Improving Criminal History Data Quality Measures

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Survey of State Criminal History Information Systems (SSCHIS)

- Administered since 1989 - [https://www.search.org/resources/surveys/](https://www.search.org/resources/surveys/)

<table>
<thead>
<tr>
<th>Year</th>
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<td>2018</td>
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<td>2020</td>
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- **2022 Survey**
  - Due August 15, 2023
  - Submission to BJS for review October 2023
  - Publication early to mid-year 2024
Perennial Survey Topics

- Volume of subjects
- Volume of transactions
  - Criminal fingerprints processed*
  - Civil fingerprints processed*
- Disposition reporting rates
- Timeliness of reporting
- Interstate Identification Index (III) participation

*Added in 2006
States with Automated Criminal History (Arrest Fingerprint) Files

1989

2020

Legend:
- 100% Automated Subjects
- 76-99% Automated Subjects
- 50-75% Automated Subjects
- 1-49% Automated Subjects
- 0% Automated Subjects
Percent of All Arrests with Final Dispositions

1989

2020

Legend:
- 81-100%
- 61-80%
- 41-60%
- 21-40%
- 0-20%
SSCHIS – New and Special Topics

- Percent of state-supported III records and fees charged by repositories (2006-present)
- Warrants in state and NCIC files (2012-present)
- Plans to replace criminal justice information systems and repository staffing levels (2018)
- Arrest cycle v. charge matching to calculate disposition reporting rates (2018-present)
- Performance metrics and dashboards (2020)
- Sealed and expunged records (2020-present)
- *Records reported by corrections (1989-2004)*
Proportion of Total III Records Supported by State

2016

2020

Legend:
- 81-100%
- 61-80%
- 41-60%
- 21-40%
- 0-20%
• **Target audiences**
  - Public
  - Policymakers
    - Federal
    - State
    - Local
  - Press
  - Researchers
  - Grantors
  - Grantees
• **Potential for improved analytics**
Are there predictors of high deposition rates that we can learn from the SSCHIS?

- Charge v. cycle matching
- Number of performance monitoring metrics
- Sharing performance metrics with contributing agencies
- Internal CCH data quality audits
- External CCH data quality audits
- Final dispositions from prosecutors
- Automated reporting of court dispositions
  - Single v. multiple case management systems
<table>
<thead>
<tr>
<th>States with disposition rate &gt;= 90%</th>
<th>States with disposition rate &lt;= 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Iowa</td>
<td>41. Arizona</td>
</tr>
<tr>
<td>2. Connecticut</td>
<td>42. Idaho</td>
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<tr>
<td>3. Hawaii</td>
<td>43. Tennessee</td>
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<td>4. Maryland</td>
<td>44. Kentucky</td>
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<tr>
<td>5. New Jersey</td>
<td>45. California</td>
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<td>7. Delaware</td>
<td>47. Louisiana</td>
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<td>8. Vermont</td>
<td>48. Colorado</td>
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<tr>
<td>9. North Dakota</td>
<td>49. Massachusetts</td>
</tr>
<tr>
<td>10. Alaska</td>
<td>50. Mississippi</td>
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</tbody>
</table>
Finding: Cycle matching does not appear to “inflate” disposition rates, but top performers were slightly more likely to match dispositions to individual charges.
Finding: Low performers were slightly less likely to report capturing performance metrics.
Finding: 7 out of 10 high performers conducted internal data quality audits v. only 3 of 10 low performers.
Finding: 4 out of 10 high performers conducted external data quality audits v. only 3 of 10 low performers.
Finding: 6 out of 10 high and low performers received disposition data from local prosecutors.
Finding: 9 out of 10 high performers received electronic disposition data from the courts. Among the high performing states, 8 out of 10 received over 95% of court dispositions electronically. Only one low performing state (CO) had an electronic court disposition reporting rate over 95%.
Finding: 7 out of 10 high performers received electronic disposition data from the courts from a centralized case management system compared to only 3 out of 10 low performers.
Finding: 8 out of 10 high performers were able to match at least 90% of dispositions to an arrest compared to only 3 out of 10 low performers.
Example of Unexpected Population Changes

