# Justice for all? The impact of legal aid in India

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### Link to the updated draft

#### Abstract

Barriers to justice perpetuate poverty and economic inequality. We study the impact of a large scale expansion of access to legal representation: the establishment of legal aid clinics in prisons across India. We collect the opening dates of over 750 prison legal aid clinics and match these to (i) data on over 13 million criminal cases and (ii) prison population statistics. Our empirical strategy exploits the staggered roll-out of clinics in a difference-in-differences design. We find that defendants with access to legal aid are more likely to receive a definitive judgement, more likely to get a favorable outcome, and face a higher chance of acquittal relative to conviction. The rise in acquittals is driven by an increase in the share of cases that are dismissed early in the trial. In line with the increasing acquittal rate, we find a reduction in the number of convicts at the prison level. The welfare gain is considerable: 31,055 individuals spared prison time each year and a return of 7.6 dollars on every dollar spent on legal aid.

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## 1 Introduction

Most justice systems are based on the principle of equality before the law. In practice, navigating legal proceedings requires resources, as laws are complex and hiring lawyers is expensive (Kaplow, 1995). One of the ways in which economic and social inequalities are reflected in the justice system (Glaeser et al., 2003; Stevenson, 2018; Sanchez de la Sierra, 2021), is through unequal access to legal representation. In an attempt to mitigate these imbalances, legislation in 125 countries guarantees the right to legal aid (UNODC, 2016).

The demand for legal aid is particularly high in prisons. As of 2024, there are 11 million people in prison worldwide, including over 3 million pre-trial detainees (Fair and Walm-sley, 2024). Incarceration can compromise individuals' ability to prepare a defense and thereby make judicial error more likely (Heard and Fair, 2019). Legal aid for pre-trial detainees aims to reduce the risk of wrongful imprisonment and wrongful conviction.<sup>1</sup> Unwarranted imprisonment is innately unjust and particularly damaging given the empirical evidence linking incarceration to long-term negative impacts on educational attainment and labor market outcomes (Dobbie et al., 2018; Agan and Starr, 2018; Aizer and Doyle Jr, 2015). Despite the prevalence of public legal aid, there is limited empirical evidence on its efficacy and in particular, on its impact on criminal justice.

In this paper, we evaluate the causal impact of a large-scale intervention to increase the accessibility of legal aid. Specifically, we test whether a policy to establish legal aid clinics in prison affects judicial outcomes for defendants. We study how legal aid affects the disposal of cases, the duration of cases, and the final verdict. We complement this with an analysis of the systemic impacts on the composition of prison populations and prison overcrowding.

Prison legal aid clinics (PLACs) operate at the intersection between the judiciary and the prison system. They are situated inside prison facilities and staffed by lawyers and paralegals who provide basic legal counsel. They file applications and petitions for inmates and facilitate communication between prisoners and the courts. They can represent inmates in court but more commonly act as intermediaries between inmates and other legal aid lawyers. Their overarching function is to provide inmates "access to justice".<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>Conviction rates vary from 40 to 99% across countries. Ex-post, this implies that a considerable share of pretrial detainees should not have been imprisoned. Wrongful convictions are hard to measure but NGOs in some countries maintain records: the US (NRE, 2023), Canada (Roach, 2023), the UK (Rebecca, 2022), and Spain (Sánchez et al., 2024). Estimates of the wrongful conviction rate in the US range from 2 to 10%.

<sup>&</sup>lt;sup>2</sup>"Equal access to justice for all" is a component of the Agenda for Sustainable Development's Goal 16. It is also a constitutional right in many countries, including India (Article 39A).

We evaluate these institutions in the context of India, where a national regulation in 2011 mandated the establishment of clinics in every prison. This policy was gradually implemented over the subsequent decade, providing us with a natural experiment that allows us to study its impact. We collect the exact opening date of individual PLACs from right-to-information requests from each prison, forming a novel prison-level dataset.<sup>3</sup> Most PLACs were established between 2010 and 2021. We find no evidence that districts opening PLACs exhibit pre-trends in crime rates, judicial appointments, the volume and composition of cases, or - crucially - any of our dependent variables. This is an important test of the validity of our staggered difference-in-differences strategy.

We measure judicial outcomes based on a dataset of individual case records in the Indian court system published by Ash et al. (2023). We restrict our analysis to criminal cases and districts where we have information on PLAC opening dates, giving us an underlying sample of 13.8 million cases. We augment this dataset by building new indicators from the raw text provided by the courts. These indicators enable a more granular analysis of PLACs' impact and shed light on mechanisms. We identify appeal cases as well as cases that were settled through alternative dispute resolution channels, and distinguish between case types, categories of trial, and different trial stages. We collected a second set of prison-level dependent variables through right-to-information requests: a panel dataset of inmate populations from 2010-2020.

In our main empirical strategy, we use the case records to build a district-quarter panel and estimate the dynamic treatment effects of PLACs using the Callaway and Sant'Anna (2021) difference-in-differences estimator.<sup>4</sup> We show robustness to other estimators and to an alternative case-level specification.

Our results suggest that access to legal aid improves judicial outcomes for a share of defendants. Over a three-year period following the establishment of a PLAC, we find a 3% increase in the share of cases that are disposed of, a 3.4% increase in the share with outcomes that are favorable to the defendant, including a 3.8% increase in acquittals relative to convictions. On the principle that everyone is entitled to the best possible defense, these

<sup>&</sup>lt;sup>3</sup>The responses to our right-to-information requests were sent via postal service from individual prisons (or sometimes collected by district authorities) over the period of a year. Not all prisons responded to our requests. We therefore test if the districts that responded differ systematically from those that did not, and we do not find this to be the case.

<sup>&</sup>lt;sup>4</sup>Our analysis is based on a district-level panel instead of a prison-level panel as the case-level data do not provide information on whether a defendant was incarcerated or which prison they were in.

results imply that some pre-trial detainees had previously been disadvantaged by a lack of legal assistance.

The case records allow us to distinguish between different types of acquittal and conviction in order to identify at what stage of a trial legal aid has an impact. We find that the opening of a PLAC is followed by a 10% increase in the share of cases dismissed by judges at an early stage, before the defendant enters a plea. There is no significant effect on the likelihood of plea bargains or on acquittals later in the trial. Consistent with these results, when we analyze the case length of acquittals and convictions, we observe an increase in the share of fast acquittals and a decline in the share of fast convictions (cases decided in less than 6 months). Our interpretation is, that repeated interactions with prisoners mean that lawyers are better informed about the case and more often in a position to ensure charges are dismissed early on.

PLACs operate within a broader legal aid infrastructure, and we find evidence of coordination with other institutions. The legal service authorities oversee alternative dispute resolution (ADR) mechanisms that allow for cases (including some criminal cases) to be settled outside of conventional courts.<sup>5</sup> Legal aid lawyers are encouraged to promote the use of these channels. We show that the opening of a PLAC results in an 11% increase in the share of cases resolved in this way. This can be interpreted as a positive development for defendants in criminal cases because the distribution of likely outcomes is less favorable in traditional courts.

Once defendants are convicted, they may still benefit from legal aid. We find that the number of applications to overturn judicial decisions increases by 20% in the three years following the establishment of a PLAC. While the volume of appeals increases, there is no significant impact on the success rate of these appeals. In aggregate, we estimate this translates to a 10% increase in the number of cases overturned after appeal. This result is consistent with legal aid lawyers' mandate to file appeal applications on behalf of defendants.

Finally, we evaluate the systemic impact of PLACs on the size and composition of the prison population. Given that our analysis of the judicial data shows that legal aid (i) reduces conviction rates and (ii) increases the number of successful appeals, there is reason

<sup>&</sup>lt;sup>5</sup>Such channels have different names across countries and are collectively referred to as "diversion", in Mueller-Smith and Schenepel (2021). These encompass a class of intervention where public officials choose to pause, terminate, or divert a case's progression through the justice system. In India, ADRs include but are not limited to the institution Lok Adalat, a form of diversion that occurs in the pre-litigation stage.

to expect a decline in the number of convicts. Using the prison-level data, we estimate that the convict population declines by 12.4% over three years. PLACs are also tasked with identifying undertrial prisoners eligible for release. For the undertrial population, the estimated coefficient is also negative but not statistically significant. Many of India's prisons are severely overcrowded, which is reflected in the national 'occupancy rate' - the total inmate population divided by capacity - of 131.4% (NCRB, 2022). We calculate this measure at the prison level and find a marginally significant decline of 9.2% following the opening of a PLAC. Using district crime data, we do not find evidence that declining conviction rates impose a negative externality in the form of rising crime.

This paper contributes to the literature that evaluates the impact of legal aid empirically. Existing work broadly finds that legal aid interventions benefit their clients (Sandefur and Siddiqi, 2015; Aberra and Chemin, 2018; Seron et al., 2001; Greiner et al., 2012).<sup>6</sup> These studies differ from ours in two important respects. Firstly, they evaluate local interventions that are administered by NGOs or by the researchers themselves.<sup>7</sup> Secondly, they focus on interventions targeted to specific legal matters (often in civil law): e.g., land disputes (Aberra and Chemin, 2018), housing disputes (Seron et al., 2001; Greiner et al., 2012), or gender-based violence (Mueller et al., 2019). We study a national legal aid program whose clients can face charges in any area of criminal law. Public legal aid plays an important role in justice systems around the world, but its effects are typically hard to quantify due to a lack of (i) within-country variation and (ii) data on case outcomes. We are able to evaluate such a program due to (i) the staggered roll-out of PLACs and (ii) the case-level data published by Ash et al. (2023).

Given the contrast in both scale and scope between this intervention and those studied previously, it is notable that we find qualitatively similar results. Literature on the scaleup of experimental results has shown there to be a "voltage effect": the size of treatment

<sup>&</sup>lt;sup>6</sup>Sandefur and Siddiqi (2015) conduct a randomized control trial of legal aid for dispute resolution run by an NGO in Liberia. They find that legal aid significantly increases clients' satisfaction with case outcomes. Aberra and Chemin (2018) offer Kenyan landowners access to a lawyer for two years, which increases their labor input and capital investment into their land, leading to an increase in agricultural production. Seron et al. (2001) and Greiner et al. (2012) show that tenants with access to legal aid are less likely to be evicted in New York and Boston, respectively. One study whose results do not conform to this pattern is that of Mueller et al. (2019). They study the impact of community-based legal aid on gender relations in Tanzania and find no effect on intra-household decision-making or intimate partner violence.

<sup>&</sup>lt;sup>7</sup>Sviatschi and Trako (2024) study an intervention designed to reduce gender-based violence in Peru: the establishment of Women's Justice Centers. Like the policy we evaluate, this is a national government program. There is, however, a distinction in that Women's Justice Centers combine police, legal, and medical services in one office. The effect of this combined intervention is an increase in the reporting and prosecution of gender-based violence, a reduction in the incidence of such crimes, and an increase in human capital investments in children.

effects typically diminishes with scale (Al-Ubaydli et al., 2017; Mobarak, 2022; List, 2022). Comparing NGO-led interventions and public legal aid programs, there are likely to be differences in the incentives, selection and monitoring of lawyers. Intrinsic motivation may be lower among public legal aid providers while problems of adverse selection (Iyengar, 2007; Roach, 2014) and moral hazard (Agan et al., 2021; Lee, 2021; Tuttle and Wilson, 2024) may become more salient.<sup>8</sup> We show that legal aid can also be an effective intervention when implemented by government agencies in the context of one of the largest prison systems in the world.

We also contribute to the broader literature on the role of the judiciary in developing countries (see Maqueda and Chen (2021) for a comprehensive review). Influential studies relate countries' economic development to the origin and the efficacy of their legal institutions (Porta et al., 1998; Djankov et al., 2003). Subsequent work has used within-country variation to study the effects of judicial efficiency on entrepreneurship, credit markets, and firm performance (Visaria, 2009; Chemin, 2012; Lichand and Soares, 2014; Ponticelli and Alencar, 2016; Amirapu, 2021; Rao, 2022). Another strand of the literature has focused on judges. Recent studies have evaluated to what extent the identity, life experiences, and appointment mechanisms of judges affect their rulings (Ash et al., 2023; Mehmood, 2022; Bharti and Roy, 2023). Our paper focuses on defendants and the prison system, areas where there is, as yet, limited quantitative evidence in developing countries.

The optimal response to judicial inefficiencies and resource constraints is an important theme in this literature. Agents and firms may avoid formal legal channels<sup>9</sup> and resort to "second best" alternative institutions that evolve in their place (Dixit, 2004; Rodrik, 2008; Sandefur and Siddiqi, 2015). In the context of criminal justice, the outside options for individuals may be more limited (particularly for defendants), which adds to the welfare costs of backlogged courts and overburdened prisons.

Finally, we contribute to the literature on inequality in the justice system (Glaeser et al., 2003; Stevenson, 2018; Gupta et al., 2016; Antsygina and Kurmangaliyeva, 2022). Judicial policy can be characterized as a trade-off between the risk of acquitting the guilty and

<sup>&</sup>lt;sup>8</sup>The literature on adverse selection and moral hazard among public defenders and assigned counsel studies a different question from that in this paper. These papers compare two counterfactuals where a defendant is represented by two different types of lawyers. In our paper, the counterfactual can be thought of as no access to legal counsel.

