



What Works?

Examples of Empirically Proven Justice Reforms

Acknowledgements

This report “**What Works? Examples of Empirically Proven Justice Reforms**” examines the impact of select judicial reforms on efficiency of justice, quality of justice, and access to justice in India, Senegal, Pakistan, Italy, the United States, Argentina, Israel, and Brazil.

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Executive Summary

1. We know that a strong judiciary is essential for the enforcement of contracts, securing of property rights and maintenance of social order. It encourages citizens and businesses to have confidence in institutions, fosters a healthy business environment and encourages investment and innovation, and promotes political stability. Three dimensions of the justice system performance are vital for ensuring a strong judiciary: efficiency of justice, especially the speed with which disputes are resolved; the quality of judicial decisions; and public accessibility to the courts. Judicial reforms that improve these features can have transformative effects not only on the business climate but also on the society as a whole.

2. However, a great challenge facing justice policymakers around the world is knowing which justice reforms to pursue. Faced with countless reform options, how can a policymaker have any confidence that one reform option will work more effectively than another option, or that either will work at all? With ever-growing pressures in terms of time, budgets and other constraints, policymakers can look to some lessons about successful justice reforms that have been proven to work elsewhere.

3. This study presents eight reforms that address the efficiency, quality, and accessibility of various judicial systems from around the world. The impact of each of these reforms has been rigorously evaluated in peer-reviewed academic journals by independent researchers who found that the changes had a significant positive impact. These reforms will not necessarily work at all times or in all contexts. Nonetheless, they had proven impacts in their own context and they offer some lessons and insights into successful reform efforts.

Reforms to increase efficiency of justice

4. Reforms can help courts to become more efficient in the way they handle and resolve cases coming before them. In 2002, India modernized its antiquated Code of Civil Procedure. Simple changes, such as limiting adjournments, imposing time limits, and encouraging out-of-court settlements, decreased the time it took to resolve cases and in so doing, led to a number of positive changes in the economic sphere, including increased investments in business firms.

5. Among these procedural changes, the imposition of time limits has proven particularly effective at reducing delays and increasing efficiency. In Senegal, a reform that established a realistic time limit and gave judges the power to exert pressure on the opposing parties had immediate effects; new deadlines were enforced and the quality of judicial decisions did not suffer in the process.

6. In Pakistan, an innovative delay reduction program produced visible results. Judges were trained on modern case flow management techniques, and a concerted effort was made to resolve the backlog of older cases. Where this program was put in place in pilot districts, research has shown that judges disposed of 25 percent more cases. This improvement had a positive effect on factors related to economic development, including greater entrepreneurship in the pilot districts. More people took steps to start a business after the

judicial reform was implemented. Overall, research shows that a reform that cost only 0.1 percent of GDP translated into an increase of 0.5 percent of GDP, just one notable indication of the effects of an improved judiciary on economic activity.

7. In Italy, judges changed their procedures by adopting what is known as a “relaxed case-level First-In-First-Out” policy. This essentially meant that they made every effort to resolve one case before moving on to the next one rather than attempting to juggle hundreds of cases at the same time. Researchers found that this technique increased speed by 12 percent and quality by 4 percent—and at no cost.

Reforms to improve the quality of decision-making

8. Reforms can also improve the quality of judicial decisions. In the US and Argentina, for instance, the random assignment of cases to judges was implemented to prevent parties from judge shopping. An unintended consequence was that this change allowed researchers to examine critically important questions about the judicial system, such as the impact of incarceration of juveniles on future crime rates, or the effects of imprisonment versus electronic monitoring on recidivism rates, data that can be used to improve the quality of judicial decision making more widely.

9. In Israel, it was discovered that judges experienced mental fatigue when making particularly difficult decisions and that this could be alleviated through ensuring that time was provided for a short rest and/or a meal.

Reforms to increase access to justice

10. In Brazil, *Special Civil Tribunals* (SCT), with simplified and fast procedures, were established to resolve disputes of a claimed value up to 40 times the minimum wage. Research has demonstrated that these new courts have achieved considerable success and improved the business climate in the country. Microenterprises, creditors, or even the general population with a neighborhood commercial or contract dispute, all previously unable to access the seemingly expensive, distant, and convoluted system, rushed to these new courts. More contractual disputes were resolved, which encouraged entrepreneurs to view the environment as more favorable to starting a business. Creditors were better able to recover defaulted loans, which encouraged them to lend more and in turn boosted entrepreneurs’ confidence. As a consequence of these reforms the number of people starting new businesses in Brazil increased by 10 percent in just 10 years.

11. In India, the process of seizing the collateral of a borrower in case of non-repayment of a loan used to take up to seven years through the civil courts. New *Debt Recovery Tribunals* (DRTs) were established and reduced that time to two years. Researchers have since shown that these DRTs have increased the repayment of loans as well as access to credit by 40 percent.

