

# Courts and Informality Across Countries

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## 1 Introduction

Across the developing world, two notable phenomena persist. First, a significant portion of the workforce operates within the informal sector. The ramifications of such informality extend far beyond the individual, affecting national tax bases and social security systems, and hindering the economic security of workers (Gindling and Newhouse 2014). Secondly, these countries often grapple with judicial systems burdened by extensive backlogs, compromising the speed and efficiency of legal proceedings. The slow adjudication process can profoundly influence economic decisions, leading to underinvestment and resource misallocation due to weakened contract enforcement capabilities.

While the nexus between weak institutional frameworks and labor informality has been extensively explored, the specific interplay between judicial efficiency and worker informality remains underexamined. This gap in the literature signals a critical area for investigation, given the potential of judicial reform to influence economic development and labor market dynamics.

This paper endeavors to illuminate the relationship between court efficiency and the prevalence of informal labor, employing a comparative analysis across five diverse countries: Chile, Croatia, India, Kenya, and Peru. Additionally, leveraging state-level data from India enriches our examination, allowing for nuanced insights across varied economic, historical, and judicial contexts. Through a novel dataset comprising administrative records and micro-level household surveys, we construct multidimensional measures of court efficiency and worker informality.

Our findings reveal a significant correlation between judicial efficiency and the extent of labor informality; countries characterized by more efficient judicial processes tend to exhibit lower levels of informal employment. This correlation persists even when controlling for various worker and case characteristics, suggesting a robust relationship across different legal and economic environments.

By focusing primarily on the correlation between judicial efficiency and labor informality, this study lays the groundwork for future research to explore potential causal mechanisms. Understanding the dynamics at play could inform policy interventions aimed at enhancing judicial efficiency, thereby reducing labor informality and strengthening state capacity and worker protections. Through this analysis, we contribute to a deeper understanding of how institutional quality intersects with labor market outcomes, with significant implications for economic development strategies.

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## 2 Literature

The judicial system's functionality influences firm dynamics, shaping decisions that extend beyond legal compliance to fundamentally affect economic growth and labor market structures. Research underscores the role of judicial efficiency in mediating firms' investment strategies, credit accessibility, and overall propensity towards formality or informality in employment practices (Klein, Crawford, and Alchian 1978; Boehm and Oberfield 2018; Visaria 2009; Lilienfeld-Toal, Mookherjee, and Visaria 2012; Amirapu 2017). A well-structured judicial system not only facilitates better access to credit and enhances property rights but also offers firms a comparative advantage, nudging them towards formal registration to avail of these institutional benefits.

The decision to employ a formal or informal workforce is linked to the judiciary's efficacy. This interplay is influenced by who benefits more from judicial efficiency and the impartiality of the courts. An efficient judicial system could potentially empower workers to assert their rights more effectively, possibly leading to a paradox where formal firms might prefer hiring informally to circumvent legal obligations (Naidu and Yuchtman 2013). Conversely, a system that leans towards protecting employer interests could incentivize formal employment. The direction of this relationship, however, remains an empirical question.

The World Bank's recent discourse highlights the judiciary's direct impact on formal sector attractiveness and feasibility, advocating for a consistent, just, and effective judicial framework (Loayza 2018). Yet, the nexus between judicial efficiency and labor informality remains underexplored, with few studies making explicit connections. For instance, Friedman et al. (2000) and Johnson et al. (2000) examine the broader implications of legal system efficiency on informality, employing various methodologies to illustrate these effects. Similarly, Dabla-Norris, Gradstein, and Inchauste (2008) and Assenova and Sorenson (2017) investigate legal frameworks' role in shaping the informal sector, often highlighting enforcement capacity as a critical determinant.

Focusing on India, several studies utilize the unique judicial and economic landscape to dissect informality's facets and its interplay with judicial processes. From analyzing small firm protections and labor protection weaknesses to exploring state-level manufacturing sector behaviors, these studies collectively illuminate the multifarious effects of judicial efficiency on economic and labor market outcomes (Martin, Nataraj, and Harrison 2017; Bertrand, Hsieh, and Tsivanidis 2017; Saikia 2011; Abraham 2018; Hsieh and Olken 2014; Besley and Burgess 2004; Boehm and Oberfield 2018).

This literature review underscores the necessity of a deeper understanding of the judicial system's role in economic development, particularly regarding labor informality. By bringing new data, this paper seeks to contribute to the ongoing dialogue on judicial efficiency and its broader economic implications.

## 3 Background

Our analysis focuses on five very different countries around the world, located on four continents. The aim of this paper is to investigate if we can observe a common link between the judicial system and informality across very different settings. Before doing so, we will highlight similarities and differences between them.

India is the largest country in our sample. With around 1.4 billion inhabitants it is almost 100

times larger than Chile for instance. (And many of its states are larger than the other four countries we are focusing on, motivating the inclusion of a state level analysis.) Since the economic liberalization in the early 1990s, it has seen relatively high economic growth rates (except for during the Covid-19 pandemic in 2020). Still, it is the second-poorest country, measured as GDP per capita, in our sample and has a low literacy rate (see Table 1.)

