (extreme right).

The final category of survey questions discussed in this paper consists of a variety of attitudinal measures about the relative importance of various acts to an individual's status as 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; or for men to 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 with increments of 1.

VII. Results

IV estimation with heterogeneous potential outcomes produces the average treatment affect of being conscripted on those who were induced to serve by conscription, but would not have served otherwise. These individuals will be referred to as "conscripts" for the remainder of this discussion. The results for the first stage regression of the instrument (z_i) on probability of service (s_i) are presented in Table 6.

Table 6: 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	

The value for the coefficient of z_i can be interpreted as a 22 percentage point drop in probability ofconscription as conscription elligibility moves from 1 (1978) to 0 (1979).

These results are consistent across all regressions described in this section. The only 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). F statistics in IV regressions are used to determine the strength of the relationship between the instrument and the first stage outcome variable. In general, values less than 10 indicate that the instrument is weak and that it may be problematic.[38] 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

[38] Staiger and Stock (2007)

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 $F > 10$.

Table 7: Organizational Involvement Measures

	IV Coefficient	Standard Error	F Statistic
Organizational Involvement	-0.229	0.063	159
Friends in Organizations	-0.147	0.147	92
Diversity of Organizations	-0.143	0.212	88.25

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. These questions were designed to ascertain not only the quantity, but civic quality of organizational membership. As shown in Table 7, 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 8: Communal and Social Participation Measures

	IV Coefficient	Standard Error	F Statistic
Participated in Comunal Work?	-0.130	0.080*	161
Would you contribute time to a communal project that did not directly benefit you?	0.178	0.100*	154
How many times have you got together with people in the past two weeks for food and drinks?	-0.607	0.381	160
Diversity of Social Friends	-0.200	0.350	160

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 the were nearly 18 percentage points more likely than the control group to report that they would be willing to contribute their time to a community project that did not directly benefit themselves.[39] In contrast, being conscripted into the national service program did not produce

[39] These results are significant at the 0.10 level.

significant differences between the two groups in the measures of Social Participation or in the measures of non-voting Political Participation.

Table 9: Political Participation Measures

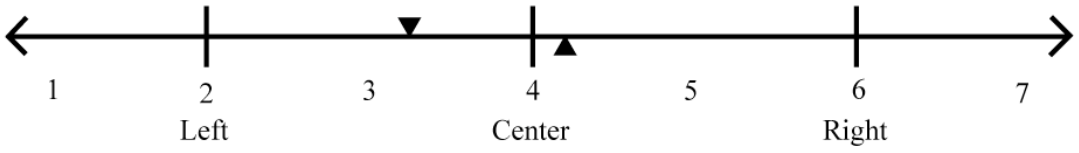
	IV Coefficient	Standard Error	F Statistic
Political Work	-0.035	0.046	159
Societal Political Participation	-0.255	0.245	158
Voted in First Round of the Previous Presidental election?	-0.127	0.079*	163
Voted in Second Round of the Previous Presidental election?	-0.160	0.080*	163
Voted in the last local election	0.021	0.102	160

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

One of the more surprising results of this analysis is that conscripts were almost 13 percentage points less likely to have reported voting in the first round of the last presidential election and almost 16 percentage points less likely to have reported voting in the second round. The two groups were not significantly different with respect to voting in the most recent local elections. It should be noted that overall rates of voting in the sample were high compared to those of the United States with conscripts voting in the first round at a rate of about 75% and the control group at about 87%. In the second round both groups experienced some attrition with the control group voting at rate of about 84% and the compliers voting at about 68%.

Table 10: Poltical Ideology

	IV Coefficient	Standard Error	F Statistic
Place on the Political Spectrum	-0.859	0.460*	118



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 mean position of the sample population is denoted by ▲ and the mean position of the conscripts is denoted by ▼.

Table 10 depicts the results of the Political Ideology questions. As discussed in the survey measures section, this scale is the product of two questions: one on party identification and the other on the respondents' self-reported location on the political spectrum. As shown by the IV coefficient, conscripts identified themselves as nearly an entire category to the left of those who did not serve.

Table 11: Attitudinal Measures

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

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.
* results are nearly significant at the 0.10 level with a p value of 0.12

Attitudinal measures of the respondents' views of what it means to be a good citizen are shown in Table 11. For the majority of the measures, there are no significant differences between those who complied with conscription and the control group. However, for what might be the most important attitudinal measure for maintaining a civil society, the conscripts were more likely to think it is important to always obey laws and regulations than the control group.[40] Interestingly enough, there was no difference

[40] This result is nearly significant at the 0.10 level with a p-value of 0.12.

between the groups on their respective attitudes toward the importance of military service when the country was at war. Both groups agreed that it was "somewhat important."

