

Time of Punishment: The Effects of a Shorter Criminal Procedure on Crime Rates

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Abstract

A shorter and simpler criminal procedure may affect crime rates by increasing the perceived severity of punishment and by inducing a reallocation of police enforcement resources. I investigate the impacts of a criminal procedure reform in the Czech Republic that allowed certain less serious offenses to be prosecuted via a simplified (fast-track) procedure. The share of cases actually prosecuted via the fast-track procedure varied substantially across police districts and offenses, which provides the basis for the identification strategy. The shorter procedure had very different effects on ordinary crimes reported by the victims and on crimes that are identified mostly by the enforcement effort of the police. Specifically, it led to a substantial increase in the number of recorded criminal offenses associated with driving. This finding is best rationalized by a reallocation of police enforcement effort towards crimes that have low enforcement costs. I also find some but rather weak evidence of a deterrent effect on burglary and embezzlement.

JEL classification: K14, K42, K41

1 Introduction

The canonical model of criminal sanctions (Becker 1968) tacitly assumes that if an offender is apprehended and convicted, the punishment immediately follows the crime. However, criminal procedure takes time. It involves time-consuming and complicated paperwork on behalf of the investigators, prosecutors, and judges. It typically takes weeks or months until the suspect is identified and arrested, evidence is collected, charges are raised, the case is resolved at trial, the sentence is imposed, the defendant possibly appeals and the appellate trial is held.

The length and complexity of the criminal procedure has implications for the behavior of offenders and law enforcement officials. The offender discounts, at the time of committing the offense, the severity of punishment by the length of the time elapsed between the offense and the actual imposition of the punishment. Punishment imposed shortly after the offense is effectively more severe and should have a greater deterrent effect on crime. This deterrent effect should be enhanced by the fact that offenders tend to discount the future much more heavily than

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law-abiding citizens¹ (Herrnstein (1983), Wilson and Herrnstein (1985) and Nagin and Pogarsky (2004)). The economic model of crime therefore predicts a causal relationship from speedier criminal procedure to lower crime rates.²

Shorter and simpler procedure may also affect the allocation of enforcement resources by the police or prosecutors. If – as is the case of the procedural reform evaluated in this paper – the shorter procedure applies only to less serious crimes, it generates both endowment and substitution effects. It reduces the time cost of handling the less serious cases, and the enforcement officials thus have more time to pursue all cases. However, it also reduces the relative price of pursuing less serious cases. The enforcement officers have an incentive to substitute away from more serious cases and rather pursue less time-intensive but also less serious cases.

Two papers tested empirically the deterrent effect of a shorter criminal procedure. Pellegrina (2008) exploits cross-sectional variation in the length of criminal trials across provinces in Italy to detect a positive and statistically significant relationship between the length of trials and the rate of thefts, robberies, fraud, and racketeering. Soares and Sviatschi (2010) find a similar relationship between the rate at which courts process the criminal caseload (which is indirectly linked to the length of the procedure) and crime rates in a panel of cantons in Costa Rica. The reallocation of the enforcement effort in response to changes in the price of enforcement was investigated by Benson, Rasmussen and Sollars (1995) and Baicker and Jacobson (2007). They find that when the local police departments in the U.S. were provided with the authority to keep the revenue from assets forfeited in drug enforcement, they shifted their enforcement resources towards the drug crimes and away from non-drug crimes.

Estimating the effects of case duration on crime rates is beset with a simultaneity problem: higher crime rates increase the caseload of the police and courts who then take more time to process the cases. An exogenous variation in case durations is needed to identify the causal effect on crime rates. The Czech criminal procedure reform, adopted in 2002, provides a quasi-natural experiment. It prescribed that certain less serious crimes can be prosecuted via a "fast-track" procedure, with fewer procedural steps, substantially less paperwork, and stricter deadlines. The stated objectives were to reduce case durations, save resources in the enforcement of less serious crimes, and free up resources for the enforcement of serious crimes.³ After the reform, the average duration of the procedure (from offense to final adjudication) declined by about a third for offenses that were relatively extensively covered by the fast-track.

The share of cases actually prosecuted via the fast-track procedure differed substantially across districts and offenses. The differential adoption was largely given by bureaucratic inertia rather than the desire to cut case durations in districts particularly burdened with crime. Most importantly, it was unrelated to the pre-adoption trends in crime rates or case durations. But the share of fast-track cases in a district is strongly related to the reduction in duration after the reform.

The identification strategy is then based on a standard instrumental variable design, where the

¹The deterrent effect should exist under both exponential and hyperbolic discounting but its magnitude should depend on the form of discounting. A given reduction in the time from offense to punishment increases the perceived punishment more for an exponential discounter than a hyperbolic discounter if the punishment is still imposed in relatively distant future. The same reduction increases the perceived punishment more for a hyperbolic discounter if the punishment is imposed very shortly after the offense following the reduction.

²The role of discounting in the deterrent effect of punishment has been modeled by Davis (1988) and Lee and McCrary (2005). Listokin (2007) discusses its implications for the design of optimal punishment. Shorter and simpler procedure may also affect crime through conventional deterrence and incapacitation effects because it increases the probability of punishment: The quality of the evidence, once collected, deteriorates over time. Longer procedure makes it more likely that the defendant turns fugitive. Complex procedure with many procedural steps makes increases the probability that the defendant exploits a procedural loophole or witnesses modify their initial their original testimonies.

³Ministry of Justice of the Czech Republic (2001).

case duration is instrumented by the share of fast-track cases. The dataset is a yearly panel of 79 Czech districts and 24 offenses covering 1999-2008. It contains information on the number of offenses reported to the police, clearance rates, share of cases prosecuted via the fast-track procedure, and average case durations. The first-stage regressions estimate (offense-by-offense) the log of average case duration as a function of the share of fast-track cases, socio-economic controls, and district and year fixed effects. The second stage regressions estimate the logarithm of the crime rate as a function of the (instrumented) duration, clearance rate, socio-economic controls, and the district and year fixed effects.

The outcome variable of interest - the officially recorded crime rates - is a joint product of the underlying true crime rate and the police discretion in discovering and recording the crime. The deterrent effect of a shorter procedure should reduce the number of recorded crimes. The enforcement reallocation effect should increase the number of recorded crimes but only to the extent that the police can influence it. Offenses such as thefts or robberies are typically reported to the police by the victims⁴ and the reallocation effect should be relatively weak. I expect the estimated effect of shorter duration on victim-reported offenses to be negative (but still underestimate the true deterrent effect). On the other hand, crimes such as drug offenses or driving offenses are discovered almost exclusively through the police enforcement efforts. The police have substantial discretion in influencing the recorded number of such crimes. The reallocation effect may even dominate the deterrent effect. If it does, the estimated effect of shorter duration on police-reported offenses would be positive (and still underestimate the true reallocation effect).

The strongest and most robust result is that the reduction in case duration substantially *increased* the number of two police-reported offenses associated with driving: driving under the influence and obstruction of an official order (a criminal offense that is committed by a failure to comply with a court order, and most frequently is committed by drivers who continue driving with a suspended driving license⁵). The estimates are statistically and economically significant. They imply that in the absence of the reform, the number of recorded driving-under-influence cases would have been 20-34 percent below its actual level several years after the reform, and the number of recorded obstruction cases would have been 24-44 percent below. I also find a negative effect of shorter case duration on burglaries and embezzlements but it is not robust to regression specification.

The results thus provide only limited evidence of a deterrent effect on victim-reported offenses. But they provide very strong evidence of the reallocation effect: As the police officers were provided with a new means of producing measurable results (prosecutions) at low cost, they responded predictably by exploiting those means and pursuing more extensively precisely those offenses with reduced enforcement costs.

⁴The police have some only limited discretion in influencing the number of such recorded crimes. They may attempt to persuade the victim to withdraw the initial report if the amount stolen is small or if it is very unlikely that the offender would ever be found. The police may also record the incident reported by the victim but has some discretion in determining whether the incident constitutes a criminal offense. Outright cheating with the records does not seem to be an issue: The police has to initiate the criminal procedure for every offense that the victim reports, and each step of the procedure is entered into a computerized system. The aggregate numbers of crime are simply counts of the number of procedures in the computer system that were classified as criminal offenses.