The two South American countries, Chile and Peru, are similar in their total GDP (298 vs 223 Billion US\$ in 2018) and their GDP growth (3.71 vs 3.91%). However, Peru is almost twice the size of Chile (32 vs 19 million inhabitants) and, consequently, has a much lower GDP per capita (7 vs 16 thousand US\$). Also, the population growth rate is higher in Peru and Peru has a higher share of its population undernourished.

The smallest country in our sample, Croatia, has a GDP per capita comparable in size to Chile. However, it seems to be on a different development trajectory: it has a lower GDP growth rate than Chile (2.81%) and it is the only country in our sample with a negative population growth rate in 2018 (-0.89%) and is the country with the lowest share of undernourished inhabitants (2.5%).

Lastly, Kenya is the poorest country in the sample. Much smaller than India, it has a similar GDP per capita and GDP growth rate in 2018 as India. However, it has the highest population growth rate (2.34% in 2018) albeit almost one quarter of its population is undernourished.

The five countries differ not only in their size and development indicators but span also a wide variety of judicial systems. Our sample comprises three civil and two common law countries. The Chilean judicial system is mainly based on the French civil law system. Firms mostly interact with labor and civil courts, workers mainly with labor courts. The judicial system of neighboring Peru is as well based on the French Napoleonic code and classified as a civil law country. There, firms and workers interact mainly with tribunals specialized in labor or civil law.

The third civil law country, Croatia, is based on the Germanic civil law. The highest court is the supreme court, below which there are five different branches of the judiciary: Criminal, Misdemeanor, Civil (county), Commercial and Administrative. The commercial court system handles all commercial and contractual disputes, and firms and workers will be mostly be involved in litigation with these courts.

The Indian judicial system is based on a common law system imported by the British colonialists in the 19th century. Although seen as an important part of the democratic system, it is especially known for its huge backlog of cases, which often takes many years to be disposed. Indeed, the enforcing contract score of the World Bank's doing business report gives it only 41 points, the lowest in our sample.

Lastly, Kenya has a common law system, brought by the British. Workers are mainly interacting with the Employment & Labour Relations Court, which is the first instance for any disputes relating to employments.

## 4 Data

Our comparative study spans five distinct countries across four continents: India, Croatia, Peru, Chile, and Kenya, each with unique judicial and labor frameworks. This diversity allows us to explore dynamics between judicial systems and labor informality in varied settings. Detailed methodologies and

variable constructions are documented in the accompanying Data Appendix.

We gathered case-level judicial data and worker microdata for each country, with the exception of Croatia. Based on the case-level judicial data, we developed several indicators to quantify judicial efficiency. These measures include:

*Backlog:* The total number of unresolved cases exceeding one year, offering a raw gauge of judicial backlog.

*Average Case Age:* Both for pending and disposed cases, providing a comparative metric of judicial promptness across countries.

*Clearance Rate:* The ratio of resolved to new cases within a year, indicating the judiciary's capacity to keep pace with incoming cases.

*Disposition Time:* Calculated as the ratio of unresolved to resolved cases, estimating the average resolution timeframe in days.

The data's breadth comes with its challenges, particularly with Kenyan judicial records, which are limited and approximate in nature. To navigate these limitations, we employed alternative statistical approaches, such as analyzing the proportion of cases resolved within specific timeframes, enabling consistent efficiency comparisons across all countries.

For the measure of worker informality, we took household surveys from each country and calculated worker informality, following closely the 2018 ILO Report's definition. We define workers as informal if they do not have any social protection and are not subject to national labor legislation. Table 2 gives an overview over the household surveys used and the calculated aggregate informality measure. As for judicial efficiency, we observe large variations in this aggregate shares. Chile has only 26% of the workforce informally working, while this touches up to 75% of the workforce in Kenya in 2019.

While we calculate the aforementioned judicial moments and shares of informality on a country-wide level, we perform the analysis also on a state level for India.

## 5 Analysis

Our analysis, depicted through Tables 2 and 3, provides a comprehensive overview of judicial efficiency and labor informality in five distinct countries. This examination across diverse economies unveils significant disparities, highlighting the nuanced relationship between judiciary performance and labor market structures.

The fourth column of Table 2 displays the aggregate labor informality shares per country. We observe the lowest share in 2019 in Chile, with around one quarter of the workforce working informally. Kenya, on the other hand, has, in 2019, three quarters of their workforce in the informal sector.

Turning to the judicial system, Table 3 depicts aggregate court efficiency measures. We observe that Chile has the lowest average age of pending cases (less than 3 years) and the lowest average age of disposed cases (less than four months). However, it has a low clearance rate and a high disposition time, indicating that although the judicial system is as of now quick in resolving cases, it slowly builds a growing stock of pending cases and is unable to keep up with the pace of new filings.

Croatia is the counterpart to Chile: it has higher average ages of pending and disposed cases but a high clearance rate and a quite low disposition time. This means, while having a pile of older cases

waiting to be resolved, it is continuously reducing the stock of pending cases.

India is the slowest judiciary in our sample, with the average age of pending cases above 4 and 5 years, respectively. With a clearance rate a little bit below 1, it currently does not manage to reduce the stock of pending cases.

