

Consequences of Inconvenient Information: Evidence from Sentencing Disparity*

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Abstract

Publishing inconvenient information about performance of public institutions raises a question of how citizens would respond. I conducted a survey experiment in which respondents were informed about sentencing disparity in the Czech Republic caused by the fact that a judge's personality affects imposed sentences, i.e., information likely questions the rule of law. The results suggest that such information does not lead to distrust and avoidance of the formal judicial systems. Instead, the treated respondents found fairness of the judicial system as a more important policy issue and were more likely to sign a petition that invites politicians to address the issue. I found sizeable heterogeneity in the treatment effect. The overall effect was driven by mothers, who are arguably more sensitive to the particular treatment information in the case of *failure to pay alimony*.

JEL Codes: H11, H40, D02, D83, K40.

Keywords: information disclosure, institutional trust, performance of government, sentencing disparity

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1 Introduction

Public administrations have been repeatedly found reluctant to disclose inconvenient information even if not doing so may jeopardize public health and safety and undermine principles of modern democracies. Censorship of information after the Chernobyl catastrophe by Soviet propaganda and repeated effort to cover-up a spread of diseases in China are two prominent examples. In these examples as and many other cases, the aversion to disclose information to the public was supposedly motivated by concerns that the information might reveal incompetence and systematic failure of responsible authorities. And this, in turn, would lead to public distrust in the system and its institutions.¹

In many cases, the concerns may be valid. In general, information about public administration's performance and competence to deliver on their responsibilities (e.g., public health ensured by health officers) affects public trust in institutions. Importantly, the information is likely to shape citizens' behavior with economic and social consequences. For example, Acemoglu et al. (2020) documented that providing the general public with positive information about state courts' performance (reduced delays) in Pakistan changed citizens' attitude and increased the likelihood of using state courts instead of relying on informal institutions to dispute resolution. Since asymmetric impact of negative and positive information has been documented in many domains (Eil and Rao, 2011; Coutts, 2019; Galil and Soffer, 2011; Moutsiana et al., 2013), one may wonder whether disclosing negative – and for the public administration inconvenient – information would lead to the opposite: public distrust and avoidance of such institutions.

To provide empirical evidence on the consequences of inconvenient information, I conduct a survey experiment studying how citizens respond to information regarding sentencing disparities among judges in the Czech republic. The fact that judge's personality and characteristics (e.g. propensity to incarcerate) affect sentencing decision is arguably one of the most worrying signals regarding the performance of judicial systems that challenges formal rules of equality before the law and clear, stable, and predictable application of law.² In the experiment, 2410 participants were randomized into a treat-

¹For example, the Associated Press (2020) reports on the COVID-19 outbreak in China as follows: *"In Wuhan, local leaders were accused of telling doctors in December not to publicize the spreading virus in order to avoid casting a shadow over the annual meeting of a local legislative body. As the virus spread, doctors were ordered to delete posts on social media that appealed for donations of medical supplies. That prompted complaints authorities were more worried about image than public safety."*

²Sentencing disparity is not unique to the Czech judicial system. In fact, it has been documented in many other judicial systems worldwide and extensively discussed by scholars. Mainly in criminology, but also in other related fields, a lack of consistency in sentencing is an established fact. Disparities have been documented along different dimensions: (i) within judges across time; (ii) between judges in a single jurisdiction; and (iii) between jurisdictions (Sporer and Goodman-Delahunty, 2009). Many scholars even leveraged the different practice (leniency) of judges as a source of quazi-exogenous variation to provide causal estimates of incarceration on various outcomes (Kling, 2006; Di Tella and Schargrodsky, 2013;

ment and a control group. The groups were provided with varying yet not deceptive information about sentencing disparity among judges at regional courts in the Czech republic. The treatment group was informed about sentencing decisions at a court, where judges differ at their sentencing practice, while the active control group was informed about a court, where all presented judges tend to decide consistently.

The core of the information treatment consists of shares of cases in which convicted offenders were sentenced to community services instead of other types of punishments (e.g., incarceration) for one of the most frequent crimes in the Czech republic - *failure to pay alimony*. In a between-subjects design, I then measure the effect of the information on: (i) declared institutional trust in a few institutions, including the judicial system; (ii) courts related behavior such as willingness to apply to courts and demand for alternative dispute resolution; and (iii) policy preferences regarding the judicial system, including a willingness to become actively engaged in addressing the sentencing disparity by signing a petition.

Disclosure of inconvenient information about sentencing disparity did not have adverse consequences of citizens giving up on the formal institutions. Instead, it seems that respondents in the treatment group are more likely to become involved in the solution of the problem. In particular, treatment did not lead to public distrust in the judicial system or any other intuitions (e.g. the police). Furthermore, I found no effect on the intention to avoid the formal judicial system and on a demand for alternative dispute resolution. However, the treatment motivated respondents to sign a petition that invites politicians to suggest particularizing sentencing principles that would assist judges in their sentencing decisions and thus limit the sentencing inconsistency. By the most conservative estimates, the treatment increases the share of respondents willing to sign the petition by 3.4 percentage points (5.8 %). Additionally, subjects exposed to the treatment information found fairness of the judicial system more important policy goal than other subjects.³

To understand who is likely to react to the inconvenience information, I made use of the fact that mothers are arguably more sensitive to the incompetence of the judicial system in the case of *failure to pay alimony*. If after a divorce, a father refuses or is unable to pay alimony on his children, a mother is left to cover necessary expenditures alone.

Dahl et al., 2014; Aizer and Doyle, 2015, see, for example,).

³The results qualitatively correspond to the reaction of the general public to information and a video of George Floyd death. The general public has become undoubtedly more interested in the issue of racism documented by the BLM protests and online search Barrie (2020). A survey conducted 2 months after George Floyd death suggests that most Americans supported major (58 %) and minor (36 %) changes in policing, however, only 15 % supported the idea of abolishing police departments (Gallup, 2020). Additionally, Philonise Floyd, George Floyd's brother, called on lawmakers to make law enforcement "part of the solution, not the problem" during a House Judiciary Committee hearing to discuss police brutality and racial profiling, in Washington, June 10, 2020.

Unfortunately, this happens frequently.⁴ As a result, divorced mothers are often left in a complicated financial situation with little help from the government and any other institutions. Even if NGOs provide help and assistance, they focus on legal consultation regarding suing the defaulter rather than providing financial support. Consequently, mothers (in the data identified as female respondents with at least one child regardless of the age of that child) are likely to be more sensitive to the treatment information than any other groups. They are simply the most vulnerable.

The results suggest that the treatment effect indeed varies by respondents' characteristics. The overall willingness to act on the information and sign the petition is driven exclusively by mothers. Once I allow the treatment effect to vary by mother-status of respondents, mothers in treatment groups are by 8.2 percentage points more likely to sign the petition than mothers in the control group. That more than doubles the magnitude of the average treatment effect. Under less conservative specifications, the effect is even larger. A similar pattern is discernible in the reported trust in the judicial system. Importantly, the potential negative consequences of the effect on reliance on the judicial systems are not visible even among mothers. Overall, zooming at the arguably most sensitive group of respondents makes the results only stronger: Information about sentencing disparity did not lead to avoidance of the judicial system. Instead, it motivates the general public to become engaged and demand improvement. I found no evidence that the treatment effect would depend on respondents' prior beliefs whether the judicial system works well or not.

Previous academic literature has studied consequences of publishing information under different conditions. First, scholars have studied effects of information about the performance of private firms (see, for instance, Beyer et al., 2010). This paper differs from that stream of literature, as a reaction on a disclosure of the firms' performance usually materializes through better-understood market mechanisms and affects the firm's valuation. That is virtually impossible in the case of public institutions. Second, previous economic discussions regarding information disclosure by public institutions focused on precision of the information and in particular on a trade-off between timely but noisy information and slow but more accurate information regarding volatile economic statistics such as GDP (Morris and Shin, 2002) and on communication strategies of central banks as a monetary policy tool (Blinder et al., 2008). This literature thus differs in the nature of the information and its goals. Information about the state of the economy and intended monetary policies aim to increase transparency and form market expectations. As long as the communication of central banks does not lead to questioning the competence of

⁴There is no exact figure of how often this happens, however, the fact that the *failure to pay alimony* is one of the three most frequent crimes and only a fraction of the cases ends up at the court suggests that this is a sizeable problem.

the central bank to deliver on monetary policy goals, this project is less related.

This project is more relevant to the stream of literature devoted to consequences of publishing performance indicators of hospitals (Smith et al., 2009; Ketelaar et al., 2011), as public health is often (co)financed through public budgets with regulated prices that limits a scope for the market mechanisms. However, since patients are generally allowed to choose which hospital to use, even regulated market mechanisms work and patients prefer better performing hospitals. As a result, the consensus of the literature suggests that publishing information led to an improvement in the under-performing hospitals Hibbard et al. (2005). My project differs, as offenders cannot generally choose which court to attend, so market mechanisms do not apply at this situation at all.

This project shares several features with a recent paper by Acemoglu et al. (2020). The authors show that truthful information about reduced delays in state courts increases the reported likelihood of using formal courts instead of non-state institutions (Panchayats) in rural Pakistan. Their results suggest higher information sensitivity compared to mine. Importantly, the studies differ diametrically in their context: (i) information provided by Acemoglu et al. (2020) is viewed as positive, whereas mine as negative. Previous literature suggests asymmetric reaction to negative and positive news in many domains of human behavior (Eil and Rao, 2011; Coutts, 2019; Galil and Soffer, 2011; Moutsiana et al., 2013).; (ii) their project was conducted in a rural area in Pakistan where households access the court system frequently⁵ and thus are aware of, and are arguably more sensitive to, the performance of the judicial system. In my setting—a standard European democracy—awareness about courts’ performance is less widespread, and respondents are less experienced in judicial and courts’ practice. Only 10 % of respondents in this study reported that they had had sizeable experience with the judicial system (first-hand and/or through people they know well, e.g., family)⁶; (iii) the judicial systems in Pakistan and the Czech Republic enjoy different levels of public trust. According to the Eurobarometer (2018), 43 % of respondents in the Czech Republic tend to trust in the judicial system. That is by 8 percentage points fewer than the average of the EU28, yet still comparable with most developed countries. On the contrary, in Pakistan, the state institutions suffer from a lack of trust (Jackson et al., 2014; Cheema et al., 2017).⁷ All three aspects likely contribute to different information sensitivity.

⁵“In our survey one in every five households report that they have accessed the court system in the last three months” (Acemoglu et al., 2020, p.7).

⁶A lack of knowledge and experience about how the judicial system works among the general public seems to be common in the European democracies. For example, according to Chapman et al. (2002), the British Crime Survey (BCS) and other surveys have shown that the public is poorly informed about crime and the operation of the criminal justice system.

⁷“Pakistan is an ideal setting for such an investigation because of the well-recognized weakness of state institutions and the associated low levels of access to and trust in the state.” (Acemoglu et al., 2020, p.1).

