Inmates' Knowledge, Perceptions, and Preferences: Evidence from Czech Prisons*

Daniel L. Chen†, Lubomír Cingl‡, Arnaud Philippe§, and Michal Šoltés¶

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Abstract

Crime and recidivism impose large and preventable costs on the society. To test current major theories of causes of criminal behavior in a unified framework, we carried out a unique data collection of prison inmates' and college students' knowledge, perceptions, and preferences related to Becker's theory of a rational criminal, counter-culture identity formation, procedural justice, excessive risk-taking, and optimism bias. Our results show that inmates and students differ in almost all dimensions studied. We find that inmates as compared to students a) view the parameters of the criminal justice system as more strict; b) are more generous with other people; c) trust others less; d) declared lower trust in public institutions, especially towards the criminal justice system; e) are more risk averse; f) are more optimistic about position of just released inmates in society.

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†Toulouse School of Economics (Email: daniel.chen@iast.fr)

‡Department of Economics, Faculty of Economics, Prague University of Economics and Business & CERGE-EI Foundation Teaching Fellow (Email: lubomir.cingl@vse.cz)

§University of Bristol (Email: arnaud.philippe@bristol.ac.uk)

¶Faculty of Law, Charles University & CERGE-EI Foundation Teaching Fellow (Email: soltesm@prf.cuni.cz)

1 Introduction

Crime and recidivism impose large and preventable costs on the society. The cost of the prison system in the Czech Republic in 2014 was almost 8 billion CZK, with a constant occupancy above the capacities of prisons and numbers of inmates above 20,000. The rate of recidivism is also high: in 2017 there were only 37.2% of inmates incarcerated for the first time (Statistická ročenka Vězeňské služby ČR 2017).

Many different theories aim to explain the causes of criminal behavior. Since the time of Cesare Lombroso and Sigmund Freud who claimed that criminality is caused by genes or mental illness, the science of criminology has come a long way. The most recent theories link criminal behavior to (i) the counter culture motivation of criminals, i.e., following norms and values distinct from the majority society (Cohn et al., 2015); (ii) homo economicus theory, which postulates that criminals rationally respond to incentives and weight expected benefits against the costs and probability of receiving punishment (Becker, 1968); (iii) a refinement of homo economicus theory suggesting that criminals tend to be excessively risk seeking; and (iv) procedural justice theory, according to which criminal behavior is motivated by a severe distrust in public institutions (Tyler, 2003). Additionally, we investigate the optimism bias of inmates, suggesting that they are more optimistic about the future consequences of imprisonment.

We contribute to the literature by being the first to compare the predictions of theories of crime to empirical measurements in a large sample of prison inmates and non-criminals (college students) in a clean, unified environment. The theories have been so far been tested only in isolation, with always only one being highlighted. We consider as important to understand how the respective theories of crime are reflected in the real behavior of affected population, as it bears important policy implications.

To evaluate which of the theories yields the largest predictive power, we first need to understand how criminals, potentially of varying types, differ from the general population. In this paper, we report on a unique survey/lab-in-the-field experiment conducted among the Czech prison inmates and university students to test the above-mentioned theories of criminal behavior. Our sample includes 489 male prison inmates from 15 low to medium security prisons in the Czech Republic and 160 college students.

To understand the counter culture motivation, we test for a difference in trust and altruism toward other inmates vs. non-criminals using a standard trust game (Berg et al., 1995) and complement it with a triple dictator game (Kahneman et al., 1986). In a position of a sender, inmates and students decide how much of 7 postal stamps/tokens to send once to an inmate and another time to a non-criminal. The counter culture theory predicts that inmates will send relatively higher share of their endowment to

other inmates.

Becker's theory of a rational criminal is tested in a series of ten questions asking for a perceived probability of being arrested for several major types of crimes, and, conditional on being arrested, on the severity of punishment (Becker, 1968). Except for one question, they are all incentivized based on the comparison with the real world situation as indicated by the police and prison statistics for the three years preceding the data collection. This theory predicts that inmates will be more accurate and/or optimistic at estimates of sanctions and/or probability of being caught than students; and this should particularly hold in their "area of expertise".

With respect to the excessive risk-taking attitudes of inmates, we elicit risk aversion in a standard incentive-compatible way after Gneezy and Potters (1997) and in a validated question on general risk-taking attitude based on Falk et al. (2018). In the incentivized task, subjects decide what share of 5 stamps/tokens to keep or invest into a lottery that pays with equal probability a triple of investment or nothing, while in the question they state on a Likert scale 1-11 their general willingness to take risks. The idea that criminals are less risk-averse than the general population is well-established in the economic literature; however, it has not been tested in a unified environment and compared to other theories of crime.

The procedural justice theory is tested using a battery of questions on perceived credibility of the judicial and health-care systems. Subjects answer on a Likert scale, how much a respective system is treating everybody in the same way, and how much they trust information from people employed in the system. The prediction of the theory is that average perception of state legitimacy among inmates is weaker than among the non-inmate population.

Our main findings actually raise more questions than provide answers. We find that inmates (i) perceive parameters of criminal justice (probability of being caught, probability of incarceration, and an expected length of incarceration) as more strict than students; (ii) are more generous as measured by the dictator game than students, do not discriminate against other inmates; (iii) trust other people less than students; (iv) are more risk averse; (v) report lower level of institutional trust, especially towards the judicial system; (vi) are more optimistic about position of just released inmates in society.

Literature review We focus on theories of criminal behavior established in social sciences. Psychological studies on the causes of criminal behaviour conform with the nurture argument in that they show the way one is raised and the factors that influence one's childhood model one's behaviour. The influence of a role-model on criminal behaviour is significant: sons who have a good relationship with their criminal fathers tend to be-

have more like them, producing a "second generation effect," and parental incarceration reduces the tendency to commit crime amongst children (Hjalmarsson and Lindquist, 2009). Ethnicity also influences the way criminals respond to certain life events and alter their choices around criminal activity (Dasgupta et al., 2021). Additionally, individuals tend to believe in a just world because of indoctrination during childhood and rationalise hate crimes as justifiable acts provoked by victims. This leads them to develop an animus against the disfavoured group, increasing discrimination and crimes against them (Dharmapala et al., 2008). However, when individuals are exposed to less favourable groups, such as ethnic minorities, attitudes towards them become less prejudiced (Schindler and Westcott, 2021; Albrecht et al., 2020). Apart from inherited traits and behavioural transference, social background also plays a contributive role (Hjalmarsson and Lindquist, 2009). Heller et al. (2017) show that automaticity, which is the process of developing automatic responses that are adaptive to commonly faced situations, plays a significant role in deviant behaviour. Male youth living in disadvantaged areas develop defensive automatic responses and apply them in normal, non-aggressive situations, increasing their chances of exhibiting aggressive behaviour. Individuals with criminal tendencies, therefore, are not outcasts but a part of society that deviates from the norm (Becker, 2008). This connects to sociological theories of crime that argue that crime is normal and inevitable. Even in a "society of saints", deviants would exist because not every individual adheres to the same values and beliefs of a society, hence forming its margin (Durkheim, 2000). Among criminals, however, there seems to be a counterculture motivation to follow norms distinct from the rest of the society and integrate into a brotherhood. Cohn et al. (2015) show that individuals with a criminal identity cheat more when their criminal identity is exogenously made more salient, and the measures of prison inmates cheating correlate with their in-prison offenses (Cohn et al., 2015). Interestingly, in spite of this integration, the presence of informants is necessary (but not sufficient) to transition into a utopian low-crime society (D'Orsogna et al., 2013). Importing psychological models into public policy, the procedural justice theory posits that the perceived fairness of the processes legal authorities use when dealing with the public plays a key role in shaping public behaviour (Tyler, 2003). The content of the interactions themselves rather than the kind of interventions police use influences the perceived level of legitimacy (Mazerolle et al., 2013). While Chen (2017) corroborates by showing the effect of perceived legitimacy on deterrence, Nagin and Telep (2017) argue that the causal relationship between procedurally just treatment and perceived legitimacy and compliance is not certain. Keeping aside biological inheritance, family upbringing and disenchantment with society, the economic approach to criminal behaviour posits that individuals engaging in criminal activity weigh out the cost and benefits of committing a crime and then

choose to commit it. "A person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities" (Becker, 1968). A criminal, therefore, differs from the others because their costs and benefits are different (Becker, 1968). Higher the costs (harsh sanctions, high probability of arrest, unemployment benefits, loss of wages), lower the tendency to commit crime, and higher the benefits, (illegal gains, source of income during unemployment), higher the tendency to commit crime. Various studies corroborate this theory. Combining the effect of the European Union enlargement (Romania and Bulgaria entered the EU in January 2007) to the passage of the collective clemency bill, Mastrobuoni and Pinotti (2015) note that obtaining legal status reduced the recidivism of Romanian and Bulgarian offenders in Italy in areas where legal immigrants have better labour market opportunities, depicting the effect of higher costs. Di Tella and Schargrodsky (2004) find a large deterrent effect of observable police on crime, using the case of the July 1994 Buenos Aires terror attack. Similarly, Draca et al. (2011) find that the presence of more police reduces susceptible crimes by increasing costs, using the case of the July 2005 London terror attacks. Bindler and Hjalmarsson (2020) also show a significant decrease in violent crimes on the introduction of the first professional police force. There are studies indicating the effect of criminal sanctions as well (see for example Kessler and Levitt, 1999; Lee and McCrary, 2017; Drago et al., 2009; Hjalmarsson and Lindquist, 2009; Loeffler and Chalfin, 2017). However, while there is considerable evidence that crime is responsive to police and the existence of attractive labour market opportunities, there is far evidence that crime responds to the severity of criminal sanctions (Chalfin and McCrary, 2017). Kirchmaier et al. (2021) show that crimes (violent crimes in particular) tend to occur very close to the offender's location and a 10-minute increase in car time distance reduces the probability of committing a crime. The sensitivity to distance varies across individual characteristics, but overall, young men tend to travel more to commit crimes. Halford et al. (2020) suggest a mobility theory for crime, by showing an inverse relationship between crime rates and mobility changes in the UK during the pandemic. Parallelly, the importance of spatiality in predicting crime is also suggested by some studies (Malleson and Andresen, 2015; Rosés et al., 2021). Shedding light on the consequence of lower costs, Bodenhorn et al. (2010) show that 19th century short Pennsylvania inmates had a higher probability of committing crime because their height produced disadvantages, such as lesser physical capacity, lesser cognitive ability and discrimination, in the labour market. Fougère et al. (2009) also find that crime and unemployment are positively correlated and youth employment induces increases in crime. Contrastingly, Gould et al. (2002) argue that wages are a more significant determinant of crime than unemployment. Palmer et al. (2019) show that single individuals who receive financial assistance after experiencing