1. Efficiency of Justice

1.1. Amending the Civil Procedure Code in India

12. Courts are very slow in India. There are 20 million cases pending, and some cases take up to 10 years to resolve. As one observer described:

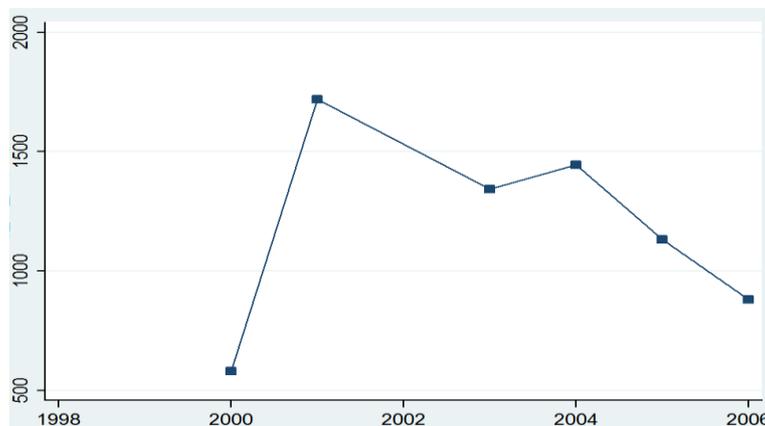
The highest court in the country, the Supreme Court, took 11 years to acquit the headmaster of a school on the charge of taking a bribe for signing the salary arrears bill of his school. In another case of judicial delay, the victim was former Union Law Minister, Dr. B.R. Ambedkar. The judgment came in his lifetime but it took 47 years for the Maharashtra government to execute the decree passed in his favor against illegal encroachment of his land by Pakistani refugees. By that time, he was dead.¹

Reform measure

13. To address this problem, the Government of India amended the antiquated Code of Civil Procedure, enacted in 1908, in four ways: 1) no more than three adjournments were permitted in each case; 2) mandatory time limits were imposed at each stage of litigation; 3) traveling commissions were established to interrogate people and collect evidence instead of requiring people to appear in court; and 4) more out-of-court dispute settlements were encouraged by proactively referring disputes to alternative dispute-resolution tracks. This package of reforms was called the “2002 Amendment Act” (Chemin 2010).

14. As a whole, the 2002 Amendment Act contained 88 amendments, though not all were necessarily going to increase the speed with which cases proceeded through the system. If one were to assign a +1 to each amendment likely to increase the speed and a -1 to those likely to reduce the speed or maintain the status quo, the resulting number is +38, indicating that the 2002 reform was assessed overall to be likely to increase the speed of case resolution.

Figure 1. Number of Thousand Cases Pending per Judge in India



¹ Dasu Krishnamoorty, “Judicial Delays,” *Indolink* (2003), <http://indolink.com/Analysis/a110102-054653.php>.

Effects on courts

15. Figure 1 shows fewer pending cases in India after 2002, though this may also have been due to some other coincidental developments. For example, there might have been fewer cases filed over the same period precisely because the courts were so slow. In other words, the number of cases pending may have decreased not because the courts had become more efficient but because people were losing confidence in the courts and avoiding them altogether or withdrawing their claims. To rigorously evaluate the efficacy of this reform, it was necessary to obtain a control group for purposes of comparison.

Proven benefits

16. There was in fact an obvious control group in India, as some states had already enacted parts of the 2002 Amendment Act prior to 2002. In these states, the immediate effect of the act was weaker, since elements of it had been implemented previously. To examine one particular aspect of the new law, Chemin (2010) compared firms in these states to those operating in states that introduced the reform after 2002.

17. This methodology allowed Chemin (2010) to find that one extra amendment reduced the average time needed to resolve a court case by 0.17 years. More efficient courts provide greater incentives for firms to invest, since contracts are enforced more quickly and property rights are more secure. This prediction is borne by the data; in the treatment group, commercial firms increased their investment by 7.5 percent.

1.2. Imposing time limits in Senegal

Reform measure

18. In the *Doing Business* report for 2014, Senegal ranked 167 out of 189 economies for ease of contract enforcement.² In August 2013, a new legal reform went into effect that established a time limit for one particular stage of the court proceedings: the pre-trial phase. In that stage, both parties are expected to build their case, present their arguments, and get expert reports if needed. Based on this evidence, the judges then deliberate in a subsequent decision stage.

19. Before the reform, the pre-trial stage lasted on average 4 months and 23 days. The reform imposed a maximum time limit of 4 months. To achieve this objective, judges were permitted to pressure the parties to resolve the dispute. For example, once the 4-month deadline had passed, judges were allowed to decide on a case as it then stood. To further speed up the proceedings, both parties were allowed to access the opposing parties' evidence and witnesses to prepare more adequately (Kondylis and Stein 2017).

² World Bank, "Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises" (Washington, DC: World Bank, 2013), 221, <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB14-Full-Report.pdf>.

Effects on courts

20. In cases filed just two weeks after the reform went into effect, the average duration of the pre-trial stage was 35 days shorter than before, that is, slightly less than 4 months. The judges were thus able to shorten procedures immediately, for all cases, simple or complex.

21. This effect (35 days) was also achieved at essentially no expense. It was simply a time limit decreed by the authorities, accompanied by behavioral incentives. This shows that a reduction in delays can be achieved quickly and at low cost, simply by understanding the causes of the problem and the reasons for party behavior, setting realistic targets and enforcing them. The judges were able to enforce the 4-month deadline by scheduling fewer hearings and applying more pressure to meet the new deadlines.

22. Of course, other external factors may have led to or facilitated the change that resulted in the 35-day reduction. Yet, Kondylis and Stein compared cases filed just two weeks before the reform and cases filed two weeks after, and did so at different times in different chambers, since the reform was introduced at different times in seven different chambers of the capital Dakar. It is highly unlikely that the same external events occurred exactly in those two-week windows at the same time that the reform was implemented, which took place at different times across seven court chambers, which helps to isolate the reform as the variable of interest. The results suggest that the main cause of the effect (the 35 day reduction) was indeed the imposition of a relatively modest time limit.