<sup>&</sup>lt;sup>9</sup>Sadka et al. (2024) find that 85% of workers who failed to receive severance pay choose not to file a claim in Mexico's backlogged labor courts. Boehm and Oberfield (2020) show that Indian manufacturing plants in states with high court congestion respond to contract enforcement frictions by shifting expenditure away from intermediate inputs.

that of convicting the innocent. In such models, a policymaker balances these concerns while choosing a common level of enforcement or stringency that applies to all defendants (Kaplow, 2011; Rubinfeld and Sappington, 1987). Extending this framework to an unequal society, where some will be able to afford a better defense than others, the 'optimal' stringency will result in more acquittals for the guilty among the rich and more convictions for the innocent among the poor. While previous literature has shown that the rich are more likely to evade justice (Kurmangaliyeva, 2018), we find evidence consistent with the latter prediction for the poor. We study an intervention whose benefits are concentrated among those who cannot afford private counsel,<sup>10</sup> and our results imply that without legal aid, these defendants face excessively high conviction rates. A further important distinction is that prior work has focused on the question of impartiality and whether rich defendants are favored in the courts (D'Alessio and Stolzenberg, 1993; Volkov, 2016; Kurmangaliyeva, 2018). We document wrongful convictions among the poor, that appear to arise from unequal resources and unequal representation, but need not imply that judges are biased.

We conclude the paper with a welfare analysis of the costs and benefits of PLACs. Our back-of-the-envelope calculations imply that PLACs result in the release of 31,055 prisoners annually, leading to a saving of 46,582 person-years in prison. Combining the associated reduction in prison costs and the estimated earnings of these individuals, we estimate an annual welfare gain of \$37.5M per year. Our cost-benefit analysis suggests that the policy has a very significant net benefit - a one-dollar investment in legal aid results in a welfare gain of 7.6 dollars.

The rest of the paper is structured as follows: Section 2 provides background on the criminal justice system in India, Section 3 describes the three main datasets used for the analysis, Section 4 presents the empirical strategy and tests of its validity, Section 5 describes the main results and robustness checks, Section 6 analyses potential mechanisms, Section 7 evaluates systemic impacts and presents a welfare analysis, Section 8 concludes.

# 2 Background

## 2.1 Pre-trial detention in India

76% of India's prison population has not been convicted but is awaiting trial. That is the 6th highest share globally and more than twice the comparable share worldwide: 33%

<sup>&</sup>lt;sup>10</sup>Mann (2018) provides survey evidence from Delhi that legal aid services are used exclusively by those who cannot afford private counsel.

(World Prison Brief, 2024). Undertrial prisoners in India spend roughly 12.3 months in prison on average, but - as of 2022 - 11,448 inmates had been awaiting trial for over five years (NCRB, 2022).

A number of factors contribute to India's exceptional share of undertrial prisoners. The police have long been accused of abusing their powers of arrest. In 1999, Justice M N Venkatachaliah claimed that "60 per cent of the arrests are unnecessary and 43 per cent of the expenditure on jails are on prisoners who need not have been arrested at all" (Sankaran, 1999). Once arrested, many defendants have bail applications denied, despite the Supreme Court of India repeatedly affirming the principle that "Bail is the rule, jail is an exception".<sup>11</sup> Conditional on being granted bail, many defendants cannot afford to pay the bond (Bhandari, 2016). India's judiciary suffers from chronic delays that prolong undertrial prisoners' wait for trial (Chemin, 2012). As of 2024, there were 45 million cases pending in Indian courts (National Judicial Data Grid, 2024). Once a trial date is set, undertrial prisoners are reliant on the availability of police escorts, causing many to miss hearings (International, 2017).<sup>12</sup>

Navigating the legal process is likely to be considerably harder for individuals without a full understanding of their rights and without legal advice. The qualitative literature suggests that imperfect access to legal aid amplifies the problems described above:

"Although national-level data on the reach and effectiveness [of] legal aid could not be found, the high prevalence of pretrial detention (despite legislative amendments) is indicative of the difficulty in accessing legal aid. Anecdotal evidence exists as well; the former Kerala DG of Prisons, Mr. Alexander Jacob, estimates that 20% of prison inmates are innocent and are in pretrial detention 'due to lack of access to legal aid' " (Bhandari, 2016).

The demographics of India's undertrial prisoners suggest that many have limited economic opportunities and may struggle to afford private legal counsel. 26% of undertrial prisoners are illiterate, and 50% are under the age of 30. Relative to their share in the population, members of Scheduled Castes and Muslims are over-represented.<sup>13</sup> While we do not have data on defendants' caste, we test whether access to legal aid differentially bene-

<sup>&</sup>lt;sup>11</sup>In the 2021 case Satender Kumar Antil vs. CBI & Anr the Supreme Court criticized the prevalence of pre-trial detention and set out new guidelines pertaining to bail (Supreme Court of India, 2021).

<sup>&</sup>lt;sup>12</sup>An RTI filed by Amnesty International found that between September 2014 and February 2015, 82,334 undertrial prisoners were not produced in court due to a shortage of police escorts. The 154 prisons that responded to this RTI represent a small fraction of total prisons, suggesting the true number is larger.

<sup>&</sup>lt;sup>13</sup>Members of Scheduled Castes account for 20.9% of undertrial prisoners and 16.6% of the general population. Muslims account for 19.3% of undertrial prisoners and 14.2% of the general population. Muslims are also overrepresented relative to their share of convicted prisoners: 17.1% (NCRB, 2022).

fits Muslim defendants in Section 6.<sup>14</sup>

#### 2.2 Legal aid in India

India's constitution requires the state to provide legal aid to ensure that citizens have access to equal opportunities in the justice system.<sup>15</sup> To implement this mandate, the Indian government passed the Legal Services Authorities Act of 1987. It came into force in 1995, leading to the creation of legal aid institutions at the national, state, and sub-district levels.

The National Legal Services Authority (NALSA) and its counterparts at the state and district levels (SLSAs and DLSAs) empanel lawyers to serve as legal aid lawyers on fixed-term contracts.<sup>16</sup> As of 2018, 71,000 individuals, or 4% of the lawyers in India, worked as legal aid lawyers (Bagga, 2018). Legal aid is means-tested, with income thresholds that vary by state. There are however, a number of groups for whom access to legal aid is guaranteed regardless of income, including people in custody. Factoring in these exemptions, almost 80% of India's population is eligible for legal aid (Bagga, 2018).

In practice, the legal service institutions' capacity to meet the huge demand for legal aid is severely constrained by resources. India's central government spent roughly 1.3 rupees (0.016 USD) per capita on legal aid in 2022 (India Justice Report, 2022).<sup>17</sup> Given the large share of the population that is eligible, the number of panel lawyers is low: 5 per 100,000 people (Bagga, 2018).

#### 2.3 Prison legal aid clinics

A 2011 NALSA regulation mandated the establishment of legal aid clinics in Indian prisons.<sup>18</sup> These clinics are intended to provide basic legal services and have been described as the legal equivalent of primary health centers. They are staffed by jail-visiting lawyers

<sup>&</sup>lt;sup>14</sup>We do not test for heterogeneity by gender, as 96% of undertrial prisoners are men and female inmates are less likely to be housed in a district's main prison.

<sup>&</sup>lt;sup>15</sup>Article 39A of the Indian Constitution

<sup>&</sup>lt;sup>16</sup>In recent years, NALSA has introduced an additional type of legal aid institution under the Legal Aid Defense Counsel System. This was not operational during our sample period.

<sup>&</sup>lt;sup>17</sup>This number is low by international standards. A UNODC study provided comparable figures for 25 countries in 2013. Even without adjusting for inflation, India's per capita spending would rank below all of these except Nepal (UNODC, 2016)

<sup>&</sup>lt;sup>18</sup>RTI responses indicate that very few prisons had clinics prior to 2011. The regulation calls for the establishment of clinics more broadly, but "especially where the people face geographical, social and other barriers for access to the legal services institutions" (NALSA, 2011).

(drawn from the pool of legal aid lawyers in the district) and paralegal volunteers and should consist of a separate room in the prison furnished with tables, chairs, a computer, internet access, and basic law books. Clinics should be open at least twice a week and information about opening times is to be posted in public areas in the prison (NALSA, 2022).

PLACs are responsible for ensuring that "*no person is without legal representation at any stage of the criminal proceeding*" (NALSA, 2022). They are tasked with identifying prisoners in need of assistance and undertrial prisoners eligible for release. Jail-visiting lawyers draft applications and petitions for inmates, regularly update them on the status of their case, and can - in some circumstances - represent them in court.<sup>19</sup> They are also supposed to track and inform the DLSA about the non-production of inmates in court on their scheduled hearing date (NALSA, 2016). More broadly, PLACs are intended to help bridge information gaps between courts and defendants, to build legal awareness among prisoners, and to raise any grievances that inmates have with the relevant authority.

While PLACs primarily provide basic legal assistance, they also play an important intermediary role by facilitating access to the broader infrastructure of the legal aid system. NALSA guidelines place significant emphasis on advertising legal aid services to prisoners, filing applications for legal aid, communicating with legal aid lawyers outside of prisons, and cooperating with other local institutions (NALSA, 2016). The treatment effects we report in this paper can therefore be interpreted as a combination of the legal aid provided directly in the clinic and the fact that PLACs are intended to make other legal aid services more accessible and more effective.

The timing of PLAC openings should not be considered random. The implementation of NALSA's 2011 directive was left to district legal service authorities, who complied gradually over the subsequent decade. In 2015, NALSA wrote a letter requiring that PLACs be constituted in all prisons within a period of three months. This resulted in a significant spike in clinic openings in 2015, but not in full compliance as clinics continued to open in prisons over subsequent years.<sup>20</sup>

<sup>&</sup>lt;sup>19</sup>The local legal service authority decides whether the jail visiting lawyer or another legal aid lawyer represents the defendant in court. If the defendant has a separate defense lawyer, the jail visting lawyer is responsible for communicating with them. (NALSA, 2022).

<sup>&</sup>lt;sup>20</sup>As of 2021, there were 1319 prisons and 1143 PLACs, so compliance had not reached 100% (NCRB, 2021; NALSA, 2021).

# 3 Data

This paper combines three different types of data: (i) prison-level data on PLACs from right-to-information requests (ii) case-level data on criminal cases in the Indian justice system, and (iii) prison-level data on the composition of the prison population over time.

## 3.1 Prison legal aid clinics

There is no publicly available repository of information about individual legal aid clinics in India. We, therefore, compiled our own using information from responses to right-to-information (RTI). We filed RTIs to the State Legal Service Authorities of all Indian states in 2021, and for some states, filed the same RTIs to individual District Legal Service Authorities. We received responses from 552 prisons located in 266 districts. We supplement this with data collected by the CHRI who filed an RTI that elicited the same information in 2016 (Bagga, 2018). In total, we have information on 763 prisons in 347 districts. This accounts for 54.5% of the prisons and 54.2% of the districts in India. Map A.I (first panel) shows the districts included in our sample.

Since only about half of districts responded to our RTI, we test whether those who responded are systematically different from those who did not in Section 7.3.<sup>21</sup> We find no systematic differences in judicial characteristics, crime rates, or census characteristics.

The key variable of interest for our analysis is the date on which a PLAC opened. Figure A.I (second panel) plots the distribution of opening dates between 2010 and 2018. At least one PLAC opened in every quarter of our sample period, but most clinics opened in the years 2012-2016. Map A.I shows also the geographic variation in opening dates. Importantly, for our analysis, there is a lot of local variation in the opening dates of PLACs.

The RTI filed by CHRI also elicited information on the number of lawyers and paralegals visiting individual clinics in June 2016 (Bagga, 2018). These data are available for 328 jail legal aid clinics, that had opened at different points in time. We use the variation in this sub-sample for a descriptive analysis to assess how clinic staffing evolves over time.

<sup>&</sup>lt;sup>21</sup>This test is an assessment of external rather than internal validity. The districts that did not respond are never included in our analysis.

#### 3.2 Criminal cases

Our primary set of outcomes are based on case-level data from the lower courts in India, published by Ash et al. (2023). These data were scraped from India's eCourts platform in 2020. They include information on the legal sections under which a case was filed, the date of the filing and the decision, and the disposition of the case. We are grateful to Ash et al. (2023) for sharing additional information on defendants' likely religion.

The eCourts data do not provide information on whether a defendant was incarcerated or which prison they were in. For this reason, we match cases to PLACs at the district level. This introduces two sources of potential measurement error in our case-level analysis. Firstly, we estimate the effect of PLACs on all criminal defendants, even though some are granted (and able to afford) bail and thus are likely unaffected by the presence of a PLAC. In section 6.3, we show that our results are driven by categories of cases where defendants face a significantly higher likelihood of awaiting trial in prison (e.g. non-bailable crimes). Secondly, analysis at the district level requires that we select one date per district - even in cases where a district has multiple prisons. In practice, this problem is mitigated considerably by the distribution of prisoners across prison categories.<sup>22</sup>

We construct outcome variables from the eCourts data by classifying case dispositions following the classification hierarchy of Ash et al. (2023), detailed in Appendix C.1. Appendix Figure A.II illustrates this classification process, and Appendix Table B.I provides details on the classification of individual dispositions. Our main analysis considers five binary outcomes: (i) *case disposed* takes the value of 1 if a disposition was recorded and 0 otherwise (ii) *decision* < 6 *mos* that takes the value of one if a case was decided within six months of the filing date and 0 otherwise. (iii) *decision* < 12 *mos* that takes the value of one if a case was decided within twelve months of the filing date and 0 otherwise (iv) *positive* takes the value of 1 if the disposition indicates a favorable outcome for the defendant and 0 for negative outcomes (v) *acquitted* takes the value of 1 for acquittals and 0 for convictions. Acquittals and convictions are subsets of positive and negative outcomes, respectively. Restricting the sample to these categories results in the most comparable set of cases, and we therefore consider *acquitted* to be our primary outcome.

