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How has the Covid19 pandemic impacted the courts of law?
Evidence from Brazil

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A B S T R A C T

We provide empirical insight into the consequences of the Covid19 pandemic for the administration of justice. Drawing on a comprehensive monthly panel of Brazilian labor courts and using a difference-in-difference approach, we show that the pandemic has had a large and persistent deleterious effect on adjudicatory efficacy, leading to a massive decrease in the clearance rate and an increase in court backlogs. The pandemic has affected how courts dispose adjudication cases, expectedly causing a plummeting in the share of disputes resolved via trial hearings and, less predictably, exerting a temporally non-linear effect on the share of in-court settlements. Notably, we find no evidence of an effect of the pandemic on efficacy in enforcement. Although the pandemic led to an increase in the share of new filings requiring enforcement, any effect on the relative use of enforcement to execute court-ordered payments has been intermittent and temporary. The intensity of the pandemic has been an important moderating factor.

1. Introduction

The Covid19 pandemic has fundamentally impacted virtually every facet of our existence, wreaking havoc in healthcare systems, leading to a massive death toll, and causing a profound economic and social disruption. Unsurprisingly, the functioning of judicial systems has been impacted as well. Across jurisdictions worldwide, lockdowns, self-isolation, and restrictions on the population’s movement and assembly have affected the ability of the courts to perform their function. Summarizing the state of affairs at the onset of the pandemic, the European Commission for the Efficiency of Justice, for example, noted that “the courts are facing numerous challenges to remain operational due to lack of personnel, hearings are being cancelled, and access to justice is temporarily limited” (CEPEJ, 2020a). Yet despite the agreement among policymakers, court administrators and scholars about the pressing nature of the problem, we are aware of no systematic quantitative study characterizing the impact of the pandemic on the output and performance of the courts of law.

In this paper, we provide the first full-fledged empirical inquiry into the effect of the Covid19 pandemic on the success of courts at performing their primary function, the resolution of disputes and disposition of cases. To this end, we draw on comprehensive data on the activity of labor courts in Brazil. In Brazil, the impact of the pandemic has been especially severe. At the same time, the court system as a whole, and labor courts in particular, have been

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1 See, for example, the RAND Corporation’s COVID19 and the Courts virtual event (https://www.rand.org/events/2020/10/01.html).
2 See https://coronavirus.jhu.edu/data/mortality.
subject to a series of pandemic-instigated policy responses that have fundamentally affected their operations. Brazilian labor courts possess jurisdiction over all labor law-related disputes, with the overarching majority of filed claims pertaining to infringements of employee–employer agreements, especially with regard to unlawful termination of employment and unpaid compensation. As such, labor courts constitute a crucial component of the Brazilian judicial system. Moreover, empirical insight into the effect of the pandemic on the administration of Brazilian labor justice provides valuable clues about the effects of the pandemic on the courts of law in other jurisdictions worldwide.

Our data are unique in several respects. First, the data cover all Brazilian regional labor courts observed at a monthly level, a time frequency that is higher than that normally encountered in the empirical literature on court administration. Second, we observe the regional labor courts both in the era prior to and after the onset of the pandemic, a feature of the data that aids the assessment of the impact of the pandemic. Third, our dataset encompasses the indicators of court activity with regard to both adjudication and enforcement. Unlike the resolution of adjudication cases, the disposition of enforcement cases does not entail the conduct of hearings. Nevertheless, the enforcement of final decisions (res judicatae) requires judicial effort, represents a very significant share of dockets of the Brazilian labor courts, and, when required, constitutes a critical step in the process of restoration of justice for the prevailing party. Utilizing the resulting panel dataset, in which a unit of observation is a regional labor court in a given month, we are therefore able to offer an in-depth empirical glimpse into how the pandemic has affected the administration of justice in one prominent legal system.

The assessment of the consequences of the pandemic, however, presents an empirical challenge. A naïve pre–versus post-pandemic comparison of court outcomes, for example, will not adequately capture the effect of the pandemic when court activity is subject to inherent temporal trends. We therefore adopt a difference-in-difference (DD) approach. To construct the missing counterfactuals depicting the changes in the labor court outcomes in the absence of the pandemic, we rely on the changes in the outcomes of the same set of courts observed during the pre-Covid19 epoch. That is, prior to March—the month of the onset of the pandemic in the year 2020—the trends in the outcomes in the Brazilian regional labor courts during the Covid19 epoch, defined as the 12-month span from November 2019 to October 2020 (the latest month of data availability), closely resemble those registered one year earlier. This feature renders the same set of regional labor courts that we observe also during the pre-Covid19 epoch, defined as the 12-month span from November 2018 to October 2019, a suitable control group for purposes of our analysis.

Our DD estimates show that the Covid19 pandemic, above all, drastically and adversely affected the adjudicative efficacy of Brazilian labor courts. We find that the pandemic–caused average drop in the monthly clearance rate in adjudication is of the size of about one-fifth of the mean monthly clearance rate during the pre-pandemic era. Consequently, the pandemic led to a surge in court backlogs in adjudication, with the estimated increase in the number of pending cases per judge equal to about a quarter of the mean monthly pending cases per judge recorded during the pre-pandemic era. Thus, the pandemic is expected to exert a lasting deleterious effect on the ability of the courts to deliver justice in due time.

At the same time, the pandemic has impacted the modes with which the courts dispose adjudication cases. As one would have expected, the share of adjudication cases disposed via trial hearings decreased sharply as the courts implemented an initial ban on all in-person court activities. The pandemic, however, has at least on average not affected the share of adjudication cases disposed via in-court settlement or lawsuit withdrawal. Interestingly, we also do not find evidence of an impact of the pandemic on court outcomes in enforcement. Neither the clearance rate in enforcement nor the volume of pending enforcement cases per judge exhibit a detectable change as a result of the pandemic. Similarly, even though the pandemic resulted in an increase in the relative demand for judicial enforcement versus adjudication, we do not find evidence that the pandemic altered the relative reliance on judicial enforcement as means of securing the execution of court-sanctioned payments among the disputing parties. As we emphasize in interpreting our results, this last finding is an especially important and, in many respects, a reassuring one. At least during our observation window, the pandemic has on average not increased the need for judicial enforcement that could have conceivably arisen amidst the pandemic-instigated economic downturn, a period when the losing parties pressed for cash may be tempted to purposely avoid the execution of court-ordered damage and compensation payments.

In addition to offering the baseline DD estimates of the average effect of the pandemic, we provide two further sets of estimates. We first explore an event-study approach to provide insight into the month-by-month effect of the pandemic. The response of the Brazilian labor courts to the pandemic has evolved with the evolution of the pandemic itself. Intuitively, one would therefore expect that the effects of the pandemic on court outcomes varied over time. As we demonstrate, the estimates based on a dynamic specification indeed reveal important insights into the temporal effects of the pandemic that would remain hidden if one focused solely on the static DD estimates. Our analysis shows, for example, that the negative effects on the clearance rate in adjudication were largest in the first few months after the start of the pandemic, but gradually diminished in magnitude as time unfolded and the courts implemented various response measures. Similarly, while the static DD estimates do not show an effect of the pandemic on the share of in-court settlements, the estimates based on the dynamic specification uncover that the initial effect on the share of in-court settlements was, in fact, negative, while the effect several months into the pandemic turned to positive. We interpret these findings in light of the existing theories of litigation.

