

# Analysing Judicial Efficiency of Indian Courts

Aashita Dawer

Independence | Integrity | Impact



#### **About PRRC**

This paper was published as part of the Property Rights Research Consortium (PRRC), and supported by Omidyar Network India. PRRC is a network of leading think-tanks and research organisations, working to collaborate and drive policy action in the field of land, housing and property rights in India.



Support for this research was generously provided by the Omidyar Network. CSEP recognises that the value it provides is in its absolute commitment to quality, independence, and impact. Activities supported by its donors reflect this commitment and the analysis and recommendations found in this report are solely determined by the scholar(s).

Copyright © Aashita Dawer

Centre for Social and Economic Progress (CSEP)  
CSEP Research Foundation  
6, Dr Jose P. Rizal Marg, Chanakyapuri,  
New Delhi - 110021, India

Recommended citation:

Dawer, A., (2022). *Analysing Judicial Efficiency of Indian Courts* (CSEP Discussion Note 12). New Delhi: Centre for Social and Economic Progress.

The Centre for Social and Economic Progress (CSEP) conducts in-depth, policy-relevant research and provides evidence-based recommendations to the challenges facing India and the world. It draws on the expertise of its researchers, extensive interactions with policymakers as well as convening power to enhance the impact of research. CSEP is based in New Delhi and registered as a company limited by shares and not for profit, under Section 8 of the Companies Act, 1956.

All content reflects the individual views of the authors. The Centre for Social and Economic Progress (CSEP) does not hold an institutional view on any subject.

CSEP discussion notes are circulated for discussion and comment purposes. The views expressed herein are those of the author(s). All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including copyright notice, is given to the source.

Designed by Mukesh Rawat

# **Analysing Judicial Efficiency of Indian Courts**

**Aashita Dawer\***  
Visiting Fellow  
Centre for Social and Economic Progress  
New Delhi, India

\*Aashita Dawer is Associate Professor (Economics), Jindal Global Law School, O.P. Jindal Global University, Sonapat, Haryana.

## Table of Contents

Abstract: .....	5
I. Introduction .....	6
II. Review of the Literature .....	7
III. Objective of the Study, Quantification of the Variables and Methodology .....	10
IV. The Supreme Court: Results of the Analysis of Judicial Efficiency .....	11
i. Pendency in the Supreme Court .....	11
ii. Pendency and Judge Productivity in the Supreme Court .....	14
V. High Courts and Subordinate Courts: Results of the Analysis of Judicial Efficiency .....	16
Pendency Rates in High Courts and Subordinate Courts .....	16
The High Courts: Trends in and Causes of Pendency .....	16
Determinants of Pendency .....	17
Regression Table-1: Determinants of Pendency .....	17
The Subordinate Courts: Pendency and Efficiency .....	19
Determinants of Pendency in Subordinate Courts .....	19
Regression Table 2: Determinants of Pendency in Subordinate Courts .....	19
Comparison of Pendencies in High Courts and Subordinate Courts .....	20
VIII. Summary Findings .....	21
Conclusion .....	22
References .....	23
Annexes .....	26

## List of Figures

Figure 1: Pendency Rate 1950-2018 (X axis: Time, Y axis: Pendency) .....	12
Figure 2: Pendency Rates, 1950-93 (X axis: Time, Y axis: Pendency) .....	13
Figure 3: Pendency Rate 1994-2018 (X axis: Time, Y axis: Pendency) .....	14
Figure 4: Cases Disposed and Pendency/Judge, 1990-2017 .....	14
Figure 5: Judge/population with Case Pendency, 1990-2017 (X: Pendency, Y: Judge/Population) .....	15

## List of Tables

Table 1: Subject Matter Categories (2010-15) .....	26
Table 2: Supreme Court: Judge Productivity in Terms of Case Disposal and Pendency .....	27
Table 3: Pendency in Courts in 2020 .....	27
Table 4: Four-Yearly Average High Courts: Pendency and Judge-Population Ratios (2015-6 to 2018-19) .....	28
Table 5: Pendency in Subordinate Courts, 2018-19 .....	29
Table 6: Average Judge-Population Ratio and Case Pendency (2015-16 to 2018-19) .....	29

## **Abstract:**

The paper aims at analysing Judicial efficiency for Supreme Court, high courts and subordinate courts of India. The data is taken from Annual Reports published by the Supreme Court from 2015-16 to 2018-19. Analysis is mainly based on investigating pendency in these courts and the reasons for the ever-increasing pendency. Lack of number of judges required to dispose off cases turns out to be the major reason for this problem, thereby affecting efficiency of courts. We analyse this using various regression techniques while highlighting the importance of effective justice delivery.

## I. Introduction

An efficient legal system is crucial for the maintenance of social order, regulation of governance, and keeping the economy on a growth track, and is instrumental in bringing about political reform and socio-economic change. The intertwined laws that comprise a legal system are enacted for both the protection of citizens' rights and for instilling in them a notion of their responsibilities. A further objective of various legislations is to ensure the smooth and unobstructed execution of government policies aimed at enhancing the strength and status of the country.

The Indian judicial system has three levels – the Supreme Court, the high courts and the subordinate courts. The high courts (which in some cases have a long historical heritage) are located in the state capitals or in the large metros, while the subordinate courts are spread across the country for the convenience of litigants.

The country's Supreme Court is the highest judicial court for the redressal of public grievances, acting as a custodian of people's rights and the establishment of the rule of law. It is an appellate authority, for appeals against judgements of the high courts and tribunals under Article 143 of the Constitution.<sup>1</sup> The establishment of the country's Supreme Court had its origins in the British East India Company's introduction of the Regulating Act in 1773 (Misra, 1959:17). In 1857, with the passing of the Indian High Court Act, the supreme courts were replaced by high courts. The Federal Court of India was created in 1935, and began functioning in 1937,<sup>2</sup> but was replaced by the Supreme Court after Independence in 1947.

Independence, efficiency, accessibility, accountability and effectiveness are the main characteristics of an effective judicial system. Efficiency is quantified in terms of an input-output ratio where input is expressed in terms of case institution and filing and output is measured in terms of the number of cases disposed and the quality of the judgement. Further, effective and timely delivery of judgements is vital to establish legitimacy: inordinate delays in the delivery of justice shakes people's confidence in the legal system, and unfavourably affect economic ventures and social harmony. Unfortunately, India ranks very low, at 69<sup>th</sup>, in the Rule of Law Index among 126 countries, faring especially poorly in the realms of civil justice, order, and security. While it ranks higher than China (88) and Russia (94), it is below Indonesia (59) and South Africa (45) (World Justice Project, 2020).

The judiciary is a pivotal entity on which all other sectors depend for their smooth and efficient functioning. When the functioning is disrupted, it is the access to justice through the courts which is vital to ensure the ultimate resumption of operations. Unfortunately, the functioning of our judicial system is currently hampered by delays, inefficiency and a huge backlog of pendency, which are costly for litigants. Despite the establishment of several courts in the country, the availability of judicial services is still inadequate to handle the rising demand for justice, a mismatch which has further exacerbated the delays and increasing pendency.

There are currently 3.5 crore cases pending in the district courts (LiveLaw, 2021), the backlog has risen by 22 per cent between 2006 and 2019 (PRSIIndia, 2019), further adding to the inefficiency of the system. Cases filed in courts are broadly categorised as 'civil' or 'criminal'; the lengthy and delayed nature of justice in both categories has had extremely adverse social and economic impacts. In civil cases it affects resource mobility and investment decisions in the economic and business spheres; delays in the settlement of criminal cases in the subordinate courts in turn have affected the apprehension of criminals (encouraging crimes), while prisons are overcrowded with rising numbers of accused waiting for trials or bail hearings (Rajagopal, 2016).

---

<sup>1</sup> <https://main.sci.gov.in/history>

<sup>2</sup> <https://web.archive.org/web/20141222100038/http://www.supremecourtfindia.nic.in/supct/scm/m2.pdf>

Accessibility to courts depends on the geographic location and financial capacity of litigants, but a major cause for the low rate of case disposal is the country's low judge-population ratio, vacancies in the posts of judges, and the heavy load of daily case hearings. Not only are there vacancies in the sanctioned posts for judges, even the sanctioned number is not enough to meet the population's requirement (Law Commission of India, 1987). This has contributed to a continuous rise in pendency of cases and delays in justice delivery, implying a loss to the country in terms of resources, human and financial – a loss which could be termed a 'dead-weight loss' in a country where resources are already scarce. Several theoretical and empirical studies have been undertaken on this issue by scholars and legal experts. A brief review of their work will give us pointers on the issues impacting judicial efficiency.

The paper is organised as follows: Section II undertakes a review of the literature on judicial efficiency in other countries as well as in India. The following Section III lays out the main objectives of the analysis, and presents a quantification of the variables, and the methodology undertaken by the study. The results of the statistical analysis, detailed in Section IV, presents the findings separately for the Supreme Court, the high courts and the subordinate courts. The next section V compares pendency rates between high courts and subordinate courts. The next two sections VI and VII are the summary of the findings and the conclusion to the paper, respectively.

## II. Review of the Literature

Westover (1959), while discussing the federal courts, noted that prolonged delays in case disposal affect the working of a judicial system, and lead to growing backlogs in the courts. If justice is not delivered in time, it loses its significance. Till 1957, the only solution to the issue was believed to be the recruitment of more judges; but empirically, no worthwhile connection has been established between the number of serving judges and case disposals. The productivity of judges is endogenously determined, and output could be high even when there are fewer judges, as they could work harder under pressure. A rising case congestion is due to an expansion in the filing of cases, which is more attributable to the growth in the population and the economy. It is suggested that there should be restrictions on the institution of cases and the current judge situation be optimally utilised. This will call for adjusting caseloads, improving the management of hearings, and increasing courtroom efficiency.

Dakolias (1999) emphasised that economic progress depends vitally on the rule of law and a sound legal system: neglect and disrespect of the law can be a major obstacle to growth, as it hampers the channels of investment, output generation, and product delivery. After scrutinising the working of courts of 11 countries (Brazil, Chile, Colombia, Ecuador, France, Germany, Hungary, Panama, Peru, Singapore, and Ukraine), she finds that most public complaints against the courts relate to inordinate delays, rising costs, case congestions, and poor case management. The inadequacy of human and physical resources, evidenced in the form of judge vacancies and absenteeism of advocates, were causes.

Buscaglia and Ulen (1997), while analysing the effects of expenditure on judicial efficiency, found that that higher spending on the judicial mechanism does not necessarily improve efficiency as more resources lead to an increase in the demand for judicial services resulting in more case filing.