VIII. Discussion

The natural experiment created by the abrupt termination of the French national service program provides a self-selection bias free evaluation of the literature linking national service to various forms of 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 in that the overwhelming majority of participants in the French program were called to serve in the military. Contrary to the findings of Segal et. al. (2001) and Teigen (2006) of increased rates of voting among United States veterans, participation in the French national service program led to a reduced rate of voting amongst conscripts in the most recent presidential election and no significant difference between the conscripts and the control group in the last round of local elections. Similarly, where 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. Furthermore, one of the more surprising findings, that conscripts identified themselves as nearly a category to the left of the control group, is at odds with the general notion that the military as an institution is an inculcator of conservatism.[41]

[41] This argument can be traced to the literature on the ideological civil-military gap . However, it has been noted that this conservative bias most likely stems from self-

In their study of military academies as instruments of value change, Stevens et. al (1994) find that cadets exhibit higher levels of benevolence and greater degrees of conformity with rules and regulations. However, the authors attribute this outcome to the reinforcement of institutionally compatible values of those who self-select into military service. The results presented in this study provide an argument for extending these findings to a socialization outcome of compliance with conscription.[42] The conscripts' internalization of the importance of laws and regulations lends support to Bouffard (2005)'s findings that minorities who serve in the military exhibit a reduced risk of being linked to post-service violence and Greenberg, Rosenheck and Desai (2007)'s finding that veterans have a lower overall rate of incarceration. Additionally, the results presented in this paper are consistent with Lawrence and Kane (1995)'s finding that there is little to no difference between veterans' and non-veterans' rate of personal interaction with other ethnic groups.[43]

The interpretation of these results as they pertain to the effect of being conscripted into a national service program on an individuals' propensity for civic engagement is mixed. On a majority of measures, people who were conscripted into service were no different than those who may have served, but were no longer subject to conscription. Whether or not this particular service program was a beneficial or detrimental form of civic education is entirely dependent on what civic values one assigns to acts such as

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selection into the military and the consequent reinforcement of pre-existing values. See Holsti (1998)

[42] These results stem from the complier's propensity to participate in communal work when it does not directly benefit themselves, the higher level of importance they assign to always obeying laws and regulations, and their proclivity identify themselves as significantly left of the control group on the political spectrum.

[43] 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.

selflessness, voting, and a more enthusiastic appreciation for the rule of law. Based on these results, it seems as though conscripts become wary of bureaucratic involvement and are less enthusiastic about official forms of democratic participation such as voting. However, conscripts appear to be more willing to contribute to the greater good of the community, particularly when there is no direct personal benefit.

If the baseline for beliefs about the socializing effects of mandatory national service is that it was once a more powerful form of civic education than is demonstrated by the results of this study, then an exploration of why the conscripts are so similar to the control group is in order. One explanation for the conscripts' relative lack of political participation is that on the margins, conscripts are more likely to experience the inefficiency of the state bureaucracy first hand and may feel as though their participation in the official national decision-making process is not warranted. Additionally, the major institutional characteristic of the military, the Esprit de Corps, may no longer be diffused throughout the ranks in ways it once was. The increasing reliance on technological sophistication may have reduced opportunities for shared socialization experiences and hastened the shift from the military as an institution to the military as an occupation. This "I/O shift" is discussed in great detail elsewhere,[44] but the main argument of the model centers around the notion that the military establishment is becoming more occupational through the penetration of civilian labor ideals into the military workforce.[45] A prominent effect of this shift has been thought to be illustrated by the increasing rate at

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[44] The I/O shift model has grown out of the work Moskos (1977), Moskos (1986), Janowitz (1977), and for a review see Sorensen (1994). For empirical tests of the I/O shift model see Segal (1986) and Stahl et. al (1980).

[45] Moskos (1977, 43) **"**The occupational model implies priority of self-interest rather than that of the employing organization. A common form of interest articulation in industrial- and increasingly governmental occupations is the trade union."

which members of the military view their time in service as just another job rather than a calling to be part of something bigger than oneself.[46]

Though there were many concerns about the potential civilianization of the military during the transition to an AVF in the United States, a majority of these concerns never came to pass. The use of conscripts in this study generates a different hypothesis about the changing nature of the military as an institution. It may not be the case that this change is overwhelmingly due to people entering into the AVF military based solely on economic incentives and enlisting as they would apply for any other job, but that the institution of soldiering has itself become more like a civilian occupation. It appears that the shift to a more technologically sophisticated military dependent on complex weapons and machinery has left little room for the traditional socialization of the citizen-solder. Instead of mixing in the barracks with people from different backgrounds and receiving an education in interpersonal interaction, the shift towards a specialized force has created a military more akin to a large corporation than the great mixing pot of the people it was once presumed to be. Perhaps the best illustration of this shift can be found in the U.S. Army recruitment slogan, "Army of One."