By being stricter on deadlines and introducing fewer hearings the judges reduced the pre-trial period by 35 days

Proven benefits

23. Concern might arise that fewer hearings and increased pressure to resolve a case may have had detrimental consequences on quality. However, the authors showed that there were no adverse effects on quality of judicial decision-making by collecting detailed data on the decisions made during this time. There was no increase in the number of cases referred back to the pre-trial stage, something that usually occurs when pre-trials have failed to collect the evidence necessary to come to a conclusion. Judges cited an equal number of articles in each decision made before and after the reform, and there was no increase in the number of appeals after the reform (Kondylis and Stein 2017).

24. One might also ask if this time pressure merely shifted the delay to another stage in case processing. However, the study found that judges did not shift effort away from the decision stage to the pre-trial stage, as the decision stage took the same amount of time as before the reform was implemented. Thus, setting tight deadlines on one activity did not diminish performance on other tasks.

25. Overall, this court reform showed that setting realistic time limits can work under certain circumstances. In Senegal, the duration of the pre-trial stage was reduced by 35 days from a baseline of 4 months and 23 days.

1.3. Adopting modern case flow management techniques in Pakistan

26. The use of modern case flow management techniques has been shown to significantly increase the speed with which cases move through the justice system and to boost economic activity (Chemin 2009a). In Pakistan prior to 2002, judges routinely allowed lawyers to adjourn cases for little reason. Since lawyers were generally paid per appearance, they had powerful incentives to request adjournments to increase their fees at the expense of their clients.

Reform measure

27. A simple idea implemented in 2002 was to use modern case flow management techniques in which the judge rather than the lawyer would control the proceedings and be responsible for ensuring the forward movement of the case to resolution. This essentially meant that judges had a newly vested interest in: preventing delays by not granting adjournments for unjustified reasons; ensuring that a meaningful result occurred to advance a case every time it was called in court; and certifying that every case had a scheduled date for meaningful follow-up action to occur (Blue, Hoffman, and Berg 2008).

28. In Pakistan, this technique was coupled with a focus on older cases, which typically were either disposed of if no parties were active anymore or settled as a priority (Chemin 2009a). This can naturally decrease the average age of cases pending.

29. These case flow management techniques are only an administrative process—they do not necessarily affect the legal substance of cases. Hence, they are not likely to come at the expense of quality. Well-founded reasons to adjourn cases can still be made. Meanwhile, the reduction in unnecessary adjournments may enhance quality, since they increase trial date certainty by granting fewer adjournments. Court users grow less frustrated when trials are organized according to the schedule.

30. Perhaps the main value of modern case flow management techniques is the emphasis on the importance of the timely case resolution, which may not have been the first priority of judges prior to the reform. For example, if the priority of judges was to reach the soundest decisions, they might have viewed any adjournment as a positive step to promote the discovery of better evidence or improve the legal arguments. The adoption of modern case flow management techniques, however, adjusted the mindset of judges and staff by emphasizing that delays should be avoided in the interests of justice.

31. Adjournments may also have occurred because of corrupt practices. Defendants may have paid judges kickbacks to slow the progress of their case (Blue, Hoffman, and Berg 2008). In this context, modern case flow management techniques may achieve nothing, since merely instructing judges not to grant adjournments will not change incentives. Considering the

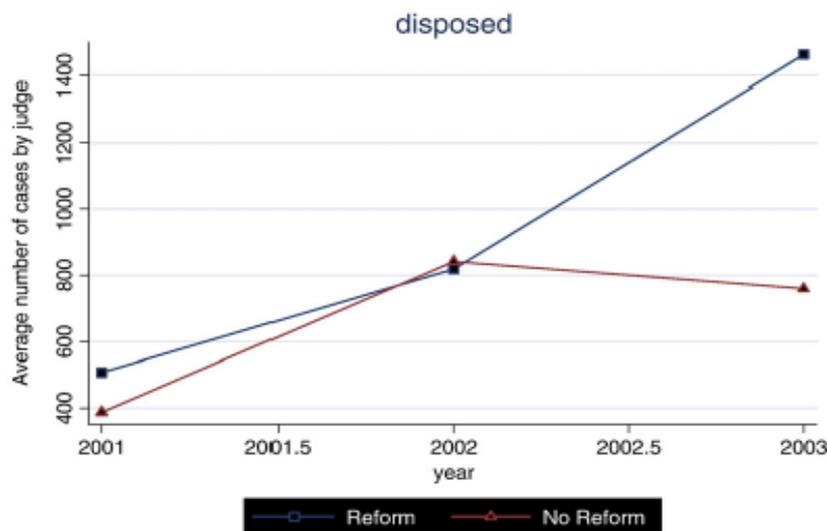
theoretical rationales for and against case flow management techniques, it is imperative that they be empirically evaluated after implementation.

Effects on courts

32. Evaluation of the implementation of this reform in Pakistan was made possible by an interesting feature: a pilot project that was done in six districts of the country in 2001. This provided a treatment and a control group. Judges from the six pilot districts visited courts in Singapore that are considered to be some of the most advanced and modern case flow management techniques. They also received training on case management techniques at Islamabad’s Federal Judicial Academy in the form of workshops every three months in 2001 and 2002. A bench/bar liaison committee was established in each pilot project area to develop and monitor operations and to organize regular meetings and workshops for pilot court judges so that judges and lawyers could share their experiences.

33. Figure 2 shows the number of cases disposed by judges between 2001 and 2003. The treated courts are in blue, while the control courts are in red.

