Open Data Principles to Promote Court Technology Post-Pandemic:

Key data elements to collect & report

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In response to the pandemic, courts made unprecedented changes to their operations, including modifying their business processes and embracing online platforms like never before. This provides an opportunity for courts to monitor and evaluate the effect of these changes on court users and staff. It is critical that courts—either alone or in partnership with others—study the effects of these changes to determine which have worked well and what could still be improved. Having quality data is an essential component.

There are many questions courts can and should be asking, including:

- Are court processes more efficient than before the pandemic? Are there additional changes that could be explored to continue modernizing court operations?
- Are remote court services providing greater access to justice and procedural fairness?
- How have recent technological changes affected court users, especially as it relates to people of color, self-represented litigants, and parties and witnesses who are limited English proficient and/or have a disability?

To become truly data-driven and to prevent decision-making by anecdote, court administrators must collect and thoughtfully analyze relevant data. Many (maybe all) courts have found that while they have data, it is often incomplete and leaves many questions unanswered. Even worse, incomplete or incorrect data may lead to misleading or wrong conclusions.

Understanding and responding to trends identified through data collection has never been more important than during this COVID-19 pandemic. Courts rapidly transitioned to online operations in the face of stay-at-home orders that necessitated remote operations to maintain safety during this public health emergency. Data collection and analysis can help courts understand how shifting processes online affects litigant participation and outcomes and help courts identify the necessary safeguards to ensure that all parties experience an equitable and accessible process.

The issue of court technology data is not new because of the pandemic. Building on the success of the National Open Court Data Standards (NODS) and the recent COSCA policy paper (2019), "Court Data: Open, With Care Conference of State Court Administrators," *this document offers guidance on the key NODS data elements necessary to examine the new technologies and changes to court operation because of these online processes in response to the pandemic. It also offers guidance on additional data elements made necessary by the increased use of court technology or outside the original scope of NODS.*

The NODS data elements are important to data harmonization both within and across courts. Data harmonization and uniform definitions are important for researchers and court officials to understand and process data efficiently. The NODS materials include the following documents:
- Leadership guide, which is an overview of the NODS project and its purposes with guidance on why courts may choose to implement the data standards
- Users guide, which is a discussion of the data elements listed in the spreadsheet, their use, and mapping guidance.
- Data elements spreadsheet, which is a description of all data elements with definitions and value lists. This spreadsheet includes 17 tabs, each centered on particular area of data collection.
- Technical notes, which explain the NODS logical data models and contents of the technical artifacts files.
- Technical data models, which contain illustrations of the relationships between entities and the logical groups of attributes.

To these documents, we add this list of key data elements that courts should collect and report, and explanations of what these data elements can reveal about the court process pre- and post-pandemic. It is intended to help courts prioritize collection of the data most essential to examine changes in court processes and court technology.

For each of these data elements, we recommend that court leaders ask the following questions:
1) Does the court already collect this information because of administrative reasons?
2) Do you trust how this information is collected?
3) If you both collect the information and trust how it's collected, do you have standardized codes and categorizations?

Beginning with this self-assessment will help point to reasonable next steps, such as reporting and sharing this data.

Data collection can be time-consuming and difficult: entering new data elements or coding existing data after cases have been disposed may be burdensome. There may be ways to mitigate the burden by partnering with third-party researchers or pulling information from electronic systems; but it is undeniable that any new data collection efforts will require dedicated court resources and staff attention. It is our belief that courts must grapple with and identify practical ways to collect this data to understand the implications of these technological changes on court users. This document will identify common data elements that courts should strive to capture in response to these heightened online processes related to court processes, litigant or party characteristics and case outcomes. Such data collection efforts are critical to the long-term success and legitimacy of court operations.

I.   Key Court Data Elements

Data that demonstrates court process
Courts should standardize data collection and reporting as it relates to court processes, court events, and other case information. Such data elements can help courts identify inefficiencies at various stages of a case, identify the barriers that litigants experience at these various stages, and determine

the most effective approach to process improvement—whether that is a rule/policy change, a shift in court practices, or adoption of a new technology solution.

Case Initiation

Collecting data at the onset of a case is essential to facilitate tracking that case through to finality. Reporting this data for appropriate case types can also inform the public about cases that are being adjudicated and create opportunities for researchers to study these cases. Below are the key case initiation data elements that courts should capture and standardize across case types.

