EDI Research Link Up
Research Presentation

Center for Effective Global Action

Using Administrative Data Systems to Improve Court Efficiency (India, Kenya, Tanzania)

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DIME, World Bank

Data and Evidence for Justice Reform (DE JURE)

I. Data

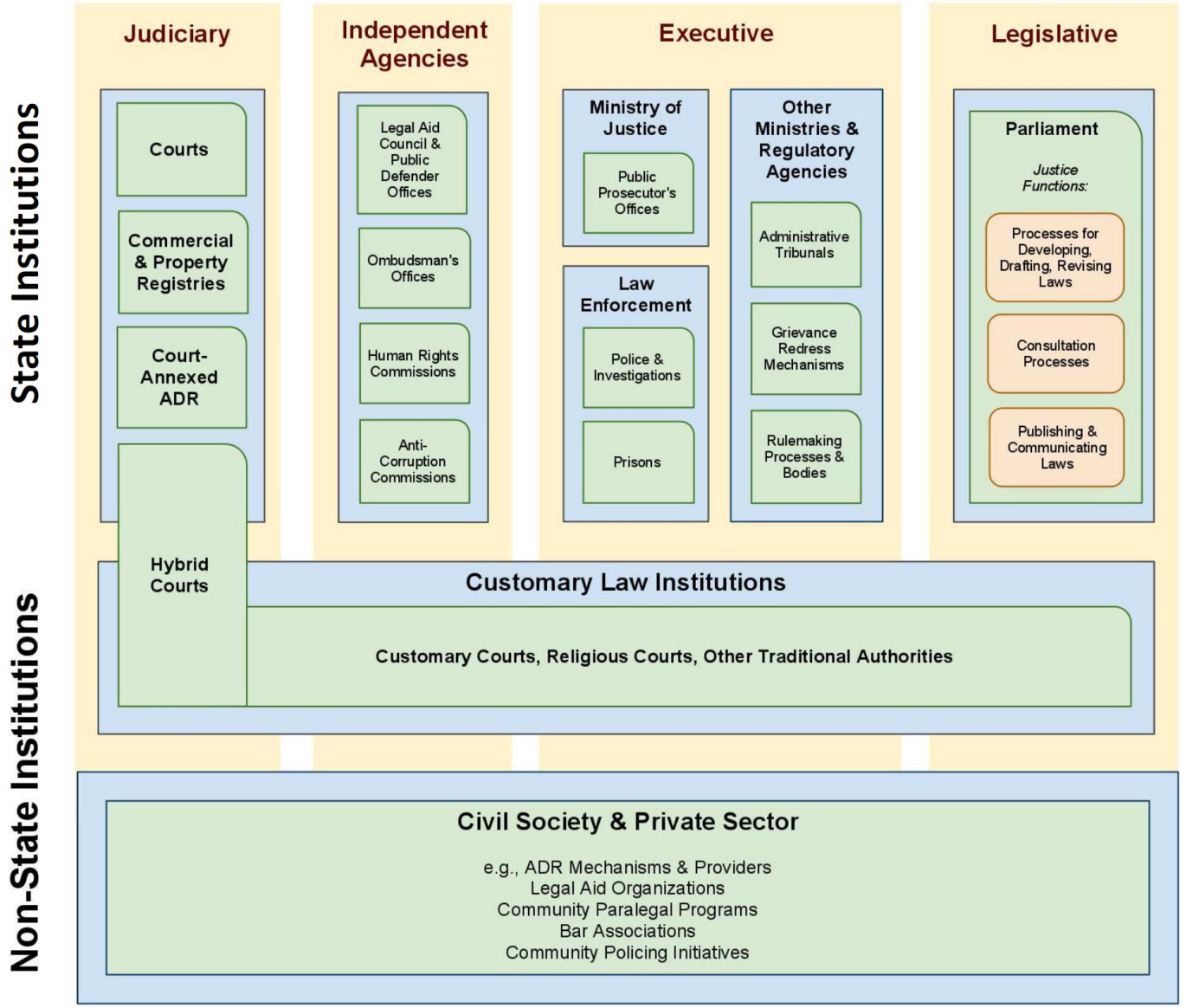
- Courts are 'data-rich' but 'information-poor'
- Use data systems where they exist, build data systems where they don't

II. Diagnostics

- Identify core issues in justice system functioning and performance
- Measure and document impacts of justice system reforms

III. Experimentation

- Iteratively test interventions to improve justice systems
- Build government skills and create policy feedback loops



