

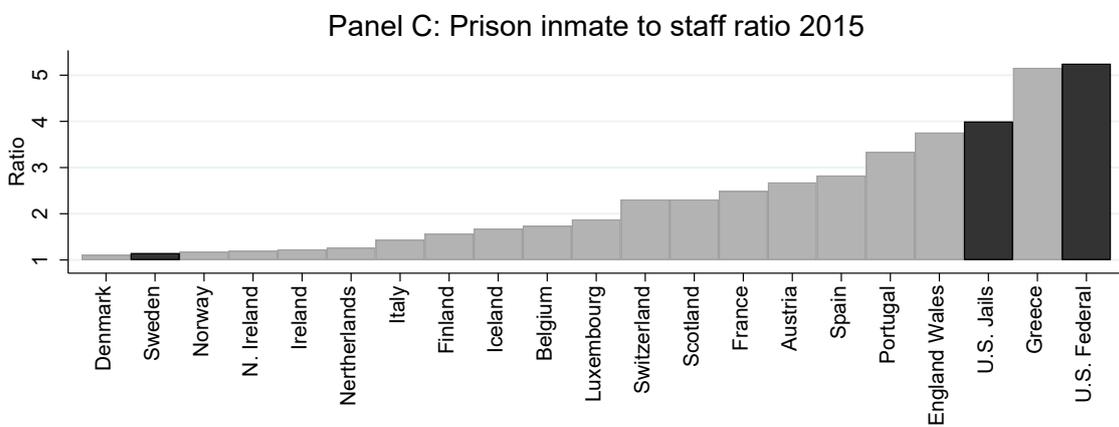
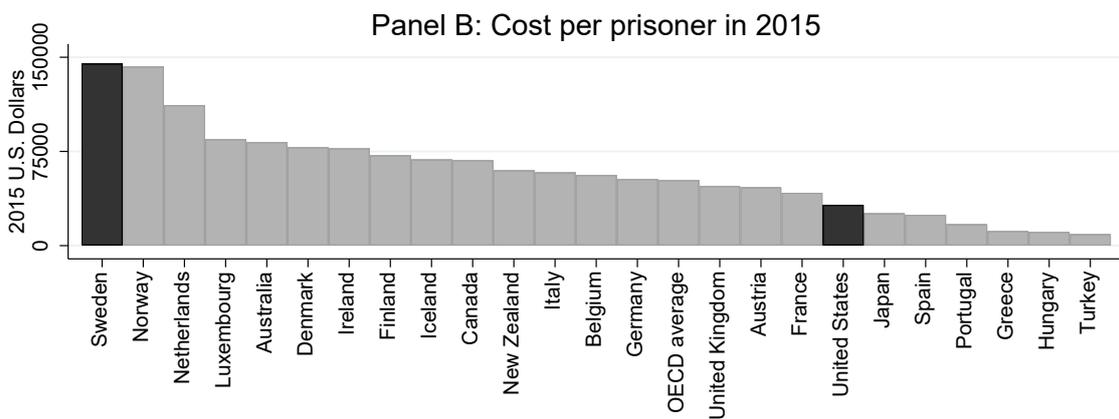
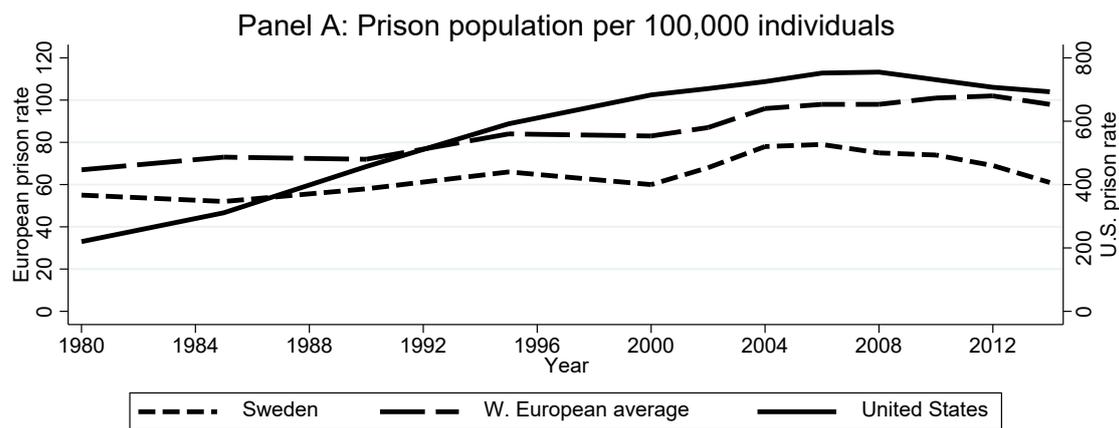
ONLINE APPENDIX

The Health Effects of Prison

Randi Hjalmarsson, University of Gothenburg and CEPR

Matthew Lindquist, Stockholm University (SOFI)

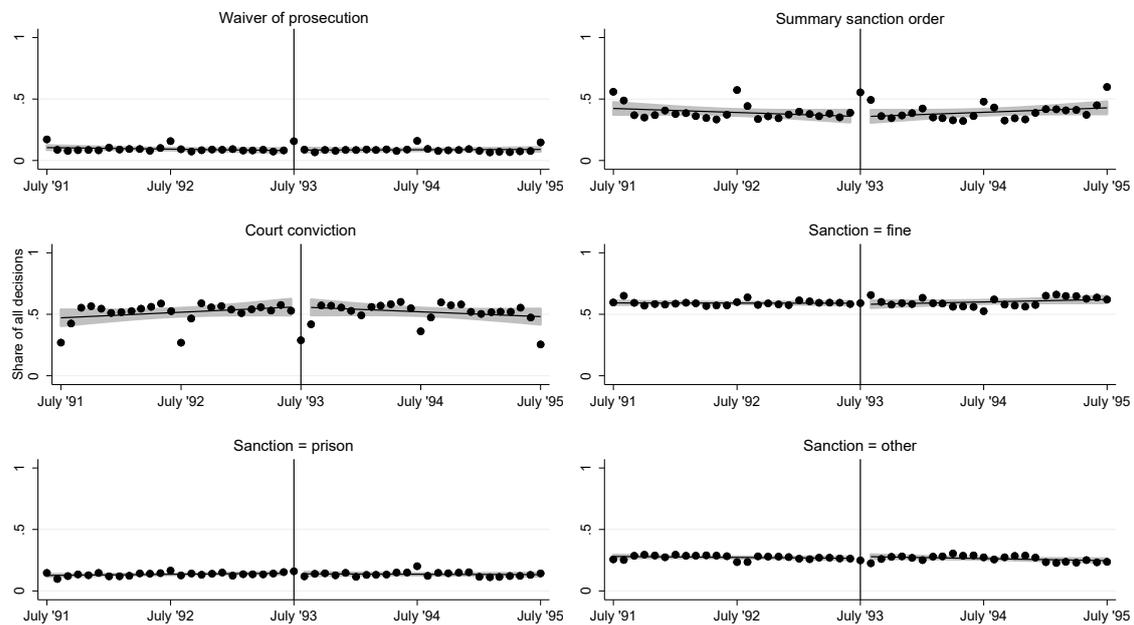
Appendix Figure 1. Swedish Prisons in International Perspective



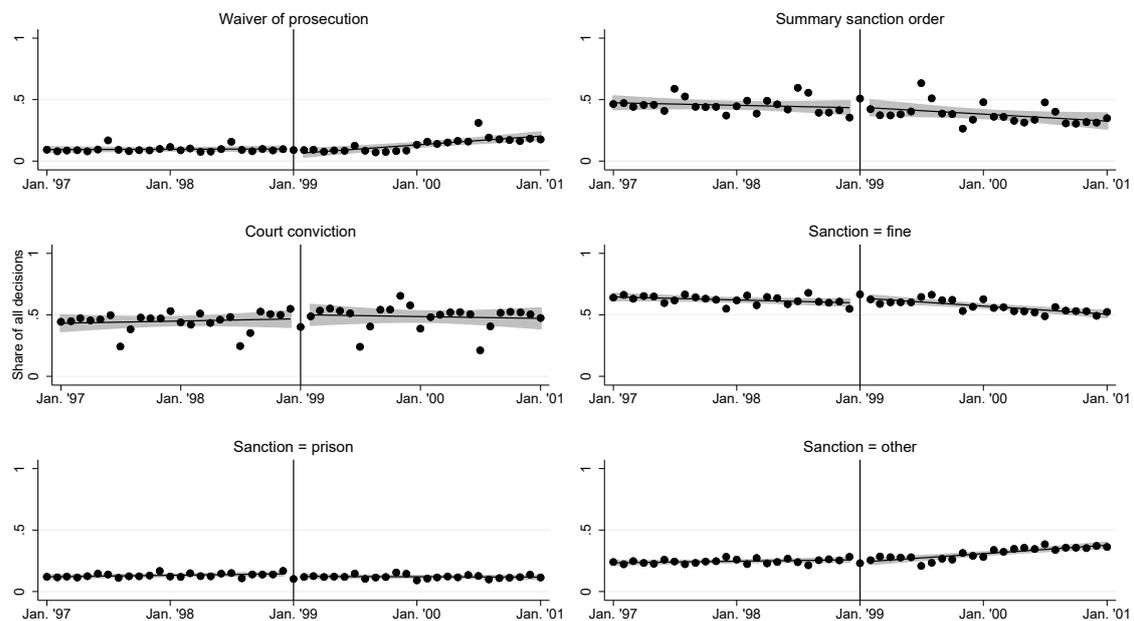
Notes – Panel A: The W. European average is a country average and not a population weighted average. Source: Institute for Criminal Policy Research, U.K. Panel B: Institute for Public Affairs, Australia. Panel C: Source: SPACE-I, Council of Europe, Annual Penal Statistics (2018). Information on U.S. Jails is from the Bureau of Justice Statistics (2018) and refers to the year 2016. Information on U.S. Federal prisons is from the Bureau of Prisons (2012) and refers to the year 2011

Appendix Figure 2. Implementation: No manipulation of prosecutor or judge decisions.

Panel A: Pre and Post July 1993 Reform



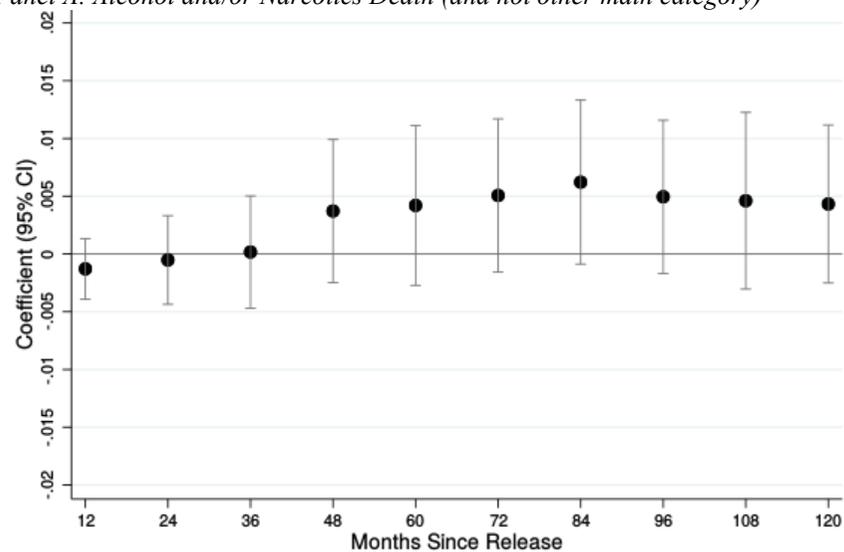
Panel B: Pre and Post January 1999 Reform



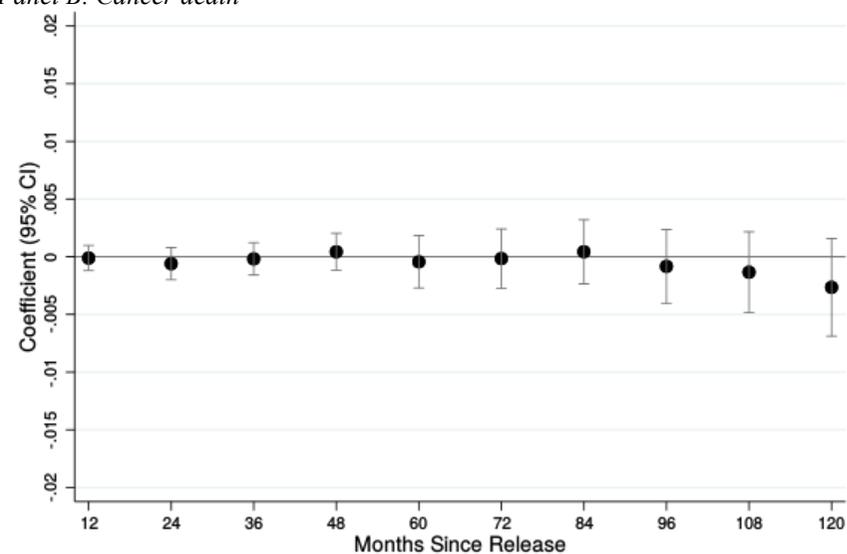
Note – This figure was created using the universe of all decision types and convictions included in the official convictions register for those aged 18 or older in the four years around each reform. We then collapsed these data by the month that each decision or conviction was made. We plot these data and draw linear regression lines (along with 95% confidence intervals) to the left and to the right of the reform month. There are clear seasonal patterns in the raw data, but no meaningful changes in the share of each decision type around the two reforms.

Appendix Figure 3. Dynamics of Mortality Effects for Other Causes of Death

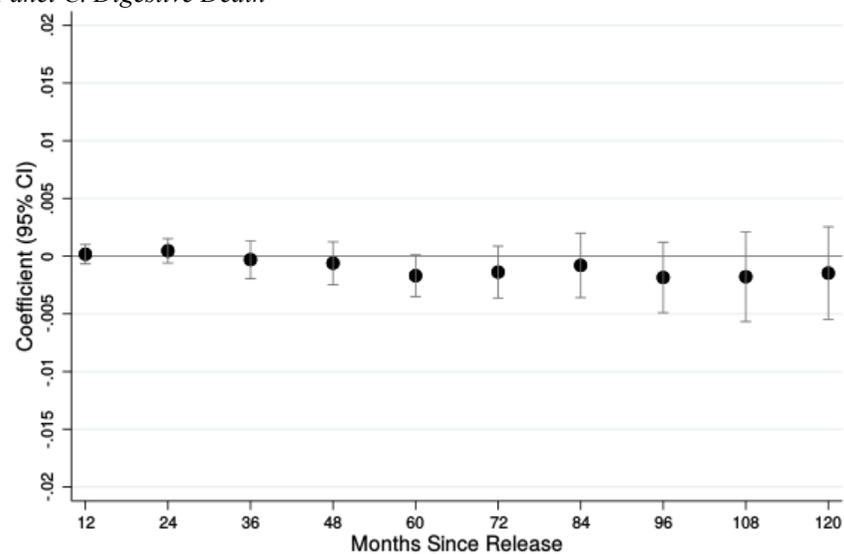
Panel A. Alcohol and/or Narcotics Death (and not other main category)