Rosales-López (2008: 231-51) presented a comparative analysis of Spanish courts in terms of output (i.e., judgement) delivery. With the application of statistical techniques like ANOVA, the author attempted to examine whether courts with greater output faced a higher reversal rate, which could be a reflection of the quality of judgements. It is concluded that low reversal rate along with high output are important objectives for attaining judicial efficiency.

Mahadik, in his ASCI final report (2018) has given a detailed account of the causes of pendency in the high courts and subordinate courts in Maharashtra where one of the reason for pendency problem instituted and disposed cases, and could result in economic loss in terms of corruption and resource wastage. Statistical analysis reveals that the rate of pendency is higher in civil cases than criminal cases. Additionally, the study identified inadequacy of staff as a major bottleneck, evidenced by the low judge-population ratio.

Tata Trusts (2019) emphasised that while efficient working of the judiciary is essential for a country, it is assigned low priority in budget allocations in states. States typically spend 0.08 per cent of their budgets on the judiciary, except for Delhi where the spending is one per cent. The spending by states excludes expenditure by the central government. The study highlights the increasing caseload for judges due to vacancies, and the low judge-population ratio: for 50,000 people there is one subordinate court judge. In terms of physical infrastructure, there is a shortfall in court rooms by approximately 18 per cent.

Micevska and Hazra in their discussion paper on development policy (2004) identify the problems faced by the Indian judicial system as court congestion, high litigation costs, case pendency, and delays in the case disposal. The study covers 27 Indian states and Union Territories and ranges from 1995 to 1999. Court performance is quantified in terms of 'clearance rate'. The study analyses the problem of growing court congestion from both the demand and supply angles and identifies the main causes as understaffing, the relatively low number of judges, and inadequate budget allocations. The statistical analysis reveals that filling judge vacancies and increasing their productivity would help improve the supply of judicial services, as would setting up of temporary courts and increasing the working time of judicial staff. Demand pressures can be tackled simultaneously by reducing litigations by discouraging the filing of frivolous cases.

Voigt (2016:183–208) deals with the determinants of judicial efficiency, focusing on the concepts of speed and quality in the delivery of justice. To achieve the objective of maximum output at a minimum cost, the author scrutinizes all the relevant factors affecting case institution and disposal, such as the number of judicial officers and staff, their qualifications, and the number of working days and hours. Ordinary least square and data envelopment analysis have been applied for the quantitative analysis. The aim of the study is to restore the demand and supply balance.

Robinson's (2009) study of the workload of the Indian Supreme Court from 1993 to 2011 could be useful analysis for policy-making. Over this span of time the caseload across all courts has almost doubled, with the Supreme Court experiencing a higher increase than the high courts and subordinate courts. The research studies the number of appeals filed and accepted in the Supreme Court, and notes the deficiencies in data availability and methodology used in interpretations.

Fauvrelle and Almedia (2018: 1-36) examine judicial efficiency and its determinants in Brazil for the period 2009-14 through a two-stage approach. In the first stage, data envelopment analysis is used to calculate the Malmquist Index for estimating productivity growth; and in the second stage, a fixed effect model is executed to assess the role of relevant variables, such as the quality of the decisions and other external factors like the reversal rate, judge remuneration, rate of investment, and technology change. Outputs considered are the number of resolved cases, while inputs comprise the number of judges and staff and court expenditure. The study finds that quality and efficiency can exist simultaneously and there cannot be a tradeoff between them.

Mustafa (2016), in his study on India on techniques of court management to improve efficiency in subordinate courts brings out the various causes for delays and inefficiency. The study notes that during last two decades, the rise in cases (12-fold) has been twice as high as the recruitment of judges (six-fold). In November 2016, 10 per cent of the cases in the subordinate courts were found to be ten years old. While highlighting the role of insufficient human, physical and technological resources,



the study attributes lower output to deficient case management and the predominant 'adjournment culture'. It also noted that the judge-population ratio needs to be raised for timely case disposal.

The Law Commission of India (2014) notes that delays in justice delivery have had negative implications for socio-economic conditions in the country. Increasing pendency, rising litigation costs and the slow pace of trials are major problems being faced by the legal system. Time frames could serve as a performance benchmark, providing guidance to courts, and the setting of mandatory time limits has been attempted in some cases. It also notes that the Supreme Court has advocated the use of case-specific time tables as instituted in the US, UK and Canada.

Amirapu (2020:1-52) also highlights the slow pace of justice in India and its adverse impact, highlighting the chronic misery of litigants languishing in jails awaiting a judicial outcome. Delhi High Court and Daksh India conducted a pilot study of 11 reference courts and 11 pilot courts under the jurisdiction of the Delhi High Court, from January 2, 2017 to December 31, 2018 (Zero Pendency Courts Project, 2019). The study analyses the process of cases from initiation to disposal, and the time taken in different types of cases. The report is a micro-analysis of various aspects of court functioning, providing a picture of the kinds of cases initiated and the number of judges required to clear cases in a year. The main causes of delay were identified as a shortage of judges and staff, absence of witnesses, adjournments, and delays in service of summons. One of its most interesting conclusions is that, given the time taken by each court to clear cases, 43 additional judges would be required to clear pendency in Delhi's various courts.

A report on the workings of the Delhi High Court for the period 2011-15 notes that inefficiency in the Court is due to insufficient time to hear a case, absent judges, absent counsel, etc. (Vidhi Centre for Legal Policy, 2017). Most cases were delayed by the absence of the judge or the counsel, and 70 per cent of the cases by counsels asking for additional time at least thrice. The study suggests the imposition of higher costs to avoid counsel delays, and a better listing mechanism to ensure enough time to hear cases.

The *Economic Survey* has emphasised the importance of an efficient, effective, and expeditious contract enforcement regime for economic growth (The Hindu Centre, 2017). The stays granted by courts in the execution of projects not only lead to higher cost, they also obstruct development activity. The *Survey* estimated that in October 2017, the average duration of stays granted to projects in the six ministries – Shipping, Power, Roads, Petroleum, Mines, and Railways – was 4.3 years; 52 projects had been stayed, at a total value of Rs. 52,000 crore. The delays in execution result in additional costs of materials and wages, and raise legal costs too. Judicial capacity needs to be expanded in order to avoid extra burden and normalise the pace of development activity.

It is evident from the literature that working, delays and pendency in the judicial system, we have derived some useful indicators for an empirical exercise to analyse the issues impacting the efficiency of the Indian judicial system and to explore other contributory factors. Our study also evaluates how deficiencies can be rectified.

### III. Objective of the Study, Quantification of the Variables and Methodology

Efficiency of a judicial system depends on various factors, case pendency being one of them. If the number of cases being disposed is lower than the number being instituted, then a pendency problem arises. The case pendency rate is an inverse measure of judicial efficiency: a high pendency implies a low case clearance rate or lower efficiency and vice versa.

Our study investigates the following strands related to judicial efficiency:

1. Case pendency can be reduced by increasing the judge-population ratio in the country. An increase in the number of judges will reduce case pendency in the country, as more cases will be heard and disposed.
2. The net state domestic product (NSDP, a measure of socio-economic conditions of a state) influences the judicial system in two ways. One, states with higher NSDP could have higher judge recruitment and supply of judicial services, which could result in a higher rate of case disposal and lower pendency. On the other hand, it is observed that people in prosperous states can afford to spend more upon litigation for justice and protection of their rights, which could cause a higher rate of case institution and demand for judicial services. The gap between demand and supply will affect pendency growth; if they neutralise each other, then pendency may be independent of state's NSDP.
3. Criminal cases are marred with procedural delays, evidenced by the large number of undertrials waiting over five years for trials. Undertrial prisoners formed 70 per cent of the total prison population in 2019 (National Crime Records Bureau, 2020).<sup>3</sup> We need to analyse the complexities surrounding criminal cases which affect pendency.
4. Complexities in civil cases too affect pendency and thus judicial efficiency. Since most of the times lawyers take time to produce evidence in civil cases and there is a constant adjournment, the matters of civil cases become more complex. Further, the number of civil cases filed and pending in high courts is higher than in the subordinate courts (Ibid).

We analyse judicial efficiency in terms of the institution of cases, their disposal, and pendency in the Supreme Court. For high courts and subordinate courts, PCSE regression is run by taking the pendency rate as a dependent variable. The variables in the pendency model in the form of either explained or explanatory variables are quantified in the following way:

Pendency rate (**dependent variable**):  $\text{case pendency at the end of the year} / (\text{cases instituted during the year} + \text{cases pending at the beginning})$

#### **Independent variables:**

1. Judge-population ratio: Number of working judges/ population in lakh
2. Net state domestic product per capita (lnnsdp): Net state domestic product at constant prices/ population
3. Complexity of criminal cases: Ratio of criminal cases to total cases
4. Complexity in civil cases: Ratio of civil cases to total cases

---

<sup>3</sup> "1.6 crore criminal cases were pending judgment for more than a year across all district and taluka courts in India. Of them, nearly 22 lakh cases were pending for over 10 years" (Radhakrishnan & Sen, 2020). <https://www.thehindu.com/data/data-70-prisoners-in-india-are-undertrials/article32569643.ece>

The study covers the Supreme Court, 24 high courts of the country and the subordinate courts falling under their jurisdiction. The analysis is based on data from the Supreme Court's annual reports from 2015-16 to 2018-19. The data used for the Supreme Court ranges from 1950-2018. The panel data for the high courts and the subordinate courts consists of 96 observations, i.e., 24x4(24 courts for 4 years). Data on population and state domestic product is taken from the EPWRF India Time Series.

In the case of the Supreme Court, the relationship between pendency and judge productivity is examined. The issue of pendency of cases in high courts and subordinate courts is analysed through three determinants – the judge-population ratio, substantive and procedural law (Complexity in Criminal and Civil cases), and a socio-economic variable, which have been quantified for the regression model. A suitable regression model is applied after detailed econometric testing and resolution of any data-related problems. The panel-corrected standard error model is used to correct the data for heteroskedasticity and autocorrelation.

The Pendency rate is the dependent variable whereas the independent variables are: the judge/population ratio, lnnsdp (net domestic state per capita income) and the criminal cases/total caseload (for subordinate courts) and civil cases/total caseload (in subordinate court and the high courts). Both the fixed effect model and the random effects model are run initially for data related to the high courts and subordinate courts. The Hausman test reveals that the fixed effect model is suitable, but our panel data in fixed effects is ridden with heteroskedasticity (estimated by the Modified Wald Test). To correct this, the panel-corrected standard errors (PCSE) model is applied. We then conduct a comparative analysis of the determinants of pendency in the high courts and subordinate courts.

Issues impacting the Supreme Court are dealt with in a separate section, and we present the results of our analysis in the next Section IV. This is followed by the results from our model for the high courts and the subordinate courts.

## IV. The Supreme Court: Results of the Analysis of Judicial Efficiency

The Supreme Court deals with cases across various categories (Table 1), but the majority are criminal cases (29.1%), followed by those concerning service matters (11.2%) and ordinary civil matters (10.4%). Land acquisition and requisition cases account for 6.2 per cent and those related to constitutional amendments and implementation for 5.3 per cent of the share. These five categories account for more than half the cases (51.8%) heard by the Supreme Court. Criminal cases are especially important as they disproportionately affect the weaker and vulnerable sections of society (Chandra et al, 2018:1-35)<sup>4</sup>.

### i. Pendency in the Supreme Court

The Supreme Court currently has 30 judges,<sup>5</sup> but its increasing workload has had adverse implications for its efficiency both in terms of the quantity and quality of cases disposed. Huge backlogs and delays have served as barriers to access and hence erode public trust in the institution. The growing instances of appeals against the lower courts' decisions reflect the quality of judgements and deficient workings of the judicial system which in turn impacts adversely on the social and economic health of the country. The major problem being faced by the Supreme Court is case pendency which has been increasing with every passing year. In 1951, pendency in the Supreme Court was 827, which rose to 57,346 cases in 2018 (69.34 times).<sup>6</sup>

<sup>4</sup> Annex 1 – Table 1

<sup>5</sup> <https://main.sci.gov.in/chief-justice-judges>

<sup>6</sup> Calculated from the Annual Report 2018-19 at <https://main.sci.gov.in/publication>

We estimated the least squares trend for the entire period from 1951 to 2018, and also for two sub-periods, 1950-93 (44 observations) and 1994-2018 (25 observations). The sub-periods were based on an endogenous break test, which estimated the break year at 1994, to coincide with the change in the mechanism for filing cases (from 1993 on): the figures for pendency were filed actual file-wise, without expanding the hyphenated number on the files.<sup>7</sup>

**Pendency in the Supreme Court for the Study Period, 1950-2018**

Following analysis measures the changes in pendency with time and population growth. Time and population growth impact the number of freshly instituted cases and backlogs for the court.

The regression equations for the trends in pendency for this period are given by:

$$P = 44.959 - .0337T + 1.660 \text{ LnPopulation} \dots\dots\dots (I)$$

$$t(T) = -2.88, \text{ Sign: } 0.005$$

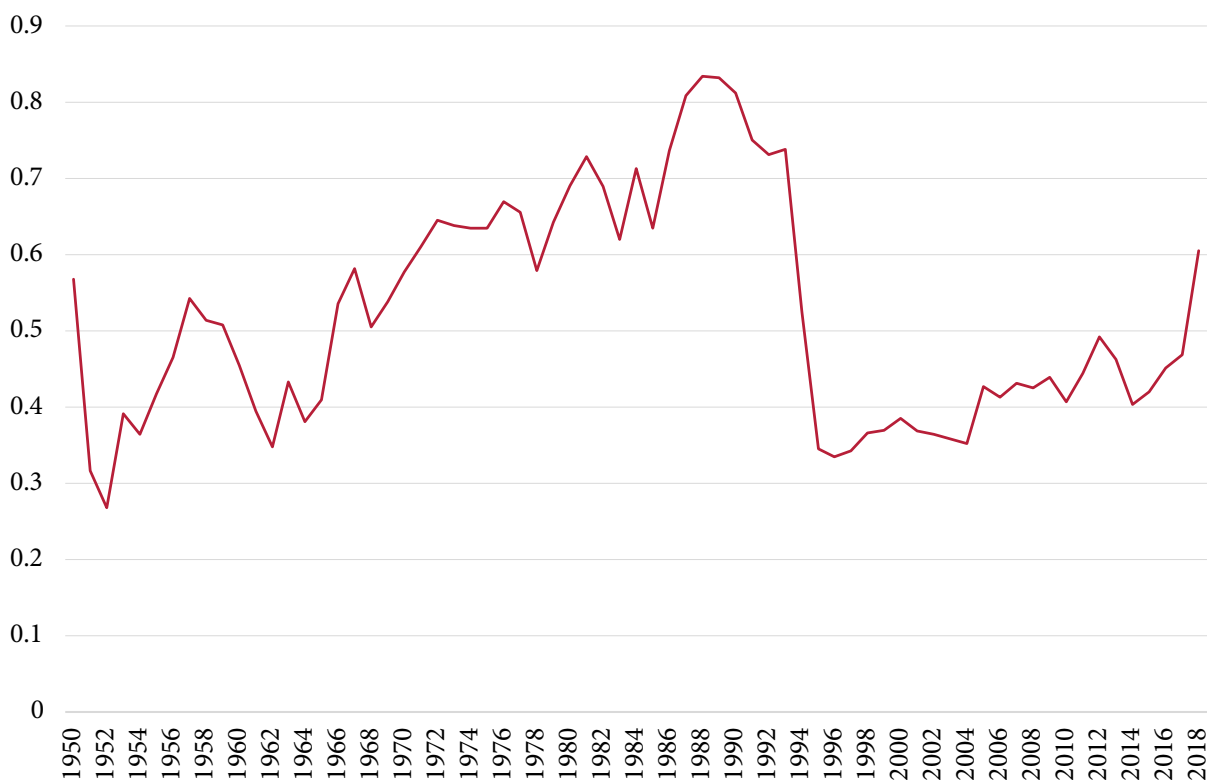
$$t(\text{LnPopulation}) = 2.85, \text{ Sign: } 0.00F$$

where P : Pendency Rate and T : Time in terms of number of years and LnPopulation: population growth, Sign: significance

Equation I indicates that when one considers trends across the entire period, time (T) is influencing pendency growth negatively and population growth is affecting pendency positively.

Figure 1 is representing a break in filing mechanism in 1993, leading to a fall in pendency from 1994 onwards.

**Figure 1: Pendency Rate 1950-2018 (X axis: Time, Y axis: Pendency)**



<sup>7</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication>

**Pendency in the Supreme Court, First Sub-period, 1950-1993**

Equations II and III are trying to determine the impact of time on pendency. In equation II, population growth has been taken as control variable. While in equation III, the control variable has been dropped to evaluate the impact of time in isolation on pendency.  $P = 17.306 - .0169T + 1.259\text{LnPopulation}.....(II)$

$t(T) = -0.80, \text{Sign: } 0.431$

$t(\text{LnPopulation}) = 1.28, \text{Sign: } 0.209$

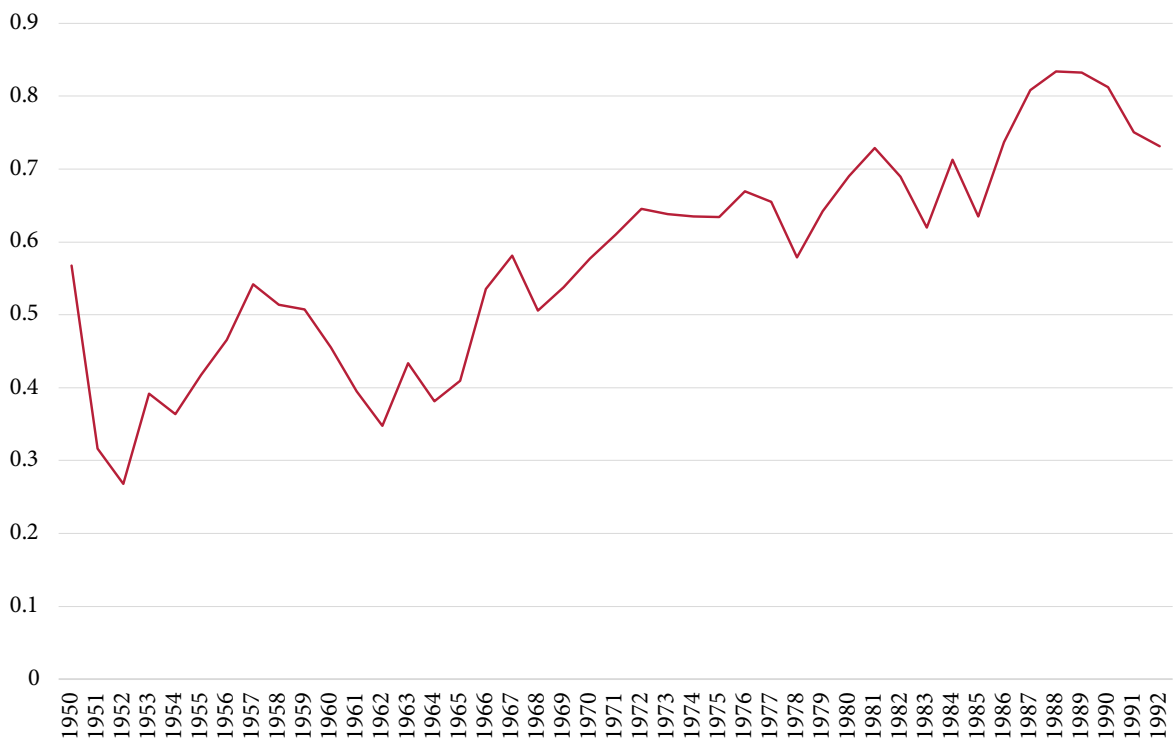
where P : Pendency Rate and T : Time in terms of number of years and LnPopulation: population growth, Sign: significance

$P = 0.350 + 0.0102T.....(III)$

$t(T) = 12.49, \text{Sign: } 0.000$

Equation II, fitted for sub-period 1950-1993, indicates that time and population growth have an insignificant impact on the pendency rate. However, when we drop the control variable of population, we see that the pendency rate increases significantly with time (Equation III). Thus time has an impact on pendency only if population growth is not considered.