The data structure of the Peruvian judicial system does not allow calculating any of these aggregate court efficiency measures, and the Kenyan case data allows only to approximate the average age of disposed cases (3.4 years). Therefore, in Table 4 we turn to two different measures of judicial efficiency which we are able to calculate for all five countries. In Panel A, we calculate the share of cases which are resolved in the first year, the first two years, the first three years, and the first four years after their filing date. We observe several interesting facts. First, Peru has a very low share of cases resolved in the first years after their filing. Second, Croatia has 70% of cases resolved in the first year and over 90% in the first four years. Third, in Chile, the share of resolved cases stagnates after the second year at around 44%, indicating that most cases are either resolved quickly or much later (or never).

Panel B of Table 4 asks a slightly different question, and looks at the share of cases disposed during the first calendar year, the first two calendar years, etc. This allows us to estimate the statistics also for Kenya. We observe that the share of disposed cases is slightly lower than in India, and therefore the second lowest in our sample of 5 countries.

Our correlation analysis, illustrated in Figure 1 and 2, explores the association between judicial efficiency and the prevalence of informal labor across countries and within Indian states.

Figure 1 unveils a pronounced positive correlation between the share of informal workers and the age of disposed cases. Jurisdictions grappling with older cases tend to exhibit higher rates of labor informality, suggesting that judicial delays may contribute to an expanded informal labor sector.

Figure 2 delves deeper into India's scenario, comparing various judicial efficiency metrics (e.g., average age of pending cases, clearance rate, and disposition time) with informality rates across states. A consistent positive correlation emerges, notably in Bihar, highlighting the tangible impact of judicial inefficiency on labor informality. This correlation persists across different measures of court efficiency, reinforcing the link between sluggish legal processes and the size of the informal labor market.

While the overall trend underscores a positive correlation between judicial inefficiency and labor informality, exceptions like Croatia indicate that additional factors may influence labor market dynamics. These observations call for a nuanced understanding of the relationship between judicial systems and labor informality, taking into account country-specific legal, cultural, and economic contexts.

## 6 Concluding remarks

This paper explored the relationship between judicial efficiency and the prevalence of informal labor across five countries with distinct legal systems and stages of economic development. Through an analysis of judicial data and labor force surveys, we have seen a consistent pattern: jurisdictions with more efficient judicial systems exhibit lower levels of labor informality.

Our empirical findings robustly indicate that judicial efficiency, as measured by the average age of disposed cases, clearance rates, and disposition time, is inversely related to the share of informal labor. This relationship underscores the critical role of efficient legal institutions in shaping labor market dynamics.

While the overarching trend points towards a significant correlation between judicial efficiency and labor informality, regional outliers highlight the complexity of this relationship. Factors beyond judicial efficiency, including cultural norms, economic policies, and social protections, also play a pivotal role in determining labor market structures.

The strong correlation between judicial efficiency and labor informality underscores the need for policy interventions aimed at judicial reforms. Enhancing the efficiency of legal institutions could serve as a pivotal lever for reducing labor informality, thereby improving worker protections and increasing state capacity through higher tax and social security contributions.

The findings of this study lay the groundwork for further research to explore causal relationships between judicial efficiency and labor informality. Future studies could employ more granular data, longitudinal analyses, and instrumental variable approaches to dissect the mechanisms driving the observed correlations. Moreover, expanding the analysis to include a broader range of countries and legal systems could enrich our understanding of this complex interplay.

In conclusion, our investigation reveals a significant and consistent link between judicial efficiency and labor informality across different jurisdictions. By highlighting the pivotal role of efficient judicial systems in fostering formal employment, this study contributes to a nuanced understanding of the factors influencing labor market informality. As we advance, it is imperative to continue exploring this relationship, guiding policymakers towards effective reforms that can enhance judicial efficiency, promote formal employment, and foster economic development.

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## Figures and Tables

Table 1: General Overview of Countries in Sample

	Croatia	India	Chile	Peru	Kenya
GDP (Bil. US\$) <sup>a</sup>	61.38	2,701.11	297.57	222.57	87.78
GDP Growth (%) <sup>a</sup>	2.81	6.53	3.71	3.97	6.32
GDP per Capita (US\$) <sup>a</sup>	15,014.09	1,996.92	15,888.14	6,957.79	1,708.00
Population (Mil.) <sup>b</sup>	4.09	1,352.64	18.73	31.99	51.39
Population Growth (%) <sup>b</sup>	-0.89	1.04	1.39	1.72	2.34
Undernourished (%) <sup>b</sup>	2.5	14	3.5	6.7	23
Adult Literacy (%) <sup>c</sup>		74.37		94.41	81.53
Enforcing Contracts Score <sup>d</sup>	70.6	41.2	62.8	59.1	58.3

This table displays aggregate country-wide statistics for 2018. Data sources are indicated by the following superscripts:

<sup>a</sup> World Development Indicators

<sup>b</sup> Health Nutrition and Population Statistics

<sup>c</sup> Education Statistics

<sup>d</sup> Doing Business

Table 2: Informality Measures Overview

Country	Source	Year(s)	Informality
Chile	Encuesta Nacional de Empleo	2019-01	26%
Croatia	EU-SILC	2011-2019	
India	NSS Employment and Unemployment Surveys	2011/12	65%
Kenya	Kenya Continuous Household Survey Programme	2019	75%
Peru	ENAHO Metodología Actualizada	2001 - 2019	48% (2016)

This table gives an overview of data sources used to calculate worker informality in the five countries and the respective years of data we used. Workers are defined as pertaining to the informal sector if they do not have any social protection and are not subject to national labor legislation.



