

Are mandatory minimum sentences an effective tool to prevent recidivism?

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Adopted in August 2007 in France, the law on mandatory minimum sentences introduced harsh minimum penalties for legal recidivists, that is, individuals convicted for the second time for similar offences. The reform was followed by effects, in the sense that there was a very clear increase in the sanctions pronounced against recidivists upon its adoption. The other sentences, against first-time offenders or repeat offenders (defined as individuals committing two different crimes), remained unchanged. Intended to combat delinquency through its deterrent effect, the law, however, seems to have had limited detectable deterrent effects. In the short term, there is no observed decrease in recidivism. In the medium term, individuals who have been sentenced to a minimum sentence seem to have learned the reform. Indeed, it is noted that their probability of committing a new crime eligible for a minimum sentence decreases, while their probability of committing another type of crime remains unchanged. This adaptation is, therefore, specific to the new system and does not lead to an overall decrease in delinquency. Moreover, this learning process does not seem to have spread widely among the criminal population. In total, the law on minimum sentences has had a very significant effect on the incarceration rate in France but a deterrent effect of limited magnitude.

- On August 10, 2007, the law on mandatory minimum sentencing came into effect, introducing high minimum penalties for legal recidivists, meaning individuals convicted twice for similar offenses.
- The law induced a sharp increase in prison sentences for recidivists (fixed sentences 50 % higher, suspended sentences with probation three times higher), but no change in sentencing for repeat offenders or first-time offenders.
- The law did not have a deterrent effect in the short term.
- In the medium term, individuals who received these minimum sentences recidivated less (10 % lower probability), but only for offenses eligible for minimum sentences. Their likelihood of committing other offenses has not changed.
- Individuals who received minimum sentences appear to learn the letter of the law. This, coupled with a weak spread to co-offenders, has resulted in a low overall deterrent effect of the reform.



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Deterrence is often the stated goal of penal policies. If the threat of harsher sentences could prevent certain crimes, then increasing the sentences might reduce both delinquency and the sanctions pronounced, since fewer people would be convicted.

Several empirical studies have examined this question in the United States. The results across the Atlantic are mixed. Initially, researchers looked into the famous three strikes law in the United States, which punishes with extremely long sentences (over 20 years) those who commit a third offense. These studies have highlighted significant deterrent effects (Helland and Tabarrok, 2007) but also significant adverse effects: the third crimes are fewer but more violent, and there is increased resistance to arrests (Iyengar, 2008). Other work on less extreme—though still significant—increases in sanctions found limited effects (McDowall, Loftin, and Wiersema, 1992; Abrams, 2012). Finally, some researchers have focused on the judicial treatment differences between adult and minor offenders. Their work shows no change in behavior just before and just after reaching adulthood despite a drastic increase in sanctions (Hjalmarsson, 2009; Lee and McCrary, 2017; a review of all this literature can be found in Chalfin and McCrary, 2017).

The results presented in this note document the effects of one of the most significant French penal reforms of the 21st century: the law on mandatory minimum sentences. Directly inspired by the American three strikes laws, the law aimed to deter recidivism. The results show a clear increase in sentences, but no significant decrease in delinquency in the short term and only a small effect in the medium term. The study also allows for an examination of how knowledge of the law is disseminated among the population, thus enabling a better understanding of the diversity of results obtained by studies on deterrence.

Minimum sentences: overview of the law

The "law strengthening the fight against the recidivism of adults and minors" known as the "law on mandatory minimum sentences" was the first major reform adopted following Nicolas Sarkozy's rise to power in 2007. A long-time advocate of automatic sentencing, the new president had made it a strong political symbol and one of his main campaign promises. The text was voted on during a special session of parliament, convened in the summer of 2007, and followed an emergency procedure that shortened the debates. Passed in the Senate on July 5 and in the Assembly on the 18th, the law came into effect on August 10, three months after the presidential election.

The main measure of the 2007 law known as the "law on mandatory minimum sentences" was the introduction of minimum sentences for individuals convicted of recidivism.