an economic shock are less likely to be arrested for a violent crime, partly because of greater housing stability. Cohen (2020) also finds that housing assistance reduces crime and increases employment. Palmer et al. (2019), however, also find that family heads who receive financial assistance after experiencing an economic shock are more prone to property crimes because of their inability to meet financial obligations made after receiving assistance. On similar lines, Bignon et al. (2017) show that the phylloxera crisis in nineteenth century France generated an increase in property crimes by decreasing the economic conditions of those affected. (Draca et al., 2019; Brabenec and Montag, 2018; d'Este, 2020) show that crime rates related to theft are responsive to changes in the prices of commodities, noting the effects of higher benefits. While these studies demonstrate the role played by cost-benefit analyses, it is important to note that the evaluation of costs, benefits and risks are heterogenous. Mastrobuoni and Rivers (2019) show that the disutility of incarceration (sentence durations and probability of being caught) varies across offenders depending on their ability: higher the ability, higher the disutility of prison owing to higher opportunity costs and lower the ability, lower the disutility. This raises the question of how individuals perceive punishment. Sentences themselves can depend on media coverage: sentences in jury trials are longer following higher media coverage of crime and shorter following higher media coverage of judicial errors (Philippe and Ouss, 2018). However, findings on the perceptions of probabilities are mixed, while that on the perceptions of sentences are sparse (see for example Kleck et al., 2005; MacCoun, 1998). Apel (2013), in his review of the literature on these two aspects, states that individuals know criminal penalties reasonably well but don't estimate their probability and magnitude well and risk perceptions are highly malleable to proximal influences. On the perceptions of probabilities, Matsueda (2006) shows a small but significant deterrent effect of perceived probability of being caught and corroborates with the rational choice model. Perceived probability also depends on information gathered from peers (Matsueda, 2006) and on the individual's own criminal and arrest history (Lochner, 2007), but personal experience is more salient than peer's experience or direct observation (Philippe, 2020). Time preferences and time discounting also play an important role in offsetting costs. Individuals, in general, tend to have hyperbolic time preferences (smaller discount rates for rewards delayed in the long run but larger discount rates for events delayed in the short run) for rewards and gains Loughran et al. (2012). However, individuals with shorter time horizons have a higher risk of criminal involvement (Åkerlund et al., 2016), and lower future time preference is a driver of criminal behaviour (Mastrobuoni and Rivers, 2016). Potential offenders are "extremely impatient, myopic, or both," in that they are not deterred by the severity of punishment because they value their future significantly less than their present (Lee and McCrary, 2005) . Greater time discounting, therefore,

is positively related to a higher number of criminal convictions (Piquero et al., 2018). On that account, the deterrence value of severe punishment decreases as the lag between the crime and the punishment increases (Listokin, 2007). Lee and McCrary (2005) find that deterrence value can be increased by increasing the likelihood of incarceration, but Loughran et al. (2012) argue that discount functions operate independently of changes in risk certainty of detection. While the deterrence effect depends upon the perceived cost of punishment (Lee and McCrary, 2017), a refinement of the homo economicus theory suggests that offenders prefer risk-taking and that the real income received through an illegal activity would be less than income received in less risky legal activities (Becker, 1968). Although Mungan and Klick (2016) argue that deterrence caused by increases in certainty of detection does not imply risk-seeking behaviour, Langlais (2006) shows that criminals willingly undertake risky activities even though the risks of being caught and punished exist. The stability of risk preferences over time, however, varies (Chuang and Schechter, 2015; Schindler and Westcott, 2021). Growing literature on the effect of exogenous shocks on risk preferences covers the stability of risk preferences in panel data over shorter periods of time, life-cycle dynamics in risk preferences, the possibly long-lasting effects of exogenous shocks on risk preferences as well as temporary variations in risk preferences (Schildberg-Hörisch, 2018): individuals are more likely to be less risk-averse after suffering losses in natural disasters (Page et al., 2014; Kahsay and Osberghaus, 2016) and this risk tolerance persists even after five years (Hanaoka et al., 2018), individuals who suffer a natural disaster are more likely to exhibit increased risk aversion (Cameron and Shah, 2015; Cassar et al., 2017), being involved in an episode of crime or violence increases risk aversion (Padilla, 2002), individuals who spent their early childhood in severely affected provinces during the war exhibited more risk aversion even fifty years later (Kim and Lee, 2014), recollections play an important role in triggering behaviour that changes risk preferences (Callen et al., 2014), and risk-loving and risk-averse choices depend on the emotional states of the individuals post-disaster (Eckel et al., 2009). Evidence on the effect is, clearly, inconclusive. Moving beyond the rational choice theory in crime, the behavioural approach tackles cognitive and emotional factors, placing deterrability in the center stage and shifting attention from extrinsic motivation to intrinsic motivation (van Winden and Ash, 2012). For example, happier individuals (happiness measured in terms of their life satisfaction or evaluation) are more likely to comply with lockdown norms (Krekel et al., 2020); simplified communication by the tax administration leads to late tax filers and payers complying more swiftly but deterrence messages that invoke tax morale backfire (De Neve et al., 2021). It essentially combines economics and psychology to economically pique the psychological makeup (van Winden and Ash, 2012).

2 Empirical Design

2.1 Empirical Design

To test main theories of causes of criminal behavior in a unified framework, we designed a unique data collection with prison inmates and students. We leverage cross-sectional variation and compare inmates' knowledge, perception, and preferences to those of general population (students).

2.2 General procedures

Participants were given several tasks that were labeled as 'activities' in three blocks. The framing of all tasks was intentionally designed to be rather simple to assure full understanding by inmates. Because inmates could not be paid in money but only in post stamps as decided by prison authorities, we decided that in games with students we would use experimental currency units, ECU, of the same face value as one post stamp (19 CZK; about 0.8 EUR) and keep all the procedures with the same nominal values across the two samples.[1] Since neither laptops nor any other electronic devices are allowed in prisons, we relied on paper-pen approach; with students, however, we used computerized environment.

2.3 Tasks

In the first block, participants played the trust and the dictator games (TG and DG) in the position of a sender. [2] Each participant played each game twice; once with a receiver who was currently in prison and once with a receiver who was someone from the general population and has never been incarcerated (a non-inmate), in a counterbalanced order. Additionally to the prison status, senders also knew that the receiver is an adult and male living in the Czech Republic. In all four combinations of TG and DG games, senders start with 7 currency units. Their task was to decide how many units to send to the receiver. In the dictator game, the receiver receives a triple the units sent and the game ends. In the trust game, the receiver also receives a triple of the units sent, but he could choose how many to send back to the sender. The amount sent back is not multiplied.

[1] There are several reasons for using post stamps. First, they are used as an unofficial currency in prisons. Second, they have real intrinsic value to inmates, as a means of communication. Third, post stamps were previously used in similar research projects.

[2] Prior to conducting the sessions we ran pilot sessions both with students as well as with inmates where we elicited the decisions in the position of a responder in a strategy method. These decisions were used for payment calculations of the main sample.

The second block consists of two activities. In the first one, we provided participants with a brief description of several criminal cases and asked them to state how they perceive the probability of being arrested in each of these cases. Additionally, we asked them to estimate the probability of being incarcerated conditionally on being arrested, and on the length of incarceration spell among those sent to jail. An example of framing of the questions: *Suppose that 100 men have been caught for a murder. How many of them do you think will be sentenced to jail, and what would be the average length of their sentence?* [3] We incentive participants' guesses based on the statistics calculated using the official data from the police and courts in the years 2017-2019. For any guess which was close to the 'correct' value (+/- 5), participant received 3 additional currency units. In the second activity, we gave participants endowment of five currency units and asked them how many they want to invest in a lottery with a 50% chance of winning a triple of the invested amount and a 50% chance of losing the invested amount. They could choose any integer between 0 and 5.

The final block consists of three questionnaires. The first questionnaire asks about the perception of inmates' and ex-inmates' positions in society. As an example of one question, participants were asked *How likely it is that an ex-inmate will find an apartment to rent?*. The second questionnaire asks participants' trust in institutions (the judicial and health-care systems), the declared level of positive and negative reciprocity, risk preferences, optimism about future life, and perception of the criminal justice system in their cases (inmates only). Finally, the last questionnaire asks basic demographic questions (e.g., age, marital status).

Procedures - Inmates To collect data from inmates, we visited 15 different Czech prisons and conducted 29 sessions there. Participating inmates were selected by a co-operating prison staff member that was designated by the prison director (e.g., prison psychologist, social worker, special pedagogue). Each participant signed an informed consent form. The show-up fee was 3 post stamps. Additionally, at the end of the session we randomly chose 2 activities for all participants in a session for which they were actually paid. Before each activity, the session instructor explained the rules and checked participants understanding. The order of trust and dictator games with inmate and non-inmate was randomized at the session level. Participants' understanding was checked by 3 (2) control questions in the trust game (the dictator game) that were then reviewed together by the instructor.