Panel B. Cancer death

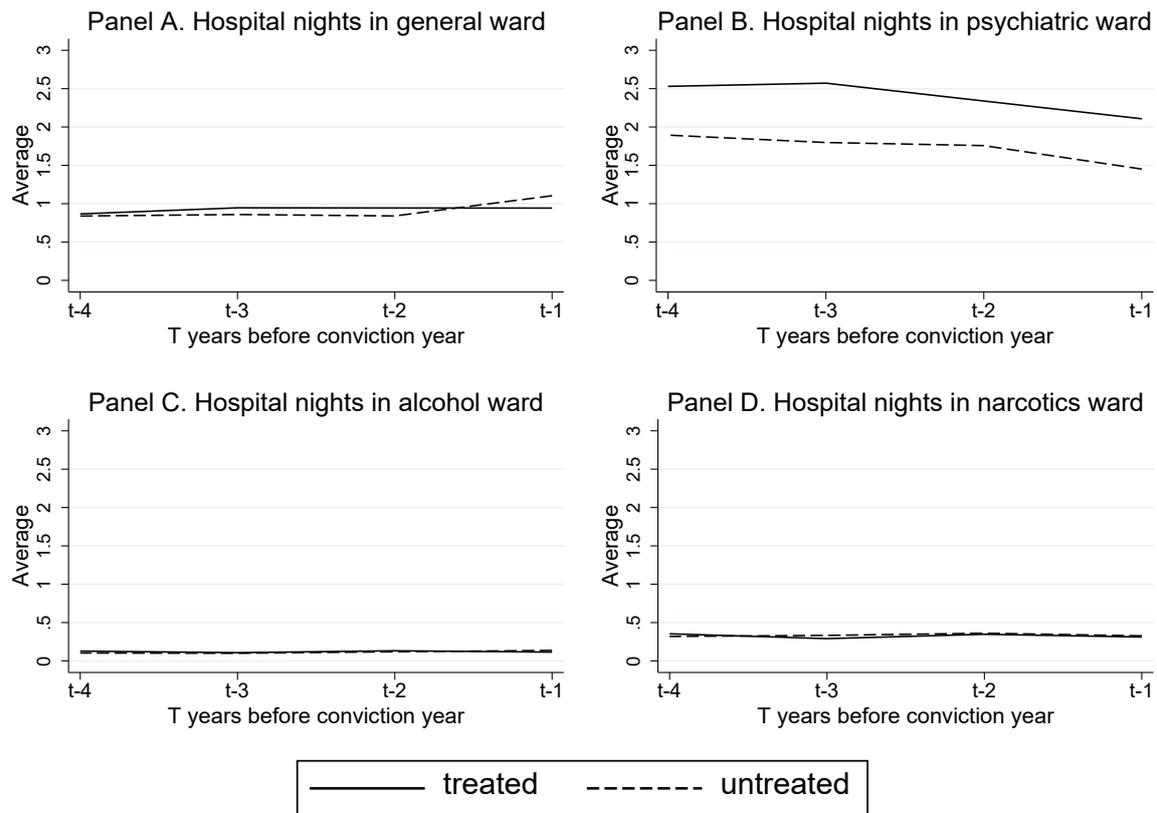


Panel C. Digestive Death



Note – Panels A-C present the estimated coefficient and 95% confidence interval of exposure to the reform (*treated*) on the outcome listed measured at t months since release. All specifications condition on not having migrated from Sweden by month t . The other causes of death are presented in the main body of the paper.

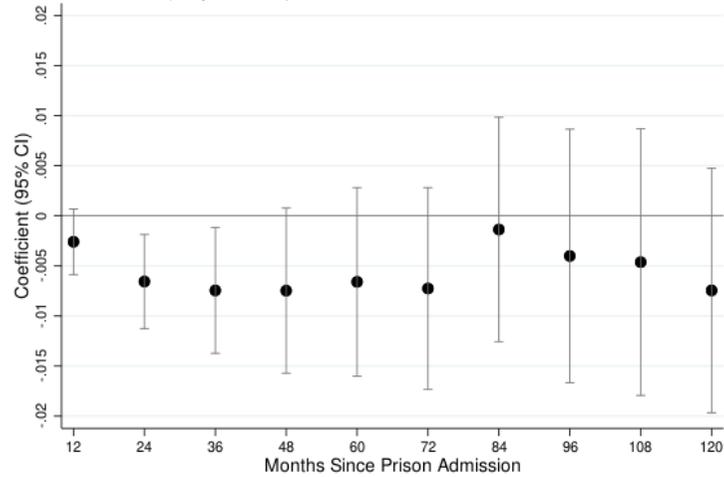
Appendix Figure 4. Parallel Trends in Pre-Reform Hospitalization Rates



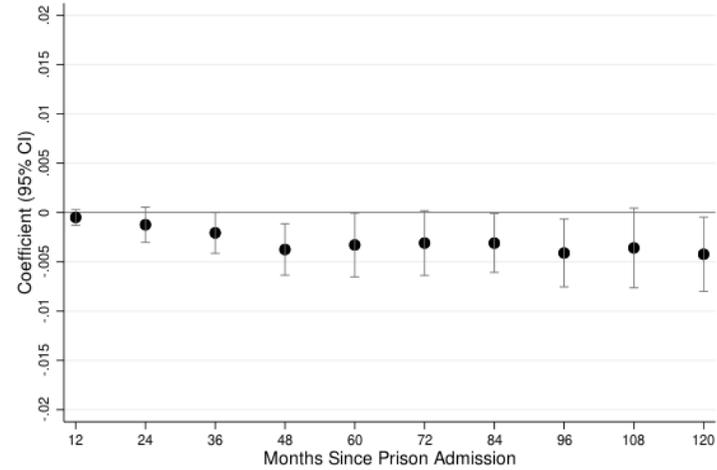
Note – This figure investigates the assumption of parallel trends in pre-reform hospitalization rates. The figure was created using a subsample of our data including those who were convicted in the two years preceding the 1993 reform and those convicted in the two years preceding the 1999 reform pooled together. The treated group are those who are either partially or fully affected by one of the two reforms. The “untreated” group are those who are not affected by the specific reform in question (the 1993 or 1999 reform), i.e. the untreated are those whose treatment status does not change when a specific reform is implemented. For example, those sentenced from 4 – 12 months are treated by the first reform, while they are included among the untreated in the second reform. For each of the two groups, we plot the average number of nights spent in the hospital in the four years prior to each individual’s own conviction year.

Appendix Figure 5. Dynamics of Mortality Effects Using the Prison Start Date as the At-Risk Date

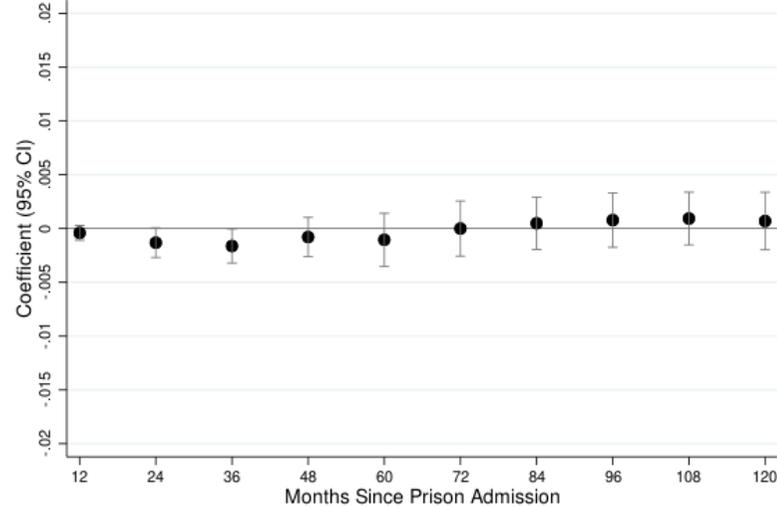
Panel A. Death (Any Cause)