Finally, I contribute to a broad literature studying institutional trust. Unlike interpersonal trust, which is usually elicited using the trust game, institutional trust is more challenging to measure. Regrettably, there is no evidence that the properties of interpersonal trust are automatically transferable to different domains. Carlsson et al. (2018) and Alesina and La Ferrara (2002) find a low correlation between generalized trust and trust in various institutions (the government, the police, the judicial system). Many scholars studying institutional trust rely on data about declared institutional trust and provide correlational evidence (e.g., Grönlund and Setälä, 2012). Evidence on the causal effect of interventions on institutional trust is generally rare. Two projects estimate the causal effect of perceived quality of public institutions on institutional trust studied procedural justice protocol and trust in the police. Murphy et al. (2014) argued that if police officers followed an experimental protocol — that focuses on voice, neutrality, trustworthiness, and respect — during a control, then drivers in Australia reported higher trust in the police. However, using a similar experimental design in Scotland, MacQueen and Bradford (2015) failed to replicate the effect of an increase in trust. A similar question of whether judicial system transparency affects institutional trust was studied by Grimmelikhuijsen and Klijn (2015). In their field experiment, they invited respondents to watch a TV series about a District Court in the Netherlands that allowed the public to watch judges’ daily work on real cases. The authors report that watching the TV series increases the declared level of trust in judges. The treatment in their study, however, conveys different information. Information on the day-to-day practice on several cases can barely reveal (in)consistency in sentencing among judges. I extend this stream of literature by estimating causal effects of information about public institutions’ performance on declared institutional trust and other measures of intended behaviors related to the trust.

The rest of the paper is organized as follows. The following section introduces the design of the experiment, and the outcomes studied. Next, I discuss the results with attention to the heterogeneous treatment effect by the mother-status. Finally, before I conclude, I add thought on interpretation and implications of the results.

2 Design of Survey Experiment

To conduct the survey experiment, I partnered with Behavio, a private company administering a panel of regular respondents. Respondents were invited by email to take part in an online survey about courts and justice. 2410 respondents completed the survey. Additional to the data collected in the experiment, I have basic demographic characteristics of respondents collected in previous surveys. Except for the final task, the experiment was run on a platform of Behavio familiar to the respondents.

The experiment consisted of four stages. Upon starting the survey, respondents were asked three questions regarding their prior attitude to the judicial system and their previous experience. Next, respondents were randomized into the treatment and the active control groups and were presented with the corresponding information. After the treatment phase, respondents were asked to complete five tasks and questions. The final task consisted of reading and signing a petition posted on a different website. Respondents interested in the petition had to leave the Behavio platform. The order of tasks and questions in the first (prior attitude) and the third stages (five task) were randomized at the individual level. The full script is available in appendix.

2.1 Attitude

The first stage aimed to understand the respondents' initial attitude towards the judicial system. Respondents were asked to what extent on a four-level scale they agree with two statements: (i) "Depending on a judge, similar cases can be sentenced differently"; (ii) "Overall, the judicial system in the Czech republic works well." Additionally, I asked how experienced with the judicial system they and/or people close to them are.

2.2 Treatment

I provided respondents with varying yet not deceptive information about sentencing disparity among judges within a regional court. The treatment group was informed about a court with high sentencing disparity among judges, while the active control group about a court with a negligible sentencing disparity among judges. The source of the variation comes from sentencing disparities among judges at different courts. At some regional courts, judges significantly vary in their sentencing patterns, while at others, judges exhibit indistinguishable sentencing patterns. The information relies on variation within a given court, rather than between courts, as some of the regional disparities in sentencing are justifiable and do not represent the intended variation.⁸

Data about sentencing decisions are complicated and multidimensional⁹ which makes it complicated to convey an understandable message. I rely on one of the most common offenses in the Czech republic – *failure to pay alimony*¹⁰ – and present shares of cases in which a judge sentences a convicted person to community services as the primary

⁸For example, a driving disqualification in a city with functional public transportation is arguably more lenient punishment in terms of economic and social consequences than the same type of punishment in regions at the foothills of mountains with limited public transportation. These and similar considerations may lead to some desired sentencing disparity across regions.

⁹One has to consider different offenses and their subsections, different types and extent of punishment, and combination of more types of punishment.

¹⁰Formally, the crime is called Section 196 Negligence of Mandatory Support.

punishment. The offense of *failure to pay alimony* satisfies four criteria needed for the treatment to be based on credible information: (i) there are enough observations so that I can provide aggregate statistics based on at least 80 cases per judge (over three years of 2016-2018); (ii) compared to other offenses, in the objective elements of a crime *failure to pay alimony* is a homogenous crime; (iii) while it is not part of the information provided in the treatment, the differences highlighted in the treatment are statistically significant; (iv) since it is a general type of crime, cases are assigned to judges at random.

The treatment and the control slides present the information in a way the news would do. The slide's core is a simple, self-explanatory bar graph accompanied by a few additional pieces of information providing an interpretation of the graph. In particular, the treatment slide consists of a bar graph showing shares of cases in which the convicted criminals were sentenced to community service by different judges (22 %, 18 %, 29 %, 7 %, and 8 %), the headline says: "Judges sentence differently." Next, the slide explains that judge C (29 %) sentenced to community service almost a third of the convicted offenders, whereas, for some, it is less than 10 % and instead, they impose different types of punishments. Finally, the slide highlights that cases are assigned at random and that being assigned to judge C implies up to a threefold higher probability of being sentenced to community service. In the control group, the slide shows a bar graph with shares of cases that were sentenced to community service by different judges (17 %, 14 %, 16 %, 17 %). The headline says: "Judges sentenced very similarly." The control slide further explains that regardless of the judge assigned, a convicted offender has a very similar probability of being sentenced to community service. Respondents in both groups are informed that the figures are based on actual sentencing decisions of judges at one of the Czech regional courts, but they do not know which one. The screens of the control and the treatment slides can be found in the appendix.¹¹

2.3 Experimental Outcomes

The collected outcomes are classified into three main categories: (i) declared institutional trust; (ii) reliance on the judicial system; and (iii) policy preferences.

Institutional Trust To measure institutional trust, I adopt standard survey questions of declared institutional trust similar to those used by international institutions such as the WVS and the Eurostat. In particular, respondents were asked to indicate their trust level on a scale of: *a great deal*; *quite a lot*; *not very much*, and *none at all* towards

¹¹Once respondents finished the experiment, the Behavio sent them a debriefing letter that explains that the information presented represents only one regional court and the situation may differ in different courts. The debriefing letter can be found in the online appendix.

four different institutions. One of the institutions was the judicial system. The choice of the others was led by connection to the judicial system. The closest institution to the judicial system is the police, as police officers often cooperate on criminal cases. The next institution is the government, which is responsible for functional judicial system¹²; and finally, the public broadcasting, that can be viewed responsible for the lack of information about the sentencing disparity.

Reliance on Judicial System Next, I propose two measures to answer whether information about sentencing disparity reduces respondents' willingness to apply to a court. And (if so,) are the respondents more likely to search for alternatives to the formal judicial system? Since these questions ask about actual (intended) behavior, they provide more convincing measures of real life consequences of the treatment information than the declared level of trust.

To understand whether providing information about sentencing disparity reduces willingness to apply to the court, I cooperated with an NGO (*vasevyzivne.cz*), that assists single-parents to sue out for alimony. In the experiment, I briefly explain a problem of a typical client of the NGO, i.e., a single mother who considers applying to the court to sue for alimony or not. Applying to the court is potentially beneficial, but it also may lead to high cost, both in terms of money and time and no benefits. Then, I asked the respondents whether they would recommend her – a typical client of the NGO – to apply to the court or not. Before their answers, I informed them that the NGO might use their advice as material in similar cases. Presumably, the belief that their responses will potentially serve as a guideline for other people in actual problems increases the cost of an ill-concerned answer.

Should information about sentencing disparity discourage respondents from applying to the judicial system, it seems reasonable to expect that they may be interested in substitute to the judicial system. In a similar vein, Acemoglu et al. (2020) document the substitutability between formal and informal courts motivated by perception of the poor performance of the formal courts. As the next task, I explained that in some cases it is possible to rely on alternative dispute resolution instead of the judicial system. Then I offered a free booklet with basic information about alternative dispute resolution. The respondents first provided an indicate answer of their interest, and if it was affirmative, they were asked to provide their email addresses to have the booklet sent. The two-steps procedure was done for two reasons. First, it evaded legal concerns about using their email addresses for different purposes than inviting them to conduct the survey. Second, it imposed a small but positive cost on the action.

¹²For example, the government (the Minister of Justice) plays a role in appointing new judges.

Policy Preferences New information about performance of public institutions work may change policy preferences and evoke public reactions (e.g. petitions and political protests). To measure this effect, I collect two outcomes regarding the policy preferences. First, I asked respondents to imagine that they were the prime minister of the Czech Republic and gave them a list of four policy issues that they were supposed to rank according to the perceived priority. The acutest issue was supposed to be ranked as the top priority, the second acutest as the second priority, etc. The four policy issues were: (i) fairness of the judicial system; (ii) sufficient highway infrastructure; (iii) high-quality teachers in educational systems; and (iv) safety situation in the Czech Republic.

Second, I elicited respondents' willingness to become actively involved in policy debate. Subjects were presented with an extract of a petition inviting politicians (members of the Committee on Constitutional and Legal Affairs, Chamber of Deputies, Parliament of the Czech Republic) to suggest particularizing sentencing principles. Respondents were asked to indicate their interest in reading the full text of the petition and signing it. If interested, the respondents were referred to a google forms website with the full text of the petition. The text highlights the importance and far-reaching consequences of sentencing decisions in one's life and suggests that it may be beneficial to have a manual that would lead to more consistent sentencing. Importantly, the petition was explicit that the manual would be designed to assist judges in their sentencing decisions but would not in any way undermine their independence and discretion. If interested in signing the petition, the respondents could have left their email address to have the signature sheet sent.¹³ I collected individual declaratory answers regarding their interest in reading and signing the petition. Once respondents left the Behavio website and opened the petition, I could not observe responses at the individual level. However, since individuals in the treatment and the active control groups were referred to different forms of the identical petition, I observed the number of email addresses left for the control and the treatment group separately.

2.4 Randomization

The groups are balanced on both observed demographic characteristics and their prior attitudes towards the judicial system. Roughly 19 % (21 % in the control group) of the respondents in the treatment group reported to be single, 18 % (17 %) live in cohabitation, 43 % (44 %) are married. An additional 16 % (15 %) reported they are currently divorced, and only 4 % (3 %) are widowed. The reported marital status reflects their status at the time of the survey experiment but not their history; for example, respondents classified as

¹³The respondents were informed that the petition would be filed once there are at least 1000 signatures.

married could have experienced a divorce before. Slightly more than 70 % of respondents have at least one child, and the average number of children is 1.43 in the control group and 1.49 in the treatment group. In both groups, there are fewer male than female respondents (46.7 % in the treatment group and 48.1% in the control group). For more details, see table 4 in the appendix.

