



CALCULATING JUDGES' STRENGTH IN INDIA

A TIME-BASED WEIGHTED
CASELOAD APPROACH

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ABSTRACT

What should be the ideal method to calculate the judge strength in India? Time and again the policymakers in the country have been confronted with this question. The earlier methods such as judge to population ratio and the rate of disposal technique have been criticized for being ineffective as these methods do not taken into account the necessary case related variables that are required to calculate the judicial strength. Hence, to arrive at the right method, the paper delves into the different methods used and suggested in the past in India and proposes the use of a time-based weighted caseload approach as the ideal formula to arrive at the necessary judicial strength. One of the important components of the formula is that it uses judicial time in minutes spent by judges on handling different types of cases, an aspect that was lacking in all the previous methods. The paper further deconstructs different components of the formula and provides insights from the Zero Pendency Project of the Delhi High Court wherein the formula was used to calculate the ideal judge strength. To make the best use of this approach, the paper also provides an action plan through which the formula can be implemented by courts in different districts in the country.

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INTRODUCTION

1

Adequate judge strength is essential for the rule of law in a country. With cases constantly being filed in all tiers of the judiciary, it is important that the requisite judicial strength be available to tackle the caseload. While dealing with the basic question of ‘how many judges do we need?’ several countries have devised methods to determine the optimal strength of the judiciary. Taking an empirical approach and developing a scientific method to calculate judges’ strength is important in India which suffers from chronic judicial delays. For a long time, policymakers have depended on the judge to population ratio method as the proper formula to determine the number of judges required. However, in 2012 the Law Commission of India suggested an alternate method as an approach to reduce backlogs and delays in the system, thus opening the debate of using various models to assess judges’ strength in the country. The Supreme Court in the case

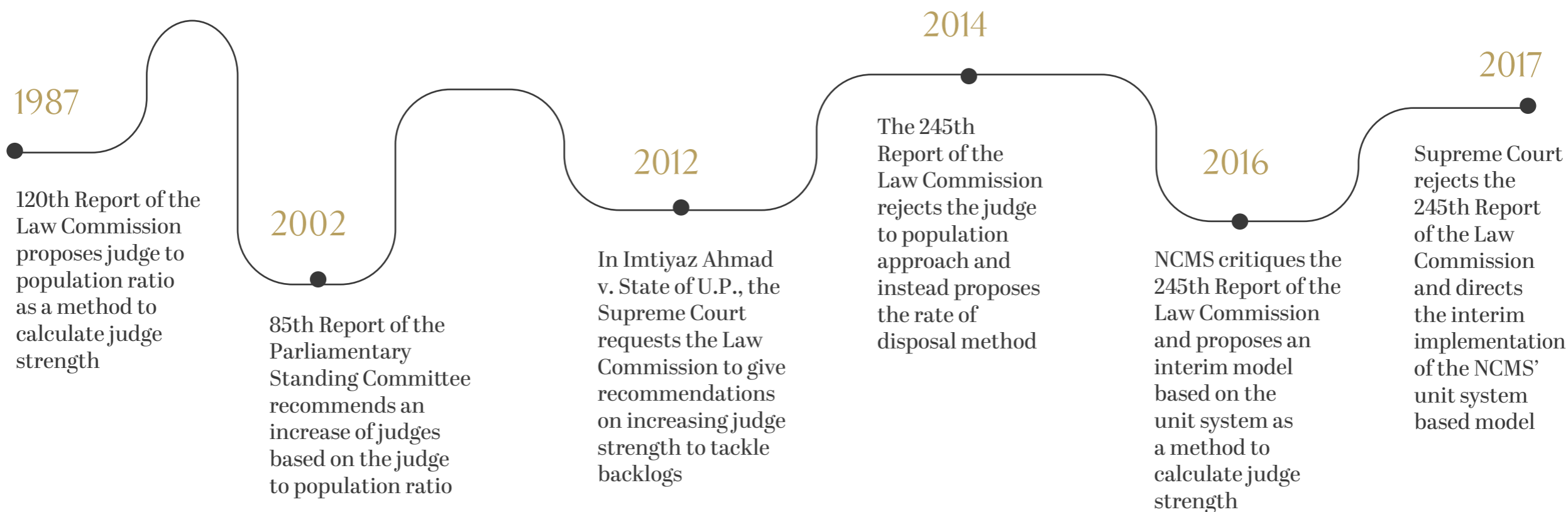
of *Imtiyaz Ahmad v. State of U.P.*¹, (hereinafter referred to as *Imtiyaz Ahmad*) emphasised that scientific methods should be used to calculate judges’ strength.

This paper highlights the limitations that inherently exist in each of the models that have been proposed in the past, and proposes a time-based weighted caseload model as the best approach towards judge strength calculation. The weighted caseload model is in use in many countries. Several countries in Europe and the United States of America (USA) have modelled the weighted caseload method as per their needs. However, applying the method without contextualizing it to the Indian scenario will not fetch the right results. We must take into account case-related and judge related aspects existing in the Indian scenario.

1. *Criminal Appeal Nos. 254-262 of 2012. Judgment dated, 2 January 2017.*



One of the key aspects of the time-based weighted caseload model proposed in this paper is a time and motion study required to assess the workload of the courts. The practice of conducting a time and motion study is quite common in the USA where judges themselves take part in the activity. Help from other organisations, especially the National Center for State Courts (NCSC), is taken to conduct the entire study and calculate the required judge strength in the USA. To get a better understanding of the time spent by judges and to understand the effectiveness of the method, this paper uses the findings from the Delhi High Court's Zero Pendency Courts Project wherein a weighted caseload method was used to arrive at the ideal judge strength. It is necessary that empirical studies that aim at gathering granular details for better analysis of the workload of judges be undertaken by courts in different parts of the country.



2

BRIEF HISTORY OF JUDGE STRENGTH CALCULATION

The 120th Report of the Law Commission of India² stands as a landmark event on the discourse of judge strength in India. The Law Commission recognized the need for an increase in judicial strength in the country, to tackle the ‘scandalous delay’³ within the Indian judiciary. While the Law Commission recognised the need to come up with scientific methods through which the problem of judicial strength can be addressed, the Report went on to propose population as an essential metric to arrive at the adequate judge strength.

AS PER THE REPORT, INDIA HAD 10.5 JUDGES PER MILLION POPULATION AS OF 1987. THE NUMBER OF JUDGES WERE MUCH LESSER WHEN COMPARED TO OTHER COUNTRIES SUCH AS AUSTRALIA AND THE USA WHICH HAD 41.6 JUDGES PER MILLION POPULATION IN 1975 AND 107 JUDGES PER MILLION POPULATION IN 1981, RESPECTIVELY⁴.

² Law Commission of India. 1987. ‘Report on Manpower Planning in Judiciary: A Blueprint’ Report no. 120, available online at <http://lawcommissionofindia.nic.in/101-169/report120.pdf> (accessed on 15 November 2019).

³ *Id.*, at 1.

⁴ 120th Law Commission Report, *supra* note 2 at, at 3.

Hence, the Law Commission recommended that India must have at least 50 judges per million population in the next five years to ten years⁵. While envisaging the future requirements, the Law Commission opined that by the year 2000, India must be in a position to have at least 107 judges per million population⁶. However, 36 years down the line, the scenario has scarcely improved. According to data released by the Ministry of Law and Justice in 2016, India had 17.89 judges per million population⁷. The judge to population ratio for each state is given in Annexure B. As per the recent data provided by the Ministry of Law and Justice there were 19.78 judges per million population in 2018⁸.

⁵ 120th Law Commission Report, *supra* note 2 at, at 3.

⁶ 120th Law Commission Report, *supra* note 2 at, at 3.

⁷ Ministry of Law and Justice (Department of Justice). 29 July 2016. 'Statement Referred to in Reply to Rajya Sabha Unstarred Question No. 1441', Annexure 1, available online at http://doj.gov.in/sites/default/files/RS-Eng_1.pdf (accessed on 23 November 2019).

In 2002, in *All India Judges Association v. Union of India*⁹, the Supreme Court deliberated upon the 120th Law Commission Report and articulated the need to increase judges' strength to ensure timely disposal of cases¹⁰. The Court went a step ahead and directed the Ministry of Law and Justice to fill up all the vacancies at all levels in the subordinate courts across the country, latest by 31 March 2003¹¹. The Court directed that the vacancies must be increased, and posts should be filled within five years from the date of the judgment. The Court also relied upon the 85th Report of the Parliamentary Standing Committee on delays and arrears in courts headed by Pranab Mukherjee, Chairman,

⁸ Ministry of Law and Justice (Department of Justice). 6 February 2019. 'Judge Population Ratio'. Unstarred Question No. 675 (Lok Sabha), available online at <http://164.100.24.220/loksabhaquestions/annex/17/AU675.pdf> (accessed on 3 December 2019).

⁹ AIR 2002 SC 1752

¹⁰ *d.*, para 23

¹¹ *All India Judges Association case*, *supra* note 9 at, para 24



Committee on Home Affairs in February 2002¹², which recommended an increase in the judicial strength based on the judge to population ratio.¹³ A similar observation was made by the Hon'ble Supreme Court in the case of P. Ramachandra Rao v. State of Karnataka¹⁴. The Court while citing several reasons for backlog such as non-availability of the accused, delay in investigation etc., referred to the 120th Law Commission Report and stated that, 'the root cause for delay in dispensation of justice in our country is a poor judge to population ratio.'¹⁵

¹² Department-Related Parliamentary Standing Committee on Home Affairs. 2002. '85th Report on Law's Delays: Arrears in Courts,' available online at <http://164.100.47.5/newcommittee/reports/EnglishCommittees/Committee%20on%20Home%20Affairs/85threport%20.htm> (accessed on 19 November 2019).

¹³ All India Judges Association case, para 23.

¹⁴ (2002) 4 SCC 578

¹⁵ *Id.*, para 19

In *Imtiyaz Ahmad*, the Supreme Court directed the Law Commission to come up with recommendations for the creation of additional courts to tackle problems of delay and backlog. Accordingly, the Law Commission in its 245th Report in 2014, discussed the methodology to calculate the required judges' strength in the country. The Law Commission discussed various methods, such as the ideal caseload method¹⁶, the time-based method¹⁷, and the judge to population ratio¹⁸ which was proposed in its earlier report. The Law Commission chose to break away from the 'judge to population ratio method' and suggested the rate of disposal method as a sound technique to calculate judges' strength¹⁹. In a nutshell, the rate of disposal method takes into account the average number of cases disposed per judge to arrive at the additional number of judges required.

¹⁶ *Law Commission of India*. 2014. 'Arrears and Backlog: Creating Additional Judicial (wo)manpower,' Report Number 245, p. 20, available online at http://lawcommissionofindia.nic.in/reports/Report_No.245.pdf (accessed on 8 November 2019).

¹⁷ *Id.*, at 22

Subsequently, the Supreme Court directed the National Court Management Systems Committee (NCMS), a body set up under the aegis of the Chief Justice of India²⁰, to examine the recommendations made in the 245th Law Commission Report. NCMS critiqued the method suggested by the Law Commission and presented an interim alternative method by proposing a model based on the 'units system'²¹.

¹⁸ *245th Law Commission Report*, *supra* note 16, at 19

¹⁹ *245th Law Commission Report*, *supra* note 16, at 24

²⁰ *Supreme Court of India*. 2012. 'National Court Management Systems, Policy and Action Plan,' p. 3 available online at <http://supremecourtofindia.nic.in/pdf/NCMSP/ncmspap.pdf> (accessed on 18 November 2019)

²¹ *National Court Management Systems Committee*. 2016. 'Note for Calculating Required Judge Strength for Subordinate Courts,' available online at http://doj.gov.in/sites/default/files/NCMS%20Report_0.pdf (accessed on 20 November 2019)

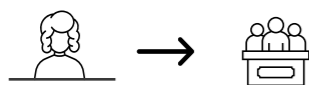
Every High Court has set up norms to assess the performance of subordinate court judges. These norms are commonly known as the ‘unit system’²². The units prescribed vary depending upon the complexity and nature of cases. The unit system takes into account not only the type of case but is also reflective of the local conditions since the unit system varies from one state to another. The intention of the NCMS was to provide weightage to different types of cases, which the Law Commission failed to take into account.

The Supreme Court directed the NCMS to come up with a more scientific and suitable model by 31 December 2017²³. The Court rejected the methodology proposed in the 245th Law Commission Report and accepted the method put forth by the NCMS for an interim period, until the end of 2017.

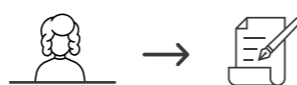
²² See Srikrishna Deva Rao, Rangin Tripathy and Eluckiaa A. 2018. ‘Performance Evaluation and Promotion Schemes of Judicial Officers in India: A Comparative Report,’ Department of Justice, India, available online at <https://doj.gov.in/sites/default/files/Comparative%20Report.pdf> (accessed on 18 November 2019)

²³ Imtiyaz Ahmad, *supra* note 1 at, para 22

3

DIFFERENT METHODS OF
CALCULATING JUDGE
STRENGTH

1 JUDGE TO
POPULATION RATIO



2 JUDGE TO
FILINGS RATIO



3 IDEAL CASELOAD
METHOD



4 TIME-BASED
METHOD

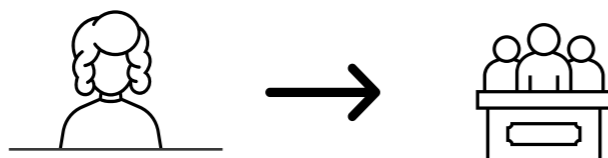


5 RATE OF DISPOSAL
METHOD



6 NCMS' MODEL

There are various methods that can be used to calculate judge strength. Some of these methods have been proposed in the past by government agencies and the Law Commission. These have been outlined in detail below.



JUDGE TO POPULATION RATIO

The Law Commission in its 120th Report proposed the judge to population ratio on the grounds that similar methods are used for manpower planning in other areas²⁴.

This is calculated as follows:

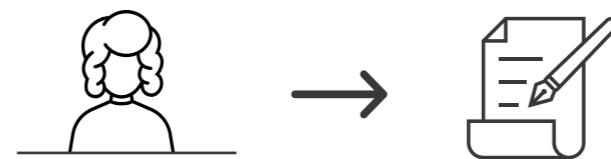
$$\text{Judges Strength} = \frac{\text{Number of judges}}{\text{Population in million units}}$$

The Law Commission opined that if legislative representations and police force strength can be calculated using population as an important metric, then the same must be extended even to the judiciary. It considered population as not only a demographic unit but also a democratic unit²⁵. It was on this rationale that the judge to population ratio method was recommended by the Law Commission and referred to by the courts for more than 20 years; it was in its 245th Report that the Law Commission rejected this approach. While rejecting the judge to population approach, the Law Commission noted that there is no objective criteria for determining an adequate judge to population ratio for each state, given the diversity in socio-economic factors across geographies within India, and differential filings of cases in the courts. Therefore, such a blanket method lacks nuance and should not be used to calculate judge strength.²⁶

²⁴ 120th Law Commission Report, *supra* note 2, at 4.

²⁵ 120th Law Commission Report, *supra* note 2, at 4.

²⁶ 245th Law Commission Report, *supra* note 16, at 19.



JUDGE TO FILINGS RATIO

This method has also been rejected by the Law Commission on similar grounds, namely that there is no ideal number that can be arrived at, given the diversity in institution figures which depend upon geographies and social identities (for instance, people from remote areas or belonging to marginalized communities are less likely to institute filings due to lack of access to courts).

$$\text{Judges Strength} = \frac{\text{Number of judges}}{\text{Instituted cases in thousands units}}$$



IDEAL CASELOAD METHOD

This method involves determining an ‘ideal’ number which a judge ought to have on her/his docket²⁷. Once this is determined, the following formula is to be applied:

$$\text{Judges Strength} = \frac{\text{Total Caseload}}{\text{Ideal caseload per judge}}$$

²⁷ 245th Law Commission Report, *supra* note 16, at 20.

If the number of cases per judge is much higher than the ideal caseload number, then additional judges are to be recruited. This method has been critiqued by the Law Commission on the ground that there is no fixed criteria to determine an ideal caseload, and these are mostly fixed on an ad-hoc basis²⁸. Further, different case types take different amounts of judicial time to be resolved, and therefore, a blanket number for an ideal caseload cannot be arrived at.²⁹

²⁸ 245th Law Commission Report, *supra* note 16, at 19.

²⁹ 245th Law Commission Report, *supra* note 16, at 21.



TIME-BASED METHOD

The time-based method determines the total time required to clear the existing judicial caseload. Adding up the time taken to dispose cases across different case types, and dividing it by the available judicial time per judge will help in determining the number of judges required. The time required to dispose a case is calculated either by a time and motion study or by relying on expert estimation.

This method had been rejected by the Law Commission on the grounds that this kind of information is not available for Indian Courts, and therefore the model is not feasible³⁰. The Law

Commission opined that there is no framework for determining what the normal time-frame for a case should be, and therefore there will not be any data to show how many cases are delayed³¹. However, the latter part of this paper shows that a time-based approach is indeed feasible.

Some jurisdictions in the USA rely on the Delphi method to estimate weights instead of using a time and motion study. It is often relied on as a source for externally validating weighted caseload studies. It relies on estimates by experts - judges, court administrators, and prosecutors - regarding the length of time taken at various stages for different types of cases³². The challenge with this method is that it is based on the assumptions of a limited number of experts, whose opinions do not necessarily reflect the wide array of jurisdictions.³³

³⁰ 245th Law Commission Report, *supra* note 16, at 23.

³¹ 245th Law Commission Report, *supra* note 16, at 23.

³² Dr. Heike Gramckow. 2011. 'Estimating Staffing Needs in the Justice Sector, Justice and Development Working Paper Series,' World Bank, p. 9, available online at <https://openknowledge.worldbank.org/bitstream/handle/10986/18404/729280NWPOBox30ector0JODOWPO1902012.pdf?sequence=1> (accessed on 16 November 2018).

³³ Gramckow, *supra* note 32, at 9.



RATE OF DISPOSAL METHOD

This is the method preferred by the Law Commission, according to which judges are divided into two categories³⁴:

- Number of judges required to dispose the existing backlog; and
- Number of judges required to dispose fresh filings without creation of further backlog.

This methodology uses figures of institution, disposal, and working strength of judges for subordinate court judge cadres. It can be formulated as follows³⁵:

$$\text{Rate of disposal per judge per cadre} = \frac{\text{Total disposal on the cadre}}{\text{Working strength in the cadre}}$$

$$\text{Additional judges to ensure equal filings and disposal} = \frac{\text{Breakeven number}}{\text{Number of current judges}}$$

$$\text{Additional judges to ensure backlog clearance in one year} = \frac{\text{Backlog for particular cadre}}{\text{Rate of disposal per judge}}$$

³⁴ 245th Law Commission Report, *supra* note 16, at 24.

³⁵ Higher Judicial Service, Civil Judge Senior Division, Civil Judge Junior Division, etc.

One of the main criticisms by the NCMS for using average disposal as a fundamental criterion to calculate judges' strength was that it may unintentionally incentivize lower disposals, as the formula would end up giving more number of judges when the rate of disposal is low³⁶. Additionally, the method proposed by the Law Commission fails to take into account the nature and types of cases. Since the focus is on calculating average disposal of cases, the complexity associated with different types of cases is not included. The method places all types of cases, be it a murder case or a minor traffic challan case, on an equal footing. The amount of time and resources required to process a murder case is very different from a minor civil case, therefore leading to differential judicial demand.

Another criticism levelled against the method was for the definition of 'backlog'. The 245th Report defines backlog as the difference between the institution and disposal of cases when the institution of cases is higher than the disposal of cases in the same time period³⁷. This approach is problematic as the definition fails to take into account cases that have already formed the backlog. For example, let's take a court that has 10,000 pending cases. In the year 2016, a total number of 20,000 cases were filed of which 20,000 were resolved. As per the definition of the Law Commission, the court will have a zero backlog, but that is incorrect. One can see in the example that despite clearing the same number of cases that were filed, the court will still carry a load of 10,000 cases. Therefore, taking into account cases that have been pending in the system beyond a considerable period must also be included.

³⁶ NCMS, *Note for Calculating Required Judge Strength for Subordinate Courts*, *supra* note 21, at 3.