(Expanding) universe of research questions

Reporting

- Information (civic education programs)
- Resources (building and upgrading courts)
- Access (legal aid, mobile courts)

Adjudication

- Rules (changes in laws, management norms, procedures)
- Institutions (specialized courts, other litigation alternatives)
- Capacity (hiring and training judicial officers
- Structure (assignment of roles and responsibilities)

Incentive systems

- What information is created? Who receives the information? What is the (expected) response?
- Electronic systems, dashboards, e-courts
- Rewards (financial, non-financial, status, career concerns)
- Accountability (top-down, peer-based, bottom-up)

Preferences and behavior

- Subjective biases (exclusion, co-affiliation, ideology)
- Behavioral biases/managerial constraints (salience, availability, cognition, time use)

Context and background

India

- 33 million case backlog (> 5 years), 12 judges per million people
- Questions around judicial outcomes of minority groups and judicial independence/corruption
- Active (and contentious) debate over court reform
- Partner with Daksh civil society organization focusing on data-driven judicial reform

Kenya

- Quarter-million case backlog (>1 year)
- Questions around judicial efficiency, case management, quality of judgments
- Ambitious reform program ("Sustained Judiciary Transformation")
- Partner with Judicary's Performance Management Directorate

India: research questions

Judicial independence: Do winning (criminal) politicians get better judicial outcomes?

- What are the relative roles of (i) Members of Legislative Assembly and (ii) political parties?

Institutional bias: Are judges and courts biased against outgroups or vulnerable populations?

- Does supervision by more/less biased judge affect judicial outcomes?

Behavior/management: Can simple nudges improve judge time use and performance?

- Auto-scheduled hearings, time use and performance information
- Do such gains come at the expense of quality?

Incentives: Do judges respond to performance incentives (points system)?

- Can rationalized incentives create better judicial outcomes?

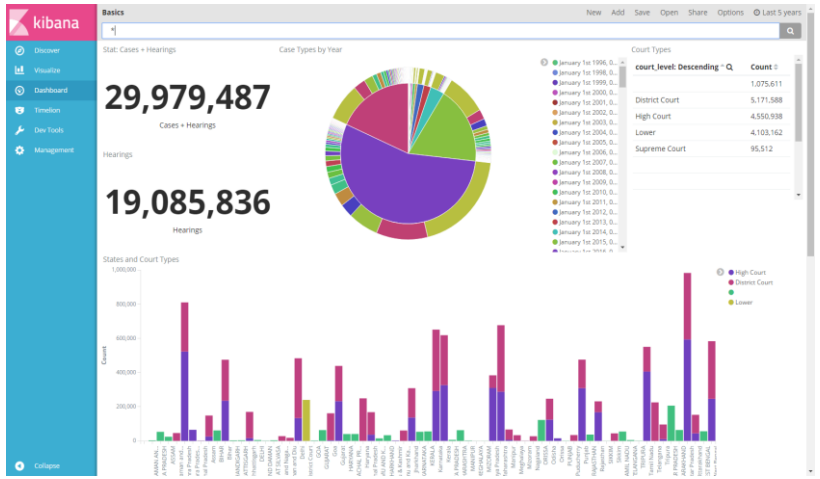
Access: Does judicial access (vacancy filling, zero pendency courts) improve the market for justice?

- Does institutional competition (e.g. through forum-shopping) lead to better judicial outcomes?

India: data

- **Daksh:** civil society organization focusing on data-driven judicial reform
  - Database of 14 million cases and 62 million hearings from lower courts (and growing!)
  - Random sample of data from eCourts, webscraped using "daily cause lists"
  - Structured metadata on courts, dates, parties, case type, judge
- **Indian Kanoon:** legal search engine for appellate court cases (http://indiankanoon.org)
  - 2,256,881 high court judgements in 21 high courts over 81 year period
  - Full text of published judicial opinion
  - Structured metadata on court, case title/citation, dates, judges on panel, authoring judge
- **Other sources:** rich microdata compiled by Asher & Novosad
  - Census data: Socioeconomic and Caste Census (2012), Economic Census (2005, 2012)
  - Association for Democratic Reform
  - Anthropological Survey of India

India: are judiciaries independent?