We match our sample with several variables from prison's administrative system. Additionally to the self-reported information, we thus know the exact crime (paragraphs)

[3] For the exact transcript of all answer sheets given to subjects, see Appendix.

he is incarcerated for, the length of the sentence, how many times he has been sentenced before, a psychologist's thorough assessment of his behavior, attitude towards formal and informal norms (acceptance of illegal behavior), relationship to work, frequency of conflicts with authorities, and whether he was a member of a defective group. While many of these variables are based on a subjective evaluation, the evaluation is done by trained professional prison psychologists, whose judgment is important for many decisions, including grant of parole.

We note that we do not work with a representative sample of an inmate population. Since many of inmates are released after a half of their sentence, our sample consists of inmates with relatively long sentence. Table 1 describes our sample of inmates. Overall, we have 489 inmates, but information about their criminal history only about 453. Roughly 17% of inmates are sentenced in drug related cases, 20% for theft, almost 40% for violent crimes such robbery, murder, and grievous bodily harm, 13% other crimes against property and economic criminal offences such as fraud and tax evasion, and finally 10% consists of other crimes such as extortion and obstruction of justice. Table 1 also shows the average sentence in months for each of the group of crimes, average number of they have served from the sentence, and the number of months the have served in their lives.

Table 1: Descriptive Statistics: Inmates

Category of crimes	Inmates	Average Sentence	Sentence Served	Total Served
Drugs	80	79	25	52
Theft	93	55	25	99
Violent crimes	174	98	44	74
Other crimes against property	59	67	31	72
Others	47	61	21	60
Total	489 (453)	74	31	71

Notes: Sentences are reported in months.

Students To collect a control sample, we ran the same data collection design with students. The data was collected in the Laboratory of Experimental Economics in Prague in the Summer 2020 and December 2021. In total 160 students participated. Students were from several different universities all based in Prague. All the activities were done through the computerized environment using OTREE (Chen et al., 2016) and the recruitment was done with ORSEE (Greiner, 2015). The show-up fee for students was 150 CZK. Additionally, we paid students for one randomly chosen activity for each student. Instead of post stamps, students would earn extra ECUs, each worth 19 CZK. These ECUs were then exchanged for real money at the end of each session. All the activities

were the same as for inmates, with several exceptions (asking for the optimism about voting, getting a stable accommodation, and getting employment was based on the time of graduation, while for inmates this was based on the time of release from prison).

3 Results

3.1 Inmates vs Students

In this section, we report results from an inmates' and students' comparison. We show that in many studied dimensions inmates systematically differ from students. First, inmates perceive the parameters of the criminal justice systems as harsher than students, and they do not have more accurate knowledge of the parameters. Second, in both TG and DG inmates tend to be more generous than students. Both students and inmates send more if the receiver is a student. Interestingly, the gap between the amounts sent to an inmate in TG and DG (i.e., pure trust) is lower among inmates, suggesting that while they are willing to share in community, they trust each other less. Third, inmates trust in the justice system significantly less than students. Fourth, inmates seem to be less patient, more risk averse, and declare higher positive reciprocity and lower negative reciprocity.

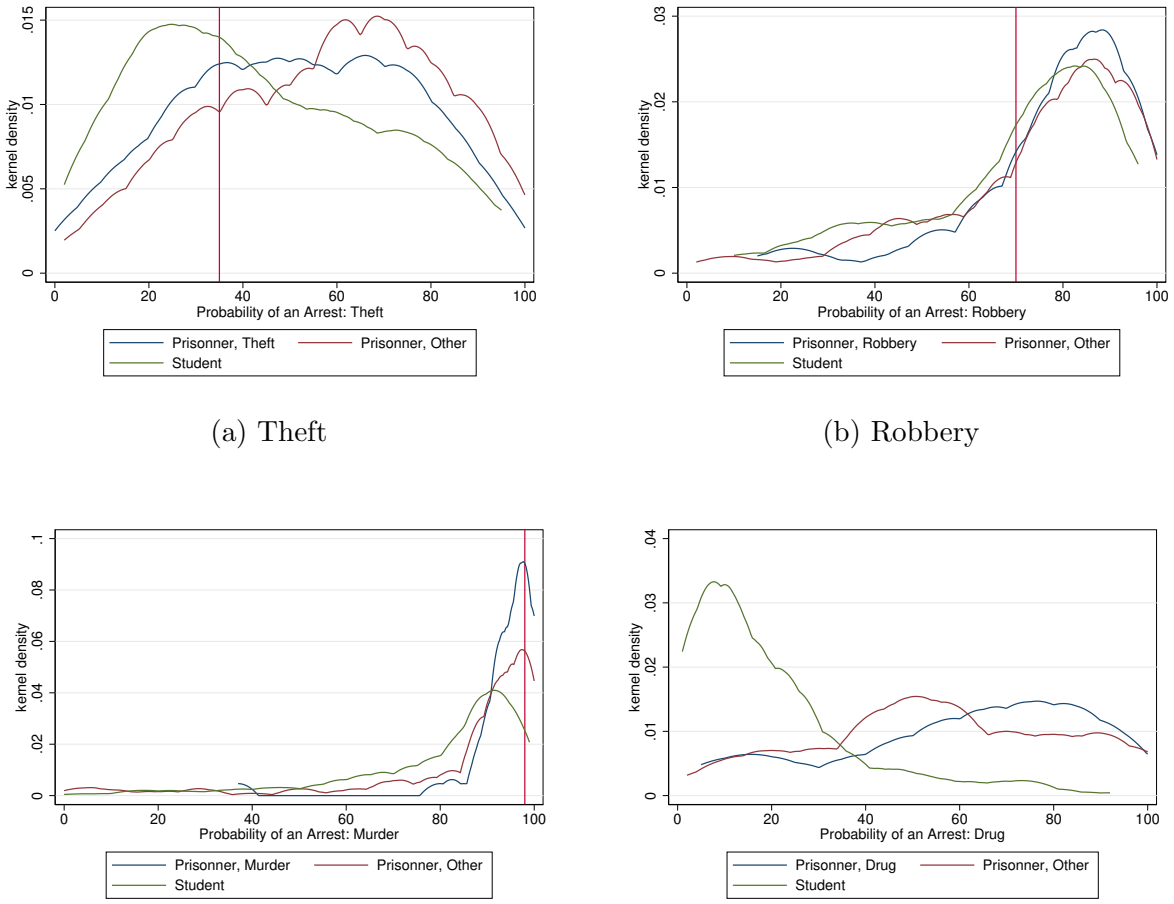
3.1.1 Estimates of Criminal Justice Parameters

We first compare estimates of inmates and students regarding probability of being arrested, probability of being incarcerated, and the length of incarceration.

Probability of Arrest Participants were presented with four descriptions of a criminal case: theft of a motor vehicle, robbery, murder, and drug case. In each hypothetical scenario, the crime was framed as having been committed by 100 offenders and participants were asked to estimate how many of the offenders would be caught. Using official police statistics we have an estimate of the true probability for theft, robbery, and murder. We used the true observed probability to incentivize participants; for any guess within an interval +/- 5 around the true figure participants earned 3 extra ECUs/post stamps, except for the drug case which was not incentivized. [4]

[4]Note that in first three types of crime, police statistics are arguably reasonably accurate, as victims and their relatives are very likely to report these crimes. For example, to claim insurance benefits. The drug case differs in this respect. In many drug related offences, such as selling, there are no victims, who would report the crime. Consequently, the police statistics regarding drug related offences are not reliable and we did not use it to incentivize participants.

Figure 1: Expected Probability of Being Arrested



(a) Theft

(b) Robbery

(c) Murder

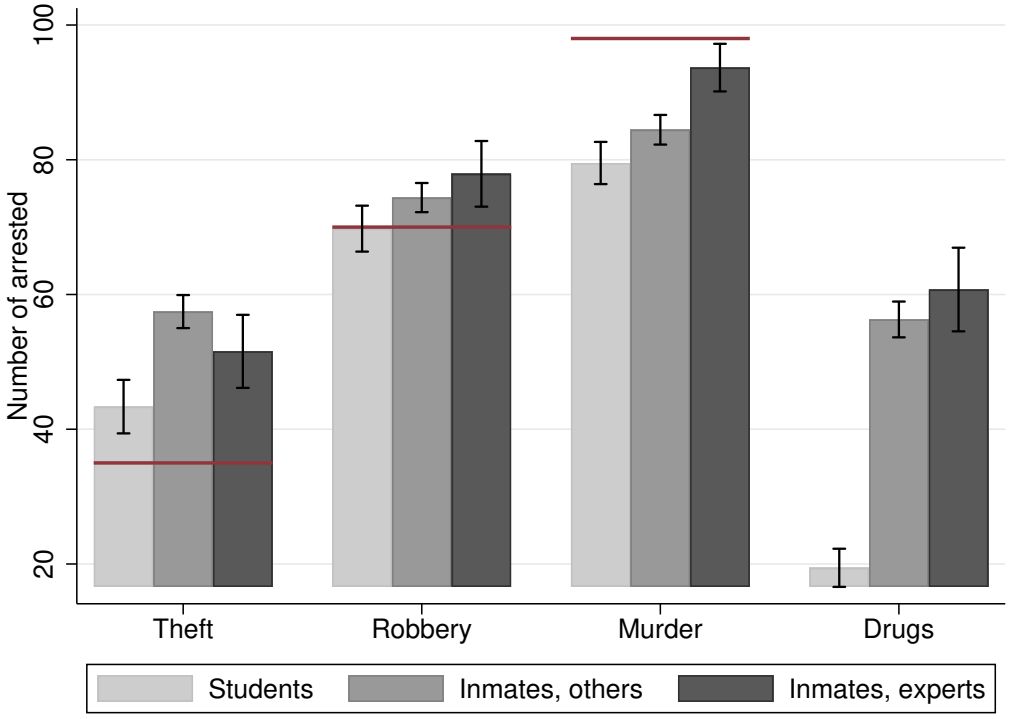
(d) Drugs

Notes: Inmates' and students' knowledge regarding probability of being arrested for four different crimes. Responses of inmates are decomposed according to their *criminal expertise* into inmates who are incarcerated for the studied crime and others. The red vertical line indicates our estimates of the 'true value' of parameters based on police statistics for years from 2017 to 2019.

Figure 1 shows four densities functions; one for each crime for students and inmates. Responses of inmates are decomposed according to their *criminal expertise* into inmates who are incarcerated for the studied crime and others. In all comparisons, students view the probability of being incarcerated as lower than inmates. In drug case, inmates view the probability of incarceration three-times higher than students. Figure 2 shows an average perception for each of the case by different groups.

Defining accuracy as $\frac{\sum\sqrt{(x_i - x_{true})^2}}{N}$ for each group of participants, we show that students' estimates are more accurate in theft cases, while inmates' estimates are more accurate in murder case. There is no statistically significant difference in the robbery

Figure 2: Average Expected Probability of Being Arrested



Notes: This figure shows average perceived probability of being arrested for different criminal cases for students, inmates - experts, and other inmates. Inmates - expects are inmates incarcerated for the crime studied. The horizontal maroon line represents our estimate of the true parameter. In four crimes, students expect lower probability than inmates.

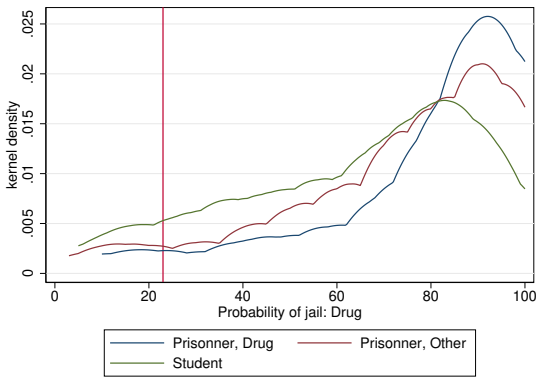
case. As for the expert premium in knowledge, it seems that inmates who serve their murder sentence expect higher probability of being caught and are closer to our estimates. Similarly, in the theft case, experts expect marginally lower probability and are closer to our estimates. Note, however, that since our classification relies on currently served sentence, even inmates classified as *others* could have been previously sentenced for theft. We conclude that there is no clear pattern in accuracy of estimates.

Result 1. *Inmates expect a significantly higher probability of being arrested than students and, with the exception of murders, even compared to our estimates of true parameters. There is no clear pattern in which group is overall more accurate.*

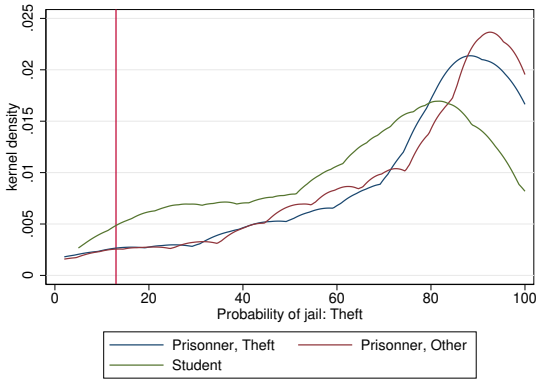
Probability and Length of Incarceration Next, we turn to the analysis of the differences in perceived harshness of sanctions. Participants were provided with three brief descriptions of different criminal cases. In each case, the question was framed in the way that they should have given their estimate of how many out of 100 convicted

offenders who face a trial will be sentenced to jail, and what the average length of their incarceration will be. Similar to the previous activity, participants were incentivized and for each answer within an +/- 5 (percentage points and months, respectively) interval around our 'true' estimate based on court administrative data for years from 2017 to 2019, they were given extra 3 ECU/stamps. The three described cases are drugs, theft, and murder.

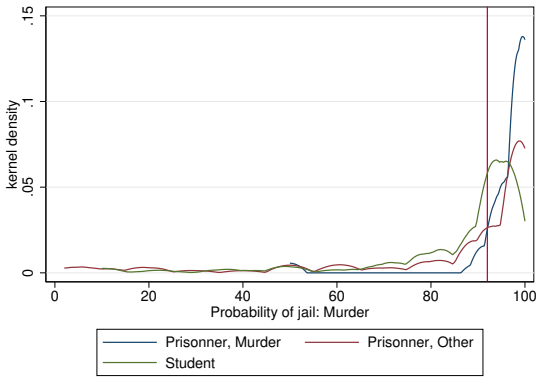
Figure 3: Expected Probability of Being Sentenced to Jail



(a) Drugs



(b) Theft



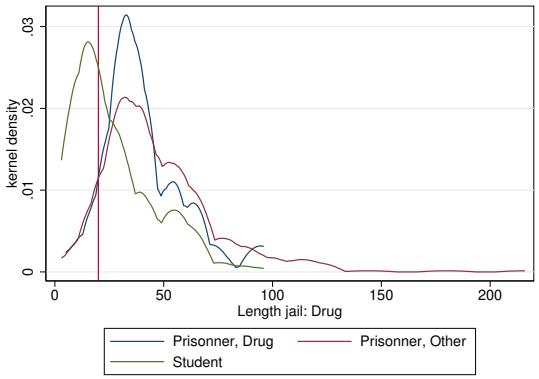
(c) Murder

Notes: Inmates' and students' estimates of the probability of being sentenced to jail for three different crimes. The red vertical line indicates our estimate of the parameters based on court administrative data for years from 2017 to 2019.

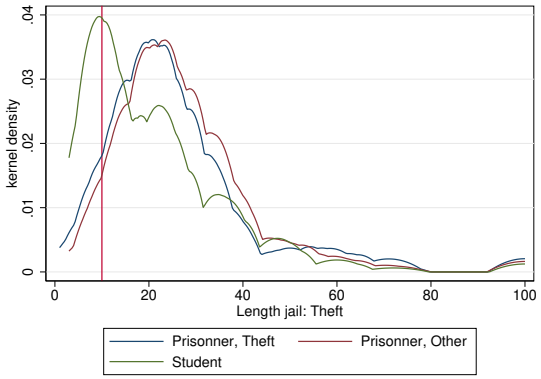
Figure 3 shows students' and inmates' expectations of the probability of being sentenced to jail. Both types of participants tend to overestimate it. In the extreme cases of theft and drug offense, while the true probability is around 20 %, participants' answers in both groups concentrate around 80 %. Similar to the previous activity, inmates expect a

higher probability of a jail sentence than students. Therefore, if a jail sentence is the most severe type of sanction, inmates view criminal justice system as harsher than students do.

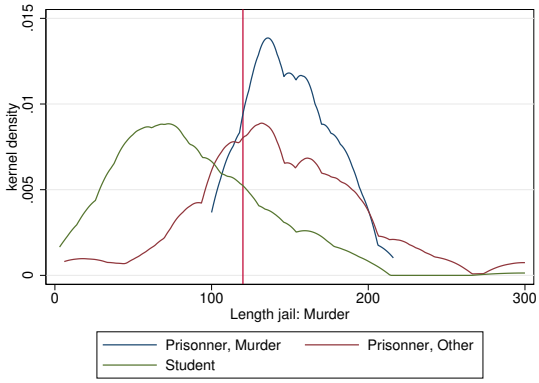
Figure 4: Expected Length of Incarceration



(a) Drugs



(b) Theft

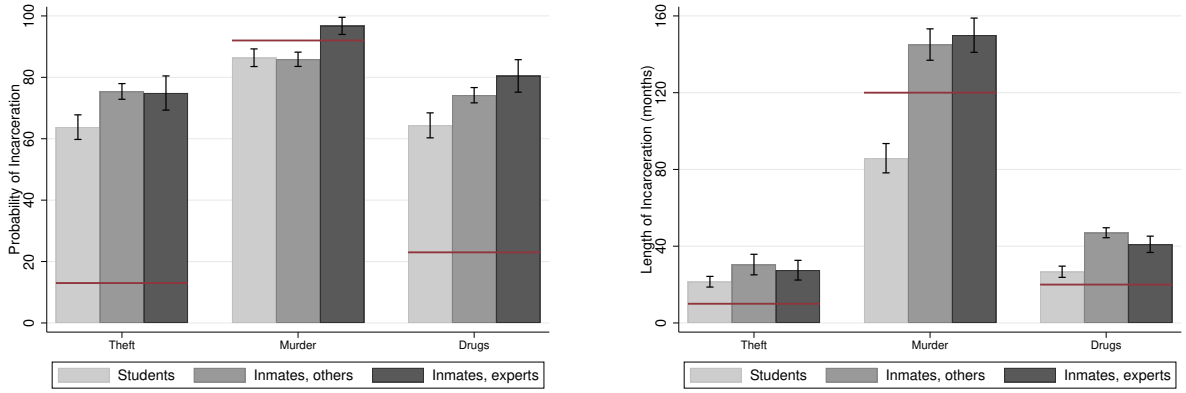


(c) Murder

Notes: Inmates' and students' estimates of the length of incarceration for three different crimes. The red vertical line indicates our 'true' estimate of the parameters based on court administrative data for years from 2017 to 2019.

