Policies of Criminal Records in Frictional Labor Markets

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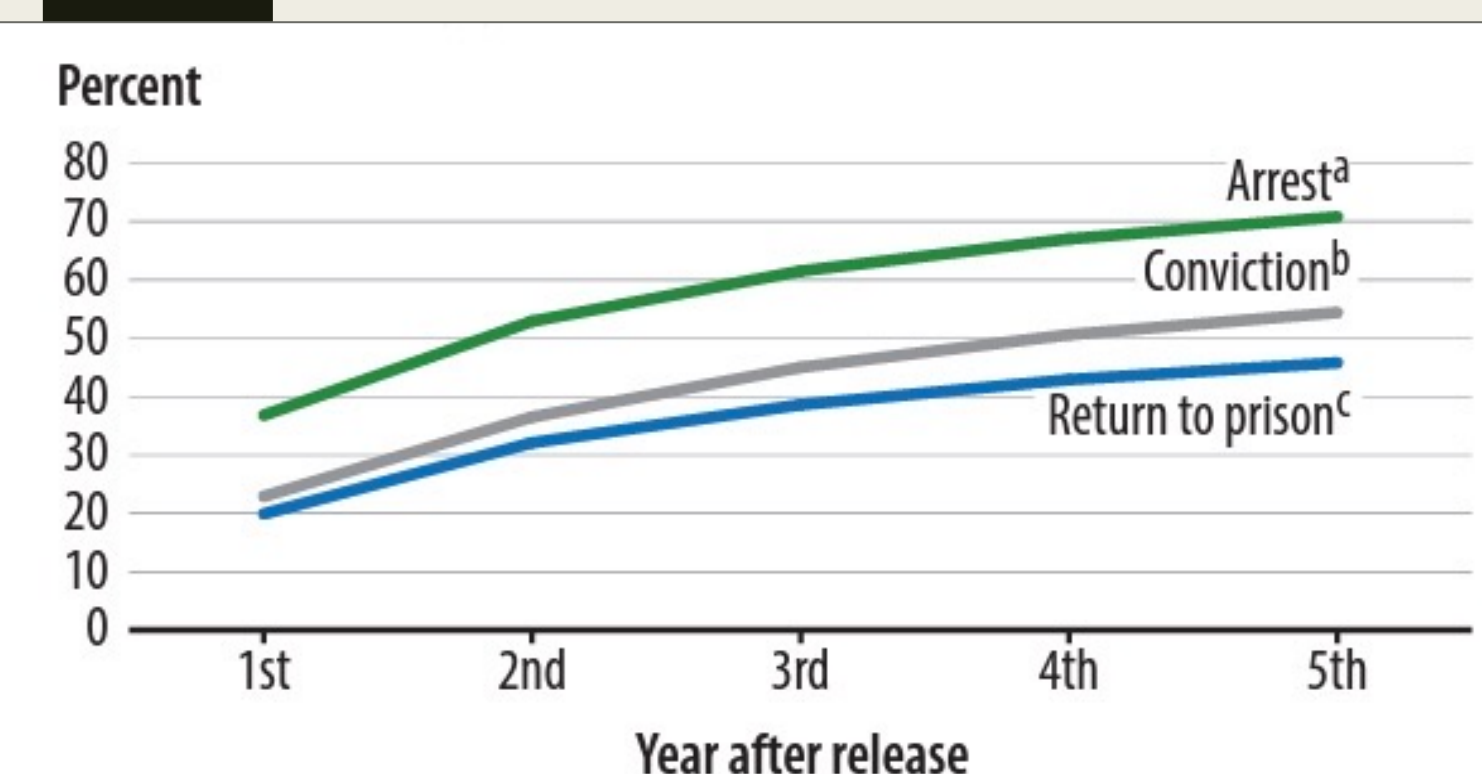[1]Aarhus University; [2]University of Balearic Islands

Abstract

- "**Ban-the-Box**" policy is a policy that does not allow employers ask crime-related questions in the application stage. There are 37 states in US have implemented the BTB policy state-wide.

- This paper studies the effects of **the BTB policy** on labor market outcomes, crime rates, and recidivism rates by constructing a theoretical model based on labor search and matching framework. Before the BTB policy is implemented, firms that ask about criminal records in the application process exclude workers with criminal records, while firms that do not ask crime-related questions possibly match with both workers with and without criminal records.