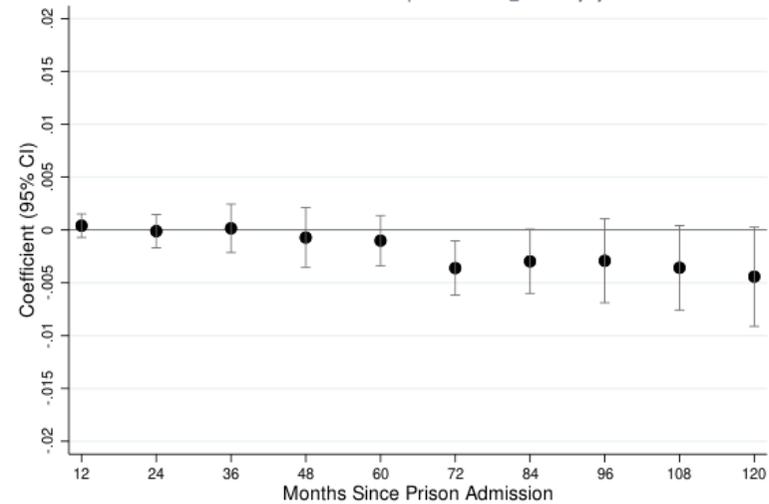
Panel B. Suicide



Panel C. Violent Death

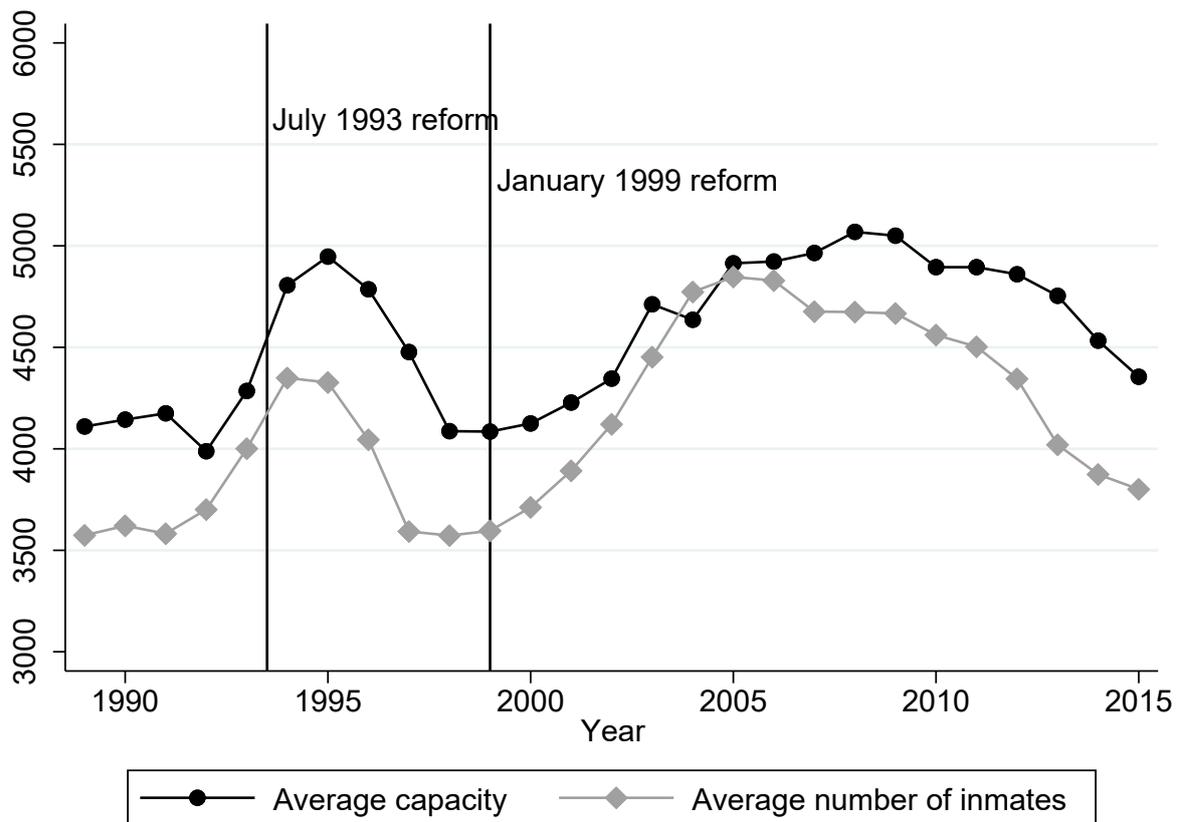


Panel D. Circulatory Death



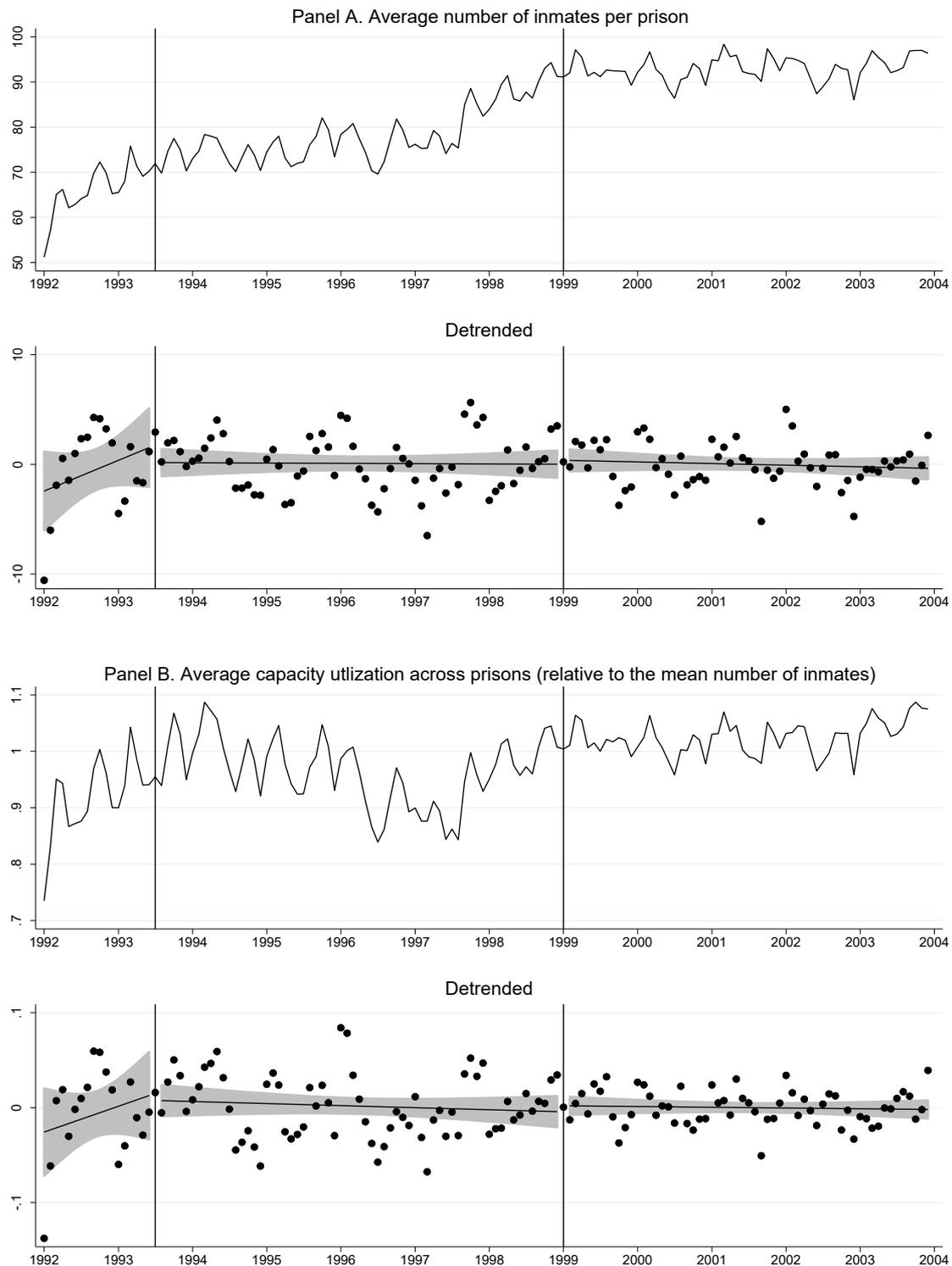
Note – Panels A-D present the estimated coefficient and 95% confidence interval of exposure to the reform (*treated*) on the outcome listed measured at t months since prison start date. All specifications condition on not having migrated from Sweden by month t .

Appendix Figure 6. Average Annual Stock of Inmates and Average Annual Prison Capacity