**Figure 2: Pendency Rates, 1950-93 (X axis: Time, Y axis: Pendency)**



**Pendency in the Supreme Court Second Sub-period, 1994-2018**

$P = -44.490 + .0373T - 2.149\text{LnPopulation}.....(IV)$

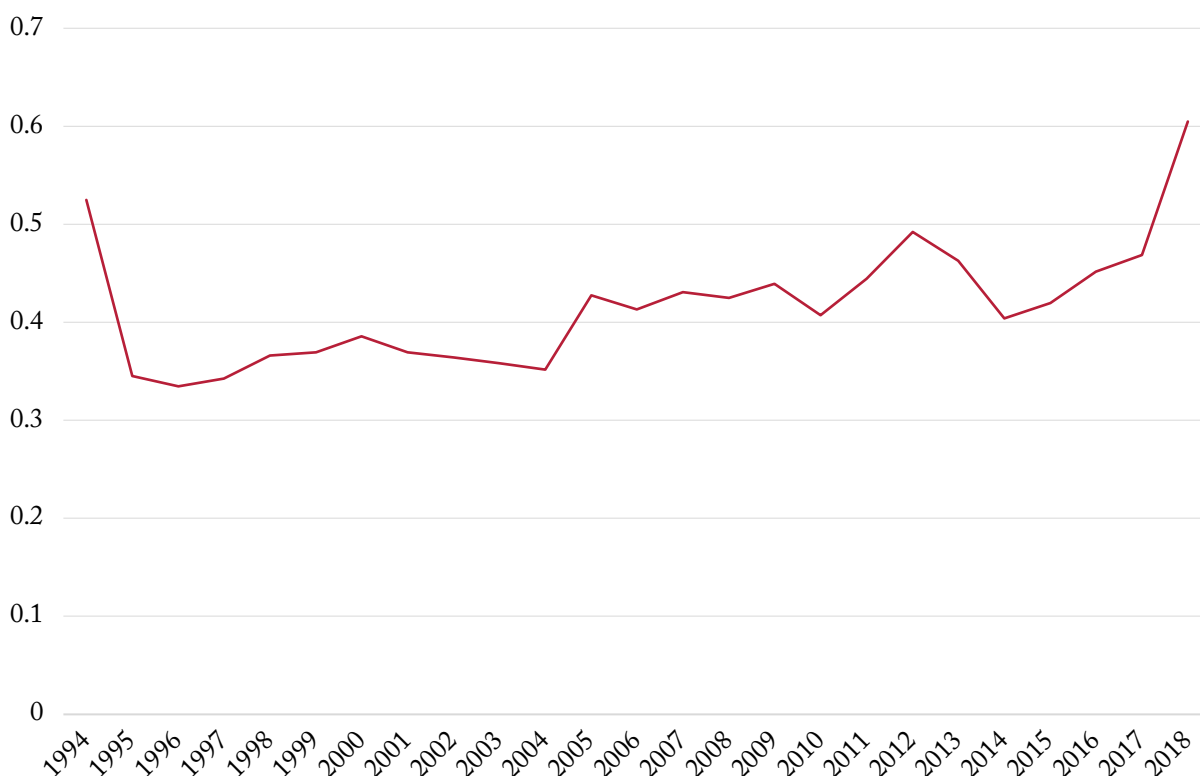
$t(T) = 2.55, \text{Sign: } 0.018$

$t(\text{LnPopulation}) = -2.20, \text{Sign: } 0.038$

where P : Pendency Rate and T : Time in terms of number of years and LnPopulation: population growth, Sign: significance

Equation IV indicates that in the sub-period 1994-2018, time has a positive impact on the pendency rate, while population has a negative impact.

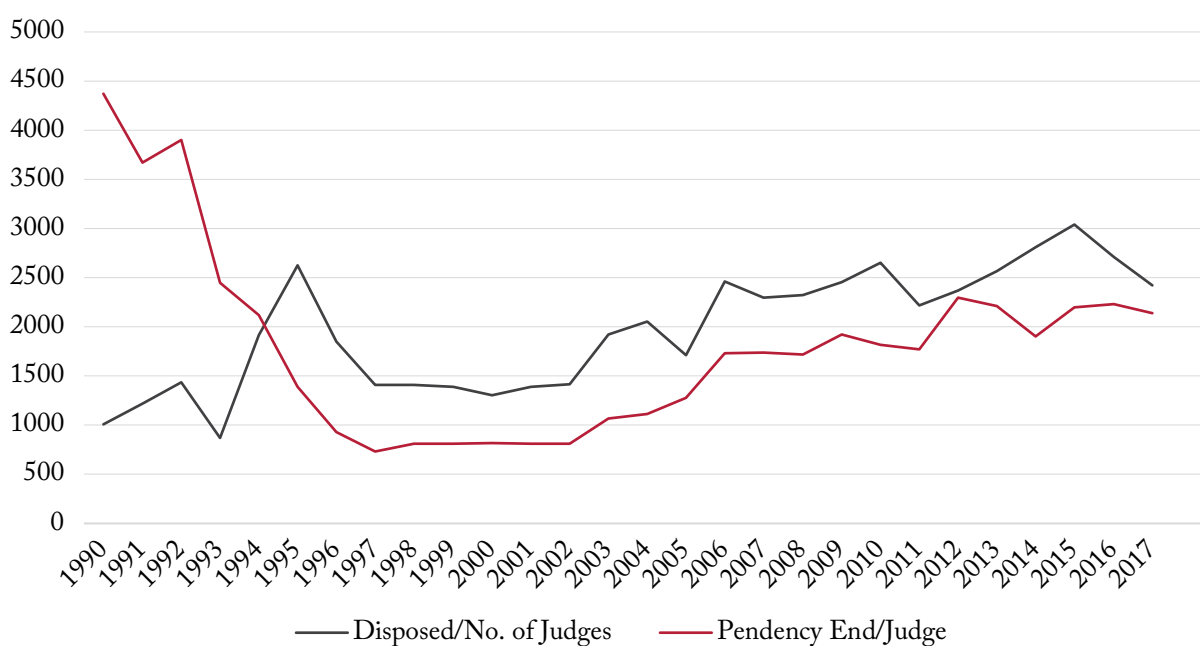
**Figure 3: Pendency Rate 1994-2018 (X axis: Time, Y axis: Pendency)**



### ii. Pendency and Judge Productivity in the Supreme Court

Our study attempts to find the relationship between pendency and judge productivity over the span of 1990-2017 by looking at the pendency at year-end and cases disposed per judge (Table 2 (Annex 2) and Figure 4).

**Figure 4: Cases Disposed and Pendency/Judge, 1990-2017**



From Table 2 and Figure 4, it is clear that judge productivity in terms of number of cases disposed annually has improved significantly between 1990 and 2017, as pendency at the end of the year per judge has declined.

$$\text{LnDis}/\text{judge} = 7.066 + 0.0324 T \dots\dots\dots(V)$$

t=6.65, Sign:000

where LnDis/Judge: Growth in Disposed Cases/Judge, T: Time, t: t test, Sign: Significance level

Equation V demonstrates that there is a significant improvement in the judge productivity over time.

However, when population is added as a control variable, both time and population become insignificant in measuring judge productivity:

$$\text{LnDis}/\text{judge} = 0.0348 + 0.024T + 0.513 \text{ LnPopulation} \dots\dots\dots(VI)$$

t (T) = 0.44, Sign: 0.665

t (LnPopulation) = 0.15, Sign: 0.883

where LnDis/Judge: Growth in Disposed Cases/Judge, LnPopulation: Growth in population, T: Time, t: t test, Sign: Significance level

The pendency rate is negatively impacted by judicial productivity as indicated by Equation VII:

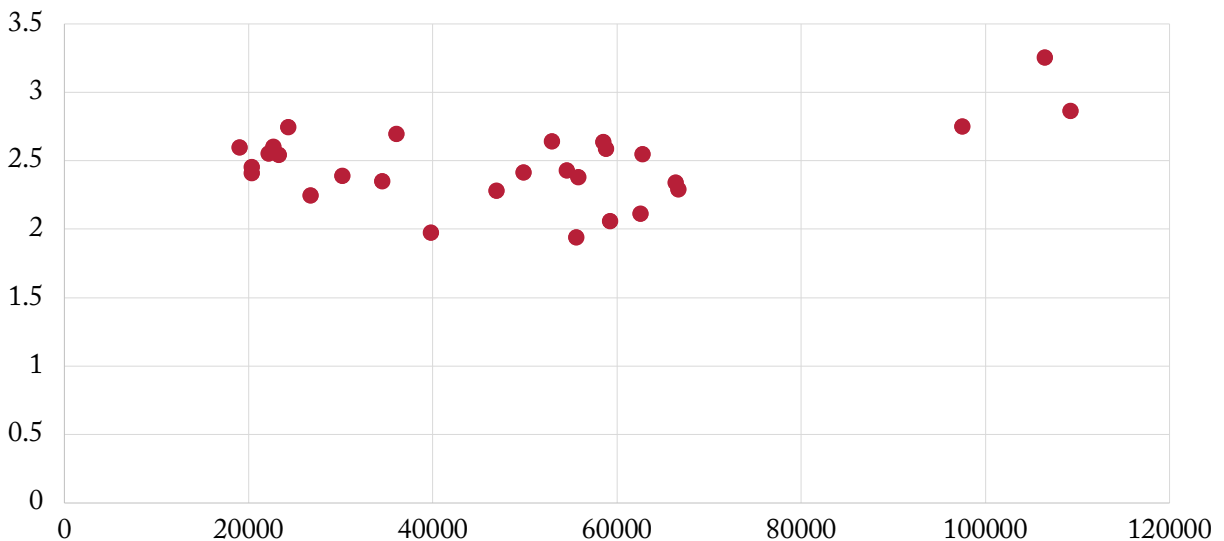
$$P = 1.921 - 0.1942\text{LnDis}/\text{judge} \dots\dots\dots(VII)$$

t= -2.85, Sign: .008

where, P is the pendency rate and LnDis/Judge: Growth of cases disposed per judge.

It is implicit that with an improvement in judge productivity, pendency in the Supreme Court can be considerably reduced.

**Figure 5: Judge/population with Case Pendency, 1990-2017 (X: Pendency, Y: Judge/Population)**



As Figure 5 indicates, there has been no variation in the judge/population ratio over a period of time in relation to case pendency. This implies that even with increasing pendency, judge/population ratio did not significantly increase.

## V. High Courts and Subordinate Courts: Results of the Analysis of Judicial Efficiency

### Pendency Rates in High Courts and Subordinate Courts

Cases filed in the high courts and Supreme Court are new cases or appeals against lower court judgements from dissatisfied litigants. On September 29, 2020, the total number of pending cases in all the courts was approximately 4 crore (Staff, 2019); almost a year earlier (on November 28, 2019), there were 59,867 cases pending in the Supreme Court, while the corresponding figures in the high courts and subordinate courts were 44.75 lakh and 3.14 crore, respectively.<sup>8</sup>

This continuous growth in case filing can be attributed to the rising population, literacy, per capita income and growing public awareness about constitutional rights. Also, disagreement with the policies of the government, unfavourable Acts(Laws), and skewed and discriminatory actions by the authorities to favour a particular class with the idea of achieving certain political ambition could also be major reasons for increasing case institution. Additionally, cases related to property, services, and family disputes are witnessing a steep rise, as those resulting from rising trends in crime, growing caste conflicts, and instances of social tensions.