Finally, we investigate the heterogeneity of the effect of the pandemic with respect to the intensity of the pandemic. Since its onset, the Covid19 pandemic has in Brazil exhibited considerable geographic and temporal variation with regard to its severity, with different regions adopting different response measures at different points in time. The specificities of local conditions at a given point in time plausibly influenced the functioning of the courts in that locality at that point in time. To measure the intensity of the pandemic, we utilize official Brazilian monthly regional data on new Covid19 infections and Covid19-related deaths. We then estimate a specification where the DD effect of the pandemic is allowed to vary with pandemic intensity. Our findings suggest that the effect of the pandemic on court outcomes exhibits important heterogeneity with respect to pandemic intensity. We find, for instance, that the adverse effect of the pandemic on adjudicatory efficacy has been larger for those labor court region-months that have exhibited stronger pandemic intensity. Similarly, the average effect of the pandemic on the share of in-court settlements is positive in the labor court region-months characterized by a higher incidence of new infections or a greater virus death toll. But we once more do not find evidence of an effect of the pandemic on the core judicial enforcement outcomes.

Our paper adds to and links two primary strands of literature. On the one hand, we contribute to the emerging literature on the consequences of the Covid19 pandemic for the courts of law. The Covid19 crisis has stimulated a global policy and academic debate about the numerous ways in which the pandemic has already affected, and will likely still affect, the operations of
courts and the delivery of justice (e.g., McIntyre et al., 2020; Baldwin et al., 2020; Puddister and Small, 2020; Warner, 2020; Sourdin and Zeleznikow, 2020; Engstrom, 2020; Pistor, 2020; Matyas et al., 2021). The existing contributions on the topic, however, have been primarily descriptive in character. In particular, the research has not illuminated the impact of the pandemic on the administration of justice using comprehensive court data and rigorous quantitative analysis. To the best of our knowledge, our paper is the first to accomplish this task. At the same time, we contribute to the growing empirical literature on the administration of justice and the functioning of courts. Motivated by the ubiquity of court delays and the corresponding social costs incurred by numerous jurisdictions worldwide, an important subset of this literature has focused on the determinants of the efficacy of courts at performing their core role, the disposition of cases (e.g., Buscaglia and Ulen, 1997; Beenstock and Hairovsky, 2004; Rosales-López, 2008; Dimitrova-Grajzl et al., 2012; Di Vita, 2012; Chemin, 2009; Christensen and Szmer, 2012; Voigt, 2016; Marciano et al., 2019; Beldowski et al., 2020; Grajzil and Silwal, 2020; Castelliano et al., 2020a). A related subset of research has investigated court-level factors affecting the use of different modes of court case disposition (e.g., Galanter, 2004; Dimitrova-Grajzl et al., 2014). In contrast, judicial enforcement of final verdicts, a distinct and often especially vital facet of court activity, has received much less attention (EBRD, 2014; Castelliano et al., 2020b). Our paper advances the corresponding literature by empirically examining the impact of the Covid19 pandemic on all three of the above-noted aspects of court output and operations.

The rest of the paper is organized as follows. Section 2 provides an overview of the Brazilian labor courts and their response to the pandemic. Section 3 introduces our data. Section 4 develops our empirical approach. Sections 5 presents and discusses the results. The final section concludes.

2. Background

2.1. Brazilian labor justice and proceedings

Labor justice, administered in the labor courts, is a key pillar of the Brazilian judicial system. In 2019, for example, new labor-court case filings represented about eleven percent of all new case filings in Brazilian (state and federal) courts (CN, 2020). Labor courts are specialized courts, with labor court judges following a career track that is separate from that followed by other federal and state judges. Brazil is divided into 24 labor court regions. Each labor court region is in turn divided into districts, with each district featuring one or more labor court offices. Each labor court region, however, has a single second-instance labor court, referred to as the regional labor court (tribunal regional do trabalho). In addition to adjudicating appeals to first-instance decisions, the regional labor court exercises administrative authority over the first-instance tribunals in its region.

Jurisdictional rules require that labor law-related disputes be adjudicated at a first-instance court office with jurisdiction over the geographic area of the dispute’s origination. In districts with more than one labor court office, a newly-filed case is allocated to a particular office using a system of computerized random assignment. Within any labor court office, cases are then allocated between a titled judgeship and a substitute judgeship using an analogous procedure (see Castelliano et al., 2020a). The institutional division of court offices into titled and substitute judgeships is intended to limit the possibilities of the litigants to engage in judicial forum shopping and, at the same time, operationalizes the Brazilian system of judicial career advancement where all new judges are first employed as substitute judges.

The overwhelming majority (more than 99 percent) of cases adjudicated in Brazilian labor courts are employee claims stemming from alleged violation of employment contracts in the private sector. Among these, the most commonly brought-up subject issues are the termination of employment and overdue wages. Other frequent subject issues pertain to employer contributions into the public severance indemnity fund, severance payment, overtime wages, premiums for high-risk work, as well as compensation for pain and suffering (TST, 2020).

Brazilian labor courts dispose cases in both the adjudication (conhecimento) and the enforcement (execução) stage of court proceedings, an important distinction emphasized by the Brazilian civil procedure and meticulously tracked by official court statistics. Specifically, a case filed at a first-instance labor court that is not settled, withdrawn, or dismissed on procedural grounds is eventually resolved via a court decision. To reach a decision, the adjudicating judge conducts hearings, interviews witnesses, and examines facts. The disputing parties may appeal at the second and higher instance, until the decision attains the status of a final decision. Often, the final decision specifies a monetary transfer from the losing to the winning party. For example, an employer who is found to have unlawfully terminated an employee’s employment contract is expected to compensate the employee for the lost wages and any other damages. In those instances, the court orders the losing party to execute the payment to the benefit of the prevailing party. But the losing party sometimes does not comply. In the event of such non-compliance, the winning party must initiate separate judicial enforcement proceedings at the first-instance labor court office that adjudicated the original dispute. To enforce court-mandated payments, labor-court judges resort to a variety of patrimonial constraints, the implementation of all of which requires judicial attention and time (see Castelliano et al., 2020b).

Enforcement cases hence constitute a substantial portion of the labor courts’ workload and facilitate the transfer of a very significant sum of awarded compensation payments. For example, in year 2019, the aggregate value of payments secured upon the completion of enforcement proceedings was more than three times as large the value of voluntary payments following the final court decisions (TST, 2020).

2.2. Operational response of labor courts to the pandemic

In Brazil, as in many other countries, the first instances of Covid19 infections were officially registered in March 2020. Upon the call of the President of the Republic, the Brazilian National Congress formally recognized the state of public calamity on March 20. Even prior to that, on March 18, the National Council of Labor Justice decreed the suspension of all in-person services, and in particular the conduct of trial hearings, effective from March 19. The courts, including the labor courts, were to continue in an uninterrupted fashion only with the provision of essential services (such as information-technology support, facility security, and payroll). Importantly, all procedural deadlines related to case processing (for example, to file an appeal or include new evidence) were suspended until June 14, 2020.