<sup>&</sup>lt;sup>22</sup>District Jails and Central Jails account for 89% of the inmate population NCRB (2021). 80% of districts in our sample have exactly one District or Central Jail, and we use the opening date of the PLAC in that jail. 12% of districts have neither a District nor a Central Jail, and we use the opening date of the PLAC in the jail in that district (typically a Sub Jail). Only 8% of districts have more than one District or Central Jail. For these we use the earliest opening date. In these 8% of districts, the potential for measurement error is further mitigated by the fact that PLACs frequently open in both jails in the same year.

Many cases in the dataset have a disposition that cannot be classified as positive or negative for the defendant.<sup>23</sup> In robustness checks, we show that PLACs do not affect the share of such cases and that including ambiguous cases in the reference group does not affect the results.

Using the textual information in the eCourts data we build new indicators to identify appeal cases (Appendix C.2), judge type (Appendix C.3), cognizable crime cases, different categories of trials (Appendix C.4), different stages of the trial, and cases that were settled through alternative dispute resolution mechanisms.

Table 1 presents descriptive statistics for the case-level data. The main sample consists of 11,551,312 criminal cases in districts where we have information on PLAC opening dates. Around 2/3 of cases were filed after the opening date of the PLAC, i.e., in the post-period. Among cases that are not missing a disposition, we classify 74% as either positive or negative; of these, 54% are positive for the defendant. In the sub-sample that resulted in either an acquittal or a conviction, the acquittal rate is 77%.

## 3.3 **Prison population figures**

In order to study whether a PLAC shifts the composition of inmates in prison, we collected data on the number of convicted and undertrial prisoners in individual jails. This information was also collected through our RTIs to State Legal Service Authorities filed in 2021. We received responses with inmate population figures from 555 prisons in 306 districts. The data form an annual panel covering the period 2010-2020. They allow us to track the evolution of different categories of the prison population over time.

## 4 Empirical Strategy

## 4.1 Staggered difference-in-differences design

We employ a staggered difference-in-differences design to identify the causal effect of PLAC openings. The gradual rollout of legal aid clinics across the prisons in our sample provides the variation in our variable of interest. Our main estimation samples have

<sup>&</sup>lt;sup>23</sup>The classification hierarchy distinguishes between procedural and ambiguous cases. *procedural* takes the value of 1 if the disposition indicates that no conclusion was reached in that court for technical reasons and 0 otherwise. e.g., this includes cases where the defendant died or where the case was transferred to another court. *ambiguous* takes the value of 1 if the disposition cannot be classified as positive or negative and 0 if it can. For e.g., a fraction has the disposition: "disposed of."

a panel structure; we track judicial outcomes at the district-quarter level and prison outcomes at the prison-year level. Given this structure, the classical approach would be to estimate a static two-way fixed effects model (TWFE) of the form:

$$Y_{dt} = \alpha + \beta post_{dt} + \delta_d + \rho_t + \epsilon_{dt} \tag{1}$$

where  $post_{dt}$  is an indicator for whether a clinic was operating in district d in quarter t,  $\delta_d$  are district fixed effects, and  $\rho_t$  are quarter fixed effects.

Recent literature has shown that static TWFE models can yield biased estimates if treatment effects are heterogeneous and has developed alternative estimators that isolate clean comparisons between treated and not-yet-treated groups (Borusyak et al., 2024; De Chaisemartin and d'Haultfoeuille, 2020; Callaway and Sant'Anna, 2021; Goodman-Bacon, 2021; Sun and Abraham, 2021). This concern applies in our setting, and we therefore report the results of the Callaway and Sant'Anna (2021) estimator as our preferred results. Our control group consists of not-yet treated prisons/districts.<sup>24</sup> We collapse our case-level data to a district-quarter panel in order to apply the Callaway and Sant'Anna (2021) estimator and in our preferred specification, restrict the sample to 12 quarters preand 12 quarters post-the opening date of a clinic in the respective district.<sup>25</sup>

Our preferred estimation strategy has one disadvantage when applied to the judicial outcomes: collapsing the data to the district-quarter level prevents us from including caselevel controls that may explain significant variation in our outcomes. For example, we cannot control for the legal section under which a particular case is filed, although it is reasonable to assume that outcomes such as acquittal rates or case duration vary substantially across legal sections. We deal with this in two ways. Firstly, we conduct heterogeneity analysis applying the Callaway and Sant'Anna (2021) estimator to sub-samples of cases categorized by legal section. Secondly, we present the results of estimating the static TWFE model described by equation 2, with and without legal section fixed effects. As discussed above, these estimates are potentially biased. We nonetheless think it is useful to document that (i) the static TWFE model yields very similar estimates to the Callaway and Sant'Anna (2021) estimator in our setting and (ii) that the results are robust to the

<sup>&</sup>lt;sup>24</sup>It is not possible in our setting to include never-treated prisons/districts as part of the control group. The legal service authorities that responded to our RTI provided the opening dates of legal aid clinics that had opened. These data do not allow us to distinguish between prisons that never opened a clinic and prisons that did open a clinic but for which we received no response.

<sup>&</sup>lt;sup>25</sup>This yields a more balanced panel in 'event time' and ensures that our estimates of dynamic treatment effects are comparable across the event-study window. Given the relatively long sample and the distribution of opening dates across quarters A.I, compositional changes might otherwise affect the estimates. In Section 5.2 we show that our results are not sensitive to the length of the event-time window.

inclusion of relevant case-level controls and legal-section fixed effects.

$$Y_{idm} = \alpha + \beta post_{dm} + \delta_d + \rho_m + \mathbf{X}_{idm} + \epsilon_{idm}$$
(2)

where  $post_{dm}$  is an indicator for whether a clinic was operating in district d in month m,  $\delta_d$  are district fixed effects,  $\rho_m$  are month fixed effects, and  $\mathbf{X}_{idm}$  is a vector of case-level controls pertaining to case i.

#### 4.2 Validity of the empirical strategy

Our empirical strategy relies on the parallel trends assumption. In our setting, we assume that if PLACs had not opened, there would have been no systematic differential trends in judicial outcomes between treated and control districts. We evaluate this assumption by plotting the dynamic treatment effects in the pre-period in Figure 1. The first four panels show that our main outcome variables follow parallel trends in the pre-period. To evaluate whether the timing of PLAC openings is related to other features of the district-level judiciary, we conduct similar tests for a range of other variables. Panels 5-9 show no pre-trends in the characteristics of criminal cases filed. Panels 10 and 11 show that the opening of PLACs is not associated with differential trends in the appointment or the departure of judges in district courts. Panel 12 shows that treated and control districts follow parallel trends in terms of district-level crime rates. Collectively, these tests support the conclusion that a difference-in-differences design is appropriate in this context.

Another way of evaluating our empirical approach is to test whether the flow of cases entering the courts is affected by our treatment. Cases are registered at police stations when crimes are committed, and there is no role for PLAC staff in this process. As such, while we test for effects on final case dispositions, we should expect the initial characteristics of filed cases to remain constant. In appendix table B.II, we estimate the effect of PLACs opening on 20 characteristics of the criminal cases entering the court system. The estimated coefficients are small in magnitude and are all statistically insignificant at the 5% level. For two variables, the coefficient is significant at the 10% level - a share that is consistent with random chance - and we show that our results are robust to controlling for these characteristics in Section 5.2.<sup>26</sup>

<sup>&</sup>lt;sup>26</sup>These variables are the share of cases handled by District and Session Judges and the log of the number of cases filed.

## 5 Results

## 5.1 Impact of legal aid on judicial outcomes

Table 2 and Figure 2 show difference-in-difference estimates of the impact of PLACs on judicial proceedings. The first three outcomes relate to case completion and duration: (i) the share of cases where a final disposition was recorded, (ii) the share of cases where that disposition was reached within 6 months of the filing date, and (iii) the share where the disposition was reached within 12 months. Following the opening of a PLAC, there is a 2 percentage point (3 percent) increase in the share of cases that reached a final disposition by the end of the sample period. Given the large backlog in the courts, undertrial prisoners face the risk of waiting extended periods without their case reaching a resolution. The estimate in column 1 suggests that access to legal aid is associated with a small but statistically significant reduction in this risk. This result is consistent with PLACs' mandate to bridge the information gap between prisoners and the court and to file applications and petitions on prisoners' behalf. With regard to case duration, the estimates in columns 2 and 3 are positive but not statistically significant.

The latter two columns of Table 2 test whether access to legal aid affects outcomes for defendants. We find that the opening of PLAC results in a 2.3 percentage point (3.3 percent) increase in dispositions that are positive for the defendant and a 3.2 percentage point (3.8 percent) increase in acquittals relative to convictions. These results are significant at the 5% and 1% levels, respectively. The magnitude of these coefficients suggests that PLACs do not profoundly alter the distribution of dispositions in the criminal justice system. They suggest that legal aid benefits a small share of defendants who would otherwise receive a less favorable outcome than the circumstances of their case merit.

Figure 2 shows event study plots that illustrate the dynamics of the treatment effects quarter-by-quarter. As discussed in Section 4.2, there is no evidence of differential trends in the pre-period for any of the dependent variables. Following the opening of the PLAC, the coefficients trend upwards over the following three years.<sup>27</sup> This pattern may reflect the fact that clinics are not always fully operational on the day they are officially opened. The available data on clinic staff suggests that the number of lawyers and paralegals working in a clinic increases in the first years of operation (see appendix figure A.III).<sup>28</sup>

<sup>&</sup>lt;sup>27</sup>For *disposition available* and *disposition positive*, the individual quarter treatment effects turn statistically significant in the clinic's second year of operation. For *acquitted*, the coefficients are significant at the 10% level starting in t=0 and at the 5% level from t+3.

<sup>&</sup>lt;sup>28</sup>The gradual impact also suggests that the effect is driven by the operation of the clinics themselves, rather than immediate changes in judges' behavior in anticipation of a rise in appeals.

#### 5.2 Robustness

We conduct a number of tests to evaluate the robustness of the results reported above.

Firstly, we show that our results are robust to alternative definitions of the dependent variables. There are 52 distinct dispositions in the raw eCourts dataset. These dispositions have to be classified to construct our dependent variables (see Appendix C.1). We follow the same classification hierarchy as Ash et al. (2023) but classify a small number of dispositions differently. Appendix table B.III shows that both the magnitude and significance of our coefficients are very similar when applying the Ash et al. (2023) classification. Our main analysis excludes cases where the outcome cannot be determined to be favorable or unfavorable for the defendant: procedural dispositions (e.g., "transferred") and ambiguous dispositions (e.g., "disposed of"). In appendix table B.IV, we show (i) that the share of cases with procedural or ambiguous dispositions is unaffected by the availability of legal aid and (ii) that legal aid results in both an increase in positive outcomes and a decline in negative outcomes when ambiguous cases are retained in the comparison group.

Secondly, we show that our results are not sensitive to the estimation strategy. Appendix figure A.IV compares the Callaway and Sant'Anna (2021) event study plot for acquittals with the equivalent plots obtained using OLS and the diff-in-diff estimators of De Chaise-martin and d'Haultfoeuille (2020), Borusyak et al. (2024), and Sun and Abraham (2021). None of the five estimators show evidence of a pre-trend. All five show a significant upward trend in acquittals following the opening of a PLAC. The OLS estimates are somewhat smaller in magnitude than those of the four 'new' diff-in-diff estimators. Our main analysis uses a district-quarter panel. Appendix Table B.V presents the results for a case-level sample, using district and month-fixed effects as well as case-level controls and legal section fixed effects. These show a significant increase in the likelihood of a positive outcome and on the likelihood of acquittal following the opening of a PLAC. In Appendix Table B.VI, we show that our results hold when controlling for the total number of cases (in logs).

Finally, we evaluate the robustness of our results in relation to the composition of the sample and the choice of control group. While the majority of PLACs opened between 2012 and 2016, our sample includes some districts where clinics opened earlier (in 2010 or 2011) and some districts where clinics opened late in the sample period (2017 or 2018) or after the sample period. In Appendix Table B.VII, we address the potential concern that these early or late adopters might be systematically different from the rest of the sample by (i) dropping early adopters (Panel A), (ii) dropping late adopters (Panel B) and (iii) dropp

ping early and late adopters (Panel C). Our results are robust to these restrictions, and the magnitude of the coefficients is quite stable across the three panels. In Appendix Table B.VIII, we show the results are robust to dropping just the districts where clinics opened after our sample period.<sup>29</sup> Our main estimation sample uses 12 quarters pre- and post-treatment to balance the composition of the sample in event-time. In Appendix Figure A.V, we vary the length of this window from 8 quarters on either side (4 years in total) to 20 quarters on either side (10 years in total) and plot the coefficient for positive and acquit-tal for each window. The chart shows that the estimates are quite stable and not sensitive to the length of the window.<sup>30</sup> While the average district-quarter in our sample has 1039 cases, there is variation across districts and over time. Our results are robust to weight-ing by the number of cases (Appendix Table B.IX) and to dropping district-quarters with fewer than 200 cases (Appendix Table B.X).<sup>31</sup>

### 5.3 PLACs' impact pre- and post-trial

The analysis in 5.1 focused on trial outcomes but prison-visiting lawyers' mandate extends to other areas of the judicial process. One of their prescribed duties is to draft bail applications for undertrial prisoners and appeals for convicted prisoners.<sup>32</sup> We test whether PLACs are fulfilling these duties, using bail and appeal applications in the eCourts dataset. These data are separate from our main case-level sample and include roughly 1.7 million bail applications and 0.6 million appeal cases.

The estimates in Table 3 show that the opening of a PLAC has a positive and significant effect on the number of appeal cases filed. Figure 3 provides the corresponding event study plot. The average number of appeal cases filed increases by 20%. We observe no significant effect on the share of appeals that are successful (column 6). In aggregate, these results imply that the number of convictions being overturned increases by around 10% when inmates have access to legal aid. Conversely, we find no significant impact

<sup>&</sup>lt;sup>29</sup>These districts can be considered the "never-treated" group in the context of our analysis.

<sup>&</sup>lt;sup>30</sup>The choice of this window can be seen as a tradeoff between capturing the full effect of PLACs and compositional balance. For the shortest windows, the coefficients are smaller (around 2 percentage points), which is not surprising given that Figure 2 shows an upward trend that continues in the third year. For the longest windows, the standard errors are larger, which likely reflects a panel that is unbalanced in event-time where group-time ATEs based on small samples have more weight.

<sup>&</sup>lt;sup>31</sup>Given that the number of cases per district-quarter increases significantly over our sample period, the former test increases the relative weight of the later years.

<sup>&</sup>lt;sup>32</sup>The standard appointment letter for jail visiting lawyers states "You are required to provide legal services like drafting bail applications and appeals, preparing applications for remission, parole, [and] facilitating timely filing of the appeals for convicts" (NALSA, 2020).

on the number of bail applications filed or the share of bail applications that are granted (columns 1, 3, and 5).

## 6 Mechanisms and Heterogeneity

## 6.1 PLACs' impact on alternative dispute resolution

Our results suggest that access to legal aid increases the likelihood of a positive outcome for the defendant. In part, this could be driven by the forum in which the case is settled. Where available, legal aid lawyers are encouraged to promote the use of ADRs. One such mechanism are "Lok Adalats" whose members act as conciliators, seeking a mutual agreement between the prosecution and the defendant without imposing a decision on either party.<sup>33</sup> Lok Adalats are organised by legal service authorities, the same institutions which prison-visiting lawyers report to.

In Panel A of Table 4 we test whether the share of cases routed to ADRs increases after the opening of a PLAC. We find a positive and significant effect for the broad category of ADRs (column 1). The coefficient of 0.009 represents an 11.25% increase relative to the (low) sample mean. Panel C of Figure 3 provides the corresponding event study plot. Column 2 reports the effect on the share of cases where the disposition specifically mentions Lok Adalats. The coefficient is also positive - and represents a similar increase relative to the mean - but is imprecisely estimated.

## 6.2 Better lawyers vs better information

Most criminal cases are not resolved in ADRs but through litigation in a court of law. Our principal result is, that defendants with access to legal aid will be more likely to be acquitted in this process. In order to understand how legal aid affects judicial outcomes, we exploit the fact that case dispositions provide information on the stage at which a trial reached its conclusion. This helps us to distinguish between potential mechanisms because the role and skills required of defense lawyers vary across stages.

Broadly speaking a criminal trial follows three stages. In the first stage, the prosecution frames the charges, the defense has the opportunity to challenge them, and the judge can

<sup>&</sup>lt;sup>33</sup>Lok Adalats are statutory bodies created under the Legal Services Authorities Act, 1987. Lok Adalats are held at different levels and organised by the respective National, State, District, or Taluk Legal Service Authority. There is no court fee in Lok Adalats, unlike in regular courts of law. The members of Lok Adalats encourage the two parties to settle the matter outside the court in a mutually agreeable way. If the parties do not come to an agreement, they can go back to the court of law (NALSA, 2024).

dismiss the case. A dismissal ends the case and constitutes an acquittal in our main analysis. In the second stage, the defendant has an opportunity to enter a plea. A guilty plea ends the case and constitutes a conviction in our classification. The third stage begins with the prosecution presenting its evidence.<sup>34</sup> The defense then presents counter evidence. After hearing both sides the judge reaches a final judgement which can be an acquittal or a conviction. We identify the stage at which a case concluded based on the disposition and group all acquittals and convictions into four mutually exclusive categories: dismissal, guilty plea, judgement-acquitted, judgement-convicted. Panel B of Table 4 evaluates how legal aid affects the share of each of these categories.

Following the opening of a PLAC, we see a significant 2.4 percentage point (10 percent) increase in the share of cases dismissed in the first stage of the trial (column 1). Column 2 shows no significant impact on guilty pleas, which are relatively rare in our sample. In columns 3 and 4 we analyse final judgements. There is no impact on the share of acquittals at the final stage of the trial but a significant 2.5 percentage point (20 percent) reduction in the share of convictions.<sup>35</sup> In other words, the overall increase in the share of acquittals is driven by the rise in dismissals.

We see a consistent pattern when analysing the speed of acquittals and convictions. Figure 4 provides event study plots for the share of acquittals and the share of convictions that are disposed within 6 months of filing. There is an increase in the share of fast acquittals that is likely driven by the increase in dismissals. At the same time, the share of fast convictions declines. The latter may reflect the defense successfully seeking adjournments as it prepares its evidence.

The efficacy of a legal defense is a function of (i) the quality of the lawyer and (ii) the information available to them. Across the stages of the trial, the quality of the lawyer is most likely to affect the final stage, where the defense has the opportunity to present evidence and call witnesses. This is where skilled oral argument and detailed knowledge of the law may affect a judge's verdict. In the first stage, the defense will be better able to contest the charges if the lawyer is acquainted with the defendant and the basic facts of the case. PLACs enable exchange between a defendant and their lawyer<sup>36</sup> meaning the defense may be informed of exculpatory evidence and better prepared to challenge the

<sup>&</sup>lt;sup>34</sup>The judge can decide the prosecution's case lacks substance and acquit the defendant at this point.

<sup>&</sup>lt;sup>35</sup>Given the increase in dismissals, the composition of the cases disposed at later stages changes. This affects the interpretation of columns 3 and 4. The null result in column 3 could reflect a decrease in the share of cases that reach a final judgement and an increase in the share of final judgements that are acquittals.

<sup>&</sup>lt;sup>36</sup>Either directly, or indirectly when the PLAC communicates with outside lawyers.

charges. Our interpretation of Table 4 and Figure 4 is, that the mechanism underlying the rise in the acquittal rate is the flow of information that provides the basis for a defense.<sup>37</sup>

This mechanism implies that legal aid will have the greatest impact on defendants whose cases are relatively straightforward. In Table B.XI we distinguish between 'simple' cases that involve charges under either one or two sections of the Indian Penal Code, and 'complex' cases with charges under more than two sections. Consistent with the argument above, we find strong effects on the share of positive outcomes and the share of acquittals for simpler cases and no effect in the more complex cases.

### 6.3 Heterogeneity by treatment intensity

The sample for our main results is the universe of criminal cases at the district-level. This will include some defendants who may never have been imprisoned, for example, because they were granted and could afford bail. Their cases should not be impacted by the availability of prison legal aid. While we do not have case-level information that would identify such cases definitively (and allow for a placebo test), we do have three indicators that signal a higher likelihood of imprisonment. We use these indicators to evaluate how our results vary with likely treatment intensity.

These tests are important because they shed light on potential alternative mechanisms that do not directly involve the operations of PLACs. For example, if the opening of PLACs coincided with institutional changes in the district-level judiciary, we may not be capturing the impact of legal aid. Note that such changes would have to be essentially simultaneous, given that we find no pre-trends on a range of judicial outcomes (Section 4.2).

Our three predictors of treatment intensity are: (i) whether a crime is 'cognizable' or not (ii) whether a crime is 'non-bailable' or 'bailable' and (iii) whether a crime involves a session/warrant trial or a summary trial.<sup>38</sup> In each case, the former category is more serious and is associated with a higher likelihood of imprisonment. For example, the share

<sup>&</sup>lt;sup>37</sup>The view that legal aid contributes to a more informed defense rather than a more skilled one is consistent with survey evidence on the competence of legal aid lawyers. Mann (2018) compares legal aid lawyers in Delhi to private practitioners and suggests that they are, on average, less skilled at argument, articulation, and drafting.

<sup>&</sup>lt;sup>38</sup>When an offense is cognizable the police have the power to arrest a person without a judicial warrant. Defendants accused of bailable offenses have a legal right to bail, and the police frequently pursue the case without making an arrest. Session/warrant trials involve more serious offenses where the maximum prison sentence is greater than 2 years. Summary trials are generally held for less serious offenses where the maximum prison sentence is lower. We classify these variables following Section 2 of the CrPC when information on the IPC section is available.

of defendants accused of non-bailable offenses who are imprisoned will be greater than the equivalent share for bailable offenses. In appendix tables B.XII, B.XIII, and B.XIV, we evaluate the heterogeneity of our main results, splitting the sample on these dimensions.<sup>39</sup> In each case, the effect on acquittals is larger and only statistically significant in the subsample that has the higher likelihood of incarceration. For the other variables, this pattern is less stark, with some significant effects in the categories where the likelihood of imprisonment is lower. Overall, these tests suggest that our main results are driven by the operation of legal aid clinics *in prisons* rather than contemporaneous shocks at the district level.

## 6.4 Heterogeneity by defendant religion

Legal aid may be of particular importance to minorities and disadvantaged communities (Sandefur and Siddiqi, 2015). Relative to their population shares, members of Scheduled Castes and Muslims are overrepresented among undertrial prisoners in India. While we have no information on defendants' caste, Ash et al. (2023) provide a prediction of defendants' religion based on their name. In Table B.XV we show the results for our main outcomes estimated on two separate sub-samples: Hindu and Muslim defendants. Overall, the coefficients are of a similar order of magnitude for both religions and there is no clear evidence that PLACs have a differential impact on cases with Muslim defendants.

# 7 Evaluating systemic impacts

Judicial outcomes have consequences outside of criminal courts. A declining conviction rate and an increase in successful appeals may have an effect on the prison system and, in theory, on crime rates. In this section, we test for such systemic impacts.

The most immediate effect of judicial decisions is likely to be on the defendants themselves and their families. We lack data to measure the welfare impacts of additional acquittals on defendants directly but literature from other contexts suggests these are likely to be considerable (Dobbie et al., 2018; Agan and Starr, 2018; Aizer and Doyle Jr, 2015). This section concludes with a welfare analysis, in which we apply our estimates to calculate the person-years in prison saved, and compare the costs and benefits of this policy.

<sup>&</sup>lt;sup>39</sup>Not all cases can be classified into these categories meaning that the combined underlying sample of cases is smaller than in our main results.

### 7.1 Prison populations

Indian prisons have been overcrowded for decades. The National Crime Records Bureau provides data going back to 1995, and the total number of prisoners exceeds capacity in every year. The judicial results above suggest, that legal aid helps to get individuals out of prison by raising the acquittal rate and the rate of successful appeals. In Table 5 we test whether these impacts accumulate and are reflected in macro-level prison populations. A priori, this micro-to-macro correspondence may not be mechanical as its depends on the distribution of sentence lengths, the allocation of inmates across prisons, and the flow of arrests at the district level.

The first three columns of Table 5 estimate the impact of PLACs on the log of total inmates, undertrial prisoners, and convicts, respectively. The coefficient for the average treatment effect (over a three year period following the establishment of a clinic in the prison) is negative for all three outcomes but only significant at the 5% level for convicts. The coefficient implies a 12% decline in the convict population at the prison-level. This effect is consistent with our findings on the acquittal rate in section 5.1 and appeals in section 5.3. In columns 4-6, the dependent variables are measures of prison occupancy: population totals scaled by prison capacity. Given the high variance in prison capacity in our sample and frequent changes in capacity for the same prison over time, these variables provide a less noisy measure. For total prison occupancy, the coefficient is negative (-0.132) but only significant at the 10% level. It implies a reduction in occupancy from the sample mean of 141% to 128%, a drop of 13 percentage points (or 9.2%). The estimates for the occupancy of undertrial prisoners and convicts are both negative but imprecise for the undertrial category (p-value of 0.159).

### 7.2 Crime

In theory, there are two reasons why a declining conviction rate may affect crime. Firstly, some of the defendants acquitted may have been guilty and may re-offend once released. Secondly, studies have shown that incarceration can increase the likelihood of criminal activity (Escobar et al., 2023), a mechanism that may apply regardless of initial guilt.

To address this concern, we first compare different crime categories to identify the kind of cases where legal aid has an effect. We split our sample into violent crimes (murder, rape, kidnapping and all crimes defined as "Body Crimes" in the Indian Penal Code) and non-violent crimes (all other categories). Appendix table B.XVI shows that legal aid only improves case outcomes and acquittal rates for non-violent crime categories. We also con-

duct a direct test of the hypothesis that PLACs may affect crime rates using annual data on the total number of crimes per 100,000 inhabitants at the district-level. Appendix figure A.VI shows the event study graph up to 8 years after the opening of a clinic; all point estimates are insignificant. Overall, we find no empirical evidence to support the concern that prison legal aid has criminogenic repercussions.

## 7.3 Welfare analysis

The first-order effect of PLACs is a decline in wrongful convictions and in prison time served. Appendix D describes a back-of-the-envelope calculation in which we estimate the benefits of this decline and compare them to the costs of providing legal aid.

Our analysis is based on comparing two counterfactuals: one in which all Indian prisons have a PLAC and one in which none do. This assumes that the 54% of districts in our sample are representative of all of India. We test this assumption in appendix table B.XVII, regressing judicial outcomes (Panel A), crime rates (Panel B), and census characteristics (Panel C) on RTI compliance. All the coefficients are small and insignificant.

In the first step of the welfare analysis, we use the estimated increases in the acquittal rate and the number of successful appeals filed, to quantify the reduction in incarceration. We estimate that 31,055 prisoners annually are spared prison time as a result of PLACs' activities. Of these, 73% (22,709) benefit from legal aid while in pre-trial detention and are acquitted as a result. The remaining 27% (8,346) are convicts whose sentences are over-turned after appeals are filed. Applying conservative assumptions about average sentence length, we calculate that this translates into 46,582 person-years-in-prison spared.