The main provision of the text was the introduction of minimum sentences for individuals convicted of recidivism. These "floors" were pegged to the maximum penalties already provided for by the penal code. Thus, recidivists were subjected to:

- a minimum sentence of 1 year in prison for offenses punishable by 3 years in prison;
- a minimum sentence of 2 years in prison for offenses punishable by 5 years in prison;
- a minimum sentence of 3 years in prison for offenses punishable by 7 years in prison;
- a minimum sentence of 4 years in prison for offenses punishable by 10 years in prison.

No floor was set for offenses punishable by less than 3 years in prison. Moreover, it was provided that courts could depart from the minimum sentences with a specially motivated decision and in cases of specific reintegration guarantees.

Beyond the automatic nature of the sentences introduced, it is important to note several characteristics of this reform to understand its effects. Firstly, when the law refers to "prison," it includes both fixed-term imprisonment and suspended sentences. Thus, a one-year minimum was effectively reached when a person was sentenced to 3 months of fixed-term imprisonment and 9 months suspended with probation.

Secondly, the thresholds set are very harsh in comparison to existing practice. While they may seem modest compared to the maximums¹ they are significantly higher than the average sentences pronounced against recidivists before the reform. For example, at the beginning of 2007, recidivists convicted of an offense punishable by 3 years in prison received sentences of about 6 months, with 4 months fixed; those convicted of a 5-year offense received 6 months, with 5 months fixed. The reform imposed sentences equal to or above 1 year or 2 years for such offenses.

¹On the gap between pronounced sentences and the maximum penalties provided for by the penal code, see IPP Note n°99

The definition of recidivism (new conviction for similar offenses) restricted the population targeted by the law to 7.5 % of the people convicted in 2006.

Thirdly, the scope of the reform was more limited than what the public debate might suggest. Indeed, in common sense, a recidivist is someone who commits multiple crimes. However, this is not the case under the law. For the penal code, an offense is qualified as recidivism if it is the same (or similar) as an offense previously convicted within the past 5 years. For example, a person committing theft less than five years after a theft is legally considered a recidivist, but not someone committing theft after drug use². In the second case, the offender is said to be a repeat offender, and this behavior was not targeted by the law on minimum sentences.

This difference in definition drastically reduced the target. Indeed, in 2006, 39 % of those convicted had previously been convicted but "only" 7.5 % were recidivists in the legal sense of the term.

The law on minimum sentences was widely covered by the media and extensively debated. A significant part of these discussions focused on the deterrent effects of the automaticity of the sanctions and on the restriction of the powers of judges. The severity of the text and the harshness of the thresholds were less frequently noted. Above all, the exact scope of the reform and the precise definition of recidivism were almost entirely overlooked. Only 15 % of television news reports and 5 % of articles in *Le Monde* and *Le Parisien* dealing with minimum sentences mentioned the difference between the common sense and legal definition of recidivism. This was also not addressed by the Justice Minister carrying the reform during her various interviews.

A significant increase in sanctions due to the reform

The average prison sentences per month are shown in Figure 1: sub-figure (a) for prison; sub-figure (b) for probation³. The solid lines represent the evolution of penalties for recidivists, the dashed and dotted lines, the evolution of penalties for repeat offenders and first-time offenders.

²This definition corresponds to "special recidivism." There is also "general recidivism," which does not depend on the types of offenses but the maximum penalties provided for by the penal code. Even more complex to understand and predict, this second case is less systematically recorded by prosecutors.

³The effect of the reform on simple suspended sentences is not presented here, but it is non-existent.

Finally, the dotted vertical line indicates the date of implementation of the law on minimum sentences.

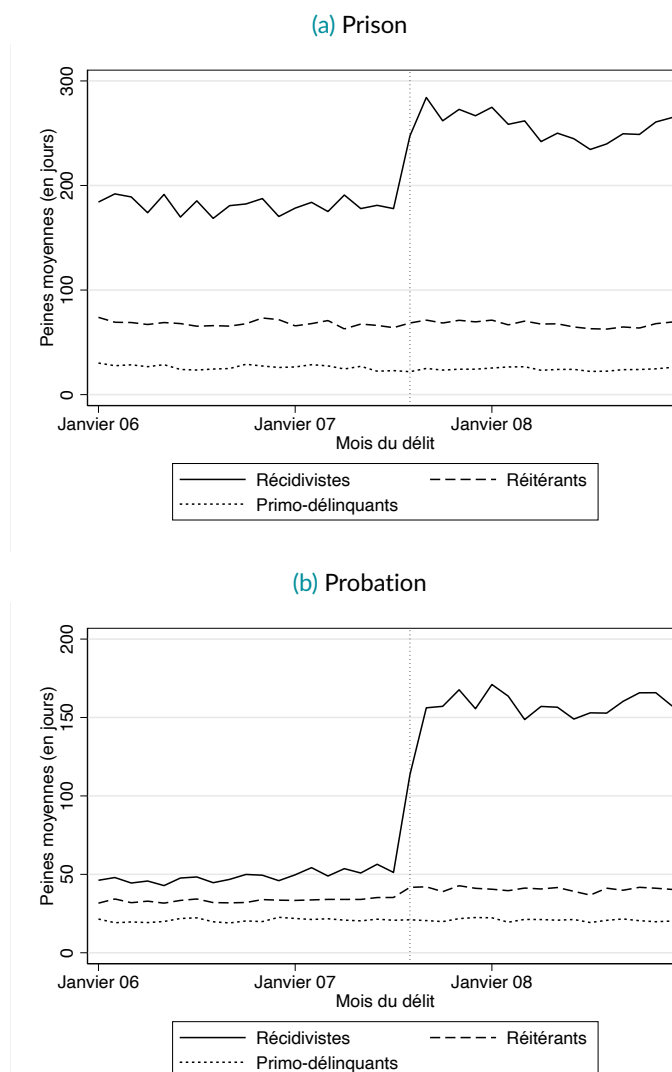


Figure 1: Effect of minimum sentences on the sentences pronounced.

Notes: Crimes, offenses committed by minors, traffic offenses, and offenses judged in more than 5 years are excluded from the analysis.
Interpretation: The figure presents the average sentences pronounced per month of commission of the offense for first-time offenders, repeat offenders, and recidivists. Sub-figure (a) shows the effect on prison days, sub-figure (b) shows the effect on probation days. The start of the application of the law on minimum sentences is indicated by a vertical bar.

The law on minimum sentences immediately and significantly increased the penalties against recidivists: the total sentence (prison, probation, and suspended) approximately doubled, rising from an average of 230 days to 430 days.

As can be seen in Figure 1, the law on minimum sentences immediately and significantly increased the penalties against recidivists. The sanctions increased from

Encadré 1 : Data used in the study.

In order to measure the effects of the law on sentences handed down by the judicial authorities, the information from the national criminal record can be used. These data, compiled as a statistical database by the Statistics and Studies Sub-Directorate of the Ministry of Justice, record, for each crime or offense sentenced in France, the sentences handed down by the courts, the procedures followed, the offenses committed, and some biographical elements about the perpetrator. Furthermore, this data contains individual identifiers allowing the identification of previous or future convictions and thus, to reconstruct the entire "criminal career" of an individual. It is therefore possible to track the evolution of sanctions before and after the law on mandatory minimum sentences for three groups of individuals: repeat offenders targeted by the law; recidivists who have already been convicted in the past for another type of offense; first-time offenders.

about 180 prison days to 280 days and from 50 probation days to 150 days, doubling the total sentence (from 230 days to 430 days). At the same time, sentences against repeat offenders and first-time offenders did not evolve (a more detailed description of the application of the law can be found in Chapter 2 of Philippe, 2022).