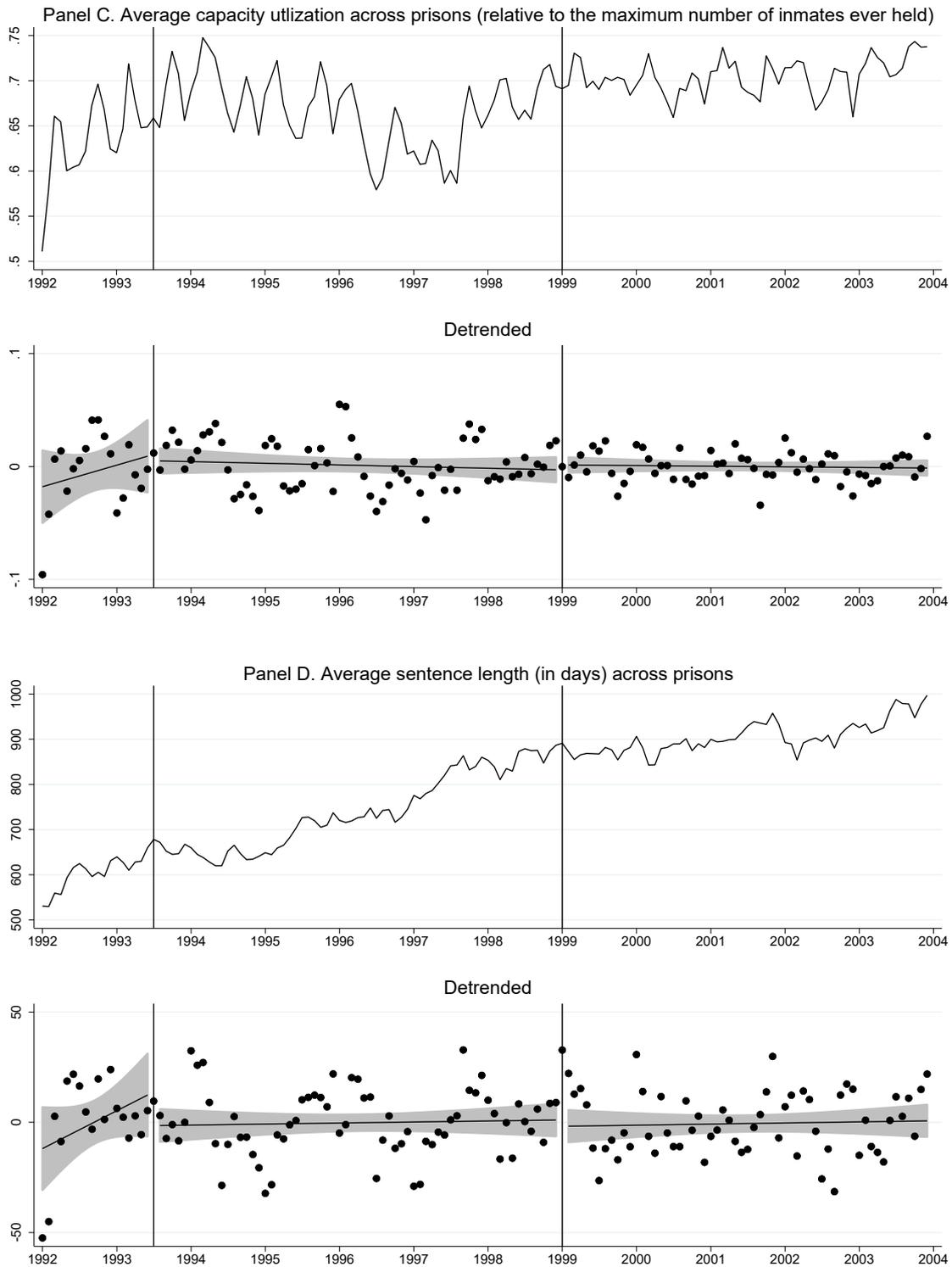
Note – This figure plots the average annual prison capacity against the average annual number of prison inmates. The average occupancy rate for 1989 to 2015 is 90%. Source: The Swedish Prison and Probation Service (2019).

Appendix Figure 7. Monthly Prison Level Descriptive Statistics, 1992-2004.



Note – Monthly time series are calculated using information on all inmates (including those not in our estimation sample) and all prisons. Monthly time series are detrended using year fixed effects, month of the year fixed effects (to remove seasonality), and a continuous month trend (just as in our baseline specifications). We plot these data and draw linear regression lines (along with 95% confidence intervals) to the left and to the right of the reform months.

Appendix Figure 7 (continued). Monthly Prison Level Descriptive Statistics, 1992-2004.



Note – Monthly time series are calculated using information on all inmates (including those not in our estimation sample) and all prisons. Monthly time series are detrended using year fixed effects, month of the year fixed effects (to remove seasonality), and a continuous month trend (just as in our baseline specifications). We plot these data and draw linear regression lines (along with 95% confidence intervals) to the left and to the right of the reform months.

Appendix Table 1. Share Time Served Prescribed By the Law: By Sentence Month Bin and Reform Period.

| Sentence Month Bin | Law Pre-1993 Reform | Law Between Reforms | Law Post 1999 Reform | N in each bin |
|--------------------|------------------------|------------------------|-------------------------|---------------|
| 0 | 1 | 1 | 1 | 2668 |
| 1 | 1 | 1 | 1 | 20088 |
| 2 | 1 | 1 | 0.67 | 9003 |
| 3 | 0.67 | 0.67 | 0.67 | 7535 |
| 4 | 0.5 | 0.67 | 0.67 | 7242 |
| 5 | 0.5 | 0.67 | 0.67 | 3280 |
| 6 | 0.5 | 0.67 | 0.67 | 7017 |
| 7 | 0.5 | 0.67 | 0.67 | 2013 |
| 8 | 0.5 | 0.67 | 0.67 | 4634 |
| 9 | 0.5 | 0.67 | 0.67 | 1622 |
| 10 | 0.5 | 0.67 | 0.67 | 3170 |
| 11 | 0.5 | 0.67 | 0.67 | 873 |
| 12 | 0.5 | 0.67 | 0.67 | 3948 |
| 13 | 0.5 | 0.64 | 0.67 | 593 |
| 14 | 0.5 | 0.62 | 0.67 | 1270 |
| 15 | 0.5 | 0.60 | 0.67 | 911 |
| 16 | 0.5 | 0.58 | 0.67 | 882 |
| 17 | 0.5 | 0.57 | 0.67 | 280 |
| 18 | 0.5 | 0.55 | 0.67 | 1934 |
| 19 | 0.5 | 0.54 | 0.67 | 229 |
| 20 | 0.5 | 0.53 | 0.67 | 577 |
| 21 | 0.5 | 0.52 | 0.67 | 282 |
| 22 | 0.5 | 0.51 | 0.67 | 309 |
| 23 | 0.5 | 0.51 | 0.67 | 83 |
| 24 | 0.5 | 0.50 | 0.67 | 1618 |
| 25 | 0.5 | 0.5 | 0.67 | 100 |
| 26 | 0.5 | 0.5 | 0.67 | 155 |
| 27 | 0.5 | 0.5 | 0.67 | 173 |
| 28 | 0.5 | 0.5 | 0.67 | 148 |
| 29 | 0.5 | 0.5 | 0.67 | 48 |
| 30 | 0.5 | 0.5 | 0.67 | 886 |
| 31 | 0.5 | 0.5 | 0.67 | 51 |
| 32 | 0.5 | 0.5 | 0.67 | 134 |
| 33 | 0.5 | 0.5 | 0.67 | 51 |
| 34 | 0.5 | 0.5 | 0.67 | 73 |
| 35 | 0.5 | 0.5 | 0.67 | 20 |
| 36 | 0.5 | 0.5 | 0.67 | 946 |
| 37 | 0.5 | 0.5 | 0.67 | 41 |
| 38 | 0.5 | 0.5 | 0.67 | 62 |
| 39 | 0.5 | 0.5 | 0.67 | 53 |
| 40 | 0.5 | 0.5 | 0.67 | 45 |
| 41 | 0.5 | 0.5 | 0.67 | 14 |
| 42 | 0.5 | 0.5 | 0.67 | 375 |
| 43 | 0.5 | 0.5 | 0.67 | 15 |
| 44 | 0.5 | 0.5 | 0.67 | 44 |
| 45 | 0.5 | 0.5 | 0.67 | 28 |
| 46 | 0.5 | 0.5 | 0.67 | 26 |
| 47 | 0.5 | 0.5 | 0.67 | 7 |
| 48 | 0.5 | 0.5 | 0.67 | 553 |

Note—For each sentence bin, the table shows the share of time served prescribed by the law before the July 1, 1993 reform, between the 1993 and 1999 reform, and after January 1999. We also present the number of sentences observed in each sentence bin. The main analysis converts these laws into the treatment variable by considering whether a given 4-48 month sentence was fully exposed to the reform (increase from one-half to two-thirds time). Thus, when the law prescribes 50%, a sentence is untreated (treatment = 0) and when the law prescribes two-thirds, a sentence is fully treated (treatment = 1). Partially treated sentences are assigned the share of full treatment.