The two most easily quantifiable benefits of averted prison time are reduced costs for the exchequer and labor market gains for the prisoner.<sup>40</sup> Applying an annual cost per prisoner of \$472, the financial saving for the state is \$22.0M per year. To estimate earnings, we assume all PLAC beneficiaries are in the bottom 50% of the adult population for whom the average income is \$645 (Bharti et al., 2024). Given that released prisoners face unfavourable labor market prospects, we adjust this figure downwards. We use estimates from Garin et al. (2024) - due to a lack of evidence for India - and assume only 80% of released prisoners find a job (20% do not due to prison stigma), and that those who are

<sup>&</sup>lt;sup>40</sup>Other benefits from releasing "innocent" prisoners are gains in their mental health and positive impacts on their families, which are very significant but difficult to quantify.

successful earn 85% of average income (due to human capital loss).<sup>41</sup> These calculations imply, that legal aid beneficiaries spared prison time generate \$20.4M in income per year.

Finally, we compare these benefits to the costs. In 2015-16 (roughly the middle of our sample period) the expenditure on the entire state legal aid machinery was \$9.9M. Around 50% was spent on LACs and legal aid lawyers, giving a total cost of \$4.93M. Our analysis of crime rates provided no indication of a negative externality that would need to be added to this budgetary cost. Hence, we estimate a net social welfare gain of \$37.5M per year (=22.0+20.4-4.9). For every dollar spent on PLACs, society gains 7.6 dollars. Limiting the analysis to the budgetary implications for the state, we find the policy more than pays for itself: the prison costs saved exceed legal aid costs by \$17.1M (\$22.0-\$4.93) annually.

## 8 Conclusion

In this paper, we show that increasing the accessibility of public legal aid improves judicial outcomes for defendants in criminal cases. We evaluate a policy to establish legal aid clinics in prisons across India, by collecting original prison-level data and combining these with data on the universe of criminal cases in India in a difference-in-differences design. In the three years after a clinic opens, we observe an increase in the share of cases that are disposed of, the share that results in a favorable outcome for the defendant, and in the share of acquittals relative to convictions. The rise in the acquittal rate is driven by an increase in early dismissals, particularly for straightforward cases. Consistent with their mandate, we also find that clinics promote the use of alternative dispute resolution mechanisms and lead to a rise in the number of appeals filed and convictions overturned. We document that changes in judicial outcomes have a systemic impact in the form of a reduction in the convict population at the prison level. Finally, we conduct a welfare analysis and show that the benefits in terms of labor market earnings and reduced prison expenditure significantly outweigh the costs of legal aid.

Judicial outcomes are determined through the interplay of different institutions: the police, prosecutors, and courts. These bodies may take actions that are individually rational but result in a socially sub-optimal equilibrium. For example, police officers may have

<sup>&</sup>lt;sup>41</sup>We are unaware of a study estimating the impact of incarceration on labor market outcomes in India. We therefore use the estimates from Garin et al. (2024). Using data from two states in the US - North Carolina and Ohio - they find that a year-long sentence leads to a sharp reduction in the likelihood of employment and decreases cumulative earnings. The effect size is the strongest in the first year - the likelihood of employment declines by 10pp (over a mean of 53%) and a reduction of about \$1200 (over a mean of \$10,056). Other estimates in Mueller-Smith (2015) and Dobbie et al. (2018) are on the formal labor market, and are less relevant to the Indian context where more than 90% of the labor force is employed in the informal market.

incentives to arrest potential suspects where possible, and judges may have incentives to deny bail. In aggregate, these decisions can result in backlogged courts, high rates of pretrial detention, and overcrowded prisons. The costs of systemic dysfunction are borne disproportionately by the poor - who are less likely to be able to afford either bail or legal representation. Legal aid clinics have been introduced in Indian prisons, not as a major part of the judicial infrastructure, but rather as a low cost response to deep-rooted problems. If different legal institutions were acting in alignment, such a policy may have little impact on conviction or incarceration rates. In the context of a systemic equilibrium that appears neither efficient nor equitable, we find that legal aid can significantly improve outcomes for beneficiaries while saving money for the state.

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## 9 Figures



#### Figure 1: Testing for pre-trends

Note: Each panel of this figure plots the dynamic effects for the pre-period obtained from a Callaway and Sant'Anna (2021) difference-in-difference estimation where t=0 is the period in which a prison legal aid clinic opened in the respective district. The title of each panel describes the respective dependent variable. The unit of observation is a district-quarter in the first 11 panels and a district-year in the 12th panel. These charts show no evidence of a pre-trend, ie. no evidence that the "parallel trend" assumption is violated.



#### Figure 2: Event study plots of main case outcomes

Note: Each panel of this figure plots the dynamic effects, following Callaway and Sant'Anna (2021) difference-in-difference estimation where t=0 is the period in which a prison legal aid clinic (PLAC) opened in the respective district. The estimation sample is a panel at the district-quarter level, the same as in Table 2 - which provides the corresponding average treatment effect. In the first three panels the individual dynamic effects show an upward trend, are typically significant from the 4th/5th quarter after treatment, and remain significant thereafter.





Note: Each panel of this figure plots the dynamic effects, following Callaway and Sant'Anna (2021) difference-in-difference estimation where t=0 is the period in which a prison legal aid clinic opened in the respective district. The estimation sample is a panel at the district-quarter level. The outcomes are the log of the number of bail cases filed, the log of the number of appeal cases filed, and the share of criminal cases referred to ADR. Tables 3 and 4 provide the corresponding average treatment effects. The first panel shows no statistically significant increase in the number of bail cases resolved through ADR channels.



Figure 4: Event study plot for fast acquittals and fast convictions

Notes: The figure plots the dynamic effects for the 12 quarters after (and 5 quarters before) the treatment, following Callaway and Sant'Anna (2021), where t=0 is the period in which a prison legal aid clinic opened in the respective district. The dependent variables are respectively, the share of acquittals that were decided in 6 months (in orange) and the share of convictions decided in 6 months (in blue). The estimation sample is at the district-quarter level. The figure shows a rise in "fast" acquittals and a decline in "fast" convictions after the opening of a PLAC.
	Total	% Share of ( full sample)
Districts	323	51%
Cases	13,853,817	56%
Bail Cases	1,702,716	12%
Appeal Cases	599,789	4%
Criminal Cases (non-bail/non-appeal)	11,551,312	83%
Case Charactersitics		% Share (within Criminal Cases)
Trial Type (Availability)	11,551,312	100%
Summary Trial	3,363,001	29%
Session Trial	8,188,311	71%
Cognizable (Availability)	7,957,195	69%
Cognizable	5,568,798	70%
Bailable (Availability)	7,941,462	69%
Non-Bailable	3,079,463	39%
Violent Crime	2,577,780	22%
% IPC sections available	9,510,634	82%
% with >2 IPC sections	3,706,540	39%
Filing date post PLAC opening	7,615,649	66%
Case disposed	7,293,808	63%
Decision $(< 6 \text{ months})$	3,289,805	30%
Decision (< 12 months)	4,238,025	41%
ADR disposal (lok adalat)	776,279	11%
Procedural	754,677	10%
Ambiguous	1,122,474	15%
Unambiguous disposition	5,416,657	74%
Positive	2,928,880	54%
Negative	2,487,777	46%
Unambiguous	2.708.576	37%
Acquittal/Conviction	_,, 00,070	07 /0
Acquittal	2,085,958	77%
Conviction	622,618	23%

#### Table 1: Descriptive Table: Analysis Sample (Judiciary+LAC)

Notes: The table presents the descriptive statistics of our sample. The analysis sample consists of 323 districts (51% of all districts) where we have information about the PLAC opening dates. In terms of cases, we have 13.8M cases (56% of total cases), out of which 12% are bail cases, 4% appeals, and 83% criminal cases.

	Case Disposed	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.020**	0.004	0.012	0.024**	0.032***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.012)
	[0.024]	[0.694]	[0.243]	[0.016]	[0.006]
Effect Size	3.0%	2.1%	4.4%	3.4%	3.8%
Observations	5969	5969	5969	5929	5916
Mean	0.67	0.19	0.27	0.71	0.84
District FE	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes
Number of Clusters	283	283	283	282	282

Table 2: Impact of Legal Aid Clinic: Case Outcomes

Notes: The table reports simple aggregated treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, using 'csdid' command in Stata from Rios-Avila et al. (2023), along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The opening of PLAC results in a 2.4 percentage point (3.4 percent) increase in dispositions that are positive for the defendant and a 3.2 percentage point (3.8 percent) increase in acquittals relative to convictions.

	Bail	Appeal	log(Bail)	log(Appeal)	Bail Grant	Appeal Positive
ATT	-0.821	6.963*	0.047	0.204**	0.013	-0.032
	(11.183)	(3.596)	(0.130)	(0.079)	(0.034)	(0.028)
	[0.941]	[0.053]	[0.719]	[0.010]	[0.706]	[0.249]
Observations	5992	5992	5992	5992	5107	4392
Mean	131.59	50.37	2.58	2.95	0.59	0.48
District FE	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes
Number of Clusters	284	284	284	284	217	124

Table 3: Impact of Legal Aid Clinic: Bail and Appeals

Notes: The table reports simple aggregated treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right: total bail cases, total appeal cases, log of the number of bail cases, log of the number of appeals, dummy for bail grant (=1 if granted and 0 if denied), and dummy for whether the appeal results in favor of the defendant (1) and 0 otherwise. There is a significant increase in the appeal applications (20%) in the court to overturn the judgment from the lower bench. Even though there is no impact on the appeal outcomes of the treatment, the increasing number of applications implies more judgments are being overturned after the treatment.

Panel A: ADR/Lok Adalat		Share of ADR	Share of ADR (with Lok Adalat)	_
ATT		0.009**	0.004	
		(0.004)	(0.003)	
		[0.027]	[0.164]	
Observations		5969	5969	
Mean		0.08	0.03	
District FE		yes	yes	
Quarter FE		yes	yes	
Number of Clusters		283	283	
Panel B: Trial Stage	Dismissal	Plea Guilty	J-Acquittal	J-Convicted
ATT	0.024**	-0.007	0.002	-0.025***
	(0.011)	(0.009)	(0.013)	(0.009)
	[0.020]	[0.414]	[0.886]	[0.004]
Observations	5916	5916	5916	5916
Mean	0.24	0.04	0.59	0.12
District FE	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes
Number of Clusters	282	282	282	282

Table 4: Impact of Legal Aid Clinic: By Stages of Trial

Notes: The table reports simple aggregated treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is cases with clear acquittal and conviction disposition, aggregated at the district-quarter level and restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. In Panel A, the outcome variables are the share of cases going through alternative dispute resolution and the share of cases where there is clear mention of the term "Lok Adalat" in disposition (referred to/disposed of at Lok Adalat). In Panel B, the outcome variables in columns from left to right are shares of: "dismissals" (discarding the case if the charge sheet filed by police does not convince the judge), "plea guilty" (if the defendant pleads guilty), "J-Acquittal" (after looking into evidence produced in the court), and "J-Convicted" (after hearing all the evidence from both prosecution and defense counsels). They correspond to the decisions by stages of trials, and the sum of the mean across columns adds to one. There is a significant increase in the dismissals by (10%), no impact on the plea bargain, and a significant decline in conviction (20%)at the end of the trial.

	ln(inmates)	ln(undertrial)	ln(convicts)	overcrowding (inmates/cap)	Undertrials per cap	Convicts acity
ATT	-0.076	-0.041	-0.124**	-0.132*	-0.110	-0.020*
	(0.053)	(0.056)	(0.056)	(0.079)	(0.078)	(0.012)
	[0.152]	[0.465]	[0.028]	[0.096]	[0.159]	[0.091]
Observations	1972	1972	1972	1971	1971	1971
Mean	5.02	4.70	2.83	1.41	1.16	0.25
Prison FE	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes
Number of Clusters	200	200	200	200	200	200

#### Table 5: Impact of Legal Aid Clinic: Prison Strength and Overcrowding

Notes: The table reports simple aggregated treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the prison-year level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the prison. The estimations use not-yet-treated and never treated as the control group. All estimations include prison and year fixed effects. The standard errors are clustered at the district level. The six outcome variables from left to right are: log of total inmates, log of undertrial prisoners, log of convicts, total inmates per capacity (overcrowding), undertrial prisoners per capacity, and convicts prisoners per capacity. In line with the judicial outcomes, we find there is a decline in the share of convicts in prisons and a decline in prison overcrowding.

# **A** Appendix Figures



Figure A.I: Staggered adoption of prison legal aid clinics

Note: The figure shows the staggered adoption of prison legal aid clinics across districts in our sample. The first panel provides a map indicating the year of opening for each district. Darker shades indicate later opening years. The second panel provides a histogram of the number of districts opening PLACs in a given quarter during our sample period.





Notes: The figure plots the categorization of cases in our sample. We start with 11.5M criminal cases. Of these, 37% had not reached a final disposition by the end of 2018 ("No Disposition"). Within the cases that were finished, 10%, are "Procedural" endings (e.g. the transfer of a case from one courtroom to another). Next, within the "Non procedural" cases, around 17% of cases can not be categorized as either "Positive" or "Negative" from the defendant's perspective (with dispositions such as "judgement passed"). Finally, within the categories of unambiguous positive and negative dispositions, we can identify cases where the defendant is "Acquitted" and those where they are "Convicted", these are used to create the acquitted outcome variable.



Notes: The figure plots the average clinic staff size (the sum of lawyers and paralegals) by year of operation. These data are available for a sub-sample of prisons for which we have information about staffing in June 2016. The number of prisons contributing to the mean are - 36, 106, 60, 61, and 47 for years 0 to 4, respectively. The figure suggests a gradual increase in clinic staff with increasing years of operation, a pattern that would be consistent with the upwards trend observable in the event study plots.