Case (NODS Tab 1)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Detailed case type	Civil case type	*Medical malpractice, misdemeanor, guardianship – minor, guardianship – adult*	Civil
	Probate case type		Probate
	Dependency case type		Dependency
	Criminal case type		Criminal
	Family case type		Family
	Traffic & local ordinance case type		Traffic & local ordinance
Linked case	Linked case		all
	Linked case jurisdiction		
	Linked case type		

Participants (NODS Tab 2)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Party Type	Entity Type	Individual, hospital/clinic, other business, other government agency	All
Party Role	Relationship to action	Petitioner, nominated party, respondent	Probate, family, dependency
	Relationship to action	Plaintiff/petitioner on a primary claim, defendant/respondent in primary claim	Civil
	Relationship of the Executor/Guardian/Conservator to Person	Lay (family/friend), professional, public	probate

Pleadings (NODS Tab 5)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Reason for case initiation	Pleading title	Statement of claim	Civil, probate
Amount at issue	Amount in controversy	Dollar amount	Civil

Charges (NODS Tab 9)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Reason for case initiation	Filing charge body of law	Authoritative source or body of law that prohibits the offense	Juvenile, criminal, traffic
	Filing charge statute/ordinance number	Statute/ordinance number	
	Filing NCIC code	NCIC code	
	Filing charge description	Description of offense	

Case Procedures and Filings

Collecting and reporting data regarding case procedures and filings can uncover any changes in who is participating in cases pre- and post-pandemic, and whether there have been changes in specific event outcomes as the result of those shifts in participation. For example, it is possible that technologies to facilitate electronic filings and other digital court actions make it easier for represented parties to navigate the court process, while obscuring the same process for self-represented litigants who may not have the information they need to move forward with their case on their own or seek representation.

Case (NODS Tab 1)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Case initiation and disposition dates	Case initial filing date	date	All
	Disposition date		
Procedural mechanisms initiated by court	Initiating instrument	Date of issue, petition, sworn complaint, information	All
Fee waiver sought	Fee waiver Date		Civil, family, probate
Fee waiver determination and basis of the determination	n/a	Approved/denied	Civil, family, probate

Participants (NODS Tab 2)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Type of service of process	Type of Electronic Service (*note: does not include mail or in-person*)	Mail, email, in-person	All
Whether service was successful	n/a	Yes – proof provided, no	All

Pleadings (NODS Tab 5)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Details about pleading / case filing	Filing party	For each pleading (or other filing), identify party filing the pleading, the date the pleading was filed, and whether it is an amended pleading	All
	Pleading date		
	Amended		
Pleading/motion outcome	Pleading/motion outcome	Granted / denied	**All**

Orders (NODS Tab 8)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Procedural mechanisms initiated by court & post-disposition actions	Warrant issued	Date of issue, petition, sworn complaint, information	Probate, juvenile, criminal, traffic
	Warrant returned		
Reason for procedural mechanism	Warrant reason	New offense, violation of conditions, failure to pay, failure to comply, failed drug test	Probate, juvenile, criminal, traffic

Pretrial-Intake (NODS Tab 10)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Pre-trial detention or release	Pre-adjudication detention		Juvenile
	Pretrial release decision	Held on bail/bond, release on recognizance	Criminal, traffic
	Condition(s) of Release	Electronic monitoring, drug/alcohol testing	Criminal, traffic, juvenile
	Pretrial Release Revocation Reason		Criminal, traffic

Probate Review & Monitor (NODS Tab 15)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Current total assets	Current financial assets	Dollar value	probate
	Current personal property value		
	Current real property value		
	Current total assets value		

Court Events

Post-trial (NODS Tab 16)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Post-disposition actions	Probation violation	Failure to pay, failure to comply, new offense, failed drug test	Criminal, traffic
	Failure type		
	Violation type		
	Violation outcome		Juvenile, criminal, traffic
	Juvenile Violation type		Juvenile
	n/a	Payment review, breach, failure to pay	Civil

ADR (NODS Tab 17)

Data	NODS data element(s)	Examples/description	Relevant case type
Date and outcome for formal ADR	ADR Date	Date	Civil, family, probate, dependency
	Result of ADR	Settlement, dismissal by agreement of the parties	Civil, family, probate, dependency

Court Events

Collecting and reporting data on particular court events can tell us who is participating in court proceedings, whether event outcomes differ or what technology barriers may occur; and whether these changes have occurred as the result of the pandemic. For example, we may hypothesize that participation in family law cases would increase as litigants in family case types would stand to benefit most from a virtual court environment where they are not required to travel to a courthouse and can participate from home.

Attorney/Advocate (NODS Tab 3)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Who is participating?	Attorney/advocate Name	Name, ID, relationship to action	All
	Associated party/participant		
	Attorney Type		
	Advocate Type		

Hearings & Events (NODS Tab 7)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Type of event or order	Civil hearing type	Emergency hearing, arraignment, trial	Civil
	Criminal & traffic hearing type		Criminal, traffic
	Dependency hearing type		Dependency
	Family hearing type		Family
	Juvenile hearing type		Juvenile
	Probate hearing type		probate
Type of record created	Type of record	Audio, Video, Court Reporter, None	Civil
Remote or in person	Remote witness	Yes/no, audio or visual	Civil
	Remote witness type		
	Remote parties		
	Remote party type		
Dates of event	Scheduled event date	Date	All
Duration	n/a	Minutes	All
Appearances	Parties Present	Name, ID, relationship to action	All
	Attorneys/advocates present		
Event outcome	Hearing/Event Outcome	Held, continued, cancelled, postponed/rescheduled	All
Who is participating	Interpreter present	Yes/no	All

Orders (NODS Tab 8)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Date of order	Order Date	Date	all

Data on Remote Proceedings

The number of remote proceedings has escalated exponentially since March 2020 as courts seek to continue to administer justice while responding to public health mandates. Collecting and reporting on how court users are leveraging these remote opportunities will help courts determine what options to provide (or require) for users as remote proceedings become the "new normal."

Hearings & Events (NODS Tab 7)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Mode of remote access	Remote witness type	Audio, video	all
	Remote party type		
IP address of each user	n/a	IP address	
Type of device used	n/a	Phone, computer, tablet	
Geolocation	n/a	Community centers, whether a defendant is incarcerated	

Parties

Courts should collect and report data on litigants and other parties involved in the case, such as non-attorney advocates. This data includes contact information and demographic data.

Contact Information

Tracking the contact details of parties for internal use and/or to share with researchers can make it easier to conduct other forms of research (user surveys, etc.) and to better track individual court users across multiple cases. This information, such as email addresses, can serve as a unique identifier, allowing researchers and courts to link multiple cases to an individual.

The following data elements should be collected for the litigants, associated attorneys, and advocates:

Participants (NODS Tab 2)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Date of birth	Date of Birth	Date	All
Primary language	Primary Language	Spanish, Marshallese, ASL	
Mobile phone number	*Out of scope*	number	
Email address	*Out of scope*		
Physical address	*Out of scope*	Number, street, city, state ZIP	

Legal Representation

There is limited data on the percentage of litigants who are self-represented. Understanding how many litigants have and lack legal representation is important to understand how litigant experience is shaped by legal representation, from the start of the case, to event outcomes, and the case outcomes.

As it relates to legal representation, courts should collect and report the following data elements:

Attorney/Advocate (NODS Tab 3)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Attorney type for each party	Attorney type	Public defender, civil legal aid lawyer, Protection & Advocacy (P&A) attorney, Limited License Legal Technician	All
Attorney waiver	Attorney waiver	Yes/no	Dependency, juvenile
Advocate type for each party	Advocate type	Navigator, CASA/non-attorney GAL, court visitor	Family, probate, dependency, juvenile

Party Demographic Data

Knowing with more detail about the characteristics of court users would help courts, researchers, government officials in other branches, and the public understand who can access the justice system, and whether that access has expanded (or shifted in other ways) as a result of the move to remote proceedings.

The following elements are optional, but they could help significantly with reporting requests to legislative bodies and to researchers.

Participants (NODS Tab 2)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
How demographic data is collected	Data Collection Type	Self- reported, observed	All
Race	Race	White, Black, or African American, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, Other	All
Ethnicity	Ethnicity	Hispanic/Latinx, not Hispanic/Latinx	All
Gender	Gender	Woman, man, transgender, non-binary, other	All
Sex	Sex	Male, female, other	All
Disability Status	Accommodations	Special Needs/ADA Flag	All

Outcomes

Courts should collect and report data on the case disposition, associated sanctions, judgments, and orders. Doing so allows courts and researchers to track how events throughout the case affect the final outcome. Data related to outcomes, alongside process- and litigant-related data, can come together to offer a clear picture of the court experience. For example, examining the rate of default judgments against litigant demographics could reveal outcome disparities based on litigant characteristics such as race, age, gender, or disability status that could trigger further examination and ultimate process improvements to ensure more equitable results.

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Courts should collect and report the following data elements as it relates to outcomes:

Case (NODS Tab 1)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Case disposition category	Case disposition category	Judgment, settlement/plea, dismissal, transfer, case needed to be rescheduled due to technology issues, other	All
Case disposition detail	Case disposition detail	What kind of disposition: Summary judgment, default judgment, arbitration award, settled/pled pre-trial, stipulated judgment	Civil, criminal, traffic
Case manner of disposition	Case manner of disposition	Jury trial, bench trial, non-trial	All
Case closed date	Case closed date	Date	All

Civil Judgments (NODS Tab 12)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Disposition notes	Prevailing party		civil
	Judgment against	Party	
	Monetary damages	Dollar amount	
	Non-monetary relief awarded		

Sanctions (NODS Tab 13)

Needed Data	NODS data element(s)	Examples/description	Relevant case type
Sanction	Sentence type	State prison, jail, lifetime supervision, extended supervision/split sentence, probation, Fine	Criminal, traffic
	Sentence length		
	Unit of sentence length		
	Sentence conditions		
	Concurrent/consecutive sentence flag		
	Time served credit length		
Court fees and fines assessed and paid	Monetary penalty type	Fees, fines, damages, court costs	Civil, juvenile, criminal, traffic
	Monetary penalty amount	Dollar amount	
	Monetary penalty amount balance to date	Dollar amount	

II.   Why Courts Should Share Data

Courts can gain a great deal by collecting and reporting robust data about their processes, who is using the court, and how individuals are faring in court. For example, understanding how a case flows through the court system—including the average time to disposition, the time elapsed at each stage, and the involvement of the parties—can help courts identify opportunities for streamlining and operating more efficiently. Data can also inform courts about litigants' experiences, and how they vary depending on the case type, the demographic characteristics of the litigants, legal representation, and technology platforms or tools used. Sharing data, whether with researchers or the general public, can also make the court process more transparent, strengthening positive perceptions of the courts.

Data Sharing

In addition to collecting the above data elements, it is also important for courts to use uniform definitions and values. When data is harmonized (i.e., using the same language, values, and definitions) within and between courts, data processing time is significantly reduced, allowing courts and outside researchers faster access to data.

As mentioned previously, courts should consider sharing data with researchers via access to electronic case documents or a "data commons."[1]

Regardless of the decision whether to share electronic dockets and case files or the decision whether to collect and report the recommended data elements listed below, courts can aggregate existing data to provide the following summary statistics:

> Number of filings within a certain timeframe (pre- and post-pandemic)
>
> Representation rate for each party
>
> Percent of cases with / without representation by each party (compare across parties and time)

To improve court policies, processes, and procedures and increase transparency, courts should collect the above data elements, adopt the NODS data standards, and share the data with researchers. When data is collected uniformly and shared, it reduces the burden on the court to respond to both requests for data and questions about interpretation. Uniform standards and collection, such as how NODS defines data elements and associated values, also reduce the chance of misinterpretation of data.

III.   Next-level data: the user experience

For courts seeking to take data collection and reporting a step further, courts can consider surveying court users. Outside of information about the parties, courts or third-party researchers could survey litigants to uncover how litigants understand and participate in the case. These surveys can offer clarity on litigants' ease in navigating the process; their perceptions of fairness at each stage; and the costs, burdens, and barriers they experience. s been adapted for use online as part of remote or hybrid court proceedings. This new version includes questions about the user's online access, what kind of device they were using, and the quality of the connection.

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[1] One such example is the forthcoming Georgetown University's Civil Justice Data Commons. This data commons is a cloud-based interface that empowers researchers to efficiently identify, access, and analyze clean, standardized civil justice micro-data from a variety of courts. Researchers access the data in the cloud and are not allowed to download or share the data with unauthorized users, attending to the sensitivity of court data.

IV.   Next-level data: the user experience

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Courts can survey litigants at the following points in a case:
- Case initiation
- Filing court documents
- Following an interim proceeding or hearing
- At the end of the case
- Following a determination of the outcome of the case

This type of information can inform process improvements or rule changes that could help level the playing field for all litigants.

The categories of court user survey questions should include:
- Case number to allow linking to case
- Costs associated with participation in court case (e.g., childcare, transportation, monetary court costs associated with the case, such as filing fees, fines and/or fees)
- Procedural justice and fairness (*e.g.,* "Did you understand what happened in [event]? Do you feel that the other party listened to you? Do you feel that the judge understood you?")
- If the individual feels comfortable for a follow-up interview, and if so, their contact information and best way to reach them

The National Center for State Courts offers Courtool M1: Access and Fairness as a tool to survey court users on the court's accessibility and its treatment of customers in terms of fairness, equality, and respect. This tool has been adapted for use online as part of remote or hybrid court proceedings. This new version includes questions about the user's online access, what kind of device they were using, and the quality of the connection.

The court need not be responsible for survey design or analysis. Indeed, having a third party that is not part of the court may be preferable for some courts in terms of in-house capacity. The critical role for the court is to provide the opportunity for litigants to participate in a survey, and to determine when and how it would fit into the existing communications between courts and users.

Additional Resources

Courts should also consult the following resources as they re-examine their approaches to data collection and reporting:
- COSCA Policy Paper
- NODS Leadership Guide
- Data Governance Policy Guide
- Collecting Race and Ethnicity Data
- Courtools

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