## Appendix A: France

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Sentences (prison+probation+suspended prison) | | | | |
| | All | | | Present | Absent |
| | non 0 | Quantum | ln(1+sentence ) | ln(1+sentence ) | ln(1+sentence ) |
| **Panel A: Control for case and defendant characteristics** | | | | | |
| Bday | -0.0063 | -0.68 | -0.036* | -0.043* | 0.0016 |
| | (0.0046) | (1.80) | (0.022) | (0.025) | (0.045) |
| Obs | | 4,608,011 | | 3,597,751 | 1,009,967 |
| **Panel B: Dropping crimes committed on Birthday** | | | | | |
| Bday | -0.0093* | -2.83 | -0.053** | -0.062** | -0.011 |
| | (0.0050) | (2.49) | (0.025) | (0.029) | (0.049) |
| Obs | | 4,580,710 | | 3,575,740 | 1,004,970 |
| **Panel C: Control for placebo only** | | | | | |
| Bday | -0.0087** | -1.55 | -0.047** | -0.062*** | 0.016 |
| | (0.0041) | (2.03) | (0.020) | (0.023) | (0.040) |
| Obs | | 4,608,209 | | 3,597,969 | 1,010,240 |
| **Panel D: Control for birthday week only** | | | | | |
| Bday | -0.010** | -3.62* | -0.064*** | -0.081*** | 0.0038 |
| | (0.0044) | (2.19) | (0.022) | (0.025) | (0.043) |
| Obs | | 4,608,209 | | 3,597,969 | 1,010,240 |
| **Panel E: No control** | | | | | |
| Bday | -0.0087** | -1.57 | -0.048** | -0.062*** | 0.016 |
| | (0.0041) | (2.03) | (0.020) | (0.023) | (0.040) |
| Obs | | 4,608,209 | | 3,597,969 | 1,010,240 |
| **Panel F: Including day fixed effects** | | | | | |
| Bday | -0.011** | -4.14* | -0.066*** | -0.077*** | -0.016 |
| | (0.0049) | (2.48) | (0.025) | (0.028) | (0.049) |
| Obs | | 4,608,209 | | 3,597,969 | 1,010,240 |

Table A1: Robustness Checks

The dependent variable in columns 1 is a dummy equal to one if sentences (i.e., the sum of prison quantum, probation quantum and suspended prison quantum) is greater than 0. Column 2 presents the effect on the overall quantum while columns 3 to 5 present the results on the logarithm of the quantum plus 1. The sample is restricted to defendants who attended (respectively missed) their trial in column 4 (respectively 5) Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. Results presented in the different panels are for separate regressions. Regressions in panel A include controls for case (1865 crime types, plea bargaining dummy, time between crime and trial, and criminal career) and defendant characteristics (age, sex, and French citizenship). Regressions in panel B exclude crimes committed on the defendant's birthday. Regressions in panel C include dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday

but no dummy for decisions taken in the week of the defendant's birthday. Regressions in panel D include the week dummy but not the dummies for the days one or two days before or after the defendant's birthday. Regressions in panel E do not include any control variables. Regressions in panel F include day fixed effects (4,294 dummies).

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
|  | ln(1+quantum) | | | Dummies | | |
|  | Prison | Probation | Suspended prison | Prison | Probation | Suspended prison |
| Birthday | -0.045* | -0.034 | 0.0018 | -0.0085* | -0.0055 | 0.00076 |
|  | (0.024) | (0.022) | (0.023) | (0.0049) | (0.0044) | (0.0051) |
| 1 day before/after | -0.0037 | -0.0034 | 0.013 | -0.0010 | -0.00072 | 0.0017 |
|  | (0.020) | (0.018) | (0.018) | (0.0040) | (0.0036) | (0.0042) |
| 2 days before/after | 0.022 | -0.0051 | -0.0039 | 0.0059 | -0.0012 | -0.00051 |
|  | (0.020) | (0.018) | (0.018) | (0.0040) | (0.0036) | (0.0042) |
| Birthday week | 0.019 | 0.017 | -0.018 | 0.0030 | 0.0033 | -0.0043 |
|  | (0.014) | (0.013) | (0.013) | (0.0029) | (0.0026) | (0.0029) |
| Constant | 1.34*** | 0.98*** | 1.36*** | 0.28*** | 0.20*** | 0.32*** |
| Observations | 4,608,209 | 4,608,209 | 4,608,209 | 4,608,209 | 4,608,209 | 4,608,209 |