No Deterrent Effect

The law on minimum sentences thus led to a massive and immediate increase in sanctions against a specific type of behavior, namely recidivism, leaving other sentences unchanged. This implementation constitutes a "natural experiment" that makes it possible to quantify the deterrent effect of the reform and, more generally, the effect of sanctions on crime. Indeed, there is a "treated group" — recidivists — and two "control groups" — repeat offenders and first-time offenders — with a "shock" affecting only the former — the law. If the minimum sentences had a deterrent effect, we would then expect the number of crimes committed as recidivist to decrease in comparison to other types of crimes after August 10, 2007.

Figure 2 shows the evolution of the number of crimes that led to a conviction for our three groups. The solid line indicates the number of crimes per month committed by recidivists, while the dashed and dotted lines indicate the number of crimes committed by repeat offenders or first-time offenders. Traffic offenses, almost entirely unaffected by the reform, are excluded from the analysis.

In the short term, there is no observed reduction in the number of offenses committed as recidivist after the reform.

No reduction in the number of offenses committed as recidivist after the reform is observed, either in absolute terms or compared to other types of crimes. There are also no reductions in the number of crimes committed as repeat offender. Generally, the number of offenses committed by individuals with judicial records does not vary around the introduction of the mandatory minimums.

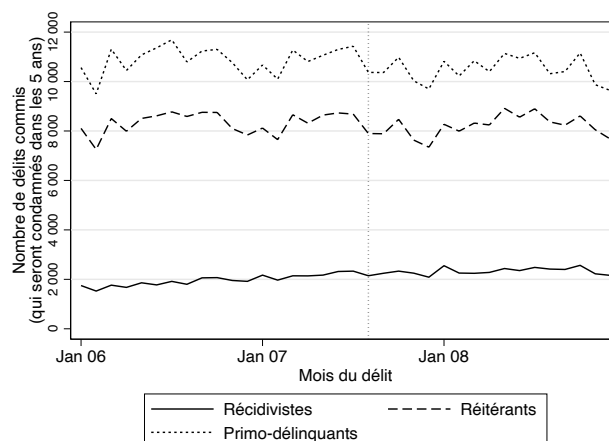


Figure 2: Number of crimes committed that resulted in a conviction between 2006 and 2008.

Notes: Crimes, offenses committed by minors, traffic offenses, and offenses judged in more than 5 years are excluded from the analysis. Interpretation: The figure shows, for each month, the number of people who committed an offense that will be convicted in the following 5 years. First-time offenders, repeat offenders, and recidivists are distinguished. The start of the application of the law on minimum sentences is indicated by a vertical bar.

These results contradict the hypothesis of a deterrent effect of the law at the time of its implementation.

More detailed statistical analyses — measuring the evolution of these three categories of offenses across each jurisdiction or using duration models — reach the same conclusion of a lack of a deterrent effect of the reform in the short term (see the reference study for more details).

Measuring the Impact of the Reform on Those Affected

Although the enforcement and media coverage of the law on minimum sentences did not induce a measurable deterrent effect, this does not necessarily mean that it had no impact. In particular, it is possible that those who received harsher penalties "learned" how the reform works and subsequently changed their behavior.

To study these dynamics, we can focus on individuals who committed offenses just before or just after the law on minimum sentences. Among these, some were convicted

as recidivists, others as repeat offenders, and yet others as first-time offenders. We exclude the latter, as they have characteristics quite different from those with previous convictions.

In the absence of a short-term deterrent effect, the composition of these groups evolved similarly around August 10. In other words, the difference between recidivists and repeat offenders remains consistent over time. It appears that characteristics recorded in criminal records, such as age, type of offense, or gender, remain the same, in each group, before and after the law's enforcement. However, the way these populations were treated by the justice system changed completely. While the penalties for repeat offenders remained stable, those for recidivists increased sharply after the reform.

To follow the effects of the law on those affected, it is then necessary to monitor the crime rate of the different groups upon their release from prison. If recidivists were deterred by their heavy penalties or have "learned" about the reform's content, we would expect them to commit fewer new offenses after the reform compared to before.

