How Punishment Severity Affects Jury Verdicts: Evidence from Two Natural Experiments

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ONLINE APPENDIX

APPENDIX TABLE 1. OFFENSE CATEGORIES

Category	Subcategory	Offenses	Combined Offenses
Property	Theft	Animal theft, mail, stealing from master, theft from place, shoplifting *Excluded from sample:* Game law offense	Larceny: Grand larceny (more than 1 shilling), petty larceny (less than one shilling), simple larceny, pocket picking
	Other	Arson, burglary, house breaking, receiving *Excluded from sample:* Breaking into place	
Violent	Killing	Manslaughter, murder *Excluded from sample:* Infanticide, petty treason	
	Other	Assault, wounding *Excluded from sample:* Kidnapping, riot	Robbery: Highway robbery, robbery
Sex	Violent	Rape	Sexual assault: Assault with intent, indecent assault
	Other	*Excluded from sample:* Keeping a brothel	Sodomy: Assault with sodomitical intent, sodomy
Fraud	Fraud	Coining offenses, embezzlement, forgery, fraud *Excluded from sample:* Treason	
Other	Other	Bigamy, libel, perjury, perverting justice *Excluded from sample:* Barratry, concealing a birth, conspiracy, extortion, habitual criminal, illegal abortion, piracy, religious offenses, return from transportation, seditious libel, seditious words, seducing allegiance, tax offenses, threatening behavior, vagabond, bankruptcy	

Notes: The table shows the offense categories included and excluded from the analysis sample. Where applicable, we combine offense categories into one bigger category (larceny, robbery, sexual assault, sodomy).

APPENDIX TABLE 2. CAPITAL PUNISHMENT ELIGIBILITY, REFORM YEARS AND ACT NAMES

Offense	Law	Treatment years
Panel A. Property offenses		
Animal theft	An act for abolishing the Punishment of Death in certain cases, and substituting a lesser punishment in lieu thereof (1832)	1832
Arson	Burning of Buildings, etc. Act (1837), Criminal Law Consolidation Acts (1856)	1856 (1837)
Burglary	An act to Amend the Laws relating to Burglary and Stealing in a Dwelling house (1837)	1837
Housebreaking	Criminal law act (1833)	1833
Larceny	-	practically never eligible
Mail	An act for abolishing capital punishment in cases of letter-stealing and sacrilege (1834)	1834
Receiving	-	1837
Shoplifting	Stealing in Shops Act (1820)	1820
Stealing from master	-	never eligible
Theft from place	An act for abolishing the Punishment of Death in certain cases, and substituting a lesser punishment in lieu thereof (1832)	1832
Panel B. Violent and sex offenses		
Assault	-	
Manslaughter	-	never eligible
Murder	-	always eligible
Robbery	An act to Amend the Laws relating to Robbery and Stealing from the Person (1837)	1837
Rape	Substitution of Punishments for Death Act (1841)	1841
Sexual assault	-	never eligible
Sodomy	An act to consolidate and amend the Statute Law of England and Ireland relating to Offences against the Person (1861)	1832 (1860)
Wounding	Act to Amend the Laws Relating to Offences against the Person (1837) An Act to consolidate and amend the Statute Law of England and Ireland relating to Offfences against the Person (1861)	1837 (1861)
Panel C. Fraud offenses		
Coining offenses	Coinage Offences Acts (1832)	1832
Embezzlement	-	practically never eligible
Forgery	An Act for abolishing the Punishment of Death in certain Cases of Forgery (1832)	1832
Fraud	-	1813
Panel D. Other offenses		
Bigamy	-	not eligible
Libel	-	not eligible
Perjury	-	not eligible
Perverting justice	-	1831

Notes: The table indicates the punishment eligibility for capital punishment for each offense in the analysis sample. Offenses with two treatment years are those for which we identified two potential law changes from the actual laws or from the laws and the data driven discontinuity analysis; the year that is not in parentheses is used in the baseline specification. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.**. *Sources: The Old Bailey Proceedings Online*, various sources as specified in the text (laws) and own calculations

APPENDIX TABLE 3. BASELINE REGRESSIONS WITH ALTERNATIVE CLUSTERING

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Baseline	Baseline	Robustness	Robustness	Robustness	Robustness	Robustness
	coef.	s.e.	p-value	s.e.	s.e.	s.e.	s.e.	p-value
Cluster method		offence	offence	offence x year (oneway)	offence x year (twoway)	offence x session (twoway)	offence block bootstrap	offence wild t-bootstrap
Panel A. Guilty of any offense by jury verdict (0/1)								
i.Without controls								
coeff./s.e./p-value	0.0917	(0.0401)	[0.0312]	(0.0102)	(0.0411)	(0.0404)	(0.0450)	[0.0948]
Observations	104,910	104,910	104,910	104,910	104,910	104,910	104,910	104,910
Number of cluster	na	25	25	1535	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
ii. With controls								
coeff./s.e./p-value	0.0764	(0.0365)	[0.0471]	(0.0091)	(0.0375)	(0.0368)	(0.0412)	[0.113]
Observations	104,670	104,670	104,670	104,670	104,670	104,670	104,670	104,670
Number of cluster	na	25	25	1535	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
Panel B. Guilty of original offense by jury verdict (0/1)								
i.Without controls								
coeff./s.e./p-value	0.171	(0.0342)	[0.000]	(0.0103)	(0.0356)	(0.0346)	(0.0388)	[0.000]
Observations	104,910	104,910	104,910	104,910	104,910	104,910	104,910	104,910
Number of cluster	na	25	25	1535	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
ii. With controls								
coeff./s.e./p-value	0.159	(0.0323)	[0.000]	(0.0097)	(0.0336)	(0.0327)	(0.0361)	[0.000]
Observations	104,670	104,670	104,670	104,670	104,670	104,670	104,670	104,670
Number of cluster	na	25	25	1535	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes

(continued)

APPENDIX TABLE 3 (CONTINUED). BASELINE REGRESSIONS WITH ALTERNATIVE CLUSTERING *(continued)*

Panel C. Guilty of lesser offence conditional on guilty by jury verdict (0/1), broad definition								
i.Without controls								
coeff./s.e./p-value	-0.153	(0.0462)	[0.003]	(0.0106)	(0.0425)	(0.0404)	(0.0533)	[0.0248]
Observations	75,571	75,571	75,571	75,571	75,571	75,571	75,571	75,571
Number of cluster	na	25	25	1423	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
ii. With controls								
coeff./s.e./p-value	-0.153	(0.0456)	[0.003]	(0.0105)	(0.0420)	(0.0400)	(0.0529)	[0.0224]
Observations	75,422	75,422	75,422	75,422	75,422	75,422	75,422	75,422
Number of cluster	na	25	25	1423	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
Panel D. Recommended for mercy conditional on guilty by jury verdict (0/1)								
i.Without controls								
coeff./s.e./p-value	-0.059	(0.0194)	[0.006]	(0.0070)	(0.0123)	(0.0109)	(0.0234)	[0.0372]
Observations	75,571	75,571	75,571	75,571	75,571	75,571	75,571	75,571
Number of cluster	na	25	25	1423	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes
ii. With controls								
coeff./s.e./p-value	-0.0602	(0.0199)	[0.006]	(0.0069)	(0.0129)	(0.0115)	(0.0236)	[0.0440]
Observations	75,422	75,422	75,422	75,422	75,422	75,422	75,422	75,422
Number of cluster	na	25	25	1423	25 x 69	25 x 702	25	25
Offense, year, month f.e.	yes	yes	yes	yes	yes	yes	yes	yes

Notes: The table shows the results for the baseline regressions corresponding to estimating equation (1) for the sample years 1803-1871 and the dependent variable as specified in Panels A to D (see **Fehler! Verweisquelle konnte nicht gefunden werden.** for further details on the baseline specification). Standard errors are shown in parentheses and are clustered by offense, on year by offense (one-way), year by offense (two-way), year by session (two-way), and by offense with block bootstrapping with 10,000 repetitions. P-values when clustering on year by offense (one-way) and by offense using wild t-bootstrapping (Cameron, Gelbach and Miller, 2008) with 5,000 repetitions are shown in brackets. *Sources: The Old Bailey Proceedings Online* and own calculations

APPENDIX TABLE 4. ABOLITION OF CAPITAL PUNISHMENT AND NUMBER OF CASES

	(1)	(2)	(3)	(4)
Offense:	all	all	all	all
noncapital (0/1)	37.28	-33.23	1.449	5.207
s.e.: robust	(13.87)	(15.60)	(3.705)	(10.37)
s.e.: off cluster	[38.21]	[23.82]	[6.920]	[21.29]
Observations	1,550	1,550	1,550	1,550
Number of cluster in ( )	25	25	25	25
R-squared	0.683	0.733	0.897	0.904
Offense f.e.	x	x	x	x
Year f.e.	x	x	-	x
Offense linear trend	-	x	-	-
Offense quadratic trend	-	-	x	x