- No firms run background checks after the BTB policy is implemented at the steady state equilibrium. The BTB policy reduces the cost of committing crimes and it only benefits the unemployed ex-offenders. Therefore, the overall crime rate and the recidivism rate increases after the BTB policy implementation.

- We also provide an alternative policy on criminal records: **criminal record dismissal**. It has implemented in Denmark. The criminal records are removed for private usages in 5 years after ex-offenders are released from jail. This policy encourages ex-offenders staying in labor market, instead of returning to the crime market.
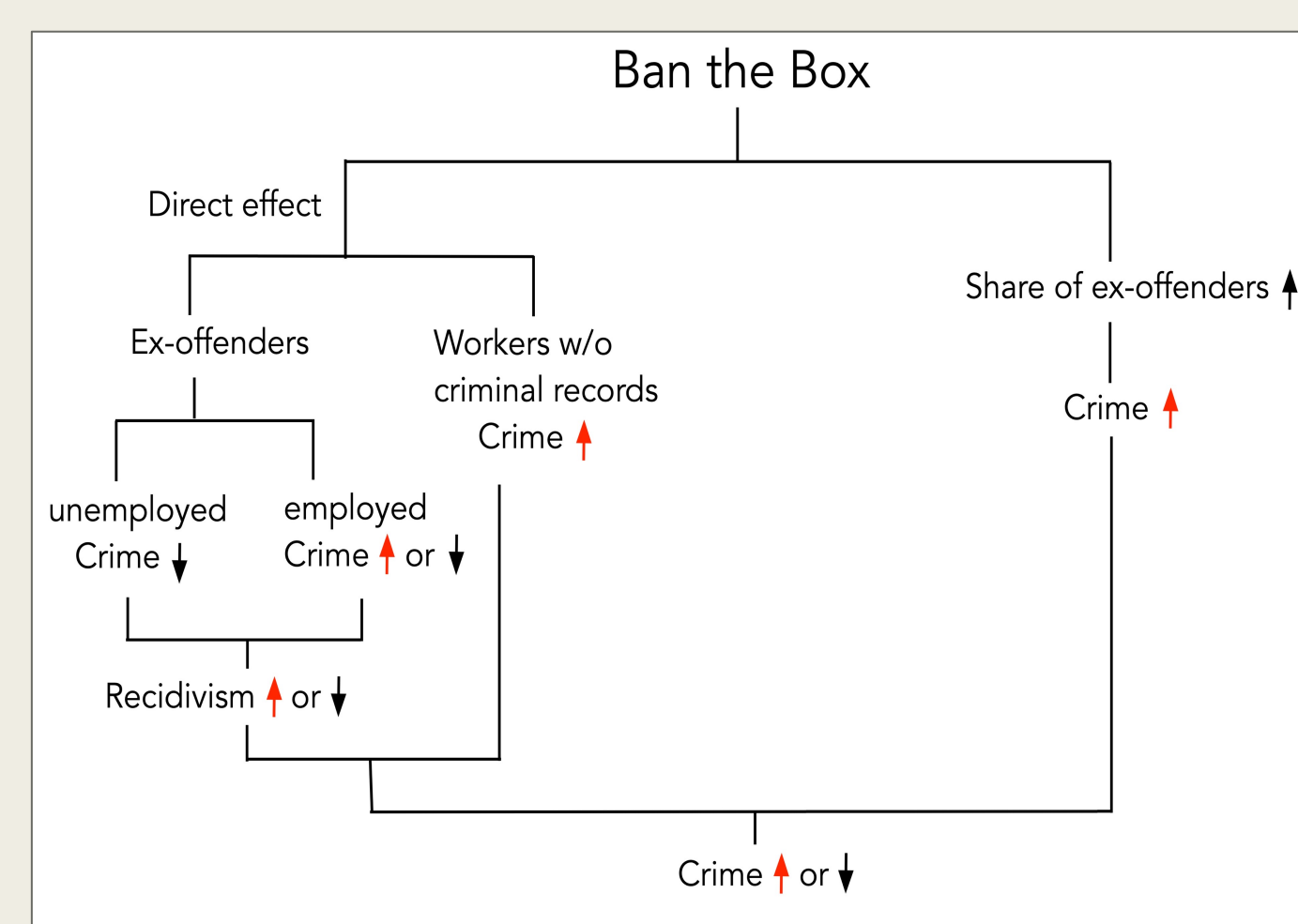
Model Environment

