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Change in Subjective Well-Being, Affluence and Trust in Judiciary in India

Vani S. Kulkarni,
Department of Sociology,
University of Pennsylvania,
Philadelphia,
USA,

Veena S Kulkarni,
Department of Criminology, Sociology, and Geography Arkansas State University- Jonesboro,
Arkansas, USA,

Katsushi S. Imai,
Department of Economics, School of Social Sciences, The University of Manchester, UK,

&

Raghav Gaiha
Population Aging and Research Centre,
University of Pennsylvania,
Philadelphia,
USA.

Abstract

The present study tests the hypothesis that trust in the lower judiciary in India - comprising High Courts at the state level and District Courts at the lower level - is associated with improvement in subjective economic well-being. The analysis is based on the India Human Development Survey (IHDS) 1 and 2 in 2005 and 2012, a large nationally representative household panel dataset. Using 2SLS and Lewbel IV models to take into account the endogeneity of trust in the lower judiciary, our analysis confirms that trust in the lower judiciary has a positive association with the change in SWB. The policy significance of this result is substantial as the pace of judicial reform tends to be slow in developing countries, such as India. Attention is drawn to specific reforms to reduce the pendency of cases. These include repeal of long outdated and dysfunctional laws, greater funding for expansion of the judiciary and, more importantly, for increasing the productivity of judges through the creation of a specialised administrative agency to support the judiciary and more effective use of IT in case management. This also has the potential for reducing rampant corruption, frequency of adjournments in court hearings as well as in ensuring autonomy of the judiciary.

Keywords: Subjective well-being, trust, lower judiciary, reforms, India

JEL Codes: D 63, H 11, H41.

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1. Introduction

Measurement of well-being remains controversial. Specifically, there has been serious questioning of measures of well-being, based on per capita income/expenditure. This has led to alternative measures of well-being. Of particular importance has been a surge of interest in measures of subjective well-being during the last few decades. Among those who have given strong conceptual and empirical support, some prominent contributions include Clark (2003), Blanchflower and Oswald (2004, 2007), Easterlin (1973, 2006), Kahneman and Krueger (2006), Kahneman and Deaton (2010), Diener et al., (2013), Akay et al., (2017), and Deaton (2011& 2018).

Subjective well-being (SWB) or life evaluation refers to the quality or goodness of life, overall life satisfaction, or sometimes happiness. Measurement is usually based on the Cantril ladder (1965), wherein individuals are asked to place themselves on an 11-step ladder with the worst possible life representing the lowest rung and the best possible life representing the top rung.

The measurement of SWB, however, has its own critics. Ravallion *et al.* (2016), for example, are sceptical but not dismissive of such measures. Their scepticism rests on scale heterogeneity - the standard deviation of utility over different choice situations. Yet subjective measures of poverty are not just similar to those obtained from income/expenditure thresholds but sometimes unavoidable². Deaton (2018), for example, offers robust support to self-reported measures of well-being, as such measures capture aspects of welfare beyond real income, which is what economists typically use to proxy utility. He uses cross-country and country-specific comparisons to validate measures of SWB and draws out their policy significance.

Here we aim to build on our recent companion study (Kulkarni et al., 2021) that has analysed the determinants of the change in SWB (or Δ SWB) - confined to economic well-being - in India between 2005 and 2012. A significant contribution of the present study is the examination of the *causal* relationship between change in subjective well-being, Δ SWB, and trust in the judiciary - specifically the lower judiciary in India³. To the best of our knowledge, not only analytical studies of SWB at the all-India level are scanty but also there is none that explores the relationship between SWB and trust in the judiciary. Here we examine who trusts the judiciary and why and whether this trust contributes to change in well-being. Besides, we experiment with IV estimations of trust in these institutions -including 2SLS and IV Lewbel estimations - to address the endogeneity concerns and robustness of results.

2. Scheme

¹ We record our appreciation of Jere Behrman's meticulous review and constructive suggestions. We extend our appreciation to Raj Bhatia for his outstanding econometric analysis and to Anil Deolalikar, N. Chandramohan, and Shylashri Shankar for perceptive comments, and Radhika Aggarwal and Kanchan Nagpal for valuable inputs..

²In another contribution, Ravallion (2014) conjectures that different people are likely to have different ideas about what it means to be "rich" or "poor," or "satisfied" or not with one's life, leading them to interpret survey questions on subjective welfare differently.

³ Typically, High Courts are listed as the middle tier. However, given the focus of the IHDS survey on state level judiciary, we have lumped together high court and subordinate judiciary such as district and sessions court as the lower judiciary.

In Section 3, we offer a selective review of the literature on SWB and its covariates. As the extant literature on the links between SWB and trust in public institutions is paltry and notional, we confine ourselves to the relationship between Δ SWB and trust in the judiciary. Section 4 is devoted to a brief review of salient features of the two rounds of the only all-India panel survey in the *India Human Development Survey*, conducted by the National Council of Applied Economics Research, and University of Maryland, and a few cross-tabulations of SWB and trust in the judiciary. An attempt is also made to describe salient features of India's judicial system. One of the issues highlighted in the cross-tabulations is whether trust breeds trust. Section 5 discusses model specifications and their estimation. This is followed by an interpretation of the results in Section 6. Discussion from a broad policy perspective is done in Section 7. Policy Challenges are delineated in Section 8.

3. Literature Review

As detailed literature reviews of subjective well-being are already available in Kulkarni et al. (2021, 2022), a short and selective review is given below.

(i) *Studies of Subjective Well-Being (SWB)*⁴

One important empirical issue is whether the measures of SWB are reliable (e.g., Kahneman and Krueger, 2006; Kahneman and Deaton, 2010; Diener et al., 2013; Akay et al., 2017, and Deaton, 2011, 2018). Kahneman and Krueger (2006) argue that one way of partially assessing the validity of SWB measures is to examine their correlation with various individual traits. They argue that (i) recent positive changes in circumstances, as well as demographic variables including education and health, are likely to be positively correlated with happiness or satisfaction; (ii) variables that are associated with low life satisfaction and happiness include: *recent* negative changes of circumstances; chronic pain; and unemployment, especially if only the individual concerned was laid off; (iii) gender is uncorrelated with life satisfaction and happiness; (iv) the effects of age are complex - the lowest life satisfaction is apparently experienced by those who have teenagers at home, and reported satisfaction improves thereafter. They resolve the puzzle of the relatively small and short-lived effect of changes in most life circumstances on reported life satisfaction by invoking evidence on adaptability. They conclude that despite their limitations, subjective measures of well-being enable welfare analysis in a more direct way that could be a preferred alternative to traditional welfare analysis.

Another important study by Diener *et al.* (2013) scrutinises the life satisfaction scales in the global context, based on their critical review of relevant studies and verification of the reliability of the scales used and validity of judgments made in SWB measures. They find that the stability of life satisfaction scores across time and situations suggests that consistent psychological processes are involved and similar information is used when people report their scores, while single-item scales are less stable than multi-item life satisfaction scales. Societal-level mean life satisfaction also shows robust consistency. In brief, the reliability and validity of life satisfaction scales reflect authentic differences in the ways people evaluate their lives, and the scores move in expected ways to changes in people's circumstances.

Deaton (2018) is a strong proponent of SWB measures. He argues that SWB measures do not need to be related to behaviour. 'If decision utility differs from welfare utility, and if people sometimes

⁴This sub-section draws upon Kulkarni et al. (2021, 2022) to show the importance of SWB as a welfare metric.

behave against their best interests, the direct measurement of well-being might still give an accurate measure, and might even enable people to do better, either through paternalistic government policies, or incentives, but more simply by providing information on the circumstances and choices that promote well-being ...' (*ibid.*, 2018, p. 18). He elaborates that direct measures may also capture aspects of welfare beyond real income, which is what economists typically use to proxy utility. Health is a case in point; education, civil liberties, civic participation, respect, dignity, and freedom are others.

Deaton (2018), based on the Gallup World Poll, uses an evaluative measure of well-being that asks people to report, on an eleven-point scale, from 0 to 10, how their life is going (originally due to Cantril, 1965). His main findings are: average ladder values vary greatly around the world, from around 4 in Africa, to between 7 and 8 in the rich countries of Europe and the English-speaking world; differences between men and women within regions are smaller than differences between regions; women tend to evaluate their lives somewhat more highly than men, except in Africa, and sometimes among those over 60; age patterns are apparent, but neither universal, nor very pronounced, at least compared with those associated with international differences in incomes; the (unconditional) U-shape appears in the English speaking countries (U.K., U.S., Canada, Ireland, New Zealand and Australia), to a lesser extent in East and in South Asia and perhaps in Latin America and the Caribbean - though only in the last age group (65-74), and in Europe—more for men than women—but not elsewhere. In the two poorest regions, Africa and South Asia, life evaluation is low throughout life and, in Africa, it falls with age. However, Deaton is puzzled by the U-shape of well-being, where it exists, since SWB rises after middle age, when people are losing their spouses, and when both morbidity and mortality are rising. In contrast, other components of psychological well-being may improve with age, less stress, and the negative side-effects (e.g., physical pain) of work diminish with retirement.

In an admirably clear and comprehensive review of factors associated with SWB, Dolan et al. (2008) draw attention to ambiguities, inconsistencies and causality in the interpretation of the results. The results generally show positive but diminishing returns to income. Some of this positive association is likely to be due to reverse causation, as indicated by the studies which show higher well-being leading to higher future incomes (Clark, Frijters, and Shields, 2008).

Some studies find a positive relationship between SWB and each additional level of schooling, while others find that the middle level of schooling is related to the highest life satisfaction (e.g., Blanchflower & Oswald, 2004, Stutzer, 2004). However, there is some evidence that schooling has more of a positive impact in low-income countries. In addition, the coefficient on education is often responsive to the inclusion of other variables within the model. Schooling is likely to be positively correlated with income and health, and, if these are not controlled for, the education coefficient is likely to be more strongly positive (Fahey & Smyth, 2004; Ferrer-i-Carbonell, 2005).

Broadening the scope of the extant literature, we review a small selection of studies that examine the relationship between SWB and trust in public institutions. Before reviewing these studies, something must be said on trust as an analytical category.

Trust is a relational concept that links the subject (who trusts) to the object (that is trusted). Trust is conditional on an object between two individuals, A and B. Trust is thus expressed as A trusts B to

do X (Hardin, 2000)⁵. Fehr (2009) argued that trust should be defined in relation with people's behavioural and social preferences and beliefs and found that the survey-based measure of trust is correlated with low levels in betrayal aversion and in risk aversion. Given that preferences are exogenous and beliefs are endogenous in the short run, trust is partly exogenous and partly endogenous, which led the author to argue that how trust was endogenously formed should be taken into account in the empirical analysis.

The only comprehensive study of the causal relationship between subjective well-being (more specifically, change in subjective economic well-being) and trust in politicians is Kulkarni et al. (2022). Besides, some key causal relationships between Δ SWB and demographic and socio-economic variables are highlighted. To illustrate, higher political trust causes a perceived change in well-being to rise. Another important insight is corroboration of the contributory role of schooling to perceived well-being. Age is significantly and positively related with Δ SWB. A related finding is that the significant contribution of schooling rises with the number of years of schooling. Relative to rural residents, while urban residents continue to experience higher perceived well-being, its erosion in the near future is not unlikely. Essentially, greater affluence allows a household to do this or that - more specifically, it could engage in leisurely pursuits, ensure better quality schooling for the children and healthcare for household members. However, greater affluence at the state level (measured in per capita net state domestic product per capita) causes a decline in Δ SWB. It is conjectured that the states with low GDPs target public support to the deprived better, and thus show higher Δ SWB. A case in point is Kerala.

In India's context, an important question is: Do *Dalits* and Other Backward Classes (OBC) in rural North India report lower life satisfaction than higher caste people, and if so, is it merely because they are poorer? Spears (2016) addresses this question, using the Sanitation Quality, Use, Access and Trends (SQUAT) survey data collected in rural Bihar, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh in 2013-14 by a team of researchers, including the author. Two specific issues addressed are: (i) Do Dalits and Other Backward Classes (OBC) in rural north India report lower life satisfaction than higher caste people, and, if so, (ii) is it merely because they are poorer? The findings are: lower caste people in rural North India evaluate their lives to be worse than higher caste people, and this difference is not explained by income poverty. Spears (2016) is only among a few studies on SWB in the context of India and, to our knowledge, there have not been any rigorous national-level studies on SWB in India (with the exception of Kulkarni *et al.* 2022).

(ii) Studies on Judicial Reform

Broadly, The works of John Rawls (1971) and Amartya Sen (2000) are particularly relevant for highlighting the importance of the rule of law in development. Rawls' discussion of the rule of law forms part of his overall view of "justice as fairness". In a somewhat similar vein, Sen argues that, "legal reform advances freedom – a crucial and constitutive quality of comprehensive development. Legal reform is thus important on its own." Development depends on people being able to enjoy basic legal rights. A recent report of the poor conducted under the auspices of the World Bank (ND) confirms that these people view issues of safety, security, and access to justice as high priority.

⁵ Addition of time to Hardin's definition indicates that trust may change over time — "A trusts B to do X at T" (Bauer and Freitag, 2017).

Central to the rule of law is the moral notion of justice. It is associated with fair and impartial decision procedures (*procedural justice*) and with persons and groups being treated even-handedly (*formal justice*, treating like cases alike) and in a morally fitting way (*material or substantive justice*) (Pogge, 2015).

Fair and just procedures are key aspects of law. Issues of procedural fairness concern the extent to which legal procedures meet standards laid down in statutes, case law, and unwritten legal principles. In contrast, social psychologists empirically study the extent to which procedures correspond with citizens' ideas about fairness and justice.

Various reasons are cited to explain the importance of procedural fairness. These include: (i) people value procedural justice because fair procedures are more likely to yield fair and favourable outcomes; (ii) another reason is that people care about procedural fairness for relational reasons, as being treated fairly communicates to them that they are valued members of society; and (iii) yet another reason is, when people do not know whether or not they can trust authorities, they consider whether or not these authorities treat them fairly and use this information as a heuristic substitute (Ansems, van den Bos & Mak, 2021).

There are a few studies of judicial reforms in India that offer insights into its functioning and help us understand better what the weaknesses or strengths are.

In an innovative study of judicial in-group bias in Indian criminal courts/district courts, based on data on over 80 million legal case records from 2010–2018, Ash et al. (2021) exploit quasi-random assignment of judges and changes in judge cohorts to examine whether defendant outcomes are affected by being assigned to a judge with a similar religious or gender identity. The evidence suggests negligible judicial in-group bias in criminal cases. This is in striking contrast to findings in the previous literature, which has tended to find large effects.

It is necessary to point out that the authors have not ruled out bias in the Indian criminal justice system as a whole. They have focused on two kinds of bias which have been widely documented in other countries and they have emphasised the singular contributions of judges to criminal-justice outcomes. The legal system could still be biased against Muslims and women overall, through geographic distribution of policing, discrimination in investigations, police/prosecutor decisions to file cases, the severity of charges applied, the severity of penalties imposed, the appeals process, and others. It is also possible that bias takes a more subtle form, such as discrimination conditional on the interaction between defendant, victim, and type of crime.

Chemin (2010) provides evidence on the impact of slow courts on economic performance using a unique data set assembled after a major Indian court reform implemented in 2002. The Indian court reform studied here (subsequently called the 2002 Amendment Act) seeks to simplify and shorten the procedural handling of court cases as specified in the Code of Civil Procedure. It is composed of 88 Code amendments all of which have been carefully examined and classified in this study. The Amendment Act of 2002 imposes mandatory time limits on plaintiffs and defendants at each stage of the litigation. Besides, the 2002 Amendment Act reduces frivolous litigation in order to increase court speed. Finally, adjournments are reduced.

Chemin (2010) disaggregates cases according to their nature to show that the reform had an impact on the backlog of criminal cases but also on the backlog of civil cases, which might more directly affect firms. The results show that the reform decreased the backlog of both IPC (Indian Penal Code) and SLL (Special and Local Laws) cases.

In another specification, the dependent variable is the average duration of the cases disposed of during the year. The result shows that one extra amendment aimed at simplifying procedures reduces the average case duration by 60 days. Thus the 2002 Amendment Act had its intended positive effect on court speed.

This reform, and therefore speedier courts, decrease the probability of experiencing a breach of contract, increases investment, and decreases the probability to experience a shortage of capital in a sample of firms. These results indicate that the speed of courts across Indian states plays an important role in shaping economic activity in this important sector of the economy.

It seems that both matter. As an illustration of violation of substantive justice that dealt a body blow to India's secularism is the Constitutional Amendment Act (CAA, 2019). It grants citizenship to persecuted minorities including Indian citizenship to persecuted minorities — Hindu, Sikh, Jain, Buddhist, Parsi and Christian — from Pakistan, Bangladesh and Afghanistan but excludes Muslims. Despite its discriminatory intent against the Muslims and widespread violent clashes, deaths, the judiciary failed to provide any relief. Alongside, procedural delays, endemic corruption and mounting shares of under-trial inmates with durations of 3-5 years point to stark failures of procedural justice.

4. Data & Descriptive Statistics

(i) Data

Our analysis draws upon the two rounds of the nationally-representative *India Human Development Survey* (IHDS) data for 2005 and 2012, collected jointly by the University of Maryland and the National Council of Applied Economic Research, New Delhi. The first round (IHDS-1) is a survey of 41,554 households in 2004-5. The second round (IHDS-II) involves re-interviews with 83% of the original households as well as split households residing within the same locality, along with an additional sample of 2,134 households in 2012⁶. The total for IHDS-II is therefore 42,152 households. The sample is spread across 33 (now 34) states and union territories, and covers rural as well as urban areas. Repeated interviewing of the same households at two points in time facilitates a richer understanding of which households are able to partake in the fruits of growth, what allows them to move forward, and the process through which they are incorporated into or left out of a growing economy.

Topics covered by the IHDS relevant in the present context include perceived changes in subjective economic well-being (SWB), expenditure, income, employment, health insurance, castes, religion, assets, trust in institutions, and demographic characteristics (e.g. gender, age, marital status)⁷.

⁶An additional sample of 2134 households was added to the urban sample of IHDS-II to reduce the impact of attrition on the standard errors of a few key variables. The simulations estimated that the attrition would increase standard errors to unacceptable levels if 8 out of 15 households were unreachable in each urban cluster. Hence, the interviewers were asked to report to NCAER supervisors if they were unable to recontact 5 or more households in a cluster. The supervisor verified the losses and randomly assigned households to the right, the left, or at the original location based on the original locations of the households which were not observed in 2012 using a predefined rule. A similar addition to the rural sample was not attempted because of much lower attrition rates (Personal communication with Sonalde Desai who led both rounds of IHDS).

⁷It is noted that IHDS-1 in 2005 does not allow identification of the respondent, while IHDS-II in 2012 does. As the respondents reported SWB changes in 2005-12 at the household level in IHDS-II, we have matched SWB changes, a dependent variable, to the household head's characteristics, and other explanatory variables, by restricting the sample only to the case where the household head served as a respondent.