Methodologically, we thus compare the new convictions (after trial and possible incarceration) of two groups: recidivists and repeat offenders, before and after the law was enforced. More precisely, we track two types of behavior:

- identical offenses to previous infractions, likely to be qualified as recidivism and be severely punished due to the law on minimum sentences: we'll refer to these as targeted offenses;
- other offenses, different from anything the individuals have done in the past and which are unlikely to fall under the law on minimum sentences.

Separating these two behaviors is interesting in that it allows us to test the level of understanding of the reform. If all types of offenses committed upon release evolve for recidivists sentenced more harshly, we can conclude a general effect of having spent more time in prison. If, on the other hand, we observe that only the offenses eligible to fall under the law decrease, we can conclude that those sentenced under the minimum sentences have understood the reform and adapt to it.

Adapting to the reform among those affected

Figure 3 presents the evolution of the number of offenses committed within 4 years after release by individuals in our sample. It separately indicates the number of new offenses targeted by the law—i.e., similar to previous

infractions—(solid lines) and non-targeted by the law (dotted lines). Finally, it distinguishes new offense committed as recidivists (black lines) or repeat offenders (gray lines) around August 10, 2007.

As can be seen in Figure 3, individuals convicted as recidivists for an offense committed after the law, committed, within 4 years of their release from prison, a smaller number of offenses targeted by the law (solid black line). These have decreased from an average number of 1.35 to 1.17 (-13%). For these same recidivists, the number of new non-targeted offenses (dotted black line) remained practically unchanged, staying around 1.

Individuals convicted as recidivists for an offense committed after the law, committed, within 4 years after their release from prison, 13 % fewer offenses targeted by the law, but an equal number of non-targeted offenses.

Individuals who committed offenses as repeat offenders before or after the law had roughly the same behavior once their sentence was served. The number of new offenses eligible for minimum sentences within 4 years slightly decreased from 0.89 to 0.92 (solid gray line), while the number of new non-targeted offenses changed from 1.03 to 0.96 (dotted gray line).

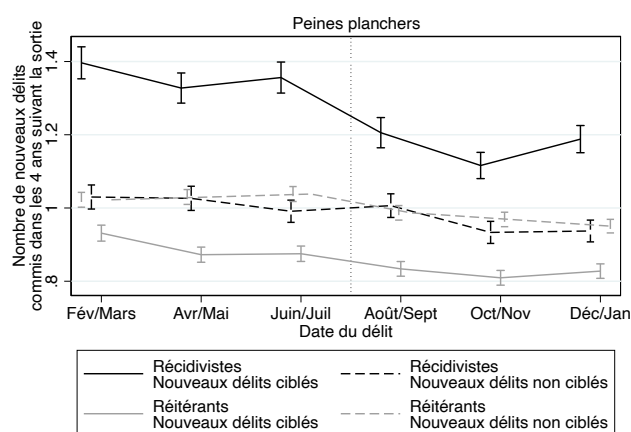


Figure 3: New offenses committed within 4 years after the sentence for repeat offenders and recidivists who committed offenses within 6 months before or after August 10, 2007.

Notes: Crimes, offenses committed by minors, traffic offenses, and offenses judged in more than 5 years are excluded from the analysis. Interpretation: Individuals who committed an offense in a state of legal recidivism in February/March 2007 committed, on average, 1.4 new targeted offenses by the law within 4 years after their release (solid black line) and 1 new non-targeted offense by the law (dotted black line). Individuals who committed an offense in a state of reiteration in February/March 2007 committed, on average, 1.4 new targeted offenses by the law within 4 years after their release (solid black line) and 1 new non-targeted offense by the law (dotted black line).

It is possible to quantify more precisely the changes due to the reform using regressions. We then measure the evolution of the difference between recidivists and re-

peat offenders before and after the reform (difference-in-differences strategy) while controlling for a set of factors: age, gender, nature of the offense, etc. These calculations show a decrease of 11 % in new offenses targeted by the law and no significant effect on new offenses not targeted by the law.