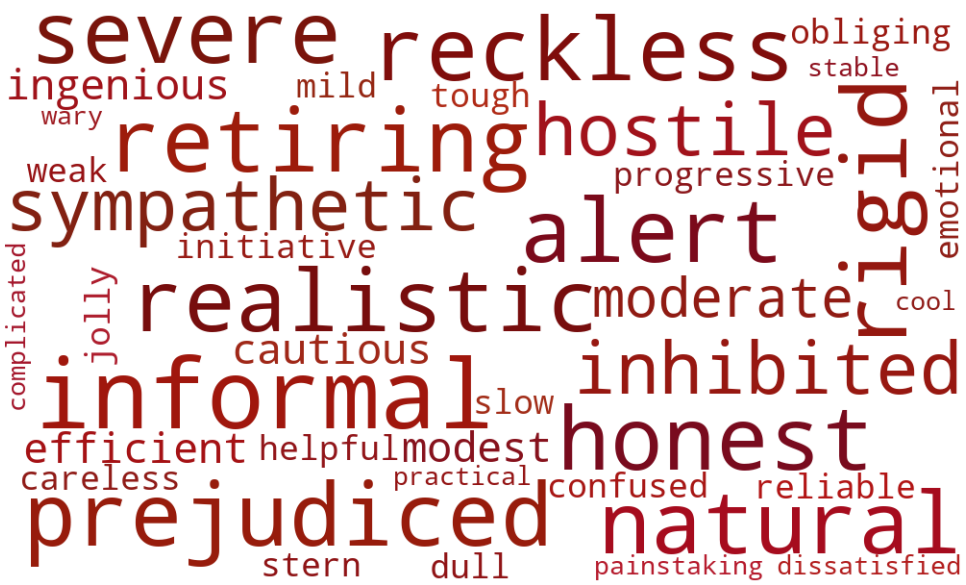
India: are judges biased?

Approach: Analysis of textual, administrative, and socioeconomic data

- Do judges use specific words or adjectives when referring to members of certain population groups? If so, which judges exhibit the most positive or negative bias toward certain groups?
- How do these relate to the direction of rulings & sentencing and downstream socioeconomic outcomes?
- Challenge: case assignment is generally not random
  - "Scramble test" (e.g Abrams, Bertrand, Mullainathan)
  - Alternative: focus on case selection

Sentiment analysis:

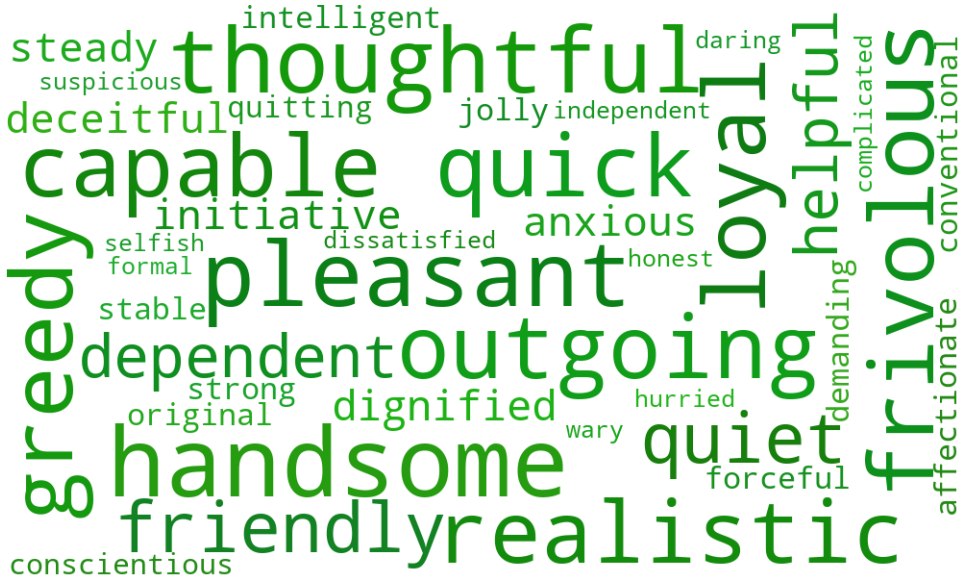
- Case text split into tokens (words), parsed using language model (e.g. Word2Vec in Python) to encode context-specific frequencies of neighboring words
- Allows us to examine the proximity of names of marginalized subgroups (e.g. Scheduled Castes and Muslims) to other words in the vocabulary