Figure 2. Number of Cases Disposed by Judges



34. Before the reform, that is, from 2001 to 2002, treated and control courts were on a similar path. It is reasonable to assume that, absent the reform, they would have remained on that same path. Yet, starting in 2002, courts that received the treatment began to perform significantly better than the courts that did not. The control courts essentially stagnated over the same period. If it is assumed that the only change in 2002 was this reform, one can attribute the difference between treated and control courts to the reform.

35. More cases were filed over this period, indicating that people quickly responded to the existence of better courts by seeking their services. The increase in cases filed was not as large as the increase in cases resolved, which translated into a decrease in the time it took to resolve cases (Chemin 2009a).

Proven benefits

36. In the six pilot districts, there was an increase in the perception that law and order had improved among surveyed respondents. What is more, the piloted changes also led to increases in the number of people applying for credit, in the number people taking the steps needed to start a business, and in the number of entrepreneurs. Overall, these benefits were estimated to have increased Pakistan's GDP by 0.5 percent when the reform cost only 0.1 percent of GDP.

37. This study indicates that training judges on case flow management techniques can, under the right circumstances, increase the speed of court procedures and increase economic activity.

1.4. Implementing relaxed First-In-First-Out in Italy

38. Italy's judiciary has long been perceived to be slow. The World Bank ranked Italy 103 out of 189 countries in ease of enforcing contracts in *Doing Business* 2014.³ It takes an estimated 3.25 years to enforce a contract in Italy, slightly less time than Djibouti (3.35)⁴ and slightly more than Myanmar (3.18).⁵

39. In Italy, judges follow a hearing-level First-In-First-Out (FIFO) policy. This means that the oldest hearing has priority over the newest. Once a case has been heard, it goes back to the end a long pile.

Reform measure

40. Judicial reform advocates have found that a more efficient policy would be FIFO at the *case* level (Bray et al. 2016). According to case-level FIFO, a judge would prioritize the oldest case first, and work that case to resolution before opening a new case, in order to reduce the average time it takes to resolve a case. A simple example can demonstrate the difference. Suppose there are only two cases before a court, A and B. Each case takes two hearings to be resolved, and a judge can schedule only one hearing per day. Under a hearing-level FIFO policy, the judge would schedule the first hearing for A on day 1 and the first hearing for B on day 2, then the second hearing for A on day 3 and finally the second hearing for B on day 4. This is a FIFO policy at the hearing level because case A goes back to the end of the pile after the first hearing has been concluded, and the other case, case B, is then prioritized. Under a case-level FIFO policy, case A is chosen to be resolved first. The judge schedules the first hearing for A on day 1, the second hearing for A on day 2, and resolves case A. S/he then schedules the first hearing for B on day 3 and the second hearing for B on day 4. In a calculation of the average time the cases required, it can be seen that case A was resolved after two days and case B after four days. Thus, on average, it took $(2+4)/2=3$ days to resolve

³ World Bank, "Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises" (Washington, DC: World Bank, 2013), 200, <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB14-Full-Report.pdf>.

⁴ *Id.* 188.

⁵ *Id.* 212.

the two cases, less than the 3.5 days under the hearing-level FIFO policy. Simply reordering the hearings to apply a FIFO policy at the case level—that is, focusing on resolving one case at a time—reduced the average duration of cases.

41. Moreover, under this system, judges are required to multitask less. Studies in the non-judicial sector have increasingly shown that multitasking is not as productive as once thought.⁶ In fact, multitasking may be detrimental to the time it takes to resolve a case if judges have to constantly juggle between numerous cases. Judges may need to be reminded of certain particulars of a case if it takes, say, nine months to return to it, during which time he or she would have seen as many as 500 other cases. The judge would thus have to spend much of the follow-up hearing reviewing his or her notes, and this double-handing is an inefficient use of the judge's time. In contrast, if a case is fresh in the mind of a judge because that case is their sole focus, then s/he is likely to be able to resolve that case faster, and then move on to the next case.

42. To determine whether this idea works in practice, Bray et al. (2016) implemented and tested the policy in one court of six judges in Italy, thanks to a unique collaborative effort. A court's presiding judge heard the authors' idea at a judicial workshop held at the Rome Court of First Instance in October 2009 and contacted them about the possibility of adopting a case-level FIFO policy in her courthouse.

43. One concern of the judges about the change was how strictly such a policy shall be adhered to. Pure FIFO is practically impossible for any judge to achieve, because there are always going to be cases that cannot be resolved immediately by scheduling all hearings together. In some situations, time is needed in between hearings, for example, for the discovery of evidence. In this court, judges had to schedule hearings at least two months in advance to accommodate the schedules of lawyers, parties and witnesses, and had to space hearings at least six weeks apart to ensure that lawyers had sufficient time to prepare cases.

44. The team of researchers worked with the judges to find a workable solution. Instead, they recommended a relaxed case-level FIFO policy. When a new case came in, the judge estimated the number of hearings required to resolve the case, usually between two to four hearings depending on case complexity. The judge then pre-scheduled that number of hearings up front, spacing the hearings at least six weeks apart. Scheduling multiple hearings at once clustered those hearings in time so that a case finished soon after it began, in accordance with case-level FIFO. To avoid idleness, the judges erred on the side of scheduling too few hearings rather than too many. When they ran out of time slots, they added new hearings to the end of the queue, as they had done previously. (Bray et al. 2016, 551)

Effects on courts

45. The presiding judge convinced the six judges of her court to adopt the relaxed case-level FIFO policy in 2011. Bray et al. (2016) then compared these six judges to a control group of 44 judges who did not switch to the new format. They found that after the intervention,

⁶ See, for example, Itai Gurvich and others, "Collaboration, Interruptions and Changeover Times: Model and Empirical Study of Hospitalist Processing Times" (2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2616926.

the treated judges outpaced the control judges by .07 cases per day (11 percent). The treated judges decreased their inventories by 87 cases relative to the control judges, and the time in between hearings by 111 days (12 percent).