From March 19, the judges and their support staff were authorized to carry out remotely all substantive tasks, including the
• Trial hearings and other in-person services suspended
• Procedural deadlines suspended
• Switch to remote work

March 19, 2020

May 5, 2020

June 16, 2020

Fig. 1. The timeline of the key operational responses of the labor courts to the pandemic.

preparation of judgments and the execution of administrative duties. The resulting provision enabled the judges to implement remotely and via virtual sessions all key decision-making activities, with the exception of those that inherently rely on the conduct of trial hearings. The abrupt switch to remote work undoubtedly led to initial disorganization and difficulties. There was, however, also an anticipation that the judges and their staff would sooner or later adapt to the new work format.

At the same time the courts continued to accept new filings. In Brazilian labor courts the overwhelming majority of cases had already been filed electronically even prior to the start of the pandemic. For example, in the year 2019, as many as 99 percent of all new labor cases were filed electronically. Therefore, at least when it comes to the logistics of the initiation of new filings, the onset of the pandemic was not expected to radically curtail access to labor justice.\(^5\) In addition, an executive order of the President of the Republic, valid from March 22 until July 19, enabled the employers to implement remote work, use individual and collective vacation days, as well defer payments into the public severance indemnity fund with the express aim of avoiding instances of breach of labor contracts. These measures naturally mitigated the demand for labor justice in anticipation of the pandemic-caused economic disruption.

Once the inevitability of the prolonged nature of the pandemic became apparent and upon the passage of supporting regulations, on May 5, the National Council of Labor Justice authorized the courts to conduct virtual trial hearings. To take into consideration the local differences in both the intensity of the pandemic and the state and municipal government responses to it, the administrative and technological implementation of the conduct of virtual hearings was delegated to the regional labor courts themselves. The pace of the implementation of virtual hearings was therefore likely not uniform across labor courts and in particular across individual judges. Many judges, but also clients and their attorneys, certainly grappled with the usage of new technology.

In addition to enabling the conduct of virtual hearings, the May 5 resolution by the National Council of Labor Justice re-instated the validity of the procedural deadlines that had been suspended since March 19. The judges, however, were granted discretion with regard to the application of the procedural deadlines pertinent to specific cases based on the epidemiological conditions relevant to each case. Finally, the resolution established criminal liability for the execution of any court operations that could potentially contribute to the spread of the virus. That is, the courts themselves were not to, and did not, become a contributor to the spread of the virus.

On June 16, the National Council of Labor Justice formally allowed for a gradual reestablishment of in-person court activities, including the conduct of hearings, subject to the adoption of appropriate safety protocols by the courts. Much like in the case of the prior introduction of the possibility to carry out virtual hearings, the implementation of the eventual return to in-person hearings was entrusted to the regional labor courts themselves. Given the raging pandemic, the courts and especially the judges adopted a very cautious approach. Because all Brazilian federal judges, including labor court judges, are civil servants with lifetime tenure, the judges have not felt the pressure to physically appear in their formal office spaces to do their work. At the same time, the vast majority of the judges are proficient in the use of required information technology and managed to adapt to working from home. Thus, in practice, the physical facilities of nearly all courts, including the labor courts, remained closed to the public and the courts have continued to conduct their operations remotely, in a virtual format, even after June. Fig. 1 summarizes the key events pertinent to the functioning of the labor courts from the onset of the pandemic until October 2020, the last month of coverage in our data.

3. Data

The source of our data on regional labor courts is a database compiled by the Brazilian Superior Labor Court. There are 24 labor court regions in Brazil. For purposes of the analysis, we combine two labor court regions, which together encompass the state of São Paulo, into a single labor court region. The combining of these two labor court regions is necessary because consistent monthly Covid19-related data that we employ in a subset of our analysis are available only at the level of the state of São Paulo as a whole.\(^6\)

For each of the correspondingly-defined 23 regional labor courts, we observe monthly data on court staffing and court activity over a 24-month span between November 2018 and October 2020.\(^7\) We split the resulting time span into two contiguous, non-overlapping 12-month subperiods. The first, from November 2019 to October 2020, includes the onset of the Covid19 pandemic in March 2020. We refer to this period as the Covid19 epoch. The second subperiod, from November 2018 and October 2019, covers the exact same months as the Covid19 epoch, but occurring one year earlier when the labor courts were not subject to any noteworthy shocks or legislative changes. We refer to this second subperiod as the pre-Covid19 epoch. As we clarify in Section 4 below, the resulting two-epoch structure of our data facilitates the estimation of the effect of the Covid19 pandemic on labor court outcomes.

During each of the two epochs we for each labor court in every month observe outcomes indicative of the extent of court efficacy in the context of both adjudication and enforcement. Specifically, for each of the two types of proceedings, we observe the monthly number of resolved cases and the number of newly filed cases. For purposes of empirical analysis, we divide the number of resolved cases of a given type (adjudication or enforcement) by the number of newly filed cases of the same type. The resulting case type-specific clearance rate is an indicator of the ability of a court to meet the demand for its services in the pertinent domain. As such,

\(^5\) Access to justice was further facilitated by the fact that many states permitted the re-opening of law offices soon after the initial March lockdown. In addition, many law offices swiftly transitioned to offering their services online.

\(^6\) The labor court regions normally coincide with Brazilian state borders. The exceptions are the 8th, 10th, 11th, and 14th labor court region, each of which extends over two states. In addition, the state of São Paulo comprises two labor court regions: the 2nd region (the city of São Paulo) and the 15th region (the remaining part of the state).

\(^7\) At the time of our conducting of this research and the writing up of the results, more recent monthly labor-court data are not (yet) available.
clearance rate is a core and commonly utilized measure of court efficacy (see, e.g., CEPEJ, 2020b; Voigt, 2016). A value of the clearance rate greater than one indicates that the court is able to both meet the ongoing demand and reduce existing backlogs. In contrast, a value of the clearance rate smaller than one implies that the court is contributing to the accumulation of case backlogs. For both adjudication and enforcement cases, we also observe the total number of cases still pending at the end of every month at every court. For each court, we divide the total number of pending adjudication and enforcement cases, respectively, with the number of judges serving at the court during the applicable month. The resulting end-of-month number of pending adjudication and enforcement cases per judge, respectively, are direct measures of court backlogs. The combination of the clearance rate and the number of pending cases per judge in adjudication and enforcement, respectively, thus allows us to investigate the impact of the pandemic on court efficacy in adjudication and enforcement.

At the adjudication stage, we further observe the monthly number of cases resolved via trial hearings, the number of in-court settlements, and the number of withdrawals. For every court in every month, we divide each of these three variables with the total volume of disposed adjudication cases. The share of cases resolved via trial hearings, the share of case settled in court, and the share of withdrawals are then measures of court output with regard to modes of case disposition. We use thus—defined outcomes to explore the consequences of the pandemic for the courts’ modes of disposition of adjudication cases.