Table 3: Aggregate Court Efficiency Measures by Country

	Backlog	Avg. Age of Pending C.	Avg. Age of Disposed C.	Clearance Rate	Disposition Time
India	8,713,822	4.40	5.60	0.95	3.31
Croatia (2016)	309,604*	3.54*	1.52	1.45	1.67*
Peru					
Chile (2019)	1,970,979*	2.92*	0.33	0.59	4.12*
Kenya (2018)			3.42*		

This table displays aggregate court efficiency measures per country. *Backlog* counts the number of pending cases older than one year. *Avg. Age of Pending C.* calculates the mean age of cases pending at the end of a civil year. *Avg. Age of Disposed C.* calculates the mean age of all cases disposed in a civil year. *Clearance Rate* is the ratio of resolved to newly filed cases within a civil year. *Disposition Time* is the ratio of the number of pending cases at the end of a civil year to the number of resolved cases during that year. The statistics are calculated for each country based and the following datasets and years. India: District and Sessions Courts 2012. Chile: Universe of disposals 2015-2019; but for filings before 2015 only those which are disposed of in the time period. Croatia: All data from 2010-2016, but for cases before 2010 only those which are disposed of in the time period. Kenya: Higher courts, 2010-2020, but only cases which are disposed of completely. Only filing year, filing date approximated as July 1st of filing year. Peru: All cases filed in 2019, but not all cases decided in 2019. \* indicates approximation.

Table 4: Share of Disposed Cases during first Years after Filing

<b>Panel A: % of cases disposed after X years?</b>				
	< 1 year	< 2 year	< 3 year	< 4 year
India	25.42%	40.6%	53.66%	63.2%
Croatia (2010)	70.21%	81.90%	88.94%	93.36%
Peru (2018)	1.10%	1.52%	1.69%	-
Chile (2015)	39.43%	43.14%	44.28%	44.79%
Kenya	-	-	-	-
<b>Panel B: % of cases disposed during first X calendar years?</b>				
	1	1 – 2	1 – 3	1 – 4
India (2010)	16.97%	32.65%	47.81%	59.4%
Croatia (2010)	54.08%	76.74%	85.69%	91.25%
Peru (2018)	0.68%	1.34%	1.67%	-
Chile (2015)	29.15%	41.62%	43.76%	44.55
Kenya (2010)	9.22%*	27.36%*	42.87%*	55.70%*

This table displays the cumulative share of cases which are disposed of after 1, 2, 3 and 4 years (Panel A) and the share of cases disposed of during the first X years (Panel B) per country. Statistics for Peru are based solely on 2019 data. Statistics for Kenya are based on the universe of disposal until 2020, but only on a subset of all filing.

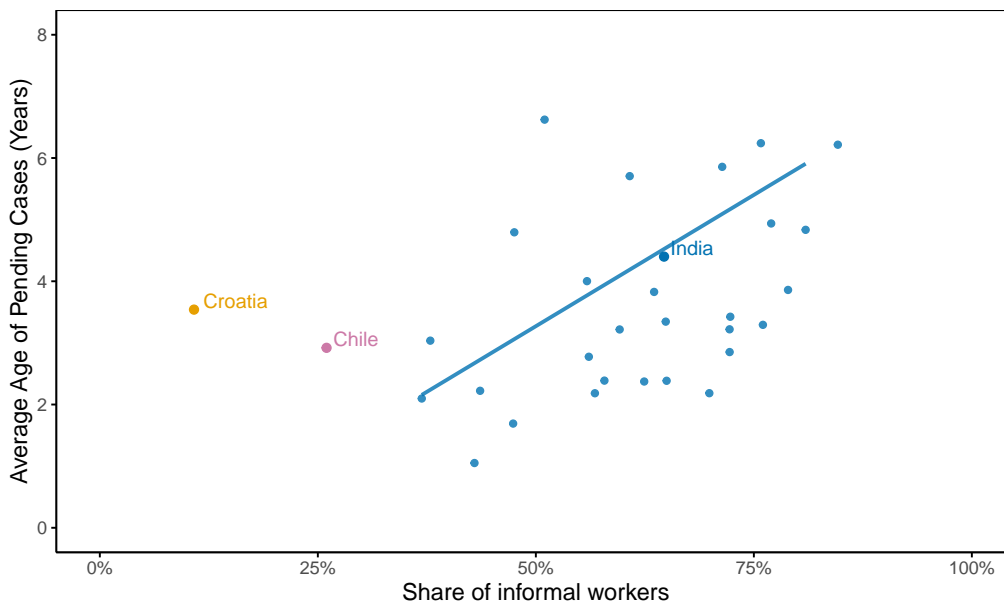
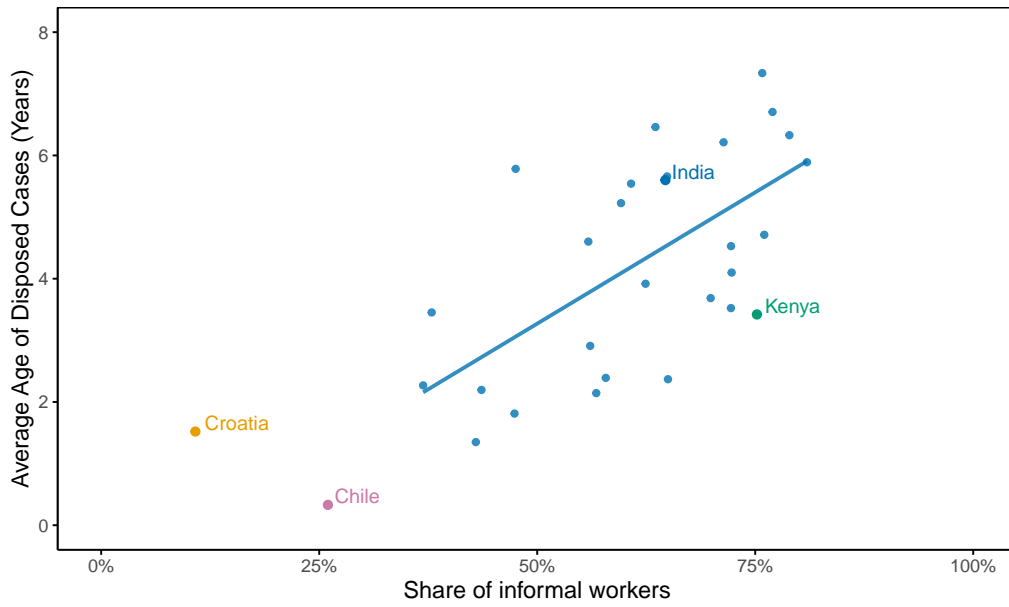