Table A2: Effect of birthday on prison, probation and suspended prison.

Columns 1-3 present the effect on the logarithm of quantum plus 1. Columns 4-6 present the effect on dummies equal to one if defendants were convicted to at least one day of prison, probation or suspended prison respectively. Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. The second and third explanatory variables are dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday. The fourth dependent variable is a dummy equal to one if the decision is taken between three days before and three days after the defendant's birthday.

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| --- | --- | --- | --- | --- | --- | --- |
|  | Property | Road related | Violence | Drug | Verbal assault | All except |
|  |  | crime |  |  | of a policeman | drug |
| Birthday | -0.0343 | -0.0371 | -0.0713 | -0.207** | -0.102 | -0.0528** |
|  | (0.0515) | (0.0416) | (0.0630) | (0.0922) | (0.0998) | (0.0256) |
| 1 day | -0.0151 | -0.0143 | 0.0156 | 0.0460 | -0.101 | -0.0107 |
| before/after | (0.0423) | (0.0338) | (0.0500) | (0.0737) | (0.0828) | (0.0209) |
| 2 days | -0.0279 | 0.0476 | -0.000117 | 0.0179 | -0.0734 | 0.00213 |
| before/after | (0.0419) | (0.0336) | (0.0506) | (0.0754) | (0.0818) | (0.0207) |
| Birthday | 0.0459 | -0.0137 | 0.0341 | 0.0412 | 0.116** | 0.0161 |
| week | (0.0298) | (0.0239) | (0.0356) | (0.0528) | (0.0585) | (0.0147) |
| Constant | 3.827*** | 2.797*** | 4.101*** | 3.975*** | 2.838*** | 3.325*** |
| Observations | 925,573 | 1,451,745 | 543,508 | 388,751 | 262,002 | 4,219,458 |

Table A3: Heterogeneity, crime types.

All columns present the effect on the logarithm of the overall quantum plus 1. Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. The second and third explanatory variables are dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday. The fourth dependent variable is a dummy equal to one if the decision is taken between three days before and three days after the defendant's birthday. Samples are restricted to the categories mentioned in the header.

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| --- | --- | --- | --- | --- | --- | --- |
|  | Men | Women | French | Non citizen | Plea | Trial |
| Birthday | -0.0775*** | 0.0318 | -0.0569** | -0.106* | -0.0440 | -0.0684*** |
|  | (0.0260) | (0.0810) | (0.0272) | (0.0598) | (0.0692) | (0.0262) |
| 1 day | -0.0237 | 0.171*** | -0.00416 | 0.00426 | 0.0722 | -0.0152 |
| before/after | (0.0212) | (0.0652) | (0.0221) | (0.0490) | (0.0562) | (0.0214) |
| 2 days | 0.00452 | -0.0319 | 0.0105 | -0.0426 | -0.00772 | 0.000202 |
| before/after | (0.0211) | (0.0655) | (0.0221) | (0.0483) | (0.0563) | (0.0212) |
| Birthday | 0.0253* | -0.0431 | 0.0134 | 0.0409 | -0.0196 | 0.0252* |
| week | (0.0149) | (0.0465) | (0.0157) | (0.0341) | (0.0397) | (0.0151) |
| Constant | 3.420*** | 3.001*** | 3.338*** | 3.591*** | 2.538*** | 3.483*** |
| Observations | 4,166,724 | 441,485 | 3,845,409 | 762,800 | 503,327 | 4,104,882 |

Table A4: Heterogeneity, socio-demographic characteristics, and procedure.