⁵Obstruction of an official order is a fairly frequent offense; it had a crime rate of 51 offenses per 100,000 people in 2008. Other violations under this offense include a failure to obey a restraining order or to show up for a prison sentence. (Sec 171 of the Czech Criminal Code).

2 Institutional background

Prior to the 2002 reform the Czech Criminal Procedure Code prescribed a unified procedure applicable to all crimes. Practitioners generally agreed that the procedure was unnecessarily burdensome, lengthy and expensive for less serious crimes and for crimes where the evidence clearly indicated guilt (Baxa 2001). The reform introduced a so-called fast-track criminal procedure.⁶ Only eligible offenses meeting three conditions may be prosecuted via the fast-track:

- 1) They fall into the jurisdiction of the district court (i.e., the lowest court level).
- 2) The maximum punishment set by the Criminal Code does not exceed three years of imprisonment.
- 3) The suspect was either apprehended while committing the crime or immediately after, or the evidence revealed in the early stage of the investigation is sufficient to prosecute the suspect and there is a reasonable chance that the suspect can be brought to trial in two weeks.

The fast-track procedure cut the duration from arrest to conviction mainly by eliminating duplications of procedural steps at subsequent stages of the criminal procedure and by imposing stricter deadlines. Under the conventional procedure, the police, upon identifying the suspect based on the collected evidence, would raise formal charges. From that point on, the police would essentially repeat the collection of evidence (e.g., interrogating witnesses again) while the suspect has broad procedural rights (e.g., to read and comment on the testimonies provided by the witnesses). The case would then be bound over to the state attorney who would review it and submit the charges to the court. The court could hold a preliminary hearing; then, at the trial, the evidence would be re-presented again and assessed by the judge. The deadlines faced by the law enforcers are fairly flexible.⁷

The fast-track procedure applies to cases where the evidence revealed during investigation is indisputable. The police raise the charges, hands the case over to the state attorney, who reviews the case and submits the prosecution to the court. The text of the prosecution is simpler (contains the description of the case and the proposed punishment, but not the legal justification and the description of the evidence). The trial is also simplified: with the consent of the defendant, the judge may declare certain facts of the case indisputable and hence the evidence need not be presented at trial; there are no closing speeches etc. The deadlines are far stricter; the police have to hand over the case to the prosecutor in two weeks since the crime was reported. The prosecutor may, upon request, prolong the deadline by ten days at most; if the deadline is missed, the case reverts to the conventional procedure. The risk of reverting the case to the time-consuming conventional procedure gives the law enforcers strong incentives to meet the deadlines.

The letter of the legislation prescribes that all eligible cases should be prosecuted via the fast-track. In reality, the law enforcement officials make a discretionary decision whether to run an eligible case through the fast-track or the conventional procedure. The decision rests with the district-level state police officer⁸, although the prosecutor may reverse that decision. In practice, the two typically discuss each case informally and reversals of the initial police officer's decisions are rare.

⁶The reform was legislated by the Act No. 265/2001. The official Czech title of the fast-track procedure is "*zkrácené přípravné řízení*".

⁷For example, the police are supposed to hand over the less serious cases to the prosecutor within 2 months. However, if they fail to meet the deadline, they have to merely justify that to the prosecutor who sets a new deadline.

⁸Only the state police officers can handle criminal cases. Many cities have a city police, but its authority is limited to minor violations punishable by fines (e.g., traffic violations, loitering, graffiti). When the city police discovers an act that should be prosecuted and punished according to the Criminal Code, it passes the case to the state police.

The reform was well received by the police and prosecutors. As the main advantages, they report that the fast-track significantly shortened the procedure, reduced the case backlog, and allowed investigative officers to focus on more complicated serious cases.⁹ It allowed police officers at the very local level to handle far more criminal cases. These officers emphasized their satisfaction from handling criminal cases from the first contact with the crime all the way through the prosecution; under the conventional procedure they would have to pass the case to a higher-level investigative officer without seeing the final result. There has been no serious proposal to reverse the reform; quite the contrary, a new law that came into force in 2009 expanded the range of offenses that can be prosecuted via the fast-track.

The cases prosecuted via the fast-track procedure are indeed resolved much faster than the cases resolved through the conventional procedure. Zeman et al. (2008) report that in 2006, the average length of the procedure from arrest to the court decision (not including appeals) was 95 days for fast-track cases but 214 days for conventional cases. Within this, the part of the procedure handled by the police was 7 days in fast-track cases as opposed to 63 days in all cases; the corresponding numbers were 2 and 12 days for state attorneys and 81 and 141 days for the courts.¹⁰

Figure 1 demonstrates that the reform indeed had an impact on the total duration of the criminal procedure, from offense to final adjudication. The number for each year denotes the average duration of cases for which the criminal proceedings started in that year.¹¹ It divides the offense categories into victim and police reported, and also into "covered" and "other" offenses. Covered offense categories are defined as those with above-median share of fast-track prosecutions by the end of the sample period.¹² The duration of covered, police-reported cases dropped immediately from 350 to 300 days in the first reform year, followed by a gradual reduction to 200 days six years later. For covered, victim-reported offenses, the gradual reduction from 450 to 300 days began three years after the reform, but the adoption of the fast-track was also more gradual among victim-reported offenses. The picture is very different for other offenses, where the duration continued on a slowly increasing trend after the reform, which was reversed only several years later.

3 Empirical methodology

3.1 Data

The empirical work uses statistical records of the Police of the Czech Republic and the Ministry of Justice aggregated at the level of a district, year, and offense. There are 79 police districts with a population of about 125,000 on average.¹³ The dataset covers three years before the reform (1999-2001) and seven years afterward (2002-2008). It contains the number of cases that passed through individual stages of the criminal procedure, starting with the number of offenses reported to the police, the number of cases when the suspect was identified, the number

⁹Zeman et al. (2008), my own interviews with police officers.

¹⁰According to the conversations with the practitioners, the fast-track cases are typically handed over to the court either in a day or two, or at the two-week deadline.

¹¹That is, if a crime was committed in 2000 but the police identified and accused the suspect in 2001, the duration of that case enters the observation for 2001.

¹²See Table 1. Note that there are many individual cases prosecuted via the conventional procedure in the "covered" offense categories, as well as some cases prosecuted via the fast-track in the "other" offense categories.

¹³The boundaries of the police districts that circle the capital city (Prague) changed several times during the sample period. I therefore merged those districts into a single district to achieve consistency over time. Likewise, Prague originally had 10 police districts but they were consolidated into 4 districts in 2004. Again, I merge the original smaller Prague districts into 4 new districts to achieve consistency over time. The analysis-ready dataset therefore has 79 districts.

of prosecutions carried by the conventional and fast-track procedure, etc. The classification of offenses is very detailed. There are between 167 to 175 offense definitions, depending on the year.¹⁴ I aggregate these detailed offenses into 23 somewhat broader (and conventional) offense categories and also drop some obscure or rare offenses.¹⁵ The list of offense categories used in the analysis is given in Table 1. The Ministry of Justice records contain procedural information on each criminal case, including the dates of the offense, charges, and final adjudication. I aggregated the records in order to obtain average case durations at the level of the offense, district, and year.¹⁶

Several socio-demographic characteristics are included in the regressions. They are the population of the district, share of men in the population by age group¹⁷, and share of unemployed men aged 20-29 in the population.

Figure 2 plots the raw data on crime rates (number of offenses per 100,000), divided into police/victim reported offenses and covered/other offenses. It previews the key results. The number of covered victim-reported offenses was declining gradually throughout most of the sample period (by a third in total). Other victim-reported offenses were also on a overall downward trend. The rate of covered police-reported offenses was stable before the reform. It jumped up from 127 to 175 in the first post-reform year, and continued to rise at a slower rate thereafter. On the other hand, the police-reported offenses that were generally not covered by the reform were on a declining trend before the reform and declined in several steps afterwards.