Figure 1: Correlation between judicial efficiency and share of informal workers across countries and Indian states.

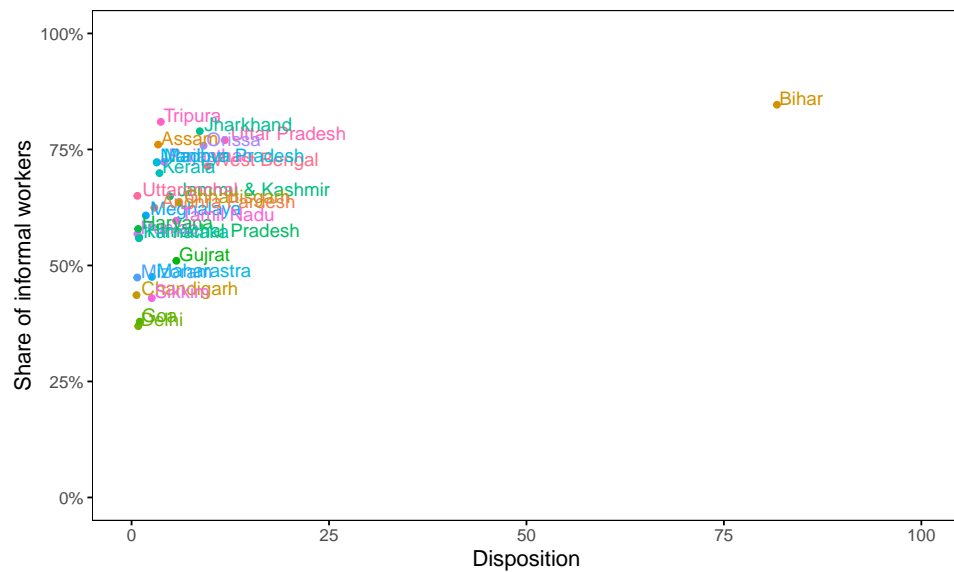
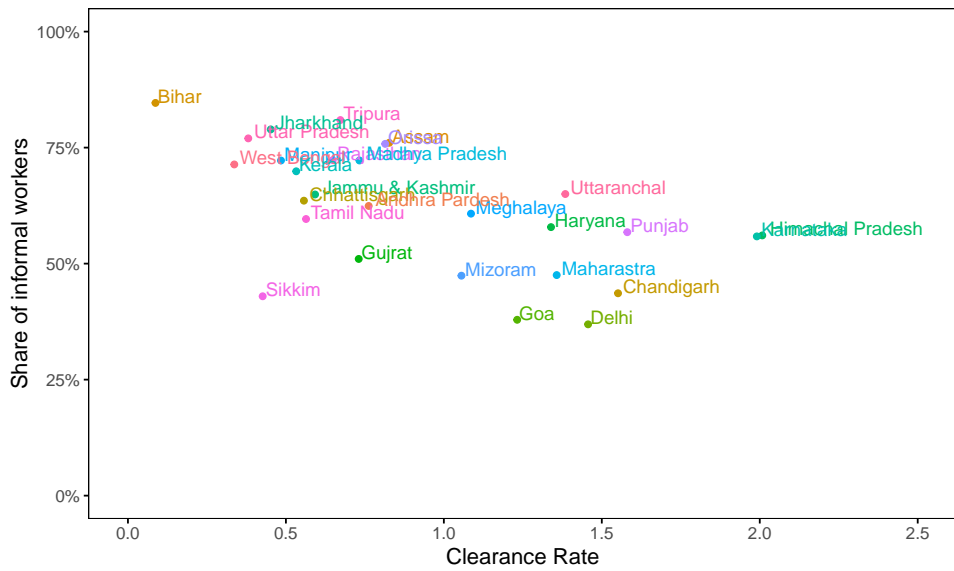
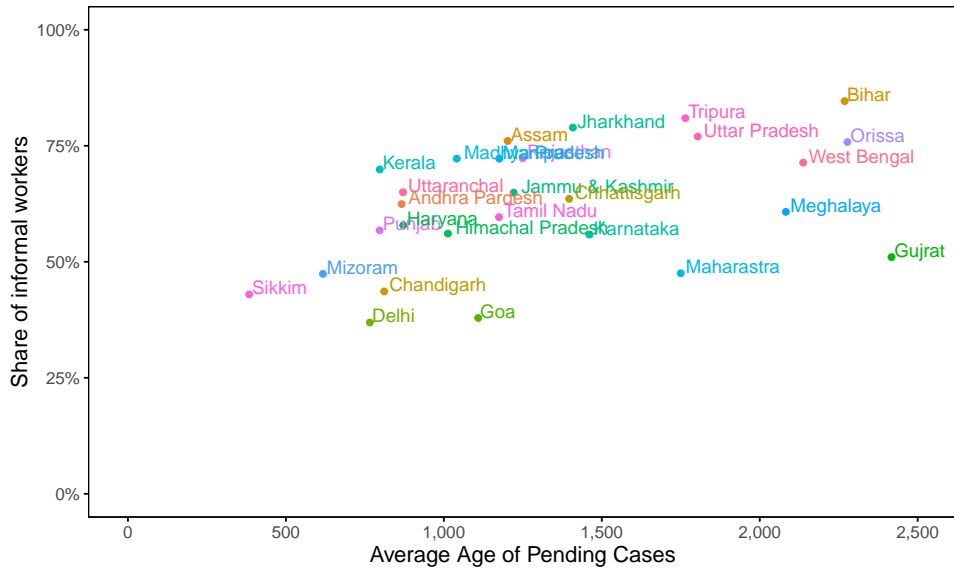


