



JUDICIAL COUNCIL OF CALIFORNIA

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REPORT TO THE JUDICIAL COUNCIL

For business meeting on: May 17, 2019

Title

Judicial Branch Administration: Judicial Branch Statistical Information System (JBSIS) Data Quality Control Standards

Rules, Forms, Standards, or Statutes Affected

None

Recommended by

Court Executives Advisory Committee
Michael M. Roddy, Chair
Judicial Council staff
Emily Chirk, Senior Research Analyst
Office of Court Research

Agenda Item Type

Action Required

Effective Date

May 17, 2019

Date of Report

April 25, 2019

Contact

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Executive Summary

The Court Executives Advisory Committee recommends that the Judicial Council adopt policy guidelines for courts reporting aggregated statistical information to the Judicial Branch Statistical Information System (JBSIS). JBSIS is the statistical reporting system that defines and electronically collects summary information from superior court case management systems for each major case processing area of the court. The recommendation will institute protocols for data amendments for courts that encounter errors in data reporting and will establish a mechanism for courts to share best practices for data quality controls. This recommendation is intended to improve confidence in and the consistency of JBSIS data reporting. If approved, the policy will become part of the updated JBSIS manual, which has been submitted for council adoption in a separate proposal.

Recommendation

The Court Executives Advisory Committee (CEAC) recommends that the Judicial Council, effective May 17, 2019, adopt the proposed policy guidelines for data quality control for courts reporting statistical information to the Judicial Branch Statistical Information System.

Relevant Previous Council Action

At its June 19, 1998 meeting, the council approved the JBSIS manual for use in defining the data elements that courts were expected to report.¹ Since then, there have been minor technical adjustments made to JBSIS and JBSIS data reporting, but no major policy developments or changes. Following the discontinuation of the California Courts Case Management System in 2012, there was renewed focus on using JBSIS to fulfill the branch's data reporting obligations as outlined in the California Constitution, article VI, section 6(d).² In addition to changes to the data definitions that the council approved in January 2018,³ the council approved the JBSIS Dispute Resolution Process policy⁴ at its November 30, 2018 meeting.

Analysis/Rationale

As JBSIS data is taking on an increasing importance in branchwide policy and funding decisions, it is critical that there is confidence in its consistency and accuracy. The data reported in JBSIS is used in policy development, program evaluation, performance management, and workload analysis to measure judicial and court staff resource needs in California. Providing courts guidance on how to conduct data quality control will help increase the accuracy of and confidence in the data.

CEAC's JBSIS Subcommittee is a venue for discussion of audit findings related to filings definitions. The subcommittee routinely reviews and updates the JBSIS data reporting standards and develops guidelines for data quality control. The data quality control guidelines were created in response to a letter sent to CEAC by the Advisory Committee on Audits and Financial Accountability dated April 17, 2018. The JBSIS Subcommittee reviewed the letter on June 6, 2018, and began to discuss the development of internal data quality procedures for courts as part of their regular JBSIS reporting responsibilities. Judicial Council staff worked with staff from the Superior Court of Los Angeles County to develop drafts of the data quality guidelines. The attached memo from the JBSIS Subcommittee to CEAC dated December 13, 2018

¹ Judicial Council of Cal., mins. (June 19, 1998), p. 9, www.courts.ca.gov/documents/jc-19980619-minutes.pdf.

² See www.courts.ca.gov/documents/article_vi_current.pdf.

³ Judicial Council of Cal., Advisory Com. Rep., *Judicial Branch: Revisions to the Judicial Branch Statistical Information System (JBSIS)* (Dec. 18, 2017), <https://jcc.legistar.com/View.ashx?M=F&ID=5709414&GUID=E0760C1C-3C6C-4E45-8DE6-ED9998E7BB6A>.

⁴ Judicial Council of Cal., Advisory Com. Rep., *Judicial Branch Technology: Judicial Branch Statistical Information System (JBSIS) Dispute Resolution Process* (Nov. 7, 2018), <https://jcc.legistar.com/View.ashx?M=F&ID=6786032&GUID=DDAC297B-07AC-44E5-BC09-0271ECB2BDD9>.

(Attachment A) is the first iteration of guidelines for data quality control that will be included in the *JBSIS Implementation Manual* if approved.

Policy implications

If approved, the guidelines will create greater certainty and consistency about the steps that courts should take before submitting JBSIS data to ensure data quality and the process that courts should follow when errors are discovered in JBSIS data submissions. These steps will help ensure the consistency and accuracy of JBSIS data and give the courts and the branch greater confidence in the data.

Comments

The data quality control standards were not circulated for public comment but were discussed at public JBSIS Subcommittee meetings on June 6, 2018, August 10, 2018, October 5, 2018, and December 11, 2018. There were no public comments received at those meetings concerning this item. The draft policy was also made available to a JBSIS working group of courts that utilize the Tyler Technologies case management system.

Alternatives considered

Data quality control was discussed at several JBSIS Subcommittee meetings and various alternatives were evaluated, but later discarded, in the drafting of the final product. For example, the subcommittee considered creating separate guidelines for Portal courts that are not able to report at full JBSIS standards, but ultimately determined that the policies and guidelines created should be universal.

Fiscal and Operational Impacts

There are no fiscal impacts to the branch to implement the data quality guidelines. There may be workload impacts to courts that discover errors and have to resubmit JBSIS data reports. For some courts, JBSIS data submission is time-consuming because of technological barriers or takes away from time that can be spent on other tasks. Therefore, repeated data submissions to correct reporting errors may create backlogs in other areas.

Attachments and Links

1. Attachment A: Memorandum to CEAC from JBSIS Subcommittee (Dec. 13, 2018)



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MEMORANDUM

Date December 13, 2018	Action Requested For review and approval
To Court Executives Advisory Committee	Deadline February 1, 2019
From Judicial Branch Statistical Information System (JBSIS) Subcommittee, Jake Chatters, Chair	Contact Emily Chirk, Senior Research Analyst Budget Services, Statistics and Information Unit 415-865-7453 phone emily.chirk@jud.ca.gov
Subject New requirements for amendment submission and new best practices for data quality review	

Executive Summary

The Court Executives Advisory Committee (CEAC) should consider adopting new requirements for courts to amend data submitted to the Judicial Branch Statistical Information System (JBSIS) and to include expanded best practices in the JBSIS manual regarding data quality controls.

These recommendations are made in response to a letter sent to CEAC by the Audit Subcommittee and are designed to enhance the quality and confidence in JBSIS data. If approved, these guidelines would be incorporated into the JBSIS 3.0 manual that is scheduled for release in Spring 2019 and may be updated and revised from time to time as needed.

Recommendation

The Court Executives Advisory Committee should adopt new requirements for courts to make amendments to JBSIS data submissions when data errors exceeding a specified threshold are found. Specifically, JBSIS requirements should be established to require courts to:

1. Submit JBSIS data amendments upon identification of an error in a data submission that exceeds a 2% threshold.
2. Resubmit all JBSIS reports annually for fiscal years including in the upcoming year's funding model calculations. Courts submitting via the JBSIS portal should be encouraged to resubmit their data, but not required.

In addition, CEAC should consider adopting a set of data quality best practices to provide guidance to courts for data quality review prior to submitting data to JBSIS. These recommendations are made in response to a letter sent to CEAC by the Audit Subcommittee and are designed to enhance the quality and confidence in JBSIS data. If adopted, CEAC should consider directing the Office of Court Research staff to incorporate this information into the JBSIS 3.0 manual that is scheduled for release in Spring 2019.

Background

California Rules of Court 10.400 (a) states the purpose of JBSIS is: "to provide accurate, consistent, and timely information for the judicial branch, the Legislature, and other state agencies that require information from the courts to fulfill their mandates."

On April 17, 2018, Judge David Rosenberg, Chair of the Advisory Committee on Audits and Financial Accountability, wrote to Kimberly Flener, Chair of the Court Executives Advisory Committee, asking for the assistance of CEAC's JBSIS Subcommittee to consider various recommended enhancements to the JBSIS rules concerning data quality.