Pendency has a huge economic cost affecting expenditure, investment, resource mobility, and wastage of human resources, all of which leads to a loss in GDP. According to Narasappa, a conservative estimate puts GDP loss from delays and pendency in the justice system at 1.5 per cent (Dey, 2016).

### The High Courts: Trends in and Causes of Pendency

The state of pendency varies significantly across the different high courts (Table 4), and depends upon the size of the court, infrastructure of the court and number of judges. A major factor affecting the demand for legal recourse in the high courts is people's use of the right to appeal against judgements given by the lower courts (Micevska & Hazra, 2004).

Number of cases lying pending in the high courts varies depending upon the size, infrastructure and judge power. The state of pendency in March' 2020 varied significantly in the different high courts. As reported by the Parliamentary Standing Committee on Personnel Public Grievances Law and Justice, there is witnessed a rise of 29% pendency in all the high courts across the country during 2018 and February 2020 with number of cases such as Allahabad (731647), Punjab & Haryana (534524), Rajasthan (468402), Madras (403407), Bombay 267809) and Karnataka (247812).<sup>9</sup> The problem of soaring pendency is due to the higher case filing and lesser disposal. During the period under study 2015-16 to 2018-19, the yearly average of case institution is 73900, higher than the average disposal of 66606 which is about 90%.<sup>10</sup> It shows that pendency accumulation in the high courts is at the rate of 10% per annum.<sup>11</sup> The right to appeal in the high courts against the judgement of the lower courts is extensively used that leads to case congestion and ultimately takes the shape of pendency.<sup>12</sup> It is generally observed that both the parties express their dissatisfaction with the judgement delivered by the lower court and prefer to appeal in the High Court. These appeals add to the number of the instituted cases. During

<sup>8</sup> On the basis of information given by Union Law Minister, Ravi Shankar Prasad.

<sup>9</sup> Sura, A. (2020, March 15). *Long wait for justice*. The Times of India. <https://timesofindia.indiatimes.com/city/chandigarh/long-wait-for-justice/articleshow/74636669.cms>

<sup>10</sup> Computed on the basis of Annual Reports available at <https://main.sci.gov.in/publication>

<sup>11</sup> Computed on the basis of Annual Reports available at <https://main.sci.gov.in/publication>

<sup>12</sup> Micevska, M. B., & Hazra, A. K. (2004, February 2). *The Problem Of Court Congestion: Evidence From Indian Lower Courts*. Discussion Papers 18750, University of Bonn, Center for Development Research (ZEF). <https://ideas.repec.org/p/ags/ubzefd/18750.html>



1995-99, the average number of the cases filed per annum was 1300 whereas the corresponding figure in Germany was just 176.<sup>13</sup>

The supply side of justice delivery is constrained by factors such as a shortage of judges, poor physical infrastructure, and procedural lapses, which generate a backlog which increases over time. The case pendency, with its continuous rise has a visible negative effect on output of the judicial sector as it also puts pressure upon judges who devote less than the necessary time to study and analyse cases. Judgements are passed in haste, which affects the quality of justice, further causing dissatisfaction and erosion of faith in system. The direct outcome is a rise in the number of appeals in the higher courts and a consequent growth in pendency. Hence, pendency and delays are mutually connected, as one leads to the other.

### Determinants of Pendency

We analyse the pendency problem in the high courts by using the Panel Corrected Standard Error (PCSE) model (results in Table 5).

**Regression Table-1: Determinants of Pendency**

Model	PCSE	Regression Coefficient	Z-value	Significance level	X <sup>2</sup> value	Significance	R <sup>2</sup>
Constant	-0.4804						
Independent variables	Judge-population ratio	-.4693	-2.58	0.010	1132.23	.0000	.8898
	Lnsdp	-.0378	-2.19	0.028			
	Civil case load/total case load	.9512	31.46	0.000			

Source: Computed from data in the annual reports of the Supreme Court and EPWRF India Time Series.<sup>14</sup>

Regression Table-1 reveals that the PCSE regression model concretely explains the determinants of pendency in the high courts. The value of R<sup>2</sup>, i.e., the coefficient of determination, is 0.8898 indicating that 88.98 per cent of the variations in pendency are explained by the three variables, i.e., the judge-population ratio, NSDP per capita, and ratio of civil to total cases. The rest of the variation (11%) is determined by factors which could not be included in the model due to limitations, such as data non-availability, quantification, etc. The fit is good as the value of X<sup>2</sup> is significant at the 99.9% confidence level. This implies that the chi-square shows that results achieved are significant.

The detailed explanation of the variables is:

#### *The Judge-Population Ratio*

The analysis proves that the judge-population ratio is a significant determinant of case pendency in the high courts, with a negative sign indicating that an increase in the ratio reduces pendency appreciably. Its regression coefficient -0.4693 is significant at the 99% confidence level, indicating

<sup>13</sup> Micevska, M. B., & Hazra, A. K. (2004, February 2). *The Problem Of Court Congestion: Evidence From Indian Lower Courts*. Discussion Papers 18750, University of Bonn, Center for Development Research (ZEF). <https://ideas.repec.org/p/ags/ubzefd/18750.html>

<sup>14</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication> and EPWRF India Time Series

that a rise in the ratio by 1 will reduce the pendency rate by 0.46. Thus, a rise in judge strength will bring down the number of the cases pending and waiting for disposal. A shortage of judges is a cause for the delay of justice delivery. From Table 4 it is clear that where the average judge-population ratio is 0.04, the average pendency is 2,67,654. On the other hand, where the ratio is 0.19 the average pendency is 56,208 indicating an inverse relationship between judicial strength and pendency. This is the case in 12 of 24 courts, which sufficiently proves the direction of the relationship. The same type of relation can be proved in other courts also; it may not be inverse and perfect, but it is inverse.

It is pertinent to mention that it is not only the number of the judges that is essential for improving disposal efficiency but the optimum utilisation of their time and potential. The relevant point is how to improve quantity and quality of judgements. Without suitable incentives for judges and an upgradation of their qualifications, a mere increase in their number will not be very effective. In fact, it is possible that an increase in recruitment may reduce overall efficiency in the court; the present productivity level needs to be maintained through suitable schemes, or the appointment of new judges may lead to a reduction in their efforts (Posner, 2000:711-19).

“If the behavior of the judges is characterised by inertia in their work habits, it will cancel out the positive effects of the initiatives taken to promote efficiency” (Falavigna et al, 2018: 31-43). A rise in expenditure on judicial staff can be effective only if productivity improves by organising for judges regular conferences, training camps, and refresher courses. The reorganisation and rationalisation of internal court management will also be instrumental in improving the working of courts, and could help improve output in terms of number and quality of cases disposed. In addition, time spent by judges needs to be fully used for judicial purpose: 45 per cent to 55 per cent of court time is spent on non-substantive issues such as reissuing summons, fixing dates for future hearings, and other similar jobs (Narang, 2016).

Additionally, an increase in the number of judges can reduce pendency if it is accompanied by an increase in judicial staff and the provision of adequate physical infrastructure in the form of rooms, computers, etc. Based on the data detailed in Annexure B, it is calculated that the for total clearance of existing pendency, we need 1,632 additional judges and for the annual pendency to be cleared there is a need for 75 more judges on the regular basis. This estimate is based upon the annual averages of end pendency and case disposal per judge during four years 2015-16 to 2018-19.

### ***Growth of Net State Domestic Product (NSDP) Per Capita***

Growth in the NSDP per capita is an exogenous factor that can be linked to productivity of the judicial sector (Djankov et al, 2003: 453-517). The variable that has a two-fold effect. A rise in the NSPD indicates an improvement in economic conditions, where it can afford to recruit more judges and hence have a higher rate of disposal of cases. On the other hand, it indicates an improvement in the economic conditions of its people, giving them the capacity to litigate and demand justice, leading to an increase in the filing of cases.

It is seen that there is more case filing in the better developed states. The sole logic is that people are more literate, better aware about their rights and are economically capable of seeking justice. In recently conducted research, it is observed that there is a definite relation between a country's economic performance and its legal framework (ibid.). However, in our study, this variable is found to affect pendency negatively and significantly. The value of its regression coefficient is -0.0378, significant at the 98% level, indicating that a rise in the ratio by 1 will reduce the pendency rate by 0.03. This may indicate that there are many out-of-court settlements, as most cases filed in the high courts are civil cases.<sup>15</sup>

---

<sup>15</sup> As per analysis of the annual reports (2015-16 to 2018-19), civil cases instituted and pending is more in high courts (1,53,69,006) as opposed to criminal cases instituted and pending (74,52,756).

### Civil Case Load

The problem of delay leading to pendency is caused not only by the inadequate number of the judges but by legislative and procedural delays in civil cases dealt with by the courts. Lengthy procedures in courts are time-consuming and add complexities, which gradually become a reason for pendency. The ratio of civil cases to the total case load is used as a proxy for the complexity in case procedures. Often, counsels ask for postponements, either because they are not prepared or want to dilute the case, and this leads to consistent adjournments.

The value of the regression coefficient for this variable is 0.9512 with significance at the 99.9% level. This implies that civil caseloads have a considerable impact on pendency growth. It can be concluded that a simplification of legislative and procedural laws may be instrumental in scaling down case pendency in the high courts.

### The Subordinate Courts: Pendency and Efficiency

With the growth of population and economic activity in the country, consciousness about rights, and overall development, the demand for judicial services would increase, and the subordinate courts provide the first platform for justice seekers. Pendency in cases in the subordinate courts are increasing annually, resulting in a waste of time and money for litigants (Table 5 (Annex -1)).

Table 5 (Annex -1) depicts that pendency in the subordinate courts varies across states. Those under the jurisdiction of the Allahabad High Court have the highest percentage of pendency (24.74), followed by Bombay (12.48), Patna (8.68) and Calcutta (6.77). In contrast, subordinate courts in the jurisdiction of the high courts of Sikkim, Manipur, Meghalaya and Tripura have a negligible number of pending cases.

