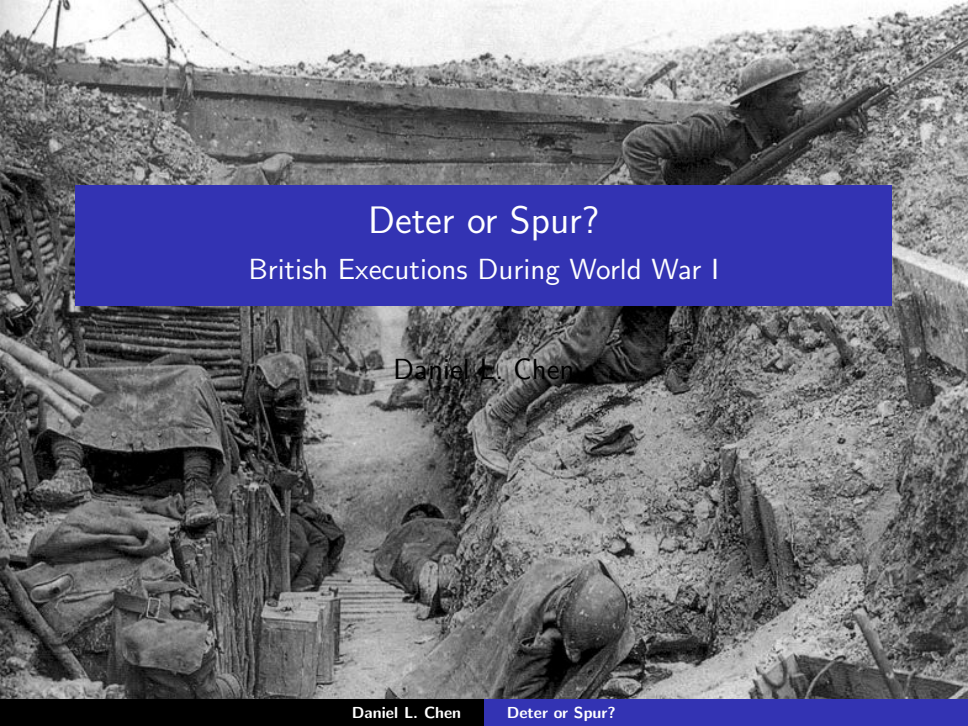




Deter or Spur?

British Executions During World War I

Daniel L. Chen

Normative Commitments

What people think is the right or just thing to do

- ▶ **Consequences**

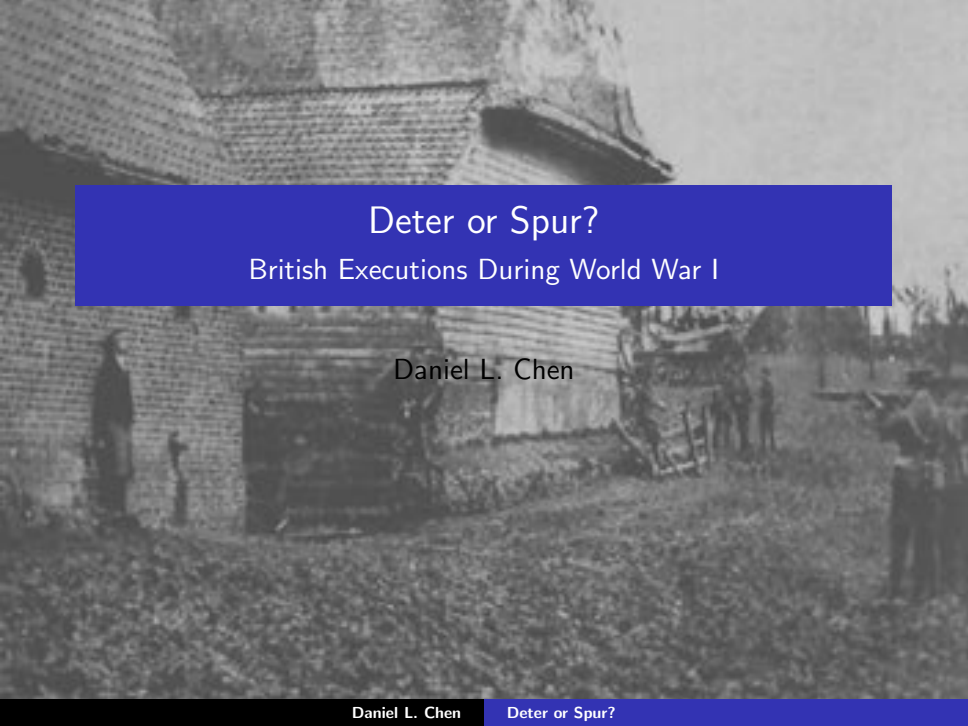
- ▶ Different groups often have different normative commitments
- ▶ Political economy of group conflict

- ▶ **Formation**

- ▶ Market and non-market influences on legal ideas and notions of justice
- ▶ Legal compliance and development of rights

- ▶ **Measurement**

- ▶ Revealed preference
- ▶ High-dimensional data



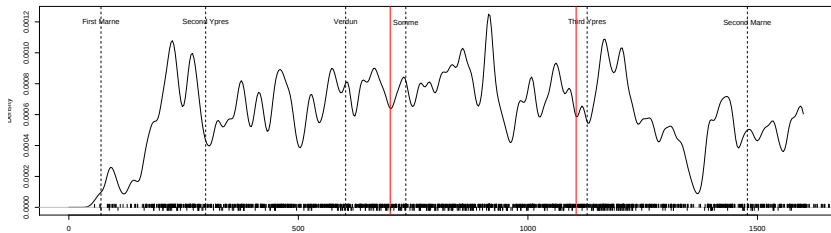
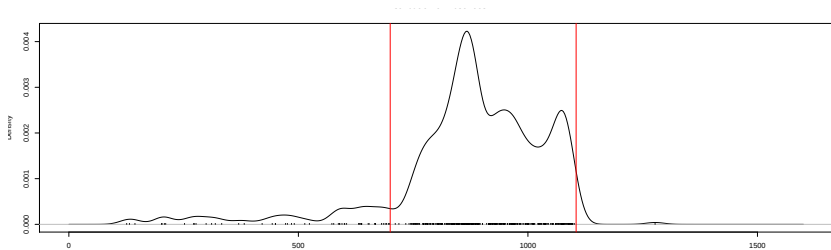
Deter or Spur?

British Executions During World War I

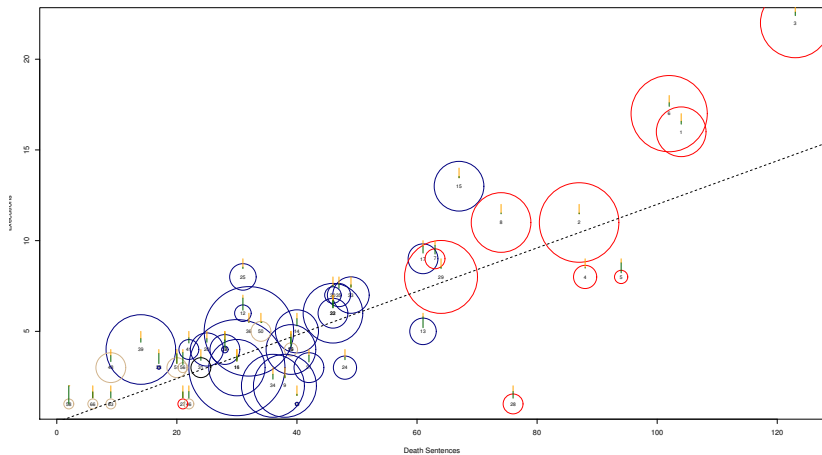
Daniel L. Chen

Why World War I?

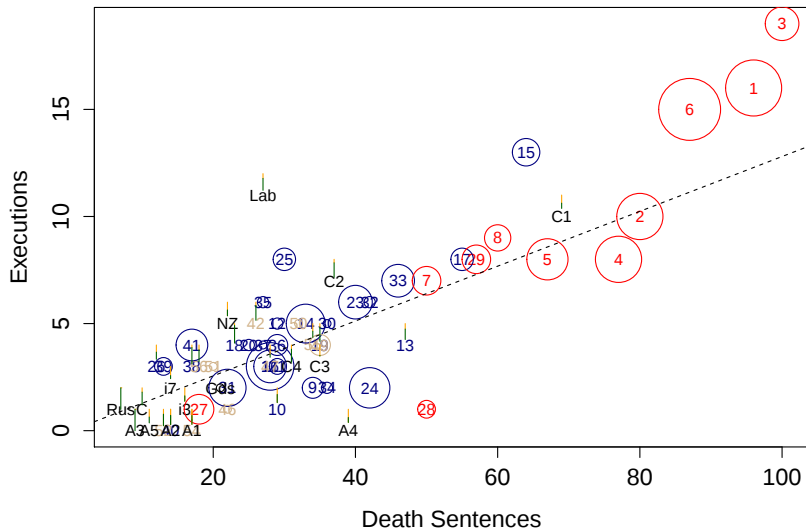
1. Over 3,300 death sentences in less than four years
 - ▶ Almost 12% executed
 - ▶ “Crimes” very similar and arguably “rational” — desertion, quitting, sleeping etc.
 - ▶ Designed for maximum deterrence: immediate, brutal, public, carried out by fellow soldiers
 - ▶ “There are hooks on the post .. He is hooked on like dead meat in a butcher’s shop. His eyes are bandaged — not that it really matters, for he is already blind.”
2. High-frequency exogenous variation in the application of the death penalty
 - ▶ Some historians argue that the process was a “pitiless lottery”
 - ▶ Over two death sentences / day precluded careful consideration
3. Comparable Units — not Texas vs. Massachusetts
4. Irish — large, subordinated minority
 - ▶ 1/600 Irish and 1/2000 British received the death sentence
 - ▶ Identification of the role of legitimacy in non-compliance to the law (Becker 1968 v. Tyler 2006; Gibson et al. 1998; Suchman 1995; Lipset 1959)
 - ▶ “Don’t plant cut flowers”



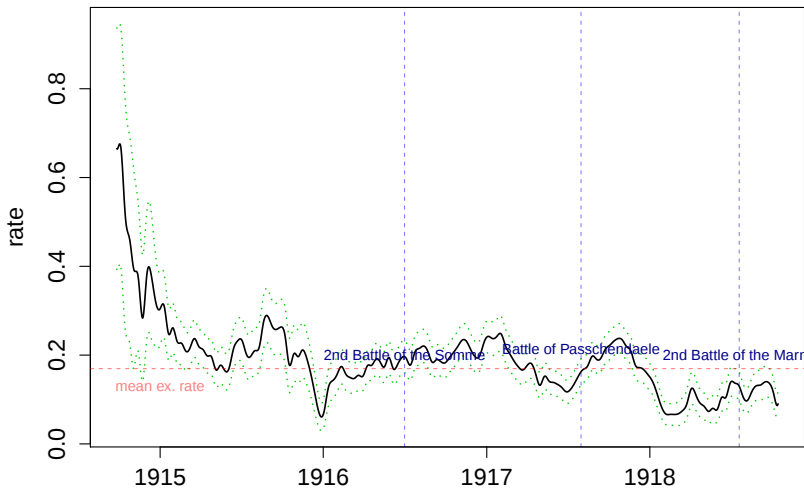
Death Sentences, Executions and Absences, By Division

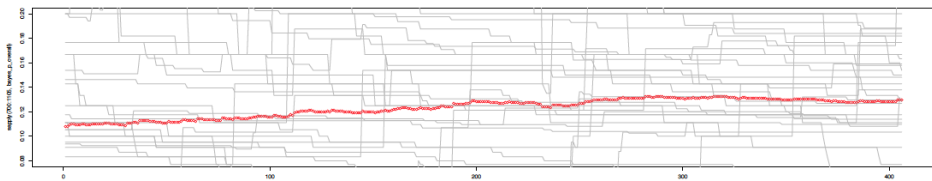


BEF Death Sentences, Executions and Absences By Division



Smoothed execution rate





Approach & Main Findings

1. Investigate the claim of random commutation decisions
 - ▶ Check correlations between the commutation decision and observable individual and environmental characteristics
 - ▶ Check whether the string of executions and commutations is statistically improbable compared to random strings
 - ▶ If yes, then plausibly clean identification using commuted sentences (Drago et al. 2009; Kuziemko 2012; Donohue and Levitt 2001)
 - ▶ When learning from personal experience, recent events get disproportionate weight (Kahneman 2011; Malmandier et al. 2011; Hertwig et al. 2004; Sims 2003)
 - ▶ Do individuals respond to subjective risk of criminal sanction? (Nagin and Pepper 2012)
2. Propose a reduced-form model of deterrence
 - ▶ Fit using maximum-likelihood methods
 - ▶ Use different identification assumptions
3. Absentees & Deserters: [◀ Preview](#)
 - ▶ Some evidence that executions deter in-group (i.e., British)
 - ▶ Stronger evidence that execution of out-group spurs rather than deters
4. Propose a model where legitimacy affects legal compliance

Historical Context — General Features

1. British Army officers believed in the deterrence effect of the death penalty
 - ▶ Considered the only recourse after branding and public flogging were outlawed
 - ▶ “If you abolish the death penalty, you might as well abolish the army,” Sir Neville Macready, a former Adjutant-General
 - ▶ Many instances in courts martial records where officers wrote, “[T]he state of discipline of this unit requires an example”
2. Some evidence of forward-looking application
 - ▶ ◀ Death sentences peaked before offenses, not defenses
 - ▶ ◀ Execution rate did not respond to either offenses or defenses
 - ▶ ◀ All battles
3. Why did they commute at all?
 - ▶ ◀ Political pressure from home
 - ▶ Soldiers might still make some contribution to the war effort (i.e., worth more as an example or as fighter?)

Historical Context — Apprehension and Prosecution

1. Deserters:

- ▶ Desertion (but not the deserter) detected almost immediately
- ▶ Difficult to hide / get local support - Most arrested in 2 wks
- ▶ Family reasons - ill children, spouses etc. seen as precipitator
 - ▶ Cowardice: If a soldier turns his back on the enemy and runs away. Desertion: Any subsequent absence from the scene of danger with the intent of avoiding danger.

2. Absentee/Deserter - Arrest - Trial - Sentence - Execution

- ▶ Official Statistics: 55,400 absentees; 44,395 courts martial
 - ▶ Absentee count may be high: Stragglers, Missing in Action, Poison Gas, POWs
 - ▶ Officers were required to report absences to the Police Gazette “as soon as it is known that a soldier has absented himself”
 - ▶ Appearing “soft” would adversely affect his own military reputation and promotion prospects
 - ▶ Not every desertion resulted in a trial, some killed on the spot
- ▶ In contrast, only 40% of deserters during the U.S. Civil War were caught and deserters faced a negligible risk of death if arrested. (Costa and Kahn 2003)

MILITARY LAW: Table N°7

Procedure at Field General Court-Martial.

Before Trial
Read carefully the 'Charge' and particulars (if any). Compare them with the corresponding Section of the Act and satisfy yourself that the offence with which the accused is charged is an offence against the A.A. (See R/P 108). Charge cannot be altered by the Court. Study the whole section including any proviso and the note therein in R/P 111. Split up the offence into its component parts & make a note of the points that will have to be established by the evidence to secure a conviction.

At the Trial

Members satisfy themselves that Court is duly constituted (a).
Accused, prosecutors, witnesses etc. admitted and Convening Order (b) read.
Each accused is given his right of 'challenge' (c).
The members of the Court are sworn (d).
Everybody marched out except accused in first case (e) escort, prosecutor, and friend of accused.
The accused is arraigned (f). In reply he may either:

Plead NOT GUILTY (g)

Plead GUILTY (h)

Evidence of witnesses for PROSECUTION (j)

FINDING of Guilty

Accused informed he may either:-
+ Give evidence on oath.
+ Make a statement (not on oath).
+ Stand in a written statement.
+ Make no statement.

SUMMARY OF EVIDENCE put in. If none sufficient evidence taken oath to enable Confirming Officer to judge of gravity of offence.

Evidence of witnesses for DEFENCE.
Accused calls for witnesses.

Accused can make statement in mitigation (k). (May be on oath).

If accused wishes, Evidence as to CHARACTER before Finding.

* And call witnesses as to CHARACTER. Produce testimonials etc.

Subsequent procedure same as after the word GUILTY below.

+ Liable to cross-examination
+ Not Liable

COURT CLOSED for consideration of the FINDING

ACQUITTAL

or GUILTY

SPECIAL FINDING (l) or COURT RESIGNS to consult Convening Officer

Findings made in open Court and accepted in private

or

or

or

or

or

or

or

or

or

or

or

or

or

or

Evidence as to Character (and particulars of service) after the Finding. Field Conduct Sheet put in.

Accused asked if he desires to say anything further (as to character, in mitigation of punishment or otherwise) & record made of his statement.

The SENTENCE

Confirmation.

Promulgation.

Review.

or Suspension of Sentence.

After Trial

NOTES AND REFERENCES.

- (a) Vide R/P 106, 107.
- (b) Vide R/P 109.
- (c) Refer to Chapter VI., M/M/L (especially paras. 30-40, 28-71).
- (d) Page I of A/P A3.
- (e) R/P 112.
- (f) R/P 114.
- (g) R/P 35 (b) & 37.
- (h) R/P 44.
- (i) R/P 110.
- (j) R/P 111.
- (k) R/P 113.
- (l) R/P 114.

- ▶ All three presiding officers must agree for a death sentence
- ▶ Usual defense was a plea of extenuating circumstances (e.g., explosions prevented me from finding my unit)
- ▶ Conviction required showing of intent (e.g., absent for 21 days, civilian clothes, or missed key deployment)
- ▶ 97% conviction rate, 27% death sentencing rate
- ▶ Trials took place in private (no news until execution; no public knowledge of lesser sentences)

Historical Context — The Commutation Decision

Commander-in-chief (Haig or French) solely responsible for commutation decisions

- ▶ Received passed death sentences from lower-level units
- ▶ ◀ Over two death sentences per day precluded careful consideration
 - ▶ Daily task involved them sending over 600 men on average to death every day.
 - ▶ The fate of a single “criminal” would not have had much consideration.
- ▶ Soldier’s packet was “thin” — focused more on performance and discipline and unit (low-level commanders would not say their units had bad discipline) ◀ Performance and discipline of unit
- ▶ Historians conclude process was very arbitrary - e.g., drunkenness excuse worked in some cases but not others
- ▶ No commutation goals are known

Historical Context — Promulgation

Timeline

- ▶ Decision announced within two weeks of original sentence
- ▶ If an execution, parade and sentence promulgated in front of as many men as possible
 - ▶ “it should be remembered that on active service the usual penalty is death” for leaving post, cowardice, sleeping on post, and violence to inhabitants among other offenses
 - ▶ Hearsay, rumor spread quickly — emotional impact recorded in
 - ◀ diaries, letters, memoirs
 - ▶ Execution occurred a few days after confirmation (date known)
- ▶ Commutation date unknown and not promulgated
 - ▶
 - ◀ Slipped into the night
 - ▶ It would have been incredibly demoralising if it were widely known that deserters received, effectively, no punishment.
 - ▶ Commuted sentences served after the war
- ▶ In contrast, French soldiers required to march past dead body

Historical Context — Analysis

1. Battalion - Regiment - Brigade - Division - Corps - Army - Army Group
 - ▶ 3-4 Battalions to a Brigade, 3-4 Brigades to a Division
 - ▶ 1,000 soldiers in a Battalion, up to 20,000 in a Division
 - ▶ Peak strength: 2 million men; 5.4 million served
 - ▶ Estimated typical length of service of 1.5 years
 - ▶ Regular division saw 2.5 executions per year, New Army division saw 1.25 executions per year, Territorial division saw 0.5 executions per year
2. Calculations of Costs and Benefits (“economic” factors)
 - ▶ 12% of soldiers were killed, 37.6% wounded (same for Irish)
 - ▶ 4% of debilitating injury or death in any given month
 - ▶ 552,471 deaths: 11,500 die per month, 0.5% dying in any given month
 - ▶ 7,361 trials for desertion, 2,007 death sentences
 - ▶ Desert: 3.3% chance of dying vs. Stay: 0.5% of dying

Theory — Desert or Not?

1. The elements of the soldiers' decision-making to desert:
 - ▶ Benefit: probability of being reunited with family and away from trenches, B
 - ▶ ◀ Control for casualty rates, officer identities, distances to coast and Berlin
 - ▶ Cost: risk of punishment, loss of pensions (economic) $C(p)$, not meeting one's duty (psychological) $v_{f,i}$, value of public good θ_i , shame (social) $\Delta_i = \mu [E(v_{f,i} | 0, i) - E(v_{f,i} | 1, i)]$
 - ▶ ◀ B, C, p appear constant with respect to ethnicity
2. What are the effects of executions / commutations on soldier's beliefs?
 - ▶ High salience of executions, low salience of commutations
 - ▶ Fade out from unit churn or from forgetting
 - ▶ Learning about the execution rate, p , conditional on desertion
 - ▶ May learn about the number of deserters n of ethnicity i
3. Basic Idea: Soldiers observe executions — these experiences update their beliefs about the relative risks upon desertion

Theory — Legitimacy

1. Economic costs are increasing in p and social costs may decrease in n

$$U(f, i) = (v_{f,i} + \theta_i)f + (B - C(p))(1 - f) + \mu E(v_{f,i} \mid f, i)$$

2. Two groups, i, Irish and British

$$f = 1 : U(1, i) = v_{f,i} + \theta_i + \mu E(v_{f,i} \mid 1, i)$$

$$f = 0 : U(0, i) = B - C(p) + \mu E(v_{f,i} \mid 0, i)$$

3. Cutoff Rule:

$$v^{*,i} + \theta_i - c + \mu E(v_{f,i} \mid 1, i) = \mu E(v_{f,i} \mid 0, i)$$

4. Sufficient condition for steady-state: (Benabou and Tirole 2013)

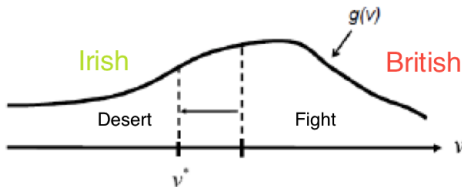
$$1 + \mu \Delta' (v^{*,i}) > 0$$

Theory — Legitimacy

1. Desertions are strategic complements when $v^{*,i}$ decreases:

$$\Delta(v^{*,i}) = \frac{\int_{v^{*,i}}^{\infty} v_i g(v_i) dv_i}{1 - G(v^*)} - \frac{\int_{-\infty}^{v^{*,i}} v_i g(v_i) dv_i}{G(v^*)}$$

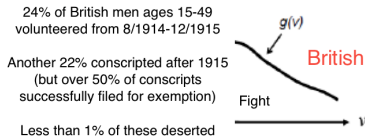
Loyalty Distribution



2. Complementary interpretations of the model:

- ▶ Different μ (Ellingsen and Johannesson 2008), ◀ but Easter Rising had no effect
- ▶ Self-signalling if fog-of-war prevented identification
- ▶ Direct shift in preference parameters $v_{f,i}$ or θ_i , but acts of desertion are strategic complements through the cutoff rule

Loyalty Distribution — Illustration



◀ Conscription or voluntary?



Annual pay was twice the pay of agricultural laborer (1886 figures)

1898 letter from Irish recruit said, "if her leaders ever turns with cruelty on the Irish race, I will be the first that will raise my sword to fight against her," and in this regard he was sure that he would have "plenty of Irishmen at my side, for they are known to be the bravest race in the world." (Karsten 1983)

Endogenous identity formation (Jia and Persson 2015)

Customs as the wearing of shamrock sprigs on St. Patrick's Day were distinctive features of the Irish regiments, sources of their pride and esprit de corps.

Deter or Spur?

1. If $\mu = 0$ and executions only affect c , then executions deter
2. If $\mu > 0$, then executions have a social multiplier effect:
greater deterrence in communities where non-compliance is rare (Besley, Jensen, and Persson 2015; Jia and Persson 2015)
3. Executions spur desertion only if there is an expressive effect – reducing θ_i or μ (“backlash”)
4. Delegitimization occurs if:

$$\left| \frac{\partial v^{*,i}}{\partial c} \right| \frac{\partial c}{\partial E} + \left| \frac{\partial v^{*,i}}{\partial \theta_i} \right| \frac{\partial \theta_i}{\partial E} + \left| \frac{\partial v^{*,i}}{\partial \mu} \right| \frac{\partial \mu}{\partial E} < 0$$

5. Spurring among Irish and deterrence among British if: (assuming $\frac{\partial \mu}{\partial E} = 0$)

$$\frac{\partial \theta_I}{\partial E} < -\frac{\partial c}{\partial E} < \frac{\partial \theta_B}{\partial E}$$

Deter or Spur?