For every court in each month, we observe the total value of all payments executed as a consequence of court proceedings and the value of payments executed only upon completion of the enforcement proceedings. In general, labor court-sanctioned payments are executed for one of three distinct reasons: a spontaneous transfer that is executed voluntarily by the losing party after a court verdict; an in-court settlement-based or conciliation-induced payment that occurs at any stage of the adjudication or enforcement proceedings; or a payment secured upon the completion of judicial enforcement proceedings if the losing party fails to comply with the final decision. We calculate the monthly share of the value of all executed payments that occur as a consequence of enforcement. The resulting measure is indicative of the relative importance of judicial enforcement for the execution of court-sanctioned payments. Given the decline in the economic activity as a consequence of the pandemic and the corresponding liquidity pressures faced by many employers, we want to examine whether the pandemic has resulted in greater reliance on judicial enforcement. Such a scenario could arise if cash-stripped employers, found to have violated the Brazilian labor law, perhaps purposefully chose to avoid voluntarily executing court—ordered damage and compensation payments.

Finally, using the information on the volume of new filings of adjudication and enforcement cases at each court during every month, we compute the share of newly filed enforcement cases in all (adjudication and enforcement combined) newly filed cases. The resultant variable, a measure of the composition of new filings, allows us to gauge whether, and if so to what extent, the pandemic and the ensuing economic crisis have altered the balance between the demand for enforcement versus demand for adjudication.

The data, however, do not allow us to observe the temporal evolution of the exact composition of newly-filed and processed adjudication and enforcement cases, respectively. Consequently, we are unable to ascertain, for example, to what extent any pandemic-induced changes in labor-court efficacy in adjudication and enforcement, respectively, are purely due to the response of the courts per se versus any changes in the complexity of the underlying cases or, when it comes to the clearance rate, perhaps even the strategic behavior of the litigants. Thus, while operational responses of the courts alone have undoubtedly been of central importance, our results should be interpreted as amalgamating multiple mechanisms.

We merge the data for the 23 above-defined labor courts with the official monthly data on the incidence of new Covid19 cases and Covid19-related deaths, recorded at the geographic level of labor court regions and normalized using Brazilian census population data. This gives us monthly per-capita measures of the intensity of the Covid19 pandemic at the level of each labor court region. From March 2020 onwards, the resulting variables vary both from month to month and across the labor court regions.

Table 1 shows the basic descriptive statistics for the outcome and selected additional variables that we use in the analysis for both the Covid19 epoch (part A) and the pre-Covid19 epoch (part B). Table A1 in the Appendix provides the corresponding variable definitions.

4. Empirical approach

To obtain an initial glimpse into the consequences of the pandemic for court outcomes, one could imagine pursuing two simple approaches. Under one approach, one might contrast the outcomes post March with the outcomes prior to March during the Covid19 epoch, that is, compare the mean for the outcomes of interest in part A2 of Table 1 with the mean for the same outcomes in part A1 of Table 1. The resulting approach, however, does not take into account the trends in the data. For instance, the pre-March period subsumes the holiday-season months of December and January, when court activity naturally slows down every year. The post-March versus pre-March comparison alone would therefore unlikely yield a compelling estimate of the effect of the pandemic. Alternatively, one might contrast the post-March outcomes from the Covid19 epoch with the post-March outcomes from the pre-Covid19 epoch, that is, compare the mean for the outcome in part A2 of Table 1 with the mean for the same outcomes in part B2 of Table 1. Yet the comparison of the post-March outcomes from the Covid19 epoch with the post-March outcomes from the pre-Covid19 epoch does not address the concern that the Covid19 and pre-Covid19 epochs plausibly differ in unobserved ways, which confounds the estimate of the effect of the pandemic.

To address the deficiencies inherent in the two naïve approaches described above while at the same time combining their intuitively—appealing features, we use a difference-in-difference approach and exploit the exogenous nature of the pandemic. We first posit the following general model:

\[ y_{et} = \alpha + \beta_{Posti} \times t + \gamma Covide + \lambda_s + \mu_{ct} + \delta SP_{jet} + \epsilon_{et}, \]  

(1)

where \( c \) denotes labor court, \( e \) epoch (pre-Covid19 or Covid19), and \( t \) month (from November to October the following year). \( y_{et} \) is one of the eight outcome variables, listed in the first eight entries in Table 1 or Table A1 in the Appendix. \( Posti \) is a dummy equal to 1 if the observation is from the month of March or later. \( Covide \) is a dummy equal to 1 if the observation is from the Covid19 epoch and 0 if it is from the pre-Covid19 epoch. The month fixed effect \( \lambda_s \) fully absorbs the timing of the observation relative to the start of the Covid19 pandemic, rendering a separate inclusion of \( Posti \) on the right-hand side of (1) redundant. \( \mu_{ct} \) is the labor court—in-epoch fixed effect, which absorbs the time-invariant average impact on the outcome under consideration of each labor court during each epoch. \( SP_{jet} \) is the staff per judge control that varies across labor courts, epoch, and months. \( \epsilon_{et} \) is the error term.

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8 Because we view the state of São Paulo as a single labor court region and because the remaining labor court regions either coincide with state borders or precisely absorb two states (see note 6 above), the merger of the regional labor court data and Covid19 data is exact.
Table 1
Descriptive statistics.

| Part 1: Covid19 epoch (Nov 2019-Oct 2020) | Part 2: Mar 2020-Oct 2020 |
|------------------------------------------|---------------------------|
| **Courts, adjudication**                |                            |
| Clearance rate (adj.)                    | 92                   | 184                   |
| Pending per judge (adj.)                 | 92                   | 184                   |
| Share resolved in hearings               | 92                   | 184                   |
| Share settled                            | 92                   | 184                   |
| Share withdrawn                          | 92                   | 184                   |
| **Courts, enforcement**                  |                            |
| Clearance rate (enf.)                    | 92                   | 184                   |
| Pending per judge (enf.)                 | 92                   | 184                   |
| Share enforced payments                  | 92                   | 184                   |
| **Courts, staffing**                     |                            |
| Staff per judge                          | 92                   | 184                   |
| **Courts, new filings composition**      |                            |
| Share enforcement new filings            | 92                   | 184                   |
| **Pandemic intensity**                   |                            |
| New Covid19 cases per 1000 people        | 92                   | 184                   |
| Covid19 deaths per 10,000 people         | 92                   | 184                   |

| Part B: Pre-Covid19 epoch (Nov 2018-Oct 2019) | Part C: Mar 2019-Oct 2019 |
|-----------------------------------------------|---------------------------|
| **Courts, adjudication**                     |                            |
| Clearance rate (adj.)                        | 92                   | 184                   |
| Pending per judge (adj.)                     | 92                   | 184                   |
| Share resolved in hearings                   | 92                   | 184                   |
| Share settled                               | 92                   | 184                   |
| Share withdrawn                             | 92                   | 184                   |
| **Courts, enforcement**                     |                            |
| Clearance rate (enf.)                        | 92                   | 184                   |
| Pending per judge (enf.)                     | 92                   | 184                   |
| Share enforced payments                      | 92                   | 184                   |
| **Courts, staffing**                        |                            |
| Staff per judge                             | 92                   | 184                   |
| **Courts, new filings composition**          |                            |
| Share enforcement new filings               | 92                   | 184                   |
| Courts, staffing                            | 92                   | 184                   |
| Staff per judge                             | 92                   | 184                   |

Notes: The table presents descriptive statistics for the eight outcome variables used in the empirical analysis, a control (staff per judge), and moderating variables (on pandemic intensity). Observation is a labor court (or, equivalently, labor court region) in a given month.