Students are more accurate in their estimates of theft and drugs cases. All groups tend to overestimate the probability of incarceration in theft and drug case, but students do so less than inmates. Consequently, students are, on average, more accurate. In the murder case, likely due to inmate - experts, inmates are more accurate. The evidence on the expert premium is mixed. In the theft case, there is no expert premium and estimates of inmates - experts and other inmates are statistically indistinguishable. In the drug case, expert inmates perform even worse than other inmates and finally, in the murder

Figure 5: Average Expected Sanctions



(a) Sentenced to Jail

(b) Length of Incarceration

Notes: Panel A: average expected probabilities of jail sentence for three different crimes. Panel B: average expected length of incarceration. The red vertical lines indicate our 'true' estimate of the parameters based on court administrative data for years 2017 to 2019.

case experts are more accurate. Figure 5a shows average probability for each of the group studied for the theft, murder, and drug case and confirms the discussed results.

Figure 4 presents inmates' and students' estimates of expected length of incarceration for drug, theft, and murder cases. In all three cases, students' perceptions differ from both inmate experts and other inmates, and as other cases students view the expected length shorter than inmates. Students' estimates are slightly more accurate than inmates in the theft and drug cases. In the murder case, while students and inmates differ significantly in their estimates, they are inaccurate of the same magnitude. While student underestimate the true length, inmates overestimate it by roughly the same margin. As for the expert premium, experts do marginally better only in the drug case. Figure 5b displays average expected lengths by different groups.

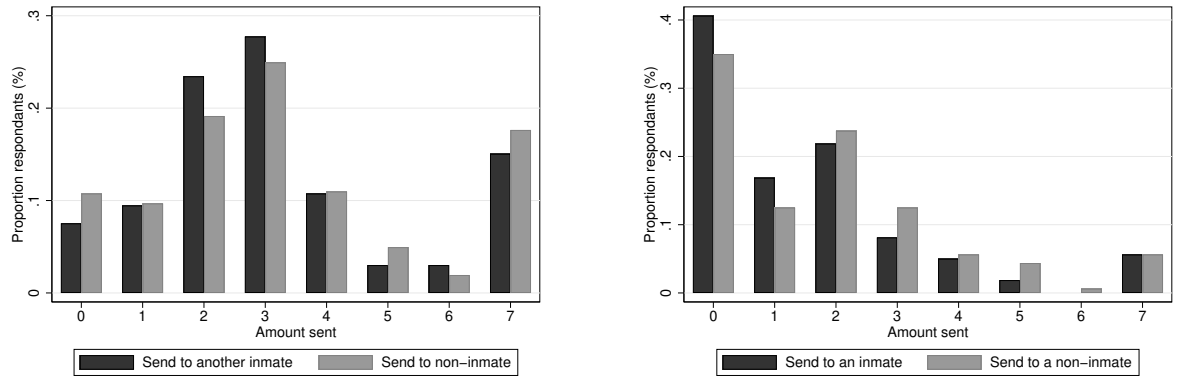
Result 2. *Inmates view both the probability of jail sentence and expected length of incarceration as higher than students do. Inmates' expectations are not more accurate than those of students.*

3.1.2 Trust and Dictator Games

Dictator Game We next discuss results from the dictator game. Figure 6 presents the histograms of ECU/stamps sent by inmates and students when partnered with an inmate and with a non-inmate. A brief comparison reveals that inmates are generally more generous regardless the partner. Only around 10 % of inmates sent nothing and about

15 % sent everything, whereas among students roughly a third did not send anything and fewer than 10 % sent everything. Looking at the average amount sent, inmates did not discriminate between non-inmates and other inmates, as the average amounts are statistically indistinguishable. Students sent by 0.3 ECU more when partnered with a non-inmate than with an inmate. The difference is statistically significant. Figure 8 shows the average amounts sent.

Figure 6: Amount Sent in Dictator Games



(a) Inmates

(b) Students

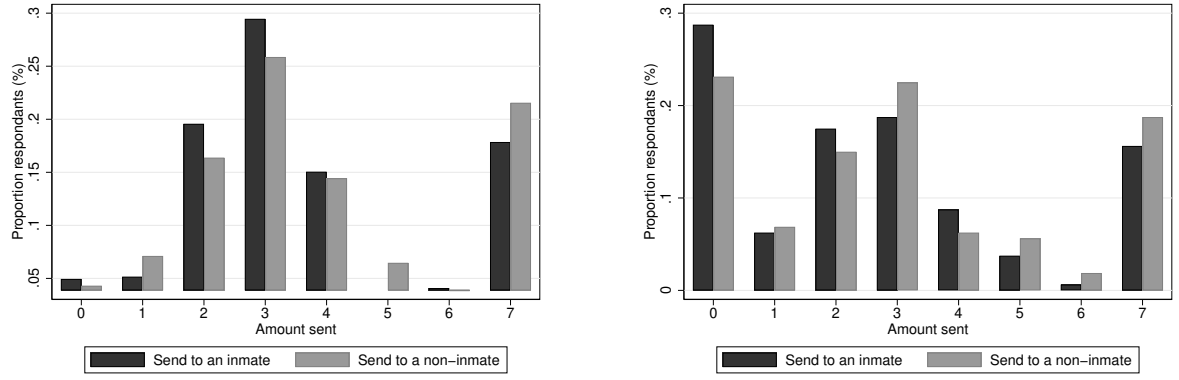
Notes: Number of ECU/stamps participants sent in the dictator game. Panel A shows histogram for inmates, while Panel B shows students' decisions.

Result 3. *In the dictator game, inmates sent more than students regardless the partners. The effect is sizeable (an increase by 110% and 75% for inmates and non-inmates, respectively) and economically and statistically significant. Inmates do not discriminate between non-inmates and inmates and sent them the same amount, whereas students sent more when partnered with non-inmates.*

Trust Game Figure 7 presents the distributions of ECU/stamps sent by inmates and students. The first striking difference is that only a very few inmates sent nothing, whereas more than 20 % of students sent nothing even when partnered with non-inmates. Similarly to the dictator game, inmates generally sent more than students regardless the partner. Both students and inmates send more when partnered with a non-inmate. The differences are relatively small (0.2 stamps for inmates and 0.35 ECU for students) yet both are statistically significant. Figure 8 shows the average amounts sent.

Result 4. *In the trust game, inmates send more of their endowment than students regardless of the type of partner. The effect is economically and statistically significant.*

Figure 7: Amount Sent in Trust Games



(a) Inmates

(b) Students

Notes: The number of ECU/stamps participants sent in the trust game. Panel A shows histogram for inmates, while Panel B shows students' decisions.

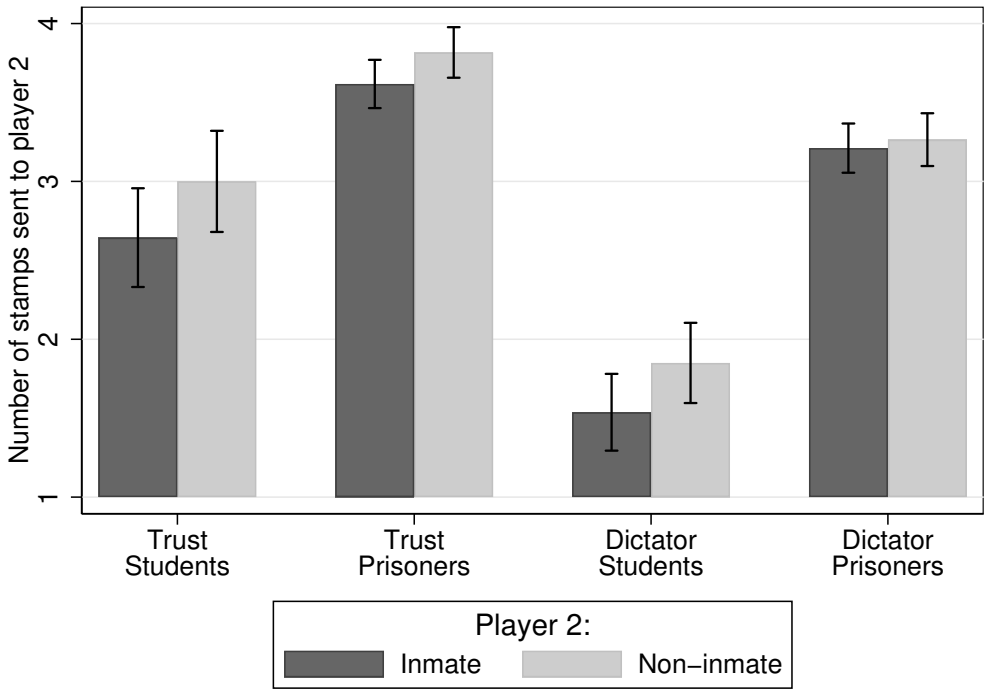
Both inmates and students send more to a non-inmate.

Pure Trust We next discuss differences between inmates and students in pure trust. To make the comparison clear, we introduce a simple notation. $G_j(p)$ stands for an average amount sent by participant $j \in \{i, s\}$ in a game $G \in \{D, T\}$ when partnered with $p \in \{i, n\}$, where i stands for an inmate, s for a student, n for a non-inmate, D for the dictator game, and T for the trust game.

Using the notation, we define a measure of *pure trust (PT)* as the difference between the amount sent in the trust game and the dictator game for a given participant and a partner. Formally, $PT_j(p) = T_j(p) - D_j(p)\ \forall j, p$. Measures of pure trust show that students are more trusting than inmates regardless the partner. The possibility to send some ECU/stamps back increases the average amount sent by roughly 1 ECU among students, but only about 0.5 stamps among inmates. Interestingly, trust of participants is not sensitive to their partners, both students and inmates increased the amount sent by the same margin for both non-inmate and inmate partners. See Figure 9.