Executions of soldiers with ethnicity i convey information about θ_i

1. $\frac{\partial \theta_I}{\partial E_I} < -\frac{\partial c}{\partial E_I} = -\frac{\partial c}{\partial E_B} < \frac{\partial \theta_B}{\partial E_B}$
2. Could relax $\frac{\partial \theta_I}{\partial E_B} = \frac{\partial \theta_B}{\partial E_I} = 0$
3. Under these assumptions
 - ▶ Irish executions spur Irish desertions but deter British desertions
 - ▶ British executions deter both ($\frac{\partial c}{\partial E_I}, \frac{\partial c}{\partial E_B} > 0$)
4. Without the legitimacy term θ_i , in previous models, $\Delta'(v^{*,I}) < \Delta'(v^{*,B})$ governs the magnitude of the response, but not the sign (deter or spur?) (Besley, Jensen, and Persson 2015; Jia and

Persson 2015; Benabou and Tirole 2013; Chen and Yeh 2014, 2015)

Optimizing Commander-in-Chief

1. Commutes the death sentences of Irish soldiers and executes only British soldiers, but
 - ▶ Irish soldiers might perceive that the commander was not executing Irish, which would reduce their effective p , leading to more Irish desertions
 - ▶ If British officers perceived that Irish death sentences were disproportionately commuted, $\frac{\partial^2 \theta_B}{\partial E_I^2} < 0$ or $\frac{\partial \theta_B}{\partial E_I} > 0$, leading to more British desertions
 - ▶ Randomize between executing Irish and executing British, and execute Irish at a lower rate to minimize the spurring of Irish desertions while maximizing the deterrence of British desertions
2. Had little information on $\frac{\partial \theta_I}{\partial E_I} < -\frac{\partial c}{\partial E_I}$ and $\frac{g(v^{*,i})}{G(v^{*,i})} \frac{1}{1+\mu\Delta'(v^{*,i})}$
 - ▶ Alternatively, could model a distaste for Irish, leading to sub-optimal deterrence ◀ but Haig vs. French had no effect
 - ▶ ◀ Officer ethnicity interacted with in-group identity had no effect Irish: 9% Brigade, 12% Division, 7% Corps, 0% Army, 0% GHQ commanding officers, 12%-19% among staff officers

Evolution of Normative Commitments

Game where the normative commitments of different groups evolve onto separate paths (Chen 2010, 2011, 2014; Chen and Lind 2014)

- ▶ Heavy-handed response could heighten injustice, invert social shame (such as during insurgency) - admire lawbreakers such as Nelson Mandela, Rosa Parks, Sophie Scholl
- ▶ Persecuted or disadvantaged minorities may not view the law as particularly legitimate

◀ Only 26% of soldiers born in Ireland returned after the war

IRISH SOLDIERS TRAIN TO FIGHT IN GERMAN ARMY: Deserters Eager to Humble England—Regard

Wilson, Carolyn
Chicago Daily Tribune (1872-1922); Mar 20, 1916;
ProQuest Historical Newspapers: Chicago Tribune (1849-1987)

IRISH SOLDIERS TRAIN TO FIGHT IN GERMAN ARMY

Deserters Eager to Humble
England—Regard Teutons
as Their Friends.

BY CAROLYN WILSON.
[The] would you say if you were to see
a handsome blue-eyed fighter with blond
hair and a smile full of mischief and
teeth, and dressed in a fine German uni-
form with a bay on either side of his
coat, and then you heard this com-
mander of the halber say in Irish you
would think a man with, "Bhríde na o-
rí, na tír o' Bútan, whether I lo-
ve you or no, an' put it in a glazer
to glass, me b'ys, for good luck!"
[The] you are to introduce Capt. Robert
Monteith, the white-haired of his mader-

An Irish Captain
Serving Germany.



Capt. Robert Monteith.

Capt. Robert Monteith, soldier of
fortune, is commander of an Irish
company training to fight for Ger-

Joining the Germans?"

"There's not an Irishman living but
would like to be free of England, and
those of us who have come here believe
this is our only chance. People call Ire-
land poor and desolate. Why, it's a rich
country. Under proper rule it would be a
wonderful country. Look at the way its
literature is coming to life again. O, after
the war, we'll be strong!"

"Have you talked to the Irishmen
interested here?"

"Have I, indeed, and what did they say
to me? Nothing that I could repeat in
your presence."

Company of Deserters.

At that time I didn't know that almost
all the men under Capt. Monteith were de-
serters, although I noticed the determined
evanescence of my repeated questions as to
their methods of reaching Germany after
the war began.

Although they are a part of the German
army, they seem to be existing under lax
discipline, for the corporal Capt. Monteith
had intended to bring with him and left
camp thirty-four officers and on Monteith
had not returned. I heard afterward
that this handful of Irishmen escape more
freely at the camp than all the 5,000
other men. When the spirit comes upon
them they go forth in a body and make
life miserable for all about them.

Monteith himself was at the Adlon bar
most of the time when he wasn't busting
up Sir Roger Casement or St. John Gifford,
who arrived early in February full of
words against the American administra-
tion and the tyranny of the British.

Referring again to this Irish company
doing the German goose step, I spoke of
them rather disparagingly to an official

Deserter - Apprehension - Trials - Death Sentence - Execution

1. (1) All death sentences, execution v commutation
 - ▶ Name, unit, date, offense, location, outcome (e.g., execution, hard labor, rank reduction, etc.)
 - ▶ All trial and execution dates list (date of commutation unknown) resulting in a death sentence
2. Absenteeism ((2) War Diaries and (3) Police Gazettes)
 - ▶ Monthly war diaries of Military Police searching for deserters (1,091 survive in ◀ War Diaries)
 - ▶ Lists collated after roll call every morning or more frequently (126,818 absences of which 3,009 are B.E.F. in ◀ Police Gazettes)
 - ▶ Rank, name, unit, date of absence, physical description (age, height, occupation, enlistment place, birth parish and county, face, hair, and eye color), comments
 - ▶ ◀ Data Quality
3. Desertion Trials ((4) handwritten ◀ FGCM Trial Registries of all 144,000 courts martial)

Environmental conditions

- ▶ (5) Casualties (all 650,000 deaths, name, battalion, date, location, birthplace, enlistment) ◀ Model
- ▶ (6) Officers (all 3,000 officers, unit levels, dates)
- ▶ (7) Battles geocoded (distance to ◀ English Channel, distance to Berlin)

Unit-level Merge

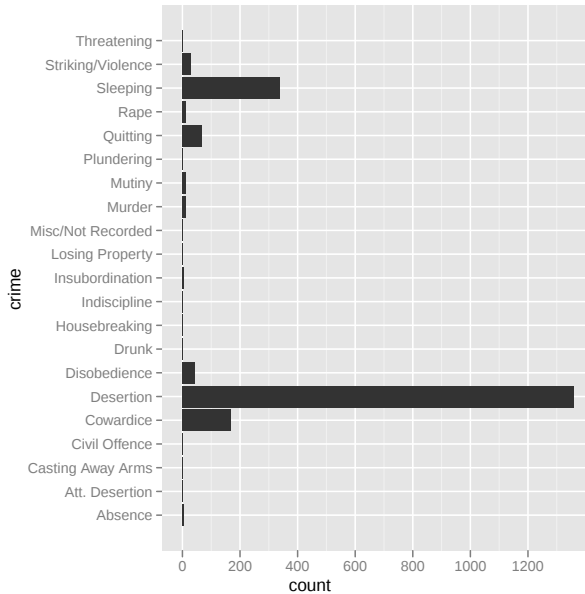
- ▶ (8) Order of Battle: Battalion - Regiment - Brigade - Division - Corps - Army - Army Group (◀ over 8500 associations)

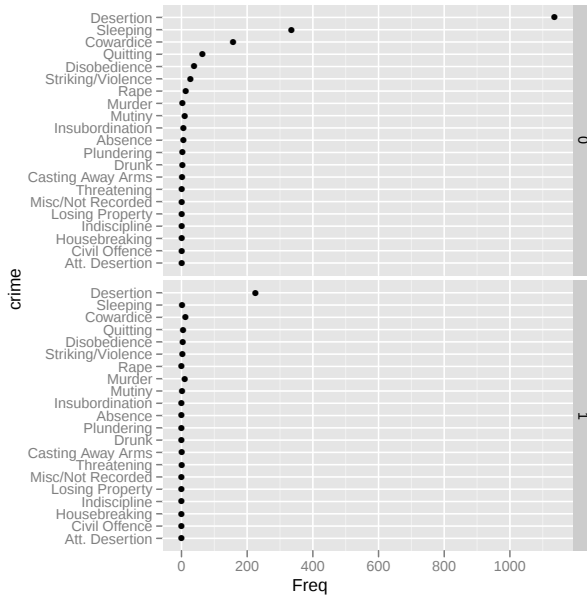
Individual characteristics

- ▶ (9) Irish surnames (from a genealogical website)
- ▶ (10) Service and Pension Index (Burnt Records, 40%): 2.7 million records, name, birth year, age of enrollment, birth parish and county geocoded
- ▶ (11) Medal Roll Index: 5.4 million records, for virtually all soldiers who served

Irish Surname vs. Regiment

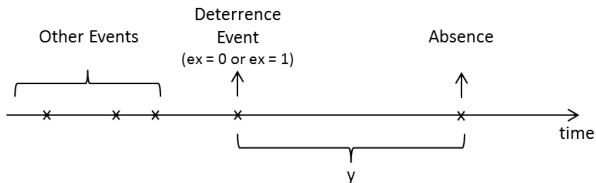
- ▶ Birthplace and enlistment location available in Service & Pension, Police Gazettes, and Casualties (◀ representative sampling)
 1. Northern-Irish born were twice as likely to desert as British-born soldiers, which allays the concern that the use of the Irish surname does not distinguish between southern and northern Irish
 2. British-born soldiers with Irish surnames were 20% more likely to desert, and British-born without Irish surnames were 15% less likely to desert, than the average soldier
 - ▶ Extensive migration from Ireland in the 19th Century spread the name base across Great Britain (e.g., Liverpool)
- ▶ Proportion of soldiers with Irish surnames
 1. 21% in the War Diaries deserters
 2. 23% in the B.E.F. Police Gazette deserters
 3. 20% in the FGCM Absentee and Deserter Trials
- ▶ Consistency across the three absentee datasets is not present for Irish regiment (◀ may be due to transcription issues)
- ▶ 27% of soldiers in Irish regiments were born in Britain



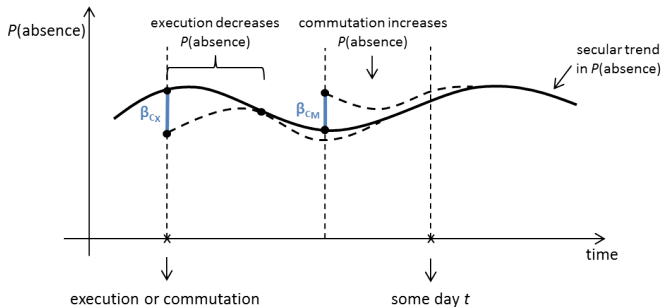


Basic Empirical Strategy — Conditions for Causal Inference

1. Assess ignorability
2. Adopt a within-unit design (with unit fixed-effects)
 - ▶ Only requires soldier within unit to be chosen randomly
 - ▶ Minimizes potential bias from error in measuring absentee outcomes
3. Stable Unit Treatment Value Assumption
 - ▶ Strong SUTVA — Only most recent event within a unit matters (assumes “control groups” are unaffected)
 - ▶ Weak SUTVA — Past events matter, but effects fade in a way that we can model parametrically
4. Empirical Framework
 - ▶ Use duration framework (y is the time until next absence)
 - ▶ Use day-by-day framework (y is an indicator for an absence on a particular day, particular unit)



$y \equiv$ time from event (either execution of commutation) to absence



Past events influence current probability, but this influence wanes over time.

Assessing Randomness: Covariates

1. Irish

- ▶ 21% of desertions, 19% of death sentences, 17% of executions
- ▶ Consistency across datasets suggests that the military command did not disproportionately target or disfavor Irish soldiers in the a) apprehension and b) trial stage nor in the c) sentencing and d) execution stage ◀ Model
- ▶ ◀ Irish proportions constant over time

2. Past Death Sentences

- ▶ 8% of commutations, 5% of executions

3. Officers

- ▶ 4.4% of death sentences, 7% of executions

Balancing Tests

- ▶ No correlation among Desertion Death Sentences with:
 1. Soldier Rank, Age, Army Type, Casualties, Fixed Effects for Month and Day-of-Week, Distance to Coast or Berlin
 - ◀ Balancing Tests for Deserters
 2. Fixed Effects for Brigade, Corp, Army, Commanding or First General Staff Officers
 3. Interaction of Irish soldier identity and any Irish officer identity in the chain-of-command
 4. Military Indiscipline, Death Sentences, Execution Rate over the last 90 days
 5. Previous decision at the Division, Brigade, Corp, Army, Army Type, or Global level
 6.
 - ◀ 1 significant at 5% level out of 20 tests
- ▶ Balancing tests for all Death Sentences
 1.
 - ◀ Murderers and Officers more likely to be executed
 2.
 - ◀ 2 significant at 10% level out of 20 tests
 3.
 - ◀ Random Strings test details
 - ◀ Random Strings test results
 - ◀ Animations

Empirical Approach — Strong SUTVA

The time-until next absence is determined by:

$$f(y) = \lambda \exp(-\lambda y)$$

The hazard rate λ depends upon the characteristics of that particular deterrence event:

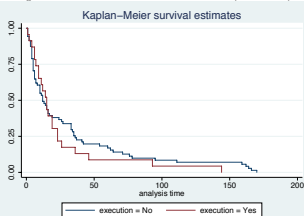
$$\lambda = \beta_0 + \beta_{ex} ex_{ij} + \beta_{exd} ex_{ij} \cdot des_{ij} + \beta_{des} \cdot des_{ij} + \gamma^C cas_{it} + \gamma_j^U + \gamma_{year(j)=T}^T$$

(where j indexes events within unit i)

The log-likelihood is thus:

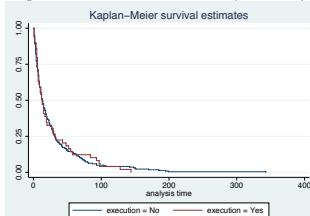
$$L(\theta) = \sum_{j=1}^N d_j \log(f(y_j|\lambda(\theta))) + (1 - d_j)(1 - F(y_j|\lambda(\theta)))$$

Figure 14A: Non-Parametric Survival Distributions (War Diaries)



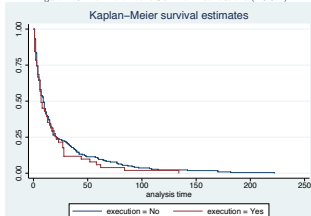
(a) Irish Executions Only

Figure 14B: Non-Parametric Survival Distributions (Police Gazettes)

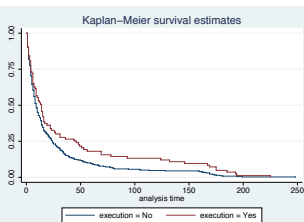


(a) Irish Executions Only

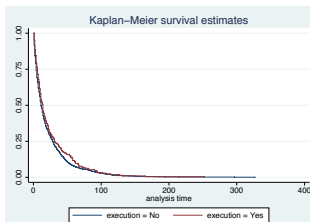
Figure 14C: Non-Parametric Survival Distributions (FGCM)



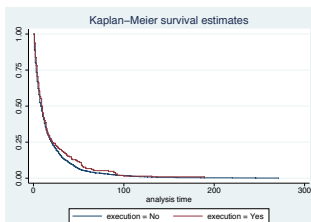
(a) Irish Executions Only



(b) Non-Irish Executions Only



(b) Non-Irish Executions Only



(b) Non-Irish Executions Only

◀ Outline

Empirical Approach — Strong SUTVA

Panel A: War Diaries	Exp/+14	Wb/+14	Cox/+14
Execution	-0.417 (0.736)	-0.394 (0.687)	-0.308 (0.670)
Desert	-0.0429 (0.305)	-0.0218 (0.274)	-0.00996 (0.240)
Ex-Desert	-0.00330 (0.746)	0.0467 (0.700)	-0.0154 (0.671)
Irish	-0.727** (0.179)	-0.629** (0.176)	-0.464** (0.147)
Ex-Irish	1.179** (0.285)	1.003** (0.256)	0.805** (0.248)
N	536	536	536

Empirical Approach — Strong SUTVA (Hazard ratios)

	<u>War Diaries</u>					
	(1)	(2)	(3)	(4)	(5)	(6)
Execution	0.659 (0.485)	0.680 (0.541)	0.688 (0.536)	0.695 (0.515)	0.691 (0.484)	0.681 (0.462)
Desert	0.958 (0.292)	0.980 (0.294)	0.981 (0.296)	0.975 (0.293)	0.950 (0.283)	0.927 (0.275)
Ex-Desert	0.997 (0.743)	0.971 (0.757)	0.966 (0.735)	0.972 (0.708)	0.998 (0.695)	1.017 (0.695)
Irish	0.483** (0.0867)	0.465** (0.0840)	0.457** (0.0867)	0.440** (0.0931)	0.428** (0.0964)	0.434** (0.0951)
Ex-Irish	3.252** (0.926)	3.492** (1.126)	3.511** (1.078)	3.689** (1.038)	3.877** (1.045)	3.833** (1.026)
Δ Log Casualties	1.091 (0.0657)	1.084 (0.0653)	1.081 (0.0648)	1.075 (0.0639)	1.064 (0.0635)	1.059 (0.0638)
Δ Log Casualties 30 Days Ago	1.185** (0.0675)	1.187** (0.0697)	1.184** (0.0702)	1.176** (0.0717)	1.164* (0.0735)	1.157* (0.0740)

Empirical Approach — Strong SUTVA

% Next Absence is Irish

Panel A: +14 Imputation

All Death Sentences

Irish Execution 19.2%

Non-Irish Execution 11.1%

Irish Commutation 13.3%

Non-Irish Commutation 13.1%

Desertion Death Sentences

Irish Execution 20.0%

Non-Irish Execution 9.5%

Irish Commutation 14.0%

Non-Irish Commutation 12.8%

$$\frac{\partial \theta_I}{\partial E_I} < -\frac{\partial c}{\partial E_I} < 0; \frac{g(v^{*,I})}{G(v^{*,I})} \left| \frac{\partial v^{*,I}}{\partial c} \right| \frac{\partial c}{\partial E_B} > \frac{g(v^{*,B})}{G(v^{*,B})} \left| \frac{\partial v^{*,B}}{\partial c} \right| \frac{\partial c}{\partial E_B} + \frac{g(v^{*,B})}{G(v^{*,B})} \left| \frac{\partial v^{*,B}}{\partial \theta_i} \right| \frac{\partial \theta_B}{\partial E_B}$$

Empirical Approach — Strong SUTVA

Main analyses

1. ◀ No evidence of deterrence in overall sample
2. ◀ Robust evidence of spurring after Irish executions
 - ▶ Exponential, Weibull, and Cox parameterization of hazard
 - ▶ Commutation imputation of 14 days after trial, nearest-neighbor, and trial dates

Further analyses

- ▶ ◀ Robust to addition of controls
 - ▶ Whether the soldier was an officer, the executed soldier's age
 - ▶ Irish indicators for each officer in the chain-of-command
 - ▶ Distance to coast, distance to Berlin, fixed effects for the identities of the Division Commanding Officer and 1st General Staff Officer, and lag absences and death sentences
- ▶ ◀ No effects of events on previous absences
- ▶ ◀ Interactions reveal deterrence in New Army
 - ▶ less battle, lower B , greater deterrence if $\Delta' < 0$ and $\Delta'' > 0$
- ▶ ◀ Irish executions have economically sizeable effects
- ▶ ◀ Irish executions spur Irish absences in particular

Empirical Approach — Weak SUTVA

1. Assume past events *do* matter, but the effects fade out in a consistent way that we can capture parametrically
2. Aggregate Past Effects:

$$E_{ex}(t^*) \equiv \{\text{times of all executions in the unit prior to } t^*\}$$

$$E_{cm}(t^*) \equiv \{\text{times of all commutations in the unit prior to } t^*\}$$

3. New Hazard:

$$\lambda' = \lambda + \alpha_{ex} \sum_{t_j \in E_{ex}} e^{k(t-t_k)} + \alpha_{cm} \sum_{t_j \in E_{cm}} e^{k(t-t_k)}$$

4. k corresponding to different effect “half-lives” e.g., 7 days, 14 days, 30 days etc.

In Weak SUTVA approach, random sequence of executions creates exogenous variation in execution rate.

1. ◀ Main results are robust to controlling for effects of prior events
2. ◀ Some evidence of deterrence under the assumption of longer half-lives

Empirical Approach — Weak SUTVA

Ex's - 7d	0.214*		
	(0.0939)		
Cm's - 7d	0.214**		
	(0.0562)		
Ex's - 14d	0.0840		
	(0.0788)		
Cm's - 14d	0.156**		
	(0.0383)		
Ex's - 30d	-0.0270		
	(0.0703)		
Cm's - 30d	0.105**		
	(0.0267)		
Ex's - 60d	-0.0734		
	(0.0643)		
Cm's - 60d	0.0651**		
	(0.0211)		
Ex's - 90d	-0.0857		
	(0.0624)		
Cm's - 90d	0.0455*		
	(0.0190)		

Day-by-Day Framework — Weak SUTVA

The probability of an absence in unit i at time t :

$$p_i(t) = F(X_{it}\beta)$$

Construct X_{it} in the same way as in the weak-SUTVA case in the duration framework. From this measure, compute the log-likelihood:

$$L = \sum_{i=1}^I \sum_{t=1}^T a_i(t) \log p_i(t) + [1 - a_i(t)] \log(1 - p_i(t))$$

Day-by-Day Framework — Weak SUTVA

Day-by-Day framework combines effect of salience of most recent event with delayed effects of all previous events

1. ◀ No robust effect of deterrence in overall sample
2. ◀ Irish executions spur Irish absences but not British absences
3. ◀ No effects of future events on past absences
4. ◀ No effects of future events on past differential rate of absences

Day-by-Day Framework — Weak SUTVA

Table 10: Day-by-Day Framework, Irish - non-Irish Absence

Panel A: War Diaries	(1)	(2)	(3)	(4)
Half-life	<u>1 week</u>	<u>2 weeks</u>	<u>1 month</u>	<u>2 months</u>
Execution	-0.0207 (0.0143)	-0.0129 (0.0124)	-0.00711 (0.00923)	-0.00546 (0.00664)
Death Sentence	-0.00106 (0.00162)	-0.000889 (0.00137)	-0.000577 (0.00113)	-0.000368 (0.000938)
Ex-Irish	0.0255* (0.0127)	0.0219* (0.0105)	0.0156+ (0.00839)	0.0126+ (0.00686)
Irish	0.0000700 (0.00781)	-0.000649 (0.00643)	-0.000233 (0.00491)	0.000565 (0.00356)
Ex-Desert	0.0268+ (0.0153)	0.0174 (0.0131)	0.00913 (0.00926)	0.00542 (0.00665)
Desert	-0.00595+ (0.00331)	-0.00439+ (0.00244)	-0.00241 (0.00178)	-0.00159 (0.00149)
N	20750	20750	20750	20750

The increase in Irish—but not British—desertions after an Irish execution is predicted if the Irish were spurred and the

$$\text{British deterred: } \frac{\partial \theta_I}{\partial E_I} < -\frac{\partial c}{\partial E_I} < 0$$

A decrease in Irish—but not British—desertions after a British execution is predicted if both the Irish and British are deterred, but the British are deterred to a lesser extent:

$$\frac{g(v^{*,I})}{G(v^{*,I})} \left| \frac{\partial v^{*,I}}{\partial c} \right| \frac{\partial c}{\partial E_B} > \frac{g(v^{*,B})}{G(v^{*,B})} \left| \frac{\partial v^{*,B}}{\partial c} \right| \frac{\partial c}{\partial E_B} + \frac{g(v^{*,B})}{G(v^{*,B})} \left| \frac{\partial v^{*,B}}{\partial \theta_i} \right| \frac{\partial \theta_B}{\partial E_B}$$

Potential Bias? Military Justice Following Executions

% of Next Desertion Trial Resulting in a Death Sentence		
<u>Panel A: +14 Imputation</u>	<u>All Desertion Trials</u>	<u>Irish Desertion Trials</u>
<u>All Death Sentences</u>		
Irish Execution	13.8%	19.6%
Non-Irish Execution	18.3%	20.1%
Irish Commutation	22.5%	22.0%
Non-Irish Commutation	22.9%	18.7%
<u>Desertion Death Sentences</u>		
Irish Execution	14.6%	19.1%
Non-Irish Execution	19.4%	20.8%
Irish Commutation	22.2%	22.6%
Non-Irish Commutation	22.3%	17.9%

- ▶ Temporary amnesty after executions, but not for the Irish
- ▶ If soldiers knew, we should see British spurred to desert
- ▶ Using death sentences biases towards finding deterrence

◀ Death sentences following executions

Summary

1. Analysis of British executions provides a low-bar test for the death penalty
 - ▶ Do individuals respond to subjective risk of criminal sanction?
 - ▶ Designed for maximum deterrence (immediate, brutal, public)
2. Summary
 - ▶ Executions within a unit are *consistent* with randomization
 - ▶ Executing Irish soldiers *spurred* absences rather than deterred
 - ▶ Increased the hazard of absence by 2-3 fold out of median time of 2 weeks to next absence
 - ▶ Doubled the chance of Irish being the next absence
 - ▶ Led to 2% higher chance of Irish absence relative to British absence
 - ▶ Limited evidence that executing deserters deterred absence
 - ▶ Primarily in New army
 - ▶ Half-lives of 1 month or more
 - ▶ Causal field evidence for role of legitimacy in organizations, courts, and democracies

◀ Connection to Other Research

Connections to Other Research

Constitutional law

- ▶ Law and norms model, backlash and expressive law
- ▶ Free Speech, First Amendment, Abortion, Rights Revolutions, Expropriation

Procedure

- ▶ Social signalling vs. self-signalling vs. duty
- ▶ Circuit Courts, Refugee Courts, SCOTUS, District Courts
- ▶ Priming, perfectionism, extraneous factors, deontological motivations, ambiguity aversion, identity