3 Results

3.1 Prior Attitude Towards Judicial System

A majority of respondents (91.4 %) agree that sentencing decisions are sensitive to a personality of a judge and that depending on a judge assigned, similar cases can be sentenced differently. The measure of the general approval of the judicial system is less unequivocal. 52.4 % agree that the judicial system works well, while 47.6 % disagree. The immediate implication is that many respondents (46,7 %) tend to approve of the judicial system, despite the perceived sentencing disparity. Figure 6 in the appendix shows the aggregate levels of responses.

Approval of the judicial system varies with the level of experience with the judicial system. More experienced respondents tend to hold more negative prior beliefs. Consider the 10 % of respondents who report the highest level of experience, the majority of them (60 %) strongly agree that depending on the judge assigned, similar cases can be sentenced differently and do not consider the judicial system working well. The less experienced respondents consider the judicial system working rather well and do not view the sentencing disparity as that extreme, yet they still admit it may exist. Figure 7 in Appendix shows a frequency of different combinations of prior approval (x-axis) and perception of sentencing heterogeneity (y-axis) by groups that report different level of experience with the judicial system. The Wilcoxon rank-sum test rejects the equality of attitudes ($p\text{-value} = 0.000$) between the most experienced and the three level of less experienced respondents taken together.

3.2 Experimental Evidence

3.2.1 Institutional Trust

The most trusted institution is the police (56 % of respondents report one of the two highest levels of trust), followed by the judicial system (42 %) and the public broadcasting (25 %). The national government enjoys the lowest level of trust (21 %). The results are consistent with international surveys. For example, according to Eurobarometer (2018),

similar shares of Czech respondents tend to trust in the police (63 %), the judicial system (43 %), and the national government (28 %).¹⁴ Overall, my results, while less optimistic, tend to resemble those from Eurobarometer (2018).

High prior level of approval of the judicial system positively correlates with the level of declared trust in all four institutions. A respondent who views the judicial system working well is by ca. 45 percentage points more likely to report high level of trust in the judicial system. More interestingly, she is also by ca. 25 percentage point more likely to trust in the police, by ca. 12 percentage points in the government, and by ca. 10 percentage points in the public broadcasting. All the effects are statistically significant. The closer the institution to the judicial system is, the larger the effect is. Table 5 in appendix summarizes full results.

To test the effect of information about sentencing disparity on institutional trust, I conduct four exercises that all suggest that the treatment does not have an effect. I start by collapsing the first two possible answers: *a great deal* of trust; and *quite of a lot* of trust into one category denoted as *High Trust*. For each institution j , I: (i) estimate univariate OLS regressions

$$High\ Trust^j = \alpha + \beta\ Treatment + \varepsilon \quad (1)$$

(ii) estimate OLS regressions with a set of dummies capturing individual prior attitude towards the judicial system and basic demographic characteristics (income, age, level of education, gender, the number of kids, and heterogeneity of the treatment effect by mother-status and by prior approval of the judicial system); (iii) simulate the exact p-value for the sharp null hypothesis derived from the potential outcome framework (Athey and Imbens, 2017) and then test

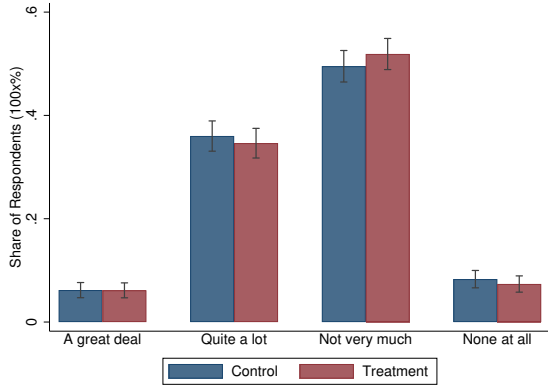
$$High\ Trust_i(0) = High\ Trust_i(1) \quad \forall i = 1, \dots, N. \quad (2)$$

Finally, since the levels of institutional trust represent ordinal scale, I assign a rank (1,2,3,4) to these categories and apply the Wilcoxon rank-sum test.

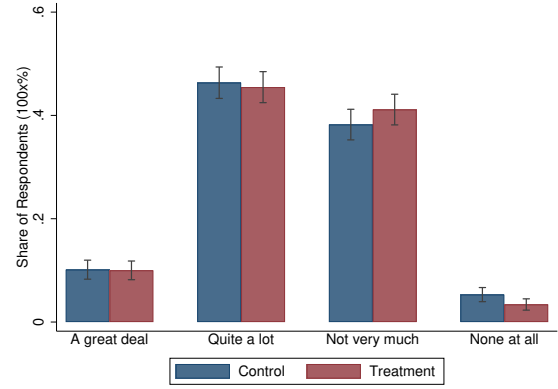
To provide results that are robust against the limited attention of respondents, I work with two samples: (i) a *baseline* sample that contains all observations at the level of randomization; and (ii) a sample that drops observations for 10 % of respondents who spent the least time on the treatment and control slides, respectively. That limits the number of observations to 2,168. Additionally, I also dispose of 10 % of respondents who spent the least time on the slide with the institutional trust task, reaching 2,008 observations (83 % of the initial dataset). I refer to this sample as the *restricted* sample.

¹⁴Eurobarometer (2018) did not ask about the institutional trust in the public broadcasting.

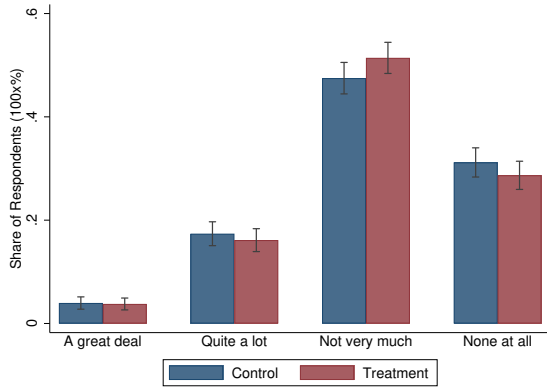
Figure 1: Levels of Institutional Trust



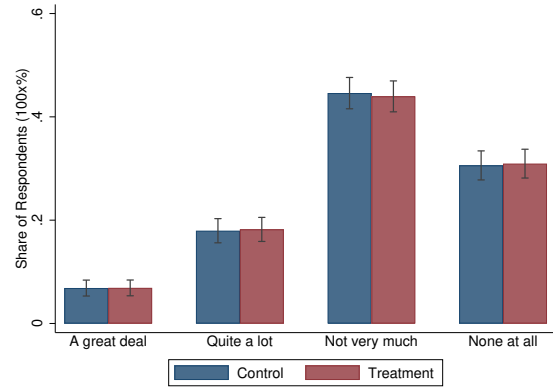
(a) Trust in Judicial System



(b) Trust in Police



(c) Trust in Government



(d) Trust in Public Broadcasting

Notes: Declared level of institutional trust by treatment status: (a) in the judicial system; (b) in the police; (c) in the government; and (d) in the public broadcasting. For each institution, respondents were asked to choose from four levels of trust: (i) a great deal; (ii) quite a lot; (iii) not very much; (iv) none at all.

No effect in the *restricted* sample is credible evidence that the lack of effect is not caused by respondents' limited attention.

Table 1 summarizes the main results. Panel A shows results from the OLS regressions run on the *baseline* sample, and panel B adds results from the *restricted* sample. The first column for each institution provides strong evidence that the average treatment effect is economically and statistically insignificant. The point estimates are, in absolute value, safely less than 2 percentage points for all four institutions. Providing information about sentencing disparities among judges thus did not lead to an institutional distrust. Similarly, the exact p-value test and the Wilcoxon rank-sum test presented in panel C for the full sample indicate the null average treatment effect.

The null average treatment effect masks potential heterogeneity. Among mothers¹⁵, who are arguably more sensitive to inconvenience information regarding *failure to pay alimony*, the treatment tends to increase distrust. Second columns for each institution in panel A and B report results with a focus on *Treatment x Mother*, controlling for prior beliefs and attitude towards judicial system and demographic characteristics, such as age, gender, level of education, income, whether a respondent is a mother. Despite only a marginal statistical significance, panel A and the Wilcoxon test in panel C suggest treatment heterogeneity. Taking the point estimates at their face values, the share of trusting respondents among mothers, who are arguably more sensitive to information about *failure to pay alimony*, decreases by 6 percentage points more than among non-mothers respondents. I did not find heterogeneous treatment effect with respect to prior level of approval of the judicial system. The treatment information did not affect trust of those who approve the judicial system in the same way as it did not affect those who do not approve the judicial system. Table 5 in appendix summarizes full results.

3.2.2 Reliance on Judicial System

The second group of outcomes consists of a measure of respondents' intention to apply to a court, *Court Apply*, and two measures of their willingness to learn about alternative dispute resolution *ADR Interest* and *ADR Mail*. In general, respondents exhibited a strong will to apply to the judicial system, as almost 93.6 % of respondents recommended a single mother to apply to the court in a situation in which she hesitates. As expected, a high level of approval of the judicial system is a good predictor. In particular, respondents who consider the judicial system working well, are by 4 percentage points more likely to recommend a single mother to apply to the court.

If offered, a majority (76.2 %) would be interested in receiving a booklet about alter-

¹⁵A female respondent is characterized as a mother if she has at least one child, regardless of the child's age.

Table 1: Treatment Effect on Declared Institutional Trust

Panel A: Baseline Sample								
	Judicial System		Police		Government		Broadcasting	
Treatment	-0.013 (0.032)	-0.007 (0.032)	-0.013 (0.039)	-0.018 (0.025)	-0.008 (0.030)	-0.016 (0.021)	-0.032 (0.033)	-0.009 (0.022)
Treat. x Mother		-0.059* (0.035)		-0.050 (0.040)		-0.034 (0.034)		0.011 (0.034)
Prior Attitude	No	Yes	No	Yes	No	Yes	No	Yes
Demo. Char.	No	Yes	No	Yes	No	Yes	No	Yes
N	2 410	2 407	2 410	2 407	2 410	2 407	2 410	2 407

Panel B: Restricted Sample								
	Judicial System		Police		Government		Broadcasting	
Treatment	-0.010 (0.022)	-0.008 (0.035)	-0.013 (0.022)	-0.025 (0.042)	-0.013 (0.028)	-0.006 (0.033)	0.003 (0.019)	-0.040 (0.036)
Treat. x Mother		-0.057 (0.038)		-0.042 (0.043)		-0.054 (0.036)		0.022 (0.037)
Prior Attitude	No	Yes	No	Yes	No	Yes	No	Yes
Demo. Char.	No	Yes	No	Yes	No	Yes	No	Yes
N	2 008	2 005	2 008	2 005	2 008	2 005	2 008	2 005

Robust standard errors in parentheses.