An important feature of IHDS is that it collected data on SWB changes. The question asked is: “Compared to 7 years ago, would you say your household is *economically* doing the same, better or worse today?”. So the focus of this SWB is narrow and it has only three scales corresponding to *the perceived change* in the SWB (denoted as Δ SWB hereafter), not its level. It should also be noted that the measure is at the household level, not the individual level. While the focus of this variable is narrow, it has a few advantages. First, as reviewed in detail in the previous section, there exists a life-cycle effect on SWB, that is, perceived well-being changes at the point of the life-cycle or age of the respondent as well as his/her spouse or other household members. While the survey question asks about the change in SWB compared to that 7 years ago, it can be different from the time-series comparison of the level in SWB because of the stronger effect of more recent experiences of negative shocks (e.g., death of a breadwinner) on SWB. In this sense, our proxy is likely to be more closely associated with SWB at the time of the survey (2012) rather than 7 years ago (2004-05), although given that this is a longitudinal survey, the individuals are expected to retain some memories of the last survey as a reference point. Second, by asking specifically about economic well-being, the respondents will perceive the same aspect in well-being. This will minimise the heterogeneity in the respondent’s perceptions or focus on well-being compared with the variable based on more general questions about happiness or ‘the best possible life’. Third, while most of the earlier studies asked about the individual SWB, our measure captures Δ SWB at the household level. Since the life-cycle effect is somewhat diluted, this has the advantage that it allows analysis of the household-level determinants of Δ SWB.

Detailed expenditure data are collected based on 52 questions about household expenditure. The location of households is classified into rural, urban (net of slums) and slums. Five caste categories are considered: Brahmins, High Castes, combined under General, Other Backward Classes (OBCs), Scheduled Castes (*SCs/Dalits*), Scheduled Tribes (*STs/Adivasis*) and a residual “Other” category.

Marital status is disaggregated into unmarried, married, and widowed/separated.

Detailed demographic data are collected including gender, age, schooling and marital status. At the household level, the highest schooling attainment of adult women and adult men are taken from individual education records. Adults are defined as individuals 21 years or older. Based on the number of years of schooling, individuals are classified into illiterates, those with primary schooling, middle-level schooling, matriculates and graduates, based on their years of education.

Net state domestic product (NSDP) per capita at constant prices is obtained from state economic surveys. We use its log transformation as an explanatory variable.

A unique feature of IHDS is that it asks a question on trust in public institutions such as state government, judiciary, police and politicians. Trust is measured in *ordinal* levels of confidence: a great deal of confidence, only some confidence and hardly any confidence. Our focus here is on lower judiciary which comprises High Courts at the state level and District Courts at the lower level.

In order to instrument trust in lower judiciary in 2012, we use two variables: proportion of undertrial inmates between 3-5 years in total number of undertrial inmates and its square in 2005⁸. The average pendency of any case in the 21 high courts is about three years and one month (1,128 days). If there is a case in any of the subordinate courts in the country, the average time in which a decision is likely to be made is nearly six years (2,184 days). Even assuming that a case does not go to the Supreme Court (and a majority of the cases in the system do not), an average litigant who appeals to

⁸ For a justification, see footnote 11.

at least one higher court is likely to spend more than 10 years in court (Narasappa 2016). The point to emphasise is that the higher the proportion, the lower is the efficiency of the judicial system and trust in it.

(ii) Salient Features of the Indian Judiciary

As a key link here is between Δ SWB and trust in the lower judiciary, an overview of India's judicial system is necessary.

The Constitution of India provides for a single integrated judicial system with the Supreme Court at the apex, High Courts at the middle (state) level and District Courts at the lower level. It also provides for an independent and powerful judicial system. Judiciary in India acts as the guardian protector of the Constitution and the fundamental rights of the people.

Article 50 of the Constitution of India affirms "[t]he State shall take steps to separate the judiciary from the executive in the public services of the .State". Corroborating this, Freedom House notes "[t]he judiciary is independent of the executive branch" (Freedom House 2016). However, many aberrations have surfaced over time.

(iii) Performance of Judiciary

Let us first review changes in confidence/ trust in the lower judiciary, based on cross-tabulations of IHDS data between 2005 and 2012.

Our analysis suggests that trust in the judiciary was not just widely pervasive but also rose between 2005 and 2012. But it also suggests that the proportion of those with only some confidence and hardly any confidence was just under one-third. Both findings merit explanation. As we illustrate below, evidence of corruption in the lower judiciary is rife. In that case, as noted earlier, the pervasiveness of fair delivery of justice could be tinged with a sense of resignation as there is little one can do after exhausting all legal options. At the same time, evidence of bribery and other forms of corruption in the lower judiciary (including lawyers and law officials) is more likely to manifest in not inconsiderable proportions of households with only some confidence and hardly any confidence in it.

Digging deeper, all was not well with the lower judiciary under the UPA regime⁹. According to Transparency International (TI 2011) 45% of people who had come in contact with the judiciary between July 2009 and July 2010 had paid a bribe to the judiciary. The most common reason for paying the bribes was to "speed things up". As reported in Banerjee (2012), there were "fixed" rates for a quick divorce, bail, and other procedures. The Asian Human Rights Commission (AHRC) (April 2013) estimates that for every Rs 2 in official court fees, at least Rs 1000 are spent in bribes in bringing a petition to the court.

Corruption stems from the judiciary being "severely backlogged and understaffed" (Freedom House 2012). According to the AHRC (21 January 2013), there is a backlog of approximately 20 million cases in trial courts, 4.1 million cases in high courts and 49000 cases in the Supreme Court. In 2013.

⁹Some sources indicate that corruption is particularly prevalent in the lower levels of the judiciary (e.g., Freedom House 2012).

The AHRC (22 March 2013) estimates cases take between 10 to 15 years to go through the court system.

A related concern is understaffing of the lower judiciary. In combination with procedural complexity, the higher the understaffing, the greater is the delay¹⁰. In December 2012, at the district and subordinate courts, the share of working judges in sanctioned posts was 81.02%. At the state level, in UP, Madhya Pradesh and Maharashtra, the corresponding shares varied between 85-88% (Indiastat.com). At the high court level, however, the corresponding share was a low of 68% (*India Today* 2011).

As elaborated later, while the evidence of bribery and malfeasance under the NDA is scarce, there is some pointing to further deterioration of the lower judiciary.

(iv) Descriptive Statistics

Table 1 gives a list of variables, their definitions and descriptive statistics (means, standard deviations, maximum and minimum values).

Table 1
Summary Statistics

Variables	Mean	SD	Min	Max
SWB	1.286	0.634	0	2
State Proportion - Trust in Judiciary – 2012	0.660	0.094	0.309	0.828
Undertrials 3-5 years under all courts/divided by total	0.247	0.075	0.128	0.368
Square of (Undertrials 3-5 years under all courts/divided by total)	0.066	0.036	0.017	0.135
Age	46.0	12.5	16	97
Age Square	2268	1220	256	9409
Log per capita expenditure	6.491	0.666	1.386	10.578
Gender				
Male	0.898	0.302	0	1
Female	0.102	0.303	0	1
Marital Status				
Married	0.865	0.342	0	1
Unmarried	0.010	0.099	0	1
Widowed/Divorced	0.125	0.331	0	1
Sector				
Rural	0.717	0.450	0	1
Urban	0.266	0.442	0	1
Urban Slum	0.018	0.132	0	1
Schooling Grades				
Illiterate	0.357	0.479	0	1
1-4	0.116	0.320	0	1

¹⁰Chemin (2004), drawing upon the observations of an advocate practising law in the Delhi High Court, observes: Any lawyer practising in the Delhi High Court can testify that, on an average 60-70 cases are listed before a Delhi High Court Judge per day. The sheer quantum of cases forces a judge to adjourn most of the matters leading to further backlogs. The inevitable outcome: normal adjournments are for 4-6 months, the trial dates are not available before 2 years and settlement of suit takes place over 15 years.

5-8	0.234	0.423	0	1
9-10	0.167	0.373	0	1
>10	0.125	0.331	0	1
Religion				
Hindu	0.831	0.374	0	1
Muslim	0.108	0.310	0	1
Christian	0.025	0.156	0	1
Others	0.036	0.186	0	1
Caste				
Brahmin	0.049	0.215	0	1
High Caste	0.152	0.359	0	1
OBC	0.366	0.481	0	1
Dalit	0.222	0.416	0	1
Adivasi	0.082	0.275	0	1
Others	0.130	0.336	0	1
Log - Net State Domestic Product	9.983	0.430	8.976	11.065

Source: Authors' calculations based on IHDS.

In what follows, based on cross-tabulations, we first throw light on key relationships between changes in subjective well-being and trust in the judiciary. We then examine whether trust in the judiciary feeds on itself over time, by caste, religion and per capita expenditure/income terciles.

Among those with a great deal of confidence in the judiciary in 2005, those who perceived themselves as just the same are the highest share, followed by the better-off and then the worse-off in 2012. Similarly among those with only some confidence, the highest share is of just the same, followed by the better-off. This pattern is replicated among those households with hardly any confidence in the judiciary.

Let us now consider how the trust categories in 2005 relate to those at the aggregate level in 2012. What we do here is to check correlation between household characteristics in 2005 and the outcomes in 2012.

Among households with a great deal of confidence in 2005, the largest share is of those with a great deal of confidence, followed by those with only some confidence and then with hardly any confidence in 2012. A similar pattern is repeated among those with only some confidence, as also among those with hardly any confidence. Two observations are pertinent: among those with a great deal of confidence in 2005 the majority maintain it in 2012, indicating trust feeds off itself. Besides, among those with hardly any confidence in 2005, a large majority accumulates trust to be among those with a great deal of trust in 2012.

We now disaggregate the growth of trust between 2005 and 2012 by caste. The caste hierarchy is deep-rooted: lower share of those with hardly any confidence (about 6.50 %) and also manifests a socio-economic hierarchy, with the Brahmins at the top and the SCs and STs at the bottom. Starting with the Brahmins, among those with a great deal of confidence in the judiciary in 2005, a large majority (under 70 %) maintains it in 2012; followed by 24 % of those with only some confidence, and a small fraction (over 6 %) of those with hardly any confidence. A similar pattern is replicated among those with only some confidence and with hardly any confidence in 2005. Hence trust among the Brahmins in the judiciary in large measure feeds on itself; besides, even among those with hardly any confidence trust grows over the period in question.

Among the SCs, the pattern differs but only in magnitude. A majority of those with a great deal of confidence in 2005 maintain it in 2012 (over 65.50 %); followed by a much lower share of those with hardly any confidence (over 27 %) and an even lower share of those with hardly any confidence (about 6.50 %). However, among those with hardly any confidence, a larger majority (65.50 %) maintains it in 2012; followed by a much lower share of those with only some confidence (over 27 %) and well over 7 % of those with hardly any confidence. It is interesting that among SC households (who remain deprived *despite* quotas in education and public employment) with hardly any confidence, a large majority expresses a great deal of confidence in the judiciary in 2012. Hence trust feeds on itself even among low caste households with a great deal of confidence as well as accumulates even among those with hardly confidence.

A similar but somewhat distinct pattern is observed among the STs/*Adivasis* who are not just the most deprived but also the most isolated (confined to remote mountainous regions). Among them with a great deal of confidence in 2005, the majority (well over 66%) maintains it in 2012; followed by a much lower share among those with only some confidence (about 27.40 %) and a small fraction (6.50%) among those with hardly any confidence. Even among those with hardly any confidence, a larger majority (under 72%) shows a great deal of confidence, followed by a much smaller share of those with only some confidence (about 23 %), and a tiny fraction of those with hardly any confidence (about 5.30 %).

In brief, trust breeds trust among different castes; besides, even among those with hardly any confidence trust accumulates over the period 2005-2012 across castes.

How about religion? Although eight religious groups are considered, our remarks are confined to the Hindus, Muslims and Others.

Within the Hindus, among those with a great deal of confidence in 2005 the share of those with a great deal of confidence is highest (under 68 %) in 2012, followed by a much lower share of those with only some confidence (25.50 %) and quite low of those with hardly any confidence (well over 6 %). Within the Muslims, among those with a great deal of confidence well over two-thirds maintain it in 2012, followed by a much lower share of those with only some confidence (23.70 %) and the lowest of those with hardly any confidence (over 9 %). A similar pattern is replicated by Muslims with hardly any confidence, with the majority expressing a great deal of confidence in 2012. Within the Christians, among those with a great deal of confidence in the judiciary in 2005, the majority comprises those with a great deal of confidence in 2012, followed by a much lower but large share of those with only some confidence (over 30 %) and lowest of those with hardly any confidence (over 6 %).

What is indeed striking is that even within each of these religious groups the majority comprises those with a great deal of confidence, implying that not just the dominant Hindus but also the minorities greatly trust the judiciary in 2012. While bribes and corruption were not uncommon- especially, the nexus between the rich and influential and lower judiciary-the perception of fairness of the judicial process was widespread. So trust feeding off itself as well as the growth of trust even among those with hardly any confidence between 2005 and 2012 is surprising but unmistakable.

Let us now examine the relationship between trust/confidence in the judiciary and (per capita) income/expenditure.

In the first tercile/lowest per capita expenditure group in 2005, the highest share is of those with a great deal of trust in the lower judiciary (over 69 %) in 2012, followed by a much lower share of

those with only some confidence (about 25 %) and then the lowest of those with hardly any confidence (under 6%). This pattern is replicated even among those with hardly any confidence, with the largest share of those with a great deal of confidence.

The second expenditure tercile/income, broadly representing the middle expenditure/income class, replicates the pattern observed in the lowest expenditure tercile. Specifically, regardless of the level of trust in the judiciary, the majority comprises those with a great deal of confidence and the lowest share of those with hardly any confidence. What is indeed striking is that, even among those with hardly any confidence, over 70 % express a great deal of confidence in the judiciary in 2012.

Among the third expenditure tercile/the (relatively) affluent, the same pattern is replicated, with the majority at each level of confidence in 2005 comprising those with a great deal of confidence in the judiciary in 2012. Even among those with hardly any confidence, over 63 % express a great deal of confidence in 2012.

In sum, as emphasised earlier, whether it is a caste group, a religious group or an expenditure tercile, a great deal of trust in 2005 reproduces itself in 2012; moreover, even among those with hardly any confidence/trust in judiciary in 2005, it accumulates to a great deal of trust in 2012.

5. Method

(i) Model Specifications

To serve as the basis for more refined models, we begin with a multiple regression model where the dependent variable, ΔSWB (0, 1, 2) - corresponding to ‘worse-off’, ‘just the same’ or ‘better-off’ - is estimated by a set of explanatory variables using OLS.¹¹ Because ΔSWB is the perceived change of economic well-being during the last 7 years, based on the household head’s perception in 2012, all the explanatory variables are based on the survey questions in 2005 to partially address the issue of reverse causation from ΔSWB to, for instance, income/expenditure.

A multiple regression model is expressed as:

$$y_i = \beta_0 + \beta_1 T_i + X_i \beta_2 + \varepsilon_i \quad (1)$$

where y_i is ΔSWB , the change in subjective well-being between 2005-2012 and i stands for an individual where the household head was a respondent in 2012 (where i takes 1, ..., 27,958). β_0 is a constant term. ε_i is the error term assumed to be independent and identically distributed.

Our main explanatory variable is denoted as T_i , whether a household head has trust in a public institution. Here we construct a variable on trust in the lower judiciary, comprising high courts and district courts. Our main question is whether trust in the lower judiciary is associated with improvement in perceived well-being, tested by examining the sign and the statistical significance of β_1 . X_i denotes a vector containing a number of other explanatory variables and β_2 is a vector of coefficients to be estimated. X_i includes the age of the household head and its squared term, log per capita expenditure, caste, religion, marital status, gender, location-rural, urban and slums, schooling years, and state domestic product per capita, all in 2005.

¹¹See Angrist and Pischke (2008) for a detailed argument in favour of the Linear Probability Model (LPM) over the probit model where OLS is used for a binary choice model, against the standard textbook recommendation for the use of probit or logit models for the binary variable. The use of OLS for the discrete variable (0, 1, 2) can be justified on the same grounds. OLS with robust clustered standard errors is used to address possible correlations between individuals within a household as well as heteroscedasticity.

Given that a variable on trust, T_i , may be endogenous in Equation (1), we instrument it by using a 2SLS (two-stage least squares) estimation. In the first stage, we estimate T_i by a vector of instruments Z_i (Equation (2)) and in the second we estimate Equation (1) based on the estimate of T_i in Equation (2) in the first stage.

$$y_i = \beta_0 + \beta_1 T_i + X_i \beta_2 + \varepsilon_{1i} \quad (1)'$$

$$T_i = \alpha_0 + \alpha_1 Z_i + \alpha_2 Z_i^2 + X_i \alpha_3 + \varepsilon_{2i} \quad (2)$$

In the main specification based on 2SLS, we use the share of under-trial inmates (Z_i) and its square as instruments (Z_i^2) for T_i , trust in the judiciary.¹² It is plausible that the higher the share of undertrial inmates, the lower is the efficiency of the judiciary and concomitantly the lower is the trust. If, however, the relationship is non-linear, it is hypothesised that the decrease in trust in the judiciary is at a declining rate.

However, it is not easy to verify the validity of the instruments, Z_i and Z_i^2 , in terms of exclusion restrictions even if the instruments are carefully selected, as discussed above. Therefore, we also apply the Lewbel IV estimator which has been proposed as an alternative method of estimating Equations (1)' and (2) (Lewbel, 2012; Baum and Lewbel, 2019). The Lewbel IV draws upon the two-step procedure: (i) in the first step, the endogenous variable, T_i , is estimated by X_i by using a simple OLS and save the residuals as $\hat{\varepsilon}_{2i}$, and (ii) in the second step, T_i and y_i (Δ SBW) in Equations (1)' and (2) are jointly estimated by the standard 2SLS based on the external instruments, Z_i and Z_i^2 , as well as the internally-generated instruments, $(X_i - \bar{X}_i)\hat{\varepsilon}_{2i}$, where \bar{X}_i is the sample mean of X_i . (Baum and Lewbel, 2019, page 758). This procedure ensures that internally-created instruments are uncorrelated with the product of heteroscedastic errors to help the identification of Equation (2) (Lewbel, 2012). We use the Lewbel IV model as an attempt to strengthen the instruments and as a robustness check of 2SLS. The results will be discussed in detail in the next section.

6. Results

(1) 2SLS Results

The IV results are given in Tables 2 and 3. Since the F-test exceeds the Stock-Yogo value of 10 % bias in 2SLS, our instruments are strong. Besides, The Hansen J statistic (Chi-square (1) = 0.150) is statistically not significant, implying that the exclusion restriction is validated (the first column, Table 3). So the 2SLS estimates are validated by these specification tests. However, as the Lewbel+ estimates do not validate the exclusion restriction, as reported later, we avoid drawing causal inferences¹³. Besides, in the interest of comparability, our findings from the two estimations are referred to as associations.

¹² It should be noted that y_i , Δ SWB, is the respondent's perceived change in subjective well-being in economic aspects between 2005-2012 based on the survey data in 2012. y_i reflects strongly the respondent's perception in 2012 as well as the changes which occurred recently, rather than the actual changes in subjective well-being between 2005 and 2012. T_i could be instrumented by the proportion of undertrial inmates and its squared term in 2005 and 2012, but as the instruments in 2012 were highly correlated with those in 2005, we have decided to use the instruments in 2005 only.