3.2 Identifying variation

The identification strategy is based on the fact that the actual adoption of the fast-track procedure varied widely across offenses and districts. The adoption is measured by the share of cases that are prosecuted via the fast-track procedure in all prosecuted cases. Figures 3 and 4 show the share of fast-track prosecutions for each offense, aggregated at the national level. The fast-track procedure became used relatively heavily in prosecuting aggravated assault, trespass, burglary, thefts, other property crimes¹⁸, embezzlement, illegal possession of a banking card¹⁹, obstruction of an official order, vandalism, and driving under the influence. The police-reported

¹⁴The offense definitions are sometimes narrower than the offenses defined by the Criminal Code and sometimes encompass several offenses defined by the Code. For example, burglaries are divided into 15 categories depending on the object burglaried into, while the police classification "arson" encompasses three legally different criminal offenses.

¹⁵For example, military offenses, briberies involving public officials, but also murders because of their very small number and specific procedural rules.

¹⁶The year denotes the year of the offense, hence observations for year t denote the average duration of cases when the crime was committed in year t (as opposed to cases that were concluded in year t). The offenses in the Ministry of Justice database are classified by the legal definition (the section of the Criminal Code) while the offenses in the Police database are classified by the Police's own coding which rather reflects the factual circumstances of the crime. I aggregate both databases into 23 relatively broader offense categories. As a consequence, there were only few offenses with a conflict between the Police and Ministry of Justice databases such that the offense could not be unambiguously assigned to one of the broader categories.

¹⁷Specifically, the share of men aged 10-14, 15-19, 20-24, etc up to 39 and above.

¹⁸Damaging someone else's property, unauthorized use of a vehicle, among others.

¹⁹Unauthorized possession of a banking card (Sec 249b of the Czech Criminal Code 140/1964) is committed by malevolently possessing an ATM card or similar payment instrument that belongs to someone else, without necessarily spending money from it. While admittedly narrow, it is treated here as a separate category among the police-reported offenses. It typically appears in police statistics when a thief is caught with a wallet, and a wallet contains also an ATM card. Depending on the amount of money in the wallet, the police may drop the charges, charge with theft only, charge with an unauthorized possession of the banking card, or with both. The unauthorized possession of a banking card can therefore be used as a substitute charge against a thief who would have otherwise escaped punishment, or as an add-on charge to punish a thief more harshly. There is some legal ambiguity over which uses constitute an unauthorized possession, which further enhances the police's discretion. (It is also a relatively frequent offense with a crime rate of 75 offenses per 100,000 in 2008.)

offenses exhibit higher share of the fast-track because such offenses are typically discovered and recorded when the offender is captured, therefore the identity of the offender is immediately known. Obstruction of an official order has had by far the highest share of fast-track from the beginning. It is an administratively simple offense and the evidence is usually straightforward.

The variation across districts is presented in Table 2. It shows the mean, standard deviation, and the 5th and 95th percentiles of the share of fast-track prosecutions for the covered offenses in 2002 (the first post-reform year) and in 2008 (the last year in our data) at the district level. The fast-track procedure immediately became the prevalent method for prosecuting obstructions of an official order, with 55 percent on average, and 27 percent in the 5th percentile district. For theft, the initial share of the fast-track prosecutions was 21 percent, varying from 7 percent in the 5th percentile to 39 percent in the 95th percentile. Six years later, there is an overall increase in the adoption of the fast-track procedure for all offenses, but it occurs mainly through an even higher usage among the districts at the top of the distribution. E.g., the share of fast-track theft cases increased by 13 percentage points both on average and at the 95th percentile, but only by 8 percentage points at the 5th percentile. The share of fast-track prosecutions was still zero in the districts at the 5th percentile for many offenses six years since the reform.

Endogeneity of adoption presents a concern. The law enforcers choose whether to prosecute via the fast-track or the conventional procedure. Naturally, one may suspect that the districts experiencing higher crime levels or rising crime trends may adopt the fast-track procedure more intensively as a measure to cut crime. They may also adopt other crime-cutting measures, introducing an omitted variable bias. Likewise, districts with unduly long case durations may adopt more intensively in order to speed up the criminal procedure. The share fast-track prosecutions is also in part determined by the distribution of case characteristics which determine whether the case is eligible for the fast-track. Those characteristics may also be correlated with the trend in crime rates or duration.²⁰

I interviewed several Ministry of Interior, Police, and State Attorney officials to collect anecdotal evidence about the causes of the large variation across districts. In their view the differences between districts were driven first and foremost by bureaucratic inertia – some police officers and prosecutors were more willing to experiment with new methods than others. To a secondary degree, they were a by-product of the division of labor between patrol and investigative police units. Internal police guidelines divide the workload between these units, and such guidelines are issued by central, regional, and district chiefs, with an increasing level of detail. The investigative units generally disdain the fast-track procedure as a matter of their professional culture. In districts where the guidelines allocate more petty crimes to the investigative units, the share of fast-track prosecutions is lower. Many factors determine the allocation of labor in the guidelines other than the concerns about the use of the fast-track procedure; the resulting share of fast-track prosecutions is ancillary to those factors. There was also no political pressure from the central government or the regional governments to adopt the fast-track procedure intensively in specific districts.²¹

Last, the practitioners indicated that differences in the adoption could be caused by the relative overload of the police officers and prosecutors. Police officers in districts with higher case load

²⁰For example, an increase in the crime rate may imply that a smaller fraction of offenders is identified within two weeks, or the increase may come disproportionately from more complicated offenses that cannot be prosecuted via the fast-track. This may imply a mechanical negative correlation between the crime rate and the share of fast-track prosecutions.

²¹The boundaries of the police districts did not correspond with the political districts during the period covered in this study. The police was organized into 8 regions further subdivided into 79 districts, while the local governments are organized into 14 regions and approx. 6200 municipalities. The police chiefs did not have counterparts in elected political offices covering the same jurisdiction. (After the sample period the police was reorganized into 14 regions that match the political regions, but the police districts still do not have a counterpart in a district-level government.)

tended to adopt the fast-track more intensively in order to put more cases "off the table". In districts with low case load, the officers reported there was essentially no pressure to spend time and effort to learn and adopt the new procedure. The last explanation posits a relationship between the adoption intensity, (relative) staffing of the police, and crime *levels*. Importantly for the identification strategy, none of the anecdotal explanations posits a relationship between the adoption intensity and the *trends* in crime rates. Long case durations were never mentioned as a factor influencing adoption.

I check whether the intensity of adoption is correlated with the crime rates prior to adoption. The adoption intensity in a district is measured by the share of fast-track cases among covered offenses in the first post-adoption year (2002).²² Figure 5 plots the violent and property crime rates in each district in the last pre-reform year (2001) against the adoption intensity. There is a positive correlation for violent crimes. For property crimes, the visible positive correlation is driven by the four Prague districts (AI-AIV) that have the highest property crime rates and two of them were also among the most fervent adopters.²³

Figure 6 plots an equivalent picture for the percentage changes in crime rates during the pre-reform (1999-2001) period. The adoption intensity is unrelated to the pre-reform trends in the crime rates.

In a similar manner, the intensity of adoption is plotted against the case durations and caseload (crimes per police officer) in the last pre-adoption year (Figure 7). It indicates that adoption is positively but very weakly related to the duration of the court phase of the procedure and to the caseload per police officer. The relationship with load is driven by a five outliers (four Prague districts and Pilsen) that have very high caseload and were above-average (but not the highest) adopters. Figure 8 shows that the fast-track adoption was not related to the percentage changes in durations and load during the three years preceding the adoption.

3.3 Estimation

The unit of analysis in the empirical work is the offense category (o), district (i), and year (t). I control for the permanent differences between districts and for common shocks by including district and year fixed effects. The estimates are identified from (i) comparing the change in case duration in high-adoption districts with the change in case duration in low-adoption districts and (ii) comparing the change in crime rates in districts with large predicted reduction in duration with the change in crime rates in districts with small predicted reduction in duration.

The first-stage regression is of the form:

$$\log d_{oit} = \beta_{1o}s_{oit} + \delta_{1o}\log X_{it} + \lambda_{1oi} + \lambda_{1ot} + \epsilon_{1oit} \quad (1)$$

where d_{oit} is the average case duration in days (from offense to final adjudication), s_{oit} is the share of fast-track cases in all prosecuted cases, X_{it} denotes a vector of socio-economic characteristics, λ_{1oi} and λ_{1ot} are the district and year fixed effects, and ϵ_{1oit} is the error term.

The main regression of interest (2nd stage) is of the form:

$$\log y_{oit} = \beta_{2o}d_{oit} + \gamma_{2o}\log PC_{oit-1}^C + \delta_{2o}\log X_{it} + \lambda_{2oi} + \lambda_{2ot} + \epsilon_{2oit} \quad (2)$$

²²I experimented with other plausible measures, such as the share of fast-track among covered offenses during the entire post-reform period, or the share of fast-track in the offense with the highest fast-track use (obstruction of an official order). They did not exhibit any stronger correlation with pre-adoption durations or crime rates than the measure presented here.

²³Outside of the capital city the correlation between the property crime levels and adoption intensity disappears.

where y_{oit} denotes the crime rate (number of offenses per 100,000 inhabitants). In addition to socio-economic characteristics X , the regression includes lagged clearance rate PC as a conventional measure of deterrence. β_{2o} is the parameter of interest. It is specific for each offense and, according to the prediction, should be positive for victim-reported crimes but could be negative for police-reported crimes. The system of equations 1-2 is estimated by 2SLS. Standard errors are clustered by district.

As an alternative, I also estimate a reduced-form model, that is, an OLS estimate of equation 2 where the case duration is replaced by the fast-track share. The reduced-form regression produces a difference-in-differences estimate of the reform on crime rates (or, more precisely, the effect of the intensity of adoption). The advantage of the IV specification is that the case duration is a measure of the cost of crime (for offenders) or the cost of the procedure (for enforcement officials). The estimated parameters β_{2o} can be interpreted as behavioral parameters and can be potentially compared to similar estimates from other countries and legal contexts. The reduced-form specification gives smaller standard errors but the magnitude of the coefficients is context-specific to the particular procedural reform.

4 Results

4.1 IV and reduced-form estimates

The IV estimates for covered victim-reported crimes are presented in Table 3. In the first-stage regressions, all the coefficients on the share of fast-track cases are negative and significant at 1 percent. They are large in magnitude - a one-percentage point increase in the share of fast-track cases reduces the case duration by between 0.53 to 1.33 percent. The values of the F -test statistic exceed 10 for all offenses. The estimates of the first-stage regressions show that the share of fast-track cases is a strong instrument.

The IV estimates of the effect of case durations on crime rates are reported in the top row of Table 3. The coefficients are positive for aggravated assault, burglary, embezzlement and miscellaneous offenses, as expected. However, none of them is statistically significant. For comparison, I also show the "naive" OLS estimates of an equivalent regression (equation 2) in the bottom of the tables. The OLS coefficients should be biased upward because of the reverse causality from more crimes to longer procedure. Indeed, the OLS estimates are positive for 6 out of 8 offenses. They are statistically significant for theft and burglary, the two most common offenses, where the magnitudes imply that a 10-percent reduction in case duration is associated with a reduction in crime rates by half a percent. The IV procedure appears to be removing the bias in the expected direction - the IV coefficients are smaller than OLS coefficients for all of these six offenses. For two remaining offenses (embezzlement and miscellaneous), the OLS have implausible negative values while the IV estimates are positive (but insignificant).

The results are very different for the covered police-reported offenses (Table 4), namely for two offenses associated with driving: obstruction of an official order and driving under the influence. The IV estimates are negative, very large, and significant at 1 percent. Their magnitudes imply that a 10-percent reduction in case duration increases the crime rate by 2.4 percent (obstruction) and 9.6 percent (DUI). A large negative effect of longer duration on crime rates is also found for violence against public officials and vandalism, although the coefficients are not statistically significant. The first-stage estimates show that the share of fast-track cases is an even stronger instrument for police-reported offenses than for victim-reported offenses.²⁴

²⁴With the exception of the violence against public officials, the coefficients are significant at 1 percent and the values of the F -test statistics exceed 20.

The reduced-form regressions are presented in Tables 5 (victim-reported offenses) and 6 (police-reported offenses). The estimated coefficients on the share of fast-track prosecutions have the expected negative sign for five out of the eight victim-reported offenses studied (aggravated assault, trespass, burglary, theft, and embezzlement). They are significant only for burglary and embezzlement. The coefficient of -0.32 for burglary implies that the burglary rate would be 32 percent lower if all cases were handled via the fast-track procedure, compared to what it would have been in the absence of the fast-track. (However, a 100% share may be beyond the realm of possibility; the actual share was 15% in 2008).

The second table again shows positive, large, and statistically significant coefficients for obstruction of an official order and driving under the influence. These coefficients imply that a full adoption of the fast-track would increase the number of recorded obstruction and driving-under-influence crimes by 83 and 33 percent, respectively. Full adoption is not beyond the realm of possibility as there are several districts where the share of fast-track exceeded 90 percent.

The results from both IV and reduced form regressions provide very strong evidence that a reduction in case duration led to an increase in the number of driving-related offenses that are most often discovered via the enforcement activity of the police. Such an increase can be best explained by a substantial reallocation of police effort towards pursuing criminal driving-related offenses, which the fast-track allowed to be "processed" at very low cost. The reallocation effect clearly dominates any deterrent effect. On the other hand, the results provide rather meagre evidence of any deterrent effect of shorter duration on ordinary, victim-reported offenses. Only the reduced form specification detected a statistically significant deterrent effect on burglary and embezzlement.

4.2 Robustness checks and extensions

The results are robust to alternative specifications. In the first set of robustness checks I experimented with adding more instruments. I added the share of fast-track cases among all covered offense categories. If a district had a high overall share of fast-track cases, this could have reduced the case duration for offense o even though the share of fast-track cases in offense o was not particularly high.²⁵ In an alternative specification, I added average case characteristics, such as the number of charges per case, share of offenders in pre-trial detention, number of prior convictions, and share of female and foreign offenders. The latter set of instruments is somewhat controversial; while some of the case characteristics clearly affect durations²⁶ they are potentially correlated with the unobservable determinants of crime rates. Nevertheless, the estimates of β_o^2 under both specifications were very similar to the estimates in Tables 3 and 4. They are -0.267 and -0.273 for obstruction of an official order and -0.882 and -0.760 for driving under the influence. They are generally positive but very small and insignificant for most victim-reported offenses.

The next set of checks exploits also the variation between offenses. The offenses with low share of the fast-track procedure naturally offer themselves serve as a "control group" for offenses with a high share. However, there is a reason for caution. The fast-track procedure could have had spillover effects onto other offenses²⁷ and in such a case the other offenses would not constitute a valid control group.

²⁵In the first-stage regressions, the coefficients on the overall share of fast-track cases are negative and significant for half of the offenses.

²⁶In the first-stage regressions, the average number of charges per case was positively and the share of offenders in pretrial detention negatively related to duration.

²⁷In a companion paper (Dušek 2013) I find that it had a positive spillover effect on the probability that a suspect is eventually charged for robbery and rape and a negative spillover effect on case durations for a majority of other offenses.

