CALCULATING AND UTILIZING RECIDIVISM RATES
Texas Juvenile Justice Department
2015 Data Coordinators Conference
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ROAD MAP

- Definitions
- How we use recidivism
- How we calculate recidivism
- Conducting your own analysis
Basic Recidivism Definition

“"A tendency to relapse into a previous condition or mode of behavior; especially: relapse into criminal behavior”

Key word: relapse
COMPONENTS OF TJJD RESEARCH RECIDIVISM DEFINITION

One, Two, and Three Year Analysis

Disposition Date for Probation/Deferred, Program Start Date, Placement Discharge Date

Re-arrest Re-referral Re-adjudication Incarceration

Recidivism Rate
EXAMPLE:

“Of juveniles adjudicated to probation in FY 2011, 50% were re-arrested in three years.”
Why this definition?

- This methodology/definition matches the methodology adopted and used by the LBB
- Same basic methodology used by TDCJ
- Use of disposition date for probation and deferred supervision allows us to quantify recidivism events that occur before end of supervision
- Allows other jurisdictions to evaluate our rates in comparison to theirs
COMMON USES OF RECIDIVISM DATA

- Examine impact of policy or budget changes
- Evaluate new programs and/or practices
- Evaluation against prior performance
- Comparing different offender groups
- Program Evaluation
- Cost-benefit analysis
HOW TJJD USES RECIDIVISM DATA

- LBB Statewide Criminal & Juvenile Justice Recidivