

Caseload Highlights

Notes from the Field

By practioners –
for practitioners.

www.courtstatistics.org

Data Quality Management for Courts

*By Bob Wessels, Court Manager, Harris County Courts, and
Harry Leverette, Assistant Court Manager, Information Technology*

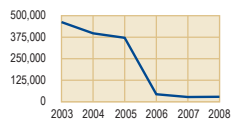
Judges, court managers, and line staff are all familiar with the problems associated with using court data for management purposes. The contention that court data are generally not “clean” enough to be relied upon is the common complaint. With little confidence in the data, few are willing to use it as a foundation upon which to base decisions and opportunities for improved case management are therefore lost. The obvious solution is to scrutinize the data to such a degree that the resulting information is beyond reproach, which thereby restores the confidence of both the judiciary and court staff.

The courts of Harris County, Texas, are presently transitioning from traditional paper files to “E-records” as our official case records. This issue of Notes from the Field will describe our evolving methods for data quality management.

Historically, data quality assurance efforts in Harris County consisted of a dedicated team of clerks that reviewed the data entry of other clerks by comparing source documents to records in the court case management system (CMS). This system worked well, but who does what to assure data quality when paper records are no longer available for comparison? Errors and omissions in the data clearly pose risk and liability for individual cases. Moreover, bad data obstructs the processing of records and potentially distorts the metrics used for court management. And as paper records turn into Web-accessible e-records, bad data can end up in the hands of the public.

Inaccurate data is often the result of nothing more than an errant keystroke. However, careful inspection sometimes reveals systemic data problems. These problems can point to shortcomings in clerical procedure and training, a lack of discipline in the CMS software, or a need to make changes in case management plans. Though the responsibility for data accuracy and integrity lies primarily with the elected clerk of the court, the courts themselves (i.e., the judges and their courtroom staff) are equal stakeholders in data quality, and court managers/trial court administrators must also be part of the overall effort to manage data quality. Ideally, data quality

Total Cases with Suspect Data in 16 Justice Courts, 2003-2008



Sample Online Suspect Data Reports

- Open Warrant Filing and Case is Disposed
- Open Warrant Filing and Case is Finalized
- Case Has No Person ID (PID) Number
- Disposed and Judged with Balance Due
- Disposition Date and No Disposition Code

Description

These cases have payments that were partially disbursed to invalid cost codes.

Risks

These cases represent inaccurate data sent to the Auditor and the Treasurer and will usually prevent a court from balancing properly for the receipt date in question.

Possible Causes

These may have been caused by data entry errors.

Fixes and Solutions

Contact **JCIS Help Desk** for assistance with correcting these cases.

Source: Sample Entry from *A User's Guide for Suspect Data Reports*

- Case Type and Case Number Do Not Match
- Case Has Disbursements to Invalid Cost Codes
- No Offense Code
- Bond Set in Future
- Disposed G/NG/DM and No Judgment Date
- Case Has No Offense Date
- Event Completed in Future
- Plea Date and No Plea Code
- Blank Case Status
- Offense Date in Future

assessment becomes part of a larger Court Business Intelligence system and a continuous focus of attention embedded in dashboards and key performance indicators.

In Harris County, our evolving data quality management plans address two different attributes of the data:

1. *Data Accuracy & Completeness* ~ searching for missing and illogical data
2. *Metadata Characteristics* ~ collecting, managing, and analyzing technical definitions of the type of data contained in the e-record and contextual information for understanding the meaning and usage of that data

Each of these efforts has its own project team. Data quality assessment for accuracy and completeness is a task for clerks and business process analysts. Metadata management is a task for database administrators, data analysts, and business process analysts. Ensuring that both efforts are successful is a task for court management.

Data Quality Assurance for Accuracy and Completeness

A menu of online Suspect Data Reports was developed for the court CMS. Clerks use these queries to search for cases with data quality issues. Additional queries are added to this menu as new issues surface. These menus are specially adapted for court divisions and case types.

A User's Guide for Suspect Data Reports explains each of the target issues and provides analysis of likely causes and recommended solutions. The *User's Guide* also explains the risk represented by each suspect data category.

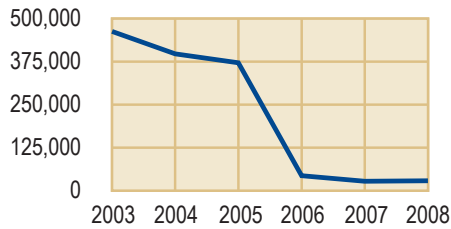
These kinds of queries were previously used to produce Exception Reports that were printed for distribution and subsequent research. As on-demand reports are integrated into the CMS, clerks can immediately drill-down into the suspect cases without having to query the cases individually. Additionally, the list can be sorted on a variety of parameters (e.g., case type, case status, age of case) to selectively address these concerns.

A growing set of specialized software tools is used to assure data quality. Programs search for instances of specific kinds of errors and omissions. The incidence of error and omission is measured, and trend reports are used to assess data quality performance.