Employment law

- ▶ Online labor, Mechanical Turk, oTree
- ▶ Harassment, Covering, Crowdsourcing, Contracts

International law

- ▶ How market forces interact with moral beliefs
- ▶ Islamic resurgence, fundamentalism, trade

Contracts

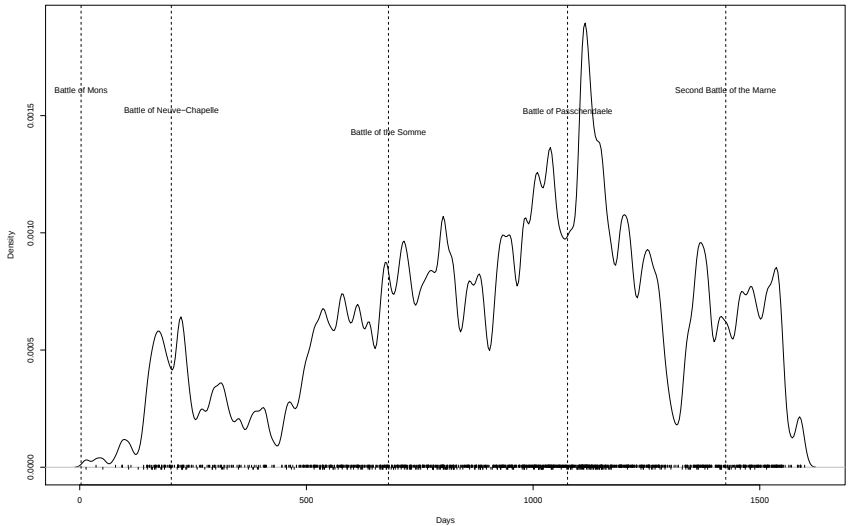
- ▶ The effect of putting things on the market on moral beliefs
- ▶ Competition, intermediation, alienability, conflicts of interest, mandatory disclosure

Tax

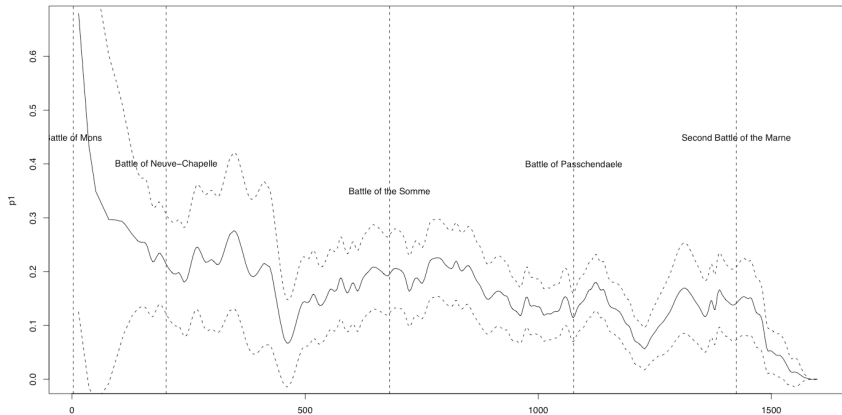
Family law

Additional Slides

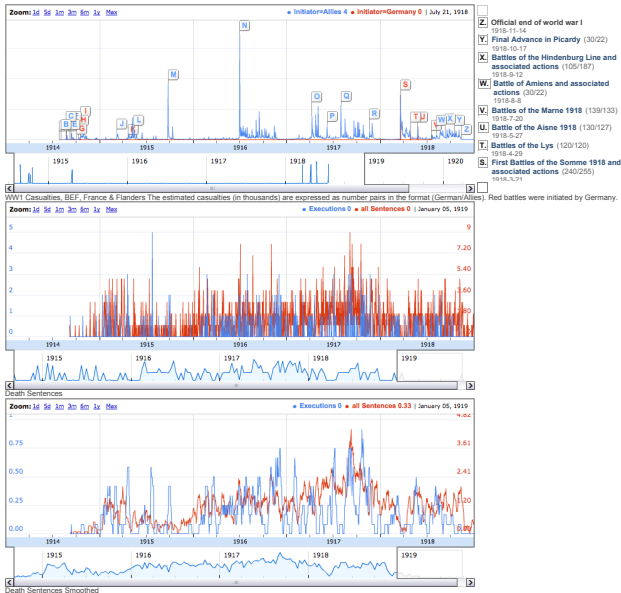
Distribution of Death Sentences



◀ Historical Context



◀ Historical Context



◀ Historical Context

EXECUTION OF A BRITISH PRIVATE: SHOT AS A DESERTER FROM THE TRENCHES

The Manchester Guardian (1901-1959); Jan 22, 1916;

ProQuest Historical Newspapers: The Guardian (1821-2003) and The Observer (1791-2003)

pg. 9

EXECUTION OF A BRITISH PRIVATE.

SHOT AS A DESERTER FROM THE TRENCHES.

Mr. Tennant, Under Secretary for War, in Parliamentary papers, informs Mr. Farrell that Private T. Hope, of the 2nd Battalion Leinster Regiment, was tried by field general court-martial on February 14, 1915, on a charge of **desertion** and other minor charges. The evidence showed that he absented himself from the trenches on December 23 until February 9, when he was arrested.

"It is well known to all **soldiers** (adds Mr. Tennant) that **desertion** in the face of the enemy is liable to be punished by death. Private Hope was informed of his sentence more than twelve hours before it was carried out. The sentence was passed on February 14, and was most carefully reviewed before it was confirmed by the Commander-in-Chief on February 27. Such confirmation was strictly in accordance with law. It is obvious that counsel cannot be employed on courts-martial which take place in the field.

"The accused called no evidence such as is referred to in the latter part of the question (Mr. Farrell had asked whether it was brought to the notice of the court that on several

occasions Hope had exposed himself gallantly in trench warfare), nor was any such evidence before the court."

Appeals from Death Sentences.

In reply to Mr. King's suggestion that ten days should elapse between the dismissal of the appeal of a man sentenced to be shot upon conviction on indictment and the execution of the sentence, Mr. Tennant says he is not sure that it would be desirable. When a man has been sentenced to death and all the possible means of obtaining a reprieve have been exhausted, to defer the **execution** unduly does not appear to be at all desirable in the interests of the condemned.

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Were Lesser Sentences Known?

1. "I am firmly of the opinion that the crime was deliberately committed with the intention of avoiding duty on the Redan, more particularly as he absented himself shortly after the case of another soldier had been promulgated for a similar crime. The Officer commanding the man's Company is of the same opinion. Sentence was remitted in the case mentioned to 2 years Hard Labour" (WO 71/450)
 - ▶ What was promulgated was a conviction for ◀ absence as opposed to ◀ desertion
2. "They know that long sentences inflicted in war are whittled down as they pass up the military hierarchy and that if a sentence is not ended before the end of the war they may look forward to an amnesty at the end of hostilities" (Babington 1983, pp. 18-19)
 - ▶ Does not speak to the question of whether soldiers knew that *death sentences* would be whittled down
 - ▶ This writing occurred before the Suspension of Sentences Act (March 1915) that ensured sentences would be served after the war.

Were Lesser Sentences Known?

3. Acquittals were not published nor promulgated (Darling Report 1919)
4. “In a trial of a member of His Majesty’s Forces, in which a conviction results, the result is always made public by means of the promulgation of the finding and sentence.” (Hansard 1916)
 - ▶ Informing the offender and no one else of the charge, finding, sentence, and confirmation will be sufficient promulgation to satisfy this rule (Army Act s. 53, note)
 - ▶ Unlikely that the 130,936 FGCM convictions were circulated to the entire army (90 per day would likely reduce their impact)
 - ▶ Inconsistent with repeated admonishments that “it should be remembered that on active service the usual penalty is death” for leaving post, cowardice, sleeping on post, etc. (GRO Feb 11, 1915)

Were Lesser Sentences Known?

5. Unit orders that disseminated disciplinary information from higher formations and communicated to lower formations were divided into Part 1 and Part 2.
 - ▶ ◀ Part 1 Orders addressed training, parades, tasks, duties, warnings about forthcoming movements or behavior
 - ▶ Announced on parade and posted on notice boards.
 - ▶ ◀ Part 2 Orders recorded individual soldiers' status, fines; promotion; posting to other formations; pay; including punishments
 - ▶ Unlikely to be read in its entirety on parade.
 - ▶ Some men put back on the rolls as returned "from desertion"
 - ▶ Unit orders that were meant to be confidential were not allowed to be distributed (The War Office, "Field Service Pocket Book")
 - ▶ Returns were not announced (Darling Report 1919)
6. Neither soldiers at the time nor British military historians of World War 1 analyzing qualitative records knew about the low rate of death sentences for convicted deserters.

◀ Field General Courts Martial

21st Infantry Battalion Part II Orders (1915-1919)

absence GO

Daily Orders Part II

No 243
Station West Sandling Camp
Date Aug 28th 1915

Regimental No, Rank and Name	Company	Particulars of Casualty etc, and Date
9		
Deserters		
By Court of Enquiry held at West Sandling Camp 19/8/15 the following were declared Deserters and are struck off the strength of the Bn from that date.		
59598 Pte Lodge H	2	
59601 Pte Lomax J T	1	
59701 Pte McCombs T	1	
<i>(Transcriber's note: the actual spelling is McCombs)</i>		
10		
Remission of Punishment		
The GOC Troops, Shorncliffe has been pleased to approve of the remission of ninety (90) days of the unexpired sentence of No 60108 Pte Camruthers W, 21 st Can Battalion - to take effect from 3/9/15. Authority A (a) 1-15 GOC Troops Shorncliffe		
11		
Change Religion		
59231 Pte Cuyler G	3	Has been permitted to change his religion from Roman Catholic to Church of England
12		
Change of Name		
59434 Pte Harvey Jas	Depot	Having declared his true name to be Robert Gaffikin, he will in future be known as such, and the name will be entered in all his documents
13		
Hospital		
59007 Pte Allen HE	3	Discharged fro
59368 Pte Gillett FH	(MGS)	Discharged fro

Sentenced to 3 days FP No 1, 10-1-17, for [Absence](#) from Billets without permission (Authy OC 4th Can TMB 8-2069 d/13-1-17)Page n854

59403 Pte Gurnsey WA 4 Discharged from St Martins Plains 27/8/25

59123 Butler G 4 Discharged from St Martins Plains 27/8/15

59392 Cpl Grier R 2 Discharged from CM Hospi Shorncliffe 28/8/15

14
Forfeitures, Restrictions & Detentions

59870 Pte Searle J Depot Forfeits 8 days pay for [absence](#) 11 to 18/8/15 and awarded 28 days detention 18/8/15

59931 Pte Strong L 1 Forfeits 8 days pay for [absence](#) 20 to 27/8/15 and restricted half pay for two months

59104 Pte Brown A 1 Awarded 120 hours detention for insubordination

59940 Pte Sutton J 1 Forfeits 1 days pay for [absence](#) 28/8/15

15
Transfer

59056 Pte Bennett MJ 2 Transferred to 2nd Div Supply Col, and is struck off the strength of the Battalion from 1/9/15. Authority RO 851 27/8/15 2nd Can Division

The following transfers will take effect from this date. From Depot Coy

59712 Pte McElraith H	To Head Quarter Staff
60111 Pte Allen MB	To No 1 Coy
59131 Pte Cambridge EHB	To No 1 Coy
59390 Pte Gregson L	To No 1 Coy
59740 Pte Neault A	To No 1 Coy
59883 Pte Sholler FC	To No 1 Coy
59356 Pte Gay JC	To No 1 Coy
59545 Pte Kitcheson DV	To No 1 Coy
59831 A/Cpl Reynolds AE	To No 1 Coy hand written note says "Pte only"
59410 L/Cpl Hall HJE	To No 1 Coy do do
59623 L/Cpl Mackney WH	To No 1 Coy do do
59176 Pte Cookburn E	To No 1 Coy do do
59297 Pte Elsom FL	To No 1 Coy
59327 Pte Fleming D	To No 1 Coy
9536 Pte Kelly J	To No 1 Coy
9253 L/Cpl Colman G	To No 2 Coy do do
9997 Pte Trollope G	To No 2 Coy
9237 Pte Davern FE	To No 2 Coy
9164 Pte Clarke FC	To No 2 Coy

https://archive.org/stream/21stInfantryBattalionPartIIOrders1915-1919/21stBattalionPartIIOrdersTranscriptionConsolidation#page/n1661/mode/2up/search/desertion

21st Infantry Battalion Part II Orders (1915-1919)

desertion

Daily Orders Part II

No. 44
Station In the Field
Date June 15th 1918

Regimental No. Rank and Name	Company	Particulars of Casualty etc, and Date
1 Courts Martial		
633013 Pte Bennett WG		In confinement awaiting trial 2-4-18. Tried and convicted by FGCM 15-5-18 of "Conduct to the prejudice of good order and military discipline, in wounding himself through negligently handling a rifle" and sentenced to 42 days FP No 1. Confirmed by GOC 4 th Cdn Infantry Brigade 17-5-18
1093361 Pte Gross L		In confinement awaiting trial 3-4-18. Tried and convicted by FGCM 15-5-18 of "Conduct to the prejudice of good order and military discipline, in wounding himself through negligently handling a rifle" and sentenced to 42 days FP No 1. Confirmed by GOC 4 th Cdn Infantry Brigade 17-5-18
285599 Pte Dine RK		In confinement awaiting trial 16-5-18. Tried and convicted by FGCM 29-5-18 of "Absence without leave from working party for Forward Area 7.30 pm May 15 th 1918 to 9.00 am May 16 th 1918" and sentenced to 56 days FP No 1. Confirmed by GOC 4 th Canadian Infantry Brigade 1-6-18 (Forfeits 2 days pay under RW)
724271 Pte Young GA		Absent without leave 4.00 pm 29-3-18 until 7.15 pm 24-4-18. In confinement awaiting trial 24-4-18. Tried by FGCM for "When on Active Service Desertion". Found Not Guilty of Desertion, but Guilty of Absence without leave, and sentenced to nine months Imprisonment with Hard Labor. Sentence confirmed by GOC 4 th Cdn Infantry Brigade 31-5-18. Forfeits 27 days pay under RW for pay. (Authority for Courts Martials OC 21 st Bn AFB 2069 dated 5-6-18)
2 Casualty		
445008 Cpl Ison EA		Wounded (At duty) 27-5-18 (Authy OC 21 st Bn B-213 d/1-6-18)

Unit 21st INFANTRY BATTALION (Desertion Ontario Regt.)
DAILY ORDERS. PART II. NO. 44.
Issued by the Field.
Trans. 2048-1918

Regimental No. Rank and Name Date

5. **WOUNDED DESERTERS.**
(Minimal list).

✓ 39028 Pte. DUBREUIL, N. DIED 6-6-18 of wounds received in Action, (Authy. G.C., No. 9 General Hospital, telephone message 3-6-18. A.H.G., Cdn. Section, P. 12088).

✓ 17107 Pte. Dillinger, E. Invalided (WOUNDED) and posted to Eastern Ontario Regt'l, Depot, Seaforth, 30-6-18 per A.F. "E. Australia". (Authy. A.F. 5. 3082 No. 5482).

✓ 84078 Pte. Douma, B. Invalided (WOUNDED) and posted to Eastern Ontario Regt'l, Depot, Seaforth, 30-6-18 per A.F. "E. Australia". (Authy. A.F. 5. 3082 No. 5482).

✓ 89830 Pte. Penfrew, D. Invalided (INJURY) and posted to Eastern Ontario Regt'l, Depot, Seaforth, 30-6-18, per A.F. "E. Australia". (3082 - 5482).

✓ 70810 Pte. Staples, C. Invalided (WOUNDED) and posted to Eastern Ontario Regt'l, Depot, Seaforth, 30-6-18, per A.F. "E. Australia". (3082 - 5482), with effect from 4-6-18.

Sentenced to 3 days FP No 1, 10-1-17, for Absence from Billets without permission (Authy OC 4th Can TMB B-2069 d/13-1-17) page 886

Each issue of Orders will be issued consecutively throughout the year. A fresh series to be commenced with the first issue in each year.

Army Form O. 1810

All Arms.

Unit 21ST CANADIAN BATTALION. (Eastern Ontario Regt)

DAILY ORDERS. PART II.

No. 50.

N.B.—The Sub. No. of Order and Subject are to be shown in cols. 1 and 2, thus:—1.—Courts Martial.

In the Field.

Date JULY 13TH '18

Regimental No., Rank and Name.	Sepn. Battery, or Co.	Particulars of Casualties, etc., and Date.
4. PUNISHMENT.		
454032 Pte. Brooks,	F.G.	Sentenced to forfeit ten (10) days pay 24-6-18, for "Disorderly Conduct by asking his superior officers to produce their passes when he had no right to do so". (Authy. O.C., No. 14 Gen. Depot, B-2069 d/3-7-18).
5. COURTS MARTIAL.		
59880 Pte. Sherman,	A.O.	Absent without Leave April 28th 1918 to May 3rd 1918. In confinement awaiting trial 3-5-18. Tried by F.G.C.M. 28-6-18, for, "When on Active Service - DESERTION " found NOT GUILTY of Desertion, but GUILTY of Absence without Leave, and sentenced to two (2) years I. H. L. Confirmed by G.O.C., 4th Canadian Infantry Brigade 26-6-18. Forfeit six (6) days pay under R.W. for Pay. (Authy. O.C., 21st Battalion, A.P.B. 2069 dated 4-7-18).
59442 Pte. Hawkins,	J.	

◀ Redan

Part 1

No 166
 Station Sandling Camp
 Date June 1st, 1915

Item	Particulars
1	Orderly Officer for duty tomorrow
Duties	Orderly Officer next for duty
	Field Officer for 3-6-15
	Quarter Master for day 3-6-15
	Lieut Black
	Lieut Morrison
	Major CC Bennett
	Capt A McCully
2	Lieut Cooper is granted leave of absence from m.n. 1-6-15 to m.n. 6-6-15
Leave	
3	The Parades for tomorrow morning will be the same as to-day except that the
Parades	Parade will be dismissed at 11.30
	Dinners will be at 12 o'clock sharp
	The afternoon parades will be a route march. The Battalion will fall in at 1
	o'clock
	Dress will be drill order with Khaki Service Shirts. Braces will be worn inside
	the Shirts
	This order of Dress will apply to all parades in future unless special orders
	are given
	Putties in future must be turned in putting on and must have a uniform three
	turns in front. Pants to be turned down over tip of putties
	OC Platoons will be held responsible that all orders regarding dress on
	parade or otherwise are carried out.
4	All extra Batmen in excess of the War Establishment will be returned to duty
Batmen	from this date
5	NCO's in charge of Huts will be held responsible for the carrying out of all
Quarters	instructions in connection with their respective Huts and for the condition of
	area surrounding same

Daily Orders Part 1

No	177
Station	Sandling Camp
Date	12 th June 1915

Item	Particulars
1	Orderly Officer for duty tomorrow
Duties	Lieut Southley
	Orderly Officer next for duty
	Lieut Brownlee
	Orderly Officer for Tuesday next
	Lieut Bassett
	Officer for Roman Catholic Party
	Lieut Black
2	Company Roll Books, Platoon Roll Books and memoranda for Outpost and Sentries etc issued from this office to-day will be taken into use at once
Company Books	
3	The following extract from Routine Orders is published for information:
Sanitation	
	To obviate risk from the use in common of Basins tubs etc at all ablution places, tubs are to be kept standing, in which all basins in use are to be kept immersed in a solution of Cresol one part in 200 of water.
	Tubs used for bathing will be washed daily "in the same solution"
	Vessels in which clothing is washed will be similarly treated
	The Sanitary detachment in each Unit will discharge these duties
	OC will provide for a supply of boiling water after each meal for washing of mess tins at the Kitchens
4	The following extract from Routine Orders is also published for information:
Bounds	
	"Maestrani's Central Restaurant, Folkestone, is placed "out of Bounds for all ranks from this date."
5	The Church Parades for tomorrow will be as follows:
Church Parades	Church of England at 9.00 am on the 21 st Area
	Non-Conformists at 9.00 am on the 20 th Area
	Roman Catholics at 7.00 am on the 19 th Area
	Each denomination will parade 15 minutes previous to the above mentioned times
6	With reference to "Collective Training 2 nd Canadian Division 1915" each
Company Training	Company Commander will draw up a progressive scheme to cover the whole period of Company Training and submit the same to the Officer Commanding
7	Captain Stroud and Sergt Hazlett will report to Lieut Van Wortz at the Headquarters of the 5 th Canadian Infantry Brigade, East Sandling, at 5 pm
Signalling Course	Sunday the 13 th inst. to commence a Course of Instruction in the new

methods of signalling (Telephone Buzzer etc). Lieut Shepherd will take the duties of signalling Officer during the absence of Capt Stroud

Part 2

8 With reference to Daily Orders of yesterday the parts referring to 592
Punishments & Core (4) should read "2 days detention & forfeits 1 day's pay"
Forfeiture

Daily Orders No. 777 1977
By Lieut. Col. G. P. Hughes
Communications Unit Detachment C. M. F.
Sensitization Camp, 13th June 1945.

Part I

1 Duties Officer for duty tomorrow: Lieut. Southey.
 " " next for duty " Brownlie
 " " for Sunday night " Macneist.
 Officer for House Catholics Party " Elcock

2 Company Books Company Roll Books, Platoon Ball Books and memoranda for
Books Outpost Duty and Sentinels etc issued from this office
to-day will be taken into use at once.

3 Sanitation The following extract from Routine Orders is published
for information:-
To obviate risk from the use in common of basins tubs
etc at all sanitation places, tubs are to be kept standing,
in which all basins in use are to be kept immersed in a
solution of Caustic soda and kept at 80° of water.
Tubs used for bathing will be washed daily in "the same"
"solution".
Vessels in which clothing is washed will be similarly
treated.
The Sanitary detachment in each Unit will discharge
these duties:
O. O. will arrange for supply of boiling water after
each meal for washing of mess tins at the Kitchens.

4 Bounds The following extract from Routine Orders is also published
for information:-
"Messieurs' Central Restaurant, Jellastown, is placed
"out of bounds for all ranks from this date."

5 Church Parades The Church Parades for tomorrow will be as follows:-
Church of England at 9.00 a.m. on the 13th Area.
Pentecostals at 10.00 a.m. on the 13th Area.
Roman Catholic at 7.00 a.m. on the 14th Area.
Each denomination will parade 15 minutes previous to
the above mentioned time.

6 Company Training With reference to "Collective Training and Squadron
Training Division 1945" Commander will draw up a
progressive scheme to cover the whole period of Company
Training and submit the same to the Officer Commanding.

7 Signalling Course Left Captain. Stroud and Sergt. Sackett will report
to Lieut. Wm. Worts at his headquarters of the 5th Canadian
Infantry Brigade meeting, at 8 p.m. Sunday the 13th
inst., to commence a course of instruction in the new
methods of signalling (Telephone Banner set). Lieut.
Shepherd will take over the duties of signalling officer
during the absence of Capt. Stroud.

Part II

8 reinforcements & Paris/Bureo. With reference to Daily Orders of yesterday the
referred to 52921 Pte. Core (d) should read "2 days
detention & forfeits 1 day's pay".

◀ Lesser Sentences Known?

Daily Orders Part II

No. 145
Station Kingston Ont
Date May 3rd, 1915

Sub No.	Subject	Regimental No, Rank and Name	Company	Particulars of Casualty etc, and Date
6	Discharges	#792 Pte Moss	4	Struck Off 4/5/15
		#832 Pte Lake	4	" "
		#1211 Pte Suddard	1	" "
		#801 Pte Rose	4	" "
7	Transfers	#855 Pte Lywood	3	Transferred to Depot Co.
		#1281 Pte Stinson	3	" " "
		#688 Pte Sherman	3	" " "
		#552 Pte Mitchell	3	" " "
8	Detention remitted	#552 Pte Mitchell	3	Unexpired portion of sentence remitted from this date
		#344 Pte Slater	2	
		#872 Pte Harris	4	
		#915 Pte Renfrew	4	
		#423 Pte Edwards	2	
		#106 Pte O'Neill	1	
		#876 Pte Hill	4	
		#454 Pte McElroy	2	
		#832 Pte Lake	4	
		#405 Pte Burnette	2	

Each copy of orders will be transmitted immediately throughout the post. A fresh copy will be transmitted each day.

Unit *2nd Canadian Infantry*

DAILY ORDERS, Part II.

No. 358

Station *Kingston Ont.*

Date *May 3rd, 1915.*

N.B. - Every detachment which effects a soldier's service or pay must be published immediately after its occurrence.

