

Learning by Offending:  
How do Criminals Learn About Criminal Law?  
Online Appendix

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**Appendix A: Additional information on the reform and its effect on sentences**

**I. Recidivism**

According to the French criminal code, offenders are considered as recidivists if they commit a crime “similar” to a crime they committed in the past 5 years. The period is extended to 10 years if the crime could be punished by a term of 10 years. All violence, all property crimes, all drug related crime and all road related crimes are considered as similar. Offenders convicted for a crime different from all other crime in her criminal career is classified as “repeat offenders”.

Table A1 presents examples of this classification. Each cell indicates if a person who committed the crime mentioned in the beginning of the row and who previously committed the type of crime indicated in column’s header, is classified as a recidivist.

**II. Parliamentary process**

The law was the third bill promulgated after the election of a new National Assembly in 2007. Since the two previous bills were technical texts (modification of the budget and some international ratifications), the law was the first political bill passed during N. Sarkozy’s presidency.

The law passed under an accelerating procedure limiting the number of debates in the assembly. The precise timing is the following:

- May 6, 2007: N. Sarkozy elected
- June 13, 2007: bill in Senate
- July 5, 2007: voted by the Senate
- July 6, 2007: bill in National Assembly
- July 18, 2007: voted by the National Assembly

- July 26, 2007: final version adopted by both Senate and National Assembly
- August 9, 2007: supreme court decision validating the bill.
- August 11, 2007: beginning of the enforcement

### **III. Extended description of the reform**

As discussed in Section 2.2., the main purpose of the reform was to introduce mandatory minimum sentencing for recidivists. On top of the dispositions described in the main text, the law contains four additional elements.

First, the law also introduced mandatory minimum sentences for recidivists who committed the most severe types of crimes like rape or murder. Those crimes are beyond the scope of this paper. Moreover, the minimums introduced by the reform were largely below the sanction usually decided before the law was passed.

Second, the law contains a specific disposition for offenders convicted as recidivists for the second time. For those offenders, it was only possible to pronounce a sentence without any prison, probation or suspended prison time if the individual presented an exceptional guarantee of reintegration into society. In practice, this disposition did not add to the mandatory minimum disposition presented in the paper. Indeed, prior to the reform, 96% of the offenders convicted as recidivists for the second time received some prison, probation, or suspended prison time. Table A3 presents the reform's effect on the probability of receiving different types of sentences for repeat offenders, offenders convicted as recidivists for the first time and recidivists convicted as recidivists for the second time (or more). Effects at this extensive margin are limited (except for probation) and are not different for “first-time recidivists” vs. other recidivists (cf. p-values in the last row of the table).

Third, the reform contains some dispositions on juveniles. Mainly, it made it easier for the court to treat juveniles as adults. Juveniles are excluded from the analysis presented in this paper.

Fourth, the law contains some dispositions extending the possibility to require offenders to undergo psychological treatment. This section of the text only targeted the most severe crimes (mainly rapes), which I do not consider here.

#### **IV. Media coverage of the law**

Table A2 illustrates the gap between the number of articles about the law and precise information about its scope. It represents how many articles in newspapers or TV-reports talked about the law between June and September 2007 and how many of them presented targeted crimes. I focus on the two 8PM news bulletins of TF1 and France 2, which had during my study period average respective audiences of 8 million (TF1) and 5 million (France 2) viewers per day (for 60 million inhabitants in France). *Le monde* and *Le Parisien/Aujourd'hui en France* had 359,000 and 534,000 readers, respectively, during my study period. *Le monde* is viewed as a reference newspaper in France. Articles are long (twice as long as articles published in *Le Parisien/ Aujourd'hui en France* in the sample used here) and give detailed analysis. *Le Parisien/Aujourd'hui en France* is viewed as a popular newspaper. Long analyses are less frequent than in *Le Monde*, and the law was usually mentioned in articles related to criminal facts or trial.

Only a small proportion (between 4% and 17%) of the information on mandatory sentencing contains the difference between the common and legal meaning of recidivism. The Minister of Justice, Rachida Dati, was interviewed in the four media mentioned above but never explained such a difference. Even the expression "récidive légale" used in legal publications is not mentioned.

#### **V. Additional information on data construction**

This paper uses French criminal record data from 2002 to 2016. The Ministry of Justice records judicial decisions not crime. A crime committed, for example, in 2007 and judged in 2008 will be recorded in 2008. Then, in order to identify crimes committed in 2007 I need to take trials from 2007, 2008, 2009... and keep those concerning crimes committed in 2007.

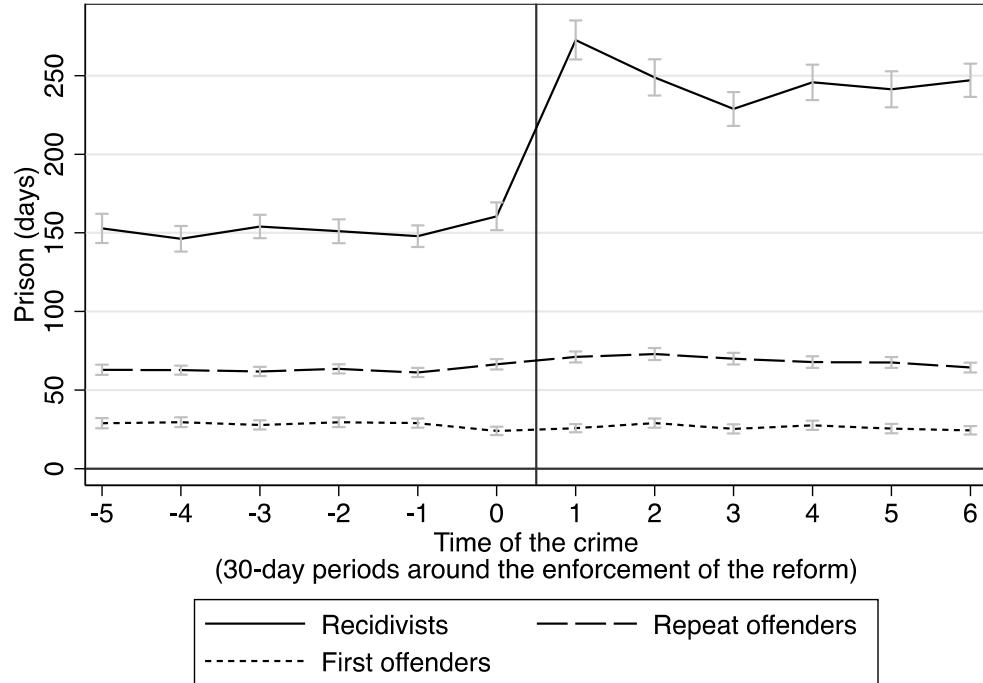
The period 2002–2007 is used to reconstruct individuals' criminal careers. Indeed, while recidivism is explicitly recorded in the dataset, variables indicating if offenders are first-time offenders or repeat offenders are constructed thanks to individual IDs.

The main samples are composed of offenders who committed a crime around August 2007, i.e. in 2007 or 2008. For those offenders I measure subsequent criminal activity. I proceed in two steps. First, dates of released are reconstructed based on sentences, pre-trial detention time served, legal time credit and procedural variables. Second, starting from this day, I record all crimes committed in the following 4 years and judged in the following 6 years. Indeed, as 85%

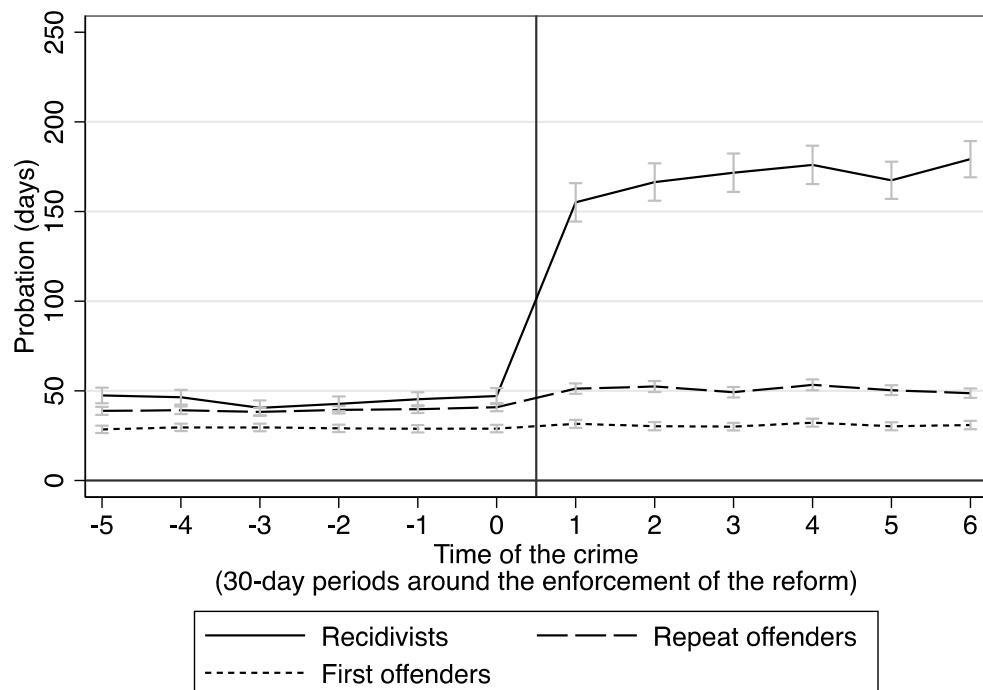
of crimes are prosecuted in the next 2 years, I need to consider trials in the next 6 years if I want to reconstruct crime rates in the next 4 years.

I measure “crime committed in the next 4 years convicted in the next 6 years” instead of simply recording “convictions in the next 6 years” to avoid potential bias due to more complex cases. Indeed, more complex cases have longer investigations. Offenders who later commit more complex crimes would appear to have less crime during the observation period if I simply recorded conviction in the next 6 years. It is not the case here as I record crime in the next 4 years judged in the next 6 years.

In the most extreme case, offenders committed the reference crime in the beginning of February 2008 (180 days after the reform), were prosecuted 6 months later (restriction I imposed), in August 2008, and served 2 years in prison (99.5% of offenders serve no more than 2 years). In this case, the observation period starts in August 2010 and it is still possible to measure the number of crimes committed in the next 4 years and judged in the next 6 years (i.e. before August 2016). Therefore, there is no right truncation of the outcomes.



(A)



(B)

FIGURE A1: AVERAGE PRISON TIME (A) AND PROBATION TIME (B) BY CRIMINAL HISTORY PER 30-DAY PERIOD AROUND THE REFORM.

Note: Subfigures present the evolution of sentences for recidivists (solid line), repeat offenders (dashed line) and first-time offenders (dotted line). The sample is composed of offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months.

*Source: Author's calculations based on criminal records provided by the French Ministry of Justice.*

TABLE A1: EXAMPLES OF CRIMES CLASSIFIED AS RECIDIVISM DEPENDING ON PAST CRIME.

	Robbery	Past crime:									
		Sell on stolen good	Ingroup robbery	Fraud	Violent robbery	Violence on partner - temporary inability to work equal or below 8 days	Violence with weapon - no inability to work	Drug consumption	Drug possession	Undeclared work	
New crime:	Robbery	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	No	No	No	No	
	Sell on stolen good	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	No	No	No	No	
	Ingroup robbery	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	No	No	No	No	
	Fraud	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	No	No	No	No	
	Violent robbery	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist	No	No	No	
	Violence on partner - temporary inability to work equal or below 8 days.	No	No	No	No	Recidivist	Recidivist	Recidivist	No	No	
	Violence with weapon - no inability to work	No	No	No	No	Recidivist	Recidivist	Recidivist	No	No	
	Drug consumption	No	No	No	No	No	No	Recidivist	Recidivist	No	
	Drug possession	No	No	No	No	No	No	Recidivist	Recidivist	No	
	Undeclared work	No	No	No	No	No	No	No	No	Recidivist	

TABLE A2: MEDIA COVERAGE OF THE LAW BETWEEN JUNE AND SEPTEMBER 2007.

Media	Format	Audience/ circulation per day	Report on the law	Report with clear definition of recidivism
TF1	TV	7 840 000	7	1
France 2	TV	4 140 000	6	1
Le parisien-Aujourd'hui en France	Newspaper	534 000	45	2
Le monde	Newspaper	359 000	37	2

TABLE A3: EFFECT OF THE REFORM ON SENTENCES, ROBUSTNESS CHECKS.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Dummies			Days if non 0			ln(1+Y), y in months			ln(1+Y, 0 replaced with q5			Asinh(y)		
	Prison	Probation	Suspended prison	Prison	Probation	Suspended prison	Prison	Probation	Suspended prison	Prison	Probation	Suspended prison	Prison	Probation	Suspended prison
Recidivist*Post	0.035*** (0.0079)	0.22*** (0.014)	-0.018** (0.0068)	108*** (7.25)	165*** (6.36)	102*** (19.6)	0.37*** (0.020)	0.66*** (0.037)	-0.020* (0.010)	0.43*** (0.020)	0.50*** (0.027)	-0.012 (0.0091)	0.57*** (0.046)	1.55*** (0.092)	-0.084** (0.035)
Repeat offenders *Post	-0.0092 (0.0068)	0.028*** (0.0059)	-0.0085 (0.0070)	15.4*** (5.41)	16.1*** (3.01)	0.65 (1.90)	0.026** (0.011)	0.070*** (0.011)	-0.015 (0.0099)	0.039*** (0.011)	0.048*** (0.0072)	-0.013 (0.0087)	0.00077 (0.037)	0.18*** (0.034)	-0.048 (0.036)
Obs	111,287	111,287	111,287	42,770	27,907	29,403	111,287	111,287	111,287	111,287	111,287	111,287	111,287	111,287	111,287
Mean recidivists before reform	0.81	0.26	0.021	188	172	111	1.41	0.47	0.029	4.60	4.33	3.42	4.51	1.48	0.11
Mean repeat offenders before reform	0.48	0.27	0.14	131	148	93.8	0.71	0.44	0.19	3.95	4.29	3.53	2.52	1.47	0.71
Mean first-time offenders before reform	0.15	0.18	0.47	189	160	93.8	0.24	0.31	0.60	3.60	4.23	3.82	0.81	1.01	2.33

column presents the results of a different regression with different outcomes (indicated in the header): dummies equal to one if offenders are convicted to some prison, probation or suspended prison (Columns 1-3); number of days of the sentence if non zero (Columns 4-6); logarithm of one plus the number of months of the sentence (Columns 7-9); logarithm of the number of days of the sentence with zeros replaced by the 5th percentile of non-zero values (Columns 10-12); inverse hyperbolic sine transformation of the number of days of the sentence (Columns 13-15). The sample is composed of offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Post is a dummy equal to 1 after the reform. Recidivist and Repeat offenders are dummies equal to 1 for recidivists and repeat offenders respectively. All regressions include month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), crime fixed effects and controls (gender, nationality, age, investigation length, number of convictions, plea bargaining, presence at trial, and court fixed effects).

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

TABLE A4: EFFECT OF THE REFORM ON SENTENCES, ROBUSTNESS CHECKS.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Prison				Probation				Suspended prison			
	Dummy	Number of days if non 0	ln(1+prison months)	ln(prison days, 0 replaced with q5)	Dummy	Number of days if non 0	ln(1+probation months)	ln(probation days, 0 replaced with q5)	Dummy	Number of days if non 0	ln(1+suspended prison months)	ln(suspended prison days, 0 replaced with q5)
Recidivist, max sent<3years	-0.004	40.1***	0.11***	0.14***	0.060***	34.7**	0.13***	0.074***	-0.012	43.1	-0.015	-0.011
*Post	(0.019)	(8.54)	(0.033)	(0.032)	(0.018)	(15.6)	(0.035)	(0.023)	(0.011)	(35.7)	(0.018)	(0.016)
Recidivist, max sent=3years	0.035***	73.5***	0.34***	0.39***	0.18***	78.5***	0.48***	0.35***	-0.016**	43.5**	-0.018	-0.010
*Post	(0.013)	(6.69)	(0.026)	(0.027)	(0.016)	(5.54)	(0.037)	(0.025)	(0.0078)	(17.4)	(0.011)	(0.010)
Recidivist, max sent=5years	0.033***	116***	0.40***	0.47***	0.25***	188***	0.74***	0.56***	-0.021***	126***	-0.020*	-0.010
*Post	(0.011)	(9.88)	(0.030)	(0.031)	(0.019)	(8.38)	(0.045)	(0.031)	(0.008)	(27.9)	(0.012)	(0.011)
Recidivist, max sent=7years	0.056***	159***	0.52***	0.57***	0.29***	274***	0.96***	0.76***	-0.018**	126**	-0.020	-0.012
*Post	(0.013)	(11.4)	(0.039)	(0.041)	(0.023)	(13.2)	(0.060)	(0.044)	(0.008)	(53.5)	(0.014)	(0.013)
Recidivist, max sent=10years	0.046***	142***	0.43***	0.47***	0.32***	301***	1.04***	0.81***	-0.023**	351**	-0.029**	-0.021
*Post	(0.018)	(17.2)	(0.048)	(0.050)	(0.022)	(20.8)	(0.064)	(0.050)	(0.01)	-139	(0.015)	(0.013)
Repeat offenders*Post	-0.009	15.4***	0.026**	0.039***	0.028***	16.0***	0.070***	0.048***	-0.009	0.66	-0.015	-0.013
	(0.007)	(5.40)	(0.011)	(0.011)	(0.006)	(3.02)	(0.011)	(0.007)	(0.007)	(1.90)	(0.010)	(0.009)
Obs	111,287	42,77	111,287	111,287	111,287	27,907	111,287	111,287	111,287	29,403	111,287	111,287
Mean recidivists max sent<3	0.66	122	0.96	4.13	0.24	160	0.41	4.28	0.029	98.9	0.040	3.43
Mean recidivists max sent=3	0.79	159	1.29	4.46	0.29	160	0.51	4.34	0.016	95.5	0.021	3.42
Mean recidivists max sent=5	0.82	177	1.40	4.59	0.24	166	0.42	4.30	0.026	90.1	0.033	3.42
Mean recidivists max sent=7	0.88	229	1.71	4.93	0.25	180	0.45	4.33	0.019	180	0.034	3.43
Mean recidivists max sent=10	0.85	282	1.73	4.96	0.27	239	0.55	4.41	0.018	108	0.025	3.42