The coefficient of interest in expression (1) is $\beta$, the difference-in-difference (DD) estimate of the impact of the Covid19 pandemic—or our treatment of interest—on the court outcome under consideration. More precisely, $\beta$ captures the difference between the post-March versus pre-March change in the court outcome under consideration during the Covid19 epoch and the analogous change during the pre-Covid19 epoch. That is, the first difference contrasts the post-March court outcome with the pre-March outcome in the Covid19 epoch, our treated group. However, we do not observe how the court outcome under consideration would have looked like after March 2020 had the pandemic never occurred. To construct the pertinent counterfactual, we use the change in the post-March versus pre-March outcome during the pre-Covid19 epoch, our control group. Subtracting this second difference from the first difference then provides a difference-in-difference estimate of the effect of the pandemic on the court outcome under scrutiny.

In order for the labor courts in the pre-Covid19 epoch to serve as a good control group for the labor courts in the Covid19 epoch, in the absence of the pandemic the change in the court outcomes would have to be the same for both groups. Fig. 2 indicates that most court outcomes under consideration prior to March during the Covid19 and pre-Covid19 epochs indeed exhibit substantially parallel comovements, an indication that the parallel trends assumption would seem an apposite one to make in our context. In Section 5.2, we provide additional evidence in favor of the parallel trends assumption by using a dynamic specification and demonstrating the lack of pre-trends for the vast majority of the featured outcomes. Importantly, we have also verified that none of our findings are sensitive to an alternative definition of the pre-Covid 19 epoch. Nevertheless, the reader should keep in mind that the parallel trends assumption is inherently untestable. Our empirical strategy would be flawed if, for example, the labor courts during the pre-Covid19 epoch experienced unsuspected post-March shocks. In response to such concerns we emphasize that, based on our careful scrutiny of the Brazilian labor justice system during the time period under consideration, we did not...
discover any noteworthy events or developments that could invalidate our DD approach. In particular, from the start of the chosen pre-Covid19 epoch to the onset of the pandemic in 2020, the labor courts were not subject to any major institutional changes. Institutional history of the Brazilian labor justice system therefore lends credibility to our proposed methodology.

The estimate of $\beta$ based on specification (1) is informative of the average effect of the pandemic on the considered court outcomes. To gain further insight into whether, and if so how, the effect of the pandemic has varied over time, we estimate the following specification:

$$y_{cet} = \alpha + \sum_{\tau} \beta_{\tau} \text{Month}_{\tau} \times \text{Covid}_{e} + \gamma \text{Covid}_{e} + \lambda_{t} + \mu_{e} + \delta \text{SP}_{cet} + \epsilon_{cet},$$

(2)

where $\text{Month}_{\tau}$ is a dummy equal to 1 if the observation is from a specific month $\tau$ from the set of twelve months from November to the following October. As the month with respect to which we compare all month-by-month effects, we omit the month of February, that is, the month immediately preceding the start of the pandemic affecting the Covid19 epoch. The remaining elements of the right-hand-side of expression (2) are as defined under expression (1).

Finally, we leverage the fact that, while the pandemic hit Brazil hard, not all regions were affected to the same extent and at the same time. We are therefore able to explore whether the effect of the pandemic on court outcomes has varied with the intensity of the pandemic as captured by the incidence of new Covid19 infections or Covid19-related deaths. To this end, we also examine the results based on the following model:

$$y_{cet} = \alpha + \theta \text{Post}_{t} \times \text{Covid}_{e} \times \text{Incidence}_{cet} + \beta \text{Post}_{t} \times \text{Covid}_{e} + \gamma \text{Covid}_{e} + \lambda_{t} + \mu_{e} + \delta \text{SP}_{cet} + \epsilon_{cet}.$$  

(3)

In expression (3), $\text{Incidence}_{cet}$ is either the per-capita number of new Covid19 infections or the per-capita number of Covid19-related deaths in labor court region $c$ during epoch $e$ in month $t$. The remaining components of the right-hand-side of expression (3) coincide with those in expression (1). The primary coefficient of interest is $\theta$, capturing the extent to which the effect of the pandemic on court outcome under investigation has varied with the intensity of the health crisis.

We estimate all models using OLS. We base inference on heteroscedasticity-robust standard errors clustered at the level of the regional labor court. We therefore allow for correlation of unobservables within each regional labor court over time, an important feature given that we observe the same set of regional labor courts during both the Covid19 and the pre-Covid19 epoch. Because of a relatively small number of clusters (23), we use OLS coefficient estimate of interest also report the $p$-value for the test of the null of no effect, executed using wild bootstrap with 1000 replications (see Roodman et al., 2019).

5. Results and discussion

5.1. Average effect

The results on the average effect of the pandemic are reported in Table 2 through 5. In each table, the odd-numbered columns report
the results for the specification without any non-essential fixed effects or controls. The even-numbered columns show the results for the specification that includes court-in-epoch fixed effects and the staff per judge control. As anticipated given the exogenous nature of the pandemic, for each outcome, both specifications yield congruent estimates. In interpreting the results, we focus on the specifications featuring the full set of court-in-epoch fixed effects and the staff per judge control.

Table 2 presents the results on the average effect of the pandemic on court efficacy in adjudication. The chief finding is apparent: the pandemic resulted in a quantitatively very large decrease in court efficacy in adjudication. Based on our estimates, the clearance rate in adjudication on average decreased by 0.22, an effect equal to about 20 percent of the average monthly clearance rate attained in the months from November to February in the Covid19 epoch or 18 percent of the average monthly clearance rate attained between March and October in the pre-Covid19 epoch. Notably, part (b) of Fig. 2 shows that the onset of the pandemic brought a decrease in the number of newly filed adjudication cases. The drop in the clearance rate in adjudication, implied by our estimates, is therefore not a consequence of an increase in demand for court services. Rather, the decrease in the courts’ ability to meet the demand for adjudicatory services is driven by a fall in judicial output, as indicated in part (a) of Fig. 2.

The large fall in the clearance rate in adjudication after March of the Covid19 epoch resulted in a post-March average monthly clearance rate notably smaller than one (see part A2 of Table 1), the critical value at which a court is just able to meet the incoming demand. Concurrently with the plummeting of the clearance rate, the number of pending adjudication cases per judge thus on average increased by as much as 62, an effect equal to about 26 percent of the average number of pending adjudication cases per judge in the months from November to February in the Covid19 epoch or 24 percent of the average number of pending adjudication cases per judge between March and October in the pre-Covid19 epoch. This is evidence that the pandemic resulted in a substantial increase in court backlogs.