46. This was not a randomized experiment, where some judges are arbitrarily selected to be part of a treatment group. In this study, the treated judges might have been very different from the control judges. The authors argue that this was not the case however, by analyzing eight prior years of data on these judges before and after the application of the new policy, and were thus able to look at the trends before the reform in order to directly measure the changes that happened after the reform was introduced. The study found that before the intervention, the treated and control judges completed cases at the same pace, leading to the assumption that absent the intervention, they would have continued at the same pace. Yet, the treated judges improved their performance after the intervention, suggesting that the intervention had a positive effect (Bray et al. 2016).

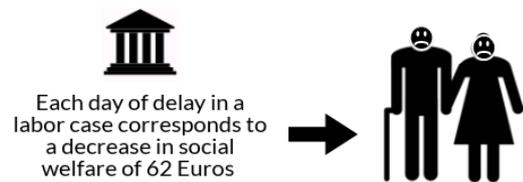
47. Interestingly, this paper is one of the few to look also at the quality of judicial decisions to evaluate whether greater speed of case resolution effected the quality of decision-making in those cases. This was found not to be the case. The authors examined the appeal rate, an often-used indicator of quality. The use of appeal rate as a proxy for quality is contentious in other contexts, but here its application is useful. Changes in appeal rates, all else being equal, may indicate changing perceptions of the parties of the quality of decisions. Therefore, the appeal rate can be considered a proxy for quality, or an indication of party perception of quality. The authors found that after adopting case-level FIFO, the treated judges' rulings were appealed 3.8 percent less often relative to those of the control judges, thereby suggesting an improvement in the quality of decisions, or at least of the perceptions of quality by the parties. It is easy to understand why. If judges schedule all related hearings together and forget less about each one, they may be to get a better appreciation of the issues in the case and render faster and better judgments.

48. This intervention seemed to offer a win-win solution to this court: without significant set-up costs, the court achieved improvements in both speed and perception of quality of case processing. The one caveat is that because appeal rates are not a full or perfect measure of quality, they should ideally be complemented with other measures, such as overturn rate or user satisfaction.

Proven benefits

According to the authors, delaying an Italian labor case by even one day decreases social welfare by €62. Thus, they estimate that their intervention increased social welfare by €105,690 per judge per year (Bray et al. 2016, 557).

49. Modifying procedures, such as simplifying the Code of Civil Procedure, imposing time limits, providing training on case flow management techniques, and convincing judges to adopt case-level FIFO policies to the extent feasible, has been shown to increase the speed with which a case moves through the system and, in turn, to have a beneficial effect on the economy and society.



2. Quality of Judicial Decision Making

2.1. Using the random assignment of cases to assess the effects of judicial decisions in the US and Argentina

50. Powerful individuals or governments can influence the courts to choose the judge most likely to deliver a favorable verdict, often known as ‘judge shopping’. However, the random assignment of cases to judges can help to mitigate against this harmful practice.

51. There is an additional advantage to randomly assigning cases to judges: the possibility of answering important questions about the judicial system. If judges are more or less lenient, and cases are randomly assigned, it means that some individuals will be more or less sanctioned for reasons unrelated to them. It then becomes possible to follow up on the lives of the individuals involved in these cases to analyze the long-term consequences of those judicial decisions.

Incarcerating youth

52. A critical issue of all justice systems is the incarceration of juveniles. Does the incarceration of juvenile offenders decrease future crime through a deterrence effect or increase it, perhaps by stigmatizing them, interrupting their schooling or family life, or introducing them to negative influences as an impressionable age? In the United States, cases are randomly assigned to judges, and researchers have found that some lenient judges jail juveniles on average 4 percent of the time, while other stricter judges jail on average 22 percent of the time (Aizer and Doyle 2015). Therefore, some youths, simply because their case was assigned to one judge and not another, end up being incarcerated for longer periods. The authors followed up with these youths and found that those who had been sentenced to juvenile detention were more likely to drop out of school and commit future crimes than those who had not spend significant time behind bars (Aizer and Doyle 2015).



53. In the US context therefore, Aizer and Doyle advocate for substituting juvenile incarceration with other sentences or diversionary programs, such as electronic monitoring and well-enforced curfews, which would constrain criminal activity while allowing the juveniles to continue their studies and remain part of society. This finding then raises the question as to whether these substitutes for incarceration have different effects on the individual than prison.

Electronic monitoring or prison?

54. In Argentina, one-third of judges use electronic monitoring instead of prison for ideological reasons, while two-thirds do not use this option. Those individuals granted electronic monitoring in lieu of prison time only because they were randomly assigned to a particular judge have been found to have lower re-arrest rates of between 11 and 16 percentage points, approximately half the baseline recidivism rate (Di Tella and Schargrofsky 2013).

Racial bias in judicial decisions

55. Another concern is racial bias in judicial decisions. For example, in small claims courts in Israel during the period 2000–04, a claim was between 17 and 20 percent more likely to be accepted if the case was randomly assigned to a judge of the same ethnicity (Shayo and Zussman 2011).

56. These examples demonstrate that the policy of randomly assigning cases can be used to answer other important societal questions related to the justice system. In general, the growing availability of data on judicial decisions advances the knowledge of judicial experts and makes it possible for justice system actors to improve judicial decision making.