Sub No.	Subject	Regimental No, Rank and Name	Company	Particulars of Casualty etc, and Date
6	Discharges	#792 Pte Moss	4	Struck Off 4/5/15
		#832 Pte Lake	4	" "
		#1211 Pte Suddard	1	" "
		#801 Pte Rose	4	" "
7	Transfers	#855 Pte Lywood	3	Transferred to Depot Co.
		#1281 Pte Stinson	3	" " "
		#688 Pte Sherman	3	" " "
		#552 Pte Mitchell	3	" " "
8	Detention remitted	#552 Pte Mitchell	3	Unexpired portion of sentence remitted from this date
		#344 Pte Slater	2	
		#872 Pte Harris	4	
		#915 Pte Renfrew	4	
		#423 Pte Edwards	2	
		#106 Pte O'Neill	1	
		#876 Pte Hill	4	
		#454 Pte McElroy	2	
		#832 Pte Lake	4	
		#405 Pte Burnette	2	

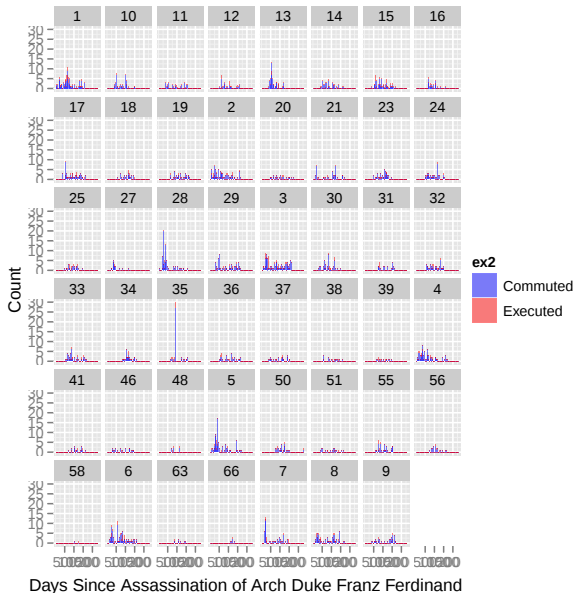
May - Sept. 1915
Canada - England

N.B. - Copies to be sent weekly and on last day of each month to Officer in Charge (Per. 1544, R. R. & O. 1915); and daily, once weekly or weekly, to the Department as necessary require.

W. A. H.
Per. 1544, R. R. & O.

for Capt. A. S. L. L. L.
Adjutant 2nd Bn. 2nd Canadian Infantry

◀ Lesser Sentences Known?



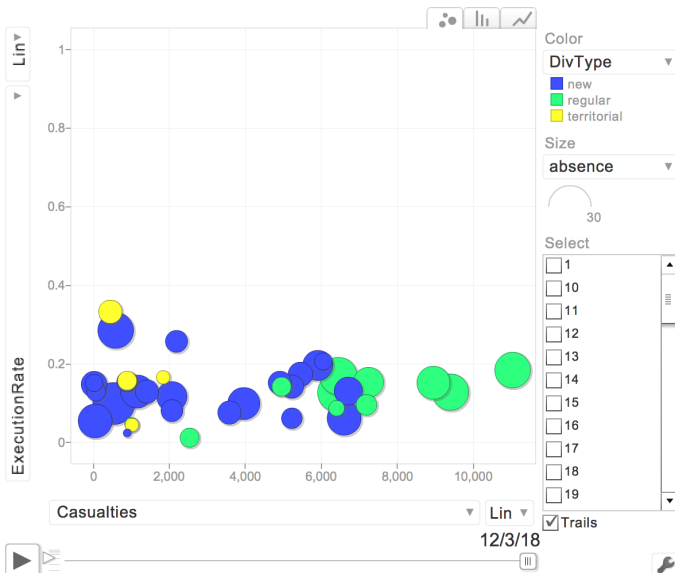
Division-by-Division Animations

1. <https://dl.dropbox.com/u/64329541/divMotionChartcumSum2.html>

- ▶ ◀ Execution Rate uncorrelated with Casualties across Divisions
- ▶ ◀ Execution Rate uncorrelated with Absences across Divisions

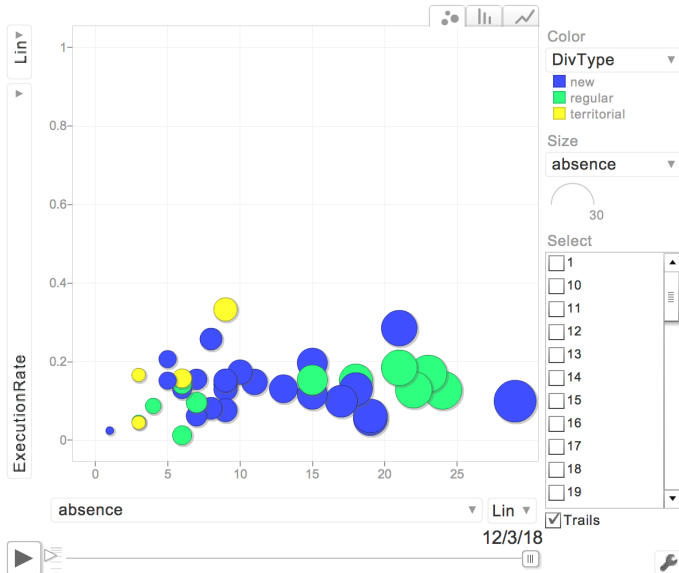
2. <https://dl.dropbox.com/u/64329541/divMotionChartrollMean2.html>

- ▶ ◀ Recent Death Sentences predict Executions
- ▶ ◀ Recent Casualties predict Absences
- ▶ ◀ Execution Rate uncorrelated with Recent Casualties
- ▶ ◀ Execution Rate uncorrelated with Recent Absences
- ▶ ◀ Regressions
- ▶ ◀ Historical Context: Commutation Decision



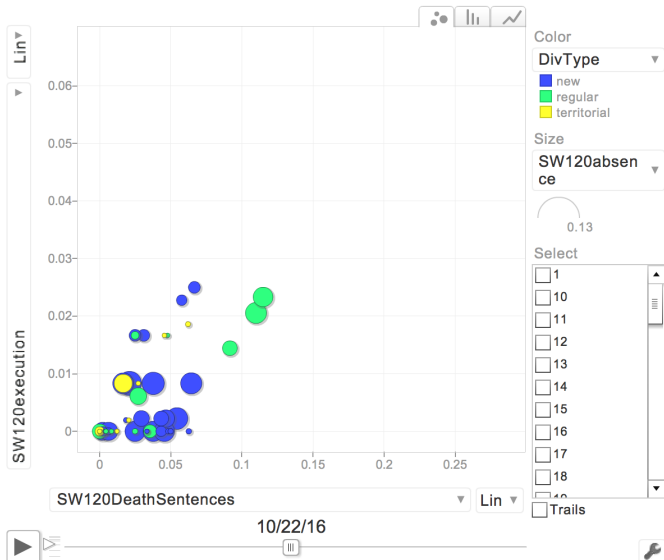
This figure summarizes death sentences, executions and absences by British Army division. Shown are the cumulative sums

◀ Animations



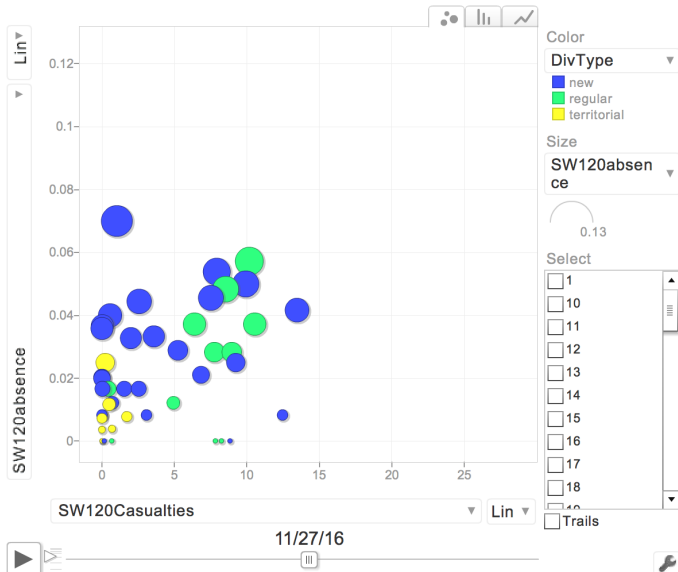
This figure summarizes death sentences, executions and absences by British Army division. Shown are the cumulative sums

◀ Animations

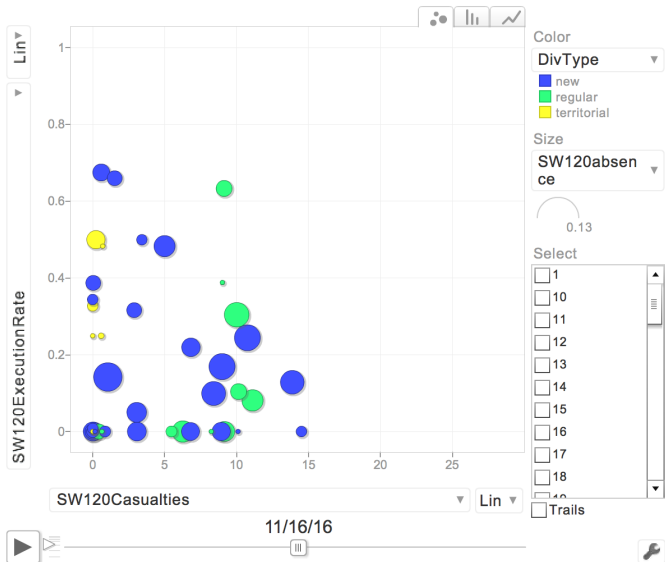


This figure summarizes death sentences, executions and absences by British Army division. Shown are the sliding window averages (120 days)

◀ Animations

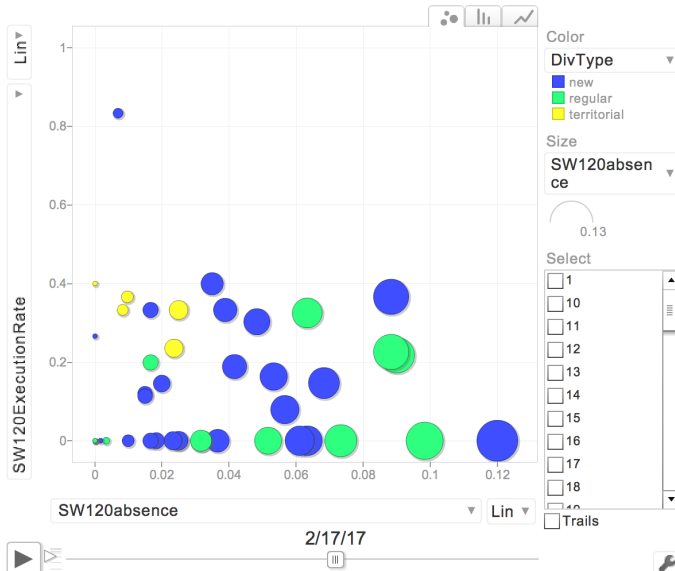


This figure summarizes death sentences, executions and absences by British Army division. Shown are the sliding window averages (120 days



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◀ Animations



This figure summarizes death sentences, executions and absences by British Army division. Shown are the sliding window averages (120 days

Emotional Impact

1. "It's the only thing I look back on in my military career with shame." (Sellers 2003)
2. "I witnessed a shooting. . . . It shook me a bit" (Sellers 2003)
3. "The discipline out here is very severe. Men found absent or drunk or found out of bounds are tried by Court Martial and several men have been shot for straying away from camp. One was shot this morning." (Adamson 1997)
4. "The Corporal was shot in Happy Valley. For discipline's sake his whole Battalion was paraded to witness the proceeding. Other Battalions of the Brigade were close by. The Battalion was called to attention, and the firing party were ordered to fire. They all deliberately fired wide, but one, not firing quite wide enough wounded the malefactor in the shoulder. It then became the duty of the officer in charge of the firing party to finish off the malefactor with his revolver. This duty was faultlessly performed except that the officer wept." (Dalton 1986)

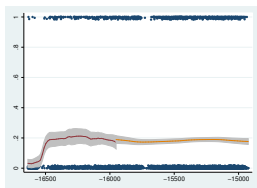
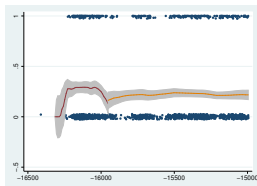
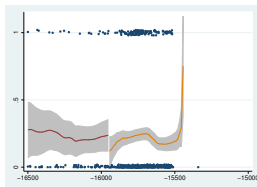
Were Commutations Known?

1. If he was convicted, a soldier would not know the nature of the conviction (e.g., on the charge of desertion, whether he was convicted for desertion or for the lesser offense of absence without leave) or the sentence until the night before they were promulgated (Babington 1983, pp. 15, 17)
 - ▶ The judges serving on a court martial had to swear “not to divulge the sentence of the court until it is duly confirmed.”
(Graham-Harrison 1907)
 - ▶ Officers would not want to publicize commutations for fear of subsequent indiscipline and career concerns
2. Even if soldiers knew about their commuted sentence, they would not want others to know they were a convicted deserter
 - ▶ Medical Officer, “To gratify a mawkish humanitarianism [40 or 60] mean fellows are encouraged to slip away every time there is risk to their skins, so more and more average men learn to shirk with impunity; attacks fail, and losses run into untold thousands, [as] the most dutiful of our men are not backed up”

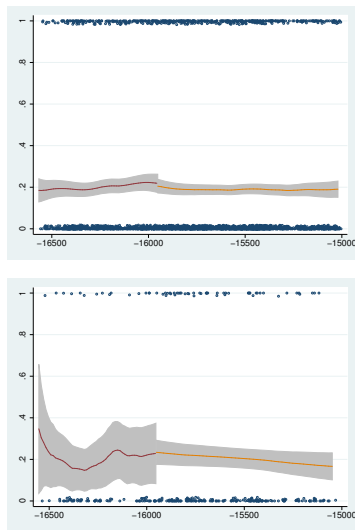
Were Commutations Known?

3. One source attests that a convicted soldier would know about their death sentence before the execution or commutation decision via a secret envelope (Hansard 1920)
 - ▶ This would likely have only occurred after April 17, 1918: those sentenced to death would be informed of the sentence prior to confirmation (Bond and Cave 2009, pp. 208-209)
4. Two exceptions to the rule are first-hand accounts
 - ▶ Carrington (1965), p. 128; is not correct in the recollection of crimes and dates
 - ▶ Arthur (2002), p. 173: is perceived by historians to be more literary than historical
5. Some general routine orders mention death sentences being commuted
 - ▶ General routine orders would be circulated in writing only to officers, and its entirety unlikely to be passed on to troops.
 - ▶ Have not found mentions of commutations for convicted deserters
6. Official statistics were not made public until April 1920

Easter Rising Impact on Irish Desertions



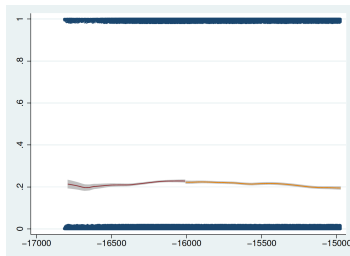
Easter Rising Impact on Capital Sentences and Executions



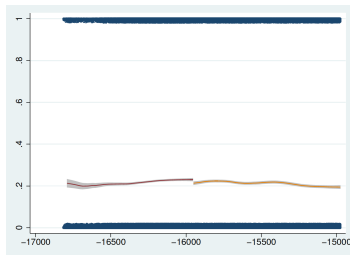
When Germans opposite the Munsters held up signs indicating that Dubliners were being shot by British troops, the Munsters sang “God Save the King” to them. (Karsten 1983)

Conscription or Voluntary? Desertion in the UK

Impact of conscription (March 2, 1916)



Impact of Easter Rising (April 29, 1916)



WATZ DIARY JAN 1917.

(Part 3)

REF: WO 154/8

LIST OF ABSENTEES.

Number.	Rank.	Name.	Unit.	Date of absence.	Description.	Reported by.
45476	Sergeant	Austin..	22nd Bde. R.F.A.	12.11.16	Height, 6 feet; broad build; stoops; aquiline nose; brown hair; blue eyes.	4th Army.
4431	Lee-Corporal	Atkinson, R.	54th Bn. A.I.F.	29.10.16	Age, 22; height, 5 feet 6 inches; dark complexion.	"
753	Private	Armstrong, A.	49th Bn. A.I.F.	16.10.16	Age, 35-40; height, 5 feet 7 inches; dark complexion; clean shaven; stout build.	"
9214	"	Armstrong, R.	2nd Bn. South Staffordshire Regt.	23.11.16	Height, 5 feet 3 inches; dark complexion; grey eyes; suffering from frost bite in feet.	"
6610	"	Annisson, T.	1st Bn. S. A. Inf.	3.11.16	Age, 23; height, 5 feet 8 inches; dark complexion; dark hair and eyes; tattooed on both arms.	"
S/16008	"	Arkinson	11th Bn. A. & S. Hrs.	18.10.16	Age, 22; height, 5 feet 3 1/2 inches; fair hair, blue eyes, ruddy complexion; quiet disposition; stout build.	"
1871	Corporal	Arrowsmith	5th Bn. Durham Light Infantry.	27.11.16	Height, 5 feet 5 inches; fair complexion; well built.	"
25506	Private	Allen	2nd Bn. Hampshire Regt.	4.12.16	Height, 5 feet 6 inches; dark hair; hazel eyes; fresh complexion; pointed features; medium build.	"
5142	"	Beaumont	4th Bn. Northumberland Fusiliers.	6.11.16	Age, 35; height, 5 feet 6 inches; dark hair, hollow complexion, wrinkled features; broad build.	"
10157	Driver	Bannister	36th Battery, R.F.A.	4.11.16	None available	"
4020	Private	Burrows, R. L.	4th Pioneers, A.I.F.	10.11.16	Height, 5 feet 6 inches; black curly hair; very smart appearance; medium build; few front teeth missing.	"
3678	"	Brandt, G.	8th Bn. A.I.F.	"	None available	"
1661	"	Baker, R.	20th Bn. A.I.F.	24.11.16	Height, 5 feet 6 inches; black hair; dark complexion.	"
			22nd Bn. R.F.A.	10.11.16	Age 40; height, 5 feet 6 inches;	"

NEW SERIES.

TUESDAY, JUNE 6, 1916.

VOL. XXXII., No. 3258.

It is requested that the Admiralty and War Office Forms giving descriptions of Deserters, &c., from His Majesty's Naval and Military Services for insertion in the POLICE GAZETTE, and all communications in connection therewith, shall be addressed to THE EDITOR of the POLICE GAZETTE, New Scotland Yard, London, S.W.

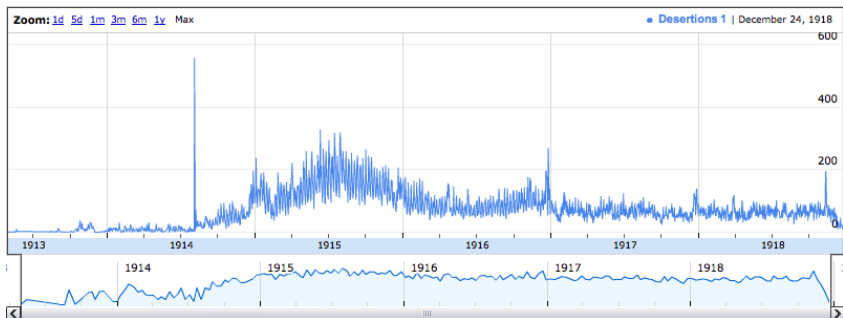
WAR OFFICE, JUNE 6, 1916.

DESERTERS AND ABSENTEES FROM HIS MAJESTY'S SERVICE.

Office No	NAME.	Reg. No.	Corps.	Age.	Height.	Complexn.	Hair.	Eyes.	Trade.	ENLISTMENT.		PARISH AND COUNTY IN WHICH BORN.	DESERPTION.		MARKS AND REMARKS.
										DATE OF	PLACE OF		DATE OF	PLACE OF	
1	Abbott, C.	1312	6th K.R. Rifles	—	—	—	—	—	—	—	—	—	21 May	Sheerness	
2	Alexander, J. R.	10310	W. Cav. Depot	—	—	—	—	—	—	—	—	—	16 May	St. Helens	
3	Allwood, Herbert	8516	3rd E. Yorks R	29	5 4	fresh	dk brn	brn	groom	17 May '07	Beverley	Eaton, Notts	27 May	Withnsea	2 scs chst
4	Anderson, B.	11829	3rd Highland LI	—	—	—	—	—	labourer	15 May '15	Holloway	Chapel Tn, Sheffield	28 May	Catterick	mole back
5	Andrews, J.	10791	5 Army Ser. Corps	38	5 7	—	—	—	bricklayer	6 Mar. '15	Southwark	Southwark	23 May	Newark	star 1 frm portwine stn cross
6	Ansdcombe, C.	09533	R. Engineers	35	5 8	fresh	grey	grey	pro footbl	8 June '15	—	—	15 May	Ft. George	scs chks knees ttd frms
7	Armour, Daniel	8962	Dpt Seaf Hghrs	32	5 7	—	—	—	lighterman	—	Leeds	Leeds, Yorks	27 May	Poplar	
8	Armstrong, R.	15005	4th Wttr Tro R	26	5 6	ruddy	dk brn	brn	gen labr	18 Mar. '15	Kilkenny	Borris, Carlow	26 May	Curragh	
9	Asple, M.	19160	5th R. Dub. Fg	19	5 7	—	—	—	miner	31 July '15	Hackney	Durham	22 May	Windor	entred ttd frngt rt
10	Atkinson, Stanley	16565	5th Cldstrm Gds	27	5 8	—	—	—	painter	3 Nov. '14	Chichester	—	26 May	Newhaven	
11	Avery, C.	938	3rd R. Sussex R	42	5 7	—	—	—	choctie mk	8 Sept. '14	Birmingham	Birmingham	24 May	Lichfield	
12	Baegz, N.	13982	Dpt S. Staffs R	21	5 11	fresh	brn	blue	chauffeur	8 Nov. '15	Whitehall	Clerkenwell	26 May	Aimouth	
13	Baillie, Henry G.	47600	Army Ser. Corps	31	5 6	—	dark	—	carter	22 May '15	Dundee	Dundee, Forfar	15 May	Camberrn	CF MB hrt 1 frm JM JD MA
14	Bain, Michael	10210	11th Gordon Hghs	23	5 5	—	fair	blue	labourer	3 Apr. '08	Glasgow	Dingwall, Ross.	28 May	Cromarty	6 scs rt frm
15	Bain, Peter	10661	3rd Seaf. Hghrs	27	5 5	fresh	fair	black	plumber	1 Oct. '15	Ontario	Leith	10 May	Shorncliffe	ttd arms
16	Bain, Wm.	16075	Can. Pionr Dpt	32	5 5	—	dark	—	stoker	11 Jan. '16	Limerick	Vizers Fields, Limer.	22 May	Aghada	sc rt thigh 1 elbow
17	Bankes, P.	6802	3rd R. Mun. Fus	30	5 5	—	—	—	labourer	1 Mar. '12	Cork	St. Anns, Cork	24 May	Aghada	mole back
18	Bankes, Thos	9779	5th R. Mun. Fus	27	5 5	fresh	dk brn	hazel	shell gangr	17 Jan. '16	Barrw-i-F.	Stockton-o-Tees	21 May	York	
19	Barber, J.	3446	17th Bde RFA	22	5 3	dark	brn	dark	hawker	22 July '15	Ashtn-u-L.	Hulme, Lancs	24 May	Despout	
20	Barker, Herbert	26141	15th Nthdnt Fg	36	5 4	—	—	—	collier	24 May '15	Leicester	—	24 May	Rugeley Cp	man 1 arm
21	Bateman, A.	1493	23th Nthdnt Fg	21	5 8	—	—	—	waiter	7 June '15	Nwcastl-o-T.	Newcastle-on-Tyne	23 May	Nwcastl-o-T.	
22	Bates, John	688	3rd K.O. Sc. Bds	39	5 1	fair	brn	grey	gen labr	11 Aug. '14	Warrington	Barnsley	22 May	Inchelth	
23	Batty, Owen	247	3rd R. W. Surr. R	35	5 3	—	brn	brn	casual labr	31 Aug. '14	London	Lambeth	21 May	Shornham	TB 1 frm hrseshoe gdc lck rt
24	Begleigh, E.	2667	5th Yorks L.I.	—	5 6	fresh	it brn	—	miner	31 Aug. '14	Hull	—	19 May	Clistne Cp	scs nose
25	Beddows, —	19572	3rd E. Yorks R	31	5 5	—	—	—	labourer	29 June '15	Leeds	—	21 May	Withnsea	1 lve Maggie clspd hnds tr lve
26	Bellamy, George	17026	M.T. A.S.C.	23	5 5	—	—	—	labourer	4 Sept. '14	Accrington	Glasgow	22 May	Osterley Pk	— from B.E.F.
27	Brillhouse, E.	746	Army Ser. Corps	29	5 5	fresh	dark	blue	labourer	27 Oct. '15	Birmingham	Leeds, Yorks	9 May	Litherland	
28	Billington, T.	36415	3rd R. Welsh Fus	37	5 5	—	—	—	painter	13 Aug. '14	Islington	New Southgate, Mdx	20 May	Catterick	ttd frms sc back
29	Blackburn, S.	34517	Army Ser. Corps	24	5 6	fair	fair	hazel	driver	3 Feb. '16	Westminster	Headford, Galway	27 May	Hghtn Rgs	
30	Blackburrow, F. G.	70703	R. Engineers	48	5 10	—	brn	hazel	labourer	14 Aug. '14	Glasgow	Kilmarnock, Ayr	25 May	Ft. Matilda	sc rt sde chn
31	Blake, Jeremiah	7409	4th Scottish Rif	43	5 5	fresh	brn	—	caster	3 Dec. '14	Birmingham	—	21 May	Woolwich	ttd rt frm blu mk 1 eye sc
32	Bolan, William	55761	11th Art Dpt RGA	28	5 11	—	—	—	—	21 Dec. '14	Newport	Abercromby, Mon.	28 May	Hightown	coal sc 1 eyebrow

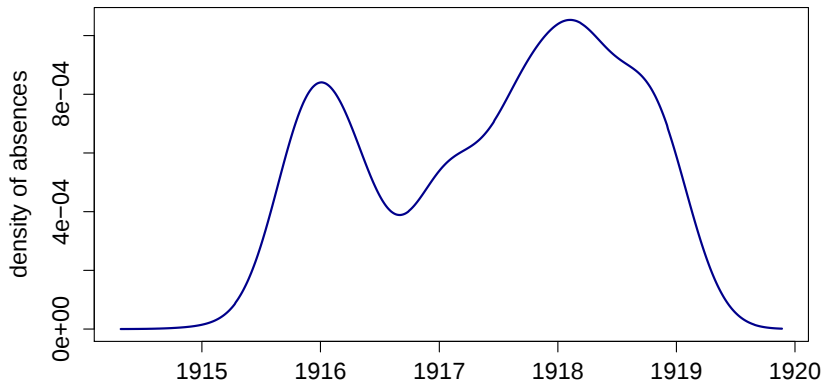
Daniel L. Chen

The Deterrent Effect of the Death Penalty?

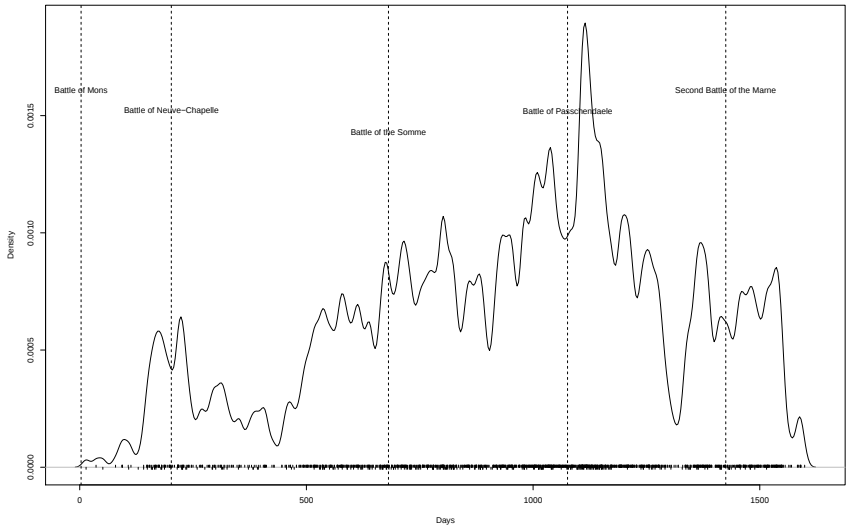


Data: DesTS • Chart ID: AnnotatedTimeLineID142fa67e8691b

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Distribution of Death Sentences



◀ Data

WD213/2 L/H side

When received.	Rank.	Name.	Regt.	Regiment.	Place of Trial.	Date of Trial.	NATURE OF CHARGE.				Examination of the body of the deceased.	Examination of the clothing of the deceased.	Examination of the arms of the deceased.	Examination of the legs of the deceased.
							Admission of the body of the deceased to the property.	Admission of the clothing of the deceased.	Admission of the arms of the deceased.	Admission of the legs of the deceased.				
1879	Plt	E. Connelly		R. S. G.	Nantes	September 10	do			do				
"	"	W. Stanford		"	"	" "	do			do				
"	"	R. McDonald		"	"	" "	do			do				
"	"	J. Donaldson		"	"	" "	do			do				
"	"	S. McIntosh		"	"	" "	do			do				
"	"	A. Thompson		"	"	" "	do			do				
"	"	W. McMaskill		"	"	" "	do			do				
"	"	L. Hyatt		A. Huffs	New Brunswick	October 28								
"	"	A. Lammara		"	"	25								
"	"	A. Matthews		"	"	25				do				
"	"	R. Wright		"	"	28				do				
"	"	G. Lucas		"	"	28				do				
"	"	Y. Nicholls		"	"	25				do				
"	"	B. Plant		"	"	28								



The West Yorkshire Regiment

Battalions of the Regular Army

1st Battalion

August 1914 : in Lichfield. Part of 18th Brigade in 6th Division. Moved on 7 August to Dunfermline then six days later to Cambridge.
Landed St Nazaire (France) on 10 September 1914.

2nd Battalion

August 1914 : in Malta.

Returned to England and landed at Southampton on 25 September 1914.

25 September 1914 : came under orders of 23rd Brigade, 8th Division, forming up at Hursley Park near Winchester.

Landed at Le Havre 5 November 1914.

3rd (Reserve) Battalion

August 1914 : in York. A training unit, it remained in UK throughout the war. Moved in August 1914 to Whitley Bay and played a part as Tyne Garrison.

4th (Extra Reserve) Battalion

August 1914 : in York. A training unit, it remained in UK throughout the war. Moved in August 1914 to Falmouth, going on in December 1915 to Redcar and in April 1916 to West Hartlepool, where it played a part as Tees Garrison.

Battalions of the Territorial Force

1/5th Battalion

August 1914 : in York. Part of West Riding Brigade, West Riding Division. Moved on 10 August to Selby, end of the month to Strensall and late October to York. In March 1915 moved to Gainsborough.

15 April 1915 : landed at Boulogne.

15 May 1915 : formation became 146th Brigade, 49th (West Riding) Division.

1/6th Battalion

August 1914 : in Bradford. Part of West Riding Brigade, West Riding Division. Moved on 10 August to Selby, end of the month to Strensall and late October to York. In March 1915 moved to Gainsborough.

Record same as 1/5th Bn.

1/7th (Leeds Rifles) Battalion

Carlton Barracks, Leeds. Part of West Riding Brigade, West Riding Division. Moved on 10 August to Selby, end of the month to Strensall and late October to York. In March 1915 moved to Gainsborough.

Record same as 1/5th Bn.

1/8th (Leeds Rifles) Battalion

Carlton Barracks, Leeds. Part of West Riding Brigade, West Riding Division. Moved on 10 August to Selby, end of the month to Strensall and late October to York. In March 1915 moved to Gainsborough.

Record same as 1/5th Bn.

30 January 1918 : transferred to 185th Brigade, 62nd (2nd West Riding) Division, absorbing 2/8th Bn and renamed 8th Bn.

Is casualties representative of enlistment?

Surname (in all data), Regiment (in all data), Birthplace (Police Gazettes inside and outside BEF, Service and Pension, Casualties)

1. Assess how closely Irish surname and Irish birthplace align
2. Assess the relative loyalty of Irish and non-Irish
3. Assess birthplace vs. enlistment location vs. surname as time-to-Irish roots
4. Assess quality of geolocation
 - ▶ 29K geolocated-Irish deaths = 27K Irish census deaths
5. Assess population representativeness of casualties
 - ▶ 15% of casualties = 14% of Medal Roll = 15% in Service and Pension had Irish surname
 - ▶ 4.1% of casualties database = 3.9% of enlistees born in Ireland (War Office)
 - ▶ Compare: War Office enlistment vs. medal roll vs. pensions; Irish census vs. casualties surnames yield 250% more soldiers with Irish surnames than Irish-born soldiers

Is length of time from Irish roots predictive of morale?

Police Gazettes inside and outside BEF

1. 21.7% of Police Gazette deserters (153K) have Irish surnames
2. 22.7% of Police Gazette B.E.F. deserters (3K) have Irish surnames
 - ▶ Suggests soldier selection or inculcation of group loyalty not at corner solutions; may be effectively comparable
3. 21% of War Diaries deserters have Irish surnames
 - ▶ Compare: 15% of casualties; 14% of Medal Roll had Irish surname
 - ▶ Irish-born deserting at 3.3 rate at which they enlisted
 - ▶ Irish surnames deserting at 1.5 rate at which they enlisted (assuming casualties is representative of enlistment)

Is Northern Ireland different?

- ▶ 1.9% of casualties born in N. Ireland; 3.6% born in South
- ▶ 4.5% of deserters born in N. Ireland; 9.8% born in South
- ▶ 4.4% of BEF deserters born in N. Ireland; 13.4% born in South
 - ▶ Northern Ireland still less loyal than British
 - ▶ Over twice as likely to desert as British-born enlistees
 - ▶ South less loyal than both, disloyalty increases in the field
- ▶ 1.8% of casualties enlisted in North; 2.2% enlisted in South
- ▶ 4.1% of deserters enlisted in North; 7.2% enlisted in South
- ▶ 3.8% of BEF deserters enlisted in North; 8.1% enlisted in South
 - ▶ Birthplace = Enlistment > Surname as predictors of loyalty
 - ▶ Irish surname is more predictive of southern rather than northern Irish locale

Irish surname and Irish locale

Pairwise regressions between Irish surname and Irish locale yield

- ▶ In Casualties, 0.3 and 0.29 for southern Irish enlistment and birthplace and 0.14 for northern Irish enlistment and birthplace.
- ▶ In Police Gazettes, 0.28 and 0.29 for southern Irish enlistment and birthplace and 0.12 for northern Irish enlistment and birthplace.
- ▶ In Service and Pensions, 0.28 and 0.25 for southern Irish birthplace and residence and 0.12 and 0.15 for northern Irish birthplace and residence. ◀ Is Northern Ireland different?

Location data quality particularly low

- ▶ Only 815,000 soldiers or 29% could be geolocated, unlike the 82% geolocation rate for the casualties data; 1.3 million geolocateable residences
- ▶ 9.1% of geolocateable soldiers are identified as born in Ireland
- ▶ 2.4% of geolocateable soldiers are identified as residing in Ireland

◀ Evolution of Normative Commitments

Irish Regiments

- ▶ Northern Irish regiments: Royal Irish Rifles, Royal Inniskilling Fusiliers, and Royal Irish Fusiliers (38% - 62% born in N. Ireland)
- ▶ Southern Irish regiments: Irish Guards, Royal Irish Regiment, Connaught Rangers, Royal Dublin Fusiliers, Leinster Regiment, and Royal Munster Fusiliers (67% - 74% born in N. Ireland)
 - ▶ 17.5% of B.E.F. PG deserters are from Irish regiments
 - ▶ 10% of War Diaries deserters from Irish regiments
 - ▶ 8.1% of Capital sentences from Irish regiments
- ▶ No historical evidence suggests military justice favored those from Irish regiments during apprehension, trial, sentencing, but not execution
 - ▶ 7.1% of executions, 7.1% of deserters with capital sentences, and 7.4% of executed deserters come from Irish regiments
 - ▶ Idiosyncratic spelling or abbreviation of the military unit, which can be merged to brigade and division but not always cleanly to regiment. ◀ Surname

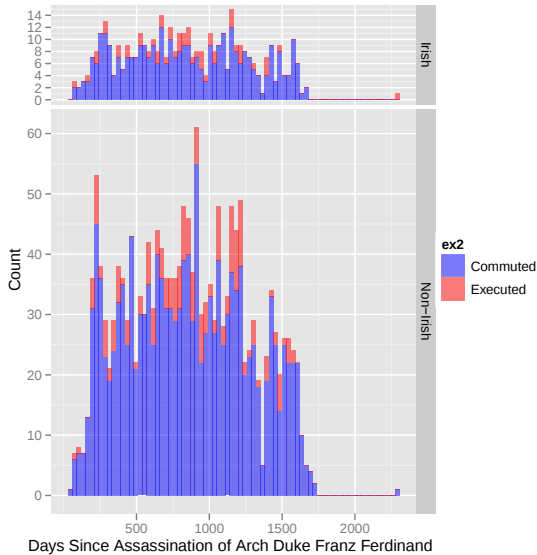


Table 1: Are Observable Characteristics Correlated with Execution Decisions? (Deserters)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Irish	-0.00133 (0.0214)	-0.00162 (0.0214)	0.00750 (0.0143)	-0.00261 (0.0214)	-1.93e-14 (0.230)	-0.000283 (0.0215)	-0.000398 (0.0214)	-0.00313 (0.0219)	-0.0147 (0.0244)	-0.00467 (0.0218)	0.0131 (0.0181)
Private		-0.0577 (0.0443)									-0.0265 (0.0371)
Age			-0.00464 (0.00316)								0.00274 (0.00396)
1915				-0.138 (0.0951)	-0.135 (0.107)					-0.210+ (0.110)	-0.0495 (0.115)
1916				-0.148 (0.0934)	-0.150 (0.105)					-0.246* (0.109)	-0.00752 (0.114)
1917				-0.205* (0.0930)	-0.205* (0.104)					-0.288** (0.109)	-0.0376 (0.114)
1918				-0.222* (0.0939)	-0.219* (0.105)					-0.320** (0.110)	-0.0678 (0.114)
Irish x 1915					-0.0152 (0.237)						
Irish x 1916					0.00798 (0.234)						
Irish x 1917					0.00133 (0.233)						
Irish x 1918					-0.0156 (0.235)						
New Army									0.0185 (0.0214)		
Territorial Army									-0.00713 (0.0303)		
ΔLog Casualties										-0.00134 (0.00742)	-0.00493 (0.00565)
ΔLog Casualties 30 Days Ago										0.00327 (0.00718)	-0.00292 (0.00540)
Distance to Coast											-0.000474+ (0.000268)
Distance to Berlin											0.000240 (0.000467)
Year Fixed Effects	N	N	N	Y	Y	N	N	N	N	Y	Y
Month Fixed Effects	N	N	N	N	N	Y	N	N	N	N	N
Day of Week Fixed Effects	N	N	N	N	N	N	Y	N	N	N	N
Division Fixed Effects	N	N	N	N	N	N	N	Y	N	Y	Y
Joint Test of Fixed Effects				0.000883	0.00575	0.750	0.258	0.0272	0.590		
Joint Test of Irish x Year FE					0.995						
Joint Test of Casualties										0.839	
Joint Test of Distance											0.209
Constant	0.151** (0.00959)	0.206** (0.0436)	0.984** (0.0801)	0.334** (0.0921)	0.333** (0.103)	0.144** (0.0306)	0.178** (0.0275)	0.188* (0.0889)	0.162** (0.0154)	0.493** (0.140)	0.757* (0.379)

Table 2: Are Observable Characteristics Correlated with Execution Decisions? (Deserters)

Panel A:	Joint Test of Significance
Brigade Unit	0.106
Corp Unit	0.230
Army Unit	0.242
Brigade Commanding Officer	0.872
Division Commanding Officer	0.0211
Division 1st General Staff Officer	0.109
Corp Commanding Officer	0.527
Corp 1st General Staff Officer	0.529
Army Commanding Officer	0.214
Army 1st General Staff Officer	0.182
GHQ Commanding Officer	0.129
GHQ 1st General Staff Officer	0.277
Irish Soldier x Irish Officer FE	0.659
Military Indiscipline 30-59 & 60-89 days ago	0.482
Death Sentences 30-59 & 60-89 days ago	0.139
Execution Rate 30-59 & 60-89 days ago	0.415
Panel B:	Correlation with Lag Decision
Aggregation level	
Division	0.0495 (0.0331)
Brigade	0.00376 (0.0387)
Corp	0.0225 (0.0330)
Army	0.0282 (0.0354)
Army Type	-0.0343 (0.0359)
All	0.0354 (0.0508)

Notes: Data is restricted to death sentences occurring in France & Flanders before the end of World War I. Death sentences recorded without Divisions or from the Labour Corps were removed. In Panel A, each row reports a separate ordinary least squares regression and tests of joint significance of the fixed effects or measures of the recent battle environment. Military indiscipline and death sentences are calculated as $\log(1+\text{number})$. Military indiscipline is the average of absentees and trials measured from the War Diaries, Police Gazettes, and FGCM trial registries. Lag execution rates is a set of controls comprising the numbers of executions and commutations within each time window. Units or officers that appeared with less than 10 frequency were categorized in a separate "other" category. All regression models include year, division, and Irish fixed effects. In Panel B, each row reports a separate ordinary least squares stacked autocorrelation regression. The strings of events within each unit were stacked and the first event within each unit was excluded as a dependent variable. If more than one event occurred on a day within a unit, the average outcome was calculated for that day. All regression models include year fixed effects and the leave-one-out mean execution rate of the unit. Standard errors in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Results are similar with Logit or Probit.

Table 3: Are Observable Characteristics Correlated with Execution Decisions? (All Death Sentences)

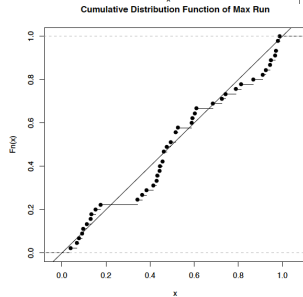
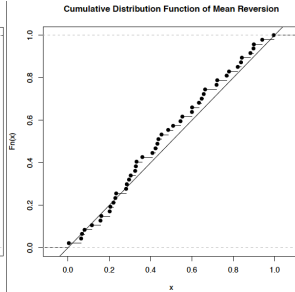
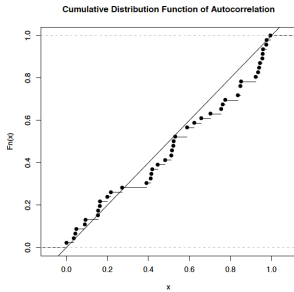
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Irish	0.00998 (0.0171)	0.00969 (0.0170)	0.0136 (0.0110)	0.0101 (0.0171)	0.0619 (0.0961)	0.0106 (0.0171)	0.0114 (0.0171)	0.0106 (0.0173)	0.00105 (0.0188)	-0.000867 (0.0169)	0.0697 (0.0951)	0.0117 (0.0141)
Private		-0.0842* (0.0327)									-0.0768* (0.0329)	-0.0160 (0.0272)
Age			-0.00302 (0.00261)									0.00153 (0.00327)
New Army									-0.00922 (0.0161)			
Territorial Army									-0.0143 (0.0236)			
Desert										0.0970 (0.0673)	0.0994 (0.0674)	0.0603 (0.0626)
Coward										-0.00968 (0.0713)	-0.0128 (0.0714)	-0.00141 (0.0652)
Disobedience										-0.0366 (0.0827)	-0.0367 (0.0828)	-0.000702 (0.0781)
Murder										0.872** (0.115)	0.861** (0.115)	0.377** (0.0948)
Mutiny										0.186+ (0.108)	0.189+ (0.108)	0.0383 (0.0953)
Quit										-0.0290 (0.0781)	-0.0315 (0.0782)	-0.00165 (0.0705)
Sleep										-0.0820 (0.0696)	-0.0758 (0.0698)	-0.00236 (0.0645)
Striking										0.0466 (0.0898)	0.0491 (0.0899)	0.113 (0.0822)
Rape										-0.0467 (0.104)	-0.0473 (0.104)	0.0253 (0.107)
ΔLog Casualties											0.000332 (0.00553)	-0.00213 (0.00437)
ΔLog Casualties 30 Days Ago											0.00487 (0.00512)	-0.00140 (0.00410)
Distance to Coast												-0.000409+ (0.000211)
Distance to Berlin												0.000262 (0.000383)
Year Fixed Effects	N	N	N	Y	Y	N	N	N	N	Y	Y	Y
Month Fixed Effects	N	N	N	N	N	Y	N	N	N	N	N	N
Day Fixed Effects	N	N	N	N	N	N	Y	N	N	N	N	N
Division Fixed Effects	N	N	N	N	N	N	N	Y	N	Y	Y	Y
Joint Test of Fixed Effects				0.0790	0.252	0.486	0.111	0.0554	0.770			
Joint Test of Irish x Year FE					0.864							
Joint Test of Casualties											0.615	
Joint Test of Distance												0.152
Constant	0.123** (0.00751)	0.204** (0.0321)	0.956** (0.0668)	0.0824* (0.0394)	0.0714 (0.0442)	0.116** (0.0250)	0.157** (0.0217)	-2.90e-13 (0.329)	0.138** (0.0119)	0.113 (0.330)	0.160 (0.332)	0.665* (0.338)
N	2408	2408	2408	2408	2408	2408	2408	2408	2044	2408	2408	1612
R-sq	0.000	0.003	0.583	0.004	0.004	0.005	0.004	0.040	0.000	0.099	0.102	0.637

Table 4: Are Observable Characteristics Correlated with Execution Decisions? (All Death Sentences)

Panel A:	Joint Test of Significance
Brigade Unit	0.277
Corp Unit	0.190
Army Unit	0.328
Brigade Commanding Officer	0.670
Division Commanding Officer	0.185
Division 1st General Staff Officer	0.517
Corp Commanding Officer	0.366
Corp 1st General Staff Officer	0.0900
Army Commanding Officer	0.0688
Army 1st General Staff Officer	0.308
GHQ Commanding Officer	0.369
GHQ 1st General Staff Officer	0.455
Irish Soldier x Irish Officer FE	0.452
Military Indiscipline 30-59 & 60-89 days ago	0.325
Death Sentences 30-59 & 60-89 days ago	0.109
Execution Rate 30-59 & 60-89 days ago	0.324
Panel B:	Correlation with Lag Decision
Aggregation level	
Division	0.0195 (0.0285)
Brigade	0.00486 (0.0333)
Corp	0.0469 (0.0288)
Army	-0.00508 (0.0318)
Army Type	-0.00762 (0.0333)
All	0.0790 (0.0503)

Assessing Randomness: String Method

1. Propose a statistic that can be computed from the sequence of 1's and 0's (i.e., executions and commutations) within a unit i
 - ▶ Autocorrelation (targeting units for poor discipline), Mean-Reversion ("due" for an execution), and Maximum-Run (bad apples or benevolent officers)
2. Compute the statistic for the actual sequence, s^*
3. Compute the statistic for each of 1,000 bootstrap replications of the actual sequence, i.e., $\hat{s}_1, \hat{s}_2, \hat{s}_3 \dots \hat{s}_n$
 - ▶ Compute global $q_t = Pr(ex = 1|t)$ for each date t (excluding unit i), draw a vector of Bernoulli random variable $v = \{B(q_1), B(q_2) \dots B(q_n)\}$ many times.
4. Compute the empirical p-value, p_i by determining where s^* fits into $\hat{s}_1, \hat{s}_2, \hat{s}_3 \dots \hat{s}_n$
5. Repeat the steps 1-4 and calculate p_i for each unit
6. ◀ Power calculations

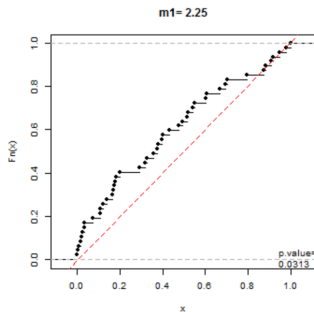
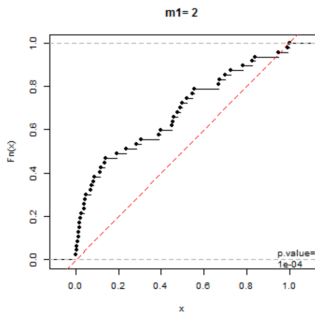
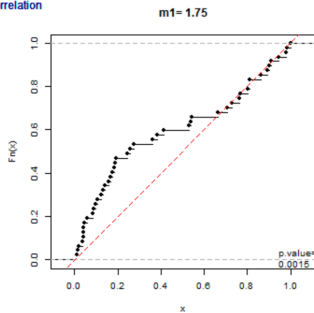
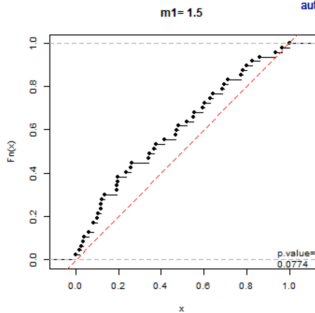


Kolmogorov-Smirnov Test - Randomness Check of P-Values

	Distance	Size	90%	95%	99%
Autocorrelation	0.1403913	46	0.1545	0.1767	0.2195
Mean Reversion	0.08068085	47	0.153	0.1748	0.2171
Longest Run	0.12611111	45	0.1562	0.1786	0.2219

◀ Balancing Tests

autocorrelation



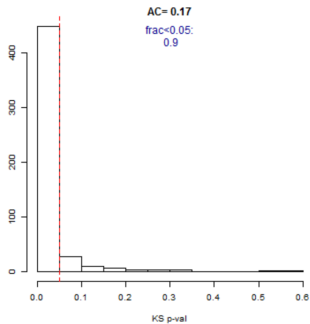
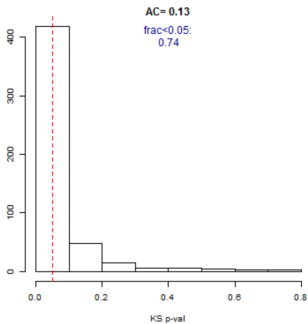
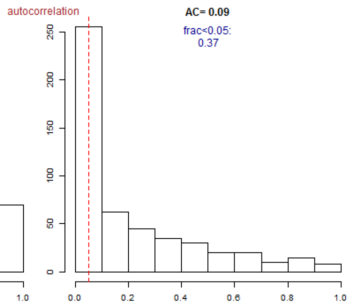
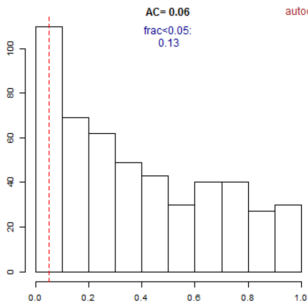


Table 5: Effects of Executions vs. Commutations on Elapsed Time Until Next Absence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: War Diaries	Exp/+14	Wb/+14	Cox/+14	Exp/NN	Wb/NN	Cox/NN	Exp/C=T	Wb/C=T	Cox/C=T
Execution	-0.177 (0.174)	-0.144 (0.152)	-0.158 (0.155)	0.183 (0.202)	0.167 (0.171)	0.129 (0.167)	0.280+ (0.147)	0.250+ (0.132)	0.209 (0.129)
Δ Log Casualties	0.0928 (0.0671)	0.0802 (0.0579)	0.0648 (0.0516)	0.0494 (0.0833)	0.0372 (0.0715)	0.0159 (0.0638)	0.124* (0.0629)	0.110* (0.0562)	0.0992* (0.0505)
Δ Log Casualties 30 Days Ago	0.151* (0.0601)	0.139** (0.0506)	0.108* (0.0444)	0.140* (0.0692)	0.132* (0.0573)	0.107* (0.0515)	0.208** (0.0600)	0.190** (0.0519)	0.159** (0.0454)
N	536	536	536	536	536	536	536	536	536
Panel B: Police Gazette									
Execution	-0.0770 (0.0974)	-0.0715 (0.0912)	-0.0662 (0.0838)	0.0503 (0.0885)	0.0535 (0.0825)	0.0567 (0.0764)	-0.0179 (0.102)	-0.0133 (0.0956)	-0.0114 (0.0883)
Δ Log Casualties	0.0569+ (0.0303)	0.0546+ (0.0290)	0.0517+ (0.0271)	0.0518+ (0.0292)	0.0502+ (0.0277)	0.0495+ (0.0264)	0.0584+ (0.0341)	0.0571+ (0.0327)	0.0558+ (0.0310)
Δ Log Casualties 30 Days Ago	0.0620* (0.0289)	0.0601* (0.0276)	0.0584* (0.0256)	0.0685* (0.0296)	0.0664* (0.0280)	0.0646* (0.0265)	0.0719* (0.0301)	0.0706* (0.0288)	0.0695* (0.0272)
N	1640	1640	1640	1638	1638	1638	1640	1640	1640
Panel C: FGCM Trial Registries (Time Until Next Desertion Trial)									
Execution	-0.206+ (0.119)	-0.198+ (0.106)	-0.191* (0.0948)	0.135 (0.112)	0.121 (0.100)	0.114 (0.0888)	0.0282 (0.0926)	0.0283 (0.0879)	0.0235 (0.0796)
Δ Log Casualties	0.0476 (0.0420)	0.0387 (0.0386)	0.0298 (0.0349)	0.0563 (0.0409)	0.0472 (0.0373)	0.0386 (0.0339)	0.0369 (0.0444)	0.0339 (0.0430)	0.0296 (0.0405)
Δ Log Casualties 30 Days Ago	0.0796* (0.0377)	0.0740* (0.0361)	0.0684* (0.0342)	0.0840* (0.0378)	0.0796* (0.0359)	0.0757* (0.0343)	0.0272 (0.0387)	0.0248 (0.0380)	0.0227 (0.0361)
N	1654	1654	1654	1654	1654	1654	1654	1654	1654

Table 6: Effects of Executions vs. Commutations on Elapsed Time Until Next Absence Differing by whether Case was a Desertion Trial and whether Soldier was Irish

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: War Diaries	Exp/+14	Wb/+14	Cox/+14	Exp/NN	Wb/NN	Cox/NN	Exp/C=T	Wb/C=T	Cox/C=T
Execution	-0.417 (0.736)	-0.394 (0.687)	-0.308 (0.670)	0.219 (0.359)	0.182 (0.324)	0.239 (0.313)	0.723* (0.338)	0.627* (0.304)	0.689* (0.273)
Desert	-0.0429 (0.305)	-0.0218 (0.274)	-0.00996 (0.240)	0.0470 (0.302)	0.0531 (0.265)	0.0511 (0.234)	0.138 (0.311)	0.146 (0.283)	0.133 (0.246)
Ex-Desert	-0.00330 (0.746)	0.0467 (0.700)	-0.0154 (0.671)	-0.241 (0.406)	-0.161 (0.360)	-0.218 (0.336)	-0.650+ (0.374)	-0.555+ (0.337)	-0.627* (0.291)
Irish	-0.727** (0.179)	-0.629** (0.176)	-0.464** (0.147)	-0.646** (0.207)	-0.541** (0.194)	-0.391* (0.173)	-0.475+ (0.252)	-0.407+ (0.237)	-0.263 (0.208)
Ex-Irish	1.179** (0.285)	1.003** (0.256)	0.805** (0.248)	0.768** (0.222)	0.579** (0.195)	0.399* (0.190)	0.619** (0.202)	0.537** (0.201)	0.355+ (0.195)
N	536	536	536	536	536	536	536	536	536
Panel B: Police Gazette									
Execution	-0.372 (0.387)	-0.355 (0.365)	-0.340 (0.333)	0.0857 (0.277)	0.0890 (0.259)	0.0811 (0.246)	0.206 (0.286)	0.197 (0.266)	0.163 (0.249)
Desert	-0.0459 (0.0938)	-0.0409 (0.0888)	-0.0341 (0.0820)	-0.0245 (0.0887)	-0.0228 (0.0828)	-0.0212 (0.0772)	-0.0510 (0.0890)	-0.0488 (0.0849)	-0.0454 (0.0797)
Ex-Desert	0.251 (0.422)	0.241 (0.399)	0.235 (0.365)	-0.0773 (0.316)	-0.0747 (0.295)	-0.0611 (0.279)	-0.327 (0.318)	-0.309 (0.298)	-0.267 (0.280)
Irish	-0.179 (0.109)	-0.172+ (0.103)	-0.164+ (0.0950)	-0.187+ (0.106)	-0.175+ (0.0990)	-0.169+ (0.0925)	-0.119 (0.103)	-0.116 (0.0983)	-0.114 (0.0937)
Ex-Irish	0.431* (0.196)	0.410* (0.181)	0.387* (0.161)	0.219 (0.199)	0.203 (0.185)	0.196 (0.169)	0.408* (0.207)	0.392* (0.193)	0.382* (0.177)
N	1640	1640	1640	1638	1638	1638	1640	1640	1640
Panel C: FGCM Trial Registries (Time Until Next Desertion Trial)									
Execution	-0.709 (0.522)	-0.648 (0.473)	-0.588 (0.420)	0.0476 (0.308)	0.0296 (0.276)	0.0233 (0.252)	0.0772 (0.252)	0.0703 (0.240)	0.0526 (0.222)
Desert	0.0535 (0.136)	0.0411 (0.121)	0.0235 (0.108)	0.110 (0.135)	0.0816 (0.121)	0.0482 (0.111)	-0.0590 (0.133)	-0.0656 (0.127)	-0.0855 (0.118)
Ex-Desert	0.442 (0.555)	0.397 (0.506)	0.351 (0.451)	-0.0496 (0.343)	-0.0232 (0.311)	-0.00214 (0.286)	-0.164 (0.267)	-0.148 (0.256)	-0.116 (0.238)
Irish	-0.353* (0.141)	-0.326* (0.129)	-0.297* (0.117)	-0.221 (0.142)	-0.196 (0.130)	-0.172 (0.118)	-0.252+ (0.132)	-0.243+ (0.127)	-0.218+ (0.118)
Ex-Irish	0.718** (0.243)	0.639** (0.224)	0.560** (0.206)	0.651** (0.206)	0.566** (0.191)	0.480** (0.178)	0.556* (0.234)	0.525* (0.226)	0.465* (0.215)
N	1654	1654	1654	1654	1654	1654	1654	1654	1654

Appendix Table 1: Effects of Executions vs. Commutations on Elapsed Time Until *Previous* Absence Differing by whether Case was a Desertion Trial and whether Soldier was Irish

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: War Diaries	Exp/+14	Wb/+14	Cox/+14	Exp/NN	Wb/NN	Cox/NN	Exp/C=T	Wb/C=T	Cox/C=T
Execution	0.0983 (0.173)	-0.0543 (0.251)	-0.168 (0.290)	0.0404 (0.257)	0.334 (0.349)	0.567 (0.439)	0.329+ (0.185)	0.425 (0.281)	0.556 (0.348)
Desert	-0.0630 (0.0957)	-0.103 (0.125)	-0.133 (0.151)	-0.0341 (0.0885)	-0.0359 (0.138)	-0.0738 (0.176)	0.0629 (0.105)	0.0153 (0.135)	-0.0542 (0.168)
Ex-Desert	-0.115 (0.193)	-0.0948 (0.307)	0.0129 (0.368)	-0.0608 (0.270)	-0.313 (0.351)	-0.543 (0.448)	-0.317+ (0.186)	-0.391 (0.274)	-0.555 (0.340)
Irish	0.00526 (0.112)	-0.0540 (0.132)	-0.0829 (0.169)	0.0267 (0.110)	-0.0417 (0.142)	-0.0852 (0.164)	0.165+ (0.100)	0.137 (0.132)	0.135 (0.159)
Ex-Irish	0.126 (0.210)	0.316 (0.243)	0.405 (0.302)	0.0677 (0.240)	0.0383 (0.353)	0.0520 (0.412)	0.0120 (0.196)	-0.0612 (0.303)	-0.0820 (0.372)
N	435	435	435	438	438	438	413	413	413
Panel B: Police Gazette									
Execution	0.0293 (0.109)	0.135 (0.330)	0.104 (0.232)	0.244* (0.118)	0.221 (0.330)	0.509* (0.257)	0.166+ (0.0878)	0.0692 (0.456)	0.220 (0.291)
Desert	-0.0133 (0.0371)	0.0375 (0.0908)	0.0177 (0.0698)	0.0505 (0.0532)	0.0420 (0.162)	0.106 (0.0951)	0.0266 (0.0288)	0.110 (0.105)	0.0745 (0.0759)
Ex-Desert	-0.0245 (0.116)	-0.291 (0.294)	-0.185 (0.221)	-0.247* (0.124)	-0.304 (0.324)	-0.521* (0.248)	-0.130 (0.0920)	-0.221 (0.424)	-0.300 (0.291)
Irish	-0.0384 (0.0466)	-0.230 (0.162)	-0.172 (0.108)	-0.0332 (0.0572)	-0.0868 (0.141)	-0.0822 (0.107)	-0.00815 (0.0424)	-0.188 (0.161)	-0.158 (0.109)
Ex-Irish	0.0594 (0.0915)	0.215 (0.315)	0.200 (0.219)	0.0306 (0.119)	0.278 (0.223)	0.135 (0.188)	0.0715 (0.0870)	0.620** (0.240)	0.460* (0.190)
N	1481	1481	1481	1500	1500	1500	1479	1479	1479
Panel C: FGCM Trial Registries (Time Until Next Desertion Trial)									
Execution	-0.177 (0.262)	0.0193 (0.385)	-0.0555 (0.351)	0.335* (0.154)	0.303 (0.331)	0.517* (0.252)	-0.133 (0.242)	0.118 (0.369)	0.00467 (0.349)
Desert	-0.0196 (0.0934)	0.0557 (0.173)	-0.0206 (0.101)	0.0171 (0.0677)	0.0717 (0.106)	0.0787 (0.0844)	0.0936 (0.0810)	0.259 (0.175)	0.132 (0.108)
Ex-Desert	0.174 (0.261)	0.110 (0.385)	0.137 (0.352)	-0.463** (0.164)	-0.427 (0.331)	-0.580* (0.252)	0.0957 (0.256)	-0.0744 (0.388)	0.00106 (0.377)
Irish	-0.0586 (0.0910)	-0.0378 (0.173)	-0.0570 (0.121)	0.0165 (0.0811)	0.0232 (0.145)	-0.0468 (0.123)	-0.0146 (0.0907)	-0.0319 (0.162)	-0.0504 (0.125)
Ex-Irish	-0.0397 (0.208)	-0.125 (0.308)	-0.119 (0.250)	-0.00562 (0.222)	0.0560 (0.314)	0.0490 (0.209)	0.0572 (0.241)	0.0739 (0.355)	0.142 (0.284)
N	1648	1648	1648	1526	1526	1526	1642	1642	1642

Table 8: Effects of Execution vs. Commutation on Ethnicity of Next Absence

% of Next Absences that are Irish			
Panel A: +14 Imputation	War Diaries	Police Gazettes	FGCM (Desertion Trials)
<u>All Death Sentences</u>			
Irish Execution	19.2%	9.8%	21.6%
Non-Irish Execution	11.1%	9.0%	15.3%
Irish Commutation	13.3%	16.4%	12.0%
Non-Irish Commutation	13.1%	14.4%	13.3%
<u>Desertion Death Sentences</u>			
Irish Execution	20.0%	9.3%	23.3%
Non-Irish Execution	9.5%	9.1%	15.5%
Irish Commutation	14.0%	17.8%	13.2%
Non-Irish Commutation	12.8%	15.8%	14.4%
<u>Panel B: NN Imputation</u>			
<u>All Death Sentences</u>			
Irish Execution	19.2%	9.8%	21.6%
Non-Irish Execution	11.1%	9.0%	15.3%
Irish Commutation	12.5%	16.4%	12.4%
Non-Irish Commutation	12.6%	13.7%	13.5%
<u>Desertion Death Sentences</u>			
Irish Execution	20.0%	9.3%	23.3%
Non-Irish Execution	9.5%	9.1%	15.5%
Irish Commutation	10.4%	17.4%	13.2%
Non-Irish Commutation	12.1%	15.8%	14.2%
<u>Panel C: C=T Imputation</u>			
<u>All Death Sentences</u>			
Irish Execution	15.4%	7.8%	15.7%
Non-Irish Execution	10.4%	10.0%	16.2%
Irish Commutation	9.1%	17.6%	11.0%
Non-Irish Commutation	14.0%	13.8%	12.1%
<u>Desertion Death Sentences</u>			
Irish Execution	15.0%	7.0%	16.3%
Non-Irish Execution	7.4%	10.2%	16.5%
Irish Commutation	9.6%	20.6%	10.8%
Non-Irish Commutation	13.8%	15.6%	13.1%

Notes: In panels sub-titled "+14", the announcement of the commutation is assumed to occur 14 days after trial. In panels subtitled "NN" the nearest-neighbor method is used, which means the imputed announcement of the commutation is same as the most nearby execution announcement, while in panels labeled "C=T", the trial date is used as the announcement date of the execution and commutation. War Diaries analysis restricts to July 1916-June 1917, which is the time window for the surviving data.

Appendix Table 10: Effects of Execution vs. Commutation on Elapsed Time Until Next Absence, Full Sample, Weak SUTVA

	War Diaries						Police Gazettes				FGCM Trial Registries (Desertion Trials)					
	Exp		Weibull		Cox		Exp		Weibull		Cox		Exp		Weibull	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Execution	-0.368 (0.742)	-0.394 (0.625)	-0.359 (0.694)	-0.213 (0.619)	-0.278 (0.682)	-0.118 (0.618)	-0.475 (0.447)	-0.432 (0.394)	-0.457 (0.427)	-0.414 (0.482)	-0.434 (0.387)	-0.421 (0.451)	-0.855 (0.622)	-0.498 (0.500)	-0.779 (0.559)	-0.577 (0.572)
Desert	-0.0253 (0.300)	-0.0511 (0.308)	-0.0103 (0.269)	-0.283 (0.243)	-0.00336 (0.235)	-0.245 (0.231)	-0.0656 (0.0851)	-0.0815 (0.0855)	-0.0608 (0.0823)	-0.0788 (0.0998)	-0.0514 (0.0767)	-0.0700 (0.0925)	0.0317 (0.122)	0.0299 (0.126)	0.0246 (0.113)	-0.0607 (0.132)
Ex-Desert	-0.0250 (0.728)	0.0408 (0.619)	0.0317 (0.688)	-0.0144 (0.534)	-0.0314 (0.663)	-0.0884 (0.540)	0.258 (0.480)	0.191 (0.415)	0.249 (0.459)	0.117 (0.471)	0.241 (0.417)	0.134 (0.440)	0.474 (0.663)	0.299 (0.539)	0.425 (0.600)	0.366 (0.570)
Irish	-0.822** (0.212)	-0.702** (0.219)	-0.717** (0.204)	-0.755** (0.229)	-0.549** (0.173)	-0.573** (0.196)	-0.186+ (0.107)	-0.140 (0.114)	-0.180+ (0.102)	-0.211+ (0.119)	-0.174+ (0.0951)	-0.206+ (0.112)	-0.374** (0.145)	-0.349* (0.146)	-0.346** (0.133)	-0.420* (0.166)
Ex-Irish	1.310** (0.282)	1.118** (0.334)	1.127** (0.253)	1.058** (0.333)	0.925** (0.242)	0.863** (0.291)	0.437* (0.196)	0.445* (0.203)	0.423* (0.186)	0.554* (0.233)	0.402* (0.167)	0.536* (0.217)	0.778** (0.253)	0.712** (0.270)	0.702** (0.234)	0.608+ (0.328)
Ex's - 30d	-0.147 (0.130)	-0.204+ (0.112)	-0.152 (0.115)	-0.299* (0.124)	-0.176+ (0.102)	-0.302* (0.117)	-0.0270 (0.0703)	-0.0674 (0.0611)	-0.0257 (0.0678)	-0.158* (0.0754)	-0.0247 (0.0634)	-0.148* (0.0699)	0.0227 (0.0738)	-0.0513 (0.0663)	0.0197 (0.0687)	-0.158 (0.105)
Cm's - 30d	-0.0654 (0.0722)	-0.121+ (0.0697)	-0.0574 (0.0646)	-0.184* (0.0888)	-0.0532 (0.0562)	-0.149+ (0.0821)	0.105** (0.0267)	0.0967** (0.0355)	0.101** (0.0248)	-0.0177 (0.0470)	0.0926** (0.0234)	-0.0170 (0.0432)	0.0988** (0.0255)	0.0877** (0.0258)	0.0898** (0.0235)	-0.0850* (0.0414)
ΔLog Casualties	0.0721 (0.0595)	0.0552 (0.0596)	0.0618 (0.0539)	0.0471 (0.0663)	0.0448 (0.0501)	0.0423 (0.0597)	0.0748* (0.0292)	0.0829** (0.0267)	0.0726* (0.0284)	0.113** (0.0275)	0.0689* (0.0268)	0.108** (0.0262)	0.0663+ (0.0388)	0.0751* (0.0342)	0.0574 (0.0365)	0.106** (0.0362)
ΔLog Casualties 30 Days Ago	0.163** (0.0613)	0.148* (0.0602)	0.150** (0.0529)	0.175** (0.0566)	0.113* (0.0472)	0.142** (0.0498)	0.0719** (0.0275)	0.0739** (0.0273)	0.0704** (0.0266)	0.116** (0.0292)	0.0684** (0.0248)	0.114** (0.0279)	0.100** (0.0344)	0.108** (0.0391)	0.0934** (0.0334)	0.141** (0.0439)
Division and Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Additional Controls	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y
N	536	536	536	536	536	536	1640	1640	1640	1640	1640	1640	1654	1654	1654	1654

Notes: All specifications use the +14* commutation date imputation method. All specifications include division and year fixed-effects. Log Casualties is calculated as $\log(1 + \text{Casualties})$. ΔLog Casualties is defined as the difference in Log Casualties 1 to 29 Days Ago vs. 30 to 59 Days Ago. ΔLog Casualties 30 Days Ago is defined as the difference in Log Casualties 30 to 59 Days Ago vs. 60 to 89 Days Ago. Additional controls are Irish indicators for each officer in the chain-of-command, whether the executed soldier was an officer, the executed soldier's age, distance to coast, distance to Berlin, fixed effects for the identities of the Division Commanding Officer and Division 1st General Staff Officer, and lag measures of absences and of death sentences (the log of absences and the log of death sentences in the time window 30-59 Days Ago and 60-89 Days Ago). When officer or age data is missing, it is dummed out (i.e., set to a constant and another variable indicating whether it is missing is included). Officers that appear with less than 10 frequency are categorized in an Other category. Exponential models do not include officer identity fixed effects to speed calculations. The regressors labeled ex's-Yd or cm's-Yd measure the cumulative effects of previous deterrence events in the unit. Y is the half-life of the effect. War Diaries analysis restricts to July 1916-June 1917, which is the time window for the surviving data. Standard errors clustered at the division level in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$.

Appendix Table 11: Effects of Execution vs. Commutation on Elapsed Time Until Next Absence, Full Sample, Weak SUTVA (Hazard coefficients)

	War Diaries								Police Gazettes		FGCM Trial Registries (Desertion Trials)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Execution	0.659 (0.485)	0.680 (0.541)	0.688 (0.536)	0.695 (0.515)	0.691 (0.484)	0.681 (0.462)	0.689 (0.267)	0.580 (0.306)	0.599 (0.297)	0.622 (0.278)	0.650 (0.264)	0.663 (0.260)	0.492 (0.257)	0.399 (0.279)	0.408 (0.276)	0.425 (0.264)	0.454 (0.257)	0.471 (0.255)
Desert	0.958 (0.292)	0.980 (0.294)	0.981 (0.296)	0.975 (0.293)	0.950 (0.283)	0.927 (0.275)	0.955 (0.0896)	0.931 (0.0818)	0.923 (0.0792)	0.937 (0.0797)	0.955 (0.0842)	0.960 (0.0875)	1.055 (0.143)	1.027 (0.130)	1.018 (0.125)	1.032 (0.126)	1.058 (0.134)	1.065 (0.141)
Ex-Desert	0.997 (0.743)	0.971 (0.757)	0.966 (0.735)	0.972 (0.708)	0.998 (0.695)	1.017 (0.695)	1.285 (0.543)	1.366 (0.767)	1.329 (0.703)	1.294 (0.621)	1.264 (0.557)	1.257 (0.535)	1.556 (0.864)	1.679 (1.245)	1.655 (1.184)	1.607 (1.065)	1.537 (0.933)	1.508 (0.874)
Irish	0.483** (0.0867)	0.465** (0.0840)	0.457** (0.0867)	0.440** (0.0931)	0.428** (0.0964)	0.431** (0.0951)	0.836 (0.0910)	0.854 (0.0936)	0.842 (0.0914)	0.830+ (0.0886)	0.828+ (0.0890)	0.831+ (0.0901)	0.702* (0.0992)	0.704* (0.101)	0.695* (0.100)	0.688** (0.0997)	0.693* (0.0999)	0.699* (0.100)
Ex-Irish	3.252** (0.926)	3.492** (1.126)	3.511** (1.078)	3.689** (1.038)	3.877** (1.045)	3.833** (1.026)	1.539* (0.302)	1.541* (0.324)	1.553* (0.313)	1.548* (0.304)	1.528* (0.299)	1.522* (0.298)	2.050** (0.498)	2.066** (0.537)	2.117** (0.541)	2.177** (0.551)	2.170** (0.544)	2.141** (0.533)
ΔLog Casualties	1.091 (0.0657)	1.084 (0.0653)	1.081 (0.0648)	1.075 (0.0639)	1.064 (0.0635)	1.059 (0.0638)	1.055+ (0.0318)	1.077** (0.0289)	1.080** (0.0303)	1.078* (0.0315)	1.071* (0.0315)	1.065* (0.0312)	1.043 (0.0431)	1.062 (0.0394)	1.068+ (0.0406)	1.068+ (0.0416)	1.062 (0.0418)	1.056 (0.0420)
ΔLog Casualties 30 Days Ago	1.185** (0.0675)	1.187** (0.0697)	1.184** (0.0702)	1.176** (0.0717)	1.164* (0.0735)	1.157* (0.0740)	1.067* (0.0305)	1.064* (0.0293)	1.070* (0.0291)	1.075** (0.0295)	1.073** (0.0295)	1.071* (0.0294)	1.089* (0.0403)	1.086* (0.0388)	1.097** (0.0384)	1.106** (0.0381)	1.104** (0.0378)	1.099** (0.0377)
Ex's - 7d		0.840 (0.177)						1.239* (0.116)						1.428** (0.166)				
Cm's - 7d		0.966 (0.152)						1.239** (0.0696)						1.201** (0.0544)				
Ex's - 14d			0.876 (0.134)						1.088 (0.0857)						1.188+ (0.107)			
Cm's - 14d			0.954 (0.102)						1.169** (0.0448)						1.150** (0.0378)			
Ex's - 30d				0.871 (0.112)						0.973 (0.0685)						1.022 (0.0755)		
Cm's - 30d				0.935 (0.0672)						1.111** (0.0296)						1.104** (0.0282)		
Ex's - 60d					0.830 (0.109)						0.929 (0.0597)						0.962 (0.0642)	
Cm's - 60d					0.917 (0.0499)						1.067** (0.0225)						1.064** (0.0219)	
Ex's - 90d						0.806 (0.106)						0.918 (0.0573)						0.945 (0.0615)
Cm's - 90d						0.914+ (0.0437)						1.047* (0.0199)						1.043* (0.0189)
N	536	536	536	536	536	536	1640	1640	1640	1640	1640	1640	1654	1654	1654	1654	1654	1654

Notes: All specifications use the "+14" commutation date imputation method and all specifications use exponential models to parameterize baseline hazard rates. All specifications include division and year fixed-effects. Log Casualties is calculated as $\log(1 + \text{Casualties})$. ΔLog Casualties is defined as the difference in Log Casualties 1 to 29 Days Ago vs. 30 to 59 Days Ago. ΔLog Casualties 30 Days Ago is defined as the difference in Log Casualties 30 to 59 Days Ago vs. 60 to 89 Days Ago. The regressors labeled ex's-Yd or cm's-Yd measure the cumulative effects of previous deterrence events in the unit. Y is the half-life of the effect. War Diaries analysis restricts to July 1916-June 1917, which is the time window for the surviving data. Standard errors clustered at the division level in parentheses; + p < 0.10, * p < 0.05, ** p < 0.01

Appendix Table 12: Effects of Executions vs. Commutations on Elapsed Time Until Next Absence Differing by Individual or Environmental Characteristics