³⁷ 245th Law Commission Report, *supra* note 16, at 3.



The International Framework of Court Excellence, developed by the Australasian Institute of Judicial Administration, the Federal Judicial Center of the U.S. Supreme Court, the National Center for State Courts, and the Subordinate Courts of Singapore all define case backlog as the proportion of cases that have exceeded the established time standards³⁸. E.g., cheque bounce under Sec. 138 of the Negotiable Instruments Act, 1881 need to be disposed within six months as per the section³⁹. Further, disposal timelines for different types of cases have been

prescribed under the Case Flow Management Rules that have been enacted by various High Courts after the recommendation of the Jagannadha Rao Committee⁴⁰. Without keeping the prescribed timelines in view, the definition of backlog would be incomplete.

For these reasons, the Supreme Court in *Imtiyaz Ahmad* rejected the method proposed by the Law Commission stating that the model is not designed to improve productivity.⁴¹

³⁸ Dan H. Hall and Ingo Keilitz. 2012. 'Global Measures of Court Performance,' p. 34, available online at http://www.courtexcellence.com/~media/microsites/files/icce/global%20measures_v3_11_2012.ashx (accessed on 22 November 2018).

³⁹ Section 143, *Negotiable Instruments Act, 1881*.

⁴⁰ Jagannadha Rao Committee, 'Consultation Paper on Case Management', available online at http://lawcommissionofindia.nic.in/adr_conf/casemgmt%20draft%20rules.pdf (accessed on 21 November 2018).

⁴¹ *Imtiyaz Ahmad*, *supra* note 1, at para 13.



NCMS' MODEL

In 2016, the NCMS proposed an interim model to calculate judges' strength. It rejected the approach taken by the Law Commission in the 245th Report and instead proposed a new methodology based on the unit system for the subordinate courts. Each state has a unit system based on which the performance of the judges in the subordinate courts is assessed, whereby judges are required to dispose cases as needed to meet their prescribed units, and their performance is rated depending on the number of units they achieve. Since the units for each case vary depending upon the complexity and nature of the case, NCMS proposed the units as a proxy for the time and effort it takes to process the case. As judges are anyway expected

to achieve certain points under the unit system, the same could also be used to determine judicial strength. Although the method proposed by the NCMS based on the unit system provides weightage to the cases depending on their nature, the method of providing weights to cases of different types in each of the states is unclear. The fundamental aim of the entire unit system is to incentivize greater productivity and not to assess their workload⁴². Further, more units may sometimes be provided if a judge disposes a certain number of cases of the same case type, thereby demonstrating that the unit system is not based solely on time⁴³. It is important that the actual amount of time spent by a judge on each stage in a case be analysed to get a sense of the ground reality. This paper further advances the NCMS' method by proposing a model based on the actual time spent by judges, rather than using the unit system for weightage of cases.

⁴² 245th Law Commission Report, *supra* note 16, at 23.

⁴³ 245th Law Commission Report, *supra* note 16, at 23.



TIME-BASED WEIGHTED CASELOAD METHOD AS THE WAY FORWARD

Assessing the workload of the courts should be the basic criteria for determining judicial strength. It is known that cases of various types differ in complexity and require a different amount of judicial time and attention. It is here that a weighted caseload model proves to be more efficient than the other models. Not only does it factor in the number of cases filed and pending in the courts, but it also gives weightage to the actual ‘mix’⁴⁴ of cases that exist in the courts. It incorporates the amount of time required to dispose various types of cases, also known as case weights. To arrive at the weights for each of the

cases, a time-based study needs to be conducted. Such an approach helps in interpreting the workload of courts from both an efficacy and efficiency perspective.

The 245th Law Commission Report did briefly mention the time-based method as one of the models to calculate judge strength. But the Law Commission rejected the model stating that there is a paucity of scientific information in the Indian courts in this regard⁴⁵. However, with the concerted efforts of various government/judicial agencies, it is possible to implement the model.

⁴⁴ Victor E. Flango. 1996. ‘Assessing the Needs for Judges and Court Staff,’ *National Center for State Courts*, p. 19, available online at <https://edm16501.contentdm.oclc.org/digital/collection/ctadmin/id/407> (accessed on 17 November 2018).

⁴⁵ 245th Law Commission Report, *supra* note 16, 23-24.



With the introduction of the National Judicial Data Grid (NJDG) for both the subordinate courts and recently the High Courts⁴⁶, there has been some improvement in the gathering, analysis and dissemination of judicial data.

Several countries across the world such as United States, Austria, Germany, Norway, Spain, Netherlands etc. have long recognized the case weighted system as the ideal model to assess the workload of the judges⁴⁷. Various countries that have undertaken systemic judicial reforms in the recent past, such as Bulgaria, Kosovo, Mongolia etc. have also adopted the case weighted model to understand and analyse judicial workload⁴⁸.

⁴⁶ A government maintained website which provides statistics and details of pending and disposed cases in courts. The website for the High Courts can be accessed at http://njdg.ecourts.gov.in/hcnjdg_public/ and the website for the subordinate courts can be accessed at http://njdg.ecourts.gov.in/njdg_public/index.php.

⁴⁷ Mathew Kleiman, Cynthia G. Lee et.al. 2017. 'Case Weighting as a Common Yardstick: A Comparative Review of Current Uses and Future Directions,' p. 643, *Oñati Socio-Legal Series*, 7(4), available online at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3047725 (accessed on 18 November 2018).

⁴⁸ *Id.*, at 643.

4.1

THE BASIC STRUCTURE OF THE TIME-BASED WEIGHTED CASELOAD MODEL

The basic weighted caseload model comprises of three important elements⁴⁹:

- Number of cases in a given court;
- Case weights in terms of the average amount of time a judge takes to dispose a case of a particular type; and
- The judge year value or the total amount of time available per judge in a year.

The following steps may be used to calculate judge strength:

⁴⁹ Mathew Kleiman, Cynthia G. Lee et.al., 2013. 'Workload Assessment: A Data-driven Management Tool for the Judicial Branch,' National Center for State Courts, p. 243, available online at <https://ncsc.contentdm.oclc.org/digital/collection/ctadmin/id/2088> (accessed on 17 November 2018).

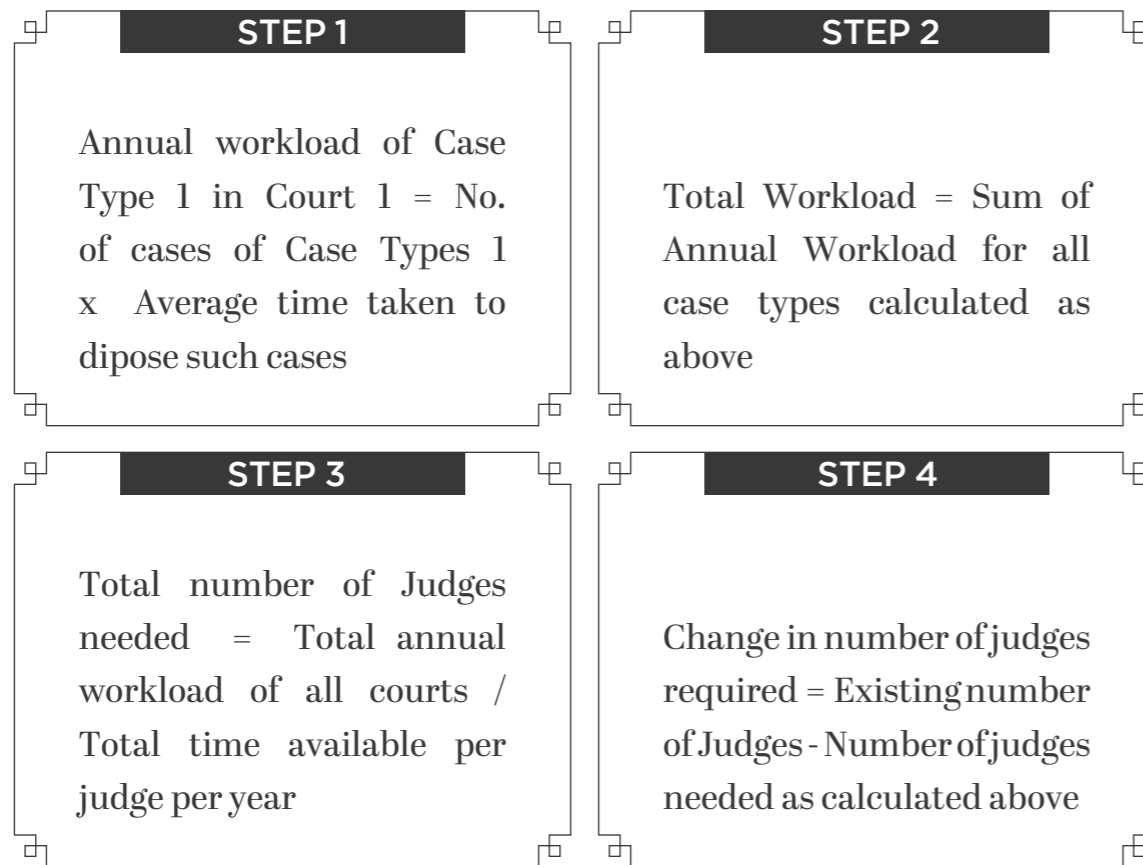


Figure 1: Time-based weighted caseload model

Figure 1 provides the basic structure of the weighted caseload model which can be used to calculate judges' strength. Step 1 provides the method in which the annual workload of the courts needs to be calculated. To calculate the workload, the number of cases in the backlog needs to be multiplied with the average time it takes to dispose a case. This gives us the total time required to dispose cases of a particular type. Since the time required to dispose cases is collected from the time and motion study, the time required to dispose a case of a particular type will be in minutes. In step 2, all the case types on the docket of the judge need to be added to reflect the total workload of a court. Under step 3, once the workload is calculated, it should be then divided by the total working-time that a judge has in a year. As shown in Figure 1, the final step must be calculated by subtracting the current number of judges with the total number of judges computed in step 3. The resulting number will give the additional judicial strength required.

IN THE USA, DIFFERENT STATES USE DIFFERENT METRICS UNDER THE WEIGHTED CASELOAD MODEL. FOR INSTANCE, 20 STATES IN THE USA USE PENDING CASES IN ONE FORM OR THE OTHER TO DETERMINE THE JUDGE STRENGTH WHILE 21 STATES USE BACKLOG AS A VARIABLE TO ARRIVE AT THE FINAL JUDGE STRENGTH. SOME OF THE COURTS USE BOTH BACKLOG AND PENDING CASES TO CALCULATE JUDICIAL STRENGTH.

The formula can be modelled to take into account the current filings/pendency, backlog, projected filings/pendency in the coming year or any other metric that may be important to calculate judicial strength. Further, the total time spent and available per judge in a year provide a scientific and accurate estimate of the work done by judges. The model is also able to accommodate the geographical and jurisdictional variations in backlogs and sitting time of judges across the courts in our country.

Reference: Victor E. Flango. 1996. 'Assessing the Needs for Judges and Court Staff', p.8, National Center for State Courts, available online at <https://cdm16501.contentdm.oclc.org/digital/collection/ctadmin/id/407> (accessed on 17 November 2018)

4.2

IMPORTANCE OF MEASURING COURT ACTIVITY

A time and motion study needs to be conducted to capture the day to day proceedings of the court. One of the added benefits of the weighted caseload model proposed in this paper is that it takes into account the court activity. It must be noted that even the NCMS' model takes into consideration the weightage of different cases by way of the 'unit system.' The method proposed in this paper goes further than the approach adopted by the NCMS, as it provides steps to calculate the actual time spent by judges.

A time-based weighted caseload accurately measures the different events in the lifecycle of a case, thereby arriving at the number of minutes required to dispose a case. Since, a time and motion study records the sitting time of judges, it provides granularity in terms of the number of minutes spent per judge on each of the hearings at each stage.

5

DETERMINING THE DIFFERENT ELEMENTS OF THE FORMULA

It is important to understand the different elements of the formula and the way these must be calculated to arrive at the final result. While part 4 of this paper shows the basic structure of the time-based weighted caseload model, the various elements of the formula and their method of calculation are provided below.

5.1

CALCULATING AVERAGE TIME REQUIRED TO DISPOSE A CASE

As shown in Figure 1, the first step in the formula requires the calculation of the annual workload of courts. To arrive at the annual workload, the average time required to dispose a case needs to be calculated. A time and motion study along with the average hearings per stage obtained by analysing historical data can help in measuring the actual amount of time spent by the judges on different types of cases⁵⁰. Hence, a time and motion study is the first step towards the calculation of average time required to dispose a case. While carrying out the study two essential points must be kept in mind:

Firstly, the selection of case types in a time and motion study plays an important part. Capturing enough number of case types that come up for hearing on a daily basis will provide a better picture of the workload of the courts.

⁵⁰ Flango, *supra* note 44 at, 25.



Secondly, capturing different stages is also important for the time and motion study. Such a study can usually be carried out for a limited period of time (generally for a month), depending upon the availability of resources and time. Since the study is conducted for a short duration, it is important that all the typical major stages that a case passes through are covered in the study. Hence, identifying various case types and the corresponding stages becomes crucial. A time and motion study has to be designed to provide a snapshot of the various events that occur in the court and over the lifecycle of all the types of cases that come up before it⁵¹.

⁵¹ National Center for State Courts. 2009. 'Vermont Caseload Study of Judicial Officers and Court Staff,' p.4, available online at <https://www.vermontjudiciary.org/sites/default/files/documents/Final%20Report%209-18-09.pdf> (accessed on 15 November 2019).

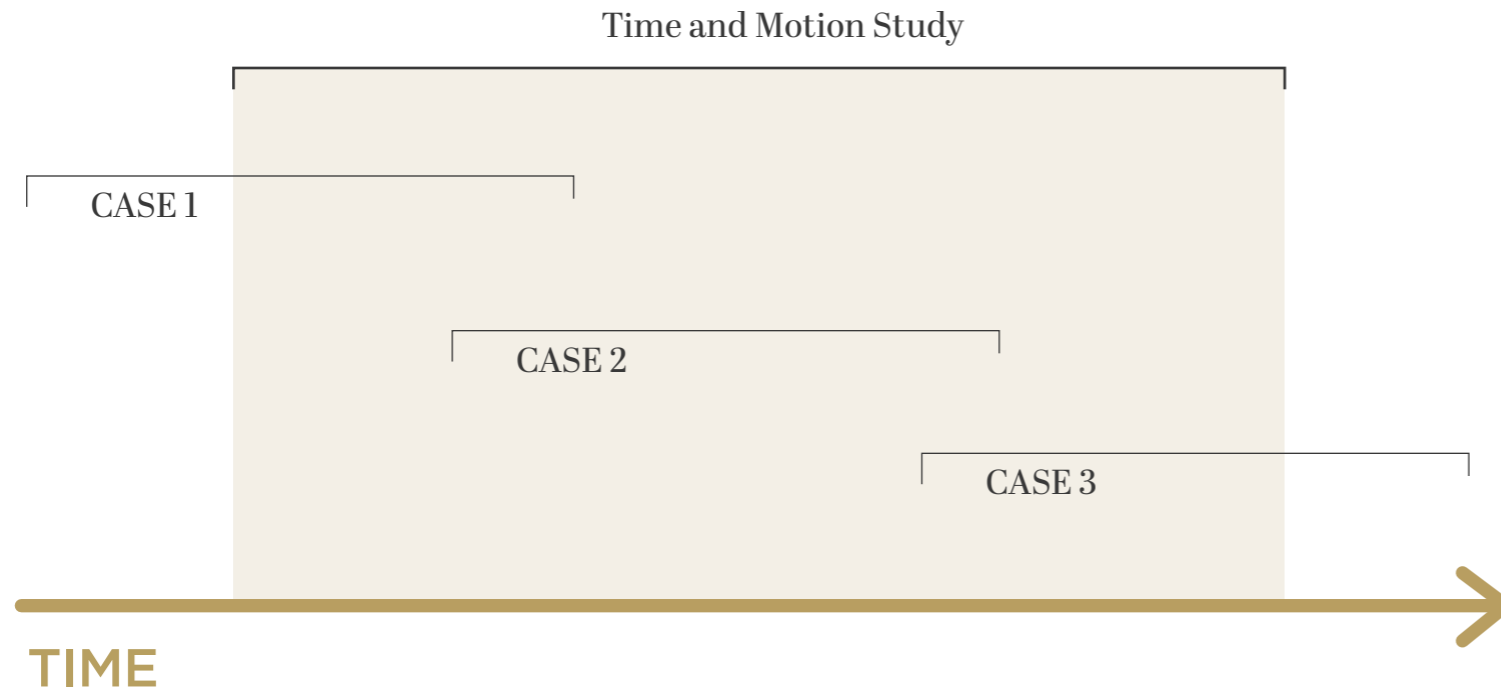


Figure 2: Time and Motion Study

Figure 2 illustrates the measurement of activities during the time and motion study. Some of the cases (case 1) would have commenced before the time and motion study started, while some of the cases (case 3) would end after the completion of the study. Nonetheless, the intention of the study is to provide a snapshot of the events happening in the court. Therefore, data needs to be collected from the cases and stages that are equally distributed in the study⁵².

51 See High Court of Delhi. 'Zero Pendency Courts Project', 2019, available online at http://delhihighcourt.nic.in/writereaddata/Upload/PublicNotices/PublicNotice_3MRRIN3QTHN.PDF (accessed on 12 August 2019).

52 National Center for State Courts. 2010. 'Oregon Court of Appeals Judicial and Staff Weighted Caseload Study,' p. 6, available online at <http://www.courts.oregon.gov/COA/docs/ORCOAWorkloadFinalReport.pdf> (accessed on 14 November 2018).

IN SOME STATES IN THE USA THE TOTAL AMOUNT OF TIME SPENT BY THE JUDGES IN DIFFERENT STAGES IN EACH CASE IS ADDED AND ANNUALISED TO REFLECT THE TIME TAKEN PER JUDGE TO DISPOSE THE CASE IN A YEAR. HOWEVER, THE AVERAGE TIME TAKEN PER JUDGE TO DISPOSE A CASE IN INDIA VARIES DUE TO DIFFERENCES IN THE LEGAL SYSTEM. THEREFORE, KEEPING IN MIND THE JUDICIAL SYSTEM IN INDIA, THE METHOD PROPOSED IN THE JUDICIAL SYSTEM IN INDIA THE METHOD PROPOSED IN THIS PAPER HAS BEEN ACCORDINGLY IMPROVED.

5.1.1

TIME AND MOTION STUDY (ZERO PENDENCY COURTS PROJECT)

In a bid to understand the impact of backlogs on disposal of cases, Delhi High Court initiated the Zero Pendency Courts Project. For the purpose of this project, 11 pilot subordinate courts with no backlog were chosen and were compared with reference courts that had a similar type of cases but a regular workload. The pilot courts were required to note down the minutes spent on each of the hearings in courts for a period of two years i.e. from January 2017 to December 2018. DAKSH had assisted the Delhi High Court in the project⁵³. The table below highlights the average minutes spent by courts on each of the hearings.

⁵³ See High Court of Delhi. 'Zero Pendency Courts Project', 2019, available online at http://delhihighcourt.nic.in/writereaddata/Upload/PublicNotices/PublicNotice_3MRRIN3QTHN.PDF (accessed on 12 August 2019).

STAGES	SESSION COURT (SESSION CASES) IN MINUTES	SESSION COURT FOR MURDER RELATED CASES (SESSION CASES) IN MINUTES	FAST TRACK COURT FOR RAPE RELATED CASES (SESSION CASES) IN MINUTES	DISTRICT COURT (CIVIL SUITS) IN MINUTES	LABOUR COURT (LABOUR/ INDUSTRIAL TRIBUNAL REFERENCE CASES) IN MINUTES	MOTOR ACCIDENTS CLAIMS TRIBUNAL (MOTOR ACCIDENTS CLAIMS CASES) IN MINUTES	RENT CONTROLLER COURT (RENT CONTROLLER/ ADDITIONAL RENT CONTROLLER CASES) IN MINUTES
MISC. APPEARANCE	13	15	12	-	-	-	-
MISC. CASES/ PURPOSE	15	17	12	7	2	5	5
FOR BAIL	25	11	-	-	-	-	-
MISC. ARGUMENTS	16	-	-	14	10	11	20
MISC. ORDER	84	-	18	15	4	9	19
FRAMING OF CHARGES/ISSUES	26	32	34	10	3	9	-
PROSECUTION/ PLAINTIFF EVIDENCE	44	42	13	12	10	11	24
STATEMENT OF ACCUSED	63	48	5	-	-	-	-
DEFENCE/ DEFENDANT EVIDENCE	112	23	16	20	16	13	33
FINAL ARGUMENTS	111	29	72	18	18	10	32
FINAL ORDER/ JUDGMENT	100	29	-	17	55	28	61

Table 1: Average time per hearing on various stages for a few case types

*Data has been taken from Zero Pendency Courts Project

5.1.2

DATA FROM TIME AND MOTION STUDY AND AVERAGE HEARINGS

Once the time and motion study is concluded, the average time spent per case type in the lifecycle of a case needs to be calculated. To arrive at the final average, time spent on each of the stages obtained from the time and motion study needs to be multiplied with the average number of hearings in that particular stage⁵⁴, as shown in Figure 3 below. Summing up all the stages will give the average minutes required to dispose a case.

⁵⁴ Flango, *supra* note 44 at, 25.

Summing up all the stages with the hearings will give the average time required to dispose a case.

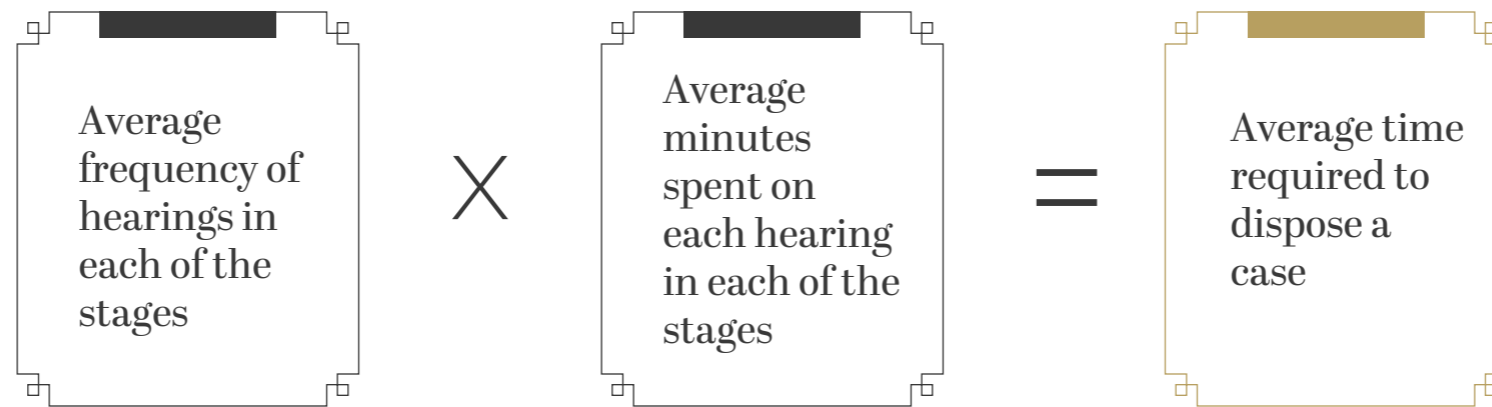


Figure 3: Average number of minutes required to dispose a case

To arrive at the average hearings per stage for a particular case type, historical data needs to be analysed. DAKSH's database⁵⁵ contains hearings for different case types at various stages. Case and hearing-related details in the database are taken from the e-courts/NJDG website on a regular basis which can help in conducting several types of studies. With proper analysis of the historical data in conjunction with the empirical data obtained from the time and motion study, the average time taken to dispose a case in minutes can be found out.

⁵⁵ DAKSH's database takes data available in the public domain, such as from the websites of the High Courts and the e-courts/NJDG website. See Arunav Kaul, Ahmed Pathan et.al. 2017. 'Deconstructing Delay: Analyses of Data from High Courts and Subordinate Courts' in *Approaches to Justice in India: A Report by DAKSH*, p. 91.

TIME AVAILABLE PER JUDGE IN A YEAR



5.2

The year value provided in Table 2 denotes the total time that judges have in a year to deal with the case-related matters⁵⁶. Like the case weights, even the judge year value needs to be calculated in minutes. As shown in Figure 1, calculating time available per judge forms an important part of the model. The total number of days available per judge to deal with case-related matters vary from one state to another. Hence, the final number must be calculated based on the calendar prepared by each of the Registry in the court in individual states. For instance, in Bengaluru subordinate courts⁵⁷, of the total 365 days in a year, 227 days constitute as working days⁵⁸. The break-up is given below:

⁵⁶ Kleiman, Lee et.al., *supra* note 47 at, 644.

⁵⁷ This calendar holds good for Bengaluru City Civil Courts, Civil Courts, Courts for Small Causes and Family Courts in Karnataka.

⁵⁸ High Court of Karnataka Calendar, 2017, available online at <http://karnatakajudiciary.kar.nic.in/hckcalendar/hck-2017.pdf> (accessed on 15 November 2017).

Table 2: Number of working days per judge in subordinate courts

	JUDGE YEAR	DAYS*
A	Total days in a year	365
B	Second Saturday of the month and Sundays	65
C	Vacation days	35
D	General holidays	47
	Total working days in a year = A - (B+C+D)#	248

* The number of holidays and vacation period will differ from state to state.
 # Certain holidays provided in the calendar overlap with each other.

Please note that Table 2 does not reflect the overlapping holidays. After taking into consideration the overlapping holidays, judges in Karnataka have a total of 227 working days in a year. Further, the average number of hours that a judge spends in a year has to be taken into account in the weighted caseload model, as a judge will not work for 24 hours on a case. Hence, arriving at an approximate amount of time a judge spends in a day on case-related activities becomes important. The time and motion study conducted for this paper revealed that on an average a judge spends six hours in the court.

WHILE CALCULATING THE TOTAL NUMBER OF DAYS IN A YEAR, OTHER FACTORS, IMPORTANTLY LOCAL STRIKES BY THE ADVOCATES, MUST BE TAKEN INTO ACCOUNT. IN THE 266TH LAW COMMISSION REPORT THE LOSS OF DAYS DUE TO STRIKE BY THE ADVOCATES WAS BROUGHT TO THE FORE. WHILE CALCULATING THE TOTAL NUMBER OF DAYS SPENT ON STRIKE, THE LAW COMMISSION GAVE STAGGERING DATA. THE REPORT POINTED OUT THAT OF THE 265 WORKING DAYS ASSIGNED FOR THE DISTRICT COURTS IN UTTAR PRADESH, EIGHT OF THE DISTRICTS BETWEEN 2011-2016 WORKED ON AN AVERAGE OF 150 DAYS IN A YEAR, DUE TO STRIKES. SIMILAR SITUATIONS WERE OBSERVED IN RAJASTHAN AND UTTARAKHAND. CONSTANT STRIKES SEVERELY IMPEDE THE ABILITY TO CARRY OUT JUDICIAL FUNCTIONS AND MUST BE FACTORED IN WHILE CALCULATING THE TOTAL WORKING DAYS, ESPECIALLY IN THOSE DISTRICTS THAT FACE SUCH PROBLEMS ON A REGULAR BASIS.

Reference: Law Commission of India. 2017. The Advocates Act, 1961 (Regulation of Legal Profession), p. 13, available online at <http://lawcommissionofindia.nic.in/reports/Report266.pdf> (accessed on 22 November 2018).

$$\begin{array}{ccccccc}
 \boxed{227\text{days}} & \times & \boxed{5\text{ hours}} & \times & \boxed{60\text{ minutes}} & = & \boxed{68,100} \\
 & & & & & & \text{minutes a} \\
 & & & & & & \text{year}
 \end{array}$$

Figure 4: Number of minutes a judge has in a year

Excluding an hour of lunch break, it gives us a total of five hours that a judge spends on case-related matters in the court⁵⁹. Accordingly, the total minutes available for a judge in a year are:

Figure 4 provides the total time available per judge in a year. Once all the elements in the formula are calculated as per the aforementioned steps, each of these elements must be placed in the formula as shown in Figure 1. The final number obtained from the formula will provide the additional number of judges required.

⁵⁹ In the US, assessment of workload is done with the coordination of the judges and support staff. A web-based time sheet is created where judges track their day to day activity and enter the amount of time that is being dedicated to case-related and non-case related activities. Hence, the study aims to track the complete workload of the judges. Further, courts in the USA separately calculate the staff strength required in the judiciary depending upon the amount of work associated with each of the case. Like judges' strength a similar method is used to calculate staff strength in the courts. However, such a study requires greater coordination of judges and court staff that may be possible in the coming years in India.

6

APPLICATION OF THE
FORMULA IN INDIA

In the Zero Pendency Courts project started by the Delhi High Court, the weighted caseload method was used for the first time to calculate the total number of minutes spent by courts to dispose different types of cases. The data was used to arrive at the ideal number of judges needed across subordinate courts in Delhi⁶⁰.

⁶⁰ *Zero Pendency Courts Project, supra note 53 at, 41.*

CATEGORY	IDEAL JUDGE STRENGTH TO CLEAR ALL THE PENDING CASES IN ONE YEAR	NUMBER OF CURRENT JUDGES	NUMBER OF PENDING CASES AS OF 9TH APRIL 2019 ACROSS DELHI
Sessions Courts	82	60	32,378
Fast Track Courts	5	6	1,610
District Courts	62	49	71,962
Labour Courts	26	11	12,308
Motor Accidents Claims Courts	7	12	13,340
Rent Controller Courts	4	5	5,214

Table 3: Judges required to clear backlog in three years⁶¹

61 If all the judges spend the same amount of time as done by pilot courts then the number of judges shown in Table 3 can dispose all the cases pending in Delhi in a year. With an increase in the number of minutes spent on a case, the number of judges needed would accordingly increase, if all else remains the same. In order to take into account new filings that a judge would receive, the number of pending cases that is inserted in the judge strength formula should be revised from time to time. This would help in arriving at the most updated ideal judge strength.