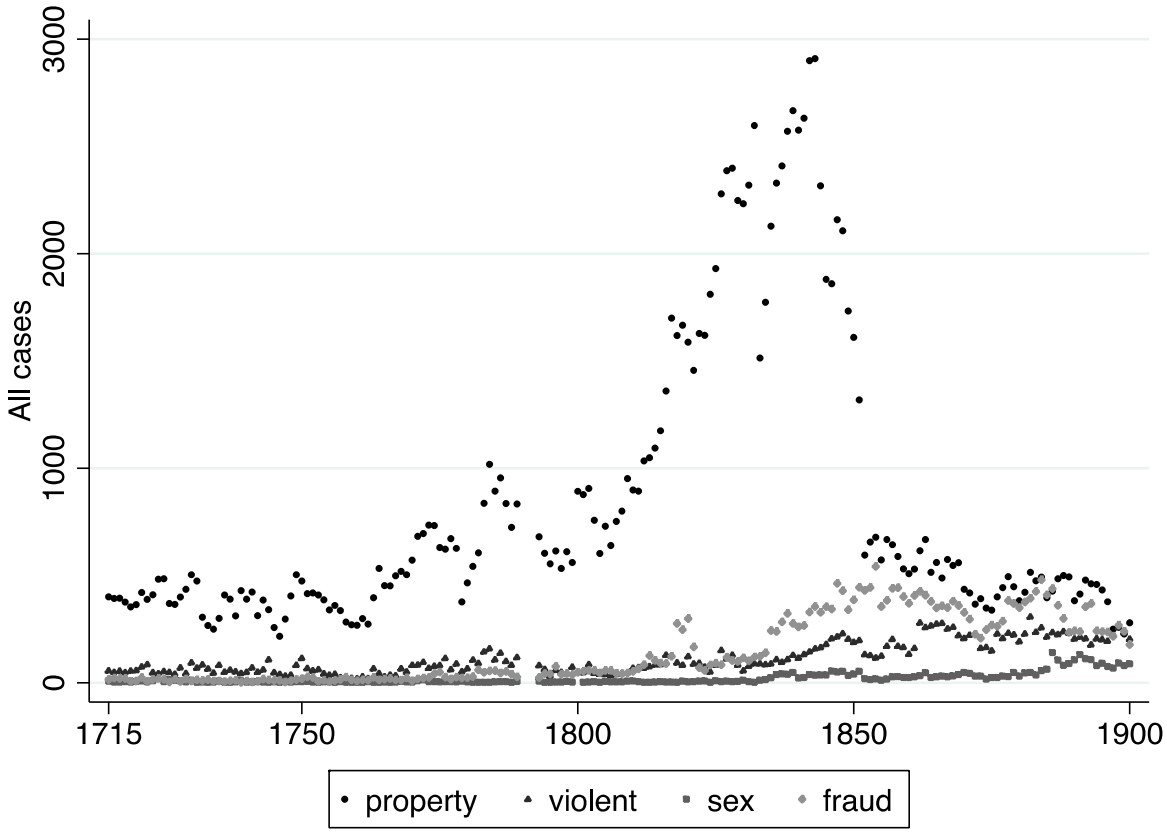
Notes: The table shows the results corresponding to estimating equation (1) for the sample years 1803-1871, using the number of cases by offense and year as the dependent variable and collapsing the analysis sample to the offense by year level. Robust standard errors and standard errors clustered by offense are shown in parentheses below the estimated coefficient. *Sources: The Old Bailey Proceedings Online* and own calculations

APPENDIX TABLE 5. TYPE OF EVIDENCE

Type of	Total		defendant		judge		lawyer		victim		witness		1810-1819		1820-1829		1830-1839		1840-1849	
evidence	#	percent	#	percent	#	percent	#	percent	#	percent	#	percent	#	percent	#	percent	#	percent	#	percent
affirming	241	*80.1*	33	*78.6*	16	*84.2*	26	*86.7*	17	*73.9*	136	*80.0*	37	*77.1*	67	*85.9*	79	*76.0*	58	*81.7*
negating	46	*15.3*	8	*19.0*	3	*15.8*	3	*10.0*	6	*26.1*	24	*14.1*	8	*16.7*	10	*12.8*	17	*16.3*	11	*15.5*
unclear	13	*4.3*	1	*2.4*	0	*0.0*	1	*3.3*	0	*0.0*	10	*5.9*	2	*4.2*	1	*1.3*	8	*7.7*	2	*2.8*
Total	301	*100.0*	42	*100.0*	19	*100.0*	30	*100.0*	23	*100.0*	170	*100.0*	48	*100.0*	78	*100.0*	104	*100.0*	71	*100.0*