All columns present the effect on the logarithm of the overall quantum plus 1. Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. The second and third explanatory variables are dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday. The fourth dependent variable is a dummy equal to one if the decision is taken between three days before and three days after the defendant's birthday. Samples are restricted to the categories mentioned in the header.

## Appendix B: U.S.

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
|  |  |  | Prison |  |  |  |
|  | Day component | Day component | Day component | Day >0 | Day >0 | Day >0 |
|  | All | Wo 12 m | 12m only | All | Wo 12 m | 12m only |
| **Panel A: Control for case and defendant characteristics** | | | | | | |
| Bday | -0.13*** | -0.13*** | -0.018 | -0.00537 | -0.0080** | 0.050 |
|  | (0.036) | (0.037) | (0.056) | (0.00540) | (0.0037) | (0.054) |
| Obs | 558,228 | 532,158 | 26,069 | 558,228 | 532,158 | 26,069 |
| **Panel B: Control for judge fixed effects** | | | | | | |
| Bday | -0.11*** | -0.11*** | 0.041 | -0.0055 | -0.0038 | 0.048 |
|  | (0.033) | (0.034) | (0.10) | (0.0086) | (0.0052) | (0.10) |
| Obs | 178,830 | 170,772 | 8,058 | 178,830 | 170,772 | 8,058 |
| **Panel C: Control for placebos only** | | | | | | |
| Bday | -0.17*** | -0.18*** | -0.0053 | -0.0081 | -0.011*** | 0.077 |
|  | (0.036) | (0.037) | (0.056) | (0.0053) | (0.0036) | (0.056) |
| Obs | 592,844 | 565,573 | 27,271 | 592,844 | 565,573 | 27,271 |
| **Panel D: Control for birthday week only** | | | | | | |
| Bday | -0.15*** | -0.16*** | -0.046 | -0.0073 | -0.011*** | 0.078 |
|  | (0.042) | (0.044) | (0.088) | (0.0058) | (0.0041) | (0.060) |
| Obs | 592,844 | 565,573 | 27,271 | 592,844 | 565,573 | 27,271 |
| **Panel E: No control** | | | | | | |
| Bday | -0.17*** | -0.18*** | -0.0054 | -0.0081 | -0.011*** | 0.078 |
|  | (0.036) | (0.037) | (0.056) | (0.0053) | (0.0036) | (0.056) |
| Obs | 592,844 | 565,573 | 27,271 | 592,844 | 565,573 | 27,271 |
| **Panel F: Including day fixed effects** | | | | | | |
| Bday | -0.15*** | -0.15*** | -0.14 | -0.00515 | -0.010** | 0.060 |
|  | (0.053) | (0.055) | (0.14) | (0.00660) | (0.0048) | (0.072) |
| Obs | 595,660 | 568,393 | 27,154 | 595,660 | 568,393 | 27,154 |

Table B1: Robustness Checks

In columns 1, 2, and 3, the outcome variable is the day part of the sentences. In columns 2, 3, and 4, the dependent variable is a dummy equal to one if the day part of the sentence is greater than zero. In columns 2 and 5, the sample is restricted to defendants who get a sentence with a month part different from 12. In columns 3 and 6, the sample is restricted to defendants who get a sentence with a month part equal to 12. Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. Results presented in the different panels are for separate regressions. Regressions in panel A include controls for case (crime type and year and month of the decision) and defendant characteristics (age, sex, race, and education). Regressions in panel B include judge fixed effects (972 fixed effects). Regressions in panel C include dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday but not dummy for decision taken in the week of defendant's birthday. Regressions in panel D include the week dummy but not the dummies for the days one or two days before or after the defendant's birthday. Regressions in panel E do not include any control variables. Regressions in panel F include day fixed effects (3,875 dummies).