Specifically, I estimate an equation

$$\log y_{oit} = \sum_o \beta_o s_{oit} \times D_o + \gamma \log P_{oit-1}^C + \delta \log X_{it} + \lambda_{ot} + \lambda_{io} + \epsilon_{oit} \quad (3)$$

The share of fast-track prosecutions s_{oit} is interacted with an offense dummy variable D_o so that we obtain estimates of β_o that are specific for each offense. The offense-year fixed effects λ_{ot} control for aggregate shocks to each offense, such as changes in enforcement policies at the national level.²⁸ They should be included to isolate possibly diverging trends between the covered crimes and other (more serious) crimes. The district-offense fixed effects λ_{oi} control for unobserved heterogeneity between districts in the level of each offense. The parameter of interest is identified both from comparing the change in crime rates in high-adoption districts with the change in crime rates in low-adoption districts and from comparing, within a district, the change in crime rates for high-adoption offenses with low-adoption offenses. In an alternative specification add a district-reform dummy, i.e., an indicator for each district in all years before the reform and all years after the reform. The district-reform dummy captures possible district-specific shocks to overall crime rates that occurred after the reform.²⁹

Results are shown in Tables 7 and 8. The rows represents an alternative set of fixed effects and show the coefficients on the fast-track share. Equation 3 was estimated separately on the sample of all victim-reported and police-reported offenses, although only the coefficients for the covered offenses are reported.

For victim-reported offenses, the estimated effects are negative and significant for burglary and embezzlement. They are actually greater in magnitude than the corresponding diff-in-diff estimates in Table 5. Similarly, the estimated effects are positive and significant for obstruction and driving under the influence, and they are also greater in magnitude than the corresponding diff-in-diff estimates from Table 5. This indicates that the "control" offenses were moving in the opposite direction (at least in relative terms to the covered offenses) in high-adoption districts.

The fast-track procedure was targeted on less serious, simpler crimes. However, it may have had a spillover effects on other crimes. Offenders could substitute away from other crimes. The reduction in the time cost of prosecuting covered crimes may lead to a shorter case duration or higher probability of punishment for other crimes, with a corresponding deterrent effect. I checked for a presence of this spillover effect by regressing the rates of other offenses against a measure of overall fast-track use, i.e., the share of fast-track cases among covered crimes in each district and year. A negative and statistically significant spillover effect was detected for two offenses, robbery and fraud. In terms of magnitude, a 10-percentage point increase in the share of fast-track cases is associated with a 4-percentage points reduction in the robbery rate.³⁰

²⁸The most important change concerned driving under influence (DUI). In July 2006, the government adopted a radical traffic law reform that drastically stiffened penalties for all traffic violations, including DUI. The deterrent effect of the reform resulted in a short-run reduction in road fatalities (Montag 2012). On the other hand, the definition of DUI as a criminal offense was expanded. Before the reform, DUI by ordinary (non-professional) drivers would be regarded as a criminal offense only if it was a repeated offense. Afterwards, every incident of DUI is regarded as a criminal offense. The definitional change is largely responsible for the aggregate boost in number of DUI offenses in crime statistics since 2006.

²⁹In principle, a specification with district-year and offense-year fixed effects would be most desirables since it would control both for the common shocks at the district level as well as for offense-specific trends at the national level. When estimated, none of the coefficients on the fast-track share or the clearance rate were significant. The set of dummies appears to be so extensive such that it removes most variation from the data.

³⁰Detailed results are available upon request.

5 Conclusions

The paper provided evidence that reducing the duration of criminal procedure has some important effects by exploiting a major criminal procedure reform in the Czech Republic as a "quasi-natural experiment".

Shorter criminal procedure increases the costs of committing the crime for the criminals and reduces the costs of prosecuting the criminals for the law enforcers. The findings show that the law enforcers are very responsive to the case duration, consistently with the resource reallocation hypothesis. The police responded to a shorter procedure by pursuing more vigorously those offenses that could suddenly be prosecuted quickly and at low cost. The number of two particular offenses that are recorded mostly through the police enforcement effort - obstruction of an official order and driving under the influence - rose relatively more in districts with high fast-track adoption. There is an economic reason why the reallocation was directed towards the offenses associated with driving and not towards other police-reported offenses. Allocating more resources to the enforcement of driving-related offenses presumably leads to a more predictable and larger increase in the number of captured offenders than allocating the same resources towards capturing, say, drug gangs or street vandals.

The IV estimates of the reallocation effects imply that a 10-percent reduction in case duration increases the recorded crime rate by 2.4 percent (obstruction) and 9.6 percent (DUI). In order to evaluate the economic significance of these estimates, I compare the actual crime rates with predicted crime rates under the assumption that the share of fast-track cases would have remained zero throughout the post-reform period while the socio-economic controls and the year dummies would have evolved as they actually did.³¹

The number of obstructions of an official order was 64 per 100,000 in 2001, rose to 113 in 2005 and then declined to 49 by 2008. (The decline is caused by a change in the traffic law in 2006 which made it easier for the police to punish delinquent drivers through other routes; such a legal change is captured by the year dummies.) The predicted crime rates under a zero fast-track share are 85 for 2005 and 27 for 2008. In the absence of the fast-track procedure, the number of recorded obstructions would have been lower by 24% (2005) or 44% (2008). In a similar vein, the number of recorded driving-under-influence cases was 5 in 2001, rose to 10 by 2005, and then exploded to 112 following a new traffic law that extended the legal definition of this criminal offense from repeat drunk drivers to all drunk drivers. The predicted crime rates under a zero fast-track share are 8 for 2005 and 74 for 2008. The number of recorded driving-under-influence cases would have been lower by 20% (2005) or 34% (2008).

I find rather meagre evidence of the deterrent effect of shorter procedure on the victim-reported offenses that the reform explicitly targeted. The IV estimates are small and statistically insignificant. The reduced-form estimates show that the fast-track had some deterrent effect on burglary and embezzlement. Those estimated deterrent effects are economically significant. The estimates for burglary implies that the fast-track procedure as actually adopted reduced the burglary rate by 4.8 percent. The number of burglaries - as well as most other "ordinary" crimes - was declining gradually during the post-reform period. The estimate implies that the fast-track accounts for 23 percent of the decline in burglaries during the 2002-2008 period and 11% of the decline in embezzlements.

The lack of strong evidence on the deterrent effect on property crimes contrasts with Pellegrina (2008) who also uses an IV strategy but finds a deterrent effect. One reason for the difference

³¹That is, I first generate predicted values of the logarithm of the case durations based on the first-stage regression under the assumption that the share of fast-track cases is zero during the post-reform year. Then I generate predicted values of the logarithm of the crime rates based on the second-stage IV estimates and the predicted durations from the previous step.

may lie in the research design. Pellegrina (2008) takes the conventional wisdom that peripheral courts are less efficient than the main courts, and the fact that the peripheral courts are being established far away from the provincial centers and in less populated areas. Then she uses the distance from the provincial center and the area of the provincial district as an instrument for duration. Arguments could be made whether these geographical measures are indeed uncorrelated with the unobservable determinants of crime rates. The identification strategy in this paper is based on an explicit quasi-experimental design. A reform that was adopted with varying intensity in different districts for plausibly exogenous reasons generated a variation in duration across time and districts.

Second, the findings in this paper are of course context-specific to the 2002 Czech criminal procedure reform. The case durations of covered offenses declined by about 150 days after the reform (Figure 1) which is an impressive accomplishment. Still, the deterrence effects on victim-reported crimes may have been limited. The lack of salience to the offenders is one possible factor. The reform was not advertised to the general public, and the fast-track procedure in practice covered between 10 to 40 percent of offenses. The offenders may have learned only gradually about the change in the swiftness of punishment through their own experience or the experience of their peers (Glaeser, Sacerdote and Scheinkman 1996). Also, the time span from offense to final adjudication is still about 300 days (victim-reported offenses) or 200 days (police-reported offenses). If offenders discount the future heavily, the perceived increase in the severity of punishment may be small if the punishment is still imposed 200 days after the offense. The underlying deterrence effect of a shorter procedure may be highly non-linear and may be most pronounced at very short durations.

At the end I discuss some normative implications. Shorter and simpler criminal procedure is, *ceteris paribus*, desirable in its own right. Any deterrent effect on crime it may have is simply an added benefit. The reallocation of enforcement towards the crimes with simpler procedure has ambiguous welfare consequences. The previous literature analyzed the reallocation in the context of the U.S. war on drugs, with a generally negative normative assessment. The main reasons are that enforcement was reallocated towards drug crimes that are not necessarily desirable to be deterred and that the reallocation led to an increase in other crimes (Benson et al (1992)). In the Czech context, the enforcement shifted towards offenses that are clearly desirable to deter, and I do not find that it led to an increase in other crimes. From this perspective, the shorter procedure as implemented in the Czech context appears to be an improvement. Yet, the increased caseload of driving offenses inevitably employed additional resources of the police, prosecutors, and courts, and it is possible that allocating resources towards enforcement of some other crimes could have constituted an even better use.