	War Diaries						Police Gazette						FGCM Trial Registries (Desertion Trials)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Execution	0.109 (0.260)	0.240 (0.222)	0.261 (0.214)	-1.040 (0.778)	13.53+ (7.019)	-27.20 (21.87)		0.0463 (0.156)	-0.357 (0.239)	-0.448 (0.385)	-0.454 (0.605)	2.367 (1.506)	-4.031 (2.908)		-0.200 (0.295)	-0.321 (0.309)	-0.483 (0.506)	-2.128+ (1.096)	1.870* (0.743)	4.112 (4.648)	
Ex-Casualties	-0.0629 (0.0672)							-0.0493 (0.0464)							-0.0204 (0.0638)						
Ex-Distance to Coast		-0.00492 (0.00312)							0.00287 (0.00298)							0.000282 (0.00424)					
Ex-Distance to Berlin				0.000654- (0.000390)						0.000414 (0.000519)							0.000255 (0.000703)				
Ex-Private				0.990 (0.760)						0.302 (0.623)								1.919+ (1.121)			
Ex-Age					-0.620* (0.279)							-0.0913 (0.0558)							-0.0506+ (0.0260)		
Ex-Time						-0.00172 (0.00139)							-0.000244 (0.000184)						0.000281 (0.000294)		
Ex-Regular Army							0.441* (0.192)							-0.0889 (0.188)							-0.202 (0.181)
Ex-New Army							-0.583+ (0.307)							-0.275+ (0.146)							-0.578** (0.210)
Ex-Territorial Army							0.0560 (0.350)							-0.232+ (0.127)							-0.0432 (0.222)
N	536	536	536	536	536	536	536	1640	1640	1640	1640	1640	1640	1640	1654	1654	1654	1654	1654	1654	1654

Notes: Outcome is elapsed time from death sentence resolution (execution or commutation) until next absence. All specifications use exponential models to parameterize the baseline hazard, assume the commutation occurred 14 days after the trial, and include division and year fixed-effects and Δ Log Casualties and Δ Log Casualties 30 Days Ago. All specifications include the level term for the respective heterogeneity being examined. Indicator for missing age data is also included along with the interaction with execution. Time is days from the start of World War 1. War Diaries analysis restricts to July 1916-June 1917, which is the time window for the surviving data. Standard errors clustered at the division level in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Duration Framework — Weak SUTVA

Table 7: Effects of Execution vs. Commutation on Elapsed Time Until Next Absence, Full Sample, Weak SUTVA

	War Diaries							Police Gazettes				FGCM Trial Registries (Desertion Trials)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Execution	-0.417 (0.736)	-0.390 (0.798)	-0.378 (0.781)	-0.368 (0.742)	-0.374 (0.701)	-0.389 (0.679)	-0.372 (0.387)	-0.544 (0.527)	-0.513 (0.497)	-0.475 (0.447)	-0.432 (0.407)	-0.411 (0.393)	-0.709 (0.522)	-0.919 (0.699)	-0.895 (0.675)	-0.856 (0.622)	-0.791 (0.566)	-0.752 (0.541)
Desert	-0.0429 (0.305)	-0.0203 (0.300)	-0.0188 (0.302)	-0.0253 (0.300)	-0.0517 (0.298)	-0.0763 (0.297)	-0.0459 (0.0938)	-0.0711 (0.0879)	-0.0804 (0.0859)	-0.0656 (0.0851)	-0.0458 (0.0882)	-0.0412 (0.0912)	0.0535 (0.136)	0.0272 (0.127)	0.0179 (0.123)	0.0317 (0.122)	0.0559 (0.127)	0.0630 (0.132)
Ex-Desert	-0.00330 (0.746)	-0.0249 (0.782)	-0.0306 (0.762)	-0.0251 (0.728)	0.000868 (0.697)	0.0202 (0.683)	0.251 (0.422)	0.312 (0.562)	0.284 (0.529)	0.258 (0.480)	0.234 (0.441)	0.228 (0.426)	0.442 (0.555)	0.518 (0.741)	0.504 (0.716)	0.474 (0.663)	0.430 (0.607)	0.411 (0.580)
Irish	-0.727** (0.179)	-0.769** (0.181)	-0.784** (0.190)	-0.822** (0.212)	-0.850** (0.226)	-0.836** (0.220)	-0.179 (0.109)	-0.158 (0.110)	-0.172 (0.109)	-0.186+ (0.107)	-0.189+ (0.108)	-0.185+ (0.108)	-0.353* (0.141)	-0.351* (0.143)	-0.365* (0.144)	-0.373** (0.145)	-0.366* (0.144)	-0.358* (0.143)
Ex-Irish	1.179** (0.285)	1.258** (0.323)	1.262** (0.308)	1.310** (0.282)	1.359** (0.270)	1.347** (0.268)	0.431* (0.196)	0.432* (0.210)	0.440* (0.202)	0.437* (0.196)	0.424* (0.196)	0.420* (0.196)	0.718** (0.243)	0.726** (0.260)	0.750** (0.255)	0.778** (0.253)	0.775** (0.251)	0.761** (0.249)
ΔLog Casualties	0.0870 (0.0602)	0.0812 (0.0602)	0.0781 (0.0599)	0.0721 (0.0595)	0.0626 (0.0597)	0.0574 (0.0603)	0.0537+ (0.0301)	0.0738** (0.0269)	0.0774** (0.0281)	0.0748* (0.0292)	0.0682* (0.0294)	0.0629* (0.0293)	0.0422 (0.0413)	0.0597 (0.0371)	0.0658+ (0.0380)	0.0662+ (0.0389)	0.0605 (0.0394)	0.0543 (0.0398)
ΔLog Casualties 30 Days Ago	0.170** (0.0569)	0.173** (0.0596)	0.170** (0.0599)	0.163** (0.0613)	0.153* (0.0634)	0.148* (0.0641)	0.0652* (0.0286)	0.0619* (0.0276)	0.0681* (0.0272)	0.0719** (0.0275)	0.0709** (0.0275)	0.0689* (0.0274)	0.0856* (0.0370)	0.0826* (0.0358)	0.0924** (0.0350)	0.100** (0.0344)	0.0987** (0.0342)	0.0944** (0.0343)
Ex's - 7d		-0.194 (0.214)						0.214* (0.0939)						0.356** (0.116)				
Cm's - 7d		-0.0304 (0.158)						0.214** (0.0562)						0.183** (0.0453)				
Ex's - 14d			-0.146 (0.155)						0.0840 (0.0788)						0.172+ (0.0901)			
Cm's - 14d			-0.0439 (0.108)						0.156** (0.0383)						0.140** (0.0328)			
Ex's - 30d				-0.147 (0.130)						-0.0270 (0.0703)						0.0216 (0.0738)		
Cm's - 30d				-0.0653 (0.0722)						0.105** (0.0267)						0.0990** (0.0255)		
Ex's - 60d					-0.193 (0.132)						-0.0734 (0.0643)						-0.0390 (0.0667)	
Cm's - 60d					-0.0856 (0.0546)						0.0651** (0.0211)						0.0623** (0.0206)	
Ex's - 90d						-0.222+ (0.132)						-0.0857 (0.0624)						-0.0569 (0.0650)
Cm's - 90d						-0.0887+ (0.0480)						0.0455* (0.0190)						0.0425* (0.0181)
N	536	536	536	536	536	536	1640	1640	1640	1640	1640	1640	1654	1654	1654	1654	1654	1654

Notes: All specifications use the '+14' commutation date imputation method and all specifications use exponential models to parameterize baseline hazard rates. All specifications include division and year fixed-effects.

Log Casualties is calculated as $\log(\text{Log Casualties})$. ΔLog Casualties is defined as the difference in Log Casualties 1 to 29 Days Ago vs. 30 to 59 Days Ago vs. 60 to 89 Days Ago vs. 90 to 109 Days Ago vs. 110 to 129 Days Ago vs. 130 to 149 Days Ago vs. 150 to 169 Days Ago vs. 170 to 189 Days Ago vs. 190 to 209 Days Ago vs. 210 to 229 Days Ago vs. 230 to 249 Days Ago vs. 250 to 269 Days Ago vs. 270 to 289 Days Ago vs. 290 to 309 Days Ago vs. 310 to 329 Days Ago vs. 330 to 349 Days Ago vs. 350 to 369 Days Ago vs. 370 to 389 Days Ago vs. 390 to 409 Days Ago vs. 410 to 429 Days Ago vs. 430 to 449 Days Ago vs. 450 to 469 Days Ago vs. 470 to 489 Days Ago vs. 490 to 509 Days Ago vs. 510 to 529 Days Ago vs. 530 to 549 Days Ago vs. 550 to 569 Days Ago vs. 570 to 589 Days Ago vs. 590 to 609 Days Ago vs. 610 to 629 Days Ago vs. 630 to 649 Days Ago vs. 650 to 669 Days Ago vs. 670 to 689 Days Ago vs. 690 to 709 Days Ago vs. 710 to 729 Days Ago vs. 730 to 749 Days Ago vs. 750 to 769 Days Ago vs. 770 to 789 Days Ago vs. 790 to 809 Days Ago vs. 810 to 829 Days Ago vs. 830 to 849 Days Ago vs. 850 to 869 Days Ago vs. 870 to 889 Days Ago vs. 890 to 909 Days Ago vs. 910 to 929 Days Ago vs. 930 to 949 Days Ago vs. 950 to 969 Days Ago vs. 970 to 989 Days Ago vs. 990 to 1009 Days Ago vs. 1010 to 1029 Days Ago vs. 1030 to 1049 Days Ago vs. 1050 to 1069 Days Ago vs. 1070 to 1089 Days Ago vs. 1090 to 1109 Days Ago vs. 1110 to 1129 Days Ago vs. 1130 to 1149 Days Ago vs. 1150 to 1169 Days Ago vs. 1170 to 1189 Days Ago vs. 1190 to 1209 Days Ago vs. 1210 to 1229 Days Ago vs. 1230 to 1249 Days Ago vs. 1250 to 1269 Days Ago vs. 1270 to 1289 Days Ago vs. 1290 to 1309 Days Ago vs. 1310 to 1329 Days Ago vs. 1330 to 1349 Days Ago vs. 1350 to 1369 Days Ago vs. 1370 to 1389 Days Ago vs. 1390 to 1409 Days Ago vs. 1410 to 1429 Days Ago vs. 1430 to 1449 Days Ago vs. 1450 to 1469 Days Ago vs. 1470 to 1489 Days Ago vs. 1490 to 1509 Days Ago vs. 1510 to 1529 Days Ago vs. 1530 to 1549 Days Ago vs. 1550 to 1569 Days Ago vs. 1570 to 1589 Days Ago vs. 1590 to 1609 Days Ago vs. 1610 to 1629 Days Ago vs. 1630 to 1649 Days Ago vs. 1650 to 1669 Days Ago vs. 1670 to 1689 Days Ago vs. 1690 to 1709 Days Ago vs. 1710 to 1729 Days Ago vs. 1730 to 1749 Days Ago vs. 1750 to 1769 Days Ago vs. 1770 to 1789 Days Ago vs. 1790 to 1809 Days Ago vs. 1810 to 1829 Days Ago vs. 1830 to 1849 Days Ago vs. 1850 to 1869 Days Ago vs. 1870 to 1889 Days Ago vs. 1890 to 1909 Days Ago vs. 1910 to 1929 Days Ago vs. 1930 to 1949 Days Ago vs. 1950 to 1969 Days Ago vs. 1970 to 1989 Days Ago vs. 1990 to 2009 Days Ago vs. 2010 to 2029 Days Ago vs. 2030 to 2049 Days Ago vs. 2050 to 2069 Days Ago vs. 2070 to 2089 Days Ago vs. 2090 to 2109 Days Ago vs. 2110 to 2129 Days Ago vs. 2130 to 2149 Days Ago vs. 2150 to 2169 Days Ago vs. 2170 to 2189 Days Ago vs. 2190 to 2209 Days Ago vs. 2210 to 2229 Days Ago vs. 2230 to 2249 Days Ago vs. 2250 to 2269 Days Ago vs. 2270 to 2289 Days Ago vs. 2290 to 2309 Days Ago vs. 2310 to 2329 Days Ago vs. 2330 to 2349 Days Ago vs. 2350 to 2369 Days Ago vs. 2370 to 2389 Days Ago vs. 2390 to 2409 Days Ago vs. 2410 to 2429 Days Ago vs. 2430 to 2449 Days Ago vs. 2450 to 2469 Days Ago vs. 2470 to 2489 Days Ago vs. 2490 to 2509 Days Ago vs. 2510 to 2529 Days Ago vs. 2530 to 2549 Days Ago vs. 2550 to 2569 Days Ago vs. 2570 to 2589 Days Ago vs. 2590 to 2609 Days Ago vs. 2610 to 2629 Days Ago vs. 2630 to 2649 Days Ago vs. 2650 to 2669 Days Ago vs. 2670 to 2689 Days Ago vs. 2690 to 2709 Days Ago vs. 2710 to 2729 Days Ago vs. 2730 to 2749 Days Ago vs. 2750 to 2769 Days Ago vs. 2770 to 2789 Days Ago vs. 2790 to 2809 Days Ago vs. 2810 to 2829 Days Ago vs. 2830 to 2849 Days Ago vs. 2850 to 2869 Days Ago vs. 2870 to 2889 Days Ago vs. 2890 to 2909 Days Ago vs. 2910 to 2929 Days Ago vs. 2930 to 2949 Days Ago vs. 2950 to 2969 Days Ago vs. 2970 to 2989 Days Ago vs. 2990 to 3009 Days Ago vs. 3010 to 3029 Days Ago vs. 3030 to 3049 Days Ago vs. 3050 to 3069 Days Ago vs. 3070 to 3089 Days Ago vs. 3090 to 3109 Days Ago vs. 3110 to 3129 Days Ago vs. 3130 to 3149 Days Ago vs. 3150 to 3169 Days Ago vs. 3170 to 3189 Days Ago vs. 3190 to 3209 Days Ago vs. 3210 to 3229 Days Ago vs. 3230 to 3249 Days Ago vs. 3250 to 3269 Days Ago vs. 3270 to 3289 Days Ago vs. 3290 to 3309 Days Ago vs. 3310 to 3329 Days Ago vs. 3330 to 3349 Days Ago vs. 3350 to 3369 Days Ago vs. 3370 to 3389 Days Ago vs. 3390 to 3409 Days Ago vs. 3410 to 3429 Days Ago vs. 3430 to 3449 Days Ago vs. 3450 to 3469 Days Ago vs. 3470 to 3489 Days Ago vs. 3490 to 3509 Days Ago vs. 3510 to 3529 Days Ago vs. 3530 to 3549 Days Ago vs. 3550 to 3569 Days Ago vs. 3570 to 3589 Days Ago vs. 3590 to 3609 Days Ago vs. 3610 to 3629 Days Ago vs. 3630 to 3649 Days Ago vs. 3650 to 3669 Days Ago vs. 3670 to 3689 Days Ago vs. 3690 to 3709 Days Ago vs. 3710 to 3729 Days Ago vs. 3730 to 3749 Days Ago vs. 3750 to 3769 Days Ago vs. 3770 to 3789 Days Ago vs. 3790 to 3809 Days Ago vs. 3810 to 3829 Days Ago vs. 3830 to 3849 Days Ago vs. 3850 to 3869 Days Ago vs. 3870 to 3889 Days Ago vs. 3890 to 3909 Days Ago vs. 3910 to 3929 Days Ago vs. 3930 to 3949 Days Ago vs. 3950 to 3969 Days Ago vs. 3970 to 3989 Days Ago vs. 3990 to 4009 Days Ago vs. 4010 to 4029 Days Ago vs. 4030 to 4049 Days Ago vs. 4050 to 4069 Days Ago vs. 4070 to 4089 Days Ago vs. 4090 to 4109 Days Ago vs. 4110 to 4129 Days Ago vs. 4130 to 4149 Days Ago vs. 4150 to 4169 Days Ago vs. 4170 to 4189 Days Ago vs. 4190 to 4209 Days Ago vs. 4210 to 4229 Days Ago vs. 4230 to 4249 Days Ago vs. 4250 to 4269 Days Ago vs. 4270 to 4289 Days Ago vs. 4290 to 4309 Days Ago vs. 4310 to 4329 Days Ago vs. 4330 to 4349 Days Ago vs. 4350 to 4369 Days Ago vs. 4370 to 4389 Days Ago vs. 4390 to 4409 Days Ago vs. 4410 to 4429 Days Ago vs. 4430 to 4449 Days Ago vs. 4450 to 4469 Days Ago vs. 4470 to 4489 Days Ago vs. 4490 to 4509 Days Ago vs. 4510 to 4529 Days Ago vs. 4530 to 4549 Days Ago vs. 4550 to 4569 Days Ago vs. 4570 to 4589 Days Ago vs. 4590 to 4609 Days Ago vs. 4610 to 4629 Days Ago vs. 4630 to 4649 Days Ago vs. 4650 to 4669 Days Ago vs. 4670 to 4689 Days Ago vs. 4690 to 4709 Days Ago vs. 4710 to 4729 Days Ago vs. 4730 to 4749 Days Ago vs. 4750 to 4769 Days Ago vs. 4770 to 4789 Days Ago vs. 4790 to 4809 Days Ago vs. 4810 to 4829 Days Ago vs. 4830 to 4849 Days Ago vs. 4850 to 4869 Days Ago vs. 4870 to 4889 Days Ago vs. 4890 to 4909 Days Ago vs. 4910 to 4929 Days Ago vs. 4930 to 4949 Days Ago vs. 4950 to 4969 Days Ago vs. 4970 to 4989 Days Ago vs. 4990 to 5009 Days Ago vs. 5010 to 5029 Days Ago vs. 5030 to 5049 Days Ago vs. 5050 to 5069 Days Ago vs. 5070 to 5089 Days Ago vs. 5090 to 5109 Days Ago vs. 5110 to 5129 Days Ago vs. 5130 to 5149 Days Ago vs. 5150 to 5169 Days Ago vs. 5170 to 5189 Days Ago vs. 5190 to 5209 Days Ago vs. 5210 to 5229 Days Ago vs. 5230 to 5249 Days Ago vs. 5250 to 5269 Days Ago vs. 5270 to 5289 Days Ago vs. 5290 to 5309 Days Ago vs. 5310 to 5329 Days Ago vs. 5330 to 5349 Days Ago vs. 5350 to 5369 Days Ago vs. 5370 to 5389 Days Ago vs. 5390 to 5409 Days Ago vs. 5410 to 5429 Days Ago vs. 5430 to 5449 Days Ago vs. 5450 to 5469 Days Ago vs. 5470 to 5489 Days Ago vs. 5490 to 5509 Days Ago vs. 5510 to 5529 Days Ago vs. 5530 to 5549 Days Ago vs. 5550 to 5569 Days Ago vs. 5570 to 5589 Days Ago vs. 5590 to 5609 Days Ago vs. 5610 to 5629 Days Ago vs. 5630 to 5649 Days Ago vs. 5650 to 5669 Days Ago vs. 5670 to 5689 Days Ago vs. 5690 to 5709 Days Ago vs. 5710 to 5729 Days Ago vs. 5730 to 5749 Days Ago vs. 5750 to 5769 Days Ago vs. 5770 to 5789 Days Ago vs. 5790 to 5809 Days Ago vs. 5810 to 5829 Days Ago vs. 5830 to 5849 Days Ago vs. 5850 to 5869 Days Ago vs. 5870 to 5889 Days Ago vs. 5890 to 5909 Days Ago vs. 5910 to 5929 Days Ago vs. 5930 to 5949 Days Ago vs. 5950 to 5969 Days Ago vs. 5970 to 5989 Days Ago vs. 5990 to 6009 Days Ago vs. 6010 to 6029 Days Ago vs. 6030 to 6049 Days Ago vs. 6050 to 6069 Days Ago vs. 6070 to 6089 Days Ago vs. 6090 to 6109 Days Ago vs. 6110 to 6129 Days Ago vs. 6130 to 6149 Days Ago vs. 6150 to 6169 Days Ago vs. 6170 to 6189 Days Ago vs. 6190 to 6209 Days Ago vs. 6210 to 6229 Days Ago vs. 6230 to 6249 Days Ago vs. 6250 to 6269 Days Ago vs. 6270 to 6289 Days Ago vs. 6290 to 6309 Days Ago vs. 6310 to 6329 Days Ago vs. 6330 to 6349 Days Ago vs. 6350 to 6369 Days Ago vs. 6370 to 6389 Days Ago vs. 6390 to 6409 Days Ago vs. 6410 to 6429 Days Ago vs. 6430 to 6449 Days Ago vs. 6450 to 6469 Days Ago vs. 6470 to 6489 Days Ago vs. 6490 to 6509 Days Ago vs. 6510 to 6529 Days Ago vs. 6530 to 6549 Days Ago vs. 6550 to 6569 Days Ago vs. 6570 to 6589 Days Ago vs. 6590 to 6609 Days Ago vs. 6610 to 6629 Days Ago vs. 6630 to 6649 Days Ago vs. 6650 to 6669 Days Ago vs. 6670 to 6689 Days Ago vs. 6690 to 6709 Days Ago vs. 6710 to 6729 Days Ago vs. 6730 to 6749 Days Ago vs. 6750 to 6769 Days Ago vs. 6770 to 6789 Days Ago vs. 6790 to 6809 Days Ago vs. 6810 to 6829 Days Ago vs. 6830 to 6849 Days Ago vs. 6850 to 6869 Days Ago vs. 6870 to 6889 Days Ago vs. 6890 to 6909 Days Ago vs. 6910 to 6929 Days Ago vs. 6930 to 6949 Days Ago vs. 6950 to 6969 Days Ago vs. 6970 to 6989 Days Ago vs. 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Duration Framework — Weak SUTVA

Table 7: Effects of Execution vs. Commutation on Elapsed Time Until Next Absence, Full Sample, Weak SUTVA

	War Diaries							Police Gazettes				FGCM Trial Registries (Desertion Trials)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Execution	-0.417 (0.736)	-0.390 (0.798)	-0.378 (0.781)	-0.368 (0.742)	-0.374 (0.701)	-0.389 (0.679)	-0.372 (0.387)	-0.544 (0.527)	-0.513 (0.497)	-0.475 (0.447)	-0.432 (0.407)	-0.411 (0.393)	-0.709 (0.522)	-0.919 (0.699)	-0.895 (0.675)	-0.856 (0.622)	-0.791 (0.566)	-0.752 (0.541)
Desert	-0.0429 (0.305)	-0.0203 (0.300)	-0.0188 (0.302)	-0.0253 (0.300)	-0.0517 (0.298)	-0.0763 (0.297)	-0.0459 (0.0938)	-0.0711 (0.0879)	-0.0804 (0.0859)	-0.0656 (0.0851)	-0.0458 (0.0882)	-0.0412 (0.0912)	0.0535 (0.136)	0.0272 (0.127)	0.0179 (0.123)	0.0317 (0.122)	0.0559 (0.127)	0.0630 (0.132)
Ex-Desert	-0.00330 (0.746)	-0.0249 (0.782)	-0.0306 (0.762)	-0.0251 (0.728)	0.000868 (0.697)	0.0202 (0.683)	0.251 (0.422)	0.312 (0.562)	0.284 (0.529)	0.258 (0.480)	0.234 (0.441)	0.228 (0.426)	0.442 (0.555)	0.518 (0.741)	0.504 (0.716)	0.474 (0.663)	0.430 (0.607)	0.411 (0.580)
Irish	-0.727** (0.179)	-0.769** (0.181)	-0.784** (0.190)	-0.822** (0.212)	-0.850** (0.226)	-0.836** (0.220)	-0.179 (0.109)	-0.158 (0.110)	-0.172 (0.109)	-0.186+ (0.107)	-0.189+ (0.108)	-0.185+ (0.108)	-0.353* (0.141)	-0.351* (0.143)	-0.365* (0.144)	-0.373** (0.145)	-0.366* (0.144)	-0.358* (0.143)
Ex-Irish	1.179** (0.285)	1.258** (0.323)	1.262** (0.308)	1.310** (0.282)	1.359** (0.270)	1.347** (0.268)	0.431* (0.196)	0.432* (0.210)	0.440* (0.202)	0.437* (0.196)	0.424* (0.196)	0.420* (0.196)	0.718** (0.243)	0.726** (0.260)	0.750** (0.255)	0.778** (0.253)	0.775** (0.251)	0.761** (0.249)
ΔLog Casualties	0.0870 (0.0602)	0.0812 (0.0602)	0.0781 (0.0599)	0.0721 (0.0595)	0.0626 (0.0597)	0.0574 (0.0603)	0.0537+ (0.0301)	0.0738** (0.0269)	0.0774** (0.0281)	0.0748* (0.0292)	0.0682* (0.0294)	0.0629* (0.0293)	0.0422 (0.0413)	0.0597 (0.0371)	0.0658+ (0.0380)	0.0662+ (0.0389)	0.0605 (0.0394)	0.0543 (0.0398)
ΔLog Casualties 30 Days Ago	0.170** (0.0569)	0.173** (0.0596)	0.170** (0.0599)	0.163** (0.0613)	0.153* (0.0634)	0.148* (0.0641)	0.0652* (0.0286)	0.0619* (0.0276)	0.0681* (0.0272)	0.0719** (0.0275)	0.0709** (0.0275)	0.0689* (0.0274)	0.0856* (0.0370)	0.0826* (0.0358)	0.0924** (0.0350)	0.100** (0.0344)	0.0987** (0.0342)	0.0944** (0.0343)
Ex's - 7d		-0.194 (0.214)						0.214* (0.0939)						0.356** (0.116)				
Cm's - 7d		-0.0304 (0.158)						0.214** (0.0562)						0.183** (0.0453)				
Ex's - 14d			-0.146 (0.155)						0.0840 (0.0788)						0.172+ (0.0901)			
Cm's - 14d			-0.0439 (0.108)						0.156** (0.0383)						0.140** (0.0328)			
Ex's - 30d				-0.147 (0.130)						-0.0270 (0.0703)						0.0216 (0.0738)		
Cm's - 30d				-0.0653 (0.0722)						0.105** (0.0267)						0.0990** (0.0255)		
Ex's - 60d					-0.193 (0.132)						-0.0734 (0.0643)						-0.0390 (0.0667)	
Cm's - 60d					-0.0856 (0.0546)						0.0651** (0.0211)						0.0623** (0.0206)	
Ex's - 90d						-0.222+ (0.132)						-0.0857 (0.0624)						-0.0569 (0.0650)
Cm's - 90d						-0.0887+ (0.0480)						0.0455* (0.0190)						0.0425* (0.0181)
N	536	536	536	536	536	536	1640	1640	1640	1640	1640	1640	1654	1654	1654	1654	1654	1654

Notes: All specifications use the '+14' commutation date imputation method and all specifications use exponential models to parameterize baseline hazard rates. All specifications include division and year fixed-effects.