Figure 2: Correlation between Judicial Efficiency and Share of Informal Workers in Indian States.

## A Informality Data

We use household surveys to calculate informality shares in the five countries. We follow relatively closely the [2018 ILO Report](#). There, in Chapter 1 (box 2) informality is defined as:

“According to international standards, for a job held by an employee to be considered as informal, the employment relationship should not be, in law or in practice, subject to national labor legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.)”

The ILO report does only have data on Kenya and does not use the same years of data as we do.

### A.1 Informality Data Chile

We use the Encuesta Nacional de Empleo 2019-01<sup>1</sup> (available at the website of [Instituto Nacional de Estadísticas](#)). It aims “to characterise and quantify the population aged 15 and over regarding their status in the employment market”<sup>2</sup> and contains data from the monthly surveys from December 2018 to February 2019 and consists of 105,264 individuals from 35,273 households. We first drop all individuals younger than 16 and older than 100 years. This gives us 83,712 individuals. Then we only keep individuals with an occupation group according to the International Standard Classification of Occupations (variable “b1”), leaving us with 47,216 observations. Finally, we drop all agricultural workers. The final data set contains 40,475 individuals.

We can calculate informality with respect to two measures. Either we check if the employer does any social security contributions for the workers (variables “b7a\_1”, “b7a\_2”, “b7a\_3”) where for self-employed we use the question on registration with the Internal Revenue Service (variable “i4”). Alternatively, we can use the direct measure in the data whether the worker is employed according to formality (“ocup\_form”). The two measures give us, respectively, an **informality share of 0.27% and 0.26%**.

### A.2 Informality Data Croatia

We want to use EU-SILC 2011-2019. Specifically, we would like to use EU-SILC scientific-use files for Croatia (HR) for all years (2010–2019), cross-sectional. From there we would mainly use the Personal Data (P-file):

- PL031: Self-defined current economic status: to get only working population
- PL040: Status in employment
- PL051: Occupation: for standardizing between countries
- PL130: Number of persons working at the local unit
- PY030G: Employer’s social insurance contribution
- PY031G: Optional employer’s social insurance contributions

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<sup>1</sup>We could use other years if wanted.

<sup>2</sup><https://www.ine.cl/docs/default-source/ocupacion-y-desocupacion/metodologia/english/methodology.pdf>

### A.3 Informality Data Peru

The National Household Survey (ENAHO) investigates variables related to the measurement of living conditions and poverty of households (such as education, health, fertility, employment and income, expenditures) since 1995. Initially carried out quarterly, starting in May 2003 the National Household Survey was carried out in 12 in randomly assigned subsamples each month. In 2009, ENAHO implemented the codification of economic activities using ISIC. The data is freely accessible on the [microdata website of INEI](#).