Data Quality Management for the Harris County Justice Courts

The court case management system offers on-demand reporting for thirty-six categories of suspect data. Some case records contain more than one kind of suspect data. The adjacent charts display the reduction of cases with suspect data reported between 2003 and 2008 in four of 16 Justice Courts. The unit of count on these charts is disposed cases containing at least one instance of suspect data.

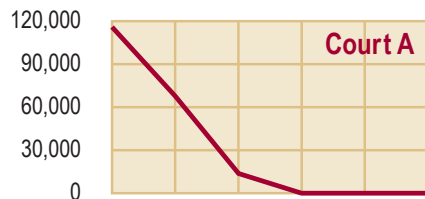
Total Cases with Suspect Data in 16 Justice Courts, 2003-2008



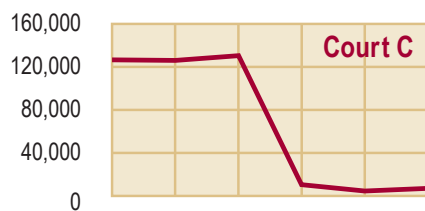
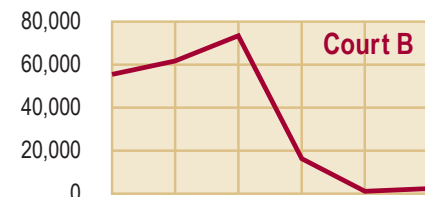
- There were more than 460,000 instances of suspect data when this report was first compiled in 2003.
- It took two years of reporting and analysis to convince the courts of the need to manage data quality.

Suspect Data in 4 Selected Courts

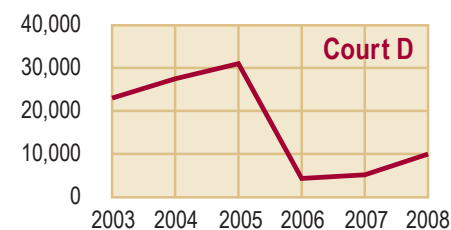
Court A immediately recognized the need for data quality management.



Court B and **Court C** began data quality management efforts in the second year of the program.



Court D corrected most of its case records with suspect data, but still does not monitor and manage data quality consistently.



Conclusion

Few in the court community would dispute the need for quality data upon which to base court management decisions. The challenge for court managers is how to create and maintain a culture of trust in the data by restoring confidence in its accuracy. Automating the data quality audit process presents an opportunity to meet this challenge. Once judges, staff, and managers put their faith in the information a culture of data-driven decision-making can flourish and quality data can be maintained.

Besides the obvious benefit of improving management decisions, the routine examination of data provides opportunities for training of clerical staff and the identification of weaknesses in the case management system. Data errors are often rooted in how staff are originally trained. In that process, familiar assumptions, both implicit and explicit, are made: “The law requires that we do it this way” or “That’s the way we have always done it” or “That’s the way [Bill, Betty, Judge Doe] likes it done.” Once such assumptions are exposed, staff are freed from the misinformation—no one wants to do their job wrong. A healthy competition can be stimulated among the courts, as it was in our case, to see whose data is most accurate. Identification of data entry errors in this context is not a game of “gotcha” but a basis for providing focused training and reinforcing a common set of business rules for data entry.

A second source of data entry error is design weaknesses in the data entry side of the case management system. Too often, these systems allow illogical data to be entered (e.g., the date of a completed event (e.g., hearing) is in the future), instead of responding to the user with an error message. Systematic data audits can provide IT staff with specific instances that can be corrected in the system, and prevent future error.

As our data show, consistent attention and commitment to data quality is what drives performance. But just because some of our courts are doing an excellent job does not mean that all of them do this automatically. A consistent message from the court leadership team—judges, clerks of court, court administrators, managers, and supervisors—is required to initiate and sustain a high level of data quality.



RESEARCH DIVISION
800.616.6109

Court Statistics Project

Since 1975, the Court Statistics Project (CSP) has provided a comprehensive analysis of the work of state courts by gathering caseload data and creating meaningful comparisons for identifying trends, comparing caseloads, and highlighting policy issues. The CSP is supported by the Bureau of Justice Statistics and obtains policy direction from the Conference of State Court Administrators. A complete annual analysis of the work of the state trial and appellate courts will be found in *Examining the Work of State Courts, 2007*.



PRESIDENT
Mary Campbell McQueen
VICE PRESIDENT RESEARCH DIVISION
Thomas M. Clarke

National Center for State Courts

300 Newport Avenue
Williamsburg, VA 23185-4147

Nonprofit
U.S. Postage
PAID
Richmond, VA
Permit No. 9

COURT STATISTICS PROJECT STAFF

DIRECTOR
Richard Y. Schauffler
SENIOR COURT RESEARCH ANALYSTS
Robert C. LaFountain
Shauna M. Strickland
COURT RESEARCH ANALYSTS
Chantal G. Bromage
Sarah A. Gibson
Ashley N. Mason
William E. Raftery
PROGRAM SPECIALIST
Brenda G. Otto
PRESIDENT, VISUALRESEARCH, INC.
Neal B. Kauder