* (p<0.1), ** (p<0.05), *** (p<0.01)

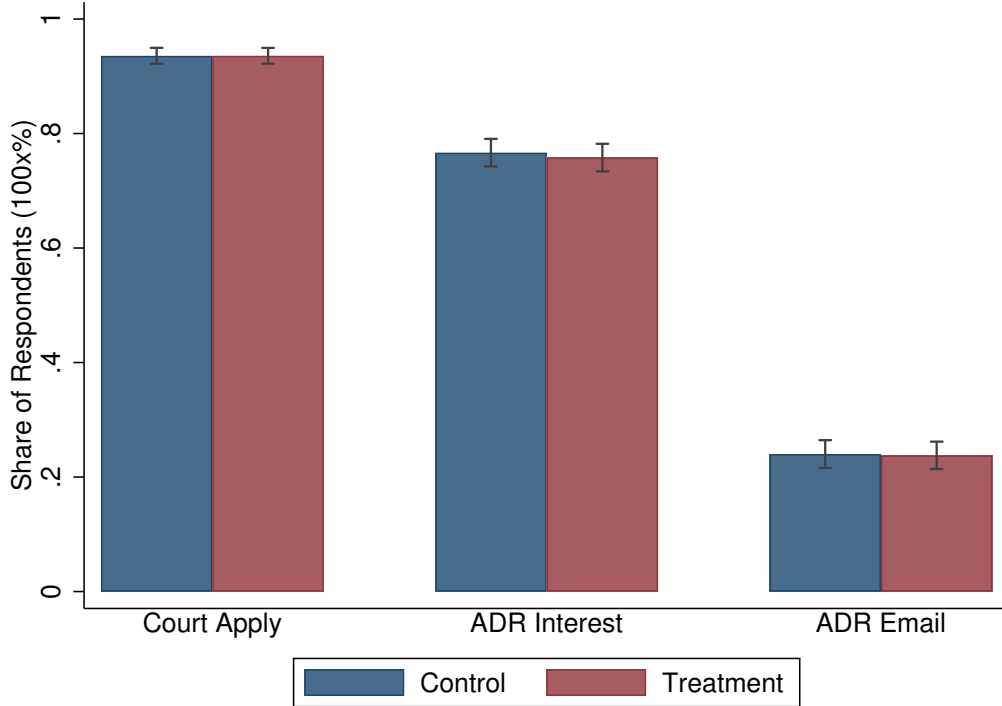
Panel C: Exact p-value and p-value of the Wilcoxon test (Baseline sample)				
	Judicial System	Police	Government	Broadcasting
Exact p-value	0.510	0.518	0.625	0.810
Wilcoxon test				
Full sample	0.652	0.760	0.509	0.702
Only mothers	0.063*	0.094	0.915	0.515

Panel A shows results from univariate and multivariate OLS regressions of *Treatment* on a dummy for high level (great deal of trust and quite a lot) of institutional trust.

Panel B shows results from univariate and multivariate OLS regressions of *Treatment* on a dummy for high level (great deal of trust and quite a lot) of institutional trust using the *restricted* sample of more attentive respondents.

Panel C presents p-values of two alternative measures; the exact p-value (Athey and Imbens, 2017) derived from 20,000 simulations and the p-value of the Wilcoxon rank-sum test that tests for the same rank of institutional trust.

Figure 2: Reliance on Judicial System



Notes: Shares of affirmative responses by the treatment status. *Court Apply* captures whether respondents recommend to a single mother to apply to the court when she hesitates. *ADR Interest* measures shares of respondents who indicate their interest in receiving information about alternative dispute resolution (ADR). *ADR Mail* shows shares of respondents who provide their email addresses to have the information about ADR sent.

native dispute resolutions. However, when the respondents were asked to provide their email addresses to have the booklet sent, only 23.9 % of all respondents and 31.4 % of those who declared their interest did so. See figure 2. Better educated and more experienced respondents are more likely to demand ADR, which suggests that demand for alternative dispute resolution requires a particular level of sophistication regarding the judicial system. See table 6 in appendix.

Information about sentencing disparities affected neither the (intended) reliance on the judicial systems nor the demand for alternative dispute resolution. Table 2 reports results from a univariate OLS regression, a regression with a focus on treatment effect on mothers, and an exact p-value. The first columns for each measure show that the average treatment effects are statistically insignificant and economically negligible. In terms of the magnitude of the point estimates, the effects are even smaller than the one on institutional trust. All point estimates of the average treatment effects are bounded between -1 and 1 percentage points. Panel B shows results estimated on a sample of respondents that spent enough time on the treatment and control slides and on the slide

with the corresponding task and confirms the results.¹⁶

Looking at the heterogeneity of the treatment effect, not even more sensitive groups of respondents change their behavior. In particular, mothers tend to respond to the inconvenient information about the sentencing disparity in the same manner other respondents did – not at all. Similarly, there is no heterogeneous treatment effect with respect to approval of the judicial system. Table 6 in appendix shows the full results. Panel C in table2 shows the exact p-value and provides additional evidence of strong null results for all three measures.

3.2.3 Policy preferences

Petition I collected two measures of respondents’ reactions to the petition. At the individual level, I measured respondents’ interest in reading and signing the petition as an indicator that can be linked to other individual’s characteristics. At the control and treatment groups’ level, I collected the number of email addresses provided. After declaring one’s interest in reading and signing the petition, the respondents were referred to an external website. Once they left the platform, it is impossible to track their decisions at the individual level and match it to their characteristics. However, since the control and the treatment groups were referred to different petitions (with identical text), I can measure the number of email addresses left by respondents in the control and the treatment group.

More than 60 % of respondents showed their interest in reading and signing the petition. Higher education, more experience with the judicial system and perception of a sizeable sentencing disparity are correlated with higher likelihood of signing and reading a petition. Figure 3 shows shares of respondents interested in reading and signing the petition and those who provided their email addresses by the control and the treatment groups. The share was higher in the treatment group by 3.4 percentage points (5.8 %). Once the respondents were asked to provide their email addresses, the share of affirmative action fell to 25 %. The gap between the treatment and the control groups remains almost constant at 3.2 percentage points (13.6 %).

Formal tests suggest that the average treatment effects on: (i) respondents’ interest in reading and signing the petition; and (ii) providing an email address are marginally significant. The former effect becomes slightly larger once I drop observations of the least attentive respondents. See Panel B in Table 3. The average treatment effect, however, masks sizeable heterogeneity. The second column of panel A shows that controlling for additional individuals characteristics and including a product of treatment status and mother status leads to a null treatment effect among non-mother respondents. Instead,

¹⁶Since the overlap of the dropped samples differ across tasks, the number of observations does too.

Table 2: Treatment Effect on Reliance on Judicial System

Panel A: Baseline Sample						
	Court Apply		ADR Interest		ADR Mail	
Treatment	0.000 (0.010)	0.021 (0.022)	-0.009 (0.017)	-0.027 (0.035)	-0.002 (0.017)	0.009 (0.033)
Treat. x Mother		-0.018 (0.021)		0.049 (0.036)		0.030 (0.035)
Prior Attitude	No	Yes	No	Yes	No	Yes
Demo. Char.	No	Yes	No	Yes	No	Yes
N	2 410	2 407	2 410	2 407	2 410	2 407

Panel B: Restricted Sample						
	Court Apply		ADR Interest		ADR Mail	
Treatment	0.002 (0.010)	0.008 (0.022)	-0.007 (0.018)	-0.020 (0.037)	0.006 (0.019)	0.028 (0.010)
Treat. x Mother		0.010 (0.021)		0.051 (0.037)		0.010 (0.039)
Prior Attitude	No	Yes	No	Yes	No	Yes
Demo. Char.	No	Yes	No	Yes	No	Yes
N	2 020	2 017	2 023	2 020	2 023	2 020

Standard errors in parentheses

* (p<0.10), ** (p<0.05), *** (p<0.01)

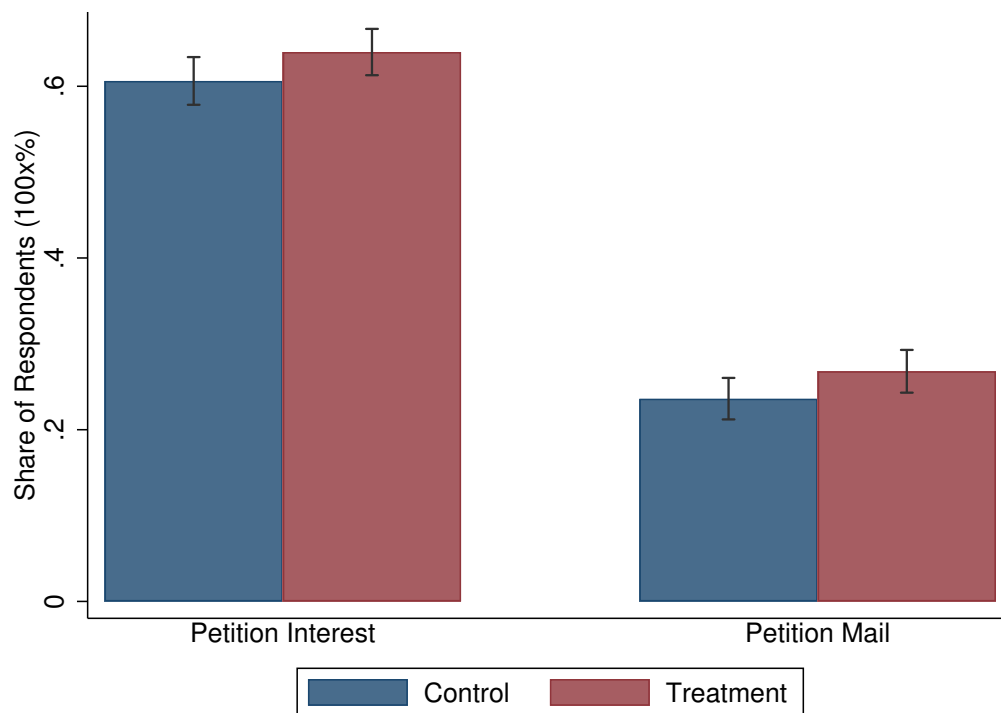
Panel C: Exact p-value (Baseline sample)			
	Court Apply	ADR interest	ADR Mail
Exact p-value	0.993	0.620	0.898

Panel A shows results from univariate and multivariate OLS regressions of *Treatment* on a dummy variable for affirmative response from three tasks.

Panel B shows results from univariate and multivariate OLS regressions of *Treatment* on a dummy variable for affirmative response from three tasks using the *restricted* sample of respondents attentive respondents.

Panel C shows the exact p-value (Athey and Imbens, 2017) derived from 20,000 simulations.

Figure 3: Interest in Reading and Signing Petition.



Notes: Share of respondents who declare their interest in reading and signing petition. *Petition Interest* measures shares of respondents of the *baseline* sample who indicate their interest in reading the petition. *Petition Mail* measures shares of respondents of all respondents invited in the survey who provided me with their email addresses to have the petition sent.

it seems that the whole effect is driven by mothers who act on that information. In particular, the inconvenient information about the sentencing disparity in cases of *failure to pay alimony* increases the likelihood that a mother will be interested in reading and signing the petition by almost 8 percentage points. The effect is even larger on the *restricted* sample. Full results in table 7 show that there is no heterogeneity in the treatment effect with respect to level of approval.

Policy preferences The respondents view the fairness of the judicial system as a relevant policy issue. A third (32.6 %) of them ranked fairness of the judicial system as the top priority and an additional 50 % as the second most important priority. While the perception of fairness of the judicial system is likely affected by the survey experiment itself (e.g., through experimenter demand effect) and thus it is barely generalizable, it is a good signal of the relevance of the issue. Figure 4 shows shares of respondents who ranked fairness of the judicial system as the first, the second, the third and the fourth priority by both the treatment and the control groups. The figure suggests that the ranking among the treated respondents is slightly shifted towards the higher priority compared to the control group.