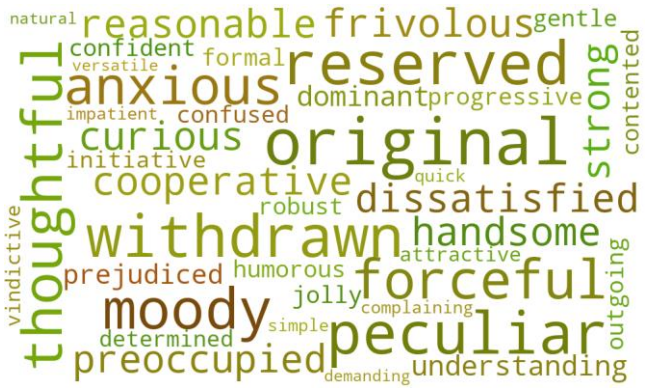
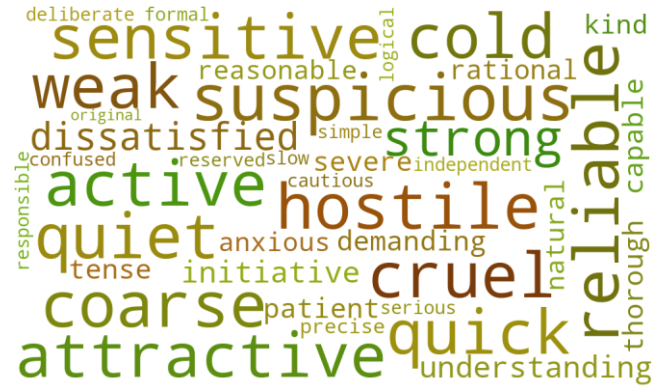


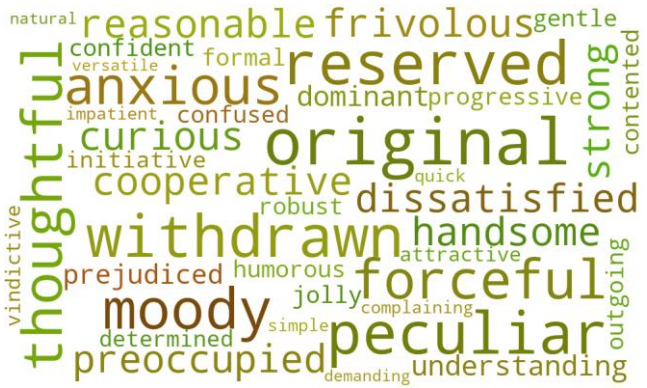
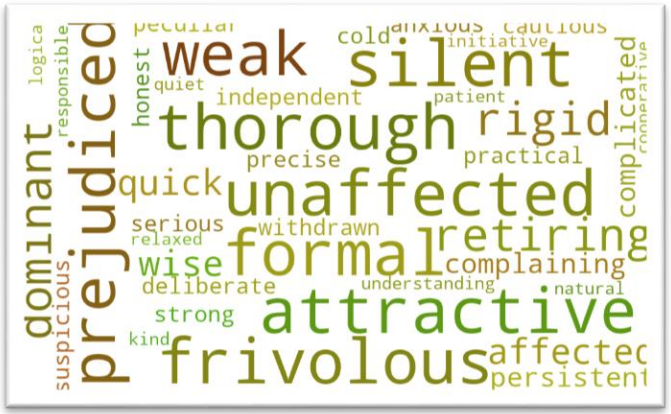
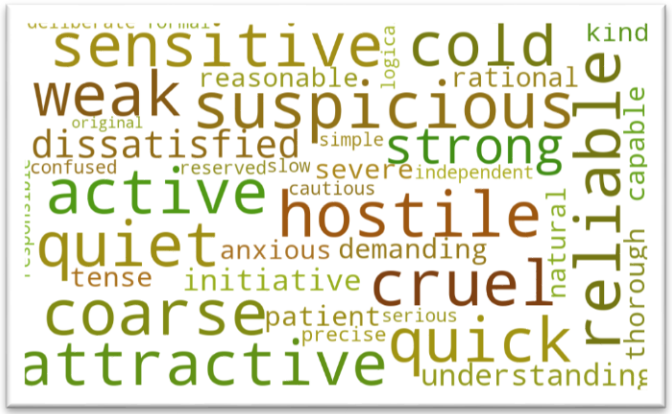
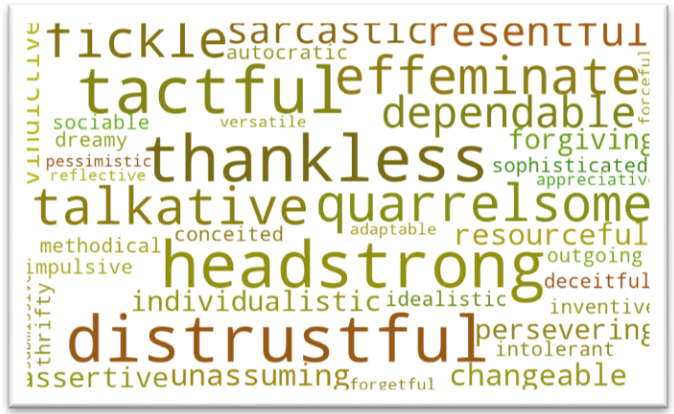
Hindu defendant

