

**INTERNATIONAL NETWORK FOR ECONOMIC RESEARCH**

## **Can Recidivism Be Prevented From Behind Bars?**

William Arbour<sup>1</sup>

<sup>1</sup> *Department of Economics, University of Toronto*

---

*While in prison, inmates can take part in various programs that aim to encourage their reintegration into society. These programs include vocational workshops, anger management and behavioral therapy. Yet, the effectiveness of these programs is still being debated. This policy brief addresses the critical question: can an offender become a law-abiding citizen during a short incarceration period? I examine the effects of a large-scale behavioral intervention aimed at high-risk inmates in prisons from Québec (Canada) and find the likelihood of recidivism drastically decreases in the short term. This policy brief provides an overview of the main findings from Arbour (2021).*

---

While research on every aspect of criminal behaviour is growing, researchers have yet to learn about criminal psychology and the human mind, including the motivation to engage in criminality and ways to deter future involvement (Doleac, 2020). One aspect of criminality that remains unclear and understudied is the effect of incarceration on inmates, one of the most common methods of punishment. Despite a host of possible negative consequences of institutionalization, increasing evidence suggests that prison time in environments that emphasize prosocial

activities and rehabilitation is beneficial to inmates (see Bhuller et al., 2020; Mastrobuoni and Terlizese, 2020; and Arbour et al., 2021 for a complete review). Our understanding of the mechanisms remains extremely limited. Several authors advance that detention can provide an opportunity for inmates to take part in programs that enable them to sharpen and gain new skills, receive group support or individual therapy, and undertake an internal process of reflection.

While numerous studies have attempted to investigate the effectiveness of prison-based

programs, most of them have been unable to deal with the issue of selection into programs (Davis et al., 2013). First, most, if not all, programs are voluntary. As a result, participants could be intrinsically different from non-participants in ways the researcher cannot observe (e.g., motivation or remorse). Second, prison counsellors could advise participation for inmates most likely to benefit from programming. Thus, a naive comparison between participants and non-participants is potentially biased.

### ***Parcours*: A Program for Short Sentences**

In Québec, Canada, provincial prisons house inmates serving less than two years, while those serving lengthier sentences are the federal government's responsibility. In 2007, the provincial prisons started implementing *Parcours* (French for *journey*), a 24-hour intervention targeting high-risk, treatment-averse inmates. The program aims to prevent recidivism by leading participants to think through the consequences of their actions and make informed decisions once they are released. Like other programs, *Parcours* participants enrol on a strictly voluntary basis.

Inmates are randomly assigned to a risk evaluator at their sentence's onset. Risk evaluators are responsible for identifying the inmates' needs and for completing a personalized intervention plan. After their assessment, they can recommend participation in *Parcours*. The risk assessors display varying propensities to recommend the program: while some evaluators recommend it to most of their assigned inmates, some rarely recommend it. Thus, the random assignment of inmates to risk evaluators creates random variation in the inmates' likelihood of participating. I can exploit this random variation in an instrumental variable framework to isolate the

program's causal effect on recidivism—an effect that is unconfounded with prisoners' motivation or other unobservable characteristics.

I find that participation in the program reduces the likelihood of recidivism, as measured by another crime being committed, by around 18 percentage points within one year following the inmate's release. As shown in the figure 1 below, the program's effects appear to be concentrated in the short term and dissipate past the one-year mark suggesting that the program successfully postpones recidivism by several months, still reducing the total incarceration time significantly.

### **Contributions and Mechanisms**

This analysis is one of the first to credibly identify the effects of a behavioural program on recidivism, as the number of well-identified studies is surprisingly limited. In addition, the paper highlights several psychological facets of a criminal's decision-making process. Unlike static factors, such as age or sex, the effects of dynamic factors, such as attitude towards authority or accountability for one's actions, are more challenging to assess. A program like *Parcours* can strengthen such behavioural factors in a relatively short and low-cost intervention period. Lastly, the results emphasize the critical role of risk assessors in prison settings whose recommendations can alter inmates' criminal trajectories.