Result 5. *Measured by a 'pure' trust, students are more trusting than inmates regardless of the partner assigned. Additionally, trust of participants is not driven by partners. Inmates trust other inmates the same as non-inmates and students trust non-inmates the same as inmates.*

Figure 8: Average Amount Sent in Trust and Dictator Games



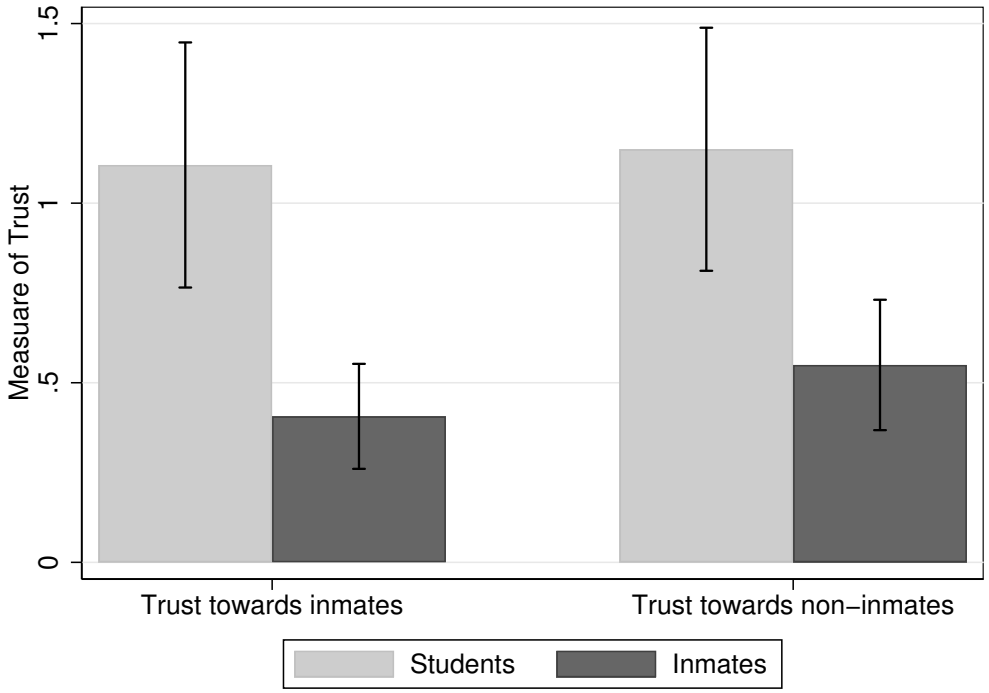
Notes: The average amount sent in the trust and dictator games by inmates and students. 95 % CI displayed.

3.1.3 Risk Preferences

We next compare students' and inmates' risk preferences. To do so, we rely on: (i) participants' decisions in the lottery activity. Participants were given 5 ECUs/post stamps and were asked to decide how many ECUs/stamps to invest them in a lottery. The lottery has the same probability (50%) of winning and losing. In the case of winning, the lottery pays a triple of the inverted amount. In the case of losing, the lottery pays nothing and one loses the invested amount.; (ii) on a self-reported measure of willingness to take general risk. Participants answered *To what extent are you willing or not willing to risk?* on a scale 1-11. The higher the number, the more risk one is willing to take.

Both measures show that inmates are more risk averse. In the lottery measure inmates on average invested 3 post stamps, while students invested 3.4 ECUs. The difference of 0.4 is statistically significant (two-sample t test $p = 0.002$). Similarly, in the self-reported measure of trust, inmates perceived themselves as less risk-taking. The difference between students' average rank of 7.24 and inmates' 6 is also statistically significant (two-sample t-test $p = 0.002$). Figure 10 shows the averages.

Figure 9: Average Pure Trust



Notes: Measure of *pure trust* defined as a difference between amount sent in the trust game and in the dictator game. The possibility to send some ECU/stamps back increases the amount by 1 ECU among students, but only by about 0.5 stamps among inmates. 95 % CI displayed.

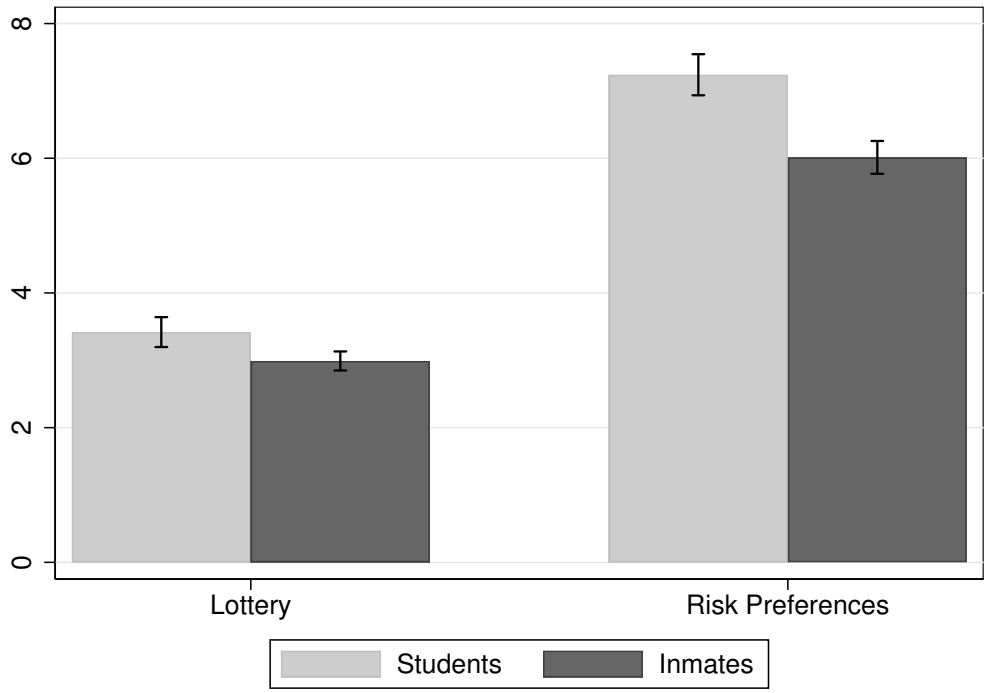
Result 6. *Inmates are more risk averse than students in both measures of risk-taking.*

3.1.4 Self-reported Outcomes

Institutional Trust We next report results from declared level of institutional trust. Participants were asked to assess whether they think that the healthcare system and the the judicial system treat all people equally and whether the participants trust information provided by authorities from these institutions. Students reported significantly higher level of confidence that the institutions treat all people equally and that they would trust the information provided by relevant authorities. The differences in attitude towards the healthcare system are, however, substantially lower than differences in the justice system. See Figure 11 for average levels of declared trust.

The differences in inmates' and students' attitude towards the judicial system are substantial. In the raw differences, students' average declared trust are about 60% and 80%, respectively. We next use the individual attitude towards the healthcare systems as a measure of individuals' general attitude towards public institution. Even if we

Figure 10: Risk Aversion



Notes: Average number of invested ECUs/post stamps in the lottery by students and inmates, and self-reported perceived level of risk taking. The higher the number, the higher the risk-taking behavior. 95 % CI displayed.

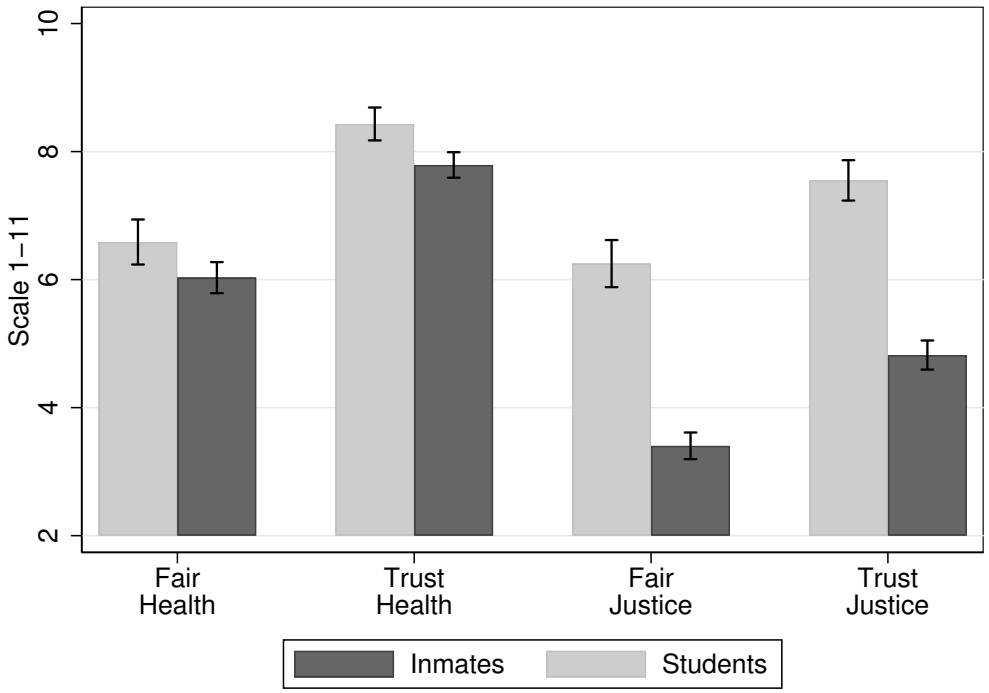
control for that, the strong negative attitude towards the judicial systems among inmates preserve.

Result 7. *Inmates trust institutions less than students. The effect is especially pronounced in trust towards the judicial system.*

Patience and Reciprocity Inmates and students differ in their declared level of patience. Students reported higher willingness to sacrifice something now to get greater benefit in the future. The difference is marginally statistically significant (two-sample t test p value = 0.068). Inmates reported lower level of negative reciprocity and higher level of positive reciprocity. Note that the latter is only marginally statistically significant (two-sample t-test p-value = 0.09). Figure 12 shows average reported levels of patience and negative and positive reciprocity for inamtes and students.