Note Each column presents the results of a different regression with different outcomes (indicated in the header): dummies equal to one if offenders are convicted to some prison, probation or suspended prison (Columns 1, 5, 9); number of days of the sentence if non zero (Columns 2, 6, 10); logarithm of one plus the number of months of the sentence (Columns 3, 7, 11); logarithm of the number of days of the sentence

*with zeros replaced by the 5th percentile of non-zero values (Columns 4, 8, 12). The sample is composed of offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Post is a dummy equal to 1 after the reform. “Recidivist, max sent<3years” (respectively “=3 years”, “=5years”...) is a dummy equal to 1 for recidivists who committed a crime punishable by less than 3 years in prison (respectively punishable by up to 3 years, punishable by up to 5 years...). All regressions include month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), crime fixed effects and controls (gender, nationality, age, investigation length, number of charges, number of convictions, plea bargaining, presence at trial, and court fixed effects).*

*Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1*

TABLE A5: EFFECT OF THE REFORM ON THE PROBABILITY TO RECEIVE DIFFERENT TYPES FOR “MULTI” RECIDIVISTS, FIRST-TIME RECIDIVISTS AND REPEAT OFFENDERS.

	(1)	(2)	(3)	(4)
	Some prison, probation or suspended prison	Some prison	Some probation	Some suspended prison
"Multi" recidivist*Post	0.028*** (0.0073)	0.040*** (0.010)	0.23*** (0.016)	-0.018** (0.0071)
"First-time" recidivist*Post	0.017*** (0.0062)	0.040*** (0.0090)	0.25*** (0.017)	-0.018*** (0.0066)
Repeat offender*Post	-0.0096* (0.0052)	-0.0089 (0.0069)	0.026*** (0.0059)	-0.0081 (0.0068)
Observations	0.84*** (0.0073)	0.48*** (0.012)	-0.030*** (0.0082)	0.40*** (0.0098)
Mean multi recidivists before reform				
Mean first-time recidivists before reform	111,287	111,287	111,287	111,287
Mean repeat offenders before reform	0.96	0.91	0.19	0.0039
Mean first-time offenders before reform	0.91	0.74	0.31	0.033
pval- multi vs first time recidivists	0.80	0.48	0.27	0.14

*Note:* Each column presents the results of a different regression with different outcomes (indicated in the header). The sample is composed of offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Post is a dummy equal to 1 after the reform. Multi recidivist (resp. First-time recidivist) is a dummy equal to 1 for recidivists who have already been convicted (resp. never been convicted) as recidivist for the same crime before the reference crime. All regressions include month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), sentence at the reference trial, crime fixed effects and controls (gender, nationality, age, investigation length, number of charges, number of convictions, plea bargaining, presence at trial, and court fixed effects).

*Source:* Author’s calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## **Appendix B: Additional results related to the reform's general deterrent effect**

### **I. Robustness checks**

Table B1 presents robustness checks of the results presented in Table 3. Columns 1 and 2 of Table B1 replicate the results from Column 4 of Table 3 with different ways of weighting observations. In Column 1, the outcome (the number of crimes) is normalized by court and group. In this exercise, each group in each court is given the same weight: small courts contribute as much to the identification as more populated ones. In Column 2, the observations are weighted by the number of crimes in the category tried in the court in the 6 months before the reform. In this exercise, large courts contribute more to the identification.

Columns 3 and 4 of Table B1 replicate the results from Column 4 of Table 3 with different definitions of the treatment. In Column 3, the treatment is defined as the distance between recidivists' average prison sentences decided in the court before the reform and the average minimum sentences introduced by the reform for the same crimes. In Column 4, the treatment is defined as the local difference between average prison sentences for recidivists before and after the reform. The results, presented in Table B1, do not indicate that the reform had a general deterrent effect.

### **II. Alternative strategy using duration models**

This section presents an alternative way to measure the reform's general deterrent effect using individual-level observations and duration models.

### *A. Data and strategy*

In this exercise, I focus on offenders who were convicted before the law was passed. For each offender in the sample, I measure the date and nature of the first crime committed after the trial or subsequent prison term (if any). Using this data, it is possible to compute the hazard rate of committing a new crime. If the reform had a deterrent effect on crime, the hazard rate should decrease after August 10, 2007.

Appendix Figure B1 illustrates the structure of this exercise. Offenders included in the sample were convicted (blue stars on the figure) within 1–2 years before the reform (light red zone on the figure). I observe their criminal behavior in the year following their trial or release from prison (prison time indicated with a yellow arrow on the figure). This observation period could be located before (dashed blue arrows) or after (solid blue arrows) the enforcement of the reform.

Formally, I capture the effect of the reform on the probability of committing a new crime using the following proportional hazard rate model:

$$(B1) \quad h_i(t) = h_0(t) * e^{\alpha * post_t + \beta * X_i}$$

Where  $h_i(t)$  is the hazard rate at time  $t$  of individual  $i$ ,  $h_0(t)$  is the baseline hazard rate,  $post_t$  is a dummy that equals 1 if time  $t$  is after the reform (i.e., after August 10, 2007).  $X_i$  is a set of control variables for gender, age, French nationality, plea bargaining, number of charges, investigation length, calendar month of the conviction, and crime fixed effects.  $\alpha$  is the parameter of interest. It captures the change in the hazard rate after the enforcement of the law. Since the law increased sentences, it is expected to be negative (i.e.,  $\alpha < 0$ ).

However, the strategy presented in Equation B1 is a simple before/after exercise. Other concomitant events may affect the hazard. To more precisely address the

reform's effect, I distinguish between two competitive risks: committing a new crime targeted by the reform (i.e., recidivate); and committing a new crime not targeted by the reform (i.e., different from the preceding one). Formally, instead of Equation B1, I run models of the form:

$$(B2) \quad h_i^{Target}(t) = h_0^{Target}(t) * e^{\alpha^{Target}*post_t + \beta^{Target}*X_i}$$

$$(B3) \quad h_i^{NotTarget}(t) = h_0^{NotTarget}(t) * e^{\alpha^{NotTarget}*post_t + \beta^{NotTarget}*X_i}$$

Where  $h_i^{Target}(t)$  (respectively  $h_i^{NotTarget}(t)$ ) is individual i's probability of committing a new crime targeted (respectively, not targeted) t days after the trial or subsequent prison time. As those risks are concurrent, I consider one as censoring the other. Thus if individual i commits a new targeted crime at time t, this observation is considered censored when measuring the effect of the reform on the probability of committing a new not targeted crime.

As discussed in Sections 2 and 5, if the reform had a general deterrent effect, I expect it to be higher for targeted behavior. In the context of Equations B2 and B3 it means that I expect  $\alpha^{Target}$  to be inferior to  $\alpha^{NotTarget}$ .

The underlying assumption is that, apart from the law, any event occurring around August 10, 2007 affected the probability of committing crimes similar and different from previous ones in a similar way.