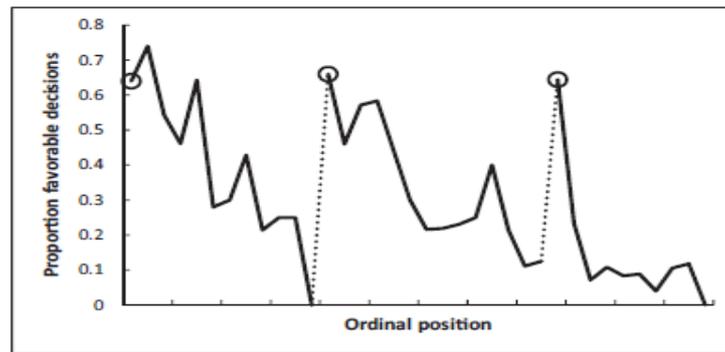
2.2. Ensuring rest breaks and lunch breaks for judges in Israel

The problem

57. Making repeated judgments or decisions over a long time period can diminish an individual's executive functions, as well as other psychological resources. In Israel, researchers took a closer look at this issue as it pertains to the justice system and carried out a study of judges' decisions on whether to grant or deny parole requests (Danziger, Levav, and Avnaim-Pesso 2011). Theoretically, the decision should depend solely on legal factors, such as the number of previous incarcerations, the gravity of the crime committed, the number of months already served, or the availability of a rehabilitation program should the prisoner be granted parole.

58. The authors of the study recorded the judges' two daily food breaks, which resulted in the segmentation of the day's deliberations into three distinct sessions of decision-making. They found that the percentage of favorable rulings dropped gradually from roughly 65 percent to nearly zero within each decision session and returned abruptly to about 65 percent after a break. The graph illustrating this finding is striking:

Figure 3: Favorable decision curve



Note: The dotted line denotes food breaks
Source: Danziger, Levav, and Avnaim-Pesso (2011)

59. The explanation is simple: as judges advance through the sequence of cases, they are more likely to accept the default, status quo outcome—that is, to deny a prisoner’s request. With mental fatigue, individuals tend to simplify their decisions (Danziger, Levav, and Avnaim-Pesso 2011, 6,889). This phenomenon has nothing to do with the content of the cases brought to the judges. In fact, the authors show that the cases are brought to the judge in random order. Thus, it cannot be argued that, for example, the cases in which individuals are most likely to get parole are heard first.

Proposed reform measure

62. The policy implication is clear: executive functioning—and the ability to make objective judgments—can be restored and mental fatigue overcome by a short rest and/or a meal.

3. Access to Justice

3.1. Establishing courts for small cases in Brazil

Reform measure

63. In the 1990s, the Government of Brazil decided to build *Special Civil Tribunals* (SCTs) to reach ordinary people with simplified and fast procedures for small cases. Up until then, the judiciary was thought to be too focused on the country's elites:

“There was no real concern for the effective access of the larger part of the population. It was elitist because it was expensive, distant, mysterious and unknown, a true arena where the richer, better prepared and with better lawyers, obtained more positive results” (Lichand and Soares 2014, 463).

64. To address this concern, the Government established the SCTs with jurisdiction over actions of smaller complexity (up to 40 times the minimum wage) such as those involving micro-enterprises, consumer rights, debt execution, neighborhood conflicts and torts. The introduction of these new courts in Brazil was perceived as the creation of a new kind of justice, different from what had before been available: simple, agile, safe, and effective, overcoming what local legal authors termed “constrained litigiousness” (Lichand and Soares 2014, 460).

Effects on courts

65. These new courts were found to be very successful, as five years after their establishment, 42 percent of all civil cases were decided in them. There was also a corollary for economic activity, and just one example among the cases gathered by Lichand and Soares provides an illustration. One plaintiff argued that some construction material paid for in advance was not delivered as per contract. Based on the defendant's absence on the day of the trial, the judge presumed the plaintiff's allegations to be true, ruling the contract void and that the amount paid should be transferred back to the plaintiff. The whole procedure took just three months to conclude (Lichand and Soares 2014).

66. The new-found assurance that contracts would be enforced could have potentially significant implications for businesses, increasing their confidence—and assuaging the reluctance—to enter into business contracts and engage with other firms at arm's length. Secure in the knowledge that contracts would be enforced by the SCTs, it was thought, more people would be willing to start a business, take on credit, hire employees, partner with other firms, and generally manage their business operations with reasonable expectations of the reliability of contracts.

67. In another case regarding a loan, the plaintiff (a private citizen, not a bank) lent some money to the defendant. The defendant wrote a list of assets that the plaintiff could seize in case of non-repayment of the loan. The defendant failed to repay but refused to give up the assets, arguing that they belonged to his mother. The judge ordered the defendant to transfer all the specified assets to the plaintiff except for the refrigerator, as that was the only asset

with a valid receipt indicating the mother's ownership. The procedure took two years to complete.

68. Again, it is important to consider the enhanced incentives to issue loans with the existence of the SCTs. Without these small claims courts, it would have been very difficult to seize the assets of that defendant. With the new tribunal, there is a clear and simple procedure for doing so, making it much less risky to lend. In fact, the defendant in this case will likely think twice before defaulting on the loan, since all of the assets can be seized (except for the one item). In general, more credit is likely to be available for those borrowers who do not represent a significant risk. Given that credit allows people with good ideas but without capital to start businesses, this new state of affairs may possibly lead to an increase in the number of entrepreneurs in Brazil.