- Workers:
  - Search in the labor market with or without criminal records
  - Randomly match a firm in the labor market
  - Encounter a criminal opportunity at a certain arrival rate: commit a crime or not?
  - Criminals are arrested at a certain probability → workers with criminal records
- Firms:
  - Choose a labor market: restricted market for workers without criminal records, or non-restricted market for all unemployed workers
  - Post a vacancy to hire workers with a flow cost
  - Randomly match a worker in the labor market
  - Wage determination: Nash bargaining with optimal contract following Stevens (2004) and Engelhardt et al. (2008)
- Before the BTB policy
  - Restricted market: firms that ask about criminal records on job applications. These questions automatically exclude ex-offenders from the beginning of the hiring process. Ex-offenders do not apply for jobs in the restricted market.
  - The non-restricted market: firms do not ask about criminal records. All workers can search in the non-restricted market, regardless of their criminal record status.
- After the BTB policy,
  - Checking criminal records after the application stage.
  - Firms in the restricted market either exit the market, or do not check criminal background of potential employees.

Policy Mechanism

- The policy effects come from two channels: the direct effect on cost of committing crimes and the indirect effect from the labor force composition.

- Direct effect of workers without criminal records: they are **more likely to commit crimes** as the cost of committing crime only with the legal sentence and no stigma penalties.

- Direct effect of unemployed ex-offenders: the BTB policy helps them to find a job as there are more vacancies available. The labor market is more attractive, and they stay away from the crime market. The crimes that committed by unemployed ex-offender **decreases**.

- Direct effect of employed ex-offenders: there are two conflict effects on the criminal behavior of employed ex-offenders. The first one is the reduction of cost of committing crimes. It causes **an increase in crimes** committing by employed ex-offenders. On the other hand, the ex-offender-friendly labor market make it attractive and employed workers would like to **stay in the labor market**. The general effect on criminal behavior of employed ex-offenders is that the effect on the cost of committing crime dominates and they are **more likely to commit crimes**.

- General effect on recidivism: employed ex-offenders are more likely to commit crimes while unemployed ex-offenders stay in the labor market. Since we have more employed ex-offenders in the labor market, the overall recidivism rate **increases**.

- Indirect effect via the composition of labor force: the reduction on cost of committing crime makes the criminal opportunities more attractive to workers without criminal records and employed ex-offenders, which are most of the labor force. Therefore, there are **more ex-offenders**. Even the labor market becomes more friendly to ex-offenders, they are still relatively more likely to commit crimes. As a result, **the overall crime rate increases**.
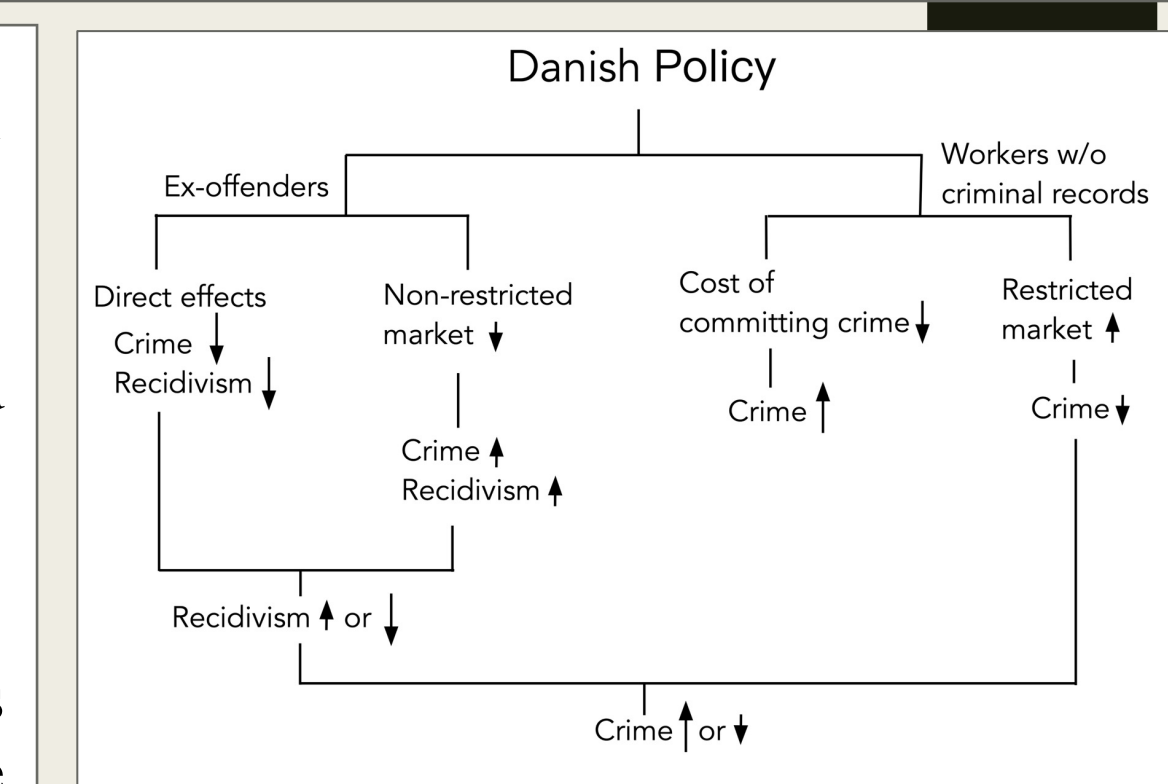
Results