It is important to note that this strategy measures the effect of the reform on the first crime committed after a trial (or after the offender's release from prison). Then, it is free from the learning effect that may arise after subsequent trials, which I examine in Sections 6, 7 and 8.

## B. Results

Table B2 reports the main results. Coefficients  $\alpha^{Target}$  from Equation B2 are presented in Panel A. They capture the change in the probability of committing a new crime targeted by the reform (i.e., identical to previous ones) after August 10, 2007. Coefficients  $\alpha^{NotTargeted}$  from Equation B3 are presented in Panel B. They capture the change in the probability of committing a new crime not targeted by the reform (i.e., different from previous ones).

Columns 1 and 2 present the results when the sample includes all offenders convicted between August 2006 and July 2007 (i.e., in the year before the enforcement of the reform). Columns 3 and 4 present the same coefficient when the sample is extended to 2 years (August 2005 to July 2007). The full set of controls is included in Columns 2 and 4.

While negative, none of the coefficients presented in Table B2 is significant. The point estimates are small, stable from one specification to another and precisely estimated. Moreover, the changes in the hazard rate after August 2007 are very similar for the two risks. Indeed,  $\alpha^{Target}$  and  $\alpha^{NotTargeted}$  have the same order of magnitude and are not statistically significantly different from each other.

The null results presented in Table B2 are robust to perturbation of the main specification. They are similar when the sample is restricted to offenders who did not receive any prison time – and therefore could not learn about the law while in prison (Table B3, Columns 1 and 2). They are also similar when the sample is restricted to first-time offenders who may be better able to adapt their behavior (Table B3, Columns 3 and 4).

Overall, the results presented in Tables B2 and B3 confirm the result from Table 3. They indicate that the media coverage of the reform and its enforcement did not trigger a sizable immediate deterrent effect.

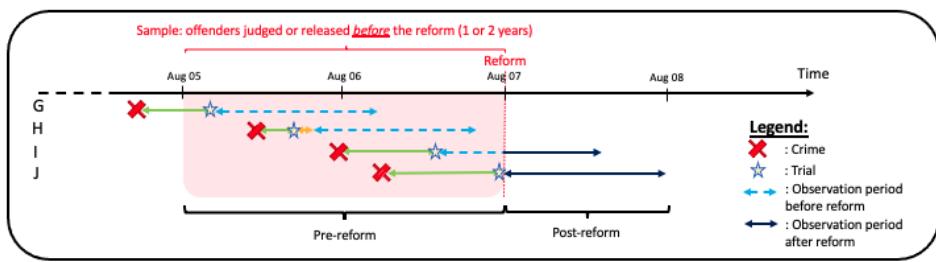


FIGURE B1: STRUCTURE OF THE DATA USED FOR DURATION MODELS.

TABLE B1: EFFECT OF THE REFORM ON THE NUMBER OF CRIMES COMMITTED AROUND THE REFORM, ROBUSTNESS CHECKS.

	(1)	(2)	(3)	(4)
Period:		180 -day periods before/after the reform		
Groups:		Recidivists; repeat offenders; first offenders		
Outcome:	Nb of crimes, normalized	Nb of crimes, weighted		Nb of crime
Post* <i>similar</i> crime	0.073 (0.054)	-4.56 (4.86)		
Post* <i>different</i> crime	0.14** (0.069)	1.28 (1.53)		
Post* <i>similar</i> crime			0.000 (0.001)	
* distance to minimum prior reform			-0.002 (0.001)	
Post* <i>different</i> crime			0.001 (0.005)	
* distance to minimum prior reform			0.004* (0.002)	
Post* <i>similar</i> crime			0.001 (0.005)	
* (prison post - prison pre)			0.004* (0.002)	
Post* <i>different</i> crime			0.001 (0.005)	
* (prison post - prison pre)			0.004* (0.002)	
Constant	-0.0349** (0.017)	60.93*** (0.731)	17.64*** (0.145)	17.41*** (0.090)
Group fe	Yes	Yes	Yes	Yes
Month-of the crime fe	Yes	Yes	Yes	Yes
Court fe	Yes	Yes	Yes	Yes
Observations	6,372	1,986,228	6,372	6,372
Mean first offenders	22.2	22.2	22.2	22.2
Mean repeat offenders	22	22	22	22
Mean recidivists	8.30	8.30	8.30	8.30

Note: The sample contains one observation per court, month, and group (first-time offenders, repeat offenders and recidivists). Post is a dummy equal to 1 after the reform. Standard errors are clustered at the court level.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

TABLE B2: EFFECT OF THE REFORM ON OFFENDERS' HAZARD RATE

Sample:	(1) 12 months before reform	(2)	(3)	(4) 24 months before reform
Panel A: new crimes <i>targeted</i> by the reform ( <i>similar</i> to any past crime)				
Post	-0.023 (0.027)	-0.025 (0.027)	-0.005 (0.022)	-0.009 (0.022)
Panel B: new crimes <i>not targeted</i> by the reform ( <i>different</i> from all previous crimes)				
Post	-0.019 (0.026)	-0.020 (0.026)	-0.029 (0.021)	-0.030 (0.021)
Control	No	Yes	No	Yes
Obs	116,402	116,402	235,858	235,858

*Note:* Each Panel represents a separate set of duration models. Panel A (resp. Panel B) presents models where failure consists in committing a new crime targeted (resp. NOT targeted) by the reform. The sample is composed of offenders convicted in the 12 months (Columns 1 and 2) or in the 24 months (Columns 3 and 4) before the reform for a crime committed no more than 6 months earlier. Post is a dummy equal to 1 after the reform. In columns 2 and 4, models control for month-of-the-trial fixed effects, crime fixed effects, sociodemographic characteristics, and procedural variables. Estimations use Cox proportional hazard models.

*Source:* Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  
 $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

TABLE B3: EFFECT OF THE REFORM ON OFFENDERS' HAZARD RATE, ROBUSTNESS CHECKS.

	(1)	(2)	(3)	(4)
	All offenders, no prison time		First-time offenders only	
Time before the reform:	12 months	24 months	12 months	24 months
Panel A: new crimes <i>targeted</i> by the reform ( <i>similar</i> to any past crime)				
Post	0.028 (0.041)	0.034 (0.033)	0.072 (0.067)	0.052 (0.055)
Panel B: new crimes <i>not_targeted</i> by the reform ( <i>different</i> from all previous crimes)				
Post	-0.032 (0.035)	-0.033 (0.028)	-0.006 (0.048)	-0.034 (0.039)
Control	Yes	Yes	Yes	Yes
Obs	72,673	149,544	50,152	104,058

*Note:* Each Panel represents a separate set of duration models. Panel A (resp. Panel B) presents models where failure consists in committing a new crime targeted (resp. NOT targeted) by the reform. The samples are composed of offenders convicted in the 12 months (Columns 1 and 3) or in the 24 months (Columns 2 and 4) before the reform for a crime committed no more than 6 months earlier. In Columns 1 and 2 the samples are further restricted to offenders not sentenced to prison. In columns 3 and 4, the samples are further restricted to first-time offenders. Post is a dummy equal to 1 after the reform. Models control for month-of-the-trial fixed effects, crime fixed effects, sociodemographic characteristics, and procedural variables. Estimations use Cox proportional hazard models.

*Source:* Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  
 $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## Appendix C: Additional results on the effect of first-hand experience.

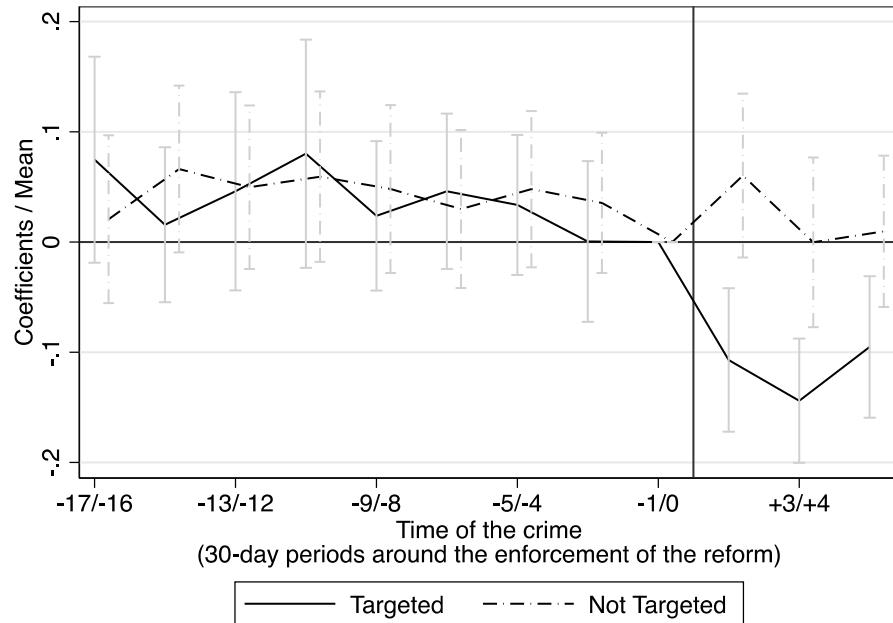


FIGURE C1: EFFECT OF THE REFORM ON THE NUMBER OF NEW CRIMES TARGETED (SOLID LINE) OR NOT TARGETED (DASHED LINE) BY THE REFORM PER DATE OF THE REFERENCE CRIME.