Table 3 displays the results on the average effect of the pandemic on the mode of disposition of adjudication cases. As one would have expected, we find a very sizeable effect of the pandemic on the share of cases resolved in trial hearings. Based on our estimates, the share of cases resolved in trial hearings on average decreased by 0.14, an effect equal to about 47 percent of the average monthly share of cases resolved in trial hearings in the months from November to February in the Covid19 epoch or 42 percent of the average monthly share of cases resolved in trial hearings between March and October in the pre-Covid19 epoch. We, however, do not find evidence that the pandemic, at least on average, affected the share of in-court settlements or the share of withdrawals, respectively.

Table 4 displays the results on the average effect of the pandemic on judicial enforcement outcomes. In contrast to the profound detrimental effect of the pandemic on court efficacy in adjudication, we find no effect of the pandemic on court efficacy in enforcement. Neither the effect on the clearance rate in enforcement nor the effect on the volume of pending enforcement cases per judge are statistically significantly different from zero. These findings may be explained by three key features of the Brazilian labor-court enforcement proceedings. First, enforcement proceedings do not require the conduct of hearings, rendering enforcement comparatively less vulnerable to the pandemic-caused disruption. Second, labor-court judges are able to implement many enforcement-related tasks, such as the confiscation of funds from the checking account of a non-compliant losing party or the blocking of the transfer of their property title, using remotely-accessible software (see Castelliano et al., 2020b). Third, it is likely that, following the onset of the pandemic, the judicial and staff effort that would have normally been devoted to the conduct of trial hearings and other adjudica-
Table 4
Effect on judicial enforcement.

|                        | Outcome: Clearance rate (enf.) | Outcome: Pending per judge (enf.) | Outcome: Share enforced payments |
|------------------------|---------------------------------|------------------------------------|----------------------------------|
|                        | (1)                            | (2)                               | (3)                             | (4)                               | (5)              | (6)              |
| Post March × Covid19 epoch | 0.0495                         | 0.0573                            | 11.254                           | 0.0256                            | 0.0229           |
|                         | (0.1336)                       | (0.1385)                          | (0.9191)                        | (0.0198)                          | (0.0207)         |
| Covid19 epoch FE       | Yes                            | Yes                               | Yes                             | Yes                               | Yes              |
| Month FE               | Yes                            | Yes                               | Yes                             | Yes                               | Yes              |
| Court-in-epoch FE      | No                             | Yes                               | No                              | Yes                               | No               |
| Staff per judge control| No                             | Yes                               | No                              | Yes                               | No               |
| Observations           | 552                            | 552                               | 0.0008                          | 0.9747                            | 0.0269           |
| R-squared              | 0.1660                         | 0.5355                            |                                  |                                   |                  |

Notes: See notes under Table 2.

Table 5
Effect on composition of new filings.

|                        | Outcome: Share enforcement new filings |
|------------------------|----------------------------------------|
|                        | (1)                                    | (2)                                    |
| Post March × Covid19 epoch | 0.0589***                             | 0.0581***                             |
|                         | (0.0115)                               | (0.0122)                              |
| Covid19 epoch FE        | Yes                                    | Yes                                    |
| Month FE                | Yes                                    | Yes                                    |
| Court-in-epoch FE       | No                                     | Yes                                    |
| Staff per judge control| No                                     | Yes                                    |
| Observations            | 552                                    | 552                                    |
| R-squared               | 0.2178                                 | 0.6604                                 |

Notes: See notes under Table 2.

Notably, we also find no evidence of an effect of the pandemic on the share of payments executed upon judicial enforcement. In particular, the pandemic and the accompanying economic downturn have, at least on average, evidently not resulted in an increased use of judicial enforcement as means to securing the execution of court-sanctioned payments stemming from the resolution of labor disputes.

Finally, Table 5 shows the results for the effect of the pandemic on the composition of new filings with respect to enforcement and adjudication matters. The estimates reveal that, as a result of the pandemic, the share of new filings requiring judicial enforcement on average increased by 0.06, an effect equal to about 18 percent of the mean monthly share of newly filed enforcement cases between November to February in the Covid19 epoch or between March and October in the pre-Covid19 epoch. This is evidence that, even though the judicial enforcement outcomes do not seem to have been impacted, the pandemic has altered the composition of the demand for labor court services. As a consequence of the pandemic, there has been an increase in the demand for enforcement relative to adjudication. As parts (b) and (i) of Fig. 2 indicate, much of this composition effect can be attributed to a reduction in the overall demand for adjudication.

5.2. Month-by-month effect

The results in Tables 2 through 5 show the average effect of the pandemic, but do not reveal whether, and if so how, the effect perhaps varied from month to month. Yet we know that the pace of the pandemic itself has varied over time and, moreover, that, after the pandemic’s onset, the Brazilian labor courts adopted different operational responses at different points in time (see Fig. 1). To capture the resulting dynamics, we turn to investigating the results based on specification (2). We summarize our findings with the aid of Fig. 3. Each part of Fig. 3 summarizes the results for a specific outcome variable, showing the month-by-month effects from November 2019 to October 2020. The omitted (comparison) effect is that for February, the month immediately preceding the onset of the pandemic. For each month, we display the point estimate and the corresponding 95-percent confidence interval computed using heteroscedasticity-robust standard errors clustered at the level of the regional labor court.

Parts (a) and (b) of Fig. 3 show the month-by-month effect of the pandemic on court efficacy in adjudication. Part (a) illustrates that the adverse effect on the courts’ capacity to meet the ongoing demand for adjudication was especially large, and in fact increased in terms of the absolute magnitude, over the initial months of the pandemic. The deleterious effect was strongest in the month of May, when the decrease in the clearance rate exceeded 0.4, an effect equal to about 40 percent of the average monthly clearance rate attained in the months from November to February in the Covid19 epoch or 35 percent of the average monthly clearance rate attained between March and October in the pre-Covid19 epoch. After May, as the courts gradually managed to regroup and introduced virtual hearings (see Section 2.2), the negative effect on the clearance rate weakened, even if it did not fully disappear. This is evidence that, after about half a year after the start of the pandemic, the Brazilian labor courts did eventually find a way to at least partly cope with the demand for adjudication.

Part (b) of Fig. 3 traces out the month-by-month effect on the stock of pending adjudication cases per judge. Given the persistent and large negative effect on the clearance rate, which pushed the monthly clearance rate below the benchmark value of one, the pandemic resulted in persistent accumulation of unresolved cases. The effect on the increase in backlogs is largest for the final month covered by our data (October 2020), when the increase in the stock of pending adjudication cases per judge relative to February of the same year was equal to about 111 cases. This is an effect of the size of about 47 percent of the volume of pending adjudication cases per judge during the months from November to February in the Covid19 epoch or 43 percent of the volume of pending adjudication cases per judge during the months from March to October in the pre-Covid19 epoch. The documented effect on court backlogs is an indication that the pandemic will likely have a lasting detrimental impact on the ability of the Brazilian labor courts to administer justice in a timely manner.