### Determinants of Pendency in Subordinate Courts

Legal case pendency rates in the lower courts are determined by the same set of factors as in the high courts – the judge-population ratio, socio-economic factors (state domestic product per capita), and substantive and procedural law. The results of the PCSE model as applied to the subordinate courts are presented in Table 7.

**Regression Table 2: Determinants of Pendency in Subordinate Courts**

Model	PCSE	Regression Coefficient	Z-value	Significance Level	X <sup>2</sup> Value	Significance:	R <sup>2</sup>
Constant	1.0153						
Independent variables	Judge- population ratio	-.1043	-4.51	0.000	47.34	.000	.3074
	Ln SDP	-.0270	-1.25	0.213			
	Criminal case load/ total case load	.0292	0.31	0.758			

Source: Computed on the basis of data given in Annual Reports of Supreme Court and EPWRF India Time Series<sup>16</sup>

The value of R<sup>2</sup> for this model is .3074, (Table 7) which means that 30.74 per cent of the variations are explained by the three dependent variables, i.e. judge–population ratio, criminal caseload/total caseload and net state product per capita. The X<sup>2</sup> value of 47.34, significant at the 99.9% level of

<sup>16</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication> and EPWRF India Time Series

confidence, implies a good fit. Of the variables, the judge-population ratio is statistically significant, thus it has an appreciable effect upon pendency reduction. Its regression coefficient  $-.1043$ , is significant at 99.9% confidence level, indicating that a rise in the ratio by 1 will reduce the pendency rate by 0.1. In other words, a rise in the number of judges will reduce the number of pending cases. The coefficient of correlation between the judge-population ratio and pendency is computed as  $-0.490$  which is significant at the 99.5% level of confidence. At present the average judge–population ratio in the Indian subordinate courts for the period 2015-16 to 2018-19 is found to be 1.49 (per lakh which further means 149 judges for one crore of population).

From Table 6 (Annex – 1), it is clear that if the judge-population ratio improves, pendency at the end of the year is decreased. These are some of the examples taken from the highest and lowest level of relationship between the two variables which supports the argument that a rise in the number of judicial officers is instrumental in pendency reduction. On the basis of our calculations (data given in Annexure B1), we find that clearing the existing pendency (backlog) in the subordinate courts would need the recruitment of 33,748 more judges. This is based on the average yearly disposal calculated for four years (2015-16 to 2018-19). Further, to prevent recurring pendency pressure, 1,225 judges would need to be recruited regularly, in addition to the working judicial officers numbering 16,714. These estimates are based on the assumption of constancy in daily working hours and internal management of the courts.

An analysis of efficiency would need to not only consider the number of judgements delivered, but also their quality, objectivity, and detailing. The quality of the judgements and frequent adjournments are the outcomes of the limited time judges have for cases, which in turn is due to pendency pressures. However, it is important to note that merely filling up existing vacancies will only increase judicial expenditure and add to the state exchequer, possibly without tangible results. Solving the problem of deficiency in the supply of judicial services, along with the paucity of judges, will call for the optimum utilisation of their time. The other two variables, i.e., net state domestic product (the socio-economic factor) and legislative procedural law (criminal cases/total caseload) do not show any notable impact upon the pendency problem, as indicated by their respective non-significant regression coefficients,  $-0.0270$  and  $0.0292$ , respectively.

### Comparison of Pendencies in High Courts and Subordinate Courts

The average case filing per judge in the high courts was estimated at 2,400 whereas the corresponding figure in the subordinate courts was 1,195.<sup>17</sup> This shows that the demand for legal services is twice as high in the high courts, which can be considered as the major cause for the huge pendency.

**Comparison Table 1: Institution and Pendency of Cases in High Courts and Subordinate Courts**  
(in thousands)

Court	Case Type	Institution of Cases	Pendency	Pendency Rate (%)
High Court	Civil	1,079	2,839	263
High Court	Criminal	684	1,036	152
<i>High Court</i>	<i>Total</i>	<i>1,762</i>	<i>3,875</i>	<i>225</i>
Sub. Court	Civil	3,718	8,450	227
Sub. Court	Criminal	15,222	18,651	122
<i>Sub. Court</i>	<i>Total</i>	<i>18,940</i>	<i>27,285</i>	<i>144</i>

Source: ASCL, Final Report (Mahadik, 2018).

<sup>17</sup> Computed on the basis of Annual Reports

Case pendency in the high courts is higher (225%) than that in the subordinate courts (144%) (Comparison Table 1). This is a reflection of the differences in judge strength and procedural intricacies in the two types of courts.

## VIII. Summary Findings

- a. The explanatory power (effectiveness) of the PCSE model for the high courts is higher (0.8898, Table 5) than that fitted for the subordinate courts (0.3074, Table 7), which shows that the former has better explanatory power than the latter. While comparing the variables influencing pendency, the judge-population ratio emerges as a common significant factor in both models. In the high courts, the impact of this variable as measured by the regression coefficient (-0.4693) is greater than that in the subordinate courts (-0.1043). Difference in the coefficients imply that is that a rise in the ratio by 1 will reduce the pendency rate by .46 in high courts and 0.1 for the subordinate courts. If the judge-population ratio is raised, pendency will decline.
- b. The measure of social and economic conditions (NSDP per capita), being an exogenous variable, and does not show any difference in its influence on case pendency in the subordinate courts but has a negative and significant impact in high court.
- c. An increase in the civil caseload increases pendency in the high courts, whereas an increase or decrease in the number of criminal cases has no significant impact on pendency in the subordinate courts.
- d. The average number of case filings per judge in the high courts is double than in the subordinate courts, indicating that the demand for justice can be considered a major cause for the huge pendency. This may be due to a number of fresh cases instituted and the number of appeals against the subordinate courts in the high courts.
- e. Pendency in the Supreme Court could be considerably reduced by improving judge productivity in terms of case disposal.
- f. According to our calculations, the additional number of judges needed in high courts to clear pendency is 992 (Annex-2)<sup>18</sup> and in subordinate courts is 16,516 (Annex-3)<sup>19</sup>. It should be noted that these numbers are far higher than the results from the pilot study by the Delhi High Court and Daksh which estimated the requirement to be only of 43 additional judges in Delhi courts (Zero Pendency Courts Project, 2019). This is due to the fact that theirs was a pilot of 11 courts under the Delhi High Court's jurisdiction while our analysis is a macro one, covering all high courts and subordinate courts, and their total pendency. Further, theirs is a micro study with primary data on the amount of time taken to dispose of each type of case, while ours is a more comprehensive approach taking into account total pendency and disposal per judge.

<sup>18</sup> 1. Formula for required judges: Pendency at the end/Disposal per judge. 2. Required number of judges – already working judges

<sup>19</sup> 1. Formula for required judges: Pendency at the end/Disposal per judge. 2. Required number of judges – already working judges

## Conclusion

We have analysed the problem of pendency of court cases in the country and assessed the number of additional judges required to clear the current total pendency. To the best of our knowledge, this type of macro analysis has not been attempted before in the Indian context. For the improvement of judicial efficiency and efficient case disposal, there needs to be a strengthening of the judiciary through the recruitment of more judges. The supply of judicial services can also be considerably improved by increasing the number of judicial working hours and days, and the number of courts. These measures could be supplemented by others, such as an increased use of mediation and arbitration. The procedural complexities surrounding the process of litigation should be minimised to relieve litigants of unwanted harassment, and the wastage of their expenditure and time.

Improvement in judge productivity in terms of case disposal can significantly bring down case pendency. The time allotted for judicial work ought not to be spent upon non-judicial, administrative activities. There should also be a provision for overtime, and a time-limit on category-wise case resolution may be adopted as far as possible.

The extension of judicial units to the rural sector would increase people's access to justice. A degree of judicial power could be extended to village panchayats with proper authentication, and some specific cases should be solved within the villages itself. This would decrease the caseloads of the courts, promote legal consciousness among the people, and possibly provide extra employment avenues. Deficient regulatory mechanism, biased and discriminatory investigations, and incomplete protection of fundamental rights are weak spots that need attention as well.

## References

- Amirapu, A. (2020). Justice Delayed is Growth Denied: The Effect of Slow Courts on Relationship-Specific Industries in India. *Economic Development and Cultural Change*, 1–52. <https://doi.org/10.1086/711171>
- Buscaglia, E., & Ulen, T. (1997,). *A quantitative assessment of the efficiency of the judicial sector in Latin America*. ScienceDirect. June1 <https://www.sciencedirect.com/science/article/abs/pii/S0144818897000070>
- The Hindu Centre (2018, April 23). *Economic survey 2017-18: Volumes 1 and 2*. <https://www.thehinducentre.com/resources/article10057766.ece>
- Chandra, A., Hubbard, W. H. J., & Kalantry, S. (2018). The Supreme Court of India: An empirical overview. *U of Chicago, Public Law Working Paper No. 660*, 1–35. <https://doi.org/10.2139/ssrn.3154597>
- Cook, W. D., & Seiford, L. M. (2009). Data envelopment analysis (DEA) – Thirty years on. *European Journal of Operational Research*, 192(1), 1–17. <https://doi.org/10.1016/j.ejor.2008.01.032>
- Dakolias, M. (1999). *Court performance around the world: A comparative perspective*. Yale Law School Legal Scholarship Repository. <https://digitalcommons.law.yale.edu/yhrdlj/vol2/iss1/2/>
- Dey, S. (2016, August 14). Cost of pendency of cases could be as high as 1.5% of GDP: Harish Narasappa. *Business Standard*.[https://www.business-standard.com/article/opinion/cost-of-pendency-of-cases-could-be-as-high-as-1-5-of-gdp-harish-narasappa-116081400774\\_1.html](https://www.business-standard.com/article/opinion/cost-of-pendency-of-cases-could-be-as-high-as-1-5-of-gdp-harish-narasappa-116081400774_1.html)
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2003). Courts. *The Quarterly Journal of Economics*, 118(2), 453–517. <https://doi.org/10.1162/003355303321675437>
- Falavigna, G., Ippoliti, R., Manello, A., & Ramello, G. B. (2015). Judicial productivity, delay and efficiency: A Directional Distance Function (DDF) approach. *European Journal of Operational Research*, 240(2), 592–601. <https://doi.org/10.1016/j.ejor.2014.07.014>
- Falavigna, G., Ippoliti, R., & Ramello, G. B. (2018). DEA-based Malmquist productivity indexes for understanding courts reform. *Socio-Economic Planning Sciences*, 62, 31–43. <https://doi.org/10.1016/j.seps.2017.07.001>
- Farrell, M. J. (1957). The measurement of productive efficiency. *Journal of the Royal Statistical Society. Series A (General)*, 120(3), 253. <https://doi.org/10.2307/2343100>
- Fauvrelle, T. A., & Almeida, A Tony C. (2018). Determinants of judicial efficiency change: Evidence from Brazil. *Review of Law & Economics*, 14(1), 1–36. <https://doi.org/10.1515/rle-2017-0004>
- Ghosh, Y. (2017). Indian judiciary: An analysis of the cyclic syndrome of delay, arrears and pendency. *Asian Journal of Legal Education*, 5(1), 21–39. <https://doi.org/10.1177/2322005817733566>
- Law Commission of India. (2014). *Report No. 245 Arrears and backlog: Creating additional judicial (wo)manpower*. July. [https://lawcommissionofindia.nic.in/reports/Report\\_No.245.pdf](https://lawcommissionofindia.nic.in/reports/Report_No.245.pdf)
- \_\_\_\_\_ (1987). *120<sup>th</sup> report on manpower planning in judiciary: A blueprint*. July. <https://lawcommissionofindia.nic.in/101-169/Report120.pdf>
- Livelaawnetwork (2021, January 19). About 3.5 Crore Cases Pending In Indian District Courts: Plea In Supreme Court For Appointment Of More Judges In Subordinate Judiciary. <https://www.livelaw.in/news-updates/supreme-court-appointment-of-judges-in-subordinate-judiciary-delay-in-justice-168561>