Muslim defendant

Scheduled C/T defendant



	Hindu judge	Muslim judge	Scheduled C/T judge
Hindu defendant			
Muslim defendant			
Scheduled C/T defendant			

	Hindu judge	Muslim judge	Scheduled C/T judge
Hindu defendant			
Muslim defendant			
Scheduled C/T defendant			

	Hindu judge	Muslim judge	Scheduled C/T judge
Hindu defendant			
Muslim defendant			
Scheduled C/T defendant			

Kenya: research questions

"Actionable" information: Can simplified, action-oriented performance information improve judicial productivity?

- Is there a tradeoff between judicial productivity and the quality of judicial decisions?

Accountability: Can bottom-up accountability improve judicial performance?

- Does bottom-up involvement improve end-user satisfaction?

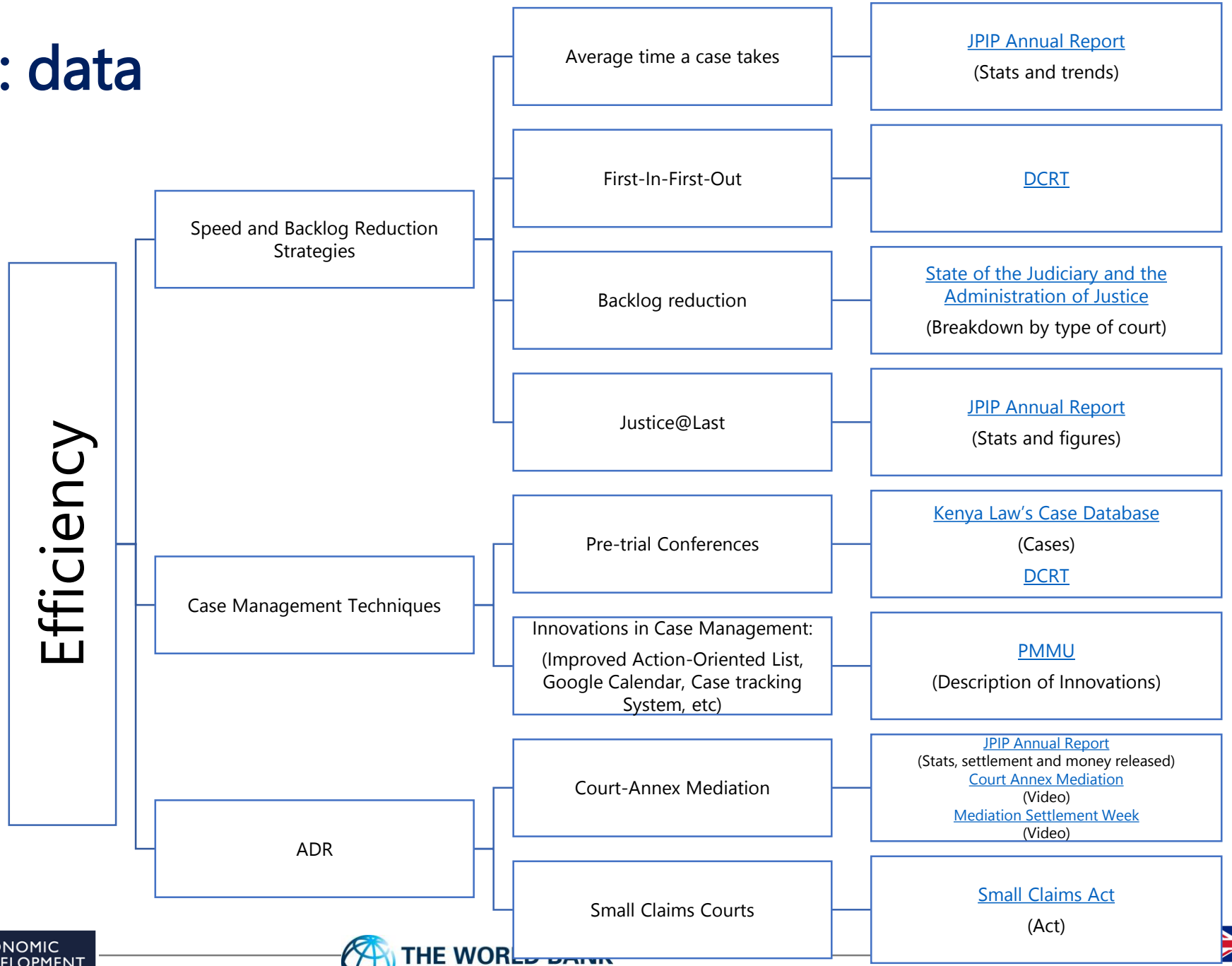
Institutions: Can court-annexed mediation decongest courts without affecting quality?