The share of respondents who would address the fairness of the judicial system as the top priority in the treatment group is 34 %, while in the control group, it is 31.2 %. The difference is not statistically significant. Once one looks at the *restricted* sample of more attentive respondents, it becomes marginally significant. See table 3. To formally test the differences in the rankings of the policy issues, I rely on the Wilcoxon rank-sum test. Panel D in table 3 shows that the ranks marginally differ, especially in the restricted sample. That confirms the apparent shift of ranking of the judicial system among the treatment group. There seems to be no heterogeneity effect with respect to mother-status and a level of approval.

4 Discussion

4.1 Interpretation of the treatment effect

An important concern in studying trust and trustworthiness based on information treatment is whether respondents trust the provided information. At the beginning of the experiment, respondents were informed that the provided information is truthful and based on data from the Ministry of Justice. This may evoke a tension between implicitly asking respondents to trust the data provided by the Ministry of Justice. And at the same time, asking them whether they trust in the judicial system. To understand the

Table 3: Treatment Effect on Political Preferences

Panel A: Baseline Sample					
	Petition		Petition Mail	Top Priority JS	
Treatment	0.033*	0.030	0.032*	0.027	0.073*
	(0.019)	(0.040)	(0.017)	(0.019)	(0.038)
Treat. x Mother		0.077*			-0.008
		(0.040)			(0.039)
Prior Attitude	No	Yes	No	No	Yes
Demo. Char.	No	Yes	No	No	Yes
N	2 410	2 407	2 410	2 410	2 407

Panel B: Restricted Sample					
	Petition		Petition Mail	Top Priority JS	
Treatment	0.047**	0.042		0.034*	0.070*
	(0.021)	(0.042)		(0.020)	(0.041)
Treat. x Mother		0.100**			-0.005
		(0.043)			(0.042)
Prior Attitude	No	Yes		No	Yes
Demo. Char.	No	Yes		No	Yes
N	2 037	2 034		2 018	2 015

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Panel C: Exact p-value (Baseline sample)			
	Petition	Petition Mail	Top Priority JS
Exact p-value	0.086*	0.079*	0.155

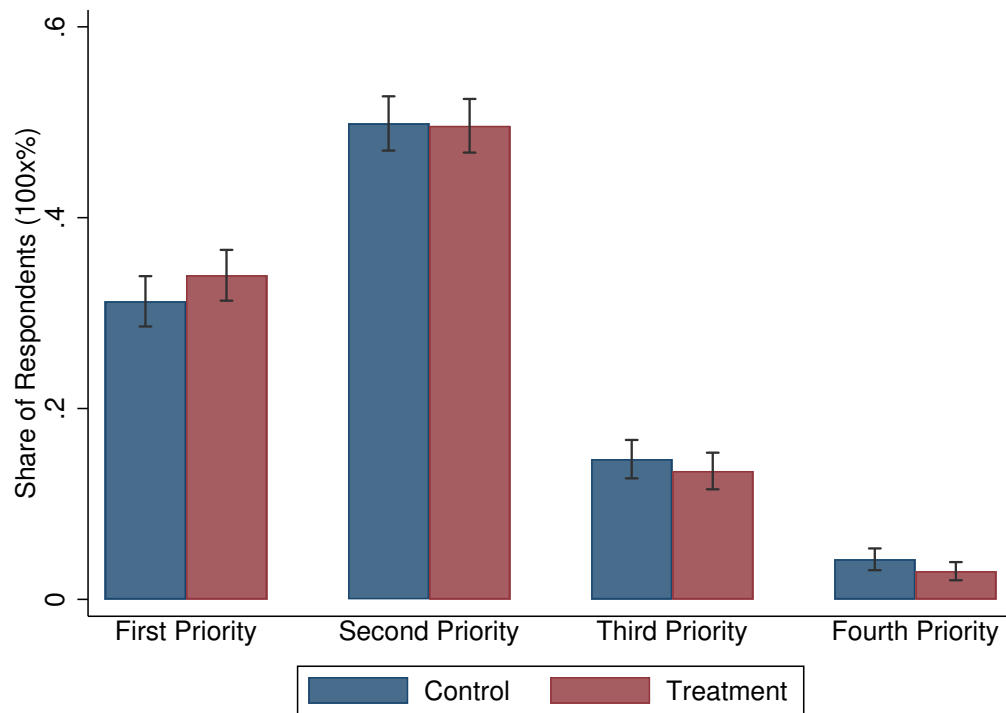
Panel D: Rank Judicial System - Wilcoxon test		
	Baseline sample	Restricted sample
Wilcoxon test	0.060*	0.041**

Panel A and B show results from OLS regressions of *Treatment* on dummy variables that measure whether one (i) is interested in reading a petition; (ii) provide email address to have the petition sent; (iii) ranks fairness of judicial system as the top or second priority.

Panel B is estimated on a sample without the least attentive respondents.

Panel C shows the exact p-value (Athey and Imbens, 2017) derived from 20,000 simulations.

Figure 4: Rank of Fairness of Judicial System as Priority



Notes: Share of respondents who rank fairness of the judicial system as the first, second, third, and the fourth priority by the control and treatment groups. The remaining issues to be ranked to were sufficient highway infrastructure, safety in the Czech Republic, high-quality teachers in the education system.

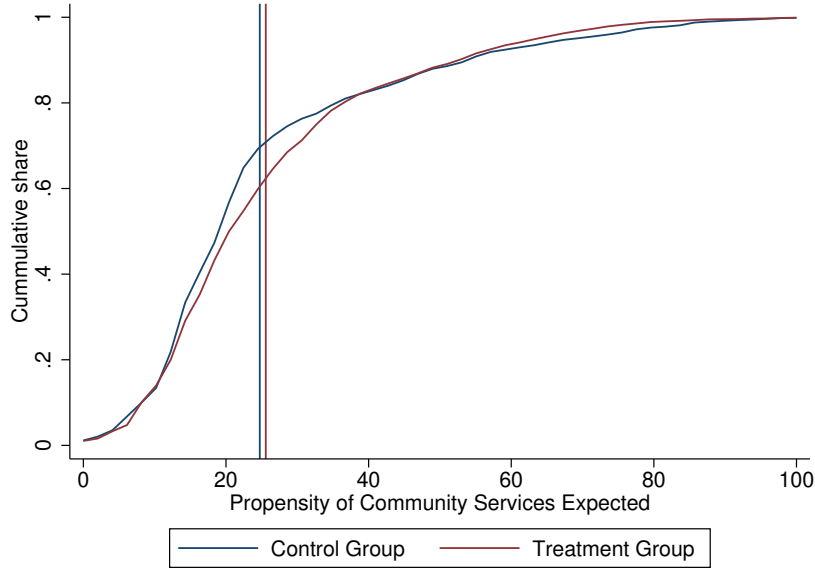
degree of the potential risk, I elicited the perceived credibility of the information. To avoid influencing the experiment, the question regarding the credibility of the information came at the end of the experiment. 87 % of respondents declared that they view the data credible and only less than 1 % of them selected an extreme choice of *definitely not credible*. The shares are virtually identical in both groups and the results are not systematically affected by respondents' mistrust in the information treatment. See figure 8 in Appendix.

For the proper interpretation of the results, it is important, how respondents understand and interpret the treatment information. The core of the treatment is to provide details on varying levels of sentencing disparity, i.e., the second moment of the distribution of sentencing decisions. This is a novel feature. Most of the information and survey experiments existing in the literature exogenously vary beliefs about the first moment of a relevant distribution, e.g., a probability of audit, a share of high-skilled immigrants. Varying signals about sentencing disparity is challenging, as it may be more complicated for the general public to understand the information and interpret it correctly.

Additionally, one varies other properties (e.g. maximum, minimum) of the data used to derive the information treatment. Conveniently, in the two courts used in the control and the treatment groups the average shares of convicted offenders sentenced to community services for *failure to pay alimony*, i.e. the first moment of the distribution, were numerically identical (16 %). Nevertheless, it is still plausible that the information provided affects respondents' perception of propensity to sentence to community services systematically differently in the control and the treatment group.

To understand this threat, I elicited the respondents' expectation regarding the average propensity to be sentenced to community services, i.e., the first moment of the distribution. In particular, the respondents were asked in what percentage of cases in the Czech Republic of *failure to pay alimony* is a convicted offender sentenced to the community service. On average, respondents in both groups overestimate the actual shares. While the national average corresponds to the presented cases, i.e. 16 %, the respondents in the control group expected 24.7 % and in the treatment groups is 25.6 %. The difference between the groups is not statistically significant (p-value = 0.255). Figure 5 shows empirical cumulative distribution functions of the expected share of cases sentenced to the community service and suggests that most of their estimates, in both groups, are concentrated between 10 % and 30 %. The fact that the cumulative distributions functions resemble each other and the averages are not statistically different suggests that the information provided does not affect the perception of the propensity of sentences to community services systematically differently in the control and the treatment groups.

Figure 5: Expected Share of Cases Sentenced to Community Service



Notes: The figure shows empirical cumulative distribution function of respondents' estimates of share of cases that are typical sentenced to community service at the national level for both the control and the treatment group.

4.2 Implications of the Results

I view three important implications of my results. First, evidence that inconvenient information did not lead to a decline in institutional trust and willingness to rely on formal institutions limits the concerns that revealing the information would be harmful from the public perspective. However, the personal incentives of public officers who decide whether to publish the information or not may still prevent publishing. If the public officers suspect that the information may hurt him, his reputation, and his future in the office, he may, in order to keep the information confidential, argue that if the information were public, it would cause distrust with a high (social) cost. My results imply that using that argument sounds more like a pretext than a real concern. Instead, the general public is likely to demand policy changes, which may indeed jeopardize position of the incumbent public authority.

Second, the observed heterogeneity shows the extent to which a particular group of citizens can drive the reaction to the inconvenient information. While the idea is not new, I provide empirical estimates of such an effect. It suggests that even issues as worrying as sentencing disparities may remain overlooked and ignored as long as the information is not provided or at the disposal to a particular group of citizens. This is likely to hold more generally in many other policy issues such as inefficiency of public procurement contracts and others. The heterogeneity also implies that publishing information about

sentencing disparities for more (all) offenses would likely lead to a sizeable increase of the overall effect, as each of the offenses is likely to trigger additional groups of citizens based on their sensitivity to the particular topic and offense. From that perspective, the effect estimated in this paper would represent a lower bar of the effect.

Third, my results question the information value of standard measures of institutional trust. Even though the information increases the likelihood of signing a petition and demanding a change of the current system suggesting dissatisfaction with situation, the information, however, did not pass-through to the standard measures of trust. Suppose policymakers and international organizations identify social issues and consequently build policies and recommendations based on survey measures of institutional trust alone. In that case, it raises the possibility of missing an important feature of the citizens' preferences and dissatisfaction with formal institutions.