Mahadik, D. & Administrative Staff College of India. (2018). *Analysis of causes for pendency in High Courts and Subordinate Courts in Maharashtra*. Department of Justice, Government of India. <https://doj.gov.in/sites/default/files/ASCI%20Final%20Report%20Page%20641%20to%20822.pdf>

Malmquist, S. (1953). Index numbers and indifference surfaces. *Trabajos de Estadística*, 4(2), 209–242. <https://doi.org/10.1007/bf03006863>

McCormack, G. (2018). Why ‘Doing Business’ with the World Bank May Be Bad for You. *European Business Organization Law Review*. August 30. [https://link.springer.com/article/10.1007/s40804-018-0116-4?error=cookies\\_not\\_supported&code=ac4789d1-5b07-4692-9e05-5eafe7347a67](https://link.springer.com/article/10.1007/s40804-018-0116-4?error=cookies_not_supported&code=ac4789d1-5b07-4692-9e05-5eafe7347a67)

Messick, R. E. (1999). Judicial reform and economic development: A survey of the issues. *The World Bank Research Observer*, 14(1), 117–136. <https://doi.org/10.1093/wbro/14.1.117>

Micevska, M. B., & Hazra, A. K. (2004). *The Problem Of Court Congestion: Evidence From Indian Lower Courts*. February 2. University of Bonn, Center for Development Research (ZEF), Discussion Papers 18750. <https://ideas.repec.org/p/ags/ubzefd/18750.html>

Mishra, P., & Suhag, R. (2017, September). Land records and titles in India. PRSIndia. <https://www.prsindia.org/policy/discussion-papers/land-records-and-titles-india>

Mustafa, F. & NALSAR University of Law. (2016). A study on court management techniques for improving the efficiency of subordinate courts. Department of Justice, Ministry of Law & Justice, Government of India. [https://doj.gov.in/sites/default/files/Final%20DOJ%20Report\\_Revised%20%281%29.pdf](https://doj.gov.in/sites/default/files/Final%20DOJ%20Report_Revised%20%281%29.pdf)

Narang, P. S. P. B. S. (2016). How to maximize judicial time. *Mint*. November 19 <https://www.livemint.com/Sundayapp/kaOOjQmldoouVxJ098RAIL/How-to-maximize-judicial-time.html>

Posner, R. A. (2000). Is the ninth circuit too large? A statistical study of judicial quality. *The Journal of Legal Studies*, 29(2), 711–719. <https://doi.org/10.1086/468090>

Press Trust of India. (2016). India Has 18 Judges Per 10 Lakh People. NDTV. August 4 <https://www.ndtv.com/india-news/india-has-18-judges-per-10-lakh-people-1440254>

National Crime Records Bureau (NCRB). (2020) *Prison Statistics India 2019*. <https://ncrb.gov.in/sites/default/files/PSI-2019-27-08-2020.pdf>.

PRS India. (2019) *Examining pendency of cases in the judiciary*. August 8. <https://www.prsindia.org/theprsblog/examining-pendency-cases-judiciary>

Radhakrishnan, V., & Sen, S. (2020). 70% prisoners in India are undertrials. *The Hindu*. <https://www.thehindu.com/data/data-70-prisoners-in-india-are-undertrials/article32569643.ece>.

Rajagopal, K. (2016). CJI Thakur’s emotional appeal to Modi to protect judiciary. *The Hindu*. September 21. <https://www.thehindu.com/news/national/CJI-Thakur%E2%80%99s-emotional-appeal-to-M-Rosales>

[odi-to-protect-judiciary/article14257126.ece](https://www.thehindu.com/news/national/CJI-Thakur%E2%80%99s-emotional-appeal-to-M-Rosales)

Robinson, N. (2009). Expanding judiciaries: India and the rise of the good governance court. Washington University Open Scholarship. [https://openscholarship.wustl.edu/law\\_globalstudies/vol8/iss1/2/](https://openscholarship.wustl.edu/law_globalstudies/vol8/iss1/2/)

Rosales- López, V. (2008a). Economics of court performance: An empirical analysis. *European Journal of Law and Economics*, 25(3), 231–251. <https://doi.org/10.1007/s10657-008-9047-9>



- Staff, T. W. (2019). Over 3.5 Crore Cases Pending Across Courts in India, Little Change in Numbers Since 2014. *The Wire*. November 27. <https://thewire.in/law/pending-court-cases>
- Supreme Court Observer. (2019). Supreme Court Statistics Pack 2018. July 13. <https://www.scoobserver.in/the-desk/supreme-court-statistics-pack-2018>
- Sura, A. (2020). Long wait for justice. *The Times of India*. March 15. <https://timesofindia.indiatimes.com/city/chandigarh/long-wait-for-justice/articleshow/74636669.cms>
- Tata Trusts. (2019). *India justice report: Ranking states on police, judiciary, prisons and legal aid*. <https://www.tatatrusts.org/upload/pdf/overall-report-single.pdf>
- Vidhi Centre for Legal Policy. (2017). *Inefficiency and judicial delay: New insights from the Delhi High Court*. <https://vidhilegalpolicy.in/research/2017-3-29-inefficiency-and-judicial-delay-new-insights-from-the-delhi-high-court/>
- Voigt, S. (2016a). Determinants of judicial efficiency: A survey. *European Journal of Law and Economics*, 42(2), 183–208. <https://doi.org/10.1007/s10657-016-9531-6>
- Wahi, B. N., Cullet, P., Saran, S., & Padmanabhan, A. (2019,). *Understanding land conflict in India and suggestions for reform*. Centre for Policy Research. June 10. <https://www.cprindia.org/policy-challenge/7872/regulation-and-resources>
- Wahi, N., Shukla, P., Gandhi, D., Jain, S., & Chauhan, U. (2017). *Land acquisition in India: A review of Supreme Court cases (1950-2016)*. Centre for Policy Research. February 27. <https://www.cprindia.org/research/reports/land-acquisition-india-review-supreme-court-cases-1950-2016>
- Westover, H. C. (1959). *The cause, effect and solution of congestion in the federal courts*. UC Hastings Scholarship Repository. [https://repository.uchastings.edu/hastings\\_law\\_journal/vol10/iss4/3/](https://repository.uchastings.edu/hastings_law_journal/vol10/iss4/3/)
- World Justice Project (WJP). (2020). *WJP Rule of Law Index 2020*. <https://worldjusticeproject.org/our-work/research-and-data/wjp-rule-law-index-2020>
- ZERO PENDENCY COURTS PROJECT. Delhihighcourt.nic.in. (2019). Retrieved from [http://delhihighcourt.nic.in/writereaddata/Upload/PublicNotices/PublicNotice\\_3MRRIN3QTHN.PDF](http://delhihighcourt.nic.in/writereaddata/Upload/PublicNotices/PublicNotice_3MRRIN3QTHN.PDF)

## Annexes

### Annex -1

**Table 1: Subject Matter Categories (2010-15)**

Serial Number	Subject Category	Percentage Share
1	Criminal	29.1
2	Service	11.2
3	Ordinary Civil	10.4
4	Land Acquisition and Requisition	6.2
5	Constitutional	5.3
6	Indirect Taxes	3.8
7	Letter Petitions and PILs	3.1
8	Direct Taxes	2.7
9	Compensations	2.6
10	Family Law	1.9
11	Matters Relating to Judiciary	1.9
12	Mercantile Law, Commercial Transaction, etc.	1.9
13	Labour	1.8
14	Arbitration	1.8
15	Land Laws and Agricultural Tendencies	1.5
16	Environment	1.3
17	Contempt of Court	1.3
18	Academic	1.2
19	Appeal Against Orders of Statutory Body	1.2
20	Rent Act	1.1
21	Elections	1.1
22	Leases, Government Contracts, etc.	1.1
23	Consumer Protection	1.0
24	Mines, Minerals and Mining Leases	1.0
25	Company Law, MRTP and Allied Matters	0.8
26	Admissions/Transfers to Engineering and Medical Colleges	0.8
27	Armed Forces	0.6
28	Admission to Other Educational Institutes	0.4
29	Establishment and Recognition of Educational Institutes	0.4
30	Personal Law	0.3
31	Simple Money and Mortgage Matters	0.3
32	Habeas and Corpus	0.2
33	Statutory Appointments	0.2
34	State Excise and Trading in Liquor	0.2
35	Religious and Charitable Endowments	0.2
36	Human Rights	0.1
37	Admiralty and Maritime Laws	0.1
38	Reference Under Right to Information	0.1
39	Other 3 categories	0.0
	Total	100

Source: Chandra, A. et al. (2018). *The Supreme Court of India: An Empirical Overview*.