Result 8. *Inmates are marginally less patient and declare lower negatively reciprocity, but marginally higher positively reciprocity.*

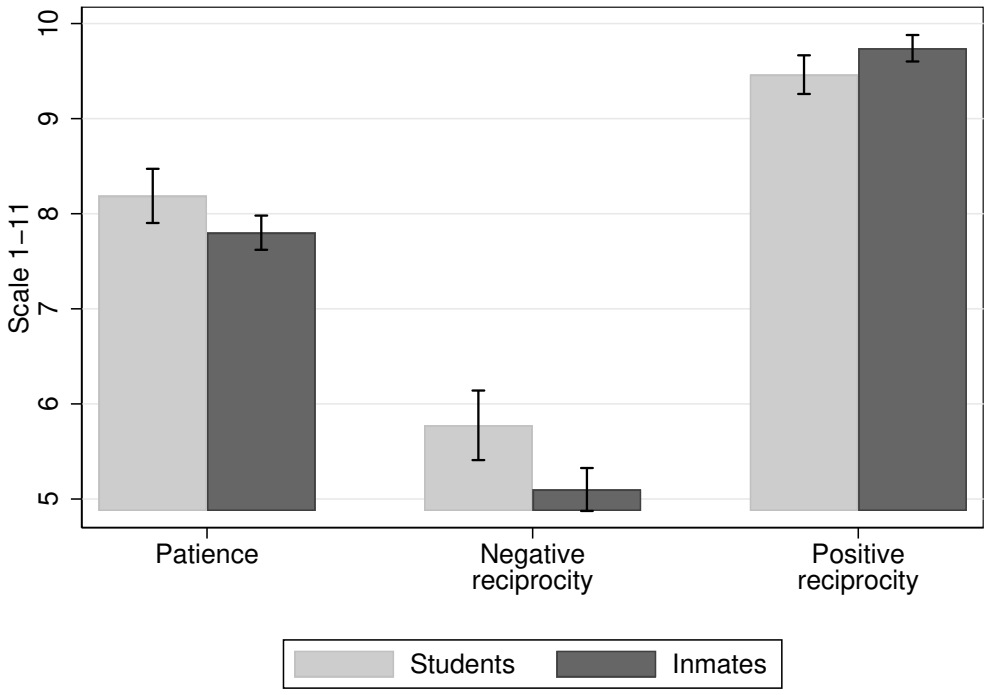
Figure 11: Institutional Trust



Notes: Average levels of declared institutional trust in the healthcare and judicial systems. Using a scale 1 - 11, participants answered: *Generally, would you say that [the healthcare system/judicial system] treats all people equally?* and *Generally, would you say that you can trust the information from [the healthcare authorities (doctors, nurses) / the judicial system authorities (judges, prosecutors)]?*. 95 % CI displayed.

Optimism Finally, we report differences in how inmates and students perceive several situations and how likely the situation may happen to different people. For four different situations: (i) get an apartment; (ii) have a friend with no criminal history; (iii) get a job; and (iv) get a ride when needed, participants indicate likelihood (on a scale 1-11) that the situation happen to someone with no criminal history and to a just released ex-inmate. Interestingly, in all four situation the pattern is identical. The highest likelihood is reported by students for someone with no criminal history, followed by inmates' perception regarding someone with no criminal history. So as for the people with no criminal history, students are generally more optimistic - perceived higher likelihood of a good thing happening. For recently released ex-inmate, the order switched and inmates tend to be more optimistic. Consequently, the perceived prison penalty is significantly lower among inmates than among students. The last panel of Figure 13 shows how participants think that people will generally treat someone with no criminal history, just released ex-inmates, and someone in prison. The main results remain: inmates perceived

Figure 12: Positive and Negative Reciprocity



Notes: Average declared levels of patience and negative and positive reciprocity. Using a scale 1 - 11, participants assessed themselves on these three statements/questions: *Would you say that, relative to other people, you are willing to sacrifice something now to get greater benefits in the future?*, *To what extent are you willing to punish someone who treated you unfairly, even if it will have repercussions for you?*, and *When somebody does me a favor, I am ready to return the favor.* 95 % CI displayed.

the prison penalty as lower than students.

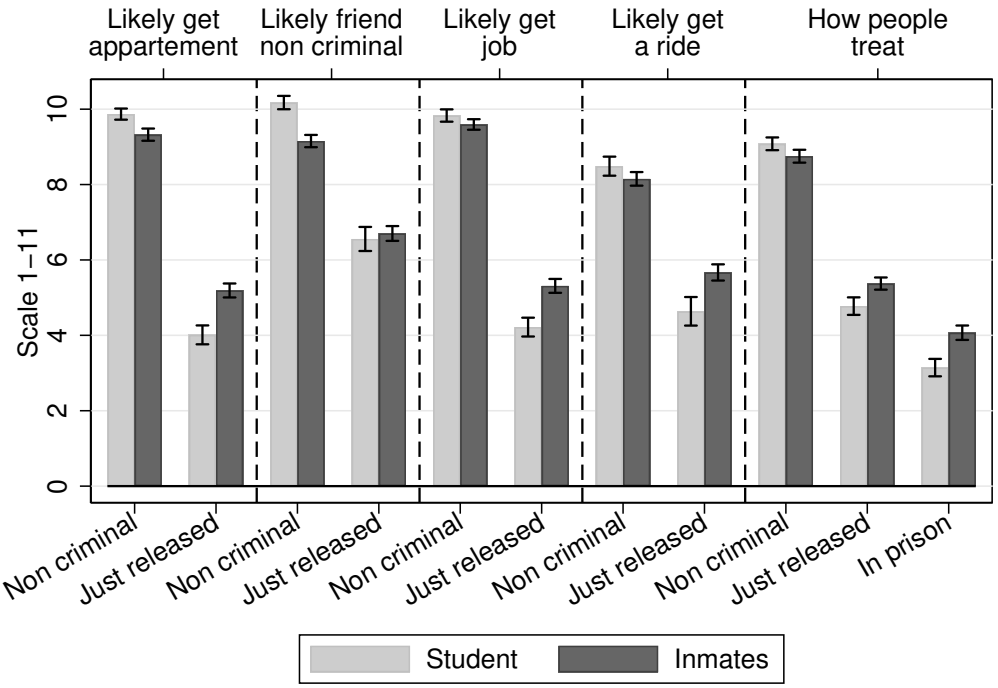
Result 9. *Inmates are more optimistic than students about position of former inmates is society.*

4 Discussion

In this paper we report on a lab-in-the-field experiment combined with a survey and administrative data that was conducted with 489 prison inmates and 160 students from the Czech Republic. We tested the differences between the two samples in several dimensions that are indicative of theories of crime, (i) the counter culture motivation of criminals (Cohn et al., 2015); (ii) homo economicus theory of a rational criminal (Becker, 1968); (iii) excessive risk seeking of criminals; and (iv) procedural justice theory (Tyler, 2003).

Our results show that inmates and students differ in almost all studied aspects, but

Figure 13: Perceived Optimism



Notes: Participants' perceived likelihood of four different situations happening to someone with no criminal history and just released ex-inmates. Participants evaluate the likelihood on a scale 1 - 11, where 1 stands for *not likely at all* and 11 *very likely*. The right panel shows participants' perception of how people would treat different types of people. 95 % CI displayed.

not always in the way corresponding theories predict. First, according to the homo economicus theory, inmates should be more accurate at estimating parameters of criminal justice system and more optimistic about them (i.e., lower chance of getting arrested and incarcerated, and receiving a shorter prison sentence) than students. Since we find no clear ranking in the prediction accuracy of criminal justice parameters, we conclude that inmates are not more knowledgeable in this respect than students. Furthermore, inmates systematically perceive the parameters as more strict rather than being optimistic (higher probability of being caught and incarcerated, and longer incarceration) than students, which should rather deter criminal behavior. We note that criminals in our sample have already a personal experience in this respect, compared to students, and this may play a role.

Second, the counter culture theory predicts that inmates would share relatively more of their stamps in the dictator and trust games with other inmates than students. We partially confirm this prediction. In the dictator game, inmates do not discriminate

between in-group and out-group partners, whereas students penalize inmates by sending fewer tokens. In the trust game, however, both inmates and students send less when paired with a non-inmate. The average pure trust is smaller for inmates in both in-group and out-group interactions.

Third, with respect to the excessive risk taking attitudes of inmates, we find that inmates are more risk averse. The results follow from two different tasks from which one was a standard incentive-compatible approach and the other one was a self-reported measure of risk preferences. Fourth, according to the the procedural justice theory, inmates should trust institutions less than students. Our results are in line with this prediction, as inmates trust less information provided by authorities from the health-care and judicial systems and inmates also think that public institutions do not treat all people equally. Inmates' and students' differences in perceived competence of institutions are apparent especially in the judicial system.

Our results provide important empirical evidence into the general discussion of the theories of crime and of the causes of criminal behavior. As limitations of our study we note, however, that we reached only a highly self-selected sample of inmates who were willing and able to participate in the study, and that students are in many respects non-representative of the general population (Cappelen et al., 2015). In any case, our results show the need to study the causes of criminal behavior in more depth in the real world.

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5 Appendix

Activity 1 - Control Questions

1. What is the minimum and the maximum number of stamps you can send to the second participant?

   Minimum: _____ Maximum: _____

2. How many stamps will the second participant receive if you send him exactly 4 stamps?

   Number of stamps: _____

3. If, out of your 7 stamps, you decide to send 4 stamps to the second participant and he decides to send 3 back, how many stamps will the **second participant** have at the end of the game?

   Number of stamps: _____

4. If, out of your 7 stamps, you decide to send 4 stamps to the second participant and he decides to send 3 back, how many stamps will **you** have at the end of the game?

   Number of stamps: _____

Activity 1

Part A

How many out of your 7 stamps will you send to the second participant? Indicate one number.

0	1	2	3	4	5	6	7

Part B

1. How many stamps do you think would the second participant send you back if you decided to send him 2 stamps and he would thus have 6 stamps? Indicate one number.