Notes: The table shows the cross-tabulation (frequency and percent) of text passages from verbatim speech that affirm, negate or are unclear about the existence of evidence, by role of the speaker and decade. Text passages include 150 characters to the left and to the right of the word evidence for all cases from 1810 to 1850. Note that if "evidence" is not a spoken word in the trial, then it will not be captured by this search engine. *Sources: Old Bailey Corpus* website (accessed September 05, 2017) and own calculations

APPENDIX FIGURE 1. NUMBER OF CASES BY BROAD OFFENSE CATEGORY, ANALYSIS SAMPLE



Notes: The figure shows the annual number of cases in the analysis sample (tried at the Old Bailey) between 1715 and 1900 by broad offense category (property offenses, violent offenses, sex offenses and fraud offenses).
Sources: The Old Bailey Proceedings Online and own calculations

APPENDIX FIGURE 2. EXAMPLES FROM ORIGINAL TEXT OF LAW

Anno Quarto

Georgii Regis.

An Act for the further Preventing Robbery, Burglary, and other Felonies, and for the more effectual Tranſportation of Felons, and Unlawful Exporters of Wooll; and for Declaring the Law upon ſome Points relating to Pirates.

Whereas it is found by Experience, That the Puniſhments inflicted by the Laws now in Force againſt the Offences of Robbery, Larceny, and other Felonious Taking and Stealing of Money and Goods, have not proved effectual to deter Wicked and Evil-diſpoſed Perſons from being Guilty of the ſaid Crimes: And whereas many Offenders, to whom Royal Mercy hath been Extended upon Condition of Tranſporting themſelves to the Weſt-Indies, have often neglected to perform the ſaid Condition, but returned to their former Wickedneſs, and been at laſt for New Crimes brought to a Shameful and Ignominious Death: And whereas in many of His Majeſties Colonies and Plantations in America, there is great Want of Servants, who by their Labour and Induſtry might be the Means of Improving and Making the ſaid Colonies and Plantations more Uſeful to this Nation; Be it Enacted by the Kings moſt Excellent Majeſty, by and with the Advice and Conſent of the Lords Spiritual and Temporal, and the Commons in this preſent Parliament Aſſembled, and by the Authority of the ſame, That where any Perſon or Perſons have been Convicted of any Offence within the Benefit of Clergy, before the Twentieth Day of

5 3 2 January,

ANNO SECUNDO & TERTIO

GULIELMI IV. REGIS.

****

CAP. CXXIII.

An Act for abolishing the Punishment of Death in certain Cases of Forgery. [16th *August* 1832.]

WHEREAS by an Act passed in the First Year of His present Majesty's Reign, intituled *An Act for reducing into One Act all such Forgeries as shall hereafter be punished with Death, and for otherwise amending the Laws relative to Forgery*, it was provided, that if any Person should after the Commencement of that Act be convicted of any Forgery or other Offence therein named or described, for which he would at the Time of the passing of that Act have been liable to the Punishment of Death, he should not suffer Death for the same, unless the same should be made punishable with Death by that Act: And whereas by the Law and Practice now prevailing in *Scotland* and in *Ireland* the Penalty of Death may be awarded, in certain Cases, for Forgery, for uttering counterfeit Instruments, and for false Personation: And whereas it is expedient to abolish the Punishment of Death for Offences of that Nature, except so far as relates to Wills and certain Powers of Attorney, as herein-after mentioned; be it therefore enacted by the King's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the Authority of the same, That where any Person shall after the passing of this Act be convicted of any Offence whatsoever for which the said Act enjoins or authorizes the Infliction of the Punishment of Death, or where any Person shall after the passing of this Act be convicted in *Scotland* or *Ireland* of any Offence now punishable with Death, which Offence shall consist wholly