Note: The figure presents the results of two separate event studies (following Equations 9 and 10) in which the outcomes are the number of crimes targeted (solid line) or not targeted (dashed line) by the reform committed in the 4-year period after the reference trial or subsequent prison term. The two 30-day periods before the reform's enforcement are set as the reference period. Coefficients measure the evolution of the difference between offenders convicted as recidivists and those convicted as repeat offenders compared to the reference period, by blocks of two months. Each point presents a coefficient divided by the mean of the relevant behavior in the treatment group. The bars correspond to 90% confidence intervals. The sample is composed of recidivists and repeat offenders who committed the reference crime in the 540 days before or in the 180 days after the reform and adjudicated in no more than 6 months. Standard errors are clustered at the court level.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice.

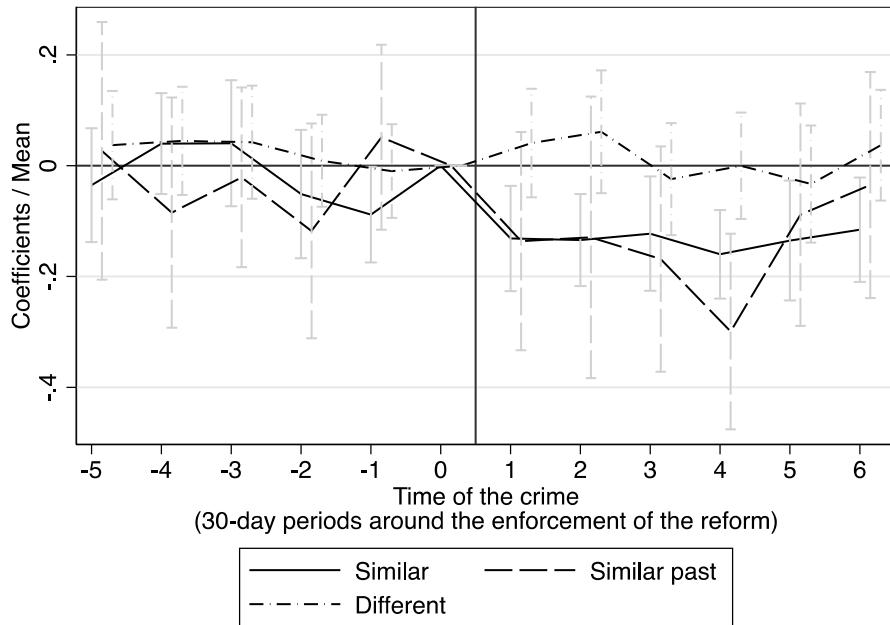


FIGURE C2: EFFECT OF THE REFORM ON THE NUMBER OF NEW CRIME SIMILAR TO THE REFERENCE CRIME (SOLID LINE), DIFFERENT FROM THE REFERENCE CRIME BUT SIMILAR TO ANOTHER CRIME IN OFFENDER'S CRIMINAL CAREER (DASHED LINE) OR DIFFERENT FROM ALL PREVIOUS CRIMES (DOTTED/DASHED LINE) PER DATE OF THE REFERENCE CRIME.

*Note: The figure presents the results of three separate event studies in which the outcomes are the number of new crimes similar to the reference crime (solid line), similar to another crime (dashed line), or not targeted by the reform (dashed/dotted line) committed in the 4-year period after the reference trial or subsequent prison term. The sample is composed of recidivists and repeat offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Coefficients measure the evolution of the difference between offenders convicted as recidivists, and those convicted as repeat offenders, per 30-day period, compared to the period before the reform's enforcement ( $t=0$ , reference period). Each point presents a coefficient divided by the mean of the relevant behavior in the treatment group. The bars correspond to 90% confidence intervals. Standard errors are clustered at the court level.*

Source: Author's calculations based on criminal records provided by the French Ministry of Justice.

TABLE C1: ROBUSTNESS CHECKS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	90-day periods before/after the reform						
	First offenders in control group	Restrict to max sentence sup or equal to 3 years	Without control variables	With control sentence and age at release	Control quadratic crime time trend	Dummies	Cox model, competitive risks
Panel A: new crimes <i>targeted</i> by the reform							
Treat	-0.14*** (0.039)	-0.12*** (0.044)	-0.11*** (0.038)	-0.14*** (0.044)	-0.12*** (0.044)	-0.040*** (0.015)	-0.13** (0.054)
Panel B: new crimes <i>not targeted</i> by the reform							
Treat	0.037 (0.039)	0.031 (0.043)	0.027 (0.035)	0.028 (0.041)	0.021 (0.040)	0.008 (0.013)	0.047 (0.046)
Observations	56,357	24,883	32,156	32,156	32,156	32,156	32,037
Mean targeted	1.35	1.37	1.37	1.37	1.37	0.58	
Mean not targeted	1.01	1.02	1.02	1.02	1.02	0.53	
(a) Treat/Mean Targeted	-0.10***	-0.084***	0.079***	-0.10***	-0.088***	-0.068***	
(b) Treat/Mean not Targeted	0.037	0.030	0.027	0.027	0.020	0.014	
Pval (a)=(b)	0.002	0.016	0.012	0.009	0.023	0.009	

Note: Each panel represents a separate set of regressions with different dependent variables: the number (except in Column 5 where dummies are used) of new crimes targeted (Panel A) or not targeted (panel B) by the reform committed in the 4-year period after the reference trial or subsequent prison term. The sample is composed of offenders convicted as recidivists or repeat offenders who committed the reference crime in the 90-day periods before and after the reform and adjudicated in no more than 6 months. In Column 1, first-time offenders are also included. In Column 2, offenders who committed a crime with a maximum prison term below three years are excluded. Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more after August 11), month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), crime fixed effects, month-of-release fixed effects (except in Column 1) and controls (except in Column 3). In column 4, controls for sentences and age at release are added. In column 5, crime-specific month-of-release time trends (and quadratics) are added.

The last rows of the table present: the mean of the outcome variables in the treatment group; the effect of the reform in proportion to those means; and the p-value of the difference between those effects. Standard errors are clustered at the court level. Estimation uses seemingly unrelated estimation to correct for simultaneity in the estimations.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE C2: ROBUSTNESS CHECKS, VARIATIONS IN SAMPLE SELECTION AND TIME WINDOW OF THE OUTCOME.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Maximum investigation length:		6 months			1 year			2 years	3 years
Outcome, number of crime after:	3 years	2 years	1 years	3 years	2 years	1 years	2 years	1 years	1 years
Panel A: new crimes <i>targeted</i> by the reform									
Treat	-0.11*** (0.036)	-0.11*** (0.029)	-0.069*** (0.019)	-0.085*** (0.032)	-0.079*** (0.025)	-0.051*** (0.016)	-0.064*** (0.024)	-0.045*** (0.014)	-0.045*** (0.013)
Panel B: new crimes <i>not targeted</i> by the reform									
Treat	0.019 (0.037)	0.008 (0.032)	0.018 (0.016)	0.0012 (0.031)	0.0015 (0.027)	0.0087 (0.014)	0.003 (0.023)	0.006 (0.012)	0.007 (0.011)
Observations	32,156	32,156	32,156	45,649	45,649	45,649	58,302	58,302	64,235
Mean targeted	1.12	0.84	0.48	1.05	0.78	0.45	0.72	0.42	0.40
Mean not targeted	0.81	0.57	0.29	0.79	0.55	0.28	0.53	0.27	0.26
(a) Treat/Mean Targeted	-0.096*** -0.096***	-0.14*** -0.14***	-0.14*** -0.14***	-0.081*** -0.081***	-0.10*** -0.10***	-0.11*** -0.11***	-0.090*** -0.090***	-0.11*** -0.11***	-0.11*** -0.11***
(b) Treat/Mean not Targeted	0.023	0.013	0.061	0.0015	0.0027	0.032	0.0054	0.024	0.027
Pval (a)=(b)	0.018	0.012	0.001	0.061	0.056	0.0094	0.052	0.019	0.0089

Note: Each panel represents a separate set of regressions with different dependent variables: the number of new crimes targeted (Panel A) or not targeted (panel B) by the reform committed in the 1-year (Columns 3, 6, 8 and 9), 2-year (Columns 2, 5, 7) or 3-year (Columns 1 and 4) period after the reference trial or subsequent prison term. The sample is composed of offenders convicted as recidivists or repeat offenders who committed the reference crime in the 90-day periods before and after the reform and adjudicated in no more than 6 months (Columns 1-3), 1 year (Columns 4-6), 2 years (Columns 7, 8), or 3 years (Column 9). Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more after August 11), month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), month-of-release fixed effects, crime fixed effects and controls.