¹³ Hansen (2021) is, however, cautious and suggests that the Hansen J test should not be used as a definitive test for validating or invalidating the IV model given the ambiguous nature of the test. He notes that '...it seems reasonable to require strong evidence to lead to the conclusion "Let's reject this model". The recommendation is that mild rejections (p-values between 1% and 5%) should be viewed as mildly worrisome but not critical evidence against a model. *The results of an over-identification test should be integrated with*

In the first stage of the IV regression, while trust in the judiciary in 2012 is positively and significantly related to the share of undertrial inmates for 3-5 years under total prisoners in 2005, it is negatively and significantly related to the square of share of undertrial inmates. However, a comparison of the coefficients suggests that the negative effect nearly offsets the positive effect. So, while trust in the judiciary marginally rises with the proportion of undertrial inmates until the threshold (0.267), it decreases marginally beyond that point as trust in the judiciary further rises. If we set other explanatory variables in the first stage to their means, we can infer that, for instance, when the share of undertrial inmates increases from 0.247 (the sample mean) to 0.267 and then to 0.367.

Table 2 Covariates of Trust in Judiciary

State Proportion - Trust in Judiciary - 2012				
Variables	2SLS		Lewbel IV+	
	Coeff	SE	Coeff	SE
Undertrials 3-5 years under all courts/divided by total	2.563***	(0.0893)	2.4804***	(0.09296)
Square of (Undertrials 3-5 years under all courts/divided by total)	-4.843***	(0.203)	-4.6431***	(0.21193)
Age	-5.74e-05	(0.000298)	0.0006**	(0.00024)
Age Square	2.12e-06	(2.98e-06)	-0.00001**	(0.00000)
Log per capita expenditure	-0.0151***	(0.00112)	-0.00849***	(0.00082)
Gender				
Female	0.00272	(0.00302)	0.00251	(0.00321)
Marital Status				
Unmarried	-0.0152	(0.0108)	-0.00409	(0.00385)
Widowed/Divorced	-0.00116	(0.00276)	-0.00563*	(0.00300)
Sector				
Urban	0.0158***	(0.00127)	0.01046***	(0.00111)
Urban Slum	-0.0196***	(0.00366)	-0.02648***	(0.00360)
Schooling Grades				
1-4	-0.0109***	(0.00242)	-0.00685***	(0.00159)
5-8	-0.00122	(0.00175)	-0.00205	(0.00127)
9-10	-0.00983***	(0.00229)	-0.00417***	(0.00149)
>10	0.000885	(0.00223)	-0.00149	(0.00171)
Religion				
Muslim	-0.0301***	(0.00470)	-0.03593***	(0.00634)
Christian	0.000521	(0.00457)	-0.0225***	(0.00660)
Others	0.0616***	(0.00377)	0.05697***	(0.00439)
Caste				
Brahmin	-0.0103***	(0.00307)	-0.01163	(0.00197)
High Caste	-0.0195***	(0.00187)	-0.01838***	(0.00145)
Dalit	-0.00215	(0.00147)	-0.00506	(0.00132)
Adivasi	-0.0161***	(0.00458)	-0.00607***	(0.00215)
Others	-0.000886	(0.00444)	0.00348	(0.00637)
Log - Net State Domestic Product	-0.0131***	(0.00250)	-0.03716***	(0.00149)
Constant	0.583***	(0.0180)	0.77542***	(0.01299)
Observations	29,543		29,543	
	F test of excluded instruments:		F test of excluded instruments	
	F(2, 29519) = 3220.24		F(23, 29498) = 384.49	
	Prob > F = 0.0000		Prob > F = 0.0000	

other information before making a strong decision.' (Hansen, 2021, p. 378, emphasis added by the authors). Therefore, given that the instruments are strong, despite the result of the Hansen J test, our 2SLS and Lewbel results should have empirical significance, while the available data would not allow us to find a case where the Hansen J statistic is statistically non-significant.

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1. As the results based on the Lewbel estimator did not yield a significant relationship between Δ SBW and trust in judiciary, both the first stage and second stage results are omitted. However, Lewbel+ external instruments does. 2. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

On the relationship between trust in the judiciary and age, and the squared term of age, we find that the coefficient estimates are statistically non-significant and so we cannot conclude anything on the effect of age on trust in the judiciary. It is, however, not unlikely that high collinearity between age and age squared yields imprecise standard errors. Hence non-significance of these two variables cannot be taken at face value. The gender of the respondent is unrelated to trust in the judiciary. Nor is marital status related to trust in the judiciary. Where a household is located, however, yields significant effects: relative to rural households, urban households exhibit greater trust while urban slum dwellers show lower trust in the judiciary. Whether this contrast is because of growing criminality in urban slums is no more than a plausible conjecture.

Schooling is another important demographic characteristic. What is indeed striking is that, relative to the illiterates, the higher the schooling grade, the lower is trust in the lower judiciary in the range of schooling grades between 1 and 10. The coefficient estimate of schooling grades more than 10 years is positive and statistically non-significant. This pattern suggests that schooling - up to a certain level - breeds greater scepticism of the transparency and accountability of the judiciary. Or, more specifically, there might be greater awareness of the corruption in the judiciary up to a certain level of education.

The caste hierarchy is central to India's socio-economic structure. Relative to OBCs, both the Brahmins and High Castes show a lower trust in the judiciary. However, it is puzzling that the *Adivasis*, the lowest rung of the caste hierarchy, also show lower trust in the judiciary. While upper castes are on average more affluent, better schooled and thus likely to be better aware of the inefficient and corrupt functioning of the lower judiciary, this explanation is hardly relevant for the most isolated and deprived *Adivasis*. What might explain their lower trust is their greater vulnerability to petty thefts, and other minor crimes (e.g., encroachment of their land rights), and their limited access to the judiciary because of their confinement to remote and mountainous regions. In other words, it is their limited exposure to fairness of the judicial process that perhaps explains their scepticism.

Religion is associated with variation in trust in the judiciary too. Relative to the dominant Hindu majority, the Muslims display a significantly lower trust along with Others (comprising minorities such as Sikhs, Jains, and Buddhists, among others). Muslims often bear the brunt of communal riots and overt and/or covert discrimination in housing, schooling and employment while 'Others' earn the wrath of dominant groups for their exclusiveness. If these grievances are not remedied and dismissed as minor offences, these minorities are likely to be sceptical of the fairness of the judicial system. While substantive justice is in accord with secularism, extremist groups' clashes often turn into riots. Failure of the lower judiciary in punishing the culprits looms large in the psyche of the minorities.

As households become more affluent (measured in terms of their per capita expenditure), their trust in the judiciary diminishes. This may seem surprising as affluent households can afford bribes and manipulate the judicial process (e.g., FIRs are not filed, or, if filed, lower court officials are bribed to delay the verdict through frequent adjournments). So, while the affluent can afford to manipulate the judicial process to their advantage, the high transaction costs also erode their faith in it.

Equally significant and seemingly surprising is the negative association of state affluence (measured in terms of (log) net state domestic product per capita). If the affluence is driven by a larger stock of better schooled and trained manpower, it is likely there will be greater scepticism of the fairness and transparency of the judicial process. However, if the judiciary is more efficient (e.g., fewer vacancies of judges, and fewer cases of pendency), this may partly offset the negative effect. A related issue is whether the judiciary is more autonomous in more affluent states; in that case, this may further reinforce trust in it. So, on balance, if our finding is valid, it suggests that negative perceptions of the better educated and informed households are the more dominant influence.

Let us now turn to the effects of (predicted) trust in judiciary and all other explanatory variables (except the instruments) in the second stage of the 2SLS in Table 3. Here the dependent variable is Δ SWB which takes the value (0, 1 and 2 corresponding to “worse-off”, “just the same” and “better-off”). So the estimated coefficient denotes the probability of moving up one step in the ladder in response to a unit change in each explanatory variable. Hence the estimated coefficient of trust in the judiciary, 0.578 (significant at the 1% level), implies that a 1 % increase in trust in the judiciary is associated with an increase in the probability of moving one step up the ladder by 0.58%.

Table 3: Covariates of Δ SWB

Δ SWB	2SLS		Lewbel IV+	
	Coeff	SE	Coeff	SE
State proportion - Trust in Judiciary 2012	0.578***	(0.184)	0.334***	(0.110)
Age	0.00690***	(0.00243)	0.00689***	(0.00243)
Age Square	-8.08e-05***	(2.49e-05)	-8.00e-05***	(2.49e-05)
Log per capita expenditure	0.0809***	(0.00931)	0.0761***	(0.00894)
Gender				
Female	-0.00676	(0.0289)	-0.00662	(0.0289)
Marital Status				
Unmarried	-0.0560	(0.0508)	-0.0576	(0.0500)
Widowed/Divorced	-0.0250	(0.0265)	-0.0248	(0.0266)
Sector				
Urban	0.0610***	(0.0107)	0.0643***	(0.0107)
Urban Slum	-0.00900	(0.0309)	-0.0146	(0.0304)
Schooling Grade				
1-4	0.0605***	(0.0180)	0.0598***	(0.0180)
5-8	0.0970***	(0.0141)	0.0977***	(0.0141)
9-10	0.172***	(0.0168)	0.171***	(0.0168)
>10	0.182***	(0.0185)	0.184***	(0.0185)
Religion				
Muslim	0.0911**	(0.0390)	0.0816**	(0.0387)
Christian	0.135***	(0.0330)	0.131***	(0.0331)
Others	0.0750**	(0.0315)	0.0934***	(0.0296)
Caste				
Brahmin	-0.00571	(0.0223)	-0.00465	(0.0222)
High Caste	-0.00315	(0.0152)	-0.00429	(0.0151)
Dalit	-0.0766***	(0.0148)	-0.0759***	(0.0148)
Adivasi	0.0412**	(0.0209)	0.0404*	(0.0207)
Others	-0.104***	(0.0368)	-0.0990***	(0.0368)
Log - Net State Domestic Product	0.0819***	(0.0139)	0.0786***	(0.0140)
Constant	-0.654***	(0.213)	-0.430**	(0.180)
Observations	29,543		29,543	
	Hansen J statistic		Hansen J statistic	

(overidentification test of all instruments):	0.150	(overidentification test of all instruments):	45.896
Chi-sq(1) P-val =	0.6989	Chi-sq (22) P-val =	0.0020

1: As the Lewbel estimator did not yield significant results on the relationship between Δ SWB and trust in judiciary, these are omitted. 2 Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

This is a key result in our analysis, as it corroborates the important role of trust in the judiciary in enhancing Δ SWB or, perceived change in subjective economic well-being. The fact is that, given vulnerability to crimes and conflicts in our daily lives, our perception of a good life is contingent on both substantive trust and procedural trust reflected in the speedy and fair punishment of the perpetrators.