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Parts 4 and 5 in this paper provided a detailed basic methodology to calculate judicial strength, through a time-based weighted caseload model. While adopting the method in India, it is required that the model be customized based on the need of the judiciary. Currently, initiatives such as ‘five plus zero’ courts that aim to dispose cases pending for more than five years on a priority basis, are used to tackle the backlog⁶². However, it is important that equal attention be also given to the current workload and ensure their speedy disposal. It is therefore, necessary that backlog and current workload be handled separately. Therefore, the model proposed in India must have two main objectives as shown in Figure 5 below.

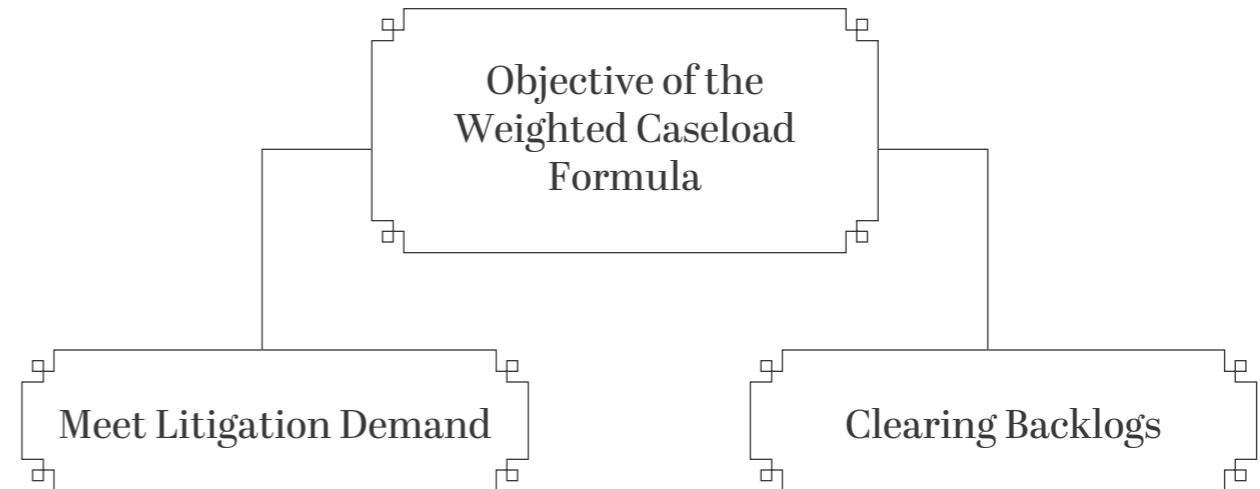


Figure 5: Objectives of time-based weighted caseload formula

⁶² 'Retired judges wield the gavel again', *The Hindu*, 6 November 2016, available online at <http://www.thehindu.com/news/national/Retired-judges-to-wield-the-gavel-again/article16437687.ece> (9sed on 30 November 2017).

IDENTIFYING DISTRICTS AND COURT ESTABLISHMENTS THAT REQUIRE NECESSARY JUDGES IS AN IMPORTANT TASK. WHILE CALCULATING THE ADEQUATE JUDICIAL STRENGTH, IT MUST BE BORNE IN MIND THAT THE ASSESSMENT NEEDS TO BE CARRIED OUT AT A DISTRICT AND A PHYSICAL COURT COMPLEX LEVEL. TRANSFERRING JUDGES FROM ONE DISTRICT TO ANOTHER MAY NOT PROVE TO BE AN EASY TASK. ALSO, JURISDICTIONAL ISSUES NEED TO BE TAKEN INTO ACCOUNT. THEREFORE, DETERMINATION OF ADEQUATE JUDICIAL RESOURCES MUST BE CARRIED OUT WITHIN EACH OF THE DISTRICTS AND COURT ESTABLISHMENTS.

For the model to be effective in practice, it is important the judicial strength be calculated at district level for each distinct case type. Factoring the requirement of judicial resources within a district or physical court clusters further helps in the proper allocation of resources. Such an approach not only takes care of the various pecuniary, territorial and subject matter wise jurisdictional issues but also provides flexibility in terms of shuffling the judges. Accordingly, the designation of judges associated with each of the case types can be filled up. The entire model proposed in the paper is based on the calculations carried out at the case type level. Only when case types are distinctly analysed can the workload and subsequent judge strength be accurately calculated.

THE OBJECTIVE OF THE MODEL

6.1

Given the trend in the filing and pendency pattern, we propose below the weighted caseload method for adoption in that India:

1. Calculating judges' strength to meet litigation demand

In order to calculate the adequate judicial strength, the filing/pending cases need to be multiplied with the average time to disposal, as demonstrated in parts 4 and 5 of this paper above. The resulting number will represent the total workload of the courts. Once the total workload is calculated, it needs to be divided by the total

time available per judge in a year to arrive at the total number of judges required to deal with the current caseload. To optimize judicial demand within the same district, judges can be shuffled amongst various court establishments. Such an approach would cater to the judicial demands in a location where adequate resources are required.

2. Judge strength required to liquidate the backlog (cases pending for more than two years).

Another question that needs to be answered is, how many judges are required to clear the backlog? To answer the question, it is important to have a basic definition of backlog based on certain benchmarks. Several reports and studies have made an attempt to provide a broad upper limit beyond which a case must not remain pending. The Malimath Committee Report⁶³, while recommending reforms to the criminal system, suggested that all the cases pending for more than two years be considered as delayed. In a recent case, the Supreme Court directed that all criminal cases of a serious nature that have been pending in the Sessions Court must be disposed within a two-year time frame⁶⁴. The Jagannadha Rao Committee⁶⁵, which was constituted as a

result of directions given by the Supreme Court in *Salem Advocate Bar Association, Tamil Nadu v. Union of India*⁶⁶, framed model case flow management rules for the High Courts and subordinate courts. The model rules divide cases into different tracks, based on the subject matter. Each track needs to be completed within a specific timeframe, the upper limit for which is two years.

For the purpose of this paper, cases pending for more than two years are considered to be a backlog. However, courts with different approaches and analysis may choose a different benchmark. Also, certain case types that need to be disposed within statutorily prescribed

⁶³ Ministry of Law, Government of India. 2003. 'Committee on Reforms of the Criminal Justice System (Malimath Committee)' p. 164, available online at http://www.mha.nic.in/hindi/sites/upload_files/mhahindi/files/pdf/criminal_justice_system.pdf. (accessed on 13 July 2018).

⁶⁴ *Hussain and Anr. v. Union of India*, (2017) 5 SCC 702.

⁶⁵ Jagannadha Rao Committee, 'Consultation Paper on Case Management', p. 16, available online at http://lawcommissionofindia.nic.in/adr_conf/casemgmt%20draft%20rules.pdf. (accessed on 13 July 2018).

⁶⁶ (2005) 6 SCC 344.

timelines should have a separate benchmark for the backlog. For example, cheque bounce cases tried under Section 138 of the Negotiable Instruments Act, 1881 need to be disposed within 6 months⁶⁷. Hence, cheque bounce cases pending for more than 6 months should be construed as backlog.

Using this benchmark, the formula below provides the method to calculate the total number of judges required to clear the backlog. While arriving at the final number of judges required, it is important that a dedicated number of judges be deputed separately to handle the cases in the backlog. Needless to say, calculations must be done at each district level and at each case type level as suggested in the basic model.

$$\text{Time required to clear the backlog} = \text{Total number of backlog cases} \times \text{Average time per case}$$

$$\text{Number of Judges Required} = \frac{\text{Time required to clear the backlog}}{\text{Time required per judge per year(s)}}$$

⁶⁷ Section 143, Negotiable Instruments Act, 1881.

Depending upon the number of years that one aims to dispose the backlog in, the denominator in the above formula needs to be adjusted. For example, if we decide to dispose all the cases in the backlog in three years, then:

$$\text{Number of Judges Required} = \frac{\text{Time required to clear the backlog}}{227\text{days} \times 5 \text{ hours} \times 60 \text{ minutes} \times 3 \text{ years}}$$

3. Targeted reduction of backlog

While the previous method provides an idea model to tackle the backlog, courts can also target certain percentage of cases as backlogs that they can aim to reduce. For instance, targeting reduction of backlog by 10% in an annum can help in making realistic approach towards disposing the older cases. The percentage can vary for different judges based on their individual workload.

HOW FREQUENTLY SHOULD COURTS BE MONITORED?

6.1.1

The method suggested above helps in dealing with both in-flow of cases and the backlog that has been accumulated over several years in the courts. The question that arises is, how often should courts update the case weights or conduct the time and motion study? What must be the total duration of the time and motion study itself? In the USA where the NCSC has conducted a study for determination of judges' strength, it has proposed that the case weights be updated every five to seven years, while the time duration of the study itself can be around four weeks⁶⁸. Given the Indian scenario, it is recommended

that a two-yearly gap between each time and motion study, at least in the initial years, would be sufficient to update the case weights. In terms of deciding the length of the time and motion study, the same can be carried out for a period of one month. Certain courts in the country are already conducting studies that aim to study the time spent by judges in different cases on several stages. Conducting similar studies by other states should not be a difficult task. In order to take a scientific approach towards judge strength calculation, such studies will have to be undertaken in the near future.

⁶⁸ National Center for State Courts, *supra* note 51 at, 21 and 27.

7

FACTORS TO CONSIDER IN IMPLEMENTATION

The time-based weighted caseload model needs to be implemented factoring in the following aspects:

1. Data collection process:

Different types of data such as the number of cases pending, filed, and disposed as per case type, have to be recorded in a proper manner by the courts. Additionally, time and motion studies will require a concerted effort on the part of the judicial and registry members. Effective and affordable technological tools are now available for this purpose.

2. Assumptions:

There are certain assumptions with which the method operates. For instance, while calculating the average time available per judge in a year, it is assumed that judges will work for 5 hours or 6 hours for 227 days, which might not always be the case. In certain areas, judges may work for even a lesser period of time, in which case the average time available per judge would need to be automatically adjusted. As pointed out earlier, courts that face more number of strikes in a year will have a considerably

lower number of working days in a year⁶⁹. Courts and researchers employed to carry out the study would have to keep in mind the time schedule of the judges and perhaps even conduct a short survey to arrive at the most accurate number (we are not going into measures required to tackle such strikes).

3. Requirements of specific variables:

While dealing with the method, there are certain variables that need to be computed accurately to arrive at the correct results. For example, while arriving at the average time required to dispose cases, average frequency of hearings for disposed cases would have to be computed, which may not be readily available and would require further study of data available on NJDG.