The last rows of the table present: the mean of the outcome variables in the treatment group; the effect of the reform in proportion to those means; and the p-value of the difference between those effects. Standard errors are clustered at the court level. Estimation uses seemingly unrelated estimation to correct for simultaneity in the estimations.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE C3: ROBUSTNESS CHECK, BEFORE/AFTER SPECIFICATIONS.

Sample:	(1)	(2)	(3)	(4)	(5)	(6)
Outcome:	First time offenders		Repeat offenders		Recidivists	
	Number new crimes targeted by the reform	Number new crimes NOT targeted by the reform	Number new crimes targeted by the reform	Number new crimes NOT targeted by the reform	Number new crimes targeted by the reform	Number new crimes NOT targeted by the reform
Post	-0.004 (0.016)	-0.002 (0.027)	-0.004 (0.043)	-0.026 (0.035)	-0.21*** (0.068)	0.10 (0.061)
Obs	24,013	24,013	23,428	23,428	8,916	8,916
Mean	0.19	0.52	0.88	1.04	1.34	0.99
Post/Mean	-0.000	-0.021	-0.005	-0.025	-0.15	0.096
P-value	0.85		0.72		0.005	

Note: Columns 1, 3, and 5 measures the evolution of the number of new crimes targeted by the reform committed in the 4-year period after the reference trial or subsequent prison term. Columns 2, 4, and 6 measures the evolution of the number of new crimes not target by the reform. The samples are composed of offenders who committed the reference crime in the 90-day periods before and after the reform as first-time offenders (Columns 1 and 2), repeat offenders (Columns 3 and 4), or recidivist (Columns 5 and 6) and adjudicated in no more than 6 months. Outcomes are regressed on Post, a dummy equal to 1 after the reform, a linear time trend, crime fixed effects and controls.

The last rows of the table present: the mean of the outcome variables in the treatment; the effect of the reform in proportion to those means (rows noted (a) and (b)); and the p-value of the difference between those two effects. Standard errors are clustered at the court level. Estimation uses seemingly unrelated estimation to correct for simultaneity in the estimations.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE C4: HETEROGENEITY BY CRIME TYPE.

	(1)	(2)	(3)
	Property crimes	"Reference" crime: Violence	Drug
Panel A: new property crimes			
Treat/Mean	-0.10***	-0.097	0.12
Panel B: new violent crimes			
Treat/Mean	-0.073	-0.059	0.044
Panel C: new drug crimes			
Treat/Mean	-0.018	0.14	-0.18**
Panel D: new road related crimes			
Treat/Mean	0.006	-0.030	-0.18
Obs	29,237	16,456	7,707

*Note:* Each panel represents a separate set of regressions with different dependent variables: the number of new property crimes (Panel A), the number of new violent crimes (Panel B) , the number of new drug crimes (Panel C), or the number of new road crimes (Panel D) committed in the 4-year period after the reference trial or subsequent prison term. The samples are composed of offenders convicted of property crimes (Column 1), violences (Column 2) or drug related crimes as recidivists or repeat offenders in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more after August 11), month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), month-of-release fixed effects, crime fixed effects and controls (gender, nationality, age, investigation length, number of charges, number of convictions, plea bargaining, presence at trial, and court fixed effects).

*Source:* Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE C5: HETEROGENEITY BY GROUP.

	(1)	(2)	(3)	(4)	(5)	(6)
	180-day periods months before/after the reform					
	Present	Absent	Young	Old	Male	Female
Panel A: new crimes <i>targeted</i> by the reform ( <i>similar</i> to any past crime)						
Treat	-0.18*** (0.032)	-0.16 (0.11)	-0.14*** (0.040)	-0.18*** (0.042)	-0.16*** (0.028)	-0.41*** (0.13)
Panel B: new crimes <i>not targeted</i> by the reform ( <i>different</i> from all previous crimes)						
Treat	-0.006 (0.034)	-0.13* (0.073)	-0.0063 (0.044)	0.00096 (0.042)	-0.0080 (0.034)	0.072 (0.064)
Observations	50,914	13,181	31,868	29,633	61,018	3,077
Mean similar	1.33	1.27	1.34	1.47	1.41	1.29
Mean different	1.02	1.06	1.29	0.79	1.06	0.42
(a) Treat/Mean Similar	-0.12***	-0.12	-0.10***	-0.12***	-0.11***	-0.32***
(b) Treat/Mean Different	-0.000	-0.12	-0.0049	0.0012	-0.0075	0.17
Pval (a)=(b)	0.000	0.98	0.022	0.025	0.0035	0.0049

Note: Each panel represents a separate set of regressions with different dependent variables: the number of new crimes targeted (Panel A) or not targeted (panel B) by the reform committed in the 4-year period after the reference trial or subsequent prison term. The samples are composed of offenders convicted as recidivists or repeat offenders who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. Samples are further restricted to the group mentioned in the header: offenders present (Column 1) or absent (Column 2) at the reference trial; offenders below (Column 3) or above (Column 4) the median age (26 years old); males (Column 5) or females (Column 6). Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more after August 11), month-of-the-reference-crime fixed effects, group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism), month-of-release fixed effects, crime fixed effects and controls (gender, nationality, age, investigation length, number of charges, number of convictions, plea bargaining, presence at trial, and court fixed effects).

The last rows of the table present: the mean of the outcome variables in the treatment group; the effect of the reform in proportion to those means; and the p-value of the difference between those effects. Standard errors are clustered at the court level. Estimation uses seemingly unrelated estimation to correct for simultaneity in the estimations.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice. Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## **Appendix D: Additional information on the spread of information**

### **I. Construction of the samples**

Figure D1 presents the way the three samples analyzed in section 7 are constructed. They are all connected to some offenders of the “main sample” studied in section 6 on first-hand experience – i.e. offenders who committed the reference crime in 6-month periods around the reform as recidivists or repeat offenders and adjudicated in no more than 6 months. On Figure D1, those offenders are A, A’, B, and B’. The first two compose the main sample’s treatment group and the first one the treated group.

Offenders C, C’, F, and F’ are main sample’s codefendants. They were convicted for a crime committed in the 6-month periods before and after the reform together with offenders A, A’, B, or B’. They are analyzed in Columns 2 of Tables 7 and 8. Offenders C and C’ constitute the treatment group and C is the treated group.

Offenders D, D’, G, and G’ are main sample’s former codefendants. They were convicted with offenders A, A’, B, or B’ before the period used to constitute the main sample. They are analyzed in Columns 4 of Tables 7 and 8. In those exercises, offenders D and D’ constitute the treatment group and D is the treated group.

Offenders E, E’, H, and H’ are offenders convicted the same day in the same court and for the same crime as an offender from the main sample. They are analyzed in Columns 6 of Tables 7 and 8. In those exercises, offenders E and E’ constitute the treatment group and E is the treated group.

It is important to notice that offenders from the main sample who have codefendants, former codefendants, or offenders convicted at the same court’s session are not the same. Then, the “A and B” used to identify “C and F” are not the same as the ones used to identify “D and G” or E and H”.

## **II. Identifying groups**

Identification of codefendants or former codefendants follows Philippe (2020). Individuals are defined as belonging to the same criminal group if they were both convicted of a crime that they committed together. This information is not directly registered in the dataset, as there is no ID per criminal case. To identify criminal partners, I consider people to be convicted of the same crime when they are judged in the same place (175 courts), on the same date, and for the same type of crime, explicitly classified as “in-group crime” (172 in-group crimes), that was committed on the same day.