1 W. 4. c. 6

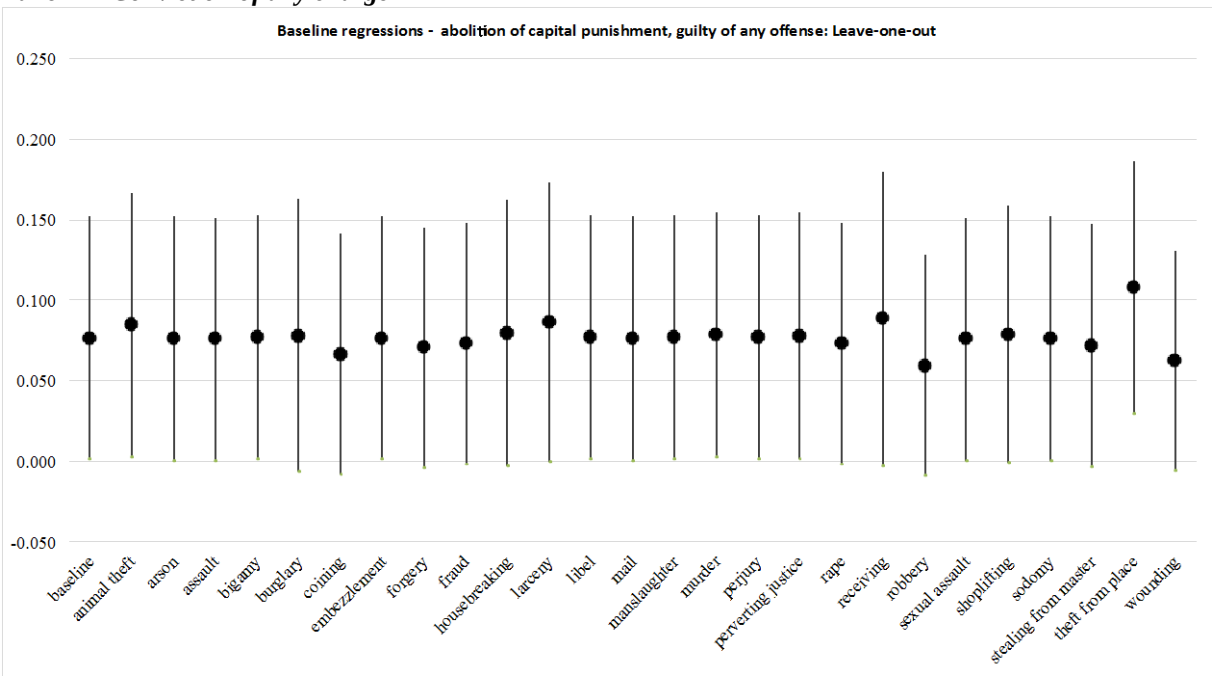
Persons hereafter convicted of Crimes punishable with Death under recited Act.