|  | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
|  |  | Day component without 12-month sentences | | | |
|  |  |  |  | Plea bargaining | Trial |
|  | Property | Violence | Drug | | |
| Birthday | -0.18 | -0.17 | -0.042 | -0.14* | -0.0098 |
|  | (0.12) | (0.14) | (0.090) | (0.080) | (0.16) |
| 1 day | -0.012 | 0.11 | 0.017 | 0.026 | 0.0099 |
| before/after | (0.096) | (0.12) | (0.074) | (0.066) | (0.13) |
| 2 days | 0.040 | -0.11 | 0.026 | 0.045 | 0.025 |
| before/after | (0.096) | (0.12) | (0.074) | (0.066) | (0.13) |
| Birthday | 0.0071 | 0.094 | -0.052 | -0.040 | -0.095 |
| week | (0.069) | (0.086) | (0.052) | (0.046) | (0.094) |
| Constant | 0.26*** | 0.14*** | 0.20*** | 0.37*** | 0.10*** |
| Observations | 162,523 | 57,717 | 235,755 | 527,340 | 41,472 |

Table B2: Heterogeneity, crime types and procedure.

All columns present the effect on the day part of the sentences. 12-month sentences are excluded. Birthday is a dummy equal to one if the decision is taken on the defendant's birthday. The second and third explanatory variables are dummies equal to one if the decision is taken one day (respectively, two days) before or after the defendant's birthday. The fourth dependent variable is a dummy equal to one if the decision is taken between three days before and three days after the defendant's birthday. Samples are restricted to the categories mentioned in the header.

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
|  |  | Day component without 12-month sentences | | | | |
|  |  |  |  |  |  | Some education |
|  | Men | Women | US citizen | Non citizen | No education | |
| Birthday | -0.16* | 0.019 | -0.067 | -0.25 | -0.097 | -0.12 |
|  | (0.081) | (0.20) | (0.060) | (0.21) | (0.13) | (0.081) |
| 1 day | 0.028 | 0.010 | 0.00085 | 0.046 | -0.0025 | 0.037 |
| before/after | (0.067) | (0.16) | (0.049) | (0.17) | (0.11) | (0.067) |
| 2 days | -0.0045 | 0.29* | 0.015 | 0.15 | 0.15 | -0.011 |
| before/after | (0.067) | (0.16) | (0.049) | (0.17) | (0.11) | (0.066) |
| Birthday | -0.020 | -0.16 | 0.00026 | -0.13 | -0.075 | 0.0065 |
| week | (0.047) | (0.12) | (0.035) | (0.12) | (0.076) | (0.047) |
| Constant | 0.35*** | 0.38*** | 0.16*** | 0.78*** | 0.42*** | 0.22*** |
| Observations | 483,807 | 84,180 | 390,318 | 162,001 | 230,243 | 303,710 |

Table B3: Heterogeneity: socio-demographic characteristics.

All columns present the effect on the day part of the sentences. 12-month sentences are excluded. Birthday is a dummy equal to one if the decision is taken on defendant's birthday. The second and third explanatory variables are dummies equal to one if the decision is taken

one day (respectively, two days) before or after the defendant's birthday. The fourth dependent variable is a dummy equal to one if the decision is taken between three days before and three days after the defendant's birthday. Samples are restricted to the categories mentioned in the header.

**Appendix C: Economics language in judicial opinions**

To score judges, Ash et al. (2017) calculate the relative frequency of deterrence in each opinion of a judge. As normalization steps, they remove punctuation, capitalization, functional stop words, numbers, and word endings. Then, for each opinion $i$, they have a frequency $F_i$. One potential concern is that the measure may simply pick up public discourse within that year, so they normalize this by the relative word frequency of deterrence in Google Books. Then, they take the average deterrence score for judges in a year to get a deterrence style, which is then demeaned by the district-year average of that year to calculate the relative intensity of deterrence language relative to other judges. Finally, they take the average score across years of a judge's career.