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Figure 1: Duration from offense to charges

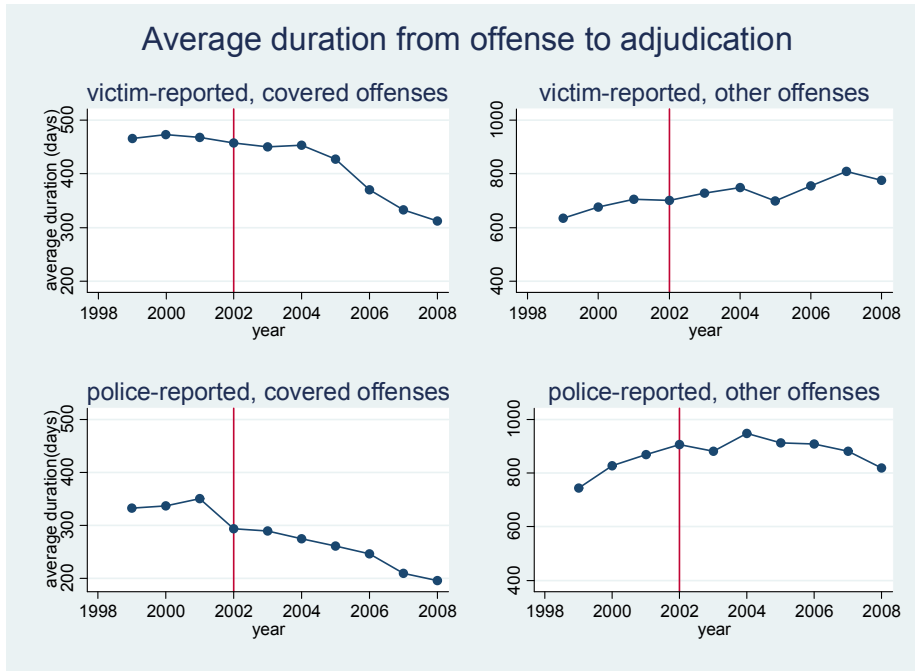


Figure 2: Crime rates before and after the reform

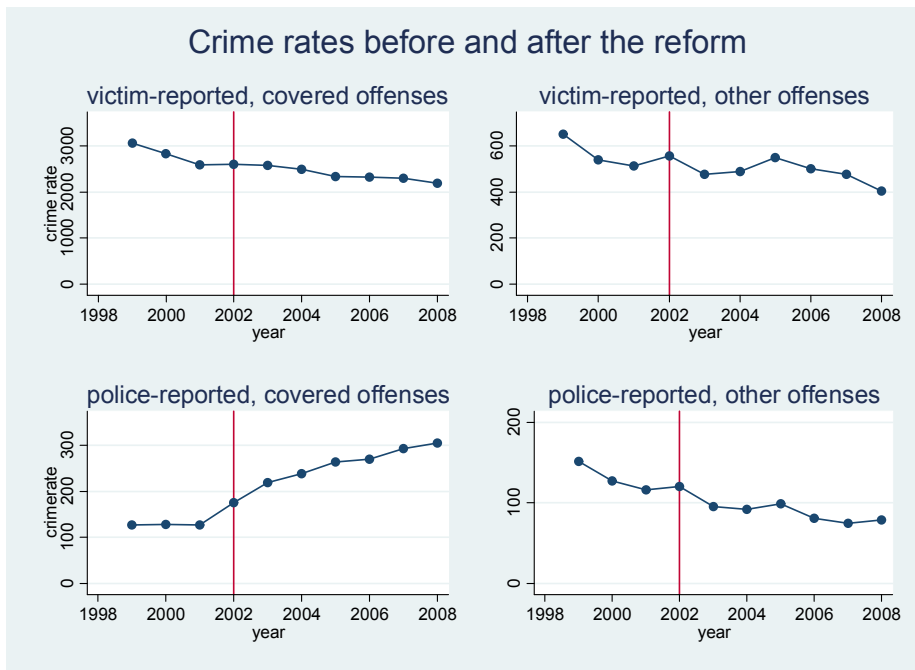


Figure 3: Gradual adoption of the fast-track

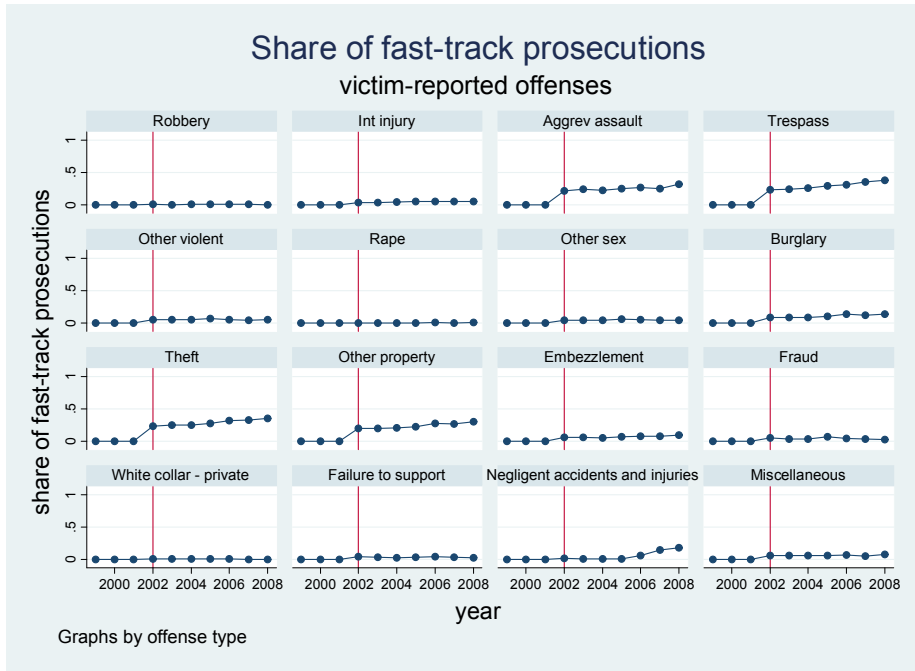


Figure 4: Gradual adoption of the fast-track



Figure 5: Endogeneity of fast-track adoption: crime levels

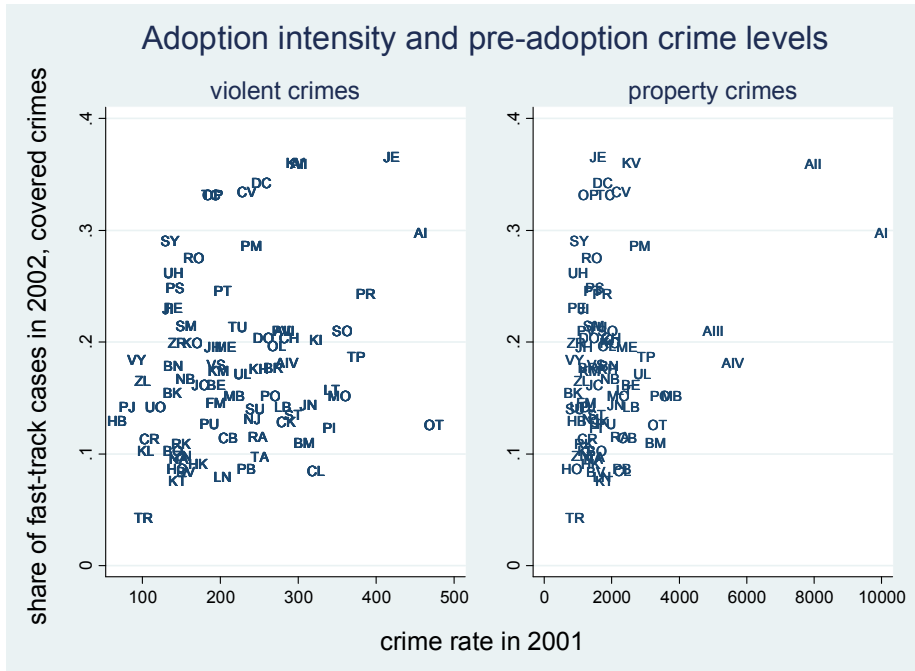


Figure 6: Endogeneity of fast-track adoption: crime trends

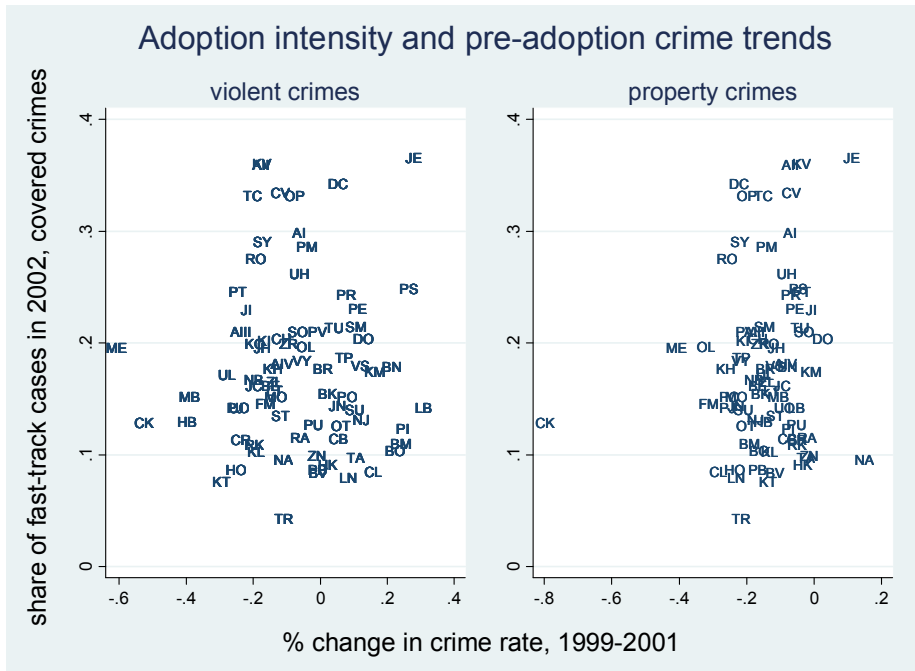


Figure 7: Endogeneity of fast-track adoption: levels of case durations and caseload

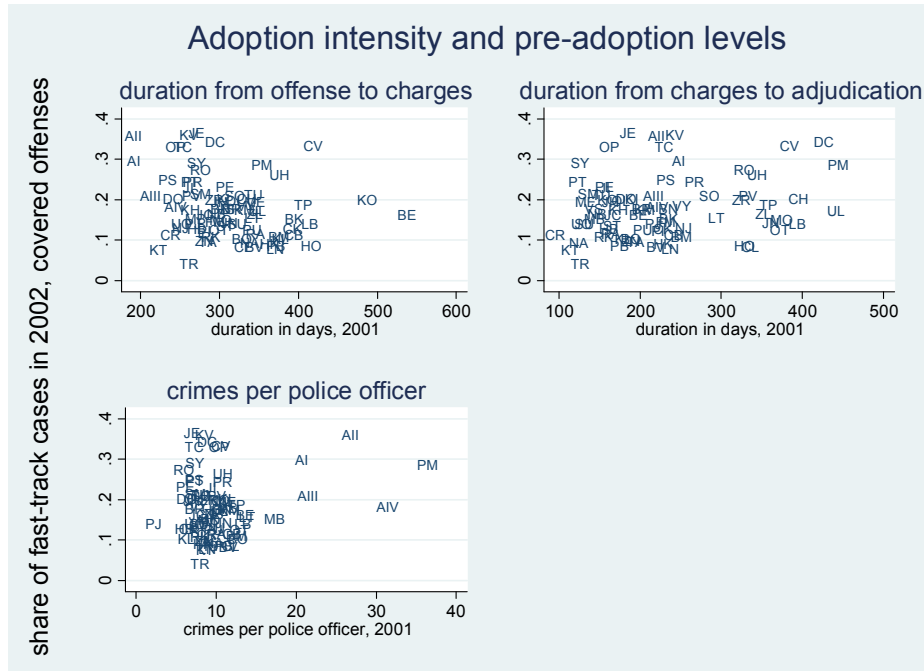


Figure 8: Endogeneity of adoption: pre-adoption trends in case durations and caseload

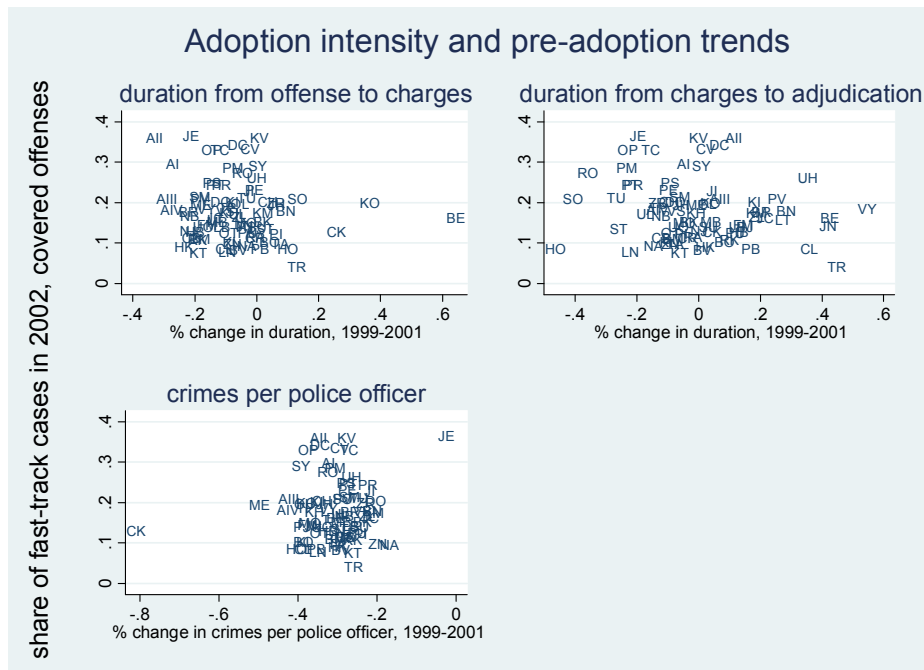


Table 1: Classification of offenses

broad crime category	offense type	police-reported or victim-reported	covered offense
violent	robbery	victim-reported	no
	intentional injury	victim-reported	no
	rape	victim-reported	no
	other violent offenses	victim-reported	no
	other sex offenses	victim-reported	no
	aggrevated assault	victim-reported	yes
	trespass	victim-reported	yes
	sex commerce	police-reported	no