Individuals more severely sentenced because of the minimum sentences have thus committed fewer offenses after serving their sentence. However, this effect is only observed on new infractions that would again be likely to fall under the law on minimum sentences. This development is consistent with the idea of learning from the reform. We do not observe a generalized decrease in delinquency among recidivists who were heavily sentenced, but rather a circumscribed reduction adapted to the scope of the reform.

Limited spread of knowledge

The fact that the reform is gradually being "integrated" by those who have had to endure harsher penalties suggests the possibility of a broader dissemination of information within the population. If this were the case, the law could have had real medium-term effects (albeit of modest magnitude) despite the lack of short-term effects.

Studying this dissemination effect is complicated, as we do not have data on the socialization of convicted individuals—who their close relations, friends, and families are—and it is difficult to identify relevant people—those likely to commit offenses and whose behavior could be changed by new information. However, using criminal record data, we can isolate three interesting groups:

- Co-convicts: they hear the verdict at trials and presumably pay sustained attention, thus likely to learn about the law if it is applied to their partner in crime.
- Former co-convicts: they do not attend the trial, but are likely to still be in contact with their former partner in crime.
- Individuals judged during the same session: they are likely to be in the courtroom and may pay attention to the sentences pronounced before or after their case.

For these three groups, we can replicate the earlier strategy (the difference-in-differences from figure 3). This involves comparing the numbers of new offenses targeted or not targeted by the reform within four years after sentencing for individuals convicted with a recidivist or with a repeat offender. If co-convicts "learn," we would expect that individuals judged with a recidivist for offenses committed after August 10, 2007, observe the severity of the

penalties against their partner and subsequently reduce the number of new offenses that could fall under the law.

Information about the application of the new law is observed to spread, albeit limited to the small group of co-convicts.

The results for these three groups are presented on the right side of figure 4 and compared to the effects on recidivists (presented on the left). For each group, the effect of the law on new targeted offenses (black triangles) or non-targeted offenses (empty circles) is shown.

Individuals sentenced with a recidivist for offenses committed after the law on minimum sentences subsequently committed fewer offenses targeted by the reform and the same number of other offenses. These results mirror those observed for recidivists themselves. This seems to indicate that partners in crime also learn and adapt to the reform once they have seen it applied to their co-convict. In contrast, nothing similar is observed for former partners in crime or individuals sentenced in the same session.

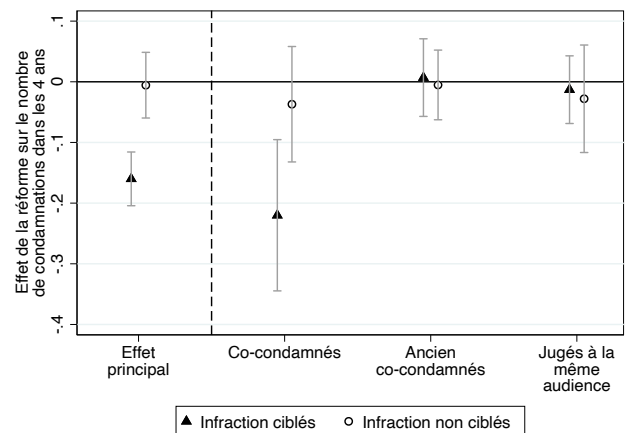


Figure 4: Spread of the effects of the reform.

Notes: Crimes, offenses committed by minors, traffic offenses, and offenses judged in more than 5 years are excluded from the analysis. Interpretation: The figure shows the effect of the law on the probability of committing a new targeted offense (triangles) or non-targeted offense (circles) within 4 years following the conviction for different groups. Individuals sentenced under the minimum sentences (on the left), individuals sentenced with them but not recidivists (left middle), individuals sentenced with them in the past (right middle), and individuals sentenced on the same day for similar offenses but in a different case (on the right).