Parts (c) through (e) of Fig. 3 show the month-by-month effect of the pandemic on the modes of disposition of adjudication cases. Predictably, since its onset, the month-by-month effect of the pandemic has been a reduction in the share of cases resolved via trial hearings. The reduction was most pronounced in the months of April and May, when the share of cases resolved via hearings dropped by about 0.3, bringing the average share of cases resolved
via trial hearings effectively to zero (the average monthly share of cases resolved via trial hearings was about 0.30 between November and February in the Covid19 epoch and about 0.33 between March and October in the pre-Covid19 epoch). Furthermore, the negative effect on the share of cases resolved via trial hearings has been a persistent one. Thus, the transition of courts to virtual hearings in the late spring alleviated, but did not eliminate, the deleterious effect of the pandemic on the ability of the courts to rely on hearings to resolve disputes.

Based on the estimates in columns (4) through (6) of Table 3, the average effect of the pandemic on the share of cases disposed via settlement has been indistinguishable from zero. Part (d) of Fig. 3, however, shows evidence of intriguing dynamics with regard to month-by-month effect on the share of in-court settlements. Right after the onset of the pandemic, the effect was negative and very large: in April, for example, the pandemic resulted in a decrease in the share of adjudication cases settled in-court of about 0.17, an effect equal to approximately 48 percent of the mean monthly value of the share of cases settled in-court between November and February in the pre-Covid19 epoch or 46 percent of the same value between March and October in the pre-Covid19 epoch. This pattern is consistent with the interpretation that the initial suspension of hearings and nation-wide restrictions on in-person interaction obstructed the exchange of information between the disputing parties, a process that normally facilitates settlement via the convergence of the disputing parties’ views about the likely trial outcome (Boyd and Hoffman, 2013; Bielen et al., 2017, 2020).

From June, however, the month-by-month effect on the share of cases settled in-court becomes positive, with the magnitude of the effect reaching about 18 percent of the average monthly share of cases settled in-court between November and February in the Covid19 epoch or between March and October in the pre-Covid19 epoch. That is, once the courts began to implement virtual hearing sessions, the pandemic’s effect on the share of in-court settlements turned to positive. It appears, therefore, that the combination of the re-instituted possibility for court-facilitated exchange of information among the disputing parties and the judges, the awareness about the mounting court backlogs with corresponding increased prospects of court delays, and the unavoidable economic turmoil increased the relative attractiveness of settlement as means to resolution of labor disputes. On the other hand, congruent with the estimates of the average effect of the pandemic on the share of withdrawals, noted in the previous section, we find no evidence of an effect on this particular court outcome during any of the months. The pandemic has thus not noticeably altered the plaintiffs’ incentives to altogether abandon their claims.

The remaining parts of Fig. 3 summarize the results for the month-by-month effect of the pandemic on the enforcement outcomes (parts (f) through (h)) and the composition of incoming cases with respect to enforcement versus adjudication (part (i)). In line with the estimates of the average effect, reported in Table 4, we see little evidence of an effect of the pandemic on the efficacy of the enforcement aspects of labor court operations (parts (f) and (g)). In the month of April, there was a temporary positive effect on the clearance rate in enforcement. This rather peculiar effect, however, is driven primarily by a temporary drop in the number of newly filed enforcement cases in that month (see part (i) of Fig. 2), an artifact of the administrative chaos that accompanied the onset of the pandemic and impacted case registration processes across all labor courts.

The month-by-month results also indicate that the pandemic temporarily and intermittently increased the reliance of litigants on judicial enforcement as means of executing court-ordered payments. The effect of the pandemic on the share of court-endorsed
payments secured via judicial enforcement is positive and statistically significant (at five-percent level) in the months of June and August. The impact, however, dissipates by September (part (h)). In contrast, congruent with the results reported in Table 5, the impact of the pandemic on the composition of newly filed labor-court cases with respect to enforcement versus adjudication has been comparatively more long-lived (part (i)). Reflecting a drop in the overall demand for adjudication (see part (b) of Fig. 2), the pandemic resulted in a sizeable and enduring increase in the relative demand for enforcement versus adjudication.

Last but not least, Fig. 3 illustrates that seven out of the nine court outcomes under consideration do not exhibit any unwanted pre-trends in the months prior to March. The share of cases resolved via hearings (part (c)) and the share of in-court settlements (part (d)) show some limited evidence of pre-trends. For the corresponding outcomes, our point estimates should thus be interpreted with some caution. All in all, however, the insights based on Fig. 3 complement the insights based on Fig. 2 in lending support for the use of the difference-in-difference approach in our setting.

5.3. Effect heterogeneity by pandemic intensity

Tables 6 through 9 present the results on the heterogeneity of the effect of the pandemic by the intensity of the pandemic. In each of the tables, odd-numbered columns show the results when we measure the intensity of the pandemic using the rate of new Covid19 cases per 1000 people. Even-numbered columns display the results when we measure the intensity of the pandemic using the rate of Covid19-related deaths per 10,000 people.

We find, first and foremost, that the intensity of the pandemic has been an important moderating factor with regard to several court outcomes. Based on the results in Table 6, the detrimental effect of the pandemic on the ability of the courts to meet the ongoing demand for adjudication and on the stock of adjudicatory backlogs has been larger in the region-months characterized by greater pandemic intensity. For example, based on the estimates in columns (2) and (4) of Table 6, relative to the baseline effect of the pandemic, a one-standard-deviation increase in the number of Covid19-related deaths per 10,000 inhabitants is associated with an additional decrease in the clearance rate of 0.36 and an additional increase of 41 pending adjudication cases per judge. Thus, the severity of the health crisis has importantly shaped the effect of the pandemic on court efficacy in adjudication by exacerbating the pandemic’s adverse impact.

In addition, the intensity of the pandemic has played a role in shaping the effect of the pandemic on the court modes of case disposition in adjudication, and in particular on the use of in-court settlements (see Table 7). The effect of the pandemic on the share of
in-court settlements is negative for the region-months that exhibit low pandemic intensity, but positive for the region-months that exhibit high pandemic intensity. Based on the estimates in columns (3) and (4) of Table 7, the effect of the pandemic on the share of in-court settlements turns from negative to positive as the number of new Covid19 cases per 1000 inhabitants reaches about 4.5 (about 117 percent of the mean monthly number of new Covid19 cases per 1000 inhabitants since March 2020) or, alternatively, the number of Covid19-related deaths per 10,000 inhabitants reaches about 1.2 (about 123 percent of the mean monthly number of Covid19-related deaths per 10,000 inhabitants since March 2020).

Interestingly, the intensity of the pandemic appears to have played no role in moderating the effect of the pandemic on the share of cases resolved via trial hearings (columns (1) and (2) of Table 7). This finding is likely a reflection of the fact that, upon the onset of the pandemic, trial hearings came to a complete halt across all Brazilian labor courts at roughly the same time. Trial hearings eventually also resumed, albeit in a restricted (virtual) format, across all labor courts after the month of May (see Section 2.2). In this sense, the intensity of the pandemic per se has therefore not been a salient moderating factor. We also find no evidence of the importance of the intensity of the pandemic as a moderator of the effect of the pandemic on any of the judicial enforcement outcomes (see Table 8). More generally, congruent with the findings reported in Section 5.1, the effect of the pandemic on any of the judicial enforcement outcomes remains undetectable even upon allowing for the effect of the pandemic to vary with pandemic intensity.