	violence against public officials	police-reported	yes
	property	burglary	victim-reported
theft		victim-reported	yes
other property offenses		victim-reported	yes
illegal banking card possession		police-reported	yes
white-collar	fraud	victim-reported	no
	other white-collar	victim-reported	no
	embezzlement	victim-reported	yes
	illegal business, tax evasion	police-reported	no
other	failure to support	victim-reported	no
	negligent accidents and injuries	victim-reported	yes
	miscellaneous	victim-reported	yes
	illegal drug commerce	police-reported	no
	obstruction of official order driving under influence	police-reported police-reported	yes yes

Table 2: Variation in the use of fast-track procedure across districts

Share of fast-track prosecutions in 2002 (%)						
offense type	mean	s.d.	5th percentile	95th percentile	crime rate	
Aggrev assault	20	17	0	57	27	
Trespass	24	15	4	53	34	
Violence against public officials	14	19	0	56	12	
Burglary	9	6	1	20	704	
Theft	21	9	7	39	1600	
Illegal banking card possession	17	21	0	60	23	
Other property	19	15	0	45	96	
Embezzlement	6	7	0	21	78	
Obstruction of an official order	55	16	27	77	81	
Driving under influence	17	22	0	62	7	
Vandalism and public disorder	19	14	0	43	54	
Negligent accidents and injuries	1	5	0	6	79	
Miscellaneous	7	7	0	20	60	