- Should mediation be compulsory or voluntary?

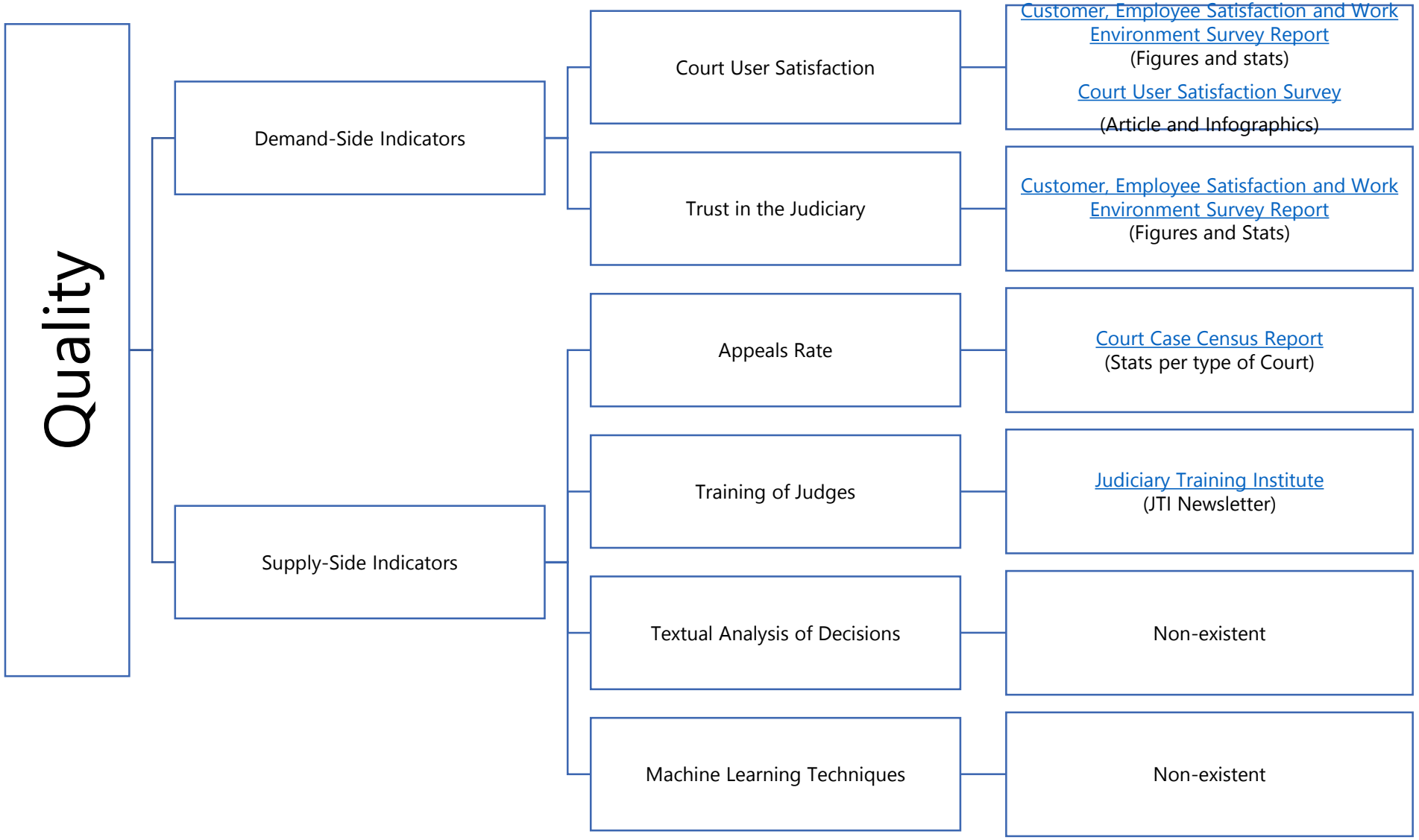
Behavior/management: Can improved ("active") case management (pre-trial conferences, autoscheduled hearings, google calendar improve judicial productivity?