These recommendations were consistent with concurrent discussions of the JBSIS Subcommittee of CEAC concerning data submissions. The subcommittee discussed the topic at its August, October, and December 2018 meetings and have incorporated those discussions into the policy recommendations described here.

In addition, with the development of new JBSIS 3.0 filings definitions approved by the Judicial Council in January 2018, a new JBSIS manual is being developed to incorporate the new filings definitions; the addition of these data quality requirements and best practices in data reporting to the JBSIS manual are intended to further enhance JBSIS data quality.

Context for recommendation

The JBSIS subcommittee has focused its discussions related to policy-making on improving the accuracy, consistency, and timeliness of JBSIS data. The subcommittee met at various times in the last year to discuss principles of data quality and the standards by which courts must report JBSIS data. Through these discussions, the subcommittee, working within the framework provided by Rule 10.400, determines that JBSIS data submissions should meet the following criteria:

- **Accurate:** All data must accurately reflect actual events and should be reported in an agreed-upon format which conforms to JBSIS standards. Data should be captured in full. All mandatory data items within a data set should be completed and miscellaneous free-form codes will only be used where appropriate.
- **Consistent:** The data should be reported uniformly by courts using the JBSIS data definitions and reporting requirements specified in the JBSIS manual. JBSIS data definitions should be reflected in court procedure documents.
- **Timely:** Data should be collected and reported at the earliest opportunity.

Best Practices for Data Quality

The subcommittee also discussed practices that courts could engage in to improve data quality and integrity, including the following:

Define key roles in ensuring quality data integrity. While court leadership has ultimate responsibility for JBSIS data submissions, there are many individuals at a court that have a hand in ensuring JBSIS data quality (some individuals in a court may have more than one role).

Data Entry Staff are responsible for ensuring that the data collected is accurate, is as close to real-time as possible, and consistent with case management system entries.

Operations Managers, Supervisors, and Leads must ensure staff are aware of their responsibilities towards data quality. They must be certain to review data capture processes regularly, must ensure data entry staff are consistent in their approach to the quality of captured data, and must give feedback to data entry staff when discrepancies in data are identified.

Analytical Staff should ensure that data quality is monitored using audit and other operational reports and where anomalies are identified, that they are reported to court leaderships and raised with data entry staff and IT support for correction. They communicate with operations staff to ensure that data capture processes are reviewed regularly, clarify data definitions and reporting guidelines with Judicial Council staff, and communicate findings of quality review findings to court leadership.

IT Support is responsible for working with operations staff to ensure that the system configurations are accurate and collaborating with the analytical staff to implement technical solutions as needed.

Court Leadership are responsible for timely, accurate, and valid submission of JBSIS data. They must support and encourage a data quality culture amongst their teams and oversee the court's responsibility to resolve quality review findings.

Have methods of routine and non-routine review. Courts should run regular case management reports to check for data quality. Some examples of those reports could include:

- comparisons to prior periods (month to month or year to date to prior years); and
- review of exception reports that may identify data errors; and
- random sampling by pulling files to compare information in the paper file to what is entered in the case management system

Ensure CMS correctly maps to JBSIS definitions. As case management systems are upgraded or changed or as JBSIS definitions are revised to reflect changes in laws, the mappings should be reviewed to make sure the data are reported in the right JBSIS categories.

Ensure the court is reporting data based on the JBSIS definitions and not based on court practice. JBSIS definitions may not always match a court's particular way of processing cases. For example, some courts process Misdemeanor Driving Under the Influence cases in the traffic division whereas others process these matters as non-traffic misdemeanors. Regardless of where they are handled, these matters should be reported to JBSIS as traffic misdemeanors.

Train staff on the importance of JBSIS and data quality. JBSIS filings data are used in the budget allocation process and are audited as part of regular court audits; it is important that JBSIS data are accurate and that all court staff take responsibility for reporting JBSIS data correctly.

Include key data entry steps in procedures and other documents. Having all staff trained to report JBSIS data helps ensure better data quality.