The validity of this strategy can be confirmed by another dataset from the Ministry of Justice.<sup>1</sup> For the period 2010–2016, this second dataset contains case IDs, which makes it possible to compare the strategy presented above to the “real groups” identified by the criminal justice system. This comparison indicates that the strategy captures 65.5% of the real groups with a false match rate of 8.5%. The remaining 34.5% of real groups that are not captured by this strategy are composed of offenders charged with different main crimes. They could not be identified in the main sample used in the paper.

I restrict the analysis to groups composed of four persons at maximum (98.65% of the identified groups). Among them, more than 80% are composed of two persons. It is important to note that both members of each pair are convicted of the same main crime. Groups in which offenders are charged with different main crimes are excluded.<sup>2</sup>

<sup>1</sup> At the end of the 2000s the Ministry of Justice started creating a new dataset containing detailed information on judicial responses to crimes. This dataset contains case IDs but not defendant IDs. It is partly available starting from 2010.

<sup>2</sup> In particular, groups in which one person is convicted of “failure to assist a person in danger”, “assistance to commit a crime”, “non denunciation”, etc. are excluded. Cases in which the crimes are different (e.g., drug dealing vs. drug consumption, theft vs. fencing, procuring vs. prostitution) are also excluded.

The sample on codefendants is restricted to nonrecidivist(s) convicted with recidivist(s) or offender(s) convicted with repeat offender(s) having a longer criminal career.

The sample on former peers is composed of all offenders who have been convicted with a person of the main sample – recidivist or repeat offender who committed a crime in the 3-month periods before and after the reform – before April 2007.

Descriptive statistics of the three groups are presented in Table D1. Columns 1 and 2 describe codefendants used in the first two Columns of Table 6. Columns 3 and 4 describe former peers used in the Columns 3 and 4 of Table 6. Columns 5 and 6 describe “non-peer attending the same session” used in the last two Columns of Table 6. Offenders of the three samples are mainly French males. Their probabilities to commit a new crime during the observation period is around two times smaller than in the main sample (describe in Table 1). 32% of codefendants commit a new crime, 23% of former peers and 29% of first offenders attending the same session.

### **III. Additional results**

Table D2 presents the effect of the reform on state characteristics of the defendants of the three groups using Equations similar to Equations 3 or 4 with state characteristics as outcomes. Panel A, B and, C present balancing checks for codefendants, former peers and, non-peer convicted at the same session respectively. The most important result in this table is that groups were stable over time and the effect of the reform on sentences were very limited.

Table D3 presents the same results for the offenders of the “main sample” who permit to identify offenders of the three groups: offenders A, A’, C, C’, E and E’ in figure D1. This table shows that the composition of those group did not evolve

around the reform and that recidivists of those groups were more severely sentenced after the reform. Then, it verifies the assumption that treated offenders in table 6 observed, knew or were sentenced with somebody who was more severely sentenced.

Lastly, Table D4 presents the effect of the reform on the number of new crimes among offenders of the “main sample” who permit to identify offenders of the three groups. Panel A and B present the results of separate regressions on the number of new crimes targeted (panel A) or nontargeted (panel B) by the reform. Results are similar to those observed in the general case and presented in Table 4. Treated offenders – recidivists who committed the reference crime after the enforcement of the reform – commit significantly less crime identical to the reference crime (Panel A) but do not change their probability to commit a crime different from the reference crime (Panel B).

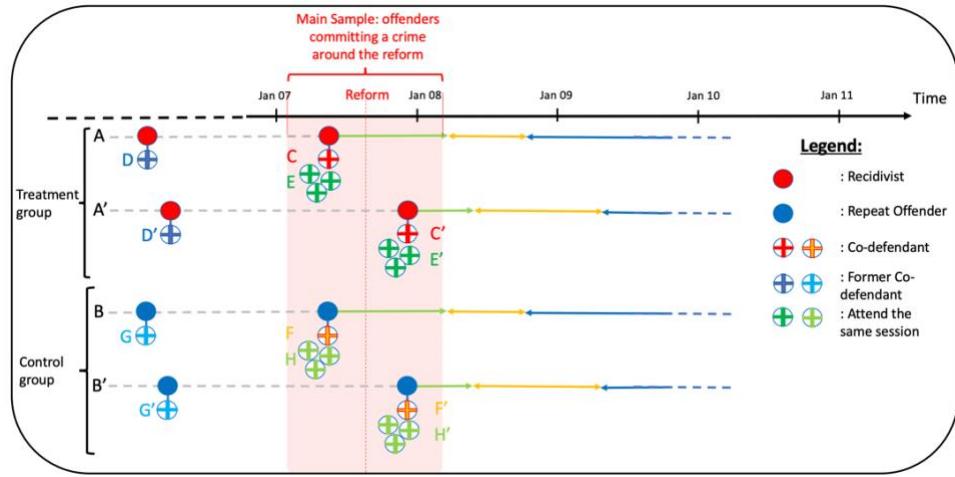


FIGURE D1: COMPOSITION OF THE SAMPLE ON CODEFENDANTS (E, E', F, F'), FORMER PEERS (D, D', G, G'), NON-PEER ATTENDING THE SAME TRIAL AND CONVICTED FOR THE SAME CRIME (E, E', H, H').

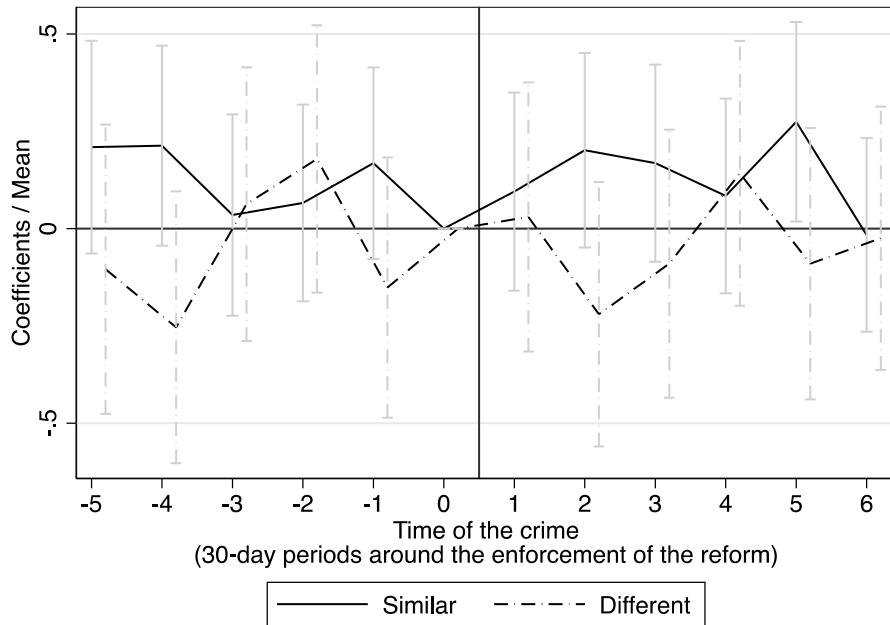


FIGURE D2: EFFECT OF THE REFORM ON THE NUMBER OF NEW CRIMES TARGETED (SOLID LINE) OR NOT TARGETED (DASHED LINE) BY THE REFORM PER DATE OF THE REFERENCE CRIME. FORMER PEERS OF THE OFFENDERS IN THE MAIN SAMPLE.

*Note: The figure presents the results of two separate event studies (following Equations 9 and 10) in which the outcomes are the number of crimes targeted (solid line) or not targeted (dashed line) by the reform committed in the 4-year period after the reference trial or subsequent prison term. The sample is composed of former codefendants of recidivists and repeat offenders in the main sample who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. The 30-day period before the reform's enforcement ( $t=0$ ) is set as the reference period. Thus, each coefficient measures the evolution of difference between recidivists' former codefendants and repeat offenders' former codefendants compared to the month before the enforcement of the reform. Standard errors are clustered at the court level. The bars correspond to 90% confidence intervals.*

Source: Author's calculations based on criminal records provided by the French Ministry of Justice.