Appendix Table 2. Sample Restrictions

| Restriction | N (whole sample) | N (sentences ≥ 4 months) |
|--|------------------|-------------------------------|
| Baseline sample of all prison sentences from 1992-2001 | 108,439 | 57,310 |
| Matching kriminalvården and brå conviction data: keep those with a conviction date up to 2 years before the start date | 102,762 | 54,952 |
| Keep: Sentences 48 months or shorter | 100,593 | 52,783 |
| Drop: Start date before age 18 | 100,405 | 52,697 |
| Drop: Conviction date before age 18 | 100,318 | 52,675 |
| Drop: Offense date before age 18 | 100,126 | 52,606 |
| Drop: Start and end sentence in pre-trial detention | 96,254 | 51,037 |
| Drop: Uncertain Treatment (conviction pre reform, start is post) | 87,563 | 47,446 |
| Drop: life sentences | 87,557 | 47,446 |
| Drop: died in prison | 87,486 | 47,385 |
| Drop: sent to foreign prison | 87,337 | 47,237 |
| Trim: Share Time Served > 1.1 | 86,355 | 47,008 |
| Trim: Share Time Served < 0.1 | 86,109 | 46,815 |

Note – This shows the sample restrictions in creating the baseline 0-48 month sentence bin sample. Most analyses are conducted on the 4-48 month bins.

Appendix Table 3. Relevance Across Sub-samples

| | Coef. on Treated | Standard Error | F | N |
|---|------------------|----------------|-----|-------|
| Baseline Sample | 46.209 | (4.427)*** | 109 | 46815 |
| <i># Current Charges</i> | | | | |
| 4 or less curent crimes | 46.28 | (4.763)*** | 94 | 21146 |
| more than 4 current crimes | 45.684 | (4.544)*** | 101 | 25669 |
| <i>Prison History</i> | | | | |
| no past prison | 45.463 | (5.807)*** | 61 | 8073 |
| 1 past prison | 56.134 | (5.900)*** | 91 | 9014 |
| past prison more than 1 | 43.05 | (4.485)*** | 92 | 29728 |
| first 4-48 month sentence post 1992 | 41.729 | (5.047)*** | 68 | 27165 |
| last 4-48 month sentence pre 2002 | 53.2 | (4.918)*** | 117 | 27180 |
| <i>Current Offense Broad Crime Category</i> | | | | |
| drugs alcohol | 53.878 | (3.990)*** | 182 | 7065 |
| property | 42.353 | (4.235)*** | 100 | 20245 |
| violent | 48.06 | (5.451)*** | 78 | 15484 |
| <i>Demographic And Socioeconomic Characteristics</i> | | | | |
| not born in sweden | 46.629 | (4.898)*** | 91 | 11069 |
| born in sweden | 46.388 | (4.644)*** | 100 | 35746 |
| younger 33 | 46.032 | (5.151)*** | 80 | 22929 |
| older 33 | 46.291 | (4.219)*** | 120 | 23886 |
| unemployed last 3 years | 52.786 | (4.353)*** | 147 | 31584 |
| employed at least once in last 3 years | 37.897 | (5.318)*** | 51 | 15231 |
| married | 47.322 | (4.130)*** | 131 | 9150 |
| unmarried | 45.801 | (4.814)*** | 91 | 37665 |
| male | 46.286 | (4.539)*** | 104 | 44499 |
| female | 40.845 | (3.814)*** | 115 | 2316 |
| no children | 45.603 | (4.933)*** | 85 | 21677 |
| children | 46.629 | (4.225)*** | 122 | 25138 |
| <i>Pre Incarceration Hospitalization</i> | | | | |
| at least one psychiatric hospitalization last 5 years | 48.486 | (5.089)*** | 91 | 9995 |
| general ward hospital hospitalization last 5 years | 46.326 | (4.237)*** | 120 | 19348 |
| no hospitalization last five years | 45.267 | (5.099)*** | 79 | 22375 |
| <i>Reform SubSamples</i> | | | | |
| +/- 2 years of 1993 reform | 22.924 | (6.404)*** | 13 | 19130 |
| +/- 2 years of 1999reform | 73.316 | (6.774)*** | 117 | 16930 |

Note – Each row presents estimates for different subsample of regressing prison days served on whether the individual's sentence is treated by the two-thirds reform law. The baseline specification, with the full set of controls, is used. Fstatistics on the instrument (share of time served law) are reported in the third columns. Standard errors clustered on sentence month bin.

Appendix Table 4. Do Observables Change with Exposure to the Reform?

| Row | Variable | Coefficient | SE | Mean D.V. | R-squared |
|------|---|-------------|---------|-----------|-----------|
| (1) | age_at_prison | -0.252 | [0.227] | 33.81 | 0.01 |
| (2) | age_less_21? | 0.003 | [0.007] | 0.081 | 0.01 |
| (3) | number_crimes_past | -2.598* | [1.482] | 59.51 | 0.07 |
| (4) | number_prison_past | -0.235* | [0.138] | 5.54 | 0.06 |
| (5) | number_crimes_contemporaneous | -0.810*** | [0.185] | 7.17 | 0.07 |
| (6) | property (current offense)? | -0.026 | [0.016] | 0.43 | 0.06 |
| (7) | violent (current offense)? | 0.015 | [0.011] | 0.33 | 0.05 |
| (8) | drug_alc (current offense)? | 0.003 | [0.011] | 0.15 | 0.02 |
| (9) | hospital_alcohol_days_lag1to3 | -0.106 | [0.086] | 0.4 | 0 |
| (10) | hospital_narcotics_days_lag1to3 | -0.182 | [0.158] | 0.84 | 0 |
| (11) | hospital_psych_days_lag1to3 | -0.387 | [0.907] | 5.38 | 0 |
| (12) | hospital_other_days_lag1to3 | -0.161 | [0.313] | 2.62 | 0 |
| (13) | male? | 0.003 | [0.005] | 0.95 | 0 |
| (14) | swedish_citizen? | 0.003 | [0.010] | 0.82 | 0 |
| (15) | born_sweden? | 0.005 | [0.012] | 0.76 | 0.01 |
| (16) | education_lag1 | -0.011 | [0.038] | 2.72 | 0.01 |
| (17) | married_lag1? | 0.005 | [0.010] | 0.2 | 0.01 |
| (18) | number_children_at_sentence | 0.047 | [0.033] | 1.07 | 0.01 |
| (19) | number times employed in last 3 novembers | 0.029 | [0.022] | 0.58 | 0.08 |
| (20) | income average last 3 years | 0.046 | [0.035] | 10.48 | 0.02 |

Note – This table presents the results of regressing each observable characteristic on: *treated* (exposure to the reform), prison sentence month bin fixed effects, conviction year fixed effects, and a conviction month trend. In other words, this is the baseline specification, without the controls. The education variable is 1-7 here, corresponding to different education categories (these are included as dummies in the baseline specification). Clustered on prison sentence month bin standard errors in brackets, *** 1%, **5%, *10%. N = 46,815 in all specifications

Appendix Table 5. Sensitivity of Mortality Results to Sample Creation Decisions (Straddle Sample and Trimming) and Sample Window

| Death (Any Cause) | | | | Suicide | | | | Violent Death | Circulatory |
|--|-----------|----------|----------|-----------|-----------|-----------|----------|---------------|-------------|
| 12 | 24 | 36 | 120 | 12 | 24 | 36 | 120 | 12 | 120 |
| Panel A. Baseline (all years, excludes straddle sample, excludes trimmed sample) | | | | | | | | | |
| -0.0031 | -0.0053* | -0.0045 | -0.0055 | -0.0017* | -0.0020** | -0.0027** | -0.0038* | -0.0007* | -0.0040* |
| [0.0021] | [0.0027] | [0.0039] | [0.0060] | [0.0009] | [0.0010] | [0.0012] | [0.0019] | [0.0004] | [0.0020] |
| 46287 | 45934 | 45629 | 44560 | 46287 | 45934 | 45629 | 44560 | 46287 | 44560 |
| Panel B. 1993 Sample (+/- 2 year sample window) | | | | | | | | | |
| -0.0024 | -0.0014 | -0.0028 | -0.0009 | -0.0023** | -0.0018* | -0.0032** | -0.0045* | -0.0010* | -0.0043 |
| [0.0024] | [0.0032] | [0.0037] | [0.0078] | [0.0011] | [0.0011] | [0.0014] | [0.0027] | [0.0006] | [0.0035] |
| 18891 | 18731 | 18596 | 17927 | 18891 | 18731 | 18596 | 17927 | 18891 | 17927 |
| Panel C. 1999 Sample (+/- 2 year sample window) | | | | | | | | | |
| -0.0054 | -0.0134** | -0.0096 | -0.0122 | 0.0006 | -0.0013 | -0.0015 | -0.0029 | -0.0009 | -0.0056 |
| [0.0041] | [0.0058] | [0.0073] | [0.0152] | [0.0017] | [0.0018] | [0.0018] | [0.0039] | [0.0012] | [0.0040] |
| 16768 | 16660 | 16559 | 16369 | 16768 | 16660 | 16559 | 16369 | 16768 | 16369 |
| Panel D. Baseline plus Straddle Sample (Convicted on pre-reform but start sentence post-reform) | | | | | | | | | |
| -0.003 | -0.0047* | -0.0027 | -0.0011 | -0.0014* | -0.0017* | -0.0022** | -0.0031* | -0.0007** | -0.0034* |
| [0.0021] | [0.0027] | [0.0036] | [0.0053] | [0.0008] | [0.0008] | [0.0010] | [0.0018] | [0.0004] | [0.0020] |
| 49792 | 49410 | 49080 | 47926 | 49792 | 49410 | 49080 | 47926 | 49792 | 47926 |
| Panel E. Baseline plus Trimmed Sample (Time Served > 110% and < 10%) | | | | | | | | | |
| -0.0034 | -0.0055** | -0.0049 | -0.0065 | -0.0017* | -0.0020** | -0.0027** | -0.0038* | -0.0007* | -0.0040** |
| [0.0021] | [0.0027] | [0.0038] | [0.0059] | [0.0009] | [0.0010] | [0.0012] | [0.0019] | [0.0004] | [0.0019] |
| 46699 | 46340 | 46031 | 44954 | 46699 | 46340 | 46031 | 44954 | 46699 | 44954 |

