A Case Study: Transforming National Criminal History Records into a Statistical Database

for the
Commission on Evidence-Based Policymaking
First Meeting

The National Academies of Sciences, Engineering, and Medicine
2101 Constitution Avenue NW, Lecture Room
Washington, DC
Bureau of Justice Statistics

• A principal Federal statistical agency

• Sits in the Department of Justice Office of Justice Programs
  • FBI, U.S. Marshals, Bureau of Prisons, Drug Enforcement Administration, U.S. Attorney, Civil Rights Division,…

• Measures the U.S. justice system: A collection of independent systems at the local, state, and federal level.
The Criminal Justice System

Bureau of Justice Statistics—Statistical coverage

www.bjs.gov

National Crime Victimization Survey (NCVS)
Police public contact, school crime, identity theft, stalking, hate crime, crime against the disabled, workplace violence
Computer Security Survey
National Protection Order Files

National Incident-Based Reporting System (NIBRS)
State Court Processing Statistics
Domestic violence case processing

Federal Justice Statistics
Tribal Justice Statistics

National Judicial Reporting Program (NJRP)

Capital Punishment

Probation and Parole Data Surveys
Survey of Adults on Probation

National Recidivism Statistics

Law Enforcement Management and Administrative Statistics (LEMAS)
Federal, State, and Local Law Enforcement Agency Censuses
Survey of DNA Crime Laboratories
Survey of Campus Law Enforcement Agencies
Traffic Stop Statistics
Census of Crime Laboratories
Census of Law Enforcement Training Academies
Census of Medical Examiners & Coroner's Offices

Justice Expenditure and Employment Survey and Extracts

U.S. Department of Justice
Office of Justice Programs

National Prisoner Statistics (NPS)
National Corrections Reporting Program (NCRP)
Annual Survey of Jails
Surveys of State and Federal Prison Inmates
Survey of Inmates in Local Jails
Deaths in Custody
Survey of Jails in Indian Country
National Prisoner Survey—Sexual Assault

Incarceration
Jail
Prison
Parole
Probation
Revocation

Survey of State Court Organization
SC Court Statistics
Civil Justice Statistics
National Survey of Prosecutors
National Survey of Indigent Defense Systems

Census of AdultProbation and Parole Agencies
Census of State and Federal Correctional Facilities
Census of Jails

Census of Adult Probation and Parole Agencies
Census of State and Federal Correctional Facilities
Census of Jails

BJS
Why Criminal History Records?

• Important policy or evaluation questions

• Existing data

• Impacts a lot of people.
  • There are roughly 100 million criminal history records.

Potential for evidence-based policy making
Existing data: Rap Sheets

Each state maintains its own repository.
Example of Rap Sheet Format in State A

<table>
<thead>
<tr>
<th>NAME</th>
<th>XXXXXXXXXXXXXXXXXXXXX</th>
<th>STATE ID</th>
<th>XXXXXXXXXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>XXX-XX-XXXX</td>
<td>FBI NO.</td>
<td>XXXXXXXXXXXXX</td>
</tr>
<tr>
<td>CITIZENSHIP</td>
<td>UNKNOWN</td>
<td>BIRTH PLACE</td>
<td>XXXXXXXXXXXXX</td>
</tr>
<tr>
<td>BIRTH DATE</td>
<td>XXXX/XX/XX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DECEASED</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RACE</td>
<td>WHITE</td>
<td>SEX</td>
<td>FEMALE</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td></td>
<td>SKIN TONE</td>
<td></td>
</tr>
<tr>
<td>HEIGHT</td>
<td>5'05&quot;</td>
<td>WEIGHT</td>
<td>165</td>
</tr>
<tr>
<td>HAIR</td>
<td>BROWN</td>
<td>EYES</td>
<td>BLUE</td>
</tr>
</tbody>
</table>