0	1	2	3	4	5	6

2. How many stamps do you think would the second participant send you back if you decided to send him 6 stamps and he would thus have 18 stamps? Indicate one number.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Part C

How many stamps do you think the second participant expects you to send him? Indicate one number.

0	1	2	3	4	5	6	7

Activity 2 - Control Questions

1. What is the minimum and the maximum number of stamps you can send to the second participant?

   Minimum: _____ Maximum: _____

2. What is the minimum and the maximum amount of stamps the second participant can receive?

   Minimum: _____ Maximum: _____

Activity 2

Part A

How many out of your 7 stamps will you send to the second participant? Indicate one number.

0	1	2	3	4	5	6	7

Part B

How many stamps do you think the second participant expects you to send him? Indicate one number.

0	1	2	3	4	5	6	7

Activity 3

Part A

How many out of your 7 stamps will you send to the second participant? Indicate one number.

0	1	2	3	4	5	6	7

Part B

1. How many stamps do you think would the second participant send you back if you decided to send him 2 stamps and he would thus have 6 stamps? Indicate one number.

0	1	2	3	4	5	6

2. How many stamps do you think would the second participant send you back if you decided to send him 6 stamps and he would thus have 18 stamps? Indicate one number.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Part C

How many stamps do you think the second participant expects you to send him? Indicate one number.

0	1	2	3	4	5	6	7

Activity 4

Part A

How many out of your 7 stamps will you send to the second participant? Indicate one number.

0	1	2	3	4	5	6	7

Part B

How many stamps do you think the second participant expects you to send him? Indicate one number.

0	1	2	3	4	5	6	7

Activity 5

How many out of his 10 stamps do you think the first participant decides to send to the second participant? Indicate one number.

Participant 1: A man, over 18 years old, living in the Czech Republic who was **never incarcerated**

0	1	2	3	4	5	6	7	8	9	10

Participant 2**:** A man, over 18 years old, living in the Czech Republic and also...

…Currently incarcerated

0	1	2	3	4	5	6	7	8	9	10

…Recently (not more than two years ago) *released* from prison

0	1	2	3	4	5	6	7	8	9	10

…Currently incarcerated, sentenced for a violent crime

0	1	2	3	4	5	6	7	8	9	10

…Not incarcerated, earns minimum wage

0	1	2	3	4	5	6	7	8	9	10

Activity 6

1. How many people, out of every 100 who commit a motor vehicle **theft**, are, on average, arrested?
   Your answer: _____

2. How many people, out of every 100 who commit an armed **robbery**, are, on average, arrested?
   Your answer: _____

3. How many people, out of every 100 who commit a **murder**, are, on average, arrested?
   Your answer: _____

4. How many people, out of every 100 who distribute **drugs**, are, on average, arrested? (Question without reward)
   Your answer: _____

5. Imagine 100 people who were already convicted a few times before (3-5) and are now found guilty of a **theft** during which a not negligible damage was caused on a property belonging to someone else - that means it was the least serious form of theft.

   a. How many, out of these 100 people, are, on average, **convicted** and sentenced to jail? Your answer: _____

   b. How long will their **sentence** be, on average? (in months in prison)
      Your answer: _____

6. Imagine 100 people who were already convicted a few times before (3-5) and are now found guilty of manufacturing and possessing **narcotics** in small amounts - the least serious form of narcotics manufacturing considered to be a criminal offence.
   a. How many, out of these 100 people, are, on average, **convicted** and sentenced to jail?
      Your answer: _____
   b. How long will their **sentence** be, on average? (in months in prison)
      Your answer: _____

7. Imagine 100 people who were not convicted before and are now found guilty of **murder**.

   a. How many, out of these 100 people, are, on average, **convicted** and sentenced to jail?

      Your answer: _____

   b. How long will their **sentence** be, on average? (in months in prison)

      Your answer: _____

Activity 7

How many out of your 5 stamps do you want to put into the lottery? Indicate one number.

0	1	2	3	4	5

Questionnaire 1 **(continues on the following pages)**

1. Do you think the below mentioned institutions treat all people equally without distinctions and that you can trust their information? Please use a scale from 1 to 1, with 1 meaning *not at all* and 11 meaning *definitely yes*. Indicate one number. Generally, would you say that,...
   a. … the healthcare system treats all people equally?

1 (Not at all))	2	3	4	5	6	7	8	9	10	11 (Definitely yes)

   b. … you can trust the information from school authorities (doctors, nurses)?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Definitely yes)

   c. … the judicial system treats all people equally?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Definitely yes)

   d. …you can trust the information from school authorities (judges, prosecutors)?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Definitely yes)

2. Would you say that the law enforcement and the actors of the judicial system were fair in the handling of your specific case?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Definitely yes)

3. When somebody does me a favor, I am ready to return the favor.

1 (Does not describe me at all)	2	3	4	5	6	7	8	9	10	11 (Describes me perfectly)

4. Would you say that, relative to other people, you are willing to sacrifice something now to get greater benefits in the future?

1 (Does not describe me at all)	2	3	4	5	6	7	8	9	10	11(Describes me perfectly)

5. To what extent are you willing to punish someone who treated you unfairly, even if it will have repercussions for you?

1 (Not at all willing)	2	3	4	5	6	7	8	9	10	11 (Very willing)

6. To what extent are you willing or not willing to risk?

1 (Not at all willing)	2	3	4	5	6	7	8	9	10	11(Very willing)

7. How likely do you think it is that you will...

a. ...have a stable job in the first year after your release from prison?

1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

b. ...have quality and stable accommodation in the first year after your release from prison?

1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

c. ...vote in the first five years after your release from prison?

1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

d. ...participate in an anti-government protest in the first five years after your release from prison?

1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

8. Would you say that your sentence is harsher or more lenient than what you expected before the trial?

1 (Much more lenient)	2	3	4	5	6	7	8	9	10	11 (Much harsher)

9. How concerned are you that you will not have enough money in the future?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Very concerned)

10. How concerned are you that you will be a victim of bullying or violence?

1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (Very concerned)

Imagine the following situations and indicate how likely do you think it is that they will happen to the two following types of men. These two men are very similar (age, looks, region), but man no. 1 was recently released from prison while man no.2 has no criminal record. The people who deal with them know about their past, but do not know anything else about the men.

a. Get an apartment for rent

Man 1 - released	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)
Man 2 - no criminal record	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

b. Befriend a person with no criminal record

Man 1 - released	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)
Man 2 - no criminal record	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

c. Get a new job

Man 1 - released	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)
Man 2 - no criminal record	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)

d. Someone will offer to give them a ride had they need it

Man 1 - released	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely)
Man 2 - no criminal record	1 (Not likely at all)	2	3	4	5	6	7	8	9	10	11 (Very likely))

11. Imagine that, in addition to the two men above, people will also deal with a third man, who is currently incarcerated. How do you think people will *generally* treat these three men?

Man 1 - released	1 (Very badly)	2	3	4	5	6	7	8	9	10	11 (Very well)
Man 2 - no criminal record	1 (Very badly)	2	3	4	5	6	7	8	9	10	11 (Very well)
Man 3 - incarcerated	1(Very badly)	2	3	4	5	6	7	8	9	10	11 (Very well)

12. How much do *you personally* trust these three types of men? The first is an ex-prisoner, whom you have never met, the second person is a man with no criminal record and the third is your past cellmate.

Man 1 - ex-prisoner	1 (Don't trust him at all)	2	3	4	5	6	7	8	9	10	11 (Trust him a lot)
Man 2 - no criminal record	1 (Don't trust him at all)	2	3	4	5	6	7	8	9	10	11 (Trust him a lot)
Man 3 - past cellmate	1 (Don't trust him at all)	2	3	4	5	6	7	8	9	10	11 (Trust him a lot)

13. How much would you personally want to have these three types of men as your neighbor after your release from prison?

Man 1 - ex-prisoner	1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (A lot)
Man 2 - no criminal record	1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (A lot)
Man 3 - past cellmate	1 (Not at all)	2	3	4	5	6	7	8	9	10	11 (A lot)

14. How much do you agree with the following statement? "I believe in god."

1 (Don' t agree at all)	2	3	4	5	6	7	8	9	10	11 (Agree entirely)

Survey 2

1. How old are you? _____
2. Family situation
    a. Single b. Married c. Divorced d. Widover
3. Do you have kids?
    a. Yes
        i. If yes, how old is each of them? _____
    b. No
4. What is your highest level of education ?
    a. Less than basic / Basic education
    b. High school without graduation / Graduated high school
    c. College / University
5. What section of prison have you been put into?
    a. Normal b. Special
6. What criminal activity are you currently sentenced for? _____
7. How long is your prison sentence? _____years and _____ months
8. How much of your current sentence have you already served? _____years and _____ months
9. How long in your life did you serve in prison in total? _____years and _____ months
10. At what court were you last sentenced to prison? _____
11. Did you have problems with addictions before going to prison (e.g. alcohol, drugs, slot machines)?
    a. Yes
        i. If yes, what kind of addictions? _____
    b. No
12. Do you have money problems (for example debts or distraints)? _____
    a. Yes

    i. If yes, what kind of problems? _____

    b. No
13. Have you, as an adolescent, ever been in a detention center?
    a. Yes
        i. If yes, what kind of institute? _____
    b. No
14. Have you been punished or praised for your behavior in the last year ?
    a. Yes
        i. If yes, how many times and with what kind of punishment/praise?
    b. No
15. Have you worked in the last half a year (or are you currently working) during your stay in prison?
    a. Yes
    b. No
        i. If not, would you work, if you had a job offer? _____
16. What job did you have before going to prison? _____
17. Approximately what net income did you earn before going to prison? (include also illegal income) _____

18. How many times a year do you attend church service? _____
19. How many postage stamps are needed to buy a pack of tobacco in this prison? _____