We used adapted codes from [Sebastian Sardon](#) to download and clean the data. The original data set for the years 1997 - 2019 has 620,351 households with 2,231,285 individuals. We keep only individuals between 16 and 100 years old (1,385,180) which are working (1,027,984). Finally, we drop all individuals which work in agriculture or mining and have a final data set of 615,891 individuals.

We create an informality measure based on whether the business is registered ("p510a" for years 2002-2011) or if it is registered with SUNAT ("p510a1" for years 2012 - 2019). The informality share varies substantially from **0.48% in 2016** up to **0.77% in 2004**. An alternative approximation of informality is whether a worker is affiliated to a pension system. There we use "P558A" for the years 2001 - 2004 and "P558A5" for the years 2005 - 2019.



Figure A1: Share of informal workers in Peru for years 2001–2019.

### A.4 Informality Data Kenya

The Kenya Continuous Household Survey Programme (KCHSP) 2019 is a household budget survey. The survey is conducted in a modular form, which are designed to provide a constant stream of data on a wide range of social and economic issues relevant to Kenya, obtained on an annual and quarterly basis. The key modules in the KCHSP include the labor force and household consumption. The units

of analysis are household individuals within households, and it covers all the counties in Kenya based on national, urban, rural and county levels.

KCHSP 2019 contains information on 20,691 households with a total of 86647 individuals. We remove all individuals which are younger than 16 or older than 100 years. This leaves us with a sample of 49,008 persons. We are interested only in the working population and therefore only keep individuals with a ISIS code for their primary job, this gives 32,373 individuals. Finally, we filter out any individual which main activity is linked to agriculture or mining, (ISIC codes 111 - 990) and have a final sample of 19,859 individuals.

To define informal employment, we first look at allowances (variables "d45\_1" to "d45\_6") and income tax ("d46"). If the individuals' employer contributed to any allowances or deducted any income tax from the salary, the worker is classified as formal. For some individuals, the information for these variables is missing. For them, we look at the main employer for primary job / business ("d24"). If the value is one of "Self Employed - Informal", "Informal Sector Jua Kali (Employed)", "Self Employed Small Scale Agriculture", "Self Employed Pastoralist Activities" or "Pastoralist Activities (Employed)" the worker is classified as informal otherwise as formal.

To calculate the informal share, we weight each observation by its individual level weight (weight\_hhm\_annual). **We find that 0.752% are working informal.**

## A.5 Informality Data India

The Indian National Sample Survey Office conducted the 66th round of National Sample Survey (NSS) between July 2009 and June 2010.<sup>3</sup> This round included the Indian Employment and Unemployment survey (IEU), an all-India household survey aiming at providing comprehensive data on the labor force and activity profiles of the population, beside other goals. For this survey, 100 957 households and 459 784 persons were surveyed. We calculate the informality share per state and for the whole country. **We find that 0.647% of Indian workers are working informal.**

## B Judicial Data

We created and used distinct datasets to calculate judicial efficiency in each of the five countries included in the study.

### B.1 Judicial Data Chile

- firms mostly interact with labor and civil courts. workers mainly with labor courts.
- very complete data for civil cases filed between January 2015 and October 2019
- data for criminal cases of lower quality

### B.2 Judicial Data Croatia

- 9 specialized commercial courts (trgovački sudovi) which are generally where first-instance rulings are issued on corporate matters.

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<sup>3</sup>Need to update for 2011/12 data

- Of the 9, the Zagreb Commercial Court is by far the busiest – roughly 50% of the case volume comes through Zagreb.
- High Commercial Court: in Zagreb, exclusively handles appeals against cases from the commercial courts
- Supreme Court, also in Zagreb, which hears appeals from the High Commercial Court, in addition to the 3 other types of high courts.
- Data available for 2010-16, quality as good as possible
- The department of statistics implemented a number of changes to the data reporting requirements during the collection period  
⇒ some variables have missing data that correlates strongly with time and region
- Unusually high case volume period, especially for the commercial courts (Due to the swath of new corporate entities and international commercial issues emerging during and after Croatia's accession to the EU.)
- Ministry of Justice took measures to address volume: transferring cases from more clogged to less clogged courts
- Use commercial courts? Or all lower courts?  
⇒ Some specialized courts overlap (e.g. some disputes are both commercial and administrative) and commercial entities are involved in disputes that are similar to civilian disputes. For instance, land registration records are held by municipal courts for both civilian and commercial entities, so a lot of land disputes start at a municipal court, rather than a commercial court.
- it should be possible to compare the volume of commercial vs administrative vs regional cases that firms are involved with using the data in the Dropbox

### B.3 Judicial Data India

Court efficiency is calculated from case level data from District and Sessions Courts. The data comes from Indian eCourt. The eCourts website is a centralized project of the Indian government. It was first implemented in 2007 following the "National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary - 2005" with the aim to make the judiciary more efficient and accessible by computerization of courts. Following this implementation, many court complexes were computerized and processes digitalized. The eCourt project<sup>4</sup> claims that today all district courts are connected to the internet and that most pending cases are entered into the centralized database. In total, the website provides cause lists and case status for more than 70 million pending and disposed cases.