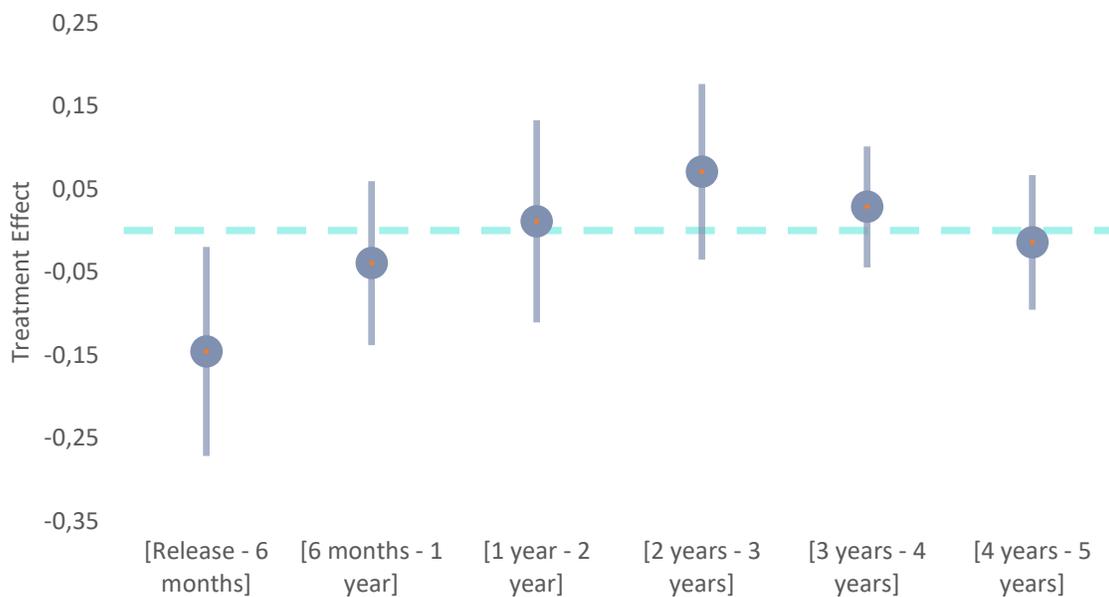
To better understand the mechanisms by which the program affects inmates' behaviour, I examine other relevant outcomes. I show that the program significantly reduces the number of future offences in the short term, that is, when repeat offences are most likely. For inmates who do reoffend, I find little evidence of

behavioural changes. For instance, the program does not significantly affect the probability of the following crime being violent in nature, such as an assault against a person.

However, the program is shown to significantly postpone reoffences, if any. Thus, I argue that re-entry programs might be vital in ensuring continuity of intervention upon incarceration. I do not find evidence that the program increases one's likelihood of being granted parole, which could have directly affected the probability of recidivism

(Kuziemko, 2013). Therefore, I suggest that the causal channel on recidivism is how effective the program targets complex, dynamic criminogenic factors that alter the participant's preferences for lawful activities. I explore heterogeneity in the results with the implementation of causal random forests (Athey et al., 2019). I find no compelling evidence of heterogeneity, suggesting that participants from all criminal backgrounds, and who have been prosecuted for a variety of crimes, appear to respond similarly to the program.

Figure 1. Recidivism Within the Interval...



# Implications

The paper sheds light on a critical issue, but several questions remain unanswered. For instance, it remains unclear how the program tackles the specific issues of Indigenous and women offenders. Other measures, such as educational training or mental health therapy, would also gain credibility from further research. There appears to be a large gap in the criminal research field regarding not only crime prevention, but in the treatment of criminals both during detention and in aftercare. Further evidence for other types of programs, settings, and participants' profiles is required to improve policies encouraging successful reintegration. For the time being, the great advantage of programs like *Parcours*, as demonstrated in Arbour (2021), is that it brings us one step closer to preventing recidivism from behind bars.

## References

- Arbour, W. (2021). *Can Recidivism be Prevented from Behind Bars? Evidence from a Behavioral Program*, INFER Working Paper Series 2021.07, INFER-International Network for Economic Research
- Arbour, W., Lacroix, G., & Marchand, S. (2021). Prison Rehabilitation Programs: Efficiency and Targeting, IZA DP No. 14022
- Athey, S., Tibshirani, J., & Wager, S. (2019). Generalized random forests. *The Annals of Statistics*, 47(2), 1148-1178.
- Bhuller, M., Dahl, G. B., Løken, K. V., & Mogstad, M. (2020). Incarceration, recidivism, and employment. *Journal of Political Economy*, 128(4), 1269-1324.
- Davis, L. M., Bozick, R., Steele, J. L., Saunders, J., & Miles, J. N. (2013). Evaluating the effectiveness of correctional education: A meta-analysis of programs that provide education to incarcerated adults, RAND Cooperation, <https://www.jstor.org/stable/10.7249/j.ctt4cqdz5>
- Doleac, J. L. (2020). Encouraging desistance from crime. Available at SSRN, <http://dx.doi.org/10.2139/ssrn.3825106>
- Kuziemko, I. (2013). How should inmates be released from prison? An assessment of parole versus fixed-sentence regimes. *The Quarterly Journal of Economics*, 128(1), 371-424.
- Mastrobuoni G., Terlizzese D. (2021). Leave the Door Open? Prison Conditions and Recidivism. *American Economic Journal: Applied Economics* (Forthcoming)



Website:

<https://infer-research.eu/>



Contact:

[publications@infer.info](mailto:publications@infer.info)