Overall, the results of Figure 4 indicate a spread of information, but limited to the small group of co-convicts. The broader groups of trial observers, present in the courtroom at the same time, or former co-accused, potentially still in contact or friends, were not affected. It appears that the learning only occurred for individuals who were both present and interested in the verdict, making the diffusion of information slow and limited.

A significant impact on the number of detained individuals

The sharp increase in sanctions against recidivists, coupled with a weak deterrent effect, led to a significant rise in incarceration in France. This effect is visible in Figure 5. It shows the total fixed-term imprisonment sentences handed down per year from 1998 to 2016 (for adults). This number increased from 80,000 years in the early 2000s to over 100,000 years in 2016. Within this total, the cumulative number of prison years imposed for crimes (light gray) or offenses committed by first-time offenders or repeat offenders (dark gray) tends to decrease, while the share taken by recidivists (black) increases sharply from 2007, rising from about 10% to 30% over a few years. It is important to note that this effect is still visible in 2016 despite the repeal of the law on minimum sentences in 2014, which, in practice, did not lead to a reduction in sanctions (see Philippe, 2022, Chapter 2).

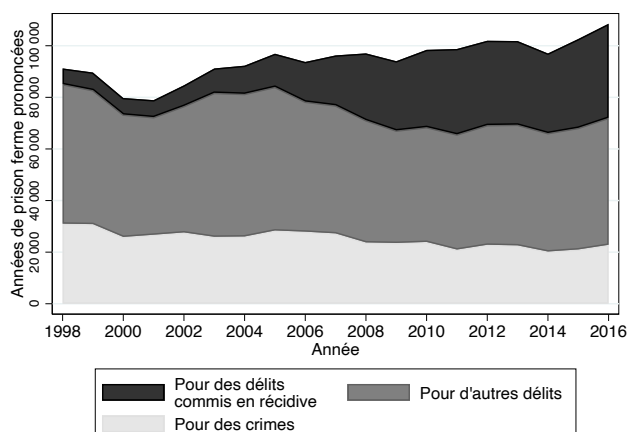


Figure 5: Number of prison years imposed per year from 1998 to 2016.

Notes: All offenses included.
Interpretation: The figure shows the number of cumulative prison years by category annually.

Similar results were obtained by the Ministry of Justice. For the period 2008-2010, the assessments concluded in a 4% increase in the number of prison years imposed per year, totaling around 4000 years (Leturcq, 2012).

Conclusion

The study of the minimum sentencing law teaches us several things. Regarding the reform itself first. From a public policy evaluation standpoint, the law had no short-term effect and only had a limited effect in the medium term. Crime rates did not decrease because the effects presented are limited to a very small number of crimes.

Indeed, while there is a decrease in certain types of delinquent behaviors, it only concerns potential recidives committed by recidivists," meaning second or third offenses, behaviors that represented around 1.75 % of convictions before the reform. The limited dissemination of information (in a context of numerous announcements without effects on sentences, or even mentioned in IPP note no. 99) likely limited the effects of the law on crime.

This modest effect on crime should be considered in relation to the costs incurred in terms of incarceration. If we look at evaluations from the Ministry of Justice in 2012 (Leturcq, 2012), the law led to an increase in the number of incarcerated individuals by around 4 000. The average cost of a day of detention being estimated at around 100€ (Senate Report on the 2015 Budget Bill, Part B), this results in an annual cost of around 146 million euros. This is a low estimate, not taking into account the costs related to the construction of new prisons.

Beyond the reform itself and its effects on penal system in France, the minimum sentencing law sheds light on the observed differences in the measurement of the deterrent effect of sanctions. It highlights the importance of readability and understanding by the target audience. It helps to understand, at least in part, why a globally famous and extremely harsh reform, such as the "three strikes law," could have measurable deterrent effects (although rather disappointing), where other changes in severity, less identifiable by the population, may fail to affect crime.

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