Note – Panel A presents the baseline specification in which the outcome is measured t months after the date of prison release using the baseline sample, thereby excluding the straddle sample (those convicted before a reform but start sentence after) and trimmed samples (those with share time served observed to be > 110% or < 10%). Panels B and C re-estimate the baseline specification using 4-year windows around the 1993 and 1999 reforms separately. Panel D replicates the baseline with the straddle sample included. Panel E replicates the baseline with the trimmed sample included. Clustered on prison sentence month bin standard errors in brackets, *** 1%, **5%, *10%.

Appendix Table 6. Heterogeneity for High-Risk Subsamples

| Death (Any Cause) | | | | Suicide | | | | Violent Death | circulatory | Alc/Narc Related (exclusive) | | | |
|--|----------|----------|----------|----------|-----------|-----------|-----------|---------------|-------------|------------------------------|----------|----------|----------|
| 12 | 24 | 36 | 120 | 12 | 24 | 36 | 120 | 12 | 120 | 12 | 24 | 36 | 120 |
| Baseline (N 12 months = 46287) | | | | | | | | | | | | | |
| -0.0031 | -0.0053* | -0.0045 | -0.0055 | -0.0017* | -0.0020** | -0.0027** | -0.0038* | -0.0007* | -0.0040* | -0.0013 | -0.0005 | 0.0002 | 0.0043 |
| [0.0021] | [0.0027] | [0.0039] | [0.0060] | [0.0009] | [0.0010] | [0.0012] | [0.0019] | [0.0004] | [0.0020] | [0.0013] | [0.0019] | [0.0024] | [0.0034] |
| < 33 years old (N 12 months = 24417) | | | | | | | | | | | | | |
| -0.006** | -0.009** | -0.009** | -0.001 | -0.001 | -0.001 | -0.001 | -0.002 | -0.001 | 0.001 | -0.002 | -0.001 | 0 | 0.002 |
| [0.002] | [0.004] | [0.004] | [0.008] | [0.001] | [0.001] | [0.002] | [0.003] | [0.000] | [0.002] | [0.002] | [0.003] | [0.003] | [0.005] |
| >= 33 years old (N 12 months = 21870) | | | | | | | | | | | | | |
| 0 | 0 | 0.001 | -0.012 | -0.003** | -0.003* | -0.005** | -0.005* | -0.001 | -0.011** | 0 | 0.001 | 0.002 | 0.007 |
| [0.004] | [0.005] | [0.007] | [0.012] | [0.001] | [0.002] | [0.002] | [0.003] | [0.001] | [0.005] | [0.002] | [0.003] | [0.004] | [0.006] |
| property offender (N 12 months = 20084) | | | | | | | | | | | | | |
| -0.006* | -0.006 | -0.012** | -0.011 | -0.001 | 0 | -0.001 | -0.001 | 0 | -0.002 | -0.001 | 0 | -0.002 | 0 |
| [0.003] | [0.004] | [0.005] | [0.007] | [0.001] | [0.001] | [0.001] | [0.002] | [0.001] | [0.004] | [0.002] | [0.003] | [0.004] | [0.005] |
| violent offender (N 12 months = 15243) | | | | | | | | | | | | | |
| -0.002 | -0.009* | -0.002 | -0.003 | -0.002 | -0.003 | -0.004** | -0.006* | -0.002** | -0.008* | 0.002 | 0.003 | 0.008* | 0.019*** |
| [0.004] | [0.004] | [0.006] | [0.009] | [0.002] | [0.002] | [0.002] | [0.003] | [0.001] | [0.004] | [0.002] | [0.003] | [0.004] | [0.007] |
| drug and alcohol offender (N 12 months = 6968) | | | | | | | | | | | | | |
| -0.004 | -0.002 | -0.004 | -0.01 | -0.002 | -0.002 | -0.004 | -0.007* | 0 | 0.001 | -0.008** | -0.008 | -0.012** | -0.016 |
| [0.006] | [0.007] | [0.009] | [0.021] | [0.002] | [0.002] | [0.003] | [0.004] | [0.000] | [0.007] | [0.004] | [0.006] | [0.006] | [0.011] |
| psychiatric hospitalization in the last five years (N 12 months =9897) | | | | | | | | | | | | | |
| -0.004 | -0.011 | -0.007 | -0.006 | -0.006* | -0.009** | -0.007* | -0.015*** | -0.002* | -0.008 | 0.004 | 0.006 | 0.007 | 0.021** |
| [0.008] | [0.010] | [0.012] | [0.015] | [0.003] | [0.003] | [0.004] | [0.005] | [0.001] | [0.007] | [0.005] | [0.009] | [0.010] | [0.010] |
| general ward hospitalization in the last five years (N 12 months = 19176) | | | | | | | | | | | | | |
| -0.004 | -0.009 | -0.006 | -0.009 | -0.002 | -0.003 | -0.003 | -0.007** | -0.001 | -0.009** | 0 | 0.001 | 0.004 | 0.01 |
| [0.004] | [0.006] | [0.009] | [0.012] | [0.002] | [0.002] | [0.002] | [0.003] | [0.001] | [0.004] | [0.002] | [0.004] | [0.005] | [0.007] |
| no hospitalization in the last five years (N 12 months = 22073) | | | | | | | | | | | | | |
| -0.004* | -0.004 | -0.005 | -0.004 | -0.001 | -0.001 | -0.002 | -0.001 | -0.001 | 0.001 | -0.004*** | -0.004* | -0.005* | -0.003 |
| [0.002] | [0.004] | [0.004] | [0.007] | [0.001] | [0.001] | [0.002] | [0.003] | [0.001] | [0.002] | [0.001] | [0.002] | [0.002] | [0.005] |

Note – This table presents the baseline cause of death results for each high-risk subsample. Clustered on prison sentence month bin standard errors in brackets, *** 1%, **5%, *10%.