While these results may be an artifact of the French system, nearly all Western democratic military forces have moved from a manpower centric force structure to a highly specialized technological force structure. Once again, it must be noted that these results are specific to conscripts that are not allowed to serve in combat outside of the mother country. This study does not evaluate the effectiveness of combat as a form of

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[46] While the early works of scholarship in this are attributed this observed shift as evidence of a relatively new phenomenon, later research has questioned the newness of these types of feelings amongst military personnel. See Segal (1986) for a more thorough discussion of the accuracy of past measurements.

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 relationship between participation in mandatory national service and a range of civic engagement indicators that is unbiased by the self-selection problem inherent in the majority of the literature.

To summarize, the results presented in this paper are: conscripts were no more or less civically engaged in the organizational measures or the political participation measures; conscripts reported working in the community at a lesser rate, but were more likely to report that they would do work to benefit the community even if the work did not directly benefit themselves; conscripts voted in both the first and second round of the previous presidential election at lower rates than the control group; conscripts placed themselves nearly an entire category to the left of the control group on the political spectrum; and finally, conscripts were more likely to assign a higher importance to obeying laws than those who would have served, but were not conscripted. The meaning of these results is only hypothesized in this paper. Additional research is necessary to assess what the results indicate in terms of military manpower policy and the ability of national service programs to act as effective forms of civic education.

References

Alwin, Duane F. and Krosnick, Jon A.1991. "Aging, Cohorts, and the Stability of Sociopolitical Orientations Over the Life Span." *The American Journal of Sociology* 97 (1): 169-195

Angrist, J.D., Imbens, G.W., Rubin, D.B., (1996). "Identification of causal effects using instrumental variables." *Journal of the American Statistical Association* 91: 444–472

Angrist, Joshua D. and Pischke, Jorn-Steffen. 2009. *Mostly Harmless Econometrics.* Princeton: Princeton University Press

Bachman, Jerald G., David R. Segal, Peter Freedman-Doan, and Patrick M. O'Malley. 1998. "Does Enlistment Propensity Predict Accession? High School Seniors' Plans and Subsequent Behavior." *Armed Forces & Society* 25 (1): 59-80

Bastide, Jean. 1995. *Les formes civiles du service national*. Conseil ´Economique et Social, Paris: Direction des Journaux Officiels.

Boene, B. 2003. "Going, Going, Gone: How France Did Away With Conscription." In *Conscription vs. All-Volunteer Forces in Europe*, Ed. Malesic, M. Baden-Baden: Nomos Verlagsgesellschaft

Bouffard, Leana A. 2005. "The Military as a Bridging Environment in Criminal Careers: Differential Outcomes of the Military Experience." *Armed Forces & Society* 31 (2): 273-295.

Cohen, E.A. 1985. *Citizens and Soldiers.* NY: Cornell University Press

Cook, Thomas D. (2008). '"Waiting for Life to Arrive'': A history of the regression-discontinuity design in Psychology." *Statistics and EconomicsJournal of Econometrics* 142: 636–654

Elder, Glen H. 1998."The Life Course as Developmental Theory." *Child Development.* 69 (1) 1-12

European Social Survey. 2008. ESS-3 2006 Documentation Report. Edition 3.2. Bergen, European Social Survey Data Archive, Norwegian Social Science Data Services.

Franke, Volker C. 2000. "Duty, Honor, Country: The Social Identity of West Point Cadets." *Armed Forces & Society* 26 (2): 175-202

Greenberg, Greg A., Robert A. Rosenheck, and Rani A. Desai. 2007 "Risk of Incarceration among Male Veterans and Nonveterans: Are Veterans of the All Volunteer Force at Greater Risk?" *Armed Forces & Society* 33 (337)

Grootaert, Christiaan, Deepa Narayan, Veronica Nyhan Jones, and Michael Woolcock. 2004. "Measuring Social Capital: An Integrated Questionnaire." The International Bank for Reconstruction and Development / The World Bank: Washington, D.C.

Hahn, J., Todd, P., VanderKlaauw, W. (2001). "Identification and estimation of treatment effects with a regression-discontinuity design." *Econometrica* 69 (1): 201–209

Hammill, John, David R. Segal, and Mady Wechsler Segal. 1995. "Self-Selection and Parental Socioeconomic Status as Determinants of the Values of West Point Cadets." *Armed Forces & Society* 22 (1): 103-115

Holsti, Ole R. 1998. "A Widening Gap between the U.S. Military and Civilian Society?: Some Evidence, 1976-96." *International Security* 23 (3): 5-42

Huntington, S.P. 1957. *The Soldier and The State.* Cambridge, MA: Harvard University Press

Imbens, G.W., Angrist, J.D. (1994). "Identification and estimation of local average treatment effects." *Econometrica* 61 (2): 467–476.

Imbens, Guido and Lemieux, Thomas. (2007). "Regression Discontinuity Designs: A Guide to Practice." *National Bureau of Economic Reearch*: Working Paper 13039

Irondelle, Bastien. 2003. "Civil-Military Relations and the End of Conscription in France." *Security Studies* 12 (3): 157-187

James, William. 1910. "The moral equivalent of war." In *The moral equivalent of war. Die Seele von William James*. Ed. Eugen Rosenstock-Huessy, Mossingen-Talheim: Talheimer, 1995

Janowitz, M. 1977. "From Institutional to Occupational: The Need for Conceptual Continuity." *Armed Forces & Society* 4(1): 51-54

Janowitz, M. 1983. *The Reconstruction of Patriotism-Education for Civic Conciousness*. Chicago: The University of Chicago Press

Janowitz, M. 1960. *The Professional Soldier.* Glenco, IL: The Free Press

Lawrence, George and Kane, Thomas D. 1995. "Military Service and Racial Attitudes of White Veterans." *Armed Forces & Society* 22 (2): 235-255

Lecomte, J.P. 2006. "The Rise and Death of Conscription: The Case of France." In *The Changing Face of European Conscription*, ed. Joenniemi, P. Burlington, VT: Ashgate Publishing Company

Livre Blank, 1994. French Defense White Paper

Moskos, Charles C. 1986. “Institutional/Occupational Trends in Armed Forces: An Update.” *Armed Forces & Society*. 12 (377)

Moskos, Charles C. 1977. “From Institution to Occupation: Trends in Military Organization.” *Armed Forces & Society* 4 (41)

Niemi, Richard G. and Sobiezek, Barbara I. 1977. “Political Socialization.” *Annual Review of Sociology* 3: 209-33

President’s Commission on and All-Volunteer Armed Force. 1970

Sears, David 0. 1975. "Political Socialization." In *Handbook of Political Science*. ed. F I. Greenstein, and N. W. Polsby, vol. 2. Reading, MA: Addison-Wesley. pp 93-153

Sears, David O. and Funk, Carolyn L. 1999. “Evidence of the Long-Term Persistence of Adults’ Political Predispositions.” *The Journal of Politics* 61 (1): 1-28

Segal, David R., P. Freedman-Doan, J.G. Bachman , and P.M. O’Malley. 2001. “Attitudes of Entry-Level Enlisted Personnel: Pro-Military and Politically Mainstreamed.” In *Soldiers and Civilians*, ed. Feaver P.D. and Kohn, R.H. Cambridge, MA: MIT Press

Segal, David R. 1986. “Measuring The Institutional/Occupational Change Thesis.” *Armed Forces & Society* 12 (351)

Soeters, Joseph L. 1997. “Value Orientations in Military Academies: A Thirteen Country Study.” *Armed Forces & Society* 24 (1): 7-32

Sorensen, Henning. 1994. “New Perspectives on the Military Profession: The I/O Model and Esprit de Corps Reevaluated.” *Armed Forces & Society* 20 (599)

Stahl, Michael J., Charles W. McNichols, and T. Roger Manley. 1980. “An Empirical Examination of the Moskos Institution-Occupation Model.” *Armed Forces & Society* 6 (257)

Stevens, Gwendoly, Sheldon Gardner, and Fred Rosa Jr. 1994. “Military Academies as Instruments of Value Change.” *Armed Forces & Society* 20 (3): 473-484

Teigen, J.M. 2006. “Enduring Effects of the Uniform: Previous Military Experience and Voting Turnout.” *Political Research Quarterly*, 59(4): 601-607

Thieblemont, Andre. 1997. Les enjeux sociaux et politiques de la suppression du service national.” *Les Champs de Mars.* Printemps-Été

Thieblemont, Andre. 1996. “Sondage et service national: le faux débat entre service national et armée de métier.” *Les Champs de Mars.* Automne-Hiver

Thistlethwaite, D.L., Campbell, D.T., (1960). “Regression-discontinuity analysis: an alternative to the ex-post facto experiment.” *Journal of Educational Psychology* 51: 309–317

Visser, Penny S. and Krosnick, Jon A. 1998. “Development of Attitude Strenght Over the Life Cycle: Surge and Decline.” *Journal of Personality and Social Psychology* 75 (6): 1389-1410

Whiteley, P. F. 1999. “The origins of social capital.” In *Social capital and European democracy*. ed. J. W. van Deth, M. Maraffi, K. Newton, & P. F. Whiteley. London: Routledge. pp 3-24