4. Considering chamber time:

The formula takes into account only the sitting time of the judge in the court. The time and motion study carried out in this paper could not be conducted beyond the regular court hours. However, judges do spend a considerable amount of time in researching and most importantly writing judgments in their chambers which also form a part of the workload. Assessing the time spent on such external activities and including it in the model can further strengthen the method to calculate judge strength.

5. Calculating staff strength:

Adequate numbers of stenographers, typists, bench clerks etc. in the courts play a pivotal

⁶⁹ See Law Commission of India. 2017. 'The Advocates Act, 1961 (Regulation of Legal Profession),' Report No. 266, available online at <http://lawcommissionofindia.nic.in/reports/Report266.pdf> (accessed on 27 November 2018).

role in assisting the judges. Judges in the courts are heavily dependent on the staff members. Therefore, while increasing judges' strength, adequate support staff for the additional judges should also be taken into account. Without sufficient staff members, inducting additional judges will become a difficult task. Studies aimed at assessing the requirement of adequate court staff (like in the USA) should also be conducted in the near future.

6. Planning time and motion study:

To get an accurate idea of the workload of the courts, it is essential that different case types be spread uniformly across all the stages. Uniform distribution of cases would help in a better assessment of the court's workload. It can also be noted that similar time and motion studies can be carried out even for the High Courts and the Supreme Court. The electronic display

boards placed outside each of the court halls which intimate various cases listed before the bench can be used to discern the time spent per hearing. The cases appearing on the electronic display board change as and when the hearings in the courts get completed. Data in relation to time spent by judges in each of the hearings can be collected by studying the data provided on the electronic display board⁷⁰.

⁷⁰ See Rahul Hemrajani & Himanshu Agarwal. 2019. 'A temporal analysis of the Supreme Court of India's workload, *Indian Law Review*, 3:2, 125-158, available online at <https://www.tandfonline.com/doi/full/10.1080/24730580.2019.1636751> (accessed on 17 October 2019)

ACTIONABLE STEPS



While it is important to use the appropriate model to calculate judge strength in the courts, ensuring its implementation is equally critical. Suggesting a model, which cannot be implemented, would be perfect in theory but not in practice. In order to bring about actual change, it is important that certain actionable steps be laid out to ensure that the model works in every district in every state. The points below provide a practicable approach to implement this model.

1. Decentralizing Responsibility

For the model to work at the district level, it is important that the process is decentralized. Akin to the practices carried out in the USA, High Courts need to carry out studies to arrive



at the right number of judges required at the district level. It is important that judges participate in the study since assessing the time spent by judges in a case is an essential facet of the formula. This can be done so with the help of a dedicated committee which needs to be set up by High Courts and/or respective governments. These committees can be further subdivided for each of the districts.

The committee established should be equipped to access real-time data for the jurisdictions that fall under its ambit. These committees employed at the grass-root level should be aware of the local conditions and situations of the courts. The time and motion study and data collection for calculating judges' strength can be conducted by the respective committees for each of the states. For instance,

in the USA, the National Center for State Courts (NCSC), an independent not-for-profit court improvement organization, conducts studies to assess judicial strength for different states⁷⁰. Similar attempts in the form of National Court Management Systems Committee, (established under the aegis of the Supreme Court) and State Court Management Systems Committees have been made in India. Either the State Court Management Systems Committee (SCMS) or a specially dedicated committee which can carry out time-based studies needs to be established. The committee set up for such purpose will have the task of analysing data and implementing the model. Taking a ground-up approach, therefore, becomes necessary.

To implement the model, court registrars and judges must also be involved at the subordinate level. The committee established for this purpose must make use of data analytics and experts to guide the study in the right direction. Hence, with a proper decentralized approach, each committee will be required to assess the workload of their respective jurisdictions. Such studies in the long run, can be further enhanced to make the model more efficient and adaptable.

⁷¹ See Law Commission of India. 2017. 'The Advocates Act, 1961 (Regulation of Legal Profession),' Report No. 266, available online at <http://lawcommissionofindia.nic.in/reports/Report266.pdf> (accessed on 27 November 2018).



2. Establishing a Task Force

Effective implementation of the model as proposed in this paper is the need of the hour. While the judiciary needs to take up the task of carrying out such studies, it further requires necessary administrative resources and experts to implement the changes. Therefore, it is proposed that a separate task force be established to implement the model proposed in this paper. The task force can operate on a temporary basis at the state or the national level, with the motive of administering the studies. Such a taskforce must consist of judges supported by the officials from the Ministry of Law, who can help in providing further aid. The task force can coordinate with the various committees or the SCMS set up by the High Courts, to ensure that studies aiming at assessing the judicial strength be carried out efficiently.

3. Designation-Wise Calculation

The 245th Report of the Law Commission, while giving the method to calculate judicial strength, provided a cadre wise strength by bifurcating the higher judicial service from the subordinate judicial service⁷¹. Taking the same approach further, it must be stressed that the model proposed in this paper must also be calculated for different designations of judges. These designations include Civil Judge Senior, Civil Judges Junior Division, District and Sessions Judge, etc. Since the analysis of the workload and the judicial strength is being carried out at the case type level, it becomes easy to identify judges needed for a specific designation. For example, if in a district there is a need to increase the number of judges dealing with ‘Sessions Cases’ and the same is dealt with by Sessions and District judges alone, then the designations can be accordingly identified and filled.

⁷¹ 245th Law Commission Report, *supra* note 16, at 10.

A designation wise approach would ensure that specific judicial demand is being met. The time taken to deal with different case types often vary. Some case types take longer than others. Hence, to assess the judicial demand in each district, case types and the designations of judges must be analysed together. The table below provides unique case types and number of cases (pending and disposed) in each of the districts in Delhi.



For the purposes of Table 4, the data regarding case types and cases are taken from DAKSH's database⁷². It can be seen that in comparison to other districts the Central Delhi district uses the most number of case types and has the highest workload in terms of cases.

All of the districts in a state will not have an equal distribution of case types. Having such data points will help in providing an insight into the case type distribution in the state. This can further help in carrying out the study and assessing the requirement of judicial strength designation-wise.

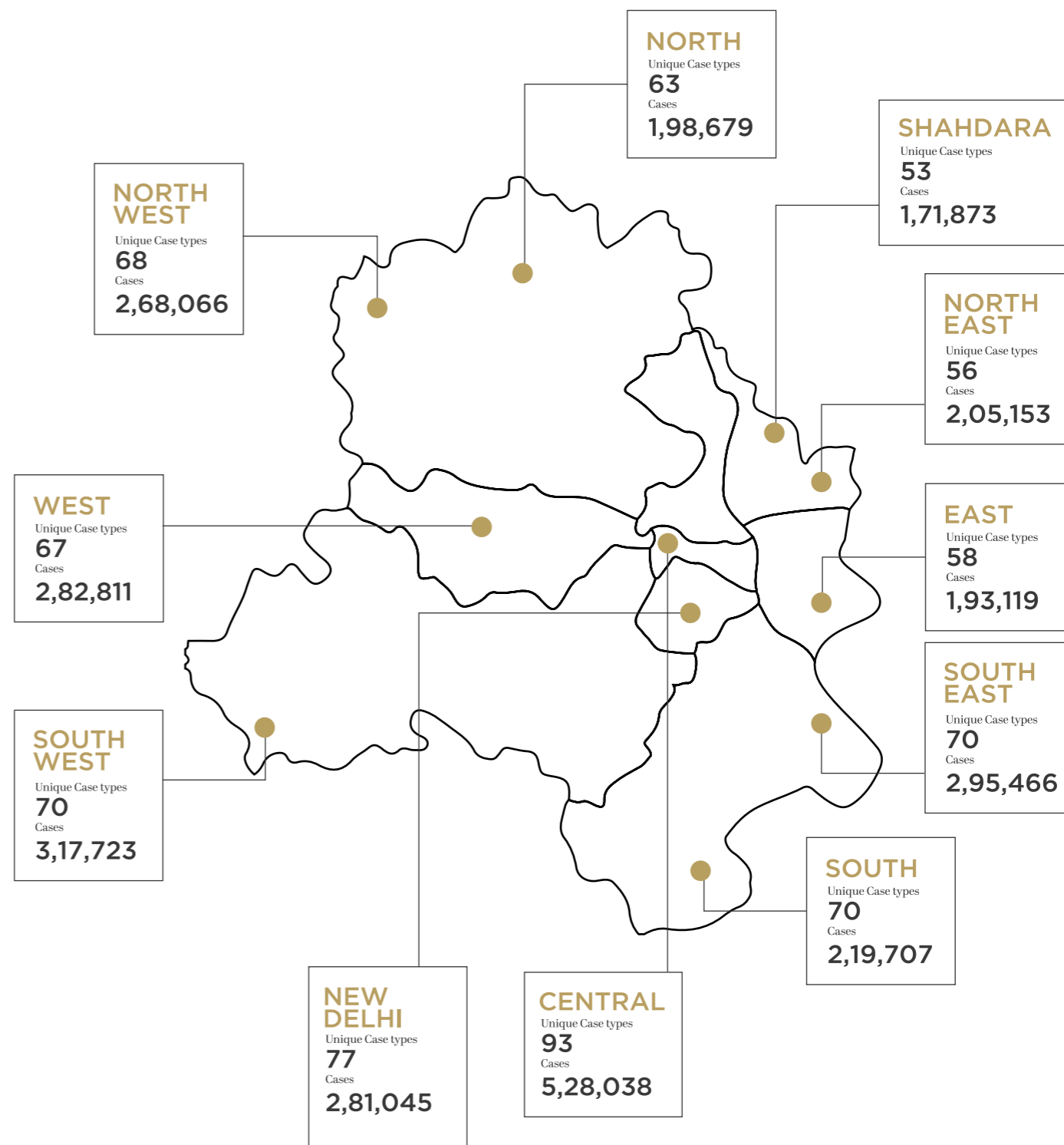


Figure 4: Number of unique case types and number of cases

⁷³ The data has been taken from DAKSH's database as of November 2019.

RECENTLY, THE ACTING CHIEF JUSTICE OF THE HIGH COURT OF DELHI AFTER OBSERVING THE WORKING OF THE JUDGES IN THE SUBORDINATE COURTS, ORDERED THE TRANSFER OF 87 JUDICIAL OFFICERS AND ABOLISHED 15 COURTS IN DELHI.