Appendix Table 7. Heterogeneous Effects by Sentence Month Bin

| Dep Variable | Measured t months post-release: | | | | | | | |
|--|---------------------------------|-------|-----------|-------|-----------|-------|-----------|------|
| | 12 | | 24 | | 36 | | 120 | |
| Death (Any Cause) | | | | | | | | |
| <i>treated*bins4-12</i> | -0.0044* | -30% | -0.0053 | -19% | -0.0053 | -13% | -0.0041 | -3% |
| | [0.0023] | | [0.0032] | | [0.0043] | | [0.0073] | |
| <i>treated*bins13-23</i> | -0.0021 | -14% | -0.0054 | -19% | -0.0097 | -24% | -0.0106 | -8% |
| | [0.0035] | | [0.0043] | | [0.0062] | | [0.0115] | |
| <i>treated*bins24-48</i> | -0.0008 | -8% | -0.0052 | -25% | -0.0011 | -4% | -0.0062 | -6% |
| | [0.0036] | | [0.0037] | | [0.0052] | | [0.0099] | |
| Suicide | | | | | | | | |
| <i>treated*bins4-12</i> | -0.0020** | -154% | -0.0020** | -87% | -0.0029** | -83% | -0.0043** | -41% |
| | [0.0009] | | [0.0010] | | [0.0014] | | [0.0020] | |
| <i>treated*bins13-23</i> | -0.0022* | -147% | -0.0026 | -108% | -0.0035 | -121% | -0.0082** | -80% |
| | [0.0012] | | [0.0017] | | [0.0021] | | [0.0031] | |
| <i>treated*bins24-48</i> | -0.0008 | -73% | -0.0016 | -103% | -0.0021 | -75% | -0.0013 | -16% |
| | [0.0010] | | [0.0011] | | [0.0013] | | [0.0025] | |
| Violent Death | | | | | | | | |
| <i>treated*bins4-12</i> | -0.0012** | -167% | -0.0013 | -131% | -0.0009 | -56% | 0.0014 | 29% |
| | [0.0005] | | [0.0009] | | [0.0009] | | [0.0016] | |
| <i>treated*bins13-23</i> | -0.0003 | -43% | -0.0008 | -53% | -0.0002 | -9% | 0.0026 | 51% |
| | [0.0006] | | [0.0007] | | [0.0011] | | [0.0024] | |
| <i>treated*bins24-48</i> | 0.0002 | 36% | -0.0003 | -20% | 0 | 0% | 0.0003 | 6% |
| | [0.0004] | | [0.0010] | | [0.0014] | | [0.0022] | |
| Circulatory Death | | | | | | | | |
| <i>treated*bins4-12</i> | 0.0007 | 83% | -0.0008 | -47% | 0 | 0% | -0.0035 | -24% |
| | [0.0010] | | [0.0012] | | [0.0013] | | [0.0029] | |
| <i>treated*bins13-23</i> | 0.0018 | 164% | 0.0001 | 4% | 0.0005 | 16% | -0.0003 | -2% |
| | [0.0019] | | [0.0021] | | [0.0025] | | [0.0043] | |
| <i>treated*bins24-48</i> | 0.0001 | 6% | -0.0009 | -35% | -0.0001 | -3% | -0.0063** | -43% |
| | [0.0012] | | [0.0019] | | [0.0022] | | [0.0030] | |
| Alc/Narc (coroner flag exclusive) | | | | | | | | |
| <i>treated*bins4-12</i> | -0.0004 | -5% | 0.0013 | 9% | 0.0017 | 8% | 0.007 | 11% |
| | [0.0015] | | [0.0024] | | [0.0031] | | [0.0056] | |
| <i>treated*bins13-23</i> | -0.0039* | -54% | -0.0041* | -31% | -0.0051 | -26% | -0.0021 | -4% |
| | [0.0020] | | [0.0024] | | [0.0052] | | [0.0066] | |
| <i>treated*bins24-48</i> | -0.002 | -48% | -0.0028 | -34% | -0.0009 | -7% | 0.0016 | 5% |
| | [0.0018] | | [0.0033] | | [0.0036] | | [0.0063] | |
| N | 46287 | | 45934 | | 45629 | | 44560 | |

Note – This table presents the results of expanding the baseline specification by interacting *Treated* with dummy variables for being in the 4-12 month sentence bins, 13-23 month bins and 24 to 48 month bins. Standard errors clustered on sentence month bins are in brackets, and effect sizes relative to dependent variable means for the corresponding sentence month bins are presented in italics to the right of the point estimates. * significant at 10%; ** significant at 5%; *** significant at 1%.

Appendix Table 8. Heterogeneity in Recidivism and Labor Market Results

| Dep. Variable = Any Prison at month: | | | Dep. Variable = Employed in Nov. (near month) | | |
|--|-----------|-----------|---|---------|---------|
| 12 | 24 | 36 | 12 | 24 | 36 |
| <i>Baseline (N 12 months = 45626)</i> | | | | | |
| -0.029** | -0.020* | -0.018 | 0.023*** | 0.001 | -0.004 |
| [0.012] | [0.011] | [0.012] | [0.008] | [0.009] | [0.008] |
| Heterogeneity By Criminal History and Offense Characteristics | | | | | |
| <i>No Prison (N 12 months = 7832)</i> | | | | | |
| -0.009 | 0.012 | 0.007 | 0.016 | 0.011 | 0.002 |
| [0.014] | [0.015] | [0.022] | [0.013] | [0.017] | [0.016] |
| <i>One past prison sentence (N 12 months = 8824)</i> | | | | | |
| -0.027* | -0.031** | -0.033* | 0.033* | 0.013 | 0.001 |
| [0.015] | [0.012] | [0.017] | [0.019] | [0.026] | [0.025] |
| <i>More than 1 Past Prison (N 12 months = 28970)</i> | | | | | |
| -0.039** | -0.028* | -0.02 | 0.019* | -0.006 | -0.008 |
| [0.017] | [0.015] | [0.013] | [0.010] | [0.009] | [0.011] |
| <i>property offender (N 12 months = 19794)</i> | | | | | |
| -0.057*** | -0.055*** | -0.046*** | 0.021** | 0.004 | -0.011 |
| [0.015] | [0.013] | [0.011] | [0.010] | [0.012] | [0.014] |
| <i>violent offender (N 12 months = 15015)</i> | | | | | |
| -0.015 | -0.001 | 0.001 | 0.029*** | 0.008 | 0.01 |
| [0.012] | [0.015] | [0.016] | [0.011] | [0.009] | [0.012] |
| Heterogeneity By Demographic Characteristics | | | | | |
| <i>< 33 years old (N 12 months = 24118)</i> | | | | | |
| -0.02 | -0.01 | -0.014 | 0.014 | -0.006 | -0.008 |
| [0.013] | [0.013] | [0.014] | [0.009] | [0.010] | [0.010] |
| <i>>= 33 years old (N 12 months = 21508)</i> | | | | | |
| -0.040*** | -0.035** | -0.025 | 0.032*** | 0.009 | 0.001 |
| [0.015] | [0.015] | [0.017] | [0.010] | [0.012] | [0.014] |
| <i>Not Born in Sweden (N 12 months = 10585)</i> | | | | | |
| -0.049*** | -0.019 | -0.025* | 0.026** | -0.015 | -0.005 |
| [0.016] | [0.012] | [0.014] | [0.012] | [0.018] | [0.016] |
| <i>Born in Sweden (N 12 months = 35041)</i> | | | | | |
| -0.022* | -0.021 | -0.016 | 0.022** | 0.006 | -0.006 |
| [0.013] | [0.013] | [0.013] | [0.009] | [0.009] | [0.010] |
| Heterogeneity By Pre-Incarceration SES and Health Characteristics | | | | | |
| <i>Unemployed Last 3 years (N 12 months = 30676)</i> | | | | | |
| -0.039*** | -0.030** | -0.033* | 0.015** | -0.001 | 0.007 |
| [0.014] | [0.012] | [0.018] | [0.007] | [0.012] | [0.010] |
| <i>Employed at Least Once (N 12 months = 14950)</i> | | | | | |
| -0.012 | -0.004 | 0.01 | 0.039*** | 0.007 | -0.022 |
| [0.016] | [0.018] | [0.014] | [0.011] | [0.017] | [0.013] |
| <i>psychiatric hospitalization in the last five years (N 12 months = 9637)</i> | | | | | |
| -0.035 | -0.021 | -0.027 | -0.002 | 0.006 | -0.021 |
| [0.026] | [0.022] | [0.025] | [0.013] | [0.015] | [0.018] |
| <i>general ward hospitalization in the last five years (N 12 months = 18803)</i> | | | | | |
| -0.027* | -0.01 | -0.02 | 0.032*** | 0.01 | -0.008 |
| [0.016] | [0.018] | [0.017] | [0.009] | [0.010] | [0.012] |
| <i>no hospitalization in the last five years (N 12 months = 21887)</i> | | | | | |
| -0.016 | -0.015 | -0.009 | 0.018 | -0.005 | 0 |
| [0.012] | [0.012] | [0.012] | [0.012] | [0.012] | [0.010] |

Note – This table presents the results of estimating the baseline specification for one recidivism outcome (prison) and one labor market outcome (employed in November) for various subsamples. Results on *treated* are presented for each specification.