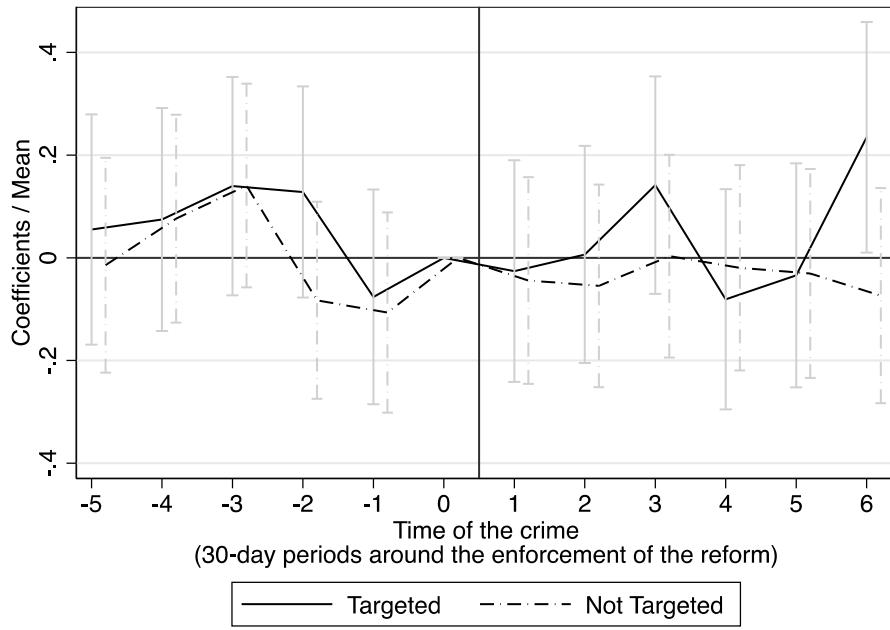


FIGURE D3: EFFECT OF THE REFORM ON THE NUMBER OF NEW CRIMES TARGETED (SOLID LINE) OR NOT TARGETED (DASHED LINE) BY THE REFORM PER DATE OF THE REFERENCE CRIME. NON-PEERS, SAME SESSION.

*Note: The figure presents the results of two separate event studies (following Equations 9 and 10) in which the outcomes are the number of crimes targeted (solid line) or not targeted (dashed line) by the reform committed in the 4-year period after the reference trial or subsequent prison term. The sample is composed of first-time offenders attending the same court session and convicted of the same crime as recidivists and repeat offenders in the main sample who committed the reference crime in the 180-day periods before and after the reform and adjudicated in no more than 6 months. The month before the reform's enforcement ( $t=0$ ) is set as the reference period. Thus, each coefficient measures the evolution of difference between first-time offenders attending the same session as recidivists and first-time offenders attending the same session as repeat offenders compared to the month before the enforcement of the reform. Standard errors are clustered at the court level. The bars correspond to 90% confidence intervals.*

*Source: Author's calculations based on criminal records provided by the French Ministry of Justice.*

TABLE D1: DESCRIPTIVE STATISTICS OF THE GROUPS USED IN SECTION 7.

	(1)	(2)	(3)	(4)	(5)	(6)
	Codefendants		Past peers		Non peer, same session	
	From main sample	Partners	From main sample	Former partners	From main sample	Attend same session
Female	.05	.11	.05	.09	.04	.09
Age	25.78	25.58	26.37	26.8	28.96	30.63
French citizen	.82	.8	.84	.8	.83	.79
Crime type						
Property crimes	.53	.53	.42		.37	.36
Violence	.17	.17	.21		.31	.33
Other	.3	.31	.37		.32	.31
Maximum prison term (criminal code)						
<3 years	.14	.14	.2		.2	.19
≥3 years	.86	.86	.8		.8	.81
Number of charge	1.65	1.6	1.83		1.74	1.69
Number of charge convicted	1.01	1.01	1.03		1.03	1.02
Present at trial	.8	.81	.81		.77	.79
Prison (day)	99.54	40.82	128.15		94.85	34.82
Probation (day)	59.89	32.67	67.89		63.69	35.85
Suspended prison (day)	13.63	38.82	6.99	0	8.67	33.01
Prison (dummy)	.56	.28	.65	0	.57	.25
Probation (dummy)	.26	.2	.29	0	.31	.23
Suspended prison (dummy)	.13	.39	.07	0	.09	.37
Number new crime 48 months after trial/release						
At least one crime	.48	.32	.48	.22	.49	.29
At least one crime targeted	.24	.11	.23	.12	.27	.11
At least one crime not targeted	.27	.21	.27	.13	.25	.17
All crimes	1.99	1.33	1.97	.91	2.07	1.22
Targeted by the law	.96	.49	.93	.45	1.07	.5
Not targeted by the law	1.04	.84	1.04	.46	1	.72
N	7578	8765	15060	20495	11742	15278

Note: The main sample refers to offenders who committed the reference crime in the 180-day periods before or after the reform as recidivists or repeat offenders and adjudicated in no more than 6 months. Columns 1, 3 and 5 present the descriptive statistics for offenders in the main sample who had a codefendant at the reference trial, had a codefendant at a preceding trial, or are judged in a court session together with a first-time offender convicted of the same crime. Columns 2, 4 and 6 present the descriptive statistics for the main sample's codefendants, former partners or first-time offenders convicted at the same court session for the same crime. Maximum sentences – sum of prison, probation and suspended prison time – are defined in the criminal code.

Source: Author's calculations based on criminal records provided by the French Ministry of Justice.

TABLE D2: BALANCING CHECKS OF THE OFFENDERS OF THE MAIN SAMPLE WHO PERMIT TO IDENTIFY THE “PARTNERS” (USED IN TABLES 7 AND 8, COLUMNS 1, 3, 5).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Woman	French	Age	Number Charge	Number Conviction	Property crimes	Violence	Present
Panel A: Offenders in the main sample who had a codefendant at reference trial (N=7,548)								
Treat	-0.004 (0.011)	0.019 (0.019)	0.16 (0.59)	0.069 (0.057)	-0.000 (0.006)	0.029 (0.018)	-0.020 (0.018)	-0.003 (0.021)
Panel B: Offenders in the main sample who had a codefendant at preceding trial (N=14,632)								
Treat	0.010 (0.0064)	0.015 (0.012)	-0.13 (0.29)	0.030 (0.048)	0.0016 (0.0053)	0.031** (0.013)	-0.0027 (0.012)	-0.011 (0.011)
Panel C: Offenders in the main sample judged in a court session together with a first-time offender convicted of the same crime (N=11,742)								
Treat	-0.011 (0.008)	-0.000 (0.015)	0.14 (0.44)	0.065 (0.052)	-0.010 (0.006)	0.003 (0.016)	0.009 (0.016)	-0.021 (0.015)

*Note:* Each column presents the results of a different regression (outcomes indicated in the headers). The samples are composed of offenders convicted as recidivists or repeat offenders who had a codefendant at the reference trial (Panel A), had a codefendant at a preceding trial (Panel B), or are judged in a court session together with a first-time offender convicted of the same crime (Panel C) and who committed the reference crime in the 6-month periods before and after the reform and adjudicated in no more than 6 months. Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more in prison after August 11), month-of-the-reference-crime fixed effects and group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism).

*Source:* Author's calculations based on criminal records provided by the French Ministry of Justice. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

TABLE D3: BALANCING CHECKS OF THE PARTNERS, FORMER PARTNERS AND OFFENDERS WHO ATTENDED THE SAME SESSION AS OFFENDERS OF THE MAIN SAMPLE (SAMPLE USED IN TABLES 7 AND 8, COLUMNS 2, 4, 6).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Woman	French	Age	Number Charge	Number Conviction	Property crimes	Violence	Present
Panel A: Main sample's codefendants (N=8,765)								
Treat	0.017 (0.015)	0.005 (0.021)	0.20 (0.37)	0.090* (0.051)	0.011** (0.005)	0.039** (0.018)	-0.026 (0.019)	-0.013 (0.020)
Panel B: Main sample's former peers (N=20,495)								
Treat	-0.005 (0.010)	-0.005 (0.014)	0.15 (0.42)					
Panel C: First-time offenders in court with main sample (N=15,278)								
Treat	0.006 (0.010)	-0.021 (0.014)	0.29 (0.43)	0.077** (0.031)	-0.002 (0.005)	0.003 (0.017)	0.004 (0.016)	-0.011 (0.015)

*Note:* Each column presents the results of a different regression (outcomes indicated in the headers). The samples are composed of main sample's codefendants (Panel A), former partners (Panel B), or first-time offenders convicted at the same court session for the same crime (Panel C). Outcomes are regressed on Treat, a dummy equal to 1 for the treatment group (recidivists who committed a crime punishable by 3 years or more in prison after August 11), month-of-the-reference-crime fixed effects and group fixed effects (interaction between maximum sentences and a dummy equal to 1 if the reference crime is considered recidivism).

*Source:* Author's calculations based on criminal records provided by the French Ministry of Justice. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$