- Does institutional competition (e.g. through forum-shopping) lead to better judicial outcomes?

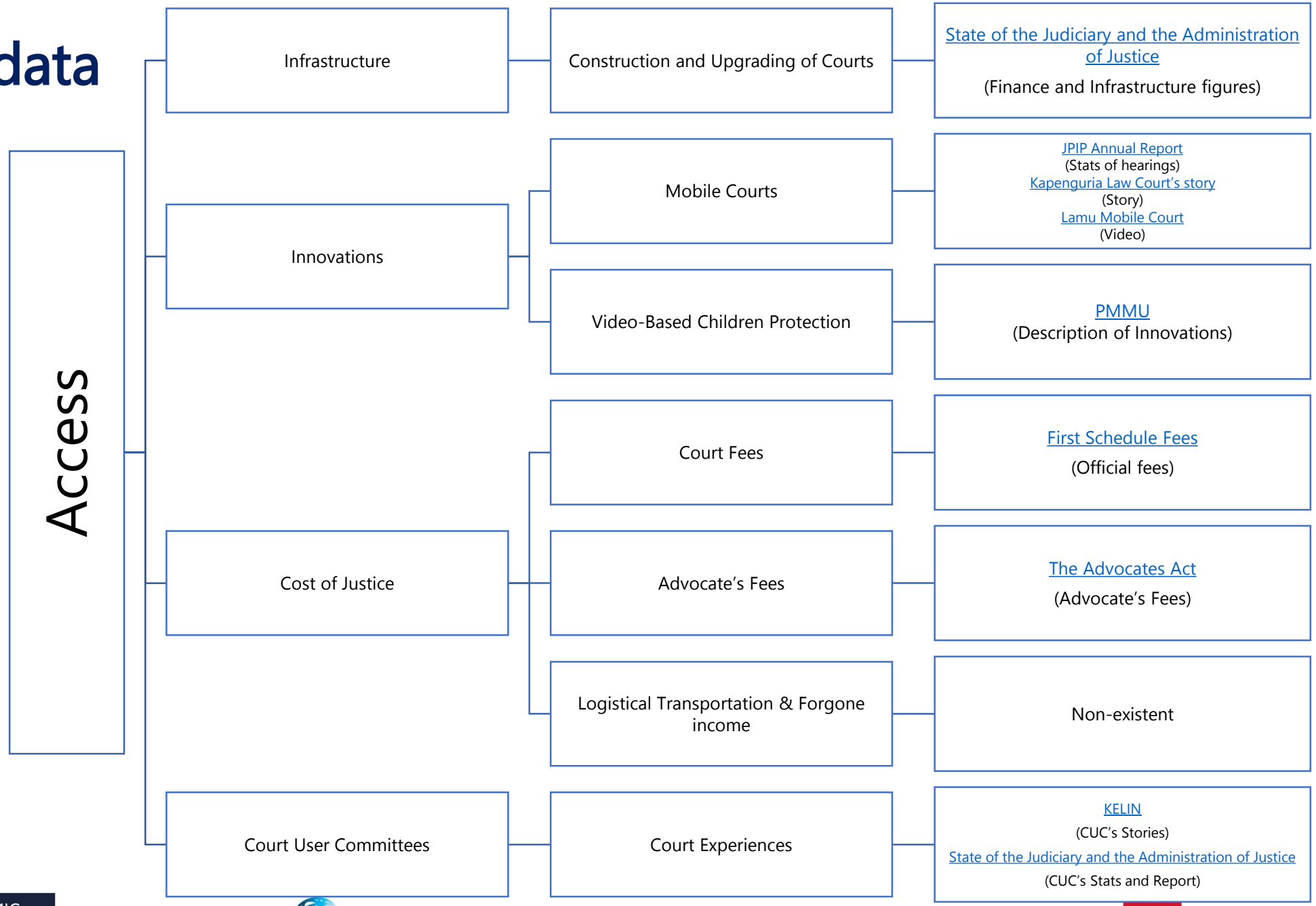
Kenya: data


Efficiency
Speed and Backlog Reduction Strategies
Case Management Techniques
ADR
Average time a case takes
First-In-First-Out
Backlog reduction
Justice@Last
Pre-trial Conferences
Innovations in Case Management:
(Improved Action-Oriented List, Google Calendar, Case tracking System, etc)
Court-Annex Mediation
Small Claims Courts
JPIP Annual Report
(Stats and trends)
DCRT
State of the Judiciary and the Administration of Justice
(Breakdown by type of court)
JPIP Annual Report
(Stats and figures)
Kenya Law's Case Database
(Cases)
DCRT
PMMU
(Description of Innovations)
JPIP Annual Report
(Stats, settlement and money released)
Court Annex Mediation
(Video)
Mediation Settlement Week
(Video)
Small Claims Act
(Act)