Reference: Live Law News Network, Delhi HC Orders Major Reshuffle in DJS, Many Courts Abolished, Live Law, 10 September 2017, available online at <http://www.livelaw.in/delhi-hc-orders-major-reshuffle-djs-many-courts-abolished-read-list/>(accessed on 20 November 2018).

4. Optimizing Judicial Resources

One of the ways proposed for optimizing judicial resources would be by determining the need for judicial strength in a district or a physical court complex. Analysing the number of cases filed in the previous years, or the backlog can form the basis to calculate the requirement of any additional judges. While calculating the required strength, optimization resources in terms of shuffling judges within a particular district or an establishment needs to be carried out. Additionally, judges required to clear the backlog can also be optimized within a particular district. With proper resource allocation, the overall caseload in the system can be easily tackled. Such an approach would give authorities an option to shuffle the judges within the same district. It ensures that judges are efficiently allocated to various jurisdictions depending upon the workload of the courts, thus optimizing judicial resources. Needless to say, while implementing the formula, assessment of workload must be done case type-wise as suggested in the model.

5. Requirement of Mission-Mode Judges to Clear Backlog

It was as far back as 1958 that the Law Commission in its 14th Report⁷³ suggested additional temporary judges that can handle old matters. A similar stance was adopted in the 77th Report of the Law Commission, wherein it was recommended that old cases must be diverted to certain specific judges to ensure that the arrears in cases are cleared within the next three years⁷⁴. Hence, the requirement to deal specifically with the cases accumulated as backlog is not a novel idea in India. While a fixed strength of judges is required to handle the constant flow of cases in the courts, a separate and dedicated “mission mode judges” should be appointed to clear the backlog. This will ensure that judges do not have to handle both the current flow of cases and the backlog together. The time frame in which the backlog must be cleared needs to be decided -such as in

⁷⁴ *Law Commission of India. 1958. 'Reform of Judicial Administration,' Report No. 14, p. 148, available online at <http://lawcommissionofindia.nic.in/1-50/Report14Vol1.pdf> (accessed on 20 November 2018).*

⁷⁵ *Law Commission of India. 1978. Delay and Arrears in Trial Courts, Report No. 77, p. 36, available online at <http://lawcommissionofindia.nic.in/51-100/report77.pdf> (Accessed on 17 November 2018).*

three years, four years, etc. Once the time frame is decided, the total number of judges required to clear the backlog can be calculated as per the model suggested in this paper.

It is also important to decide the manner in which these mission mode judges need to be appointed. The 245th Law Commission Report had suggested that ad hoc judges be appointed from amongst the retired judges⁷⁵. However, the Supreme Court in the *Imtiyaz Ahmad* criticised this approach. Going by the previous experience, the Supreme Court stated that ad-hoc appointments have lacked accountability in terms of their functioning and performance⁷⁶. Therefore, we propose that mission mode judges must be set up by increasing the tenure of the present judges on a contractual basis for a fixed period of time. Hence, there will not be a requirement to appoint judges who have already retired.

⁷⁶ *245th Law Commission Report, supra note 16, at 24.*

⁷⁷ *Imtiyaz Ahmad, supra note 1 at, para 12.*

6. Improving Efficiency of the Courts

Amidst the discussion on increasing judicial strength, one must not forget the dire need to improve the overall efficiency of the system. Although it is true that increasing judicial strength will ultimately lead to higher disposal of cases and backlog, however, it is equally true that enhancing judicial efficiency will also have a direct impact on the reduction of the caseload. Improving efficiency would include ensuring the smooth flow of cases from the beginning till the end. Proper allocation of procedural and substantive work with the judges will also help in easing workload in the courts. For instance, as per the time and motion study conducted in this paper, it was observed that 22 per cent of the hearings made it to the second round which consists of the substantive stages. A similar study conducted by DAKSH on the percentage

of days spent on each stage highlighted that the ‘summons’ stage takes the most amount of time in the life cycle of a case at 28 per cent⁷⁷. Therefore, it can be seen that most of the workload of the judges is spent on procedural stages. It is important that judges primarily focus on substantive stages while the procedural stages can be handled by the court registrar. Such an approach would ease the flow of cases since judges will allocate their time to substantive issues in a case.

⁷⁸ *The findings of the research can be found in the paper submitted to the NITI Aayog (unpublished) by Ahmed Pathan, Arunav Kaul et.al. 2017. ‘Creating Order from Chaos: A Study on Caseflow Management in Courts.’*

- 79 Arunav Kaul, Ahmed Pathan et.al. 2017. 'Deconstructing Delay: Analyses of Data from High Courts and Subordinate Courts', in *Approaches to Justice in India: A Report by DAKSH*, p. 92, available online at https://dakshindia.org/Daksh_Justice_in_India/19_chapter_01.xhtml#_idTextAnchor087 (accessed on 13 August 2018).
- 80 For this study, 303 cases and 16,063 hearings in six subordinate courts were carefully analysed. The study was conducted by DAKSH for the Department of Justice under the scheme of 'Action Research and Studies on Judicial Reforms' 13 per cent of the hearings which did not provide any information on the reasons for adjournments were not taken into consideration in the analysis.
- 81 See Surya Prakash, Siddharth Rao et.al. 2019. 'Whitepaper Series on Next Generation Justice Platform: Transformation and Implementation', DAKSH, available online at https://dakshindia.org/wp-content/uploads/2020/02/Paper-2_Transition-and-Implementation.pdf (accessed on 30 November 2019).
- 82 See Surya Prakash, Siddharth Rao et.al. 2019. 'Whitepaper Series on Next Generation Justice Platform: The Vision', DAKSH, available online at https://dakshindia.org/wp-content/uploads/2020/02/Paper-1_The-Vision.pdf (accessed on 30 November 2019).

Further, DAKSH data on subordinate courts reveals that the average pendency of cases in subordinate courts is six years⁷⁸. Constant adjournments and procedural delays prolong the case life, thus clogging the overall system. A study conducted by DAKSH on reasons for adjournments in six subordinate courts revealed that 61 per cent of all hearings were adjourned, with 32 adjournments granted on an average in each case⁷⁹. Such a problem would remain even if the judge strength is increased. Hence, improving the efficiency of the judicial system should form the basis of judicial reforms in the country.

Technology needs to be used more extensively in the day to day functioning of the courts to make them more efficient. Functionalities available in CIS 3 needs to be imbibed extensively through process re-engineering⁸⁰. The overall vision for technology in the justice sector needs to be reimagined⁸¹.

ANNEXURE



The example below illustrates the working of the formula for fresh institutions. (referred to in sub-part 6.1)

To understand its workings let us assume a district which has a different mix of case types. The different designations associated with the case types will also have to be identified to shuffle the necessary judge strength. Table 1 below highlights the working of the formula with hypothetical numbers. The method can be done on pending cases too.

Table 1: Workload of the court

CASE TYPES (A)	CASES FILED IN THE PREVIOUS YEAR (B)	AVERAGE TIME REQUIRED TO DISPOSE (MINS) (T)	TOTAL WORKLOAD OF THE COURTS (W) W=B*T
Case Type 1	100	2000	2,00,000
Case Type 2	200	3000	6,00,000
Case Type 3	300	4000	12,00,000
Case Type 4	400	5000	20,00,000

Total workload of court (W)=40,00,000 minutes.

Number of judges = $W/227 \text{ working days} * 300$
minutes which gives
59 judges (after rounding off).

Table 2: Judges required to clear backlog in three years

CASE TYPES (A)	NUMBER OF CASES IN THE BACKLOG (B)	AVERAGE TIME REQUIRED TO DISPOSE (MINS) (T)	TOTAL WORKLOAD OF THE COURTS (W) W=B*T
Case Type 1	1000	200	2,00,000
Case Type 2	2000	300	6,00,000
Case Type 3	3000	400	12,00,000
Case Type 4	4000	500	20,00,000

Total workload of court (W)=40,00,000 minutes.

Number of judges = $W / (227 \text{ working days} * 300 \text{ minutes})$ which gives 59 judges (after rounding off).

Table 2 provides the total number of judges required to clear the backlog in the next three years. The target to dispose the cases can be changed depending upon the caseload. An important point to note is that the time taken to dispose a case needs to be calculated separately, since these cases are pending for more than two years. To take this factor into account, the time spent per stage (calculated from the time and motion study) needs to be multiplied with the average frequency of hearings in cases that

have taken more than two years to get disposed. Summing up all the stages will provide the average time taken to dispose cases that have formed the backlog. Once the time taken to dispose a case is calculated, the same needs to be multiplied with the total number of cases in the backlog for that case type. The resulting number when divided by the total time available per judge in a year in three years will give the judicial resources required to clear the backlog.

ANNEXURE



Judge to population ratio for each of the states/union territories (Referred to in part 2)

The overall ratio in the country is 17.86 judges per million population.

Source: Ministry of Law and Justice (Department of Justice). 29 July 2016. 'Statement Referred to in Reply to Rajya Sabha Unstarred Question No. 1441', Annexure 1, available online at http://doj.gov.in/sites/default/files/RS-Eng_1.pdf (accessed on 23 November 2019).

STATES/UNION TERRITORIES	JUDGE TO POPULATION RATIO PER ONE MILLION OF POPULATION
Mizoram	57.74
Delhi	47.33
Lakshadweep	46.56
Goa	39.10
Gujarat	32.11
Sikkim	29.62
Chandigarh	28.44
Tripura	28.33
Uttarakhand	27.68
Haryana	25.40
Punjab	24.26
Himachal Pradesh	22.17
Pondicherry	20.89
Maharashtra	20.03
Jammu and Kashmir	19.52
Meghalaya	19.23
Madhya Pradesh	18.60
Karnataka	18.35
Jharkhand	17.96
Rajasthan	17.36
Orissa	17.07
Bihar	16.64
Chhattisgarh	15.07
Manipur	15.06
Tamil Nadu	14.07
Kerala	13.69
Nagaland	13.63
Assam	13.60
Arunachal Pradesh	12.30
Andhra Pradesh	12.21
Dadra and Haveli and Daman and Diu	11.95
Uttar Pradesh	10.54
West Bengal and Andaman and Nicobar islands	10.45