Notes: The figure overlays five equivalent event-study plots for the outcome "acquitted" using five different estimators: Callaway and Sant'Anna (2021), De Chaisemartin and d'Haultfoeuille (2020), Borusyak et al. (2024), Sun and Abraham (2021), and OLS. The estimation sample is a district-quarter panel, where t=0 is the period in which a prison legal aid clinic opened in the respective district. The bars represent 95 percent confidence intervals. None of the five estimators show evidence of a pre-trend. All five show a significant upward trend in acquittals following the opening of a prison legal aid clinic.

Figure A.V: Robustness to varying the event-time window



Notes: The figure plots the simple aggregate treatment effects for the outcomes positive (left panel) and acquitted (right panel), following Callaway and Sant'Anna (2021) difference-in-difference estimation, while varying the estimation window. The x-axis denotes the number of quarters retained in the estimation before and after the opening of the prison legal aid clinic in the district. So, x=8 implies a restriction of 2 years before and 2 years after PLAC opening (t=0). The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. Each point estimate, along with a 95% confidence interval, comes from a separate regression. The chart shows the estimates are fairly stable for a broad range of event time windows. The coefficients are smaller for the shortest windows - consistent with the trajectory in the event study plots. The standard errors are larger in the the longest windows - where the composition of the sample is less balanced and the average estimate includes more group-time ATTs with small underlying samples.



Figure A.VI: Event Study on Crime per 100K population

Notes: This figure plots the dynamic effects of a prison legal aid clinic opening on crime rates, using Callaway and Sant'Anna (2021) difference-in-difference estimation where t=0 is the period in which a PLAC opened in the respective district. Crime rates are measured as the total number of crimes recorded by the NCRB in a district-year divided by the district's population in the 2011 census. The estimation sample is a panel at the district-year level. The estimation includes district and year fixed effects. The standard errors are clustered at the district level. The figure shows no significant effect on crime rates in the eight years following the opening of a clinic.

# **B** Tables

Panel A: Criminal Cases	Disposition	Description
Procedural	absconded, died, sine die, transferred, committed, procedural, converted, execution	technical ending: case transfer across courtrooms; defendant absconding or death
Ambiguous	p.o. consign, disposed, closed, decided, judgement, other, ex-parte, award	unclear if favorable or against defendant
Positive	<u>Outside Court Settlement:</u> referred to Lok Adalat, disposal in Lok Adalat, withdrawn, not press, compounded, compromise	resolution through agreement outside judicial litigation
	stayed, probation, abated <u>Acquittal:</u> acquitted, dismissed, 258 CrPC, quash, reject, cancelled, untrace	decision in favour of defendant after judicial litigation
Negative	unocntested, disposed-otherwise, otherwise, partly decreed, allowed, contest-allowed	decision against defendant but not conviction
	<u>Conviction</u> : confession, plea bargaining, plead guilty, prison, convicted	decision against defendant and conviction
Panel B: Appeal Cases	Disposition	Description
Positive	allowed, acquitted, compromise, compounded, referred/disposal to lok adalat, probation, settled, contest-allowed, 258 crpc	dispositions signalling appeal going in favor of defendants
Negative	dismissed, reject, convicted, abated, quash, cancelled, confession, plea bargaining withdrawn, not press, fine plead guilty, prison, partly decreed	dispositions signalling appeal going against defendant
Panel B: Bail Cases	Disposition	Description
Positive	allowed, acquitted, compromise, compounded, grant, probation, disposed-otherwise, uncontested,	dispositions signalling bail application getting granted
Negative	dismissed, reject, convicted, abated, quash, cancelled, fine remanded, prison, bail refused/rejected	dispositions signalling bail denied

### Table B.I: Classification of Case Dispositions

Notes: The table reports the classification of different dispositions present in the judicial dataset. The classification in Panel A is for all criminal cases (except bail and appeal), in Panel B is for appeal cases, and in Panel C is for bail cases. The classifications broadly follow, (Ash et al., 2023), with some deviation as illustrated in the Appendix C.1.

Panel A: Case Composition	Cognizable	Bailable	Summary Trial	Bodily Crime	Property Crime	Public nuisance	Criminal Intimidation	Women crime
ATT	0.006	0.009	-0.001	0.002	0.006	-0.008	-0.000	-0.003
	(0.007)	(0.008)	(0.008)	(0.007)	(0.006)	(0.006)	(0.005)	(0.005)
	[0.363]	[0.252]	[0.861]	[0.758]	[0.344]	[0.216]	[0.972]	[0.482]
Observations	5953	5953	5969	5969	5969	5969	5969	5969
Mean	0.67	0.56	0.22	0.25	0.17	0.06	0.13	0.08
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	283	283	283	283	283	283	283	283
Panel B: Judge Composition	Prison < 1 yr	Prison $1-2$ yrs	Prison $2-3$ yrs	Prison 3-7 yrs	Prison >7 yrs	Judge DSJ	Judge CJM	Judge MFC
ATT	-0.000	0.002	0.006	-0.000	-0.007	0.011*	-0.002	-0.007
	(0.009)	(0.005)	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
	[0.973]	[0.718]	[0.322]	[0.996]	[0.275]	[0.067]	[0.757]	[0.277]
Observations	5953	5953	5953	5953	5953	5969	5969	5969
Mean	0.14	0.15	0.17	0.30	0.24	0.20	0.27	0.33
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	283	283	283	283	283	283	283	283
Panel C: Composition 3 ATT			Sections > 1 0.004 (0.015) [0.802]	$ \frac{\text{Sections}}{-0.001} \\ (0.012) \\ [0.940] $	Total cases -84.601 (100.994) [0.402]	$ \frac{\log(\text{Total})}{(0.088^{*})} \\ \frac{(0.046)}{(0.057)} $		
Observations Mean District FE Quarter FE Number of Clusters			5959 0.60 yes yes 283	5959 0.42 yes yes 283	5969 921.36 yes yes 283	5969 6.10 yes yes 283		

Table B.II: Testing for changes in the composition of cases

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in Panel A from left to right are shares of cases: cognizable (police can arrest without judicial warrant), bailable (bail is right of the defendant), summary trial type (lower degree of offense), bodily crimes (murder, hurt, kidnapping, etc.), property crimes (robbery, theft, etc.), public nuisance, criminal intimidation, women related crimes. The outcome variables in Panel B from left to right are: share of cases lodged under sections with maximum imprisonment of less than 1 year, 1-2 years, 2-3 years, 3-7 years, and more than 7 years; share of cases handled by District and Session Judge, share of cases handled by Chief Judicial Magistrate, share of cases handled by Magistrate of First Class. The outcome variables in Panel C from left to right are shares of cases with more than one crime section, shares of cases with more than two crime sections, total number of cases, and log of total cases. Almost all the coefficients are small in magnitude and insignificant, suggesting that PLAC does not impact the case composition in the judiciary.

ATT	Disposition Available 0.021** (0.008) [0.012]	Decision in 6 months 0.009 (0.009) [0.337]	Positive (Unambiguous) 0.032*** (0.011) [0.005]	Acquitted (Unambiguous) 0.026** (0.012) [0.027]
Observations	5969	5969	5921	5905
Mean	0.69	0.20	0.85	0.84
District FE	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes
Number of Clusters	283	283	282	282

Table B.III: Impact of Legal Aid Clinic: Case Outcomes (following Ash et al 2023)

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, unambiguous positive outcomes, and unambiguous acquitted, following the dispositions categorizations of Ash et al. (2023). The results are qualitatively similar to those in the main table 2, especially for the "unambiguous acquitted" outcome.

	Procedural	Ambiguous	Positive	Non-negative
			(ambiguous)	(ambiguous)
ATT	0.007	0.007	0.019**	0.026***
	(0.006)	(0.008)	(0.009)	(0.009)
	[0.293]	[0.334]	[0.030]	[0.005]
Observations	5965	5964	5964	5964
Mean	0.11	0.19	0.57	0.76
District FE	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes
Number of Clusters	283	283	283	283

Table B.IV: Including procedural and ambiguous dispositions

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right: share of cases disposed with procedural/technical endings (such as transfer from one to another court), shares of ambiguous cases (which couldn't be classified into positive/negative, such as "judgment passed"), positive ambiguous dummy (assigning ambiguous cases with negative disposition). The results are robust to our main results in table 2.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Case	Case	Decision	Decision	Positive	Positive	Acquitted	Acquitted
	Disposed	Disposed	(<12m)	(<12m)	(Unamb	oiguous)	(Unamb	iguous)
Doot dummer (1)	0.00955	0.0126	0.000942	0.00452	0.0200**	0.0100***	0.0246*	0.01(0**
Post dummy $(=1)$	0.00855	0.0126	0.000845	0.00455	0.0308	0.0199	0.0246	0.0169
(filing date post PLAC opening)	(0.0120)	(0.00993)	(0.0131)	(0.0103)	(0.0136)	(0.00762)	(0.0148)	(0.00856)
Observations	8,892,460	8,892,460	7,793,049	7,793,049	4,381,996	4,381,996	2,133,471	2,133,470
MeanDepVar	0.59	0.59	0.40	0.40	0.53	0.53	0.75	0.75
District FE	yes							
Month FE	yes							
Legal section FE	no	yes	no	yes	no	yes	no	yes
Controls	yes							
# of clusters	308	308	308	308	306	306	306	306

#### Table B.V: Impact of Legal Aid Clinic: Case level regression

Notes: The table reports average treatment effects from static TWFE. The estimation sample is at the case level with district and month-year fixed effects. The standard errors are clustered at the district level. The outcome variables are: case disposed in Col (1) and (2); decision within 12 months in Col (3) and (4); unambiguous positive disposition in Col (5) and (6); unambiguous acquittal in Col (7) and (8). The positive and significant coefficients on unambiguous positive and unambiguous acquittals are in line with the findings in the results in the main table 2.

	Disposition Decision in Available 6 mos		Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.019**	-0.000	0.006	0.026***	0.029**
	(0.009)	(0.010)	(0.010)	(0.010)	(0.011)
	[0.037]	[0.999]	[0.543]	[0.007]	[0.012]
Observations	5936	5936	5936	5896	5883
Mean	0.67	0.19	0.27	0.71	0.84
District FE	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes
Number of Clusters	283	283	283	282	282

Table B.VI: Impact of Legal Aid Clinic: Controlling for volume of cases

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. We control for the total cases (in logs) and the results remain robust to the table 2.

Panel A: Excluding Early Adopters ATT Observations Mean District FE Quarter FE	Case Disposed 0.022** (0.009) [0.016] 5750 0.66 yes yes 260	Decision in 6 mos 0.004 (0.010) [0.725] 5750 0.19 yes yes 260	Decision in 12 mos 0.012 (0.011) [0.276] 5750 0.28 yes yes 260	Positive (Unambiguous) 0.028*** (0.010) [0.006] 5710 0.70 yes yes yes 249	Acquitted (Unambiguous) 0.034*** (0.012) [0.005] 5701 0.84 yes yes yes 268
Number of Clusters	269 = = = = = = = = = = =	269 = = = = = = = = = =	269 = = = = = = = = = = = =	268 = = = = = = = = = = = = = = = = = = =	268 : = = = = = = = = = = = = = = = = = = =
Panel B: Excluding Late Adopters	Disposition Available	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.017* (0.009) [0.058]	0.005 (0.012) [0.653]	0.013 (0.013) [0.306]	0.023* (0.013) [0.073]	0.031** (0.014) [0.033]
Observations	5044	5044	5044	5024	5011
Mean	0.70	0.16	0.24	0.72	0.85
District FE	yes	yes	yes	yes	yes
Number of Clusters	yes 251	yes 251	yes 251	yes 251	yes 251
Panel C: Excluding Early & Late Adopters	Case Disposed	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.018*	0.013	0.025**	0.019*	0.024*
	(0.009)	(0.012)	(0.012)	(0.010)	(0.012)
	[0.059]	[0.258]	[0.045]	[0.066]	[0.054]
Observations	4619	4619	4619	4599	4590
Mean	0.70	0.15	0.22	0.73	0.85
District FE	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes
Controls	no District	no	no	no	no
Cluster	District	District	District	District	District
number of Clusters	234	234	234	234	234

#### Table B.VII: Impact of Legal Aid Clinic: Excluding Early and Late Adopters

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. In Panels A, B, and C, we exclude early adopters (if PLAC opened before 2012), late adopters (if PLAC opened after 2016), and both (if PLAC opened between 2012 and 2016). The results are robust to our main results in table 2.

	Case Disposed	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.019**	0.006	0.013	0.023**	0.028**
	(0.009)	(0.010)	(0.010)	(0.010)	(0.012)
	[0.030]	[0.534]	[0.199]	[0.024]	[0.020]
Observations	5868	5868	5868	5829	5816
Mean	0.67	0.18	0.26	0.71	0.84
District FE	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes
Number of Clusters	274	274	274	273	273

Table B.VIII: Impact of Legal Aid Clinic: Excluding "Never-Treated"

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The estimations use not-yet-treated. It excludes districts if the PLAC opens after 2018, essentially forming the never-treated group in our setup since the judicial data stops in 2018. The results are robust to our main results in table 2.

	Case Disposed	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.018*	0.002	0.010	0.025**	0.023*
	(0.010)	(0.012)	(0.014)	(0.011)	(0.014)
	[0.082]	[0.855]	[0.470]	[0.026]	[0.092]
Observations	5969	5969	5969	5929	5916
Mean	0.67	0.19	0.27	0.71	0.84
District FE	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes
Controls	no	no	no	no	no
Cluster	District	District	District	District	District
Number of Clusters	283	283	283	282	282

Table B.IX: Impact of Legal Aid Clinic: Weighting by volume of cases

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. Each panel unit (i.e., district-quarter) is weighted by the number of cases, following sampling weights allowed in the estimation method. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The results are robust to our main results in table 2.