Proven benefits

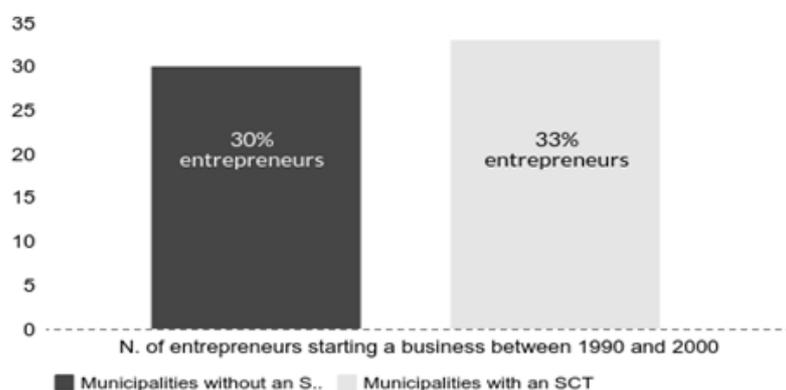
69. The examples described above indicate that there may be more people in Brazil who are willing to start a business after the reform went into effect, since contracts are now easier to enforce and credit is easier to obtain, conditions that make the whole process more reliable and straightforward. This is in fact the conclusion reached by Lichand and Soares (2014).

70. To quantify the benefits, Lichand and Soares acted on an interesting finding: SCTs were launched in only approximately half of the municipalities in Brazil, leaving the other half without this new court. This defines a treatment group (municipalities with an SCT) and a control group (municipalities without one).

71. The reason that only some municipalities were provided with an SCT stemmed from a historical accident: the SCTs were placed for convenience in municipalities already hosting other tribunals. Those earlier tribunals were set up in the 19th century, likely because the municipalities involved were large population centers at that time. The authors of the study were thus able to perform a simple test. They focused on municipalities that today are of equal size, and compared among them two groups of municipalities: those that had been granted an SCT and those that had not.

72. When comparing the treatment group to the control group, the study found a 3 percentage point increase in the former in the proportion of entrepreneurs between 1990 and 2000. Since 30 percent of the total population of the municipalities without an SCT are entrepreneurs, this represents a 10 percent increase in the number of people starting a business in those cities that have an SCT.

Figure 4. Impact of the Establishment of Special Civil Tribunals



Three percentage points may not seem significant, but it in fact represents a substantial number, considering the importance of entrepreneurship to economic growth. Innovative entrepreneurs challenge incumbent firms by introducing new inventions that can render current technologies and products obsolete—or at least outdated, and this process of “creative destruction” is one of the prime sources of economic development, according to famed economist Joseph Schumpeter. Entrepreneurs may in turn create new jobs, reduce unemployment, increase productivity by introducing new innovations, speed up structural changes by forcing existing businesses to reform, and ultimately increase economic development. According to Chemin (2009a), a 1 percentage point increase in the entry rate, that is, the proportion of new firms among all firms, is associated with an increase in GDP per capita of 0.43 percent. Thus, the 3 percentage point increase in the number of entrepreneurs found in Lichand and Soares (2014) could translate into an increase in GDP per capita of 1.2 percent. This is substantial, given that it stems from an institution such as the judiciary, which in Brazil costs 0.34 percent of GDP per year to function.⁷

3.2. Establishing Debt Recovery Tribunals in India

73. In India, a certain category of individuals was denied access to courts because of slow procedures: creditors. It took seven years to seize the collateral of a borrower in the case of non-repayment of a loan (Visaria 2009). Slow courts may have had serious consequences on the functioning of credit markets, as lenders were not easily able to recover collaterals, leaving borrowers with few incentives to repay loans. Anticipating this, lenders were often reluctant to lend at all. This reduced access to credit is likely to have impeded business activity, in particular frustrating talented entrepreneurs with no capital to start a business.

Reform measure

74. To address this problem, the Government of India decided to set up Debt Recovery Tribunals (DRTs), or courts that would deal exclusively with the speedier recovery of debts.

⁷ Data for the Brazilian judicial budget are not available, but the average judicial budget of all European countries was 0.34 percent in 2016, according to the 2016 database of the European Commission for the Efficiency of Justice (CEPEJ).

Effects on courts

75. Visaria (2009) analyzed a sample of cases progressing through these new DRTs and compared the outcome to cases that went through the regular civil courts. The author found that the time to resolve a case in the former was cut to just two years instead of the previous seven.

Proven benefits

76. Lilienfeld-Toal, Mookherjee, and Visaria (2012) were able to measure the impact of this reform on economic activity because of a legal controversy. A number of DRTs were set up in several Indian states in 1994, but the process was suddenly halted.

“In 1994, in response to a case filed by the Delhi Bar Association, the Delhi High Court ruled that the DRT law was not valid. It was only in 1996, after the country’s Supreme Court issued an interim order in favor of the law, that DRT establishment was resumed. New DRTs were set up in quick succession starting in 1996. By 1999, most Indian states had received a DRT” (Lilienfeld-Toal, Mookherjee, and Visaria 2012, 515).

77. This mimics the conditions of an intentional experiment: a treatment group of states were initially provided with several DRTs while in the control group of states, the process was delayed for reasons unrelated to firms and credit markets. It was thus possible to compare the treatment and control groups to know the effects of the DRTs. Visaria (2009) found that borrowers more frequently repaid their debts on time in the treatment group. Similarly, Lilienfeld-Toal, Mookherjee, and Visaria (2012) showed that, after a period of adjustment, banks increased the amount of credit offered by 40 percent in the treatment group.