**CRIMINAL HISTORY**

<table>
<thead>
<tr>
<th>ARREST 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOA</td>
</tr>
<tr>
<td>AGENCY</td>
</tr>
<tr>
<td>ARREST TYPE</td>
</tr>
<tr>
<td>CHARGE 1</td>
</tr>
<tr>
<td>SEVERITY</td>
</tr>
<tr>
<td>COURT DISPOSITION</td>
</tr>
<tr>
<td>DISP DATE</td>
</tr>
<tr>
<td>DOCKET #</td>
</tr>
<tr>
<td>OFF SEVERITY</td>
</tr>
<tr>
<td>OFF COUNT</td>
</tr>
<tr>
<td>VERDICT</td>
</tr>
<tr>
<td>BRADY/IFS</td>
</tr>
<tr>
<td>VOTING</td>
</tr>
<tr>
<td>SENTENCE</td>
</tr>
<tr>
<td>FINE</td>
</tr>
<tr>
<td>RESTITUTION</td>
</tr>
<tr>
<td>SUSPENDED</td>
</tr>
<tr>
<td>MIN CONF</td>
</tr>
<tr>
<td>MIN PROB</td>
</tr>
<tr>
<td>MAX PROB</td>
</tr>
<tr>
<td>NAME: Xxxxxxxxxxxxx</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>SID NUMBER: Xxxxxx</td>
</tr>
<tr>
<td>DOC NUMBER: Xxxxxx</td>
</tr>
</tbody>
</table>

***************************************************************
PERSON INFORMATION
***************************************************************
SEX   RACE  HEIGHT  WEIGHT    EYES    HAIR    PLACE OF BIRTH   CITIZENSHIP
M     B      600     160     BRO     BLK           XX            US
CRIMINAL HISTORY INFORMATION
***************************************************************
ARREST 1
DATE OF ARREST: 06/12/1991
---------------------------------------------
NAME USED: XXXxxxxxxxxx
CONTRIBUTING AGENCY: POLICE DEPARTMENT
LOCAL ID: Xxxxxx
PCN: Xxxxxx
TCN: N/A

<table>
<thead>
<tr>
<th>ARREST OFFENSES</th>
<th>DISPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>09930 FAIL TO COMPLY</td>
<td>CLASS UNKNOWN</td>
</tr>
<tr>
<td>ORIGINATING AGENCY: POLICE DEPARTMENT</td>
<td>ORIGINATING AGENCY: POLICE DEPARTMENT</td>
</tr>
<tr>
<td>OIN: Xxxxxx</td>
<td>CONTRIBUTOR OR RESPONSIBLE AGENCY: MUNICIPAL COURT</td>
</tr>
<tr>
<td>DISPO RESPONSIBILITY: COURT</td>
<td>STATUS: DISPOSITION NOT RECEIVED</td>
</tr>
<tr>
<td>COURT CASE NO: Xxxxxx</td>
<td>CONTRIBUTOR OR RESPONSIBLE AGENCY: SUPERIOR COURT</td>
</tr>
<tr>
<td>COMMENT: BURGLARY</td>
<td>COURT CASE NO: Xxxxxx</td>
</tr>
<tr>
<td>CLASS UNKNOWN</td>
<td>STATUS: GUILTY</td>
</tr>
<tr>
<td>ORIGINATING AGENCY: POLICE DEPARTMENT</td>
<td>THEFT-3</td>
</tr>
<tr>
<td>OIN</td>
<td>RCW: 9-46-20</td>
</tr>
<tr>
<td>DISPO RESPONSIBILITY: COURT</td>
<td>MISDEMEANOR</td>
</tr>
<tr>
<td>COURT CASE NO: Xxxxxx</td>
<td>STATUS DATE: 08/27/1991</td>
</tr>
<tr>
<td>CHG 01: JAIL-15 DS/SUSPENDED</td>
<td>SENTENCE: SENT. DESC.:</td>
</tr>
<tr>
<td>1 YR, SUPV-12 MOS</td>
<td></td>
</tr>
</tbody>
</table>
### Example of Rap Sheet Format in State C

| NAME(S): | XXXXXXXXX |
| FBI NUMBER | DPS NUMBER |
| XXXXXXXXX | XXXXXXXXX |
| SOCIAL SECURITY | DRIVERS LICENSE | ID NUMBER |
| XXXXXXXXX | XXXXXXXXX |
| SEX | RACE | SKIN TONE |
| M | B | MED |
| HEIGHT | WEIGHT | DATE OF BIRTH |
| 510 | 180 | XX-XX-XXXX |
| HAIR COLOR | EYE COLOR | FINGERPRINT PATTERN |
| BLK | BRO |
| PLACE OF BIRTH | CITIZEN | III CODE |
| TX | US | MULTI-STATE |
| ----------------------------------------------- |