13 H or

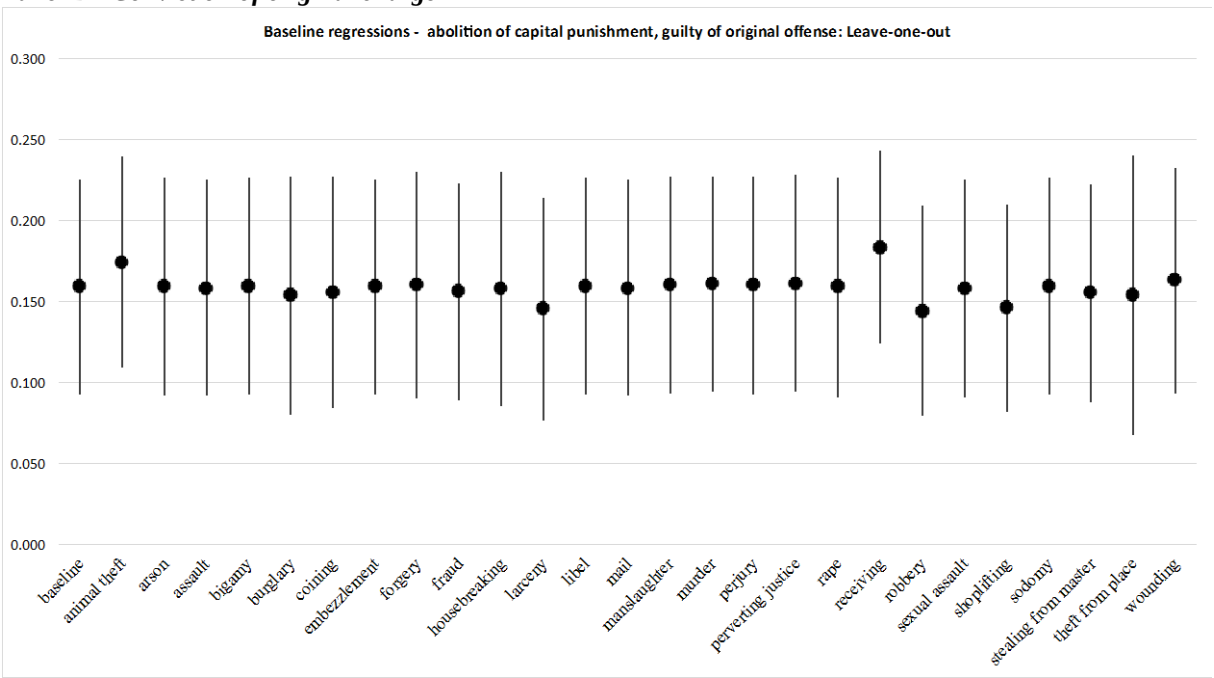
Source: UK Parliamentary Archives

APPENDIX FIGURE 3. BASELINE REGRESSIONS EXCLUDING ONE OFFENSE CATEGORY AT A TIME

Panel A - Conviction of any charge



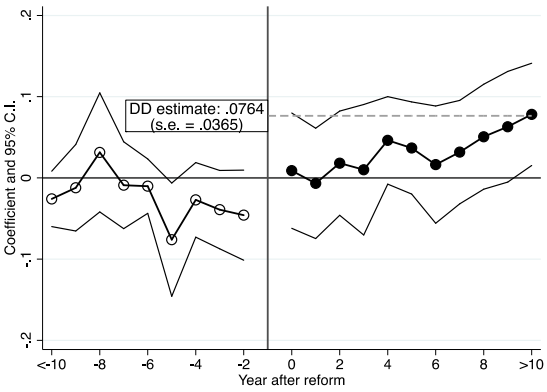
Panel B - Conviction of original charge



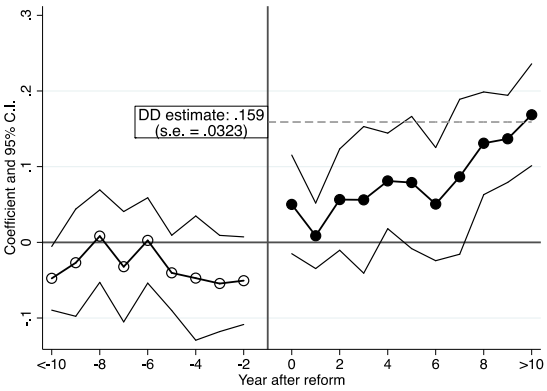
Notes: The figure shows the results for the baseline regressions corresponding to estimating equation (1) for the sample years 1803-1871 when excluding one offense category at a time (see **Fehler! Verweisquelle konnte nicht gefunden werden.** specification details). The dependent variable is a dummy variable indicating jury verdict of guilty of any charge (Panel A) and guilty of the original charge (Panel B). The dots represent the point estimate when the offense category indicated on the x-axis is excluded. The bars represent the corresponding 95 percent confidence intervals with standard errors clustered by offense. *Sources: The Old Bailey Proceedings Online* and own calculations

APPENDIX FIGURE 4. EVENT STUDY OF THE ABOLITION OF CAPITAL PUNISHMENT (POOLED OFFENSES)

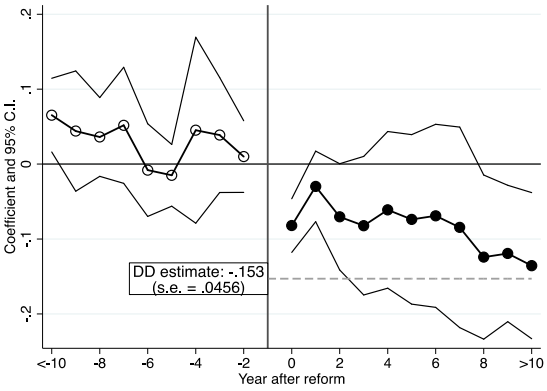
Panel A - Conviction of any charge



Panel B - Conviction of original charge

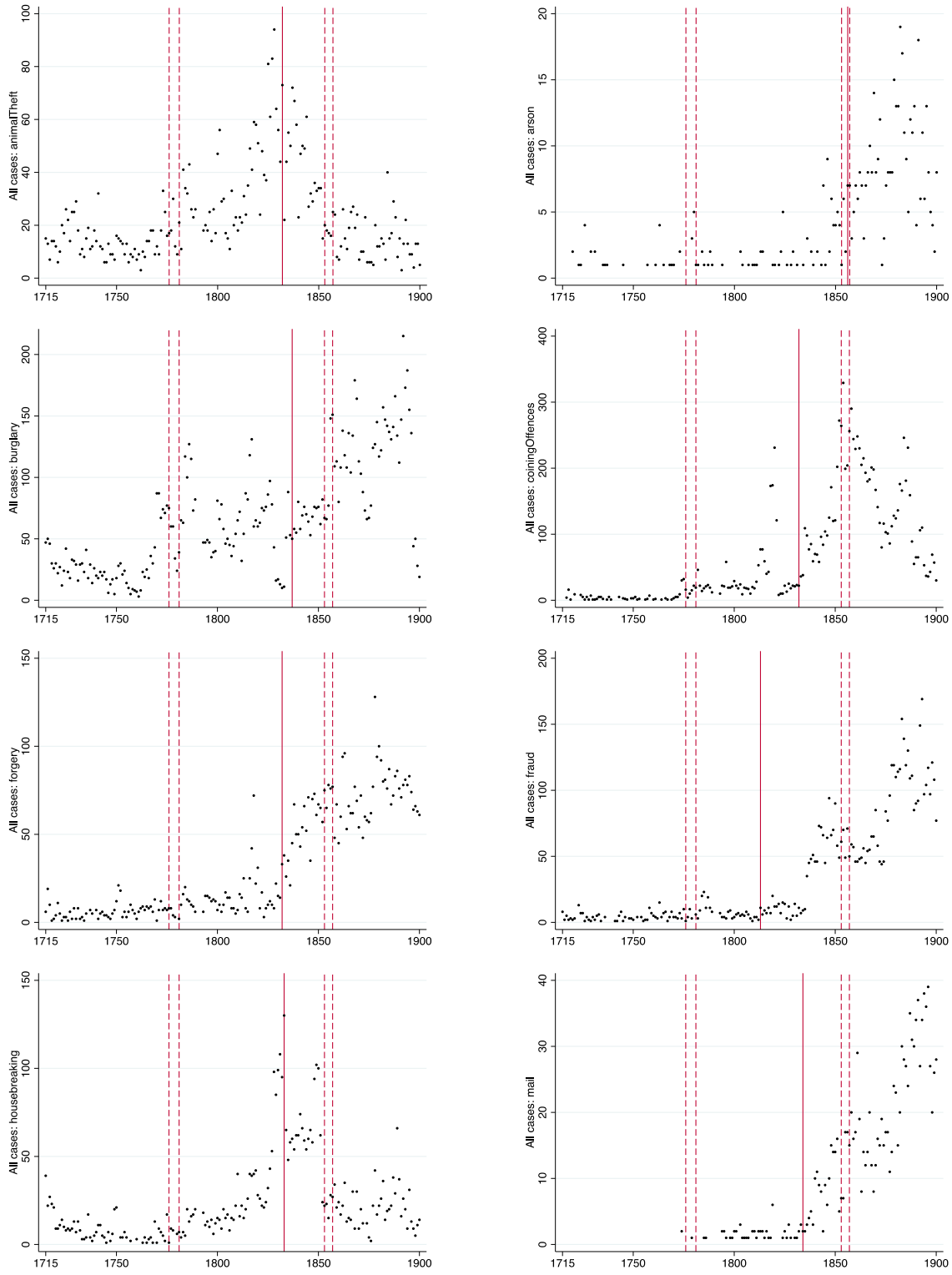


Panel C – Conviction of lesser charge



Notes: The figure shows the coefficients and 95 percent confidence intervals from an event study estimation including leads and lags as specified in Section **Fehler! Verweisquelle konnte nicht gefunden werden.**. Panel A shows the results for convictions of any charge, Panel B for convictions of the original charge and Panel C for convictions of a lesser charge. The solid vertical line marks the reference year (year of the reform itself). The dashed horizontal line marks the difference-in-differences estimates as shown in columns (3) and (4) of **Fehler! Verweisquelle konnte nicht gefunden werden.**. Standard errors are clustered by offence. *Sources*: *The Old Bailey Proceedings Online* and own calculations

APPENDIX FIGURE 5. ANNUAL NUMBER OF CASES BY OFFENSE (TREATMENT GROUP)