To help achieve these standards, courts should consider adopting a data quality plan that would incorporate the above recommended practices. Further, these recommended practices will be incorporated in the JBSIS manual as best practices and updated and revised from time to time as needed.

Error Correction and Ensuring Data is Up to Date

To ensure data quality, clearer standards need to be established to require courts to address JBSIS data errors that result from any one of the following:

- a. Documented errors in an audit report;
- b. When the results of the annual data quality review by the Office of Court Research show that variation in data are the result of an error and not normal year-to-year differences;
- c. Findings and results of local quality assurance efforts as described elsewhere in these guidelines; or
- d. Ad hoc error discovery.

Error Quantification and Acceptable Error Rates

The error rate is determined by the difference of the reported value and the correct value, divided by the reported value. The magnitude of the error relative to the number of filings in a given period affected determines how courts should remedy the error. The JBSIS subcommittee determined that a 2% error rate met the criteria of being rigorous enough to ensure high data quality without posing an undue burden for courts.

The committee determined that an error rate of 2% or more in any one data element for a specific case type or cumulative across case types for one data element—limited at this time to filings, dispositions, trials, and time to disposition, when reported—should be established as the threshold above which courts must submit amended data correcting the report and that amended reports to resolve the error must be submitted within 60 days of error discovery.

If the cumulative error rate is below 2%, the size of the error is deemed ‘tolerable’—small enough that it becomes optional for courts to submit amended reports. However, courts must still remedy the underlying problem that results in the error and pay close attention to future errors in these data elements as any small future error may result in a cumulative error of 2% or more (for example, a court identifies an error of 1.5% and does not amend its reports. Later a new error of 1% is found. The cumulative error is now 2.5% and would trigger the requirement to amend data.)

Error rates for other JBSIS data elements will be considered in future versions of these guidelines.

Error diagnosis and prevention

The court's obligation to provide accurate data goes beyond remedying the erroneous report: the court should take affirmative steps to diagnose the source of the error and to prevent making it in the future. Errors should be studied to determine the root cause and remedied in the following manner:

1. Intermittent user errors should result in a training plan for court staff that addresses the errors.
2. Any intolerable error (greater than 2%) with a root cause in written policies, procedures, guidelines, desk manuals, etc., should result in appropriate changes to those documents.
3. Any intolerable error with a root cause in technology **must** result in a plan to address the error.

Error amendment

Courts must amend intolerable errors within 60 days of identifying the error or prior to the reporting deadline at which the affected fiscal year's data become part of the dataset to be included in the Resource Assessment Study (RAS) model (a date determined each year by the

Office of Court Research), whichever is sooner. If the root cause analysis indicates that the source of the error is not unique to the most recent fiscal year, amendments must be made to all three fiscal years that pertain to the upcoming RAS model calculations.

In addition, courts that report their data via JBSIS interface must annually resubmit all JBSIS reports that will become part of the dataset to be included in the Resource Assessment Study (RAS) model by the reporting deadline established each year by the Office of Court Research. Portal courts are encouraged to resubmit this data, but the Subcommittee does not recommend this as a requirement due to the significant staff effort involved in Portal resubmissions. Instead, Portal courts must pay extra attention to the 2% intolerable error reporting requirements.

In the event that intolerable errors are found, courts should notify the Office of Court Research as soon as practical. Courts should also provide documentation of resolution of intolerable errors and submit the amended reports within 60 days and can seek assistance from OCR in submitting amended reports. If tolerable errors are found, courts should notify the Office of Court Research if they intend to submit amended reports.

Conclusion

If approved by CEAC, these data amendment requirements will be incorporated into the JBSIS Manual as follows:

- a. Upon identification of an error or 2% or more in any one data element for a specific case type or cumulative across case types for one data element, courts must submit amendment within 60 days.
- b. Courts reporting their data via JBSIS will be required to resubmit their data for all reports annually on a date communicated by OCR for use in RAS and the annual Court Statistics Report.

Furthermore, if approved, JBSIS recommended data quality standards will be added to the JBSIS manual for reference.