78. These examples of court specialization may not be applicable in every country, as whatever is implemented must respond to the local context. However, micro-enterprises in Brazil and creditors in India saw improvements in their ability to access to the courts, which had proven impacts.

Conclusion and future directions

79. This paper presents eight ideas to improve justice service delivery.. Four reforms increased the efficiency of the courts: updating many of the procedures in the Code of Civil Procedure, setting time limits on a particular stage of the court proceedings, training judges on case flow management techniques, and applying relaxed case-level FIFO. Two reforms were passed to increase the quality of judicial decisions: the random assignment of cases to judges to prevent judge shopping (which was also used to analyze the long-term impacts of certain judicial decisions) and frequent breaks and specified lunch times for judges to reduce mental fatigue. Finally, two reforms led to increased access to the judiciary for micro-enterprises and creditors, which resulted in measurable economic benefits. Both involved the establishment of small courts for a particular purpose that led to increased access to groups whose access to justice was previously denied or impeded.

80. The common methodology throughout these studies was to employ the scientific method involving the comparison of a treatment group to a control group to rigorously evaluate the results on both the courts and the business community. In several cases, a control group was present due to the staggered or varied implementation of the reform in question.

81. This is not to suggest that the reform ideas presented here will work in every country, in every instance. Nor does this report suggest that the justice systems of the countries highlighted here operate optimally – only that it is empirically shown that they operate better than they did before the relevant reform.

82. It is not recommended that any jurisdiction adopt reforms blindly or because they are fashionable or worked elsewhere. Instead, reform opportunities should be identified and analyzed systematically and tested on a small scale to determine their applicability to the local context. Only those that have been proven to succeed in the local environment should then be scaled up.

83. To do this, it can be useful to compare a treatment group that has experienced the reform to a control group that has not been affected in order to separate out the effect of the particular reform from any other coincidental changes. In the studies outlined here, the researchers were able to use natural experiments, that is, accidental events that led to the formation of a treatment and control groups. Justice reformers could, in certain contexts, do even better; they could use randomized experiments, randomly applying a reform to a treatment group while the control group continues business as usual. By comparing the treatment to the control group, it is then possible to discern in a rigorous and relatively simple way what can be effective.

84. Justice reformers have a unique opportunity to build knowledge on ways to improve the justice sector and thereby improve conditions for economic development. Numerous other reform ideas have been put forward but have not yet been rigorously empirically tested, such as smart courts, electronic case management systems, and e-filing. Knowledge gained from the thorough evaluation of these ideas, as well as the ones presented here, whether they involve success or failure, would help to advance justice reforms across the globe.

4. Reference List

- Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91 (5): 1369–1401.
- Aizer, Anna, and Joseph J. Doyle, Jr. 2015. "Juvenile Incarceration, Human Capital, and Future Crime: Evidence from Randomly Assigned Judges." *The Quarterly Journal of Economics* 130 (2): 759–803.
- Blue, Richard, Richard Hoffman, and Louis-Alexandre Berg. 2008. "Pakistan Rule of Law Assessment-Final Report." U.S. Agency for International Development, Washington, DC.
- Bray, Robert L., Decio Coviello, Andrea Ichino, and Nicola Persico. 2016. "Multitasking, Multiarmed Bandits, and the Italian Judiciary." *Manufacturing & Service Operations Management* 18 (4): 545–58.
- Chemin, Matthieu. 2009a. "The Impact of the Judiciary on Entrepreneurship: Evaluation of Pakistan's 'Access to Justice Programme.'" *Journal of Public Economics* 93 (1–2): 114–25.
- . 2009b. "Do Judiciaries Matter for Development? Evidence from India." *Journal of Comparative Economics* 37 (2): 230–50.
- . 2010. "Does Court Speed Shape Economic Activity? Evidence from a Court Reform in India." *The Journal of Law, Economics, & Organization* 28 (3): 460–85.
- Danziger, Shai, Jonathan Levav, and Liora Avnaim-Pesso. 2011. "Extraneous Factors in Judicial Decisions." *Proceedings of the National Academy of Sciences* 108 (17): 6889–92.
- Di Tella, Rafael, and Ernesto Schargrotsky. 2013. "Criminal Recidivism after Prison and Electronic Monitoring." *Journal of Political Economy* 121 (1): 28–73.
- Jappelli, Tullio, Marco Pagano, and Magda Bianco. 2005. "Courts and Banks: Effects of Judicial Enforcement on Credit Markets." *Journal of Money, Credit and Banking* 37 (2): 223–44.
- Kondylis, Florence, and Mattea Stein. 2017. "Reforming the Speed of Justice: Evidence from an Event Study in Senegal." Unpublished. Available at https://sites.tufts.edu/neudc2017/files/2017/10/paper_349.pdf.
- Lichand, Guilherme, and Rodrigo R. Soares. 2014. "Access to Justice and Entrepreneurship: Evidence from Brazil's Special Civil Tribunals." *The Journal of Law and Economics* 57 (2): 459–99.
- Lilienfeld-Toal, Ulf von, Dilip Mookherjee, and Sujata Visaria. 2012. "The Distributive Impact of Reforms in Credit Enforcement: Evidence from Indian Debt Recovery Tribunals." *Econometrica* 80 (2): 497–558.

North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.

Shayo, Moses, and Asaf Zussman. 2011. "Judicial Ingroup Bias in the Shadow of Terrorism." *The Quarterly Journal of Economics* 126 (3): 1447–84.

Visaria, Sujata. 2009. "Legal Reform and Loan Repayment: The Microeconomic Impact of Debt Recovery Tribunals in India." *American Economic Journal: Applied Economics* 1 (3): 59–81.