Kenya: data


Quality
Demand-Side Indicators
Supply-Side Indicators
Court User Satisfaction
Trust in the Judiciary
Appeals Rate
Training of Judges
Textual Analysis of Decisions
Machine Learning Techniques
Customer, Employee Satisfaction and Work Environment Survey Report
(Figures and stats)
Court User Satisfaction Survey
(Article and Infographics)
Customer, Employee Satisfaction and Work Environment Survey Report
(Figures and Stats)
Court Case Census Report
(Stats per type of Court)
Judiciary Training Institute
(JTI Newsletter)
Non-existent
Non-existent

Kenya: data


Access
Infrastructure
Construction and Upgrading of Courts
State of the Judiciary and the Administration of Justice
(Finance and Infrastructure figures)
Innovations
Mobile Courts
JPIP Annual Report
(Stats of hearings)
Kapenguria Law Court's story
(Story)
Lamu Mobile Court
(Video)
Video-Based Children Protection
PMMU
(Description of Innovations)
Cost of Justice
Court Fees
First Schedule Fees
(Official fees)
Advocate's Fees
The Advocates Act
(Advocate's Fees)
Logistical Transportation & Forgone income
Non-existent
Court User Committees
Court Experiences
KELIN
(CUC's Stories)
State of the Judiciary and the Administration of Justice
(CUC's Stats and Report)

Kenya: "actionable information" & accountability

- Randomized controlled trial across 126 court stations
- **Treatment 1:** Simplified court monthly feedback report shared with judges and supervisors
- **Treatment 2:** Feedback report shared with Court User Committees and is focus of discussion at quarterly meetings
- **Control:** No change

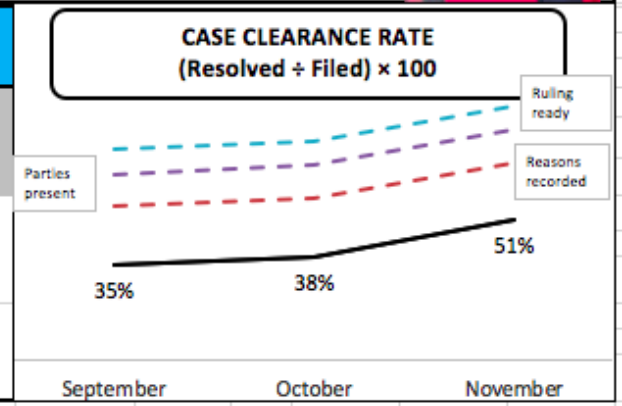
Court Monthly Feedback Report
Baricho Magistrate Court
NOVEMBER

"By the end of my tenure in December 2020, we shall have no cases in court older than 3 years"
Honorable Justice David Maraga, Chief Justice

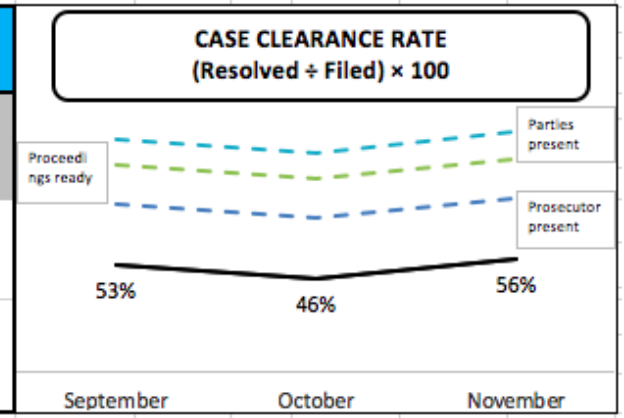
CIVIL CASES

SUMMARY OF KEY STATISTICS	
Filed	456
Resolved	234
Adjournments	123
Rulings and Judgments	150

TOP REASONS FOR ADJOURNMENT	
Reason not recorded	21%
Both parties	12%
Ruling not ready	9%



CRIMINAL CASES

SUMMARY OF KEY STATISTICS	
Filed	678
Resolved	378
Adjournments	300
Rulings and Judgments	256

TOP REASONS FOR ADJOURNMENT	
Prosecutor not present	30%
Typed proceedings not ready	20%
Both parties not present	13%