The intensity of the pandemic, however, has shaped the effect of the pandemic on the composition of new filings. According to the estimates in Table 9, a one-standard-deviation increase in the number of Covid19-related deaths per 10,000 inhabitants, or, alternatively, an equivalent increase in the number of new Covid19 infections per 1000 inhabitants, is associated with an additional increase in the share of new filings that necessitate judicial enforcement of about 0.06. Hence, all else equal, the relative demand for judicial enforcement has been greater in areas and time periods exhibiting greater pandemic intensity.

### 6. Summary and conclusion

We have provided the first systematic empirical analysis of the consequences of the Covid19 pandemic for the performance of courts at accomplishing their primary function, the disposition of cases. Using a newly-assembled, monthly panel of Brazilian regional labor courts and employing a difference-in-difference approach, we have demonstrated, first, that the pandemic has had a very large and persistent deleterious impact on adjudicatory efficacy. Timing-wise, the adverse effects on adjudicatory efficacy were especially drastic in the first few months after the onset of the pandemic, when many court activities were altogether suspended. Upon the eventual introduction of virtual court hearings and other operational measures intended to facilitate adjudication, the drop in the clearance rate of adjudication cases decreased somewhat in absolute magnitude, but, at least by the end of our observation window, never vanished. More generally, the adverse effect on court efficacy has been largest in region-months where the rates of new Covid19 infections or Covid19-related deaths have been highest.

Second, the pandemic has affected the modes through which the labor courts resolve disputes. As anticipated, following the suspension of in-person activities, including trial hearings, the share of cases resolved in hearings effectively dropped to zero. Concurrently, the share of cases resolved via in-court settlement fell as well. This is consistent with the interpretation that the restraints on in-person interaction and suspension of hearings limited the inter-party exchange of information about the cases, which in turn reduced the prospects of settlement. However, once the courts instituted virtual hearing sessions, as the prospects of court delays became apparent, and when a prolonged recession was clearly in sight, the effect of the pandemic on the share of in-court settlements turned to positive. Resonating with this explanation, we also
find that the effect of the pandemic on the share of in-court settlements was positive in region-months characterized by the highest rate of new Covid19 infections or the largest Covid19-related death toll rate. The pandemic, however, did not affect the share of cases disposed as a result of withdrawals of already started lawsuit.

Third, we find little evidence of an effect of the pandemic on judicial enforcement outcomes. In particular, our estimates reveal that the pandemic has not affected court efficacy in the context of judicial enforcement, even though the pandemic has increased the relative demand for enforcement versus adjudication. Because judicial enforcement of final decisions in Brazilian labor courts can be effort-intensive and, indeed, constitutes a sizeable portion of the courts’ dockets, our findings indicate that the pandemic-induced transition of the Brazilian labor court judges toward a remote completion of the enforcement tasks was overall quite effective. We also find only limited evidence that the pandemic has increased the need for judicial enforcement as means of securing the execution of court-sanctioned payments. To the extent than such an effect is detectable, the effect has been intermittent and transitory. During the first eight months from the onset of the pandemic, we therefore do not see much indication that the losing parties (e.g. employers) who are mandated by the court to compensate the winning parties (e.g. employees), have, perhaps as a reaction to the economic recession, strategically chosen to avoid the execution of court-ordered payments. This particular result is perhaps the most uplifting of all findings that have emerged from our analysis. It suggests that, at least when it comes to the timing of received compensation, awarded on the basis of unlawful violation of labor contracts, the employees who are eligible for such compensation and who often stem from the most vulnerable segments of the Brazilian society have, on average, not really been adversely impacted by the pandemic. Overall, however, one may anticipate that the pandemic will continue to exert a lasting negative impact on the ability of the Brazilian labor courts to deliver justice, thereby exacerbating already considerable pre-existing socio-economic inequality.

Our goal in this paper has been to offer an empirical analysis of the effect of the Covid19 pandemic on some of the most salient aspects of court operations. We have done so in the context of Brazilian labor justice, utilizing rich up-to-date court-level data. Future research will undoubtedly uncover many more aspects in which the pandemic has already impacted and will in the foreseeable future continue to impact the functioning of courts and the administration of justice both in Brazil and in other jurisdictions worldwide. Especially in the context of labor justice it would be pertinent to examine whether, and if so in what way, the pandemic has affected the composition of court dockets with respect to case complexity and the exact substance of labor-related claims. The resulting analysis would also help illuminate the extent to which the documented efficacy effects of the pandemic can be attributed to the operational responses of the courts versus any case composition effects. Investigation of such questions will require access to case-level data. At the same time, when even more recent court-level data become available, it will be important to provide updated estimates of the consequences of the pandemic for the outcomes explored in the present paper. Indeed, at the time of our writing, Brazil is already amidst a new devastating wave of the spread of the virus.

In the current time, when the pandemic is nowhere close to under control, medical and natural-science research aimed at preventing, to the greatest extent possible, further loss of human life and securing adequate healthcare responses to the ravaging virus should remain the highest priority. For social scientists and other scholars, however, it will be important to enhance our understanding of the impact of the pandemic on key societal institutions, including the courts of law, and propose appropriate policy responses to help mitigate the associated rapidly rising social costs. Such research will necessarily require evidence-based insight of the type that we have striven to provide in the current paper.

**Declaration of Competing Interest**

None.

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**Appendix**

**Table A1**

| Variable                          | Definition                                                                                                                                 |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Courts, adjudication clearance rate (adj.) | The number of resolved adjudication cases during a month divided by the number of newly filed adjudication cases during the same month. |
| Pending per judge (adj.)         | The number of adjudication cases pending at the end of a month divided by the number of serving judges during the same month.               |
| Share resolved in hearings       | The number of adjudication cases resolved in trial hearings during a month divided by the total number of resolved adjudication cases during the same month. |
| Share settled in-court           | The number of adjudication cases settled in-court during a month divided by the total number of resolved adjudication cases during the same month. |
| Share withdrawn                  | The number of withdrawn adjudication cases during a month divided by the total number of resolved adjudication cases during the same month. |
| Courts, enforcement clearance rate (enf.) | The number of completed enforcement proceedings during a month divided by the number of newly initiated enforcement cases during the same month. |
| Pending per judge (enf.)         | The number of enforcement cases pending at the end of the month divided the number of serving judges during the same month.               |
| Share enforced payments          | The value of payments executed upon completed judicial enforcement proceedings during a month divided by the total value of all executed payments during the same month. |
| Courts, new filings composition  | The number of newly initiated enforcement cases during a month divided by the number of all new (adjudication and enforcement) case filing during the same month. |
| Courts, staffing                 | The number of judicial support staff (judicial assistants and administrative staff) during a month divided by the number of serving judges during the same month. |
| Pandemic intensity               | New Covid19 cases per capita in a given month, multiplied by 1,000.                                                                     |
|                                | Covid19-related deaths per capita in a given month, multiplied by 10,000.                                                               |

Notes: The table provides the definitions of the outcome and select other variables used to generate the estimates shown in Tables 1–7 and Fig. 3.

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