**Table 2: Supreme Court: Judge Productivity in Terms of Case Disposal and Pendency**

Year	Chief Justice + Supreme Court Judges (no.)	Disposed Cases/ Judge	Pendency End/Judge
1990	25	1,009.52	4,371.08
1991	29	1,218.65	3,670.24
1992	25	1,433.88	3,899.04
1993	24	870.16	2,449.75
1994	25	1,915.6	2,118
1995	26	2,628.34	1,386.76
1996	25	1,848.64	929.84
1997	26	1,406.5	732
1998	25	1,409.32	814.32
1999	25	1,388.28	813.36
2000	27	1,307.40	820.18
2001	28	1,387.21	811.5
2002	30	1,414.63	811.16
2003	25	1,919.16	1,070
2004	27	2,056.66	1,116.70
2005	27	1,711.48	1,277.07
2006	23	2,458.26	1,729.56
2007	27	2,294.70	1,738
2008	29	2,326.17	1,717.89
2009	29	2,454.44	1,923.82
2010	30	2,650.3	1,818.96
2011	33	2,216.15	1,773.30
2012	29	2,370.48	2,299.72
2013	30	2,569.5	2,211.63
2014	33	2,809.75	1,902.75
2015	27	3,040.44	2,195.25
2016	28	2,713.53	2,233.46
2017	26	2,425.11	2,138

Source: Computed from annual reports of the Supreme Court and the Supreme Court website.<sup>20</sup>

**Table 3: Pendency in Courts in 2020**

Serial Number	Court	Pending Cases	Date of Pendency
1	Supreme Court	62,054	31-08-2020
2	High Courts	51,57,378	20-09-2020
3	District and Subordinate Courts	3,45,71,854	20-09-2020

Source: [https://doj.gov.in/sites/default/files/RS-22.9.20\\_0.pdf](https://doj.gov.in/sites/default/files/RS-22.9.20_0.pdf)<sup>21</sup>

<sup>20</sup> <https://main.sci.gov.in/publication> and see Annexure A for judges.

<sup>21</sup> Government Of India Ministry Of Law & Justice Department Of Justice Rajya sabha Answer To Unstarred Question No.1381 To Be Answered On Tu~Sday, The 22nd September, 2020 at [https://doj.gov.in/sites/default/files/RS-22.9.20\\_0.pdf](https://doj.gov.in/sites/default/files/RS-22.9.20_0.pdf)

**Table 4: Four-Yearly Average High Courts: Pendency and Judge-Population Ratios (2015-6 to 2018-19)**

High Courts	Institutions (no.)	Disposal of Cases (no.)	End Pendency of Cases (no.)	Judge-Population Ratio
Allahabad	273,290	2,67,687	7,62,531	0.04
Bombay	97,790	83,840	2,38,565	0.05
Calcutta	64,246	61,721	2,22,952	0.03
Chhattisgarh	37,405	32,619	1,13,796	0.04
Delhi	45,449	43,265	71,092	0.19
Gujarat	81,893	75,836	1,06,870	0.04
Himachal Pradesh	13,365	12,912	26,996	0.12
Hyderabad	81,517	54,192	3,04,770	0.02
Jammu and Kashmir	21,620	17,328	82,697	0.06
Jharkhand	30,101	29,121	72,803	0.04
Karnataka	1,47,979	1,14,517	2,70,687	0.04
Kerala	92,471	83,912	1,79,486	0.10
Madhya Pradesh	1,35,989	1,15,441	3,11,716	0.04
Madras	1,80,222	1,77,113	3,02,453	0.07
Manipur	1,810	1,947	3,260	0.10
Meghalaya	767	689	756	0.07
Orissa	70,323	74,607	1,65,148	0.03
Patna	1,11,349	1,03,583	1,46,487	0.02
Punjab and Haryana	1,36,580	1,19,430	3,24,962	0.08
Rajasthan	1,15,685	97,780	2,35,173	0.04
Sikkim	207	168	207	0.45
Tripura	2,805	3,326	2,883	0.07
Uttarakhand	20,504	18,221	32,089	0.07
Guahati	28,712	26,644	42,531	0.05

Source: Computed from the annual reports of the Supreme Court.<sup>22</sup>

<sup>22</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication>

**Table 5: Pendency in Subordinate Courts, 2018-19**

Jurisdiction of the High Court	Pendency (no.)	Pendency (%)	Jurisdiction of the High Court	Pendency (no.)	Pendency (%)
Allahabad	74,21,313	24.74	Madhya Pradesh	14,09,670	4.69
Bombay	37,44,165	12.48	Madras	11,62,924	3.87
Calcutta	20,32,966	6.77	Manipur	6,325	0.02
Chhattisgarh	27,28,872	0.90	Meghalaya	13,480	0.04
Delhi	9,16,425	3.05	Orissa	13,84,367	4.61
Guwahati	3,18,742	1.06	Patna	26,03,657	8.68
Gujarat	16,42,394	5.47	Punjab & Haryana	15,00,810	5.00
Himachal Pradesh	2,84,118	0.94	Rajasthan	17,64,558	5.88
			Andhra Pradesh	5,58,276	1.86
Jammu & Kashmir	1,65,999	0.55	Sikkim	1,168	00
Jharkhand	3,40,769	1.13	Tripura	28,952	0.09
Karnataka	15,54,379	5.18	Uttarakhand	2,17,853	0.72
Kerala	16,84,188	5.61	Telangana	5,52,023	1.84

Source: Computed based on Annual Reports of Supreme Court<sup>23</sup>

**Table 6: Average Judge-Population Ratio and Case Pendency (2015-16 to 2018-19)**

Jurisdiction of High Court	Judge-Population Ratio	End Pendency
Allahabad	0.85	6,549,794
Patna	0.94	2,283,602
Calcutta	0.94	2,211,748
Madhya Pradesh	1.80	1,335,688
Punjab & Haryana	1.80	1,286,895
Himachal Pradesh	2.03	257,255
Uttarakhand	2.05	210,747
Delhi	2.70	96,375
Sikkim	2.79	1,318

Source: Computed from the Annual Reports of the Supreme Court<sup>24</sup>

<sup>23</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication>

<sup>24</sup> Annual reports (2015-16 to 2018-19) accessed at <https://main.sci.gov.in/publication>

## Annex -2: Judge Requirement in High Courts

1. Formula for required judges: Pendency at the end/Disposal per judge

2. Required number of judges – already working judges Averages for 2015-16 to 2018-19

High Court	Institution	Disposal	End Pendency	Working Judges	Disposal per judge	Judge Required for end pendency	Judges required for Current pendency
Allahabad	273,290	267,687	762,531	70	2,974	256	2
Bombay	97,790	83,840	238,565	69	1,215	196	11
Calcutta	64,246	61,721	222,952	39	1,583	140	2
Chhattisgarh	37,405	32,619	11,379	13	2,509	5	2
Delhi	45,449	43,265	71,092	37	1,169	61	2
Gujrat	81,894	75,836	106,870	30	2,528	42	2
Himachal Pradesh	13,365	12,913	266,996	9	1,435	19	0
Hyderabad	81,517	54,192	304,770	26	2,084	146	13
J&K	21,620	17,328	82,697	10	1,733	48	2
Jharkhand	30,101	29,121	72,072	16	1,820	40	1
Karnataka	147,979	114,517	270,687	30	3,817	71	9
Kerala	92,471	83,212	179,486	35	2,377	76	4
MP	135,989	115,441	311,716	35	3,298	95	6
Madras	180,223	1777,113	302,453	53	3,342	91	1
Manipur	7,239	7,786	3,260	4	1,947	2	0
Meghalaya	767	689	756	3	230	3	0
Orissa	70,323	74,607	165,148	17	4,389	38	1
Patna	111,349	103,583	146,487	32	3,237	45	2
Punjab & Haryana	136,580	119,430	324,962	49	2,437	133	7
Rajasthan	115,685	97,780	235,173	31	3,154	75	6
Sikkim	207	168	207	3	56	4	0
Tripura	2,805	3,326	2,883	3	1,109	3	0
Guahati	288,712	26,644	42,531	17	1,567	27	1
Uttarakhand	20,504	18,221	32,089	9	2,024	16	1
Total				640		1632	75

### Annex - 3: Additional Judge Requirement in Subordinate Courts

1. Formula for required judges: Pendency at the end/Disposal per judge

2. Required number of judges – already working judges Averages for 2015-16 to 2018-19

Jurisdiction of High Court	Institution	Disposals	End Pendency	Current Pendency	Working Judges	Disposals per Judge	Judge Requirement for Total Clearance	Judge Requirement for Current pen
Allahabad	384,5683	3,412,531	6549,794	433,152	1,876	1,819	3,601	238
Bombay	241,4517	2,227,133	3454,371	187,384	2,240	994	3,475	189
Calcutta	1,016,447	1,069,375	2211,748	-5,2928	914	1,170	1,890	-90
Chhattisgarh	210,661	213,571	2774,491	-2,910	365	585	4,743	-5
Delhi	1,016,832	890,661	96,375	126,171	518	1,719	56	73
Gujarat	1,243,653	1,400,722	1,763,887	-157,069	1,130	1,560	612	-100
Himachal Pradesh	352,851	343,658	257,255	9,193	147	2,338	110	4
Hyderabad	993,447	958,601	1,282,569	34,846	972	986	1,301	35
Jammu & Kashmir	131,662	118,569	155,513	13,093	223	532	292	25
Jharkhand	156,158	152,445	336,591	3,713	454	336	1,002	11
Karnataka	1,209,722	1,134,291	1,442,436	75,431	1,023	1,109	1,301	68
Kerala	1,155,191	1,080,234	1,596,268	74,957	441	2,450	652	31
Madhya Pradesh	1,275,673	1,224,913	1,335,688	50,760	1,443	849	1,573	60
Madras			1,135,021	78,317	981	1,055	1,088	74
Manipur	4,990	5,121	6,866	-131	37	138	50	-1
Meghalaya	10,929	11,342	14,279	-413	86	132	108	-3
Orissa	442,162	376,712	1,213,420	65,450	646	583	2,081	112
Patna	459,977	345,760	2,283,602	114,217	1,094	316	7,227	316
Punjab & Haryana	1,509,404	1,403,108	1,286,895	106,296	1,062	1,321	974	80
Rajasthan	1,520,247	1,434,457	1,644,811	85,790	845	1,698	968	51
Sikkim	2,247	2,235	1,318	12	17	131	10	0
Tripura	136,407	158,555	95,061	-22,148	79	2,007	47	15
Uttarakhand	259,077	24,307,131	210,747	16,006	226	1,075	196	15
Gauhati	324,361	313,914	297,245	10,447	413	760	391	27
Total					17232		33,748	1,225

Independence | Integrity | Impact

**Centre for Social and Economic Progress**

6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi - 110021, India



@CSEP\_Org



@csepresearch



[www.csep.org](http://www.csep.org)