	Disposition Available	Decision in 6 mos	Decision in 12 mos	Positive (Unambiguous)	Acquitted (Unambiguous)
ATT	0.025**	0.006	0.011	0.019*	0.031**
	(0.010)	(0.011)	(0.011)	(0.010)	(0.013)
	[0.013]	[0.551]	[0.332]	[0.054]	[0.015]
Observations	4286	4286	4286	4266	4266
Mean	0.64	0.22	0.32	0.69	0.83
District FE	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes
Controls	no	no	no	no	no
Cluster	District	District	District	District	District
Number of Clusters	223	223	223	222	222

Table B.X: Impact of Legal Aid Clinic: Dropping low case volumes

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the opening of the prison legal aid clinic (PLAC) in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The outcome variables in columns from left to right are shares of cases (excluding procedural endings) - disposed of, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. We drop if the district-quarter has less than 200 cases. The results are robust to our main results in table 2.

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.013	0.015	0.043***	0.039***	0.029***	0.022**	-0.005	-0.009
	(0.010)	(0.012)	(0.012)	(0.014)	(0.010)	(0.009)	(0.012)	(0.009)
	[0.209]	[0.215]	[0.000]	[0.004]	[0.004]	[0.019]	[0.676]	[0.304]
Observations	5683	5683	5649	5618	5305	5305	5248	5228
Mean	0.65	0.27	0.70	0.80	0.59	0.19	0.80	0.87
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	270	270	269	269	251	251	250	250
Number of Sections(>2)=	0	0	0	0	1	1	1	1

Table B.XI: Case complexity: Heterogeneity by Number of IPC Sections

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for cases where one or two IPC (Indian Penal Codebook) sections are applied, and the last four are when more than two IPC sections are applied. There are about 39% cases in our sample with more than two IPC sections. The effects on unambiguous positive and acquittals are concentrated in relatively simpler cases (with 1/2 IPC section).

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.029***	0.023**	0.012	-0.002	0.019*	0.016	0.037***	0.031**
	(0.010)	(0.010)	(0.013)	(0.011)	(0.010)	(0.011)	(0.012)	(0.014)
	[0.004]	[0.026]	[0.344]	[0.867]	[0.064]	[0.152]	[0.002]	[0.024]
Observations	5080	5080	5017	4947	5613	5613	5545	5501
Mean	0.61	0.22	0.76	0.83	0.63	0.24	0.72	0.82
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	241	241	240	240	266	266	265	265
Cognizable=	0	0	0	0	1	1	1	1

Table B.XII: Treatment Intensity: Heterogeneity by Cognizable Crimes

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for non-cognizable crimes, and the last four are for cognizable crimes. Under the cognizable offense, police can arrest a person without a judicial warrant. Cognizable cases form 70% of the sample. The coefficient on acquittal rate and positive are significant only in cognizable offense cases, where the likelihood of entering prison is higher.

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.025**	0.017	0.014	0.025**	0.021**	0.018	0.017	0.001
	(0.010)	(0.011)	(0.012)	(0.010)	(0.010)	(0.011)	(0.013)	(0.015)
	[0.018]	[0.117]	[0.249]	[0.018]	[0.029]	[0.125]	[0.178]	[0.968]
Observations	5498	5498	5425	5388	5314	5314	5272	5248
Mean	0.60	0.21	0.76	0.87	0.63	0.24	0.74	0.80
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	261	261	260	260	252	252	251	250
Bailable type=	0	0	0	0	1	1	1	1

Table B.XIII: Treatment Intensity: Heterogeneity by Bailable Crimes

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for non-bailable crimes, and the last four are for bailable crimes. Under a bailable offense, bail to the defendant is a matter of right, whereas under non-bailable offenses, granting bail is a judicial discretion. Around 40% cases are of non-bailable type. The coefficient on acquittal rate is significant only in non-bailable offense cases, where the likelihood of entering prison is higher.

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.023***	0.012	0.013	0.018**	0.013	0.009	0.032**	0.008
	(0.008)	(0.010)	(0.010)	(0.009)	(0.010)	(0.013)	(0.014)	(0.016)
	[0.007]	[0.220]	[0.185]	[0.036]	[0.210]	[0.515]	[0.029]	[0.614]
Observations	5946	5946	5903	5875	5203	5202	5145	5082
Mean	0.66	0.26	0.73	0.88	0.65	0.27	0.67	0.75
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	282	282	281	281	247	247	246	246
<b>Trial Type=</b>	Session	Session	Session	Session	Summary	Summary	Summary	Summary

Table B.XIV: Treatment Intensity: Heterogeneity by Trial Type

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for session/warrant trials, and the last four are for summary/summon trials. The summary/summon trials are usually for less serious offenses, hence the lower possibility of the defendant going to prison. Around 30% cases are session type, and the rest are summary type in our sample. The coefficient on acquittal rate is significant only in session cases, where the likelihood of entering prison is higher.

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.020**	0.008	0.015	0.023*	0.008	0.010	0.038**	0.022
	(0.009)	(0.010)	(0.010)	(0.012)	(0.011)	(0.013)	(0.017)	(0.018)
	[0.024]	[0.426]	[0.139]	[0.051]	[0.483]	[0.441]	[0.022]	[0.222]
Effect Size	3.1%	3.2%	2.1%	2.8%	1.3%	4.0%	5.2%	2.7%
Observations	5949	5949	5905	5891	4687	4684	4588	4468
Mean	0.65	0.25	0.73	0.83	0.64	0.25	0.73	0.82
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	282	282	281	281	223	223	222	222
Defendant's Religion=	Hindu	Hindu	Hindu	Hindu	Muslim	Muslim	Muslim	Muslim

Table B.XV: Heterogeneity by Religion of Defendant

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for Hindu defendants, and the last four are for Muslim defendants. Muslim defendants are 14% of the sample. The effect is not very different by the religion of the defendant, except for the unambiguous positive outcome where Muslim defendants have double the effect size than Hindus.

	Case Disposed	Decision in 12 mos	Positive	Acquitted	Case Disposed	Decision in 12 mos	Positive	Acquitted
ATT	0.031***	0.020*	0.028**	0.027*	0.014	0.018*	0.010	-0.009
	(0.010)	(0.011)	(0.012)	(0.015)	(0.010)	(0.011)	(0.012)	(0.009)
	[0.003]	[0.079]	[0.018]	[0.067]	[0.169]	[0.098]	[0.397]	[0.326]
Observations	5637	5637	5583	5538	5223	5223	5162	5105
Mean	0.63	0.24	0.73	0.82	0.61	0.22	0.76	0.83
District FE	yes	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes	yes
Number of Clusters	267	267	266	266	248	248	247	246
Violent Crime=	0	0	0	0	1	1	1	1

Table B.XVI: Heterogeneity by Violent Crime

Notes: The table reports simple aggregate treatment effects parameters using the Callaway and Sant'Anna (2021) estimator, along with standard errors (within ()) and p-values (within []). The estimation sample is a panel at the district-quarter level restricted to 3 years before and after the treatment, i.e., the opening of the legal aid clinic in the district. The estimations use not-yet-treated and never treated as the control group. All estimations include district and quarter fixed effects. The standard errors are clustered at the district level. The four outcome variables are shares of cases (excluding procedural endings) - disposed of, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. The first four columns are for non-violent crimes, and the last four are for violent crimes (murder, rape, kidnapping, etc. defined under "Body crime" in the Indian Penal Codebook). The positive impacts of PLACs are concentrated in non-violent crimes. The coefficient on acquittals is negative for violent crime.

Panel A: Judicial Outcomes	Procedural	Case Disposed	Ambiguous	Decision (<6m)	Decision (<12m)	Positive (Unamb	Acquitted
In Sample	-0.00777 (0.00840)	-0.000650 (0.0142)	-0.00562 (0.0145)	0.00642 (0.00815)	0.00845 (0.00903)	0.000588 (0.00842)	0.00496 (0.00744)
Observations	21,847	21,927	21,805	21,926	21,924	21,561	21,321
R-squared	0.266	0.541	0.431	0.704	0.755	0.553	0.359
Control Mean	0.13	0.64	0.25	0.23	0.33	0.70	0.84
State FE	yes	yes	yes	yes	yes	yes	yes
Quarter FE	yes	yes	yes	yes	yes	yes	yes
Cluster size	626	628	626	628	628	623	623
Panel B: Crime per 100K	Murder	Grievous Hurt	Rape	= = = = = = = = = = = = = = = = = = =	Total IPC Crimes		=========
In Sample	-0.220 (0.179)	-0.560 (0.885)	-0.204 (0.221)	-0.00589 (5.677)	-719.3 (556.1)		
Observations	6,787	6,787	6,787	6,787	6,787		
R-squared	0.328	0.343	0.469	0.605	0.322		
Control Mean	2.81	12.02	3.11	34.41	4580.85		
State FE	yes	yes	yes	yes	yes		
Year FE	yes	yes	yes	yes	yes		
Cluster size	631	631	631	631	631		
Panal C. 2011	=========			= = = = = = = = =	======	= = = = = = = = =	=======
Census Characteristics	Literacv	SC	ST	Sex	Hindu	Muslim	Rural
	Rate	share	share	ratio	share	share	share
In Sample	0.00984	0.00879	-0.0484**	3.610	0.0296	-0.00764	-0.0136
1	(0.00966)	(0.00728)	(0.0204)	(5.633)	(0.0180)	(0.0137)	(0.0202)
Observations	637	637	637	637	637	637	637
R-squared	0.537	0.634	0.648	0.527	0.749	0.552	0.410
Control Mean	0.62	0.15	0.18	945.91	0.74	0.13	0.73
State FE	yes	yes	yes	yes	yes	yes	yes
Cluster size	637	637	637	637	637	637	637

#### Table B.XVII: External Validity

Notes: The table reports the OLS coefficients, along with standard errors (within ()). The main independent variable is a dummy if the district is in our main estimation sample, i.e., we have legal aid clinic information. The standard errors are always clustered at the district level. In Panel A, the sample is at the district-quarter level, with all estimations including state and quarter fixed effects. The outcome variables from left to right are, share of cases: with procedural endings, disposed of, with ambiguous disposition, disposed within 6 months, disposed within 12 months, unambiguous positive outcomes, and unambiguous acquitted. In Panel B, we have a sample of crime rates (per 100K) at the district-year level, with all estimations including state and year fixed effects. The outcome variables are violent crimes (murder, grievous hurt, and rape), economic crimes (theft), and total crimes booked under the Indian Penal Codebook. In Panel C, we have district-level census 2011 characteristics - literacy rate, Scheduled Caste and Tribe shares, sex ratio, Hindu and Muslim share, and rural households share. Hence, the estimation includes only state-fixed effects. All the coefficients are small and insignificant (except for one), suggesting no systematic difference between places that responded to our requests on prison legal clinic opening dates and those that did not.

# C Appendix: Case Data

The important variables in the court dataset from Ash et al. (2023) are used to prepare outcome variables, which are described in detail below:

## C.1 Case Disposition

The case disposition variable contains information about the final outcome (or decision) of the case. The variable is present only when a case is finished in the court and has a non-missing decision date.

- We divide the 63% of finished cases (i.e., non-empty case disposition variable) into the following categories based on the case dispositions as illustrated in the Appendix Table B.I).
  - 1. Procedural: category contains cases that have ended in a courtroom but not decided from the defendant's perspective. There are eight case dispositions absconded, died, sine die, transferred, committed, procedural, converted, and execution- classified here, which form a total of 10% of finished cases. More than 80% of procedural ending cases are the transfer of cases across courtrooms, and 12% mention "procedural". This category of cases is "technical ending" and possibly re-appear in the dataset. The lack of an identifier to track cases limits us to explore them further.
  - 2. Ambiguous: category contains cases when the case dispositions can not be categorized under positive or negative types due to insufficient information in the text. There are eight dispositions: disposed, closed, decided, judgement, ex-parte, award, and p.o. consign, ex-parte. 17% of cases within the non-procedural finished cases are ambiguous. The majority of them simply imply that the case has been decided or that judgment has been passed.
  - 3. Positive outcomes: case disposition refers to positive from the defendant's perspective. Of the total unambiguous case disposition, 54% have positive outcomes. There are two major sub-categories within this category. First is if the case is resolved through alternative dispute resolution or agreement reached between prosecution and defendant outside judicial litigation (referred to as lok adalat, disposal in look adalat, withdrawn, not press, compounded, and compromise). These are positive because the decision is arrived at through mutual agreement, and it is not imposed upon the defendant. Around one-quarter of the cases with positive outcomes are of such type. The second sub-category

is "acquittal", with dispositions: acquitted, dismissed, 258 CrPC, quash, reject, canceled, and untrace- forming 70% of the total positive outcomes.<sup>42</sup> As the name suggests, it means the defendant is acquitted by the court.