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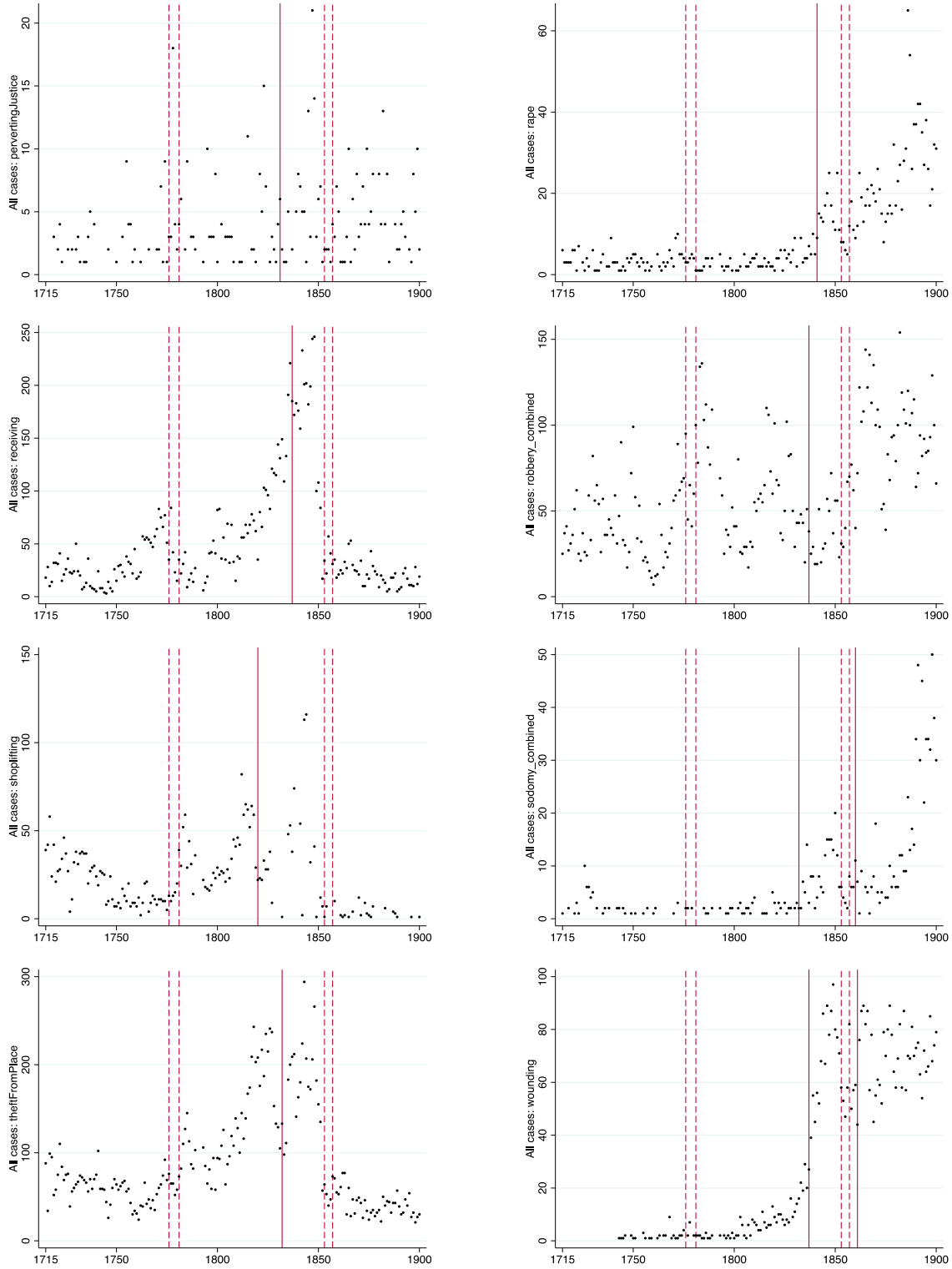
APPENDIX FIGURE 5. ANNUAL NUMBER OF CASES BY OFFENSE (TREATMENT GROUP) *(continued)*



Notes: The figure shows the annual number of cases for all offenses in the treatment group (from top left to right bottom: animal theft, arson, burglary, coining, forgery, fraud, housebreaking, mail, perverting justice, rape, receiving, robbery, shoplifting, sodomy, theft from place, wounding). The dashed vertical red lines mark the years that were affected by changes in penal transportation (American Revolution and abolition of transportation); the solid red line marks the year of treatment, i.e. the first year in which the observed share of capital punishment is equal to zero. *Sources: The Old Bailey Proceedings Online* and own calculations.