Log Casualties is calculated as $\log(\Delta \text{Log Casualties})$. ΔLog Casualties is defined as the difference in Log Casualties 1 to 29 Days Ago vs. 30 to 59 Days Ago vs. 60 to 89 Days Ago vs. 90 to 109 Days Ago vs. 110 to 129 Days Ago vs. 130 to 149 Days Ago vs. 150 to 169 Days Ago vs. 170 to 189 Days Ago vs. 190 to 209 Days Ago vs. 210 to 229 Days Ago vs. 230 to 249 Days Ago vs. 250 to 269 Days Ago vs. 270 to 289 Days Ago vs. 290 to 309 Days Ago vs. 310 to 329 Days Ago vs. 330 to 349 Days Ago vs. 350 to 369 Days Ago vs. 370 to 389 Days Ago vs. 390 to 409 Days Ago vs. 410 to 429 Days Ago vs. 430 to 449 Days Ago vs. 450 to 469 Days Ago vs. 470 to 489 Days Ago vs. 490 to 509 Days Ago vs. 510 to 529 Days Ago vs. 530 to 549 Days Ago vs. 550 to 569 Days Ago vs. 570 to 589 Days Ago vs. 590 to 609 Days Ago vs. 610 to 629 Days Ago vs. 630 to 649 Days Ago vs. 650 to 669 Days Ago vs. 670 to 689 Days Ago vs. 690 to 709 Days Ago vs. 710 to 729 Days Ago vs. 730 to 749 Days Ago vs. 750 to 769 Days Ago vs. 770 to 789 Days Ago vs. 790 to 809 Days Ago vs. 810 to 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Days Ago vs. 7770 to 7789 Days Ago vs. 7790 to 7809 Days Ago vs. 7810 to 7829 Days Ago vs. 7830 to 7849 Days Ago vs. 7850 to 7869 Days Ago vs. 7870 to 7889 Days Ago vs. 7890 to 7909 Days Ago vs. 7910 to 7929 Days Ago vs. 7930 to 7949 Days Ago vs. 7950 to 7969 Days Ago vs. 7970 to 7989 Days Ago vs. 7990 to 8009 Days Ago vs. 8010 to 8029 Days Ago vs. 8030 to 8049 Days Ago vs. 8050 to 8069 Days Ago vs. 8070 to 8089 Days Ago vs. 8090 to 8109 Days Ago vs. 8110 to 8129 Days Ago vs. 8130 to 8149 Days Ago vs. 8150 to 8169 Days Ago vs. 8170 to 8189 Days Ago vs. 8190 to 8209 Days Ago vs. 8210 to 8229 Days Ago vs. 8230 to 8249 Days Ago vs. 8250 to 8269 Days Ago vs. 8270 to 8289 Days Ago vs. 8290 to 8309 Days Ago vs. 8310 to 8329 Days Ago vs. 8330 to 8349 Days Ago vs. 8350 to 8369 Days Ago vs. 8370 to 8389 Days Ago vs. 8390 to 8409 Days Ago vs. 8410 to 8429 Days Ago vs. 8430 to 8449 Days Ago vs. 8450 to 8469 Days Ago vs. 8470 to 8489 Days Ago vs. 8490 to 8509 Days Ago vs. 8510 to 8529 Days Ago vs. 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Days Ago vs. 9310 to 9329 Days Ago vs. 9330 to 9349 Days Ago vs. 9350 to 9369 Days Ago vs. 9370 to 9389 Days Ago vs. 9390 to 9409 Days Ago vs. 9410 to 9429 Days Ago vs. 9430 to 9449 Days Ago vs. 9450 to 9469 Days Ago vs. 9470 to 9489 Days Ago vs. 9490 to 9509 Days Ago vs. 9510 to 9529 Days Ago vs. 9530 to 9549 Days Ago vs. 9550 to 9569 Days Ago vs. 9570 to 9589 Days Ago vs. 9590 to 9609 Days Ago vs. 9610 to 9629 Days Ago vs. 9630 to 9649 Days Ago vs. 9650 to 9669 Days Ago vs. 9670 to 9689 Days Ago vs. 9690 to 9709 Days Ago vs. 9710 to 9729 Days Ago vs. 9730 to 9749 Days Ago vs. 9750 to 9769 Days Ago vs. 9770 to 9789 Days Ago vs. 9790 to 9809 Days Ago vs. 9810 to 9829 Days Ago vs. 9830 to 9849 Days Ago vs. 9850 to 9869 Days Ago vs. 9870 to 9889 Days Ago vs. 9890 to 9909 Days Ago vs. 9910 to 9929 Days Ago vs. 9930 to 9949 Days Ago vs. 9950 to 9969 Days Ago vs. 9970 to 9989 Days Ago vs. 9990 to 10009 Days Ago vs. 10010 to 10029 Days Ago vs. 10030 to 10049 Days Ago vs. 10050 to 10069 Days Ago vs. 10070 to 10089 Days Ago vs. 10090 to 10109 Days Ago vs. 10110 to 10129 Days Ago vs. 10130 to 10149 Days Ago vs. 10150 to 10169 Days Ago vs. 10170 to 10189 Days Ago vs. 10190 to 10209 Days Ago vs. 10210 to 10229 Days Ago vs. 10230 to 10249 Days Ago vs. 10250 to 10269 Days Ago vs. 10270 to 10289 Days Ago vs. 10290 to 10309 Days Ago vs. 10310 to 10329 Days Ago vs. 10330 to 1

Day-by-Day — Weak SUTVA — All Absences

Table 9: Day-by-Day Framework, All Absences

Panel A: War Diaries	(1)	(2)	(3)	(4)	(5)
Half-life	1 week	2 weeks	1 month	2 months	3 months
Execution	0.00894 (0.0110)	0.00760 (0.00925)	0.00804 (0.00902)	0.00920 (0.00832)	0.00957 (0.00742)
Death Sentence	0.00170 (0.00202)	0.000383 (0.00108)	-0.000446 (0.000769)	-0.000740 (0.000766)	-0.000807 (0.000768)
Ex-Irish	-0.0124 (0.0119)	-0.00516 (0.0108)	-0.00106 (0.00944)	-0.00260 (0.00767)	-0.00453 (0.00688)
Irish	0.00608 (0.00877)	0.00486 (0.00669)	0.00191 (0.00490)	0.000680 (0.00353)	0.000635 (0.00316)
Ex-Desert	-0.0177 (0.0112)	-0.0135 (0.00890)	-0.0114 (0.00841)	-0.0111 (0.00799)	-0.0112 (0.00736)
Desert	0.000511 (0.00280)	0.000805 (0.00169)	0.00127 (0.00125)	0.00207 (0.00131)	0.00271 + (0.00146)
N	20750	20750	20750	20750	20750
Panel B: Police Gazettes					
Execution	-0.0188** (0.00601)	-0.0174* (0.00752)	-0.0133 (0.00794)	-0.00861 (0.00683)	-0.00639 (0.00578)
Death Sentence	0.00340 (0.00211)	0.00348 (0.00242)	0.00329 (0.00230)	0.00274 (0.00166)	0.00238 + (0.00127)
Ex-Irish	-0.00932 (0.00618)	-0.00846 (0.00557)	-0.00875 (0.00529)	-0.0115* (0.00539)	-0.0128* (0.00527)
Irish	0.00316 (0.00486)	0.00327 (0.00508)	0.00363 (0.00452)	0.00399 (0.00345)	0.00396 (0.00270)
Ex-Desert	0.0115 (0.00791)	0.0118 (0.00860)	0.0102 (0.00882)	0.00751 (0.00723)	0.00626 (0.00600)
Desert	-0.00385 (0.00289)	-0.00438 (0.00279)	-0.00419 + (0.00247)	-0.00331 + (0.00165)	-0.00278* (0.00115)
N	54605	54605	54605	54605	54605
Panel C: FGCM Desertion Trial Registries					
Execution	0.0122 (0.0223)	0.0146 (0.0205)	0.00819 (0.0158)	0.000144 (0.0116)	-0.00264 (0.00992)
Death Sentence	0.0106* (0.00403)	0.00628* (0.00311)	0.00356 (0.00219)	0.00210 (0.00155)	0.00145 (0.00134)
Ex-Irish	-0.00844 (0.0194)	-0.0143 (0.0144)	-0.0111 (0.0102)	-0.00676 (0.00814)	-0.00469 (0.00763)
Irish	-0.000543 (0.00855)	0.00317 (0.00661)	0.00454 (0.00468)	0.00489 (0.00344)	0.00484 (0.00304)
Ex-Desert	-0.0125 (0.0193)	-0.0156 (0.0179)	-0.0121 (0.0147)	-0.00601 (0.0116)	-0.00362 (0.0102)
Desert	0.00236 (0.00388)	0.00320 (0.00357)	0.00256 (0.00277)	0.00159 (0.00204)	0.00108 (0.00175)
N	59355	59355	59355	59355	59355

Day-by-Day — Weak SUTVA — Irish - Non-Irish Absences

Table 10: Day-by-Day Framework, Irish - non-Irish Absence

Panel A: War Diaries	(1)	(2)	(3)	(4)	(5)
Half-life	1 week	2 weeks	1 month	2 months	3 months
Execution	-0.0207 (0.0143)	-0.0129 (0.0124)	-0.00711 (0.00923)	-0.00546 (0.00664)	-0.00531 (0.00554)
Death Sentence	-0.00106 (0.00162)	-0.000889 (0.00137)	-0.000577 (0.00113)	-0.000368 (0.000938)	-0.000286 (0.000830)
Ex-Irish	0.0255* (0.0127)	0.0219* (0.0105)	0.0156+ (0.00839)	0.0126+ (0.00686)	0.0119+ (0.00611)
Irish	0.0000700 (0.00781)	-0.000649 (0.00643)	-0.000233 (0.00491)	0.000565 (0.00356)	0.00105 (0.00296)
Ex-Desert	0.0268+ (0.0153)	0.0174 (0.0131)	0.00913 (0.00926)	0.00542 (0.00665)	0.00468 (0.00569)
Desert	-0.00595+ (0.00331)	-0.00439+ (0.00244)	-0.00241 (0.00178)	-0.00159 (0.00149)	-0.00158 (0.00140)
N	20750	20750	20750	20750	20750
Panel B: Police Gazettes					
Execution	0.00661+ (0.00388)	0.00495 (0.00448)	0.000708 (0.00454)	-0.00208 (0.00403)	-0.00266 (0.00363)
Death Sentence	-0.000576 (0.00143)	-0.00118 (0.00142)	-0.00120 (0.00116)	-0.00108 (0.000747)	-0.00100+ (0.000544)
Ex-Irish	0.0121* (0.00545)	0.00937* (0.00412)	0.00784** (0.00289)	0.00760** (0.00239)	0.00736** (0.00233)
Irish	-0.00474 (0.00314)	-0.00312 (0.00237)	-0.00200 (0.00192)	-0.00120 (0.00144)	-0.000779 (0.00119)
Ex-Desert	-0.00778 (0.00595)	-0.00491 (0.00547)	-0.000327 (0.00521)	0.00160 (0.00448)	0.00150 (0.00388)
Desert	0.000462 (0.00169)	0.00136 (0.00167)	0.00123 (0.00136)	0.000937 (0.000872)	0.000832 (0.000635)
N	54005	54005	54005	54005	54005
Panel C: FGCM Desertion Trial Registries					
Execution	-0.0240 (0.0162)	-0.0183 (0.0131)	-0.00784 (0.00972)	0.00197 (0.00716)	0.00559 (0.00620)
Death Sentence	-0.00425 (0.00514)	-0.00241 (0.00329)	-0.00147 (0.00193)	-0.00104 (0.00114)	-0.000829 (0.000885)
Ex-Irish	0.00333 (0.0160)	0.00267 (0.0120)	-0.000828 (0.00782)	-0.00408 (0.00576)	-0.00540 (0.00510)
Irish	0.00498 (0.00575)	0.00192 (0.00451)	0.0000538 (0.00328)	-0.000915 (0.00236)	-0.00116 (0.00202)
Ex-Desert	0.0313+ (0.0157)	0.0258* (0.0120)	0.0162+ (0.00883)	0.00644 (0.00679)	0.00249 (0.00618)
Desert	-0.00724 (0.00517)	-0.00605+ (0.00350)	-0.00400+ (0.00222)	-0.00230 (0.00146)	-0.00153 (0.00120)
N	59355	59355	59355	59355	59355

Day-by-Day — Weak SUTVA — All Previous Absences

Appendix Table 8: Day-by-Day Framework, Future Events and Previous Absences

<u>Panel A: War Diaries</u>	(1)	(2)	(3)	(4)	(5)
Half-life	1 week	2 weeks	1 month	2 months	3 months
Execution	0.0171	0.0127	0.00897	0.00550	0.00318
	(0.0218)	(0.0156)	(0.0118)	(0.0102)	(0.00921)
Death Sentence	-0.0000876	-0.000565	-0.000739	-0.000570	-0.000497
	(0.00143)	(0.00127)	(0.00111)	(0.000977)	(0.000942)
Ex-Irish	0.0127	0.0121	0.0124	0.0144	0.0158
	(0.0137)	(0.0102)	(0.00928)	(0.00953)	(0.00958)
Irish	-0.0137*	-0.0123*	-0.00919+	-0.00765	-0.00724
	(0.00511)	-0.0049	(0.00465)	(0.00457)	(0.00440)
Ex-Desert	-0.0190	-0.0147	-0.0122	-0.0101	-0.00839
	(0.0197)	(0.0147)	(0.0117)	(0.0101)	(0.00893)
Desert	0.00204	0.00298	0.00279	0.00250+	0.00239+
	(0.00196)	(0.00196)	(0.00181)	(0.00144)	(0.00130)
N	20750	20750	20750	20750	20750
<u>Panel B: Police Gazettes</u>					
Execution	0.00273	-0.00634	-0.00989	-0.00994	-0.00857
	(0.0214)	(0.0182)	(0.0139)	(0.0106)	(0.00915)
Death Sentence	0.00741	0.00596	0.00414	0.00250	0.00167
	(0.00452)	(0.00414)	(0.00312)	(0.00207)	(0.00160)
Ex-Irish	0.0124	0.00621	-0.000201	-0.00325	-0.00353
	(0.0161)	(0.0125)	(0.00906)	(0.00699)	(0.00599)
Irish	-0.00154	0.00198	0.00371	0.00390	0.00352
	(0.00586)	(0.00506)	(0.00443)	(0.00382)	(0.00333)
Ex-Desert	-0.00454	0.00626	0.00954	0.00830	0.00629
	(0.0206)	(0.0169)	(0.0128)	(0.00949)	(0.00818)
Desert	-0.00729	-0.00703	-0.00569	-0.00364	-0.00237
	(0.00454)	(0.00419)	(0.00341)	(0.00256)	(0.00215)
N	50465	50465	50465	50465	50465
<u>Panel C: FGCM Desertion Trial Registries</u>					
Execution	-0.0308*	-0.0245+	-0.0133	-0.00607	-0.00400
	(0.0141)	(0.0122)	(0.0110)	(0.00890)	(0.00705)
Death Sentence	0.00367	0.00350	0.00288+	0.00196+	0.00144+
	(0.00313)	(0.00233)	(0.00167)	(0.00111)	(0.000793)
Ex-Irish	-0.00701	-0.00497	-0.00283	-0.000694	-0.000834
	(0.0167)	(0.0134)	(0.00998)	(0.00725)	(0.00612)
Irish	0.0152*	0.0122**	0.00857*	0.00532*	0.00366+
	(0.00611)	(0.00456)	(0.00345)	(0.00249)	(0.00199)
Ex-Desert	0.0231	0.0178	0.00644	0.000998	0.000752
	(0.0143)	(0.0124)	(0.0118)	(0.00979)	(0.00785)
Desert	0.00102	0.000660	0.00261	0.00364*	0.00345*
	(0.00468)	(0.00322)	(0.00227)	(0.00168)	(0.00136)
N	54855	54855	54855	54855	54855

Day-by-Day — Weak SUTVA — I - NI Previous Absences

Appendix Table 9: Day-by-Day Framework, Future Events and Previous Irish - non-Irish Absence

Panel A: War Diaries	(1)	(2)	(3)	(4)	(5)
Half-life	1 week	2 weeks	1 month	2 months	3 months
Execution	-0.00885 (0.0110)	-0.00633 (0.00899)	-0.00499 (0.00544)	-0.00447 (0.00531)	-0.00374 (0.00562)
Death Sentence	0.000503 (0.00153)	0.000822 (0.00119)	0.000949 (0.000903)	0.000954 (0.000834)	0.000943 (0.000819)
Ex-Irish	0.00699 (0.0145)	0.00319 (0.00875)	0.00103 (0.00680)	-0.00117 (0.00696)	-0.00298 (0.00706)
Irish	0.00239 (0.00447)	0.00102 (0.00279)	-0.000630 (0.00254)	-0.000713 (0.00278)	-0.000241 (0.00273)
Ex-Desert	0.00150 (0.0130)	0.00128 (0.0105)	0.00256 (0.00544)	0.00430 (0.00435)	0.00474 (0.00468)
Desert	0.00167 (0.00281)	0.000528 (0.00218)	-0.000378 (0.00151)	-0.00109 (0.00116)	-0.00135 (0.00106)
N	20750	20750	20750	20750	20750
Panel B: Police Gazettes					
Execution	-0.0282 (0.0178)	-0.0199 (0.0129)	-0.0114 (0.00849)	-0.00543 (0.00568)	-0.00315 (0.00453)
Death Sentence	0.000329 (0.00221)	0.000108 (0.00164)	-0.000266 (0.00122)	-0.000187 (0.000866)	-0.00000606 (0.000701)
Ex-Irish	0.00120 (0.0103)	0.00495 (0.00605)	0.00567+ (0.00330)	0.00449+ (0.00249)	0.00339 (0.00232)
Irish	-0.000198 (0.00532)	-0.00167 (0.00397)	-0.00158 (0.00297)	-0.00139 (0.00214)	-0.00133 (0.00172)
Ex-Desert	0.0269 (0.0179)	0.0187 (0.0130)	0.0113 (0.00874)	0.00639 (0.00599)	0.00450 (0.00487)
Desert	-0.00338 (0.00262)	-0.00169 (0.00175)	-0.000409 (0.00133)	-0.000265 (0.00103)	-0.000454 (0.000886)
N	50465	50465	50465	50465	50465
Panel C: FGCM Desertion Trial Registries					
Execution	0.0332** (0.0121)	0.0259* (0.0109)	0.0148 (0.00949)	0.00739 (0.00725)	0.00475 (0.00563)
Death Sentence	-0.00265 (0.00266)	-0.00240 (0.00191)	-0.00207 (0.00133)	-0.00157 (0.000948)	-0.00121 (0.000748)
Ex-Irish	-0.00942 (0.0122)	-0.00784 (0.00976)	-0.00677 (0.00774)	-0.00461 (0.00620)	-0.00361 (0.00553)
Irish	-0.00851+ (0.00441)	-0.00807* (0.00338)	-0.00398 (0.00263)	-0.000594 (0.00218)	0.000457 (0.00192)
Ex-Desert	-0.0248* (0.0123)	-0.0174 (0.0108)	-0.00559 (0.00925)	-0.000398 (0.00727)	0.0000879 (0.00597)
Desert	-0.00206 (0.00333)	-0.000792 (0.00218)	-0.00226 (0.00155)	-0.00319* (0.00122)	-0.00308** (0.00104)
N	54855	54855	54855	54855	54855

Death Sentences Following Executions

Panel B: NN Imputation

All Death Sentences

Irish Execution	12.1%	16.1%
Non-Irish Execution	17.4%	19.1%
Irish Commutation	21.6%	19.6%
Non-Irish Commutation	22.0%	17.0%

Desertion Death Sentences

Irish Execution	12.5%	14.9%
Non-Irish Execution	18.3%	19.7%
Irish Commutation	21.8%	19.8%
Non-Irish Commutation	20.6%	15.4%

Panel C: C=T Imputation

All Death Sentences

Irish Execution	13.8%	14.3%
Non-Irish Execution	23.3%	18.0%
Irish Commutation	19.5%	21.2%
Non-Irish Commutation	19.9%	16.6%

Desertion Death Sentences

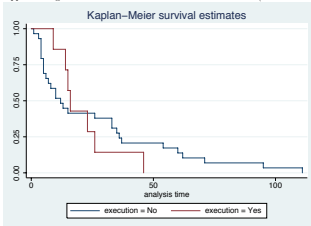
Irish Execution	14.6%	12.8%
Non-Irish Execution	23.0%	18.4%
Irish Commutation	18.0%	22.6%
Non-Irish Commutation	19.5%	15.3%

◀ Potential Bias?

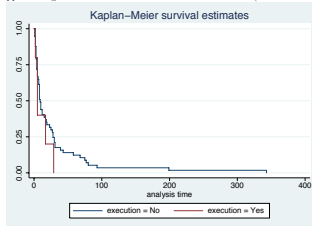
◀ Removing death sentences

Removing Death Sentences

Appendix Figure 9A: Non-Parametric Survival Distributions (War Diaries) Appendix Figure 9B: Non-Parametric Survival Distributions (Police Gazettes)

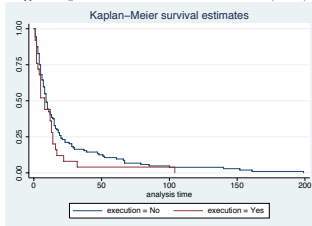


(a) Irish Executions Only

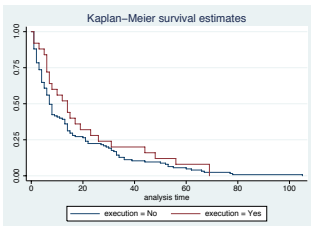


(a) Irish Executions Only

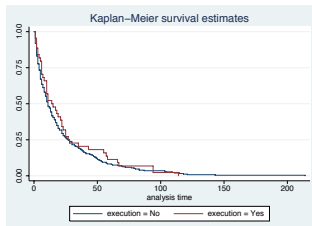
Appendix Figure 9C: Non-Parametric Survival Distributions (FGCM)



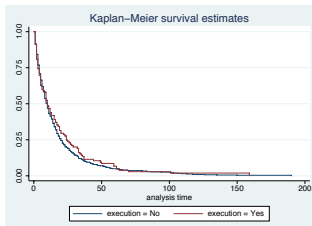
(a) Irish Executions Only



(b) Non-Irish Executions Only



(b) Non-Irish Executions Only



(b) Non-Irish Executions Only

Removing Death Sentences

Appendix Table 14: Effects of Executions vs. Commutations on Elapsed Time Until Next Absence Differing by whether Case was a Desertion Trial and whether Soldier was Irish

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Pooled Data</u>	Exp/+14	Wb/+14	Cox/+14	Exp/NN	Wb/NN	Cox/NN	Exp/C=T	Wb/C=T	Cox/C=T
Execution	-0.365 (0.316)	-0.314 (0.274)	-0.243 (0.224)	0.00152 (0.267)	0.00389 (0.232)	0.0187 (0.186)	0.147 (0.162)	0.124 (0.153)	0.0877 (0.133)
Desert	-0.141 (0.108)	-0.122 (0.0940)	-0.0970 (0.0804)	-0.0858 (0.101)	-0.0784 (0.0890)	-0.0609 (0.0767)	0.0322 (0.0944)	0.0315 (0.0887)	0.0386 (0.0792)
Ex-Desert	0.243 (0.351)	0.197 (0.303)	0.119 (0.250)	-0.0475 (0.297)	-0.0520 (0.258)	-0.0863 (0.210)	-0.309 (0.192)	-0.279 (0.182)	-0.250 (0.158)
Irish	-0.0554 (0.0964)	-0.0510 (0.0812)	-0.0559 (0.0616)	-0.0759 (0.0783)	-0.0706 (0.0675)	-0.0698 (0.0500)	0.143+ (0.0764)	0.132+ (0.0699)	0.0939 (0.0615)
Ex-Irish	0.344+ (0.206)	0.300+ (0.179)	0.262+ (0.140)	0.347+ (0.197)	0.316+ (0.173)	0.292* (0.137)	0.0314 (0.174)	0.0331 (0.164)	0.0558 (0.145)
N	2228	2228	2228	2228	2228	2228	2228	2228	2228

◀ Potential Bias?