- 4. Negative outcomes: case disposition signals the decision against the defendant, forming 46% of the total unambiguous cases. There are two broad subcategories. First is "Conviction", where we classify dispositions - convicted, prison, fine, confession, plea bargaining, and plead guilty. About one-quarter of all negative outcomes are of this type. The other negative category contains dispositions: uncontested, disposed-otherwise, otherwise, partly decreed, allowed, and contest-allowed. The disposed-otherwise and uncontested are classified as a negative outcome because the case is disposed of without any defendant's lawyer. Allowed means the charges are allowed in the court from the prosecution side.
- Ash et al. (2023) drops cases if the disposition is marked as procedural, committed, uncontested, disposed-otherwise, absconded, and died, as they are not relevant for their analysis. These cases are about 5% of the total cases in the dataset. We keep them in our setup due to two reasons. First, the disposition type, *disposed-otherwise* (with 755,507 cases), implies that the case is disposed of without a lawyer. This is crucial as our treatment is directly linked to increasing the provisioning of legal aid lawyers- one would expect a reduction in such outcomes. Also, a small set of cases with case disposition uncontested (only 2k) implies the defendant has not contested. Second, there is no strong reason to drop the cases, as several other disposition types are already clubbed into ambiguous categories. For example, *committed* disposition means committed or transferred to the sessions court. Hence, it is similar to the disposition type *transfer*, implying the cases are disposed from the court by transferring them to the other court. Instead of dropping them, we retain them in the analysis and classify them as procedural.

## C.2 Identifying Bail and Appeal Cases

Bail and Appeal are two types of cases that are dealt with separately from the rest of the criminal cases. The distinguishing feature of these two types is that they are usually filed from the defendant's side, compared to criminal cases filed from the state (prosecution) side. This means assigning judgement (or case disposition variable) to positive and neg-

<sup>&</sup>lt;sup>42</sup>Cases that are dismissed or quashed by the court. Since these are criminal cases where the state is filing a case against an individual (defendant), if the case is dismissed/quashed/canceled/rejected, it means the court did not agree with the imposed charges on the defendant, and the case is closed.

ative categories reverses for some. For, if the disposition is "dismissed," then it means bail/appeal petition from the defendant side is dismissed, translating into a negative outcome for the defendant. If a case is "dismissed" in a criminal case filed by the state, the outcome is positive for the defendant. In our sample, we have 1.7M bail and 600K appeal cases.

One of the tasks of the PLACs is to file bail and appeal applications on behalf of the defendant. In a bail case, the judge decides whether to keep the defendant in prison while the trial is ongoing. An appeal case is filed to overturn an original judgement by the defendant. Hence, they are relevant to our analysis. We identify them in the dataset using the following criteria -

- Bail case: a) if any of the variables "case disposition", "case type", and "purpose type" contains the text "bail" b) in the "case type", multiple shorthands for bail application/petition (ba, b.app, bp, etc.) are used c) based on the Criminal Codebook (CrPC), Chapter 33 (Provisions as to bail and bonds) sections 436-445 that deals with the procedure in criminal judiciary related to bail d) if the "case disposition" is remanded
- Appeal case: a) "case type" contains the text appeal or any shorthands (crla, crla.mu, car, crl.appl, etc.) b) "case type" contains the text revision or any shorthands (crr, crirev, crlr, cr.rev, cr.revn, crra etc.) c) based on the Criminal Codebook (CrPC), Section 372-378, 380-386, 387-394, and 395-402, dealing with appeals<sup>43</sup>

A small number of cases (13K) are bail and appeal; we categorize them into bail.

## C.3 Type of judges handling cases

At the district-level judiciary, there are three ranks of judges. Using the variable "judge position", we create markers for the rank of judges as follows:

• First-rank judges comprise the District and Session Judge and Additional District and Session Judges. They are the senior judges in the district-level judiciary. In the dataset, if the judge position contains the word session, addlj, additional or principal district judge, they are classified as "DSJ". In the full sample, 27% cases are heard by these judges.

<sup>&</sup>lt;sup>43</sup>Legally, the term appeal and revision have slightly different meaning. In an appeal case, the entire case is heard again, while in revision, the judge only focuses on whether legal actions are followed in order. For our purpose, this distinction is not very meaningful, as they both are filed to overturn the previous decision.

- Second-rank judges come next in the hierarchy, and used designations are Chief Judicial Magistrate or judge in the senior division. If the "judge position" variable contains 'chief' or 'senior' they are classified as "CJM". 26% of all cases are adjudicated by the second-ranked judges.
- Third-rank judges are the juniormost judges at the district level judiciary. Several designations are used, such as First Class Magistrate, Judicial Magistrate, Metropolitan Magistrate, etc. We classify them as "MFC", who manages 30% of the total cases.

There are about 17% cases where judges' designations do not contain enough information to be classified into one of the above categories.

## C.4 New Variables using the dataset

The dataset contains the sections of the Indian Penal Codebook (IPC) under which a case is filed. It is an important source of information, especially for understanding the severity and type of crime under which the defendant is booked. We have gone through each section to create the following variables:

- Number of sections: The first straightforward variable is a dummy (=1) if the total number of sections under which a case is filed is more than two. It is a proxy for the complexity of the case. 40% cases have more than two IPC sections.
- Crime categories: The IPC has chapters based on different types of crime. We use the chapters to create crime categories following Bharti and Roy (2023). The five categories are bodily crime (murder, kidnapping, rape, etc.; sections 299-376), property crime (theft, robbery, dacoity, etc.; sections 378-462), public nuisance (adultering food, rash driving, rioting, etc.; sections 141-160, 268-297), criminal intimidation (threatening, causing reputational damage, etc.; sections 503-509), women crime (adultery, marrying again, etc., sections 493-498A). In the "women crime" category, we also include cases lodged under sections 488, 489, and 125-128 of the Criminal Procedure Codebook (maintenance of wives and children). The distribution of cases under the crime categories is bodily crime (20%), property crime (16%), public nuisance (9%), criminal intimidation (10%), and women crimes (7%). All the cases that couldn't be classified under the above categories or are charged under special laws (and not under IPC sections) are "unclassified" (38%).
- Maximum imprisonment: Each IPC section provides for the maximum prison sentence that can be awarded by the judges. We create five categories using the < 1 year, 1-2 years, 2-3 years, 3-7 years, and > 7 years (including life imprisonment and

death). Out of all cases where this information is available, the share of cases is < 1 year (19%), 1-2 years (13%), 2-3 years (16%), 3-7 years (27%), and > 7 years (24%).

- Cognizable offences: We create a dummy (=1) indicator for cognizable offences. Cognizable offenses, as defined in Section 2 of CrPC 1973, are those offenses that police can arrest without a judicial warrant. The list of IPC sections that are cognizable in nature is defined in the First Schedule of CrPC 1973. For each IPC section, we assign them into cognizable and non-cognizable. If a case has multiple IPC sections and even one of the IPC sections is cognizable, the case is classified as cognizable. Similarly, we create an indicator for bailable and non-bailable offenses. Under a bailable offense, bail is a legal right of the defendant.
- Trial Type (Session vs. Summary): There are four types of trials defined in the Criminal Codebook (CrPC) - session, warrant, summary, and summon. Partly due to data limitations and partly due to relevance in our context, we create two categories of cases: session/warrant and summary/summon. Session/Warrant trials are related to cases with higher prison sentences and are handled by high-ranked judges. On the other hand, summary/summon trials are for cases with less prison sentence (< 2 years) or just fine, supposed to be disposed of quickly, and are handled by juniormost judges.

## C.5 Available dates

There are five dates present in the dataset.

- Date of Filing: is the date when the case is filed in the court.
- First filing date: the date on which a case is heard in a court before a judge for the first time after filing.
- Date of Decision: is the final decision date, after which a case is considered closed in the court where it is filed. It doesn't necessarily mean that the underlying matter is adjudicated in the judicial sense. E.g., if a case is transferred to another court for any reason, then this will be captured as the end of the case with a decision date, with a disposition marker as "transferred".
- Most recent hearing date: is the date of the last hearing in the court. If this happens to be the date when a final decision has been made, then it is the same as the date of the decision.

# **D** Appendix: Welfare Analysis

Our welfare analysis comprises three main components. Two benefits of reduced incarceration are labor income for the defendants and reduced prison expenditure for the state. The cost is expenditure on PLACs.

net welfare gain = labor income + prison costs saved - cost of legal aid (C.1)

In order to compute the first two components we start by estimating the number of personyears in prison that are saved annually as a result of legal aid.

### D.1 Reduction in prison time

personyears = (acquittals + successful appeals) \* sentence length (C.2)

- acquittals = 22,709
  - In the full sample there are 20.3M cases, of which 12.9M have a disposition. Within the disposed cases, 4.47M cases (or 34.6% of 12.9M) are acquittals or convictions, and 2.62M have ambiguous dispositions. We assume, that if the text of these ambiguous cases had been clearer, 34.6% would be acquittals or convictions. This gives us a sample of 5.37M cases (= 4.47M + 0.347 \* 2.62M).
  - Applying the coefficient from table 2 (Col 5), the number of additional cases resulting in acquittals as a result of PLACs is 204,383 (= 0.038 \* 5.37M).
  - Assuming one defendant per case, this translates into 204,383 undertrial defendants spared conviction in a span of 9 years from 2010-18. This is a lower bound, as a share of cases will have more than one defendant.
  - Annually, PLAC has helped acquit 22,709 (= 204,383 / 9) undertrial prisoners.
- successful appeals = 8,346
  - There are 0.95M appeal cases, of which 0.77M have a disposition.
  - Our analysis suggests 20% of filed appeals are due to PLACs (coefficient in Col 4, table 3, i.e., 156,490 (= 0.2 \* 0.77M).
  - 48% of appeals result in overturned convictions. PLACs do not change this share (insignificant coefficient in Col 6, table 3), which implies PLAC led to a reversal of the original decision in 75,115 (= 0.48 \* 156,490) cases.
  - Assuming one defendant per case, this translates into 75,115 convicts getting acquitted in a span of 9 years from 2010-18.

- Annually, PLAC has helped in freeing 8,346 (= 75,115 / 9) convicts.
- $sentence \ length = 1.5$ 
  - Based on data from the Prison Statistics of India, we assume an average sentence length of 2.5 years. This is a conservative estimate, which excludes the longer sentences in the distribution, reflecting the fact that the impact of PLACs appears to be concentrated in the sample of non-violent offences (Section 7.2).
  - At the time of the judgement, the average defendant has spent 1 year in prison already, so we subtract this from the sentence length.
  - We assume that most appeals are filed shortly after the judgement and apply the same remaining sentence length to the successful appeal sample.

In aggregate, this calculation implies that PLACs lead to the release of 31,055 prisoners annually (= 22,709 + 8,346). The annual saving in terms of person-years in prison is 46,582 (= 31,055 \* 1.5).

### D.2 Labor income of released prisoners

labor income = personyears \* employment rate \* average income(C.3)

- *personyears* = 46,582 (see above)
- $employment \ rate = 0.8$ 
  - The literature shows incarceration affects labor market outcomes. Unfortunately, no systematic study exists in the Indian context. We use estimates from Garin et al. (2024), as their dataset includes a broad-base of worker types, including gig workers, and some informal sector jobs. Other estimates, such as Mueller-Smith (2015) and Dobbie et al. (2018), use formal sector jobs, which are likely less relevant to the Indian context, where 90% of jobs are in the informal sector. Garin et al. (2024) finds a negative impact at the extensive margin (20% of released inmates do not find a job due to prison stigma).
- average income = \$548.25
  - We assume all PLAC beneficiaries come from the bottom 50% of the adult population in terms of income (i.e. that those above the median could access private legal counsel). The average annual income is \$645 (Bharti et al. (2024)).<sup>44</sup>

<sup>&</sup>lt;sup>44</sup>We adopt an income rather than a wage approach, as identifying the population type in prison (male, young, etc.) is not straightforward, and surveys are sporadic (only available for 2011 and 2017- onwards.

- Garin et al. (2024) also find an intensive margin effect of incarceration. Released inmates earn 85% of average income, possibly due to human capital loss.
- This gives us an average income of \$548.25 (= \$645 \* 0.85)

The calculated gain in terms of additional labor income is 20.4M per year (= 46,582 \* 0.8 \* 548.25).

### D.3 Prison expenditure saved

 $prison\ costs\ saved = personyears * cost\ per\ prisoner$ (C.4)

- *personyears* = 46,582 (see above)
- $cost \ per \ prisoner = $472$ 
  - In 2015-16 (roughly the middle of our sample period), the average annual cost of maintaining a prisoner was \$472/year according to the Prison Statistics of India. This figure includes the expenditure incurred on food, clothing, medical, vocational education, welfare activities, and miscellaneous costs.

The direct saving for the government in terms of reduced prison expenditure is 22.0M (= 46,582 \* 472).

### D.4 Cost of PLACs

$$cost of legal aid = legal aid budget * PLAC share$$
 (C.5)

- legal aid budget = \$9.85M
  - In the middle of our sample period, the expenditure of the entire legal aid machinery was \$9.85M, as per the NALSA 2015-16 report.
- $PLAC \ share = 50\%$ 
  - NALSA and its subsdiaries perform many functions other than maintaining legal aid clinics in prisons. There is no aggregate public estimate of PLACs' share of expenditure. In 2021, PLACs accounted for 10.6% of all legal aid clinics in the country. Legal assistance to prisoners accounted for 24% of all legal assistance provided (NALSA, 2021). In 2016-2017, the sum of all "payments to lawyers", "payments to paralegal volunteers", and "expenses for legal service clinics only" was 48.4% of total expenditure. Many of these lawyers and clinics are not operating in prison. Based on these figures we allocate a generous 50%
of the budget to the cost of PLACs, to take into account that their activities also generate additional work for other areas of the legal aid system.

This calculation implies an annual expenditure of 4.93M (= 0.5 \* 9.9M).

## D.5 Comparing costs and benefits

- We compute a net welfare gain of 37.5M (= 22.0 + 20.4 4.93).
- For every dollar spent on PLACs, the welfare gain is 7.6 dollars.
- Focusing only on government expenditure, the net savings are \$17.1M (= 22.0 4.93).
- For every \$1 spent on PLACs, the government saves \$4.5 in prison costs.