Total Subjects in Criminal History File

In 2020, Mississippi purged records pursuant to state record retention policies.
In 2020, New Mexico included archived records from an external storage device.
Massachusetts did not report disposition rate for 2014, but rates were much lower starting in 2016. Oklahoma has been actively engaged in disposition improvement efforts for the past decade.
• SEARCH, in partnership with the National Center for State Courts, will be taking a closer look at top and bottom performers to document promising practices.
• SEARCH is working on better online tools to visualize and analyze findings from SEARCH/BJS surveys and other research.
• Re-establishment of Criminal History Metrics Working Group.
• Utility of maintaining very old (or very) new records in disposition rates
• Identification of duplicate and/or warrant arrests lacking disposition information
• Structure of criminal history repositories
  – Dedicated v. centralized information technology staff
  – Tenure of repository leadership (civilian v. sworn staff)
  – Staffing levels (data entry, validation, auditing, training, etc.)
• Funding for state criminal history repositories
• Reporting agency capabilities
  – Prevalence of electronic reporting
  – Prevalence of centralized case/record management systems
  – Court unification
CRIMINAL HISTORY MEASURES AND DATA QUALITY
CCH Metrics – Disposition Reporting

• Focus on disposition reporting among states
  – States persistently low (≤ 50%) in disposition reporting rates (10)
  – States persistently high (> 90%+) in disposition reporting rates (11)

• Reviewing how dispositions are counted and defining standardized methodology
CCH Metrics – Disposition Reporting

• Known data quality impacts:
  – Non-unified court systems
  – Unstructured disposition and sentencing data
  – Missing SID, ATN, TCN or other numbers tying dispositions to originating arrests
  – Expansion of citation in lieu of arrest
  – Fingerprint data quality issues
  – Duplicate arrests
CCH Metrics – Identifying Measures that Matter

• Reconvening the CCH Metrics State Working Group

• Formalized development of universal measures and functional specifications and requirements for CCH data
  1. SEARCH partnering with states to develop the data curation process and a series of data dashboards
  2. Providing the methodology and standard measures to records management vendors
  3. Providing the methodology and standard measures to state staff

• Development and refinement of CCH data visualizations and reporting tools
CCH Metrics – Improving Methodology

- Development of an ETL process to map state-specific data elements and values to curate datasets that can be used to measure data quality and study criminal history data
- Developing standard processes to count or measure data within CCH repositories
- Enhancing CCH measures to be more meaningful and actionable
CCH Metrics – Why Improving Data Quality Matters

- Reliability
- Evidence-based decision-making
- Operational importance
- Trust and credibility
- Accurate insights into criminal history, preventing erroneous conclusions
- Research validity
DATA QUALITY DASHBOARDS
Criminal History Metrics

**Persons by Year**
- 2014: 2,401
- 2016: 2,428
- 2018: 2,645
- 2020: 2,637
- 2022: 3,045

**Persons by Month (Cumulative)**
- January: 2714
- February: 2617
- March: 2451
- April: 2,147
- May: 2,361
- June: 2,354
- July: 2,224
- August: 2,361
- September: 2,715
- October: 2,792
- November: 2,180
- December: 2,229

**Persons by Sex**
- Male: 12,975
- Female: 6,832

**Persons by Race**
- White: 15,446
- Black: 3,364
- Asian/Pacific Islander: 212
- Other: 176
- American Indian/Alaska Native: 102
- Missing: 1

**Persons by Age**

**Persons by Age Range**
- 10-19: 1,182
- 20-29: 6463
- 30-39: 6477
- 40-49: 3,979
- 50-59: 2,052
- 60-69: 587
- 70-79: 69
- 80 or older: 9
CCH Metrics – Current Dashboards
CCH Metrics – What to Look Forward to

CCH Data Quality - Disposition Reporting

83% Arrests with Final Dispositions
Up 2% from 2020

Court Disposition by Disposition Type

- Acquittal: 3,193
- Convicted: 862,044
- Deferred/Conditional: 9,578
- Dismissed: 353,299
- Interim: 73,134
- Unknown: 150,345

Court Dispositions by Status

- Final Disposition: 10
- Interim Disposition: 5
- No Disposition: 85
CCH Metrics – What to Look Forward to

<table>
<thead>
<tr>
<th>County</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
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<th>Jul</th>
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<td>95.6</td>
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Note: YELLOW = 1.5 Standard Deviations
RED = 2 Standard Deviations
CCH Metrics

RESEARCH POTENTIAL
CCH Metrics – What Can the Data Tell Us

• Recidivism and Redemption
  – Increasing employer-based background checks
    • First time offenders
      – Age and offense of first arrest
      – Differences by state
      – Trend analysis over time

• Leveraging SEARCH’s expertise within the criminal history record to further state and national research efforts

• Data quality importance
Thank you!

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