As before, let us now examine the association between demographic variables and Δ SWB. Both age (of a head of household/respondent) and square of age show significant effects: the effect of age is positive but that of square of age is negative-implying that trust rises with age but at a slightly diminishing rate. In fact, since the effect of the square of age is negligible, the positive effect of age (also not large) dominates. Or, in other words, the rise in the probability of moving one step up in the well-being ladder with age is slow. Marital status (relative to the married) is not significantly related to Δ SWB. Location, however, matters. Relative to rural households, urban households display a significantly higher Δ SWB. This is not surprising given easier access to schools, healthcare facilities, and drinking water and electricity. By contrast, the coefficient of urban slums is significant but negative, presumably because of a high incidence of petty crimes (e.g., thefts) and minor disputes over sharing of common facilities (e.g., water sharing from a hand pump) with a low probability of punitive or remedial action. Schooling grades are associated significantly with Δ SWB. Relative to the illiterates, a striking pattern emerges in which the higher the schooling grade the greater is the contribution to Δ SWB. To illustrate, while a unit increase in 1-4 years of schooling is associated with a 6 % increase in the probability of moving up one step in the ladder of Δ SWB. For matriculates and above, a unit increase in the schooling grade is associated with an increase in the probability of moving up by over 18 %-three times the increase in the probability of moving up at the lowest grade of schooling, 1-4 years. Hence, greater emphasis on schooling is a high priority.

As noted earlier, despite caste mobility - especially those at the lower rung of the caste hierarchy-deprivation among them remains stark. This is partly reflected in our results. While the Dalits and ‘Others’ associated negatively with Δ SWB, *Adivasis* show a positive association.. Although ‘Others’ are often likened to upper castes (Mosse, 2018) and thus economically better-off than the Dalits, it is somewhat intriguing that their perceptions are negative. Our conjecture is that, while the Dalits (despite the affirmative action) remain outside the economic mainstream and develop a negative perception of change in subjective well-being, ‘Others’ aspire to the status of upper castes but fail in this pursuit leading to a negative perception. In contrast, the *Adivasis* at the lowest rung and isolated spatially from all other castes enjoy a traditional lifestyle that acts as a barrier to modernisation, and are thus able to maintain their well-being. Their aspirations are local and thus immune to outside influences of economic advancement, competition and acquisitiveness. However, their deprivation in terms of lack of access to good quality schooling and healthcare is stark but does not lead to serious questioning. If we compare the magnitudes of the marginal effects/associations across these castes, we find that the largest (absolute) value is associated with ‘Others’, followed by Dalits and then the *Adivasis*.

Religion is another salient feature of Indian society. What is indeed surprising is that *despite* discrimination against minorities, their harassment, and violence against them, relative to the Hindus, their associations with Δ SWB are positive and significant. The puzzle is that some feel negatively towards the judiciary and yet all have positive perceptions of Δ SWB. What seems plausible, however, is that other factors relevant to explaining these perceptions such as social safety nets (e.g., MGNREGA, food subsidy, midday meal scheme for children) and a secular government that is committed to protecting their constitutional rights more than offset their low trust in the judiciary. If we compare their marginal effects/associations on Δ SWB, we find that the contribution of the Christians is highest, followed by the Muslims and then 'Others'. The economic affluence of a household is significantly and positively associated with Δ SWB, implying that the larger the per capita expenditure the greater is the perception of improvement in well-being. A 1% increase in per capita expenditure is associated with an increase of 0.81 % in the probability of moving up to the next higher category of Δ SWB. This is not surprising as income/expenditure is linked directly to subjective economic well-being. Another measure of affluence at the state level is net state domestic product per capita. A 1 % increase causes an increase of 0.82 % in the probability of moving up to the next higher category of Δ SWB.

(ii) Lewbel IV+ External Instruments

As a robustness check, we estimate the Lewbel IV model where the dependent variable in the first stage is trust in the lower judiciary as in 2SLS. Here we use the 'internal' instruments which are created based on heteroscedasticity in the first stage and are uncorrelated with the product of heteroscedastic errors (Lewbel, 2012) in addition to the external instruments, the share of undertrial inmates for 3-5 years under total prisoners and its square.¹⁴ In the second stage, Δ SWB is regressed on the instrumented trust in the judiciary and other covariates. The results are broadly similar to those of 2SLS and presented in the second column of Tables 2 and 3. We will be selective in our interpretation of the results to limit repetition.

The F-test of excluded instruments ($F(23,29519)=1218.60$) exceeds the Stock-Yogo value of 11.41 for 10 % bias in the Lewbel + estimator, implying that the instruments are strong. However, the Hansen-J statistic of 65.62 rejects the null of exogeneity of the instruments coming in the way of causal inferences.

The results are broadly similar to those of 2SLS and presented in the second column of Tables 2 and 3. We will be selective in our interpretation of the results to limit repetition.

As in the case of 2SLS, the proportion of the undertrial inmates on trust in the judiciary is positive but almost offset by the negative effect of the square of this proportion. Both coefficient estimates are similar to those of 2SLS. So, assuming that all other explanatory variables take their mean values, the threshold value of the proportion of undertrial inmates at which the positive effect on trust in the judiciary turns negative is 0.267. Thus, given the highly similar estimated coefficients of the proportion of the undertrial inmates and its square, the relationship between trust in the judiciary and the proportion of the undertrial inmates shows the inverted U curve as in the case of 2SLS.

In contrast to the 2SLS results, age and its square have a significant positive and negative effect, respectively. However, both effects are negligible. The gender effect is non-significant, as in the

¹⁴ In the case where we use only internally-created instruments in the first stage of the Lewbel IV model, trust in the judiciary does not possess a significant coefficient in the second stage. So these results are not discussed here.

2SLS. However, relative to the married, the widowed/divorced show lower trust in the judiciary. Location is associated with significant variation in trust in the judiciary. Relative to rural households, while urban households display a significantly higher trust in the judiciary, those living in urban slums display a significantly lower trust. It seems plausible that urban households are better informed about the functioning of the judiciary and its transparency, while those living in urban slums have fewer brushes with the law and are thus more likely to be sceptical of its functioning. Both 2SLS and Lewbel+ estimates are similar. That schooling grades are associated with considerable scepticism of the judiciary, relative to illiteracy, is not surprising if more schooling combined with greater exposure to mass media leads to better awareness of the corruption in the judicial process (e.g., inordinate delays and adjournments due to bribes). Specifically, a unit increase in primary grade lowers trust in the judiciary by 0.7 % while a unit increase in matriculation and higher grade lowers trust by 0.4 %. Both these effects are lower in (absolute) value than the corresponding effects in 2SLS.

The caste results differ slightly between 2SLS and Lewbel IV+ specifications. Only High Castes show a significantly lower trust in the judiciary as also the *Adivasis*. For a unit increase in High Castes, trust in the judiciary reduces by 1.8 %; while a unit increase in the *Adivasis* lowers trust by 0.6 %. This is puzzling as High Castes are better schooled and more affluent and yet both exhibit lower trust. It is plausible to argue that the lower trust of High Castes is born of their better schooling and greater awareness of the judicial process while that of the *Adivasis* is mostly due to their isolation and lack of awareness tinged with a general suspicion of public institutions that are extraneous to their lived experience.

Religious affiliation yields significant associations. There are differences between 2SLS and Lewbel IV+ results. Relative to the Hindus, the latter show that the Muslims display lower trust in the judiciary, as also the Christians, but 'Others' repose greater trust. The results for the Muslims and 'Others' are similar to 2SLS results, while the coefficient on the Christians is significant only in the Lewbel IV+ case. For a unit change in these religious groups, there is a corresponding increase of 3.60 % in trust in the judiciary among Muslims, 2.25 % among Christians and 5.70 % among 'Others'. Inter-religion skirmishes and riots occurred but their negative effects were more than offset by a sense of trust in the judiciary, stemming from state guarantees of their religious rights and practices.

Let us now examine the associations of household and state affluence with trust in the lower judiciary. Household affluence has a negative association with trust, as in the case of the 2SLS, implying that the greater the affluence, the lower is the trust. Presumably, as argued earlier, while the rich can afford to pay bribes which are rampant in the judicial process, and thus manipulate the verdicts, it is not implausible that manipulability of the process also erodes their trust in it.

State affluence has a negative association with trust in the judiciary, consistent with the 2SLS result, but the former is larger in absolute terms. As noted earlier, whatever the strengths of the lower judiciary in the more affluent states, if any, it is not unlikely that negative perceptions of the better educated and informed households are the more dominant influence.

Let us now turn to the effects of (instrumented) trust in the lower judiciary and of other covariates on Δ SWB. The results are given in the second column of Table 3.

Both 2SLS and Lewbel+ estimates show a significant positive association between trust in the judiciary and Δ SWB. Given the definition of this measure of well-being, it follows that a positive

effect implies that the probability of moving up to the next step on the ladder increases. A unit increase in trust in the judiciary increases the probability of moving up one step in the well-being ladder by 3.34 %. This is, however, much smaller than the 2SLS result (an increase in the probability of 5.78%) in the first column of Table 3 These are the key results.