Indian district courts are highly congested. In many courts, thousands of cases are pending, and it can take years until a new case is finally treated. Most first instance cases related to business, industries and labor are filed in District and Session courts (see for instance Rao 2020). Although these courts

<sup>4</sup><https://ecourts.gov.in/ecourts.home/static/about-us.php>

handle both, civil and criminal cases, and that firms are mainly involved in civil cases, both types add to the backlog of the courts. Therefore, no differentiation is made in this paper.

## B.4 Judicial Data Kenya

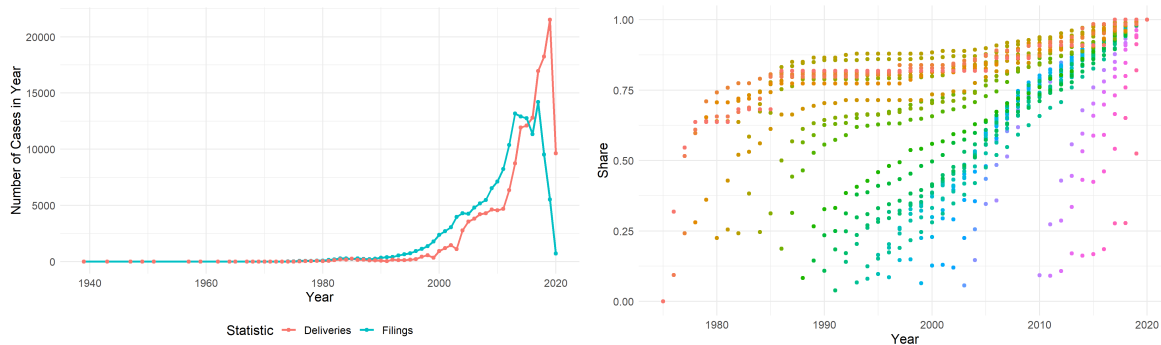


Figure A2: Judicial data quality in Kenya. The left panel shows the aggregate number of filings and disposals per year. The right panel plots the cumulative disposal shares per year and cohort.

## B.5 Judicial Data Peru

- “Tribunales especializados” (specialized) in Labor or Civil law.
- Also “Tribunales mixtos” (mixed) and “Tribunales de Paz Letrados” that oversee different specialties.
- Only in the process of scraping data of noncriminal cases
- Right now, we only have clean data for one judicial district of Peru in 2019
- The data is pretty good, although a little bit messy.
- Contains dates of the case, the law specialty involved, the parties and text for the notifications and sentences



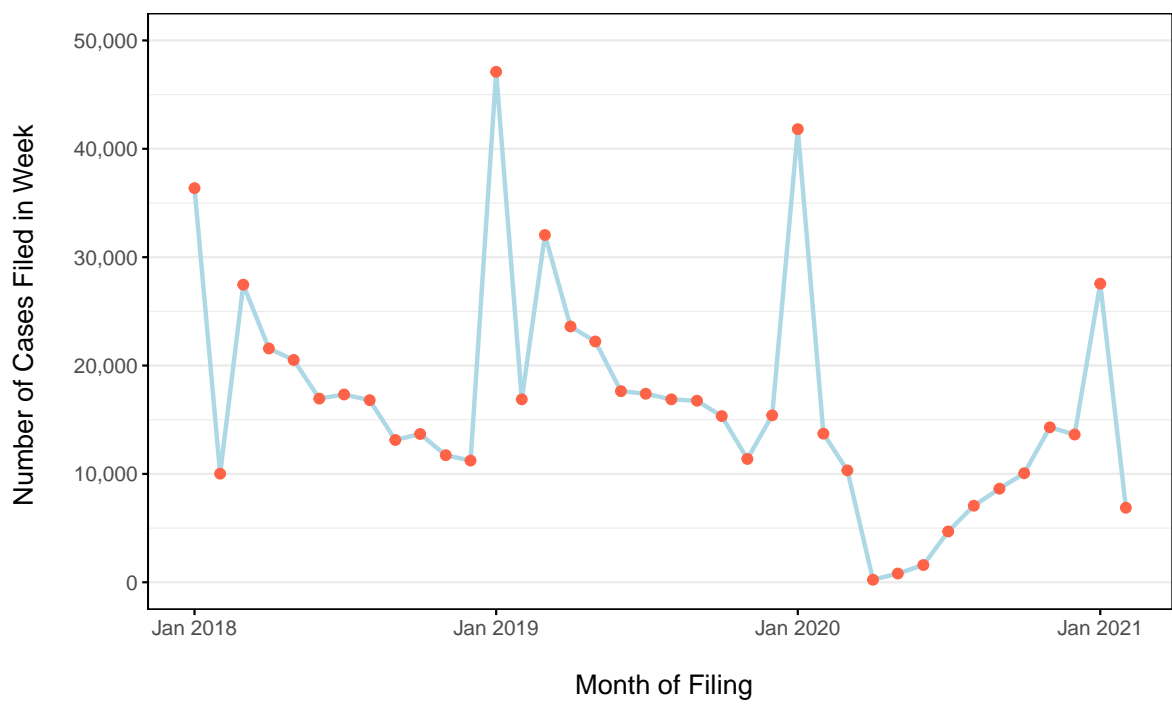


Figure A3: Judicial data in Peru. Filings per Month from January 2018 to February 2021.