- After the BTB policy implementation, firms from the restricted market can still run background checks during the hiring process before they officially hire the worker. At the equilibrium, however, no firms will run background checks. Running background checks causes **extra search costs** for firms from the restricted market. This policy increases the job finding rate of ex-offenders and helps the unemployed ex-offenders. It also reduces the cost of committing crimes such that other workers in the market have higher incentives to commit crimes.

- Quantitatively, we estimate empirical moments and calibrate the model with Current Population Survey (CPS) and Uniform Crime Report (UCR) in the US in 2010 – 2015.

- The model predicts the effects of the BTB policy:

  - The labor market tightness in the restricted market **reduces by 0.0280 (4.6%)**, while the labor market tightness in the non-restricted market **increases by 0.2033 (54.2%)**

  - Wages of ex-offenders increase by 0.87%, while wages of workers without criminal records decrease by 2.58%.

  - The unemployment rate of workers without criminal records **increases 4.51 percentage points**. Whereas the unemployment rate of ex-offenders **decreases 2.24 percentage points** since the job finding rate of ex-offenders rises. In general, the total employment in the labor market **decreases by 3.05 percentage points**. It consists with the empirical findings in Doleac and Hansen (2020).

  - The crime rate **increases by 25.6 offenses per 1,000 population** after the BTB policy implementation.

Discussion

- An alternative policy proposal: **criminal record removal**
  - In Denmark, criminal (imprisonment) records are removed 5 years after released from jail.

- This policy also reduces the cost of committing crimes and encourages ex-offenders stay in the labor market.

- For ex-offenders:
  - Direct effect: the value of staying labor market increases as they can become "normal" in 5 years. Ex-offenders become **less likely to commit crimes**.
  - Indirect effect: more ex-offenders stay in the non-restricted market and increases the difficulties of finding job for ex-offenders. Ex-offenders are **more likely to commit crimes**.

- For workers without criminal records:
  - Direct effect: ex-offenders can become normal at some points such that the cost of committing crimes reduces. Workers without records commit more crimes with **the reduction of cost of committing crimes**.
  - Indirect effect: the restricted market becomes tighter as the unemployed workers without criminal records are more likely to commit crimes. It helps workers without criminal records to find a job. Therefore, workers without criminal records would like to **stay in the labor market**.

- General effects:
  - The recidivism rate slightly **decreases**
  - The overall crime rate **increases**

	BTB	Criminal record dismissal
Unemployment: no records	4.51	-0.09
Unemployment: ex-offender	-2.24	0.23
Crime rate	25.59	10.23
Recidivism	3.43	-0.42

Conclusions

This paper studies the effects of **BTB policy** by constructing a model with search and matching framework.

- Before BTB policy is implemented, ex-offenders can search only in the non-restricted market where they are not asked questions about criminal records.

- After BTB policy implementation, no firms run background checks because it causes additional search costs. Ex-offenders have more employment opportunities after the BTB policy implementation, but the policy does not help to reduce the overall crime rate and the recidivism rate. The main reason is that the BTB policy reduces the cost of committing crimes and only benefits unemployed ex-offenders. The rest of workers have more incentives to commit crimes.

- For future research, we consider the model with heterogeneous productivity, discrimination hiring strategies, and on-the-job search.

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