Share of fast-track prosecutions in 2008 (%)						
offense type	mean	s.d.	5th percentile	95th percentile	crime rate	
Aggrev assault	33	24	0	71	17	
Trespass	40	21	10	78	24	
Violence against public officials	15	19	0	43	9	
Burglary	15	10	3	35	510	
Theft	34	11	15	52	1410	
Illegal banking card possession	17	20	0	50	75	
Other property	28	16	0	51	122	
Embezzlement	11	9	0	30	44	
Obstruction of an official order	54	26	8	93	51	
Driving under influence	81	15	38	96	110	
Vandalism and public disorder	30	18	6	60	67	
Negligent accidents and injuries	18	19	0	53	107	
Miscellaneous	7	10	0	25	42	

Table 3: IV (duration instrumented by the share of fast-track cases), covered victim-reported crimes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	aggrav assault	trespass	burglary	theft	other property	embezzl.	negligent accidents	misc.
IV: 2nd stage								
log duration	0.00784 (0.131)	-0.143 (0.176)	0.0432 (0.0752)	-0.0654 (0.0573)	-0.176 (0.122)	0.206 (0.309)	-0.00343 (0.0886)	0.0697 (0.141)
log clearance (lagged)	0.0868 (0.180)	-0.0725 (0.0967)	-0.158*** (0.0424)	-0.224** (0.0914)	-0.0712* (0.0407)	0.168 (0.126)	0.146 (0.154)	-0.157* (0.0841)
obs	649	697	697	700	698	700	314	700
R-squared	0.193	0.138	0.553	0.313	0.532	0.560	0.522	0.380
IV: 1st stage								
fast-track share	-1.045*** (0.191)	-0.782*** (0.130)	-0.829*** (0.171)	-1.331*** (0.251)	-0.859*** (0.177)	-0.537*** (0.156)	-0.693*** (0.212)	-1.045*** (0.128)
partial R^2	0.0976	0.118	0.102	0.244	0.0735	0.0342	0.0664	0.131
F -test	30.14	36.33	23.61	28.28	23.71	11.87	10.70	66.80
Hausman χ^2	0.00272	-2.385	0.0000	-5.749	1.212	-1.674	0.0002	1.932
OLS:								
log duration	0.0359 (0.0319)	0.0252 (0.0611)	0.0438* (0.0237)	0.0563** (0.0234)	0.0264 (0.0299)	-0.198*** (0.0686)	0.000109 (0.0243)	-0.0999** (0.0464)

The dependant variable is the logarithm of the crime rate. Robust standard errors in parentheses.

Regressions include socio-economic controls, year and district dummies

*** p<0.01, ** p<0.05, * p<0.1

Table 4: IV (duration instrumented by the share of fast-track cases), covered police-reported crimes

	(1)	(2)	(3)	(4)	(5)
	violence against public officials	banking card possession	obstruction of official order	vandalism	driving under influence
IV: 2nd stage					
log duration	-0.454 (0.429)	0.0934 (0.178)	-0.243** (0.106)	-0.219 (0.185)	-0.956** (0.390)
log clearance (lagged)	-0.0370 (0.0767)	-0.189*** (0.0471)	-0.739 (0.740)	-0.106 (0.0867)	-0.318 (0.277)
obs	652	548	700	696	655
R-squared	-0.117	0.781	0.488	0.290	0.835
IV: 1st stage					
fast-track share	-0.362** (0.152)	-0.733*** (0.148)	-1.607*** (0.260)	-0.958*** (0.140)	-0.638*** (0.0783)
partial R^2	0.0163	0.0715	0.303	0.131	0.121
F -test	5.689	24.66	38.15	46.82	75.11
Hausman χ^2	5.605	0.0549	-0.0621	0.0638	7.541
OLS:					
log duration	0.00473 (0.0438)	0.0188 (0.0487)	-0.179*** (0.0461)	-0.0931 (0.0617)	-0.188 (0.121)

The dependant variable is the logarithm of the crime rate. Robust standard errors in parentheses.

Regressions include socio-economic controls, year and district dummies.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 5: Difference-in-differences (reduced-form), covered victim-reported crimes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log (crime rate)	aggravated assault	trespass	burglary	theft	other property	embezzlement	negligent accidents	miscellaneous
share of fast-track prosecutions	-0.0665 (0.123)	-0.180 (0.114)	-0.320* (0.184)	-0.109 (0.0886)	0.0277 (0.0710)	-0.692** (0.276)	0.121 (0.162)	0.0202 (0.225)
lagged clearance rate (log)	0.246 (0.210)	-0.0656 (0.100)	-0.153*** (0.0435)	-0.221** (0.0908)	-0.0575 (0.0391)	0.183 (0.118)	0.104 (0.132)	-0.171* (0.0904)
observations	708	711	711	711	711	711	711	711
R-squared	0.717	0.661	0.914	0.959	0.922	0.749	0.696	0.750
district fe	yes	yes	yes	yes	yes	yes	yes	yes
year fe	yes	yes	yes	yes	yes	yes	yes	yes

Robust standard errors in parentheses. Regressions include socio-economic control variables.

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Difference-in-differences (reduced-form), covered police-reported crimes

	(1)	(2)	(3)	(4)	(5)
log (crime rate)	violence against public officials	illegal banking card possession	obstruction of official order	vandalism and public disorder	driving under influence
share of fast-track prosecutions	0.0286 (0.155)	-0.0134 (0.192)	0.829*** (0.169)	-0.163 (0.162)	0.326* (0.189)
lagged clearance rate (log)	-0.0722 (0.0713)	-0.0936** (0.0394)	-0.766 (0.664)	-0.0863 (0.0895)	-0.547** (0.256)
observations	699	646	710	711	674
R-squared	0.665	0.857	0.732	0.684	0.868
district fe	yes	yes	yes	yes	yes
year fe	yes	yes	yes	yes	yes

Robust standard errors in parentheses. Regressions include socio-economic control variables.

*** p<0.01, ** p<0.05, * p<0.1

Table 7: Triple-diff (reduced-form), covered victim-reported crimes

log (crime rate)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	aggravated assault	trespass	burglary	theft	other property	embezzlement	negligent accidents	miscellaneous
offense-year	-0.0331	-0.157	-0.442**	-0.0498	0.0359	-0.740***	0.103	-0.0597
district-offense	(0.136)	(0.126)	(0.203)	(0.0952)	(0.0827)	(0.261)	(0.159)	(0.237)
offense-year	-0.0198	-0.106	-0.416**	-0.0533	0.0361	-0.713***	0.174	-0.0202
district-reform	(0.130)	(0.128)	(0.208)	(0.0956)	(0.0760)	(0.269)	(0.160)	(0.234)
district-offense								

The table reports offense-specific coefficients on the share of fast-track prosecutions from equation 3.

All regressions also include the log of clearance rates, socio-economic controls, and dummy variables. The dummy variable sets are indicated in the row headings. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Triple-diff (reduced-form), covered police-reported crimes

	(1)	(2)	(3)	(4)	(5)
log (crime rate)	violence against public officials	illegal banking card possession	obstruction of official order	vandalism and public disorder	driving under influence
offense-year	-0.0173	-0.253	0.897***	-0.192	0.415**
district-offense	(0.150)	(0.186)	(0.174)	(0.170)	(0.186)
offense-year	-0.0187	-0.230	0.988***	-0.197	0.414**
district-reform	(0.153)	(0.183)	(0.182)	(0.176)	(0.187)
district-offense					

The table reports offense-specific coefficients on the share of fast-track prosecutions from equation 3. All regressions also include the log of clearance rates, socio-economic controls, and dummy variables. The dummy variable sets are indicated in the row headings. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1