5 Concluding Remark

Publishing inconvenient information about performance of public institutions in an environment where the market mechanisms cannot operate raises a question of how citizens would respond. I focus on a particular case of sentencing disparities that undermine the principles of a clear, stable, and predictable application of law and consequently equality before the law. The results suggest that inconvenient information about sentencing disparities does not lead to distrust and avoidance of the formal judicial systems. Instead, respondents exposed to the information found fairness of the judicial system as a more important policy issue and were more likely to sign a petition that invites politicians to address the issue. Additionally, there seems to be a sizeable heterogeneity in the treatment effect. Personal connection to the offense seems more important for the effect of the information than a prior belief regarding performance of that institutions,

The results imply that the concern that inconvenient information would lead to giving up on the formal institutions does not seem to be of first-order importance. However, the external validity of the results is limited by several considerations. First, the information provided in the experiment is one-time, brief, and isolated. If the same information makes it in the headline news and becomes widespread, discussed in the spotlight, among peers, colleagues, and politicians, it would be more complicated to ignore the information. As a result, my results are likely to underestimate the potential effects of inconvenient information becoming headline news. Second, evidence about heterogeneity implies the different offense is likely to trigger different citizens, publishing all information about all offenses would thus likely increase the effect as well. Overall, while my results are optimistic, as they suggest citizens' productive reaction, there are good reasons to expect

that a blanket treatment would evoke a more sizeable response. Finally, since I focus on a particular case of the judicial system, it is not clear how the results generalize in different domains of public institutions.

References

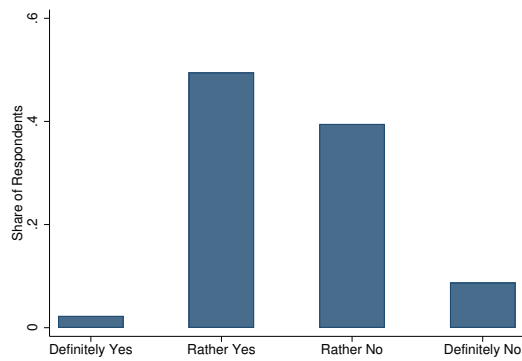
- Acemoglu, D., Cheema, A., Khwaja, A. I., and Robinson, J. A. (2020). Trust in state and nonstate actors: Evidence from dispute resolution in pakistan. *Journal of Political Economy*, 128(8):3090–3147.
- Aizer, A. and Doyle, J. J. (2015). Juvenile Incarceration, Human Capital, and Future Crime: Evidence From Randomly Assigned Judges. *Quarterly Journal of Economics*, 130(2):759–804.
- Alesina, A. and La Ferrara, E. (2002). Who trusts others? *Journal of Public Economics*, 85(2):207–234.
- Athey, S. and Imbens, G. W. (2017). The econometrics of randomized experiments. In *Handbook of Economic field Experiments*, volume 1, pages 73–140. Elsevier.
- Barrie, C. (2020). Searching racism after george floyd. *Socius*, 6:2378023120971507.
- Beyer, A., Cohen, D. A., Lys, T. Z., and Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50(2-3):296–343.
- Blinder, A. S., Ehrmann, M., Fratzscher, M., De Haan, J., and Jansen, D.-J. (2008). Central bank communication and monetary policy: A survey of theory and evidence. *Journal of Economic Literature*, 46(4):910–45.
- Carlsson, F., Demeke, E., Martinsson, P., and Tesemma, T. (2018). Measuring Trust in Institutions.
- Chapman, B., Mirrlees-Black, C., and Brawn, C. (2002). *Improving public attitudes to the Criminal Justice System: The impact of information*. Home Office London.
- Cheema, A., Hameed, Z., and Shapiro, J. N. (2017). Victimization, citizen engagement, and policing in lahore. *Institute of Development and Economic Alternatives, Policy Report, Lahore, Pakistan*.
- Coutts, A. (2019). Good news and bad news are still news: Experimental evidence on belief updating. *Experimental Economics*, 22(2):369–395.
- Dahl, G. B., Kostol, A. R., and Mogstad, M. (2014). Family Welfare Cultures. *Quarterly Journal of Economics*, pages 1–42.
- Di Tella, R. and Schargrodsky, E. (2013). Criminal recidivism after prison and electronic monitoring. *Journal of Political Economy*, 121(1):28–73.

- Eil, D. and Rao, J. M. (2011). The good news-bad news effect: asymmetric processing of objective information about yourself. *American Economic Journal: Microeconomics*, 3(2):114–38.
- Eurobarometer, S. (2018). Public opinion in the european union.
- Galil, K. and Soffer, G. (2011). Good news, bad news and rating announcements: An empirical investigation. *Journal of Banking & Finance*, 35(11):3101–3119.
- Grimmelikhuijsen, S. and Klijn, A. (2015). The effects of judicial transparency on public trust: Evidence from a field experiment. *Public Administration*, 93(4):995–1011.
- Grönlund, K. and Setälä, M. (2012). In honest officials we trust: Institutional confidence in europe. *The American Review of Public Administration*, 42(5):523–542.
- Hibbard, J. H., Stockard, J., and Tusler, M. (2005). Hospital performance reports: impact on quality, market share, and reputation. *Health Affairs*, 24(4):1150–1160.
- Jackson, J., Asif, M., Bradford, B., and Zakria Zakar, M. (2014). Corruption and police legitimacy in lahore, pakistan. *British Journal of Criminology*, 54(6):1067–1088.
- Ketelaar, N. A., Faber, M. J., Flottorp, S., Rygh, L. H., Deane, K. H., and Eccles, M. P. (2011). Public release of performance data in changing the behaviour of healthcare consumers, professionals or organisations. *Cochrane database of systematic reviews*, (11).
- Kling, J. R. (2006). Incarceration Length, Employment, and Earnings. *American Economic Review*, 96(3):863–876.
- MacQueen, S. and Bradford, B. (2015). Enhancing public trust and police legitimacy during road traffic encounters: results from a randomised controlled trial in scotland. *Journal of experimental criminology*, 11(3):419–443.
- Morris, S. and Shin, H. S. (2002). Social value of public information. *American Economic Review*, 92(5):1521–1534.
- Moutsiana, C., Garrett, N., Clarke, R. C., Lotto, R. B., Blakemore, S.-J., and Sharot, T. (2013). Human development of the ability to learn from bad news. *Proceedings of the National Academy of Sciences*, 110(41):16396–16401.
- Murphy, K., Mazerolle, L., and Bennett, S. (2014). Promoting trust in police: Findings from a randomised experimental field trial of procedural justice policing. *Policing and Society*, 24(4):405–424.

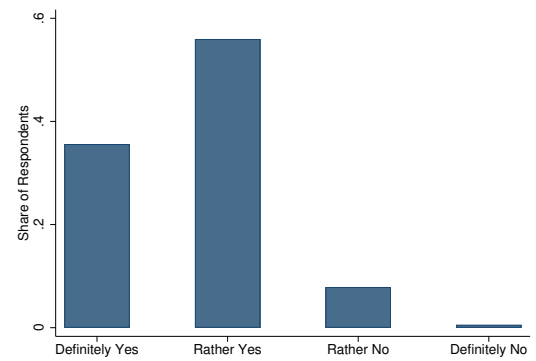
- Smith, P. C., Mossialos, E., Papanicolas, I., and Leatherman, S. (2009). *Performance measurement for health system improvement: experiences, challenges and prospects*. Cambridge University Press.
- Sporer, S. L. and Goodman-Delahunty, J. (2009). Disparities in sentencing decisions. *Social Psychology of Punishment of Crime*, pages 379–401.

Appendix

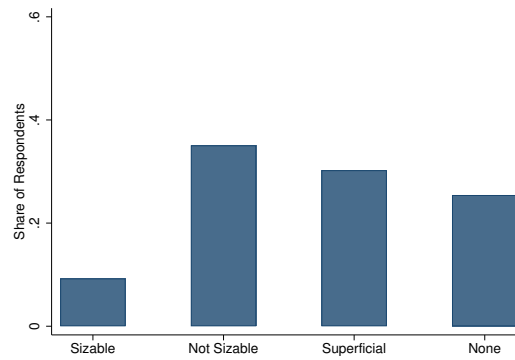
Figure 6: Prior Attitude Towards Judicial System



(a) Prior Approval of the JS



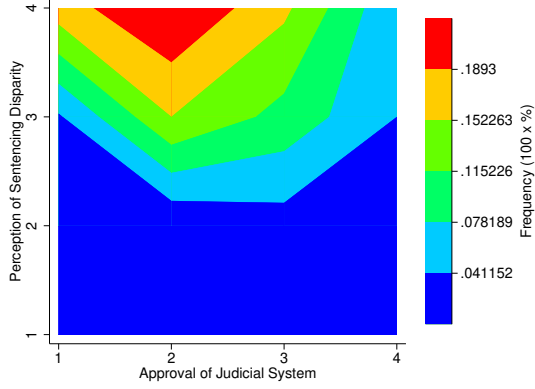
(b) Perception of Sentencing Disparity



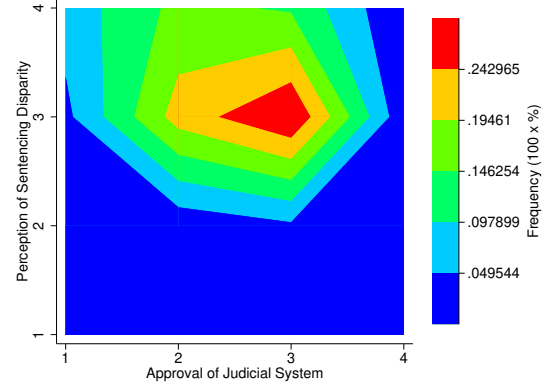
(c) Prior Experience with the JS

(a) The judicial system in the Czech Republic works well. (b) Judges regularly differ in sentencing decisions in similar cases. (c) Considering how often you or people you know well come into contact with judicial system, how experienced you think you are?

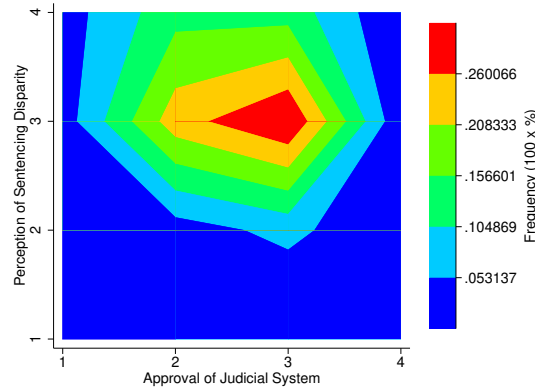
Figure 7: Attitude Towards Judicial System by Experience



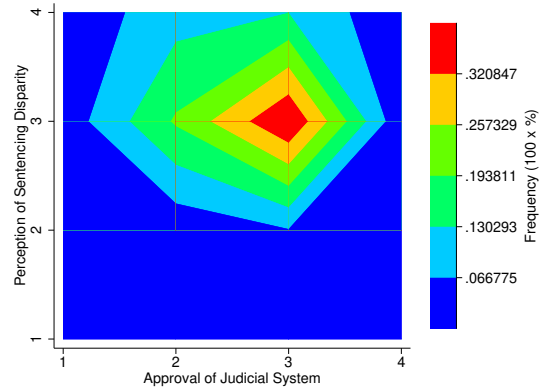
(a) Sizable Experience With the JS



(b) Not Sizeable Experience with the JS



(c) Superficial Experience with the JS



(d) None Experience with the JS

Notes: Level of approval of the judicial system (x-axis) and perception of sentencing disparity (y-axis) by groups of respondents with different levels of experience with the judicial system.

Table 4: Mean Characteristics of Treatment and Control Groups

Variable	Mean Control	Mean Treatment	t-test (p-value)
Measures of Prior Attitude			
Approval of Judicial System			
Definitely yes	0.026	0.020	0.345
Rather yes	0.486	0.499	0.571
Rather no	0.393	0.397	0.870
Definitely no	0.094	0.085	0.437
Perception of Sentencing Disparity			
Definitely yes	0.367	0.338	0.161
Rather yes	0.551	0.572	0.311
Rather no	0.077	0.084	0.532
Definitely no	0.006	0.006	0.967
Experience with the Judicial System			
Sizable	0.089	0.098	0.479
Not sizeable	0.347	0.343	0.857
Superficial	0.307	0.307	0.964
None	0.257	0.253	0.820
Demographic Characteristics			
Education			
University	0.247	0.251	0.823
Highschool	0.697	0.694	0.849
Elementary	0.055	0.055	0.968
Marital Status			
Single	0.210	0.187	0.116
Cohabitation	0.173	0.183	0.523
Married	0.438	0.426	0.567
Divorced	0.151	0.164	0.413
Widowed	0.028	0.041	0.049
Male	0.481	0.467	0.538
Age	44.61	45.08	0.435
At least 1 child	0.714	0.723	0.622
Number of children	1.425	1.493	0.193
N	1,071	1,097	

Table 5: Treatment Effect on Declared Institutional Trust (Full Results)

	Judicial System		Police		Government		Broadcasting	
Treatment	-0.007 (0.032)	-0.008 (0.035)	-0.018 (0.039)	-0.025 (0.042)	-0.016 (0.030)	-0.006 (0.033)	-0.032 (0.033)	-0.040 (0.036)
Treat.x Mother	-0.059* (0.035)	-0.057 (0.038)	-0.050 (0.040)	-0.042 (0.043)	-0.034 (0.034)	-0.054 (0.036)	0.011 (0.034)	0.022 (0.037)
Mother	0.031 (0.042)	0.007 (0.047)	0.005 (0.047)	-0.027 (0.053)	-0.027 (0.039)	-0.038 (0.043)	0.022 (0.045)	-0.016 (0.050)
High SD	-0.100*** (0.030)	-0.098*** (0.033)	-0.050* (0.031)	-0.058 (0.034)	0.013** (0.029)	0.010 (0.032)	-0.049 (0.033)	-0.072 (0.036)
High Approval	0.469*** (0.025)	0.460*** (0.027)	0.268*** (0.028)	0.240*** (0.031)	0.134*** (0.023)	0.117*** (0.026)	0.116*** (0.025)	0.096*** (0.027)
High Experience	-0.065*** (0.024)	-0.064** (0.027)	-0.056** (0.028)	-0.044*** (0.031)	-0.043* (0.024)	-0.039 (0.026)	-0.049** (0.025)	-0.075*** (0.026)
Treat. x High Appr.	0.007 (0.034)	0.020 (0.037)	0.072* (0.039)	0.087** (0.043)	-0.005 (0.032)	-0.005 (0.036)	-0.032 (0.035)	-0.024 (0.037)
Treat. x High Exper.	0.032 (0.034)	0.024 (0.037)	-0.031 (0.039)	-0.035 (0.043)	0.043 (0.033)	0.036 (0.036)	0.099*** (0.035)	0.107*** (0.037)
Male	0.037 (0.032)	0.016 (0.037)	0.060* (0.036)	0.031 (0.041)	0.027 (0.029)	0.012 (0.033)	0.086** (0.037)	0.040 (0.042)
Age	-0.010** (0.004)	-0.010** (0.005)	-0.011** (0.005)	-0.013** (0.006)	-0.011** (0.005)	-0.012** (0.005)	0.007 (0.005)	0.010* (0.005)
Age Sq	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000* (0.000)	0.000*** (0.000)	0.000*** (0.000)	-0.000** (0.000)	-0.000** (0.000)
University Educ.	0.092*** (0.020)	0.084*** (0.022)	-0.014 (0.023)	-0.021 (0.026)	-0.019 (0.019)	-0.019 (0.021)	0.098*** (0.022)	0.101*** (0.024)
Income (1000 CZK)	-0.000 (0.001)	-0.000 (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001*** (0.001)	-0.002** (0.001)	0.002* (0.001)	0.002** (0.001)
Child Dummy	0.014 (0.034)	-0.015 (0.037)	-0.012 (0.039)	-0.009 (0.043)	0.041 (0.033)	0.064* (0.035)	-0.028 (0.036)	-0.044 (0.039)
Number Children	0.016 (0.011)	0.019* (0.011)	0.020 (0.013)	0.022 (0.014)	0.005 (0.011)	-0.000 (0.012)	-0.023** (0.010)	-0.019* (0.010)
Constant	0.568*** (0.094)	0.612*** (0.105)	0.686*** (0.106)	0.791*** (0.119)	0.252*** (0.092)	0.274*** (0.104)	0.114 (0.098)	0.107 (0.110)
Observations	2407	2005	2407	2005	2407	2005	2407	2005
Restricted Sample	No	Yes	No	Yes	No	Yes	No	Yes
Standard errors in parentheses								
* $p < 0.01$, ** $p < 0.05$, *** $p < 0.01$								

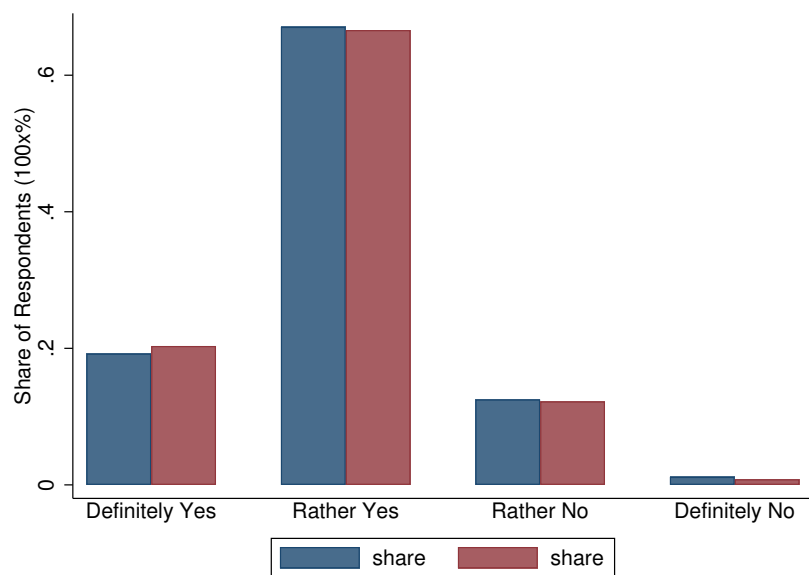
Table 6: Treatment Effect on Reliance on Judicial System (Full Results)

	CourtApply		ADR Interest		ADR Mail	
Treatment	0.021 (0.022)	0.008 (0.022)	-0.027 (0.035)	-0.020 (0.037)	0.009 (0.033)	0.028 (0.037)
Treat.x Mother	-0.018 (0.021)	0.010 (0.021)	0.049 (0.036)	0.051 (0.037)	0.030 (0.035)	0.010 (0.039)
Mother	0.015 (0.025)	0.004 (0.026)	-0.017 (0.041)	-0.049 (0.043)	0.029 (0.045)	0.004 (0.050)
High SD	-0.029** (0.014)	-0.012 (0.015)	-0.025 (0.031)	-0.036 (0.031)	0.054 (0.029)	0.051 (0.032)
High Approval	0.040*** (0.015)	0.048*** (0.015)	0.008 (0.024)	0.014 (0.026)	-0.002 (0.025)	0.005 (0.027)
High Experience	-0.011 (0.015)	-0.000 (0.015)	0.086*** (0.025)	0.081*** (0.026)	0.050** (0.025)	0.056** (0.028)
Treat. x High Appr.	-0.020 (0.021)	-0.015 (0.021)	0.018 (0.035)	0.018 (0.037)	-0.048 (0.035)	-0.059 (0.039)
Treat. x High Exper.	-0.006 (0.021)	0.001 (0.021)	-0.021 (0.035)	-0.035 (0.037)	0.008 (0.0353)	0.014 (0.039)
Male	-0.004 (0.019)	0.003 (0.020)	-0.018 (0.031)	-0.043 (0.033)	0.062* (0.035)	0.039 (0.0402)
Age	-0.001 (0.003)	-0.002 (0.003)	-0.003 (0.005)	-0.006 (0.005)	-0.005 (0.005)	-0.005 (0.005)
Age Sq	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
University Educ.	0.006 (0.012)	0.006 (0.011)	0.117*** (0.019)	0.100*** (0.020)	0.071*** (0.022)	0.076*** (0.025)
Income (1000 CZK)	0.001** (0.000)	0.001** (0.000)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)
Child Dummy	0.002 (0.021)	0.018 (0.021)	-0.055 (0.035)	-0.035 (0.037)	-0.103*** (0.036)	-0.086** (0.041)
Number Children	-0.001 (0.007)	-0.004 (0.007)	-0.001 (0.011)	-0.001 (0.012)	0.024** (0.012)	0.021* (0.013)
Constant	0.946*** (0.057)	0.959*** (0.056)	0.770*** (0.100)	0.903*** (0.106)	0.247*** (0.094)	0.272** (0.109)
Observations	2394	2010	2407	2020	2407	2020
Restricted Sample	No	Yes	No	Yes	No	Yes
Robust standard errors in parentheses						
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$						

Table 7: Treatment Effect on Policy Preferences (Full Results)

	Petition		Top Priority JS	
Treatment	0.030 (0.040)	0.042 (0.042)	0.073* (0.038)	0.070* (0.041)
Treat.x Mother	0.077* (0.040)	0.100** (0.043)	-0.008 (0.039)	-0.005 (0.042)
Mother	0.010 (0.050)	-0.024 (0.054)	0.036 (0.048)	0.056 (0.053)
High SD	0.075** (0.036)	0.093** (0.034)	-0.032 (0.035)	-0.024 (0.037)
High Approval	0.020 (0.029)	0.015 (0.031)	-0.059** (0.027)	-0.065** (0.030)
High Experience	0.076*** (0.029)	0.074** (0.031)	0.072*** (0.027)	0.058* (0.030)
Treat. x High Appr.	-0.058 (0.040)	-0.054 (0.043)	0.003 (0.039)	0.005 (0.042)
Treat. x High Exper.	0.002 (0.040)	-0.017 (0.043)	-0.097** (0.039)	-0.082* (0.043)
Male	0.011 (0.038)	0.001 (0.042)	-0.017 (0.037)	0.005 (0.042)
Age	0.000 (0.005)	-0.001 (0.006)	0.002 (0.005)	0.000 (0.006)
Age Sq	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
University Educ.	0.055** (0.024)	0.048* (0.026)	-0.018 (0.023)	-0.010 (0.025)
Income (1000 CZK)	0.000 (0.001)	0.000 (0.001)	0.001 (0.001)	0.001 (0.001)
Child Dummy	-0.049 (0.040)	-0.008 (0.044)	-0.096** (0.039)	-0.077* (0.044)
Number Children	0.012 (0.012)	0.003 (0.013)	0.005 (0.013)	0.003 (0.014)
Constant	0.426*** (0.112)	0.480*** (0.125)	0.309*** (0.107)	0.313*** (0.120)
Observations	2407	2034	2407	2015
Restricted Sample	No	Yes	No	Yes
Robust standard errors in parentheses				
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$				

Figure 8: Perception of Credibility of Information Provided



Notes: The figure shows shares of respondents classified by how credible they perceive information provided by the experimenter.

Online Appendix

Script

Throughout the experiment, the respondents were shown 14 or 15 slides, depending on their choices. Furthermore, at the end of the session, the respondents could choose to go to a website with petition to sign. The survey experiment consists of three blocks: (i) prior-treatment questions, (ii) treatment slides, and (iii) post-treatment questions.

Prior-treatment Questions

Prior the treatment, respondents are asked three questions to elicit their prior beliefs regarding the sentencing disparity, their experience with the judicial system, and their approval of the judicial system.

Slide 1. *You are about to participate in a survey about courts in the Czech republic. All information provided are truthful and based on data from the Ministry of Justice.*

Slide 2. *We are going to show you three statements and ask you how much you agree with these statements.*

Slide 3. *Sentencing decisions depend on the particular judge assigned to the case. Judges regularly differ in sentencing decisions in similar cases.*

- *Definitely yes*
- *Rather yes*
- *Rather no*
- *Definitely no*

Slide 4. *The judicial system in the Czech Republic works well.*

- *Definitely yes*
- *Rather yes*
- *Rather no*
- *Definitely no*

Slide 5. *Considering how often you or people you know well come into contact with judicial system, how experienced you think you are?*

- *Sizable*
- *Not sizeable*
- *Superficial*
- *None*

Treatment

In this section of the survey, I show different information to the control group and to the treatment group. Both the control and the treatment slides consist of a figure of judges showing shares of cases sentenced to community services and a brief explanation of what the figure represents. Figure 9 (10) shows the control (treatment) slide.

Slide 6. *One of the most frequent crimes in the Czech republic is failure to pay alimony. In last 3 years, courts in the Czech Republic sentenced more than 13,000 cases. The punishment can be suspended sentence, incarceration, community service, and fine. Now, we will show you sentencing decisions of judges at a regional court in the Czech Republic.*

Slide (Control Group). *At this regional court, 16 % of the convicted are sentenced to the community services as their main punishment.*

Judges sentence very similarly.

Regardless which judge is assigned to the case, the offender has very similar probability of being sentenced to community services.

Slide (Treatment Group). *At this regional court, 16 % of the convicted are sentenced to the community services as their main punishment.*

Judges sentence differently.

Judge C sentence to the community service a third of his/her cases.

Other judges sentence to the community service less than 10 % cases, instead they choose different types of punishments.

Cases are assigned to judges at random: an offender assigned to the judge C has three time higher probability of being sentenced to community services compared to a situation in which he was assigned to a different judge.

Post-treatment Questions

Slide 7. *The figure showed the situation from one regional court. Based on your opinion, what is the situation in the Czech republic? In what % of cases are offenders sentenced to the community services as the main punishment for failure to pay alimony?*

Slide 8. *How much do you trust in the following institutions ... { the judicial system; the police; the government; public broadcasting }*

- *A great deal*
- *Quite a lot*
- *Not very much*

- *None at all*

Slide 9. *Suppose you are the prime minister of the Czech Republic. Rank the following issues according to the priorities you would approach them.*

- *Fair judicial system*
- *Sufficient highway infrastructure*
- *High-quality teachers in education system*
- *Safety situation in the Czech Republic*

Slide 10. *In some cases, it is possible to substitute the formal judicial system by alternative dispute resolution (the arbitration) that has several advantages compared to the juridical system.*

- *Want to know more*
- *Not interested*

Slide (only if Slide 10: want to know more). *If you interested, we can send you a booklet with information about the arbitration. What is your email address:*

Slide 11. *We would like your advice. Your response can be used by a NGO (vasevyzivne.cz) as information for its clients. Please read the following story: Jane has two kids and their father does not pay alimony. She hesitates to apply to the court, because she is not sure whether a court could help or it would be only a waste of time and energy.*

What would you recommend to her?

- *She should apply to the court*
- *There is no good reason to apply to the court*

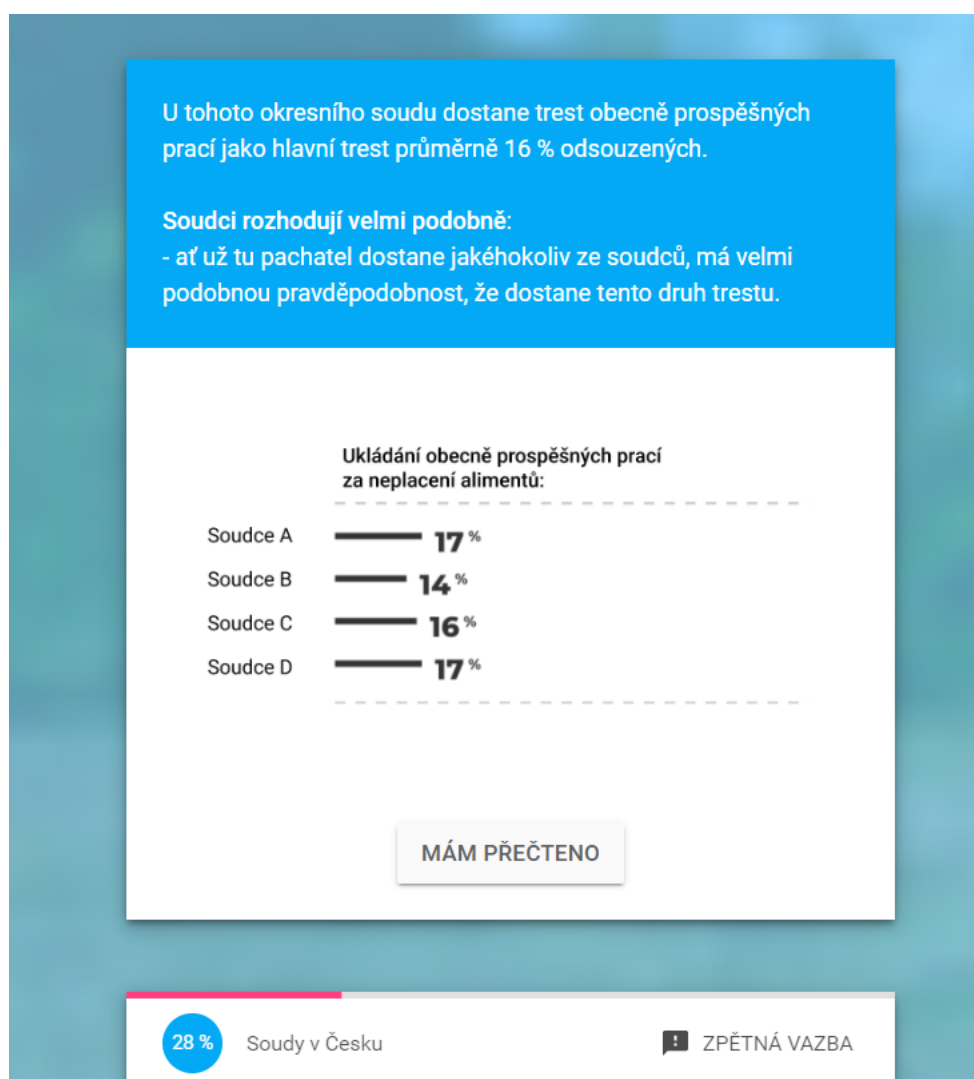
Slide 12. *The last question: Would you sign a petition that invites politicians to suggest particularizing sentencing principles? Such principles would assist judges in sentencing decision. (A preview of the petition was shown.)*

- *Want to read it*
- *Not interested at all*

Slide 13. *Great! That is the end of the questionnaire and very last thing (if slide 12: interested: and before we show you the petition promised), how credible, do you think, the information provided here is?*

- *A great deal*
- *Quite a lot*
- *Not very much*
- *Not at all*

Figure 9: Control Slide



Notes: The control slide consists of a graph showing a frequency of community services used by four different judges. The graph is accompanied by a brief explanation of the graph.

Figure 10: Treatment Slide



Notes: The treatment slide consists of a graph showing a frequency of community services used by five different judges. The graph is accompanied by a brief explanation of the graph.

Petition

The aim of the following petition is to prompt political representation to particulates sentencing principles. The petition is addressed to members of the Committee on Constitutional and Legal Affairs of the Chamber of Deputies, Parliament of the Czech Republic and will be sent once there are at least 1000 signatures collected.

Should you be interested in signing this petition, leave us with your email address and we will send you the signature sheet.

To members of the Committee on Constitutional and Legal Affairs of the Chamber of Deputies, Parliament of the Czech Republic

Subject: Invitation to particulate sentencing principles

Sentencing decisions often crucially affect one's life. The difference between being sentenced to imprisonment and being given a suspended sentence has significant consequences for the offender, his family and friends.

A judge assigned to a case has an exclusive right to make the sentencing decision. Making such important decisions, the judge consider many circumstances related to the case and consequences of different types and length of punishments. Given the complexity of the decision, it is natural that the personality and experience of judge affect what sentence he will choose. It is right that criminal justice is built on an independence of judges and the principle of individualization of sentences.

It has become a widespread topic in the public discussion that more particularized sentencing principles that help judges in sentencing decisions may limit the role of personality of the judge and thus promote refinement of sentencing. In particular, it may lead to, among others, to establishing a non-binding instructions of how to proceed in sentencing decision that may not only help judges in the sentencing decisions, but also to a better understanding of what type of punishment and why was imposed by offenders and the general public.

We, the signatories of this petitions, would like to invite members of the Committee on Constitutional and Legal Affairs of the Chamber of Deputies, Parliament of the Czech Republic, to support our action.

Debriefing Letter

Last week you participated in a survey, in which we – on behalf of our client – informed you about shares of cases in which judges of one of the regional courts in the Czech Republic sentence offenders to community services for a crime of *failure to pay alimony*.

The information that was showed to you is truthful and describes a situation at one of the regional courts. However, the situation may not correspond to other regional courts. In the Czech republic, there are several dozens of regional courts that may differ in differences among judges in propensity to sentenced offenders to different types of punishments for different crimes.

Should you be interested in sentencing decision in the Czech Republic, there is a webpage *jaktrestame.cz* devoted to it.