Turning to the demographic variables, we find that both age and its square yield significant associations with changes in well-being, positive and negative, respectively, as in the case of 2SLS. While the positive association of age is small, the effect of its square is negligible. It is thus safe to infer that older persons are likely to have higher probabilities of moving one step up the Δ SWB ladder. While retirement relieves the stress of working, vulnerability to chronic diseases rises as also the probability of spousal loss. These together explain the slow increase in the probability of moving up one step of Δ SWB ladder. Neither gender nor marital status yields significant associations, consistent with 2SLS. Location, however, yields positive associations in both specifications, relative to rural, suggesting that the increases in the probability of moving up one step in the ladder are similar (a unit increase is associated with an increase of 6.4 % in the probability of moving up one step). Relative to illiteracy, schooling grades reflect similar patterns in both 2SLS and Lewbel+ estimates. The probability of moving up one step in the well-being ladder increases by about 6 % at the primary level, and by over 18 % at the matriculation and higher level. This pattern of stronger associations is observed in both specifications. As noted earlier, not only do higher years of schooling expand access to remunerative employment opportunities, but also add to the awareness of social obligations and thus enhance Δ SWB.

The caste results are mixed. Relative to the OBCs, the Brahmins and High Castes do not produce significant effects while 'Others' and lower castes do. 'Others', often characterised as similar to upper castes, show lower Δ SWB, as also the *Dalits*. As noted earlier, this is seemingly intriguing but explainable in terms of their distinct aspirational goals - while 'Others' fail to accomplish parity with High Castes, and the *Dalits* despite affirmative action remain on the fringe of the social and economic mainstream. In sharp contrast, the *Adivasis* at the lowest rung of the caste hierarchy are isolated but live traditional lives with little influence of extraneous development. Thus, satisfied and content in their milieu, they show a moderate increase in the probability of moving up one step in the Δ SWB ladder. These results are similar in both specifications.

Religious affiliation yields similar associations with Δ SWB in both specifications. Specifically, relative to the Hindus, the Muslims, Christians and 'Others' show higher levels of perceived change in economic well-being. For a unit change in religious affiliation, the probabilities of moving up one step in the ladder increase by 8 % for Muslims, 13 % for Christians and 9.3 % for 'Others'. Thus, in an environment of constitutional protection of religious rights and practices, and prevalence of harmony, religion is not a hindrance to moving up the well-being ladder. We are not ruling out occasional communal riots and violence but these were effectively suppressed by the state machinery and thus communal harmony prevailed and Δ SWB was enhanced.

As in the case of 2SLS, individual household affluence has a significant positive effect on Δ SWB. This is a substantial increase in the perception of change in economic well-being. A 1 % increase in per capita income/expenditure is associated with an increase of 6.7 % in the probability of moving up one step of the ladder of well-being (as compared with 6.6 % in the 2SLS case). That this is a substantial increase in upward mobility is not surprising as income is a key element of the perception of change in economic well-being.

At the state level too, affluence in both specifications yields similar positive and significant associations with Δ SWB . For a 1 % increase in state affluence, the probability of moving up one step up in the well-being ladder increases by 5.7% (as compared with 4.2 % in the 2SLS case). This is again not surprising as state affluence is associated with more remunerative employment opportunities and better public healthcare.

The similarity of results in the two specifications corroborates the robustness of our econometric analyses. However, one somewhat glaring weakness is that there is no control for individual fixed or random effects and thus no control for unobservable differences (such as how competitive households/ individuals are, whether their value system makes a difference (e.g., trade-offs between income gains and child care). But is not feasible with just two waves of the panel in the IHDS.

7. Discussion

Without summarising the main findings, we review them from a broader policy perspective.

Using rigorous econometric models, we are able to establish a robust association between the lower judiciary and change in subjective well-being. The analysis is based on the panel data of a sample of nationally representative households in 2005 and 2012 in the IHDS. As both 2SLS and Lewbel+ specifications confirm this association, it has considerable policy significance. As we have instrumented trust in the lower judiciary by the proportion of undertrial inmates for 3-5 years in total prisoners and its square, we find that the former has a positive association with the trust while the latter has a negative association. We are able to establish a threshold beyond which trust in the judiciary turns negative, highlighting the imperative of judicial reform. What is indeed striking is that despite endemic bribery and manipulation of the judiciary, trust in it rose between 2005 and 2012, implying that in general household respondents acknowledged its autonomy, transparency and fairness with occasional lapses. However, as evidence of corruption accumulates and is more widely shared through the media, the trust may be undermined with a substantial loss of subjective well-being.

It is not surprising that, relative to rural households, urban households are more inclined to trust the judiciary while those living in urban slums are less inclined to share this trust. Urban households are better informed about the functioning of the judiciary and specifically its merits and weaknesses through better exposure to mass media and perhaps through their own brushes with it. If they on average display greater trust, it may be that their own experience dominates negative perceptions of others. The case of urban slums is better viewed as the outcome of limited access to the judiciary for minor crimes, offences and disputes over common facilities (eg, access to and sharing of a common hand pump, toilets). If these are negotiated through dialogue and informal consultation, the case for judicial intervention is further weakened. Without ignoring the considerable potential for judicial reform, better and more widespread dissemination of information on the functioning of the lower judiciary may help overcome negative perceptions born of ignorance and misinformation. Moreover, controlled urbanisation with more remunerative employment opportunities, better housing, healthcare and lower pollution are likely to enhance subjective well-being. Rural-urban migration - especially of low-skilled workers from rural areas - adds to the growth of slums, congestion and unsanitary living conditions. A policy option is to create rural non-farm employment opportunities to stem the tide of migration.

Schooling attainments of respondents/household heads breed scepticism of the judiciary. Compared to the illiterates, both those with primary schooling and matriculates show lower trust. That

schooling adds to their awareness of the aberrations in the judicial process and their ability to sift through the media reports better are plausible explanations. It is of course not surprising that higher grades of schooling are associated with favourable perception of change in economic well-being through access to more remunerative employment, healthy living, and positive contribution to building up a stable and sustainable community. These may seem idealistic but are not necessarily so as recent studies confirm (notably, Himanshu et al. 2018). Whether schooling makes a person more ambitious is not unlikely but needs empirical validation. In any case, our analysis supports greater public investment in schooling not just to expand the infrastructure but also to improve its quality.

The lower trust of both upper castes and *Adivasis* in the judiciary, relative to OBCs, is striking. The reasons of course differ, as explained earlier. In sharp contrast, except for the *Adivasis* who show higher probabilities of change in well-being, both Dalits and Others show lower probabilities of changes in perceived economic well-being. As observed earlier, while *Adivasis* follow a traditional lifestyle guided by their own community norms and rules in an environment that is largely immune to extraneous developments, and with limited aspirational goals, they are mostly content with and benefit from local improvements (eg, better protection of their land rights, their more efficient use of forest products, exclusion of timber merchants who encroach upon these products for commercial purposes). In sharp contrast, Dalits despite the quotas in schooling and public employment resent being discriminated against in various spheres (eg, segregation in housing and workplaces) resulting in a lower sense of well-being. Others, who are akin to upper castes, with comparable aspirations, often fail to realise them and thus perceive lower well-being. While inter-caste harmony has been allowed to deteriorate under the current NDA regime, existing legislation requires more effective implementation and more inclusive development.

While religious minorities display a mixed pattern of trust in the judiciary, with the Muslims and Christians showing lower trust, relative to the Hindus, Others comprising sects such as Sikhs and Buddhists show higher trust. In sharp contrast, all these minorities manifest higher probabilities of well-being. Although communal riots and violent episodes occurred under the UPA, the secular regime guaranteed and protected all religious rights and practices and thus an overall environment of religious harmony prevailed. While the current NDA regime has aggressively promoted *Hindutva* and trampled upon the rights of minorities-especially Muslims and Christians - there has been a substantial loss of religious harmony and rebuilding of trust among them seems a Herculean task.

Economic affluence at both household and state levels is negatively related to trust in the judiciary. This may seem counter-intuitive but it is not. Greater affluence at the household level enables a household to afford bribes and other means to manipulate the judicial process but it also erodes trust in this process. At the state level, even if we assume that the judiciary is more transparent and autonomous in more affluent states, corruption is rife and manipulation of the judicial process by the rich and powerful is pervasive. Hence the negative relationship is plausible. In sharp contrast, however, affluence at both household and state levels promote perceptions of changes in economic well-being. So, along with judicial reforms, there is a strong case for the acceleration of inclusive growth.

To set the stage for judicial reforms, let us review more recent evidence on the deterioration in the functioning of the lower judiciary.

While the record of the lower judiciary under NDA is unlikely to have improved, there is a scarcity of evidence on bribes and malfeasance. A few broad-brush treatments are, however, worrying.

Without providing further information, Freedom House's *Freedom in the World 2016* report for India states that "the lower levels of the judiciary in particular have been rife with corruption" (Freedom House 2016). GAN Business Anti-Corruption Portal reports that in India, "[t]here is a high risk of corruption when dealing with India's judiciary, especially at the lower court levels. Bribes and irregular payments are often exchanged in return for favourable court decisions" (GAN Integrity 2017).

But there are several allegations of corruption against High Court judges. Two are listed: (i) two lower court judges, A. D. Acharya and P. D. Inamdar, were suspended over charges of accepting bribes in Gujarat (*Hindustan Times* 13 Sept. 2015); and (ii) Tis [Tiz] Hazari District Court Senior Civil Judge, Rachna Tiwari Lakhanpal, was arrested in September 2016 for allegedly accepting a bribe to rule in favour of a complainant in a case (Jain 2016). These are indicative of the widespread malaise of corruption in the lower judiciary. Worse, there are glaring examples of anti-Muslim bias¹⁵. Anti-Muslim bias alone may not result in erosion of trust but if combined with unprovoked and brutal violence against them by the police in collusion with the judiciary (eg, lynching of innocent cattle traders) is bound to. In fact, there is suggestive evidence of collusion between state governments, lower judiciary and the police in overlooking these crimes (Kulkarni et. al. 2021).

According to statistics provided by the National Judicial Data Grid, as of 12 April 2017, there are 24,186,566 pending cases in India's district courts, of which 2,317,448 (9.58 percent) have been pending for over ten years, and 3,975,717 (16.44 percent) have been pending for between five and ten years. As of 31st December 2015, there were 4432 vacancies in the posts of (subordinate court) judicial officers, representing about 22 per cent of the sanctioned strength. In the case of the High Courts, 458 of the 1079 posts, representing 42 per cent of the sanctioned strength, were vacant as of June 2016. Thus severe backlogging and understaffing persisted, as also archaic and complex procedures of delivery of justice.

In brief, while the lack of detailed evidence on corruption in the lower judiciary under the NDA rules out a definitive comparison of trust with its predecessor, UPA, the strands of evidence presented here are far from reassuring.

8. Concluding Observations

Restoration of trust in public institutions is daunting- specifically when loss of trust is systemic (Kulkarni et al. 2021, 2022)¹⁶. Extreme centralisation of power in the centre and blatant violation of democratic values have had disastrous consequences in terms of violent clashes, loss of lives, religious discord, assaults on academic freedom, suppression and manipulation of mass media. Exercise of extra-constitutional authority by the central and state governments, weakening of

¹⁵ An illustration of a blatant anti-Muslim bias in a High Court judgment is given in Jaffrelot and Verniers (2018). Mohsin Shaikh, a 24-year-old computer engineer, was killed in a street in Pune while returning home from the mosque, by a group of about 20 individuals, who attacked him as they walked out from a Hindu Rashtra Sena rally. The court considered that Mohsin was attacked "because he looked like a Muslim" and his assailants were arrested and charged with murder. A High Court justice of Bombay granted them release on parole, however, on the grounds that Mohsin's religion constituted a provocation. The judge's observation "The fault of the deceased was only that he belonged to another religion. I consider this factor in favour of the applicants/accused". The family filed an appeal to the Supreme Court, which overturned the judgment.

¹⁶ Mistrust in policemen may lead to mistrust of the judicial system in general, or mistrust in politics. Vice versa, mistrust in a government may yield mistrust in the police. In other words, mistrust could be systemic (Nooteboom, Nd).

accountability mechanisms, widespread corruption in the lower judiciary and the police, with likely collusion between them, the perverted beliefs of the latter towards Muslims, other minorities and lower-caste Hindus, a proclivity to deliver instant justice, extra-judicial killings, filing FIRs against innocent victims of mob lynching –specifically, Muslim cattle traders –while the perpetrators of violence are allowed to get away have left scars on the national psyche that may take years to heal. More competitive central and state governments with strong and credible opposition are key to the restoration of a more democratic environment and for trust to grow. Whether elections can deliver these results is anybody’s guess- as recent state elections in four Indian states confirm a strong preference for the *status quo*. Freedom of the press or, more broadly, of the mass media has a potentially important role. Whether these can be unshackled from the clutches of an oppressive regime seems unlikely. However, it must be acknowledged that a few foreign NGOs/organisations - Freedom House, Amnesty International India, and Transparency International - have done commendable work in raising awareness of corruption in the judiciary and police, extra-judicial killings, seething discontent among Muslims and other minorities, and lower-caste Hindus over arbitrary and divisive laws on “love jihad” and the Citizen Amendment Act (CAA, December 2019), and other human right violations despite hostility from the central and state governments^{17,18}. So judicial reforms are a mammoth task without reforms in other public institutions. However, recent comments (notably, Debroy 2021, Datta and Rai 2021) sketch a few priorities.

Debroy (2021) draws attention to some glaring anomalies that highlight the tortuous delay in the delivery of justice. Three suffice here. (i) The tribulations of a man called Lal Bihari. This gentleman was declared dead in 1975, struggled to prove that he was alive (though deceased in the records) and was finally declared alive in 1994. (ii) Umakant Sharma –a postman- was suspended in 1984 (because of a discrepancy of ₹57.60 in the records he submitted) and was declared innocent in 2013. (iii) In Doshipura (Varanasi), a dispute between Shia and Sunni Muslims over two acres of land has been going on since 1878. These reflect stark failures of procedural justice. He also draws attention to some archaic and antiquated laws that must be repealed. For example, the relevant section of East Punjab Agricultural Pests, Diseases and Noxious Weeds Act (1949), applicable to Delhi, which requires locust invasions to be announced through beating of drums and musters of able-bodied male citizens to fight them (Debroy,2021). A systematic scrutiny of the statutes, laws and official orders is thus necessary.

The pace of legal reforms has been excruciatingly slow and patchy. Many outdated/dysfunctional laws or statutes have not been repealed because of the tardiness of legal reform both at the union and state government levels. This requires systemic scrutiny of statutes. Ideally, that should be done by the Law Commission, but recent reports of the Law Commission have been infrequent and *ad hoc*, not systematic. At the state level, Rajasthan is a promising but among the few exceptional cases.

¹⁷ Amnesty International stopped its work in the country after the Indian government froze its bank accounts in an act of reprisal for the organization’s human rights work.

¹⁸ The CAA is an Act passed by the Parliament of India by amending the Citizenship Act of 1955 to provide citizenship to Hindus, Buddhists, Sikhs, Jains, Parsis and Christians who came to India from Pakistan, Bangladesh and Afghanistan before 31 December 2014. The citizenship of India can be given due to religious persecution of Hindu, Buddhist, Sikh, Jain, Parsi and Christian. The Bill also relaxed the condition of staying in India for 11 years required for grant of Indian citizenship, changing this period as a condition of staying in India for only 5 years. The CAA was passed in the Indian Parliament on December 11, 2019, with 125 votes in favour and 105 votes against. The bill was passed and was approved by the President on 12 December. But this flies in the face of secularism and is thus a violation of substantive justice. With the Forty-second Amendment of the Constitution of India enacted in 1976, the Preamble to the Constitution asserts that India is a secular nation.

After harmonization (and some repeal), the number of statutes was reduced from 900 to 250. Most of those 900 statutes relate to land ownership, tenancy and land revenue. A priority, therefore, is to extend such harmonisation and repeal it in other states too.

In a more detailed analysis by Datta and Rai (2021), the pendency of cases is attributed to both demand and supply causes^{19,20}. Demand-side causes include the expansive jurisdiction granted to the judiciary in the Indian Constitution, excessive government litigation, rapid social and economic changes leading to more disputes, and so on. Supply-side causes comprise civil and criminal procedure codes that do not encourage quick case disposal, the readiness of judges to hear complaints under their writ jurisdiction and to take *suo moto* (judicial action taken without any request by the parties involved) cognizance of matters, and the country's large number of judicial vacancies.

There is consensus that India does not spend enough on the judiciary. Recently, the India Justice Report 2019 found that, out of the twenty-seven states and two union territories covered by the study, the growth rate of judicial expenditures was lower than the growth rate of total expenditures in twenty-one of them.

Datta and Rai (2021) find that actual government spending on the administration of justice by the Indian central government and five state governments (Bihar, Delhi, Gujarat, Karnataka, and Odisha) over the last decade regularly fell below (and often well below) the requisite budgetary allocations. For instance, in Bihar, each year between fiscal year (FY) 2014 and FY 2018, the state judiciary's actual expenditures fell short of the revised estimate by more than 20 percent. This gap suggests that the Indian judiciary is not able to budget properly or spend the (inadequate) funds allocated to it. This deficiency is likely due to lacunae in the judiciary's internal administrative mechanisms.

Many experts have argued that the Indian government should tackle the challenge of increasing pendency in Indian courts by appointing more judges to the bench. While this reasoning seems intuitive (and, undoubtedly, India has very few judges per capita compared to other leading economies), it is also important to consider the productivity of the country's judges. To this end, judicial productivity is calculated as the ratio of judges to case disposals per year, which by international standards is low (Datta and Rai, 2021).

Similar problems are observed in case management. The objective of case management is to ensure that judges' time and cognitive resources are utilised efficiently. However, due to inadequate preparation before judges hear a case, a judge's time is easily wasted once legal proceedings begin. Scheduling problems also lead to innumerable delays and adjournments (Datta and Rai, 2021).

For decades, the Indian government has launched various schemes and projects to computerise the judicial process but in practice, it amounts to no more than injecting computers into the existing court processes without fundamentally rethinking the design of these internal processes²¹.

¹⁹ The number of cases pending for more than 10 years is 1,200 for the Supreme Court, around 780,000 for High Courts and just over 2 million for lower courts (Debroy, 2021)..

²⁰ In criminal cases, delays create great hardships, as the accused—many of them housed in jail—often must wait years for a verdict. Pendency also makes economic activity difficult, as contract enforcement becomes inordinately expensive.

²¹ For a more detailed explanation, see Datta and Rai (2021).

The Indian government and various committees have proposed the establishment of a specialised agency to manage the judiciary’s administrative functions. In 2019, the Finance Ministry’s annual economic survey included a recommendation to create “. . . a specialized service called [the] Indian Courts and Tribunal Services . . . that focuses on the administrative aspects of the legal system.” The envisioned major roles for this specialized service included providing administrative support functions needed by the judiciary, identifying process-related inefficiencies and advising the judiciary on legal reforms, and reengineering certain inefficient processes. But the judiciary has stalled it.

In brief, reforming the judiciary with concomitant reforms in state governments and police is a Herculean task. But, even without the comprehensive reforms, those *within* the judiciary are a daunting challenge.

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