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**EVENT CYCLE 1**

| TRACKING NUMBER | XXXXXXXXX |
| ARREST DATE | 05-06-1995 |
| TYPE | ADULT |
| AGENCY | 0180000 - STATE POLICE |
| ----------------------------------------------- |

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**OFFENSE DATA**

| OFFENSE DATE | 05-06-1995 |
| OFFENSE | BURG |
| CITATION | PC 40.02(a) |
| LEVEL & DEGREE | FELONY - 1ST DEGREE |
| DISPOSITION | HELD |
| REFERRED | DISTRICT ATTORNEY OFFICE |
| ----------------------------------------------- |

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**COURT DATA**

| COURT AGENCY | 5TH DISTRICT COURT |
| COURT OFFENSE | BURGLARY OF HABITATION |
| CITATION | PC 30.02(a) |
| LEVEL & DEGREE | FELONY - 1ST DEGREE |
| DISPOSITION | CONVICTED |
| DISPOSITION DATE | 03-30-1996 |
| SENTENCE DATE | 03-30-1996 |
| FINAL PLEADING | GUILTY |
| CONFINEMENT | 10Y |

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Connecting together State Rap Sheets

- FBI
- Interstate Identification Index
- Nlets
Simplified Description of III System:
A Request for a Multi-State Criminal History Record
(or Rap Sheet)
III Provides Federal Portion of Rap Sheet to Nlets along with the Person’s State ID Numbers; then Nlets Requests State Records
State Repositories Return State-Specific Rap Sheets and Nlets Sends Set to Requesting Agency

CA# 113458

Nlets
FBI# 635879
CA# 113458
NY# 123456
TX# 314112
VA# 006451

NY# 123456

TX# 314112

VA# 006451
Challenges to using Criminal History Records

1. Gaining access
2. Standardizing for statistical purposes
3. Understanding quality
4. Archiving
Challenge 1: Gain Access (Obtain permission)

2006: Began exploring how to gain the permission to access

2008: Signed MOU with FBI

- Duties of each agency
- Terms of use
- Extensive security provisions
- Point of entry
Challenge 2: Standardize the Criminal History Records

Step 1: Parse individual state rap sheet data

- Identify key data fields
- Identify location of key data fields in EACH state format
- Create programs to parse text strings
- Copy into a standardized relational database
## Rap sheet fields in the uniform record layout

### Subject segment
- BJS case number
- Name
- State identification number (SID)
- FBI identification number
- Date of birth
- Gender
- Race
- Social security number

### Arrest segment
- Date of offense
- Date of arrest
- Arresting agency name and ORI
- Statute number
- NCIC code
- Charge description
- Charge severity
- Arrest disposition
- Arrest disposition date

### Court/Sentencing segment
- Court disposition date
- Court name and ORI
- Statute number
- NCIC code
- Offense description
- Type of court disposition
- Sentences (prison, fine, etc.)

### Supervision segment
- Supervision date (admission, release, etc.)
- Agency name and ORI
- Supervision description
Challenge 2: Standardize the Criminal History Records

**Step 2:** Recode state specific data into a common taxonomy

- Map state specific statutes into the common codes
  - Initially done by hand to interpret the statutes
  - Developed automated coding programs/crosswalks
  - Validated the crosswalks
- Maintain and update the library of state to state crosswalks
  - Revise crosswalks as state statutes change or create new crimes
Challenge 3: Evaluate quality

Data Quality

• Are there parsing and coding errors?
  • Feed back identified errors to Nlets
  • Check for large amounts of uncoded or unknown codes

• Are there patterns of missing data?
  • Feed back identified gaps to States
  • Support states to report more complete data
Challenge 4: Archiving

This is a remaining challenge –
Need to balance regulatory restrictions
With ability to be transparent and reproducible
Costs*

Developmental costs – about $3.0 million.
$1.1 million for initial record acquisition, collation, parsing.
$1.9 million for initially standing up the data standardization software, coding crosswalks, creation of recode libraries.

Maintenance costs – about $360,000 annually
Acquisition, collation, etc. – about $60,000
Maintenance of standardization software, recode library and crosswalks – about $300,000 per cohort study.

*excludes OJP & BJS staff salaries and overhead.
A Case Study…

- Enhances Nation’s criminal justice data infrastructure
- Potential is still to be fully realized for evidence-based policy decisions
- Continued data quality improvement with use
  - Improves operational uses
  - Improves statistical and research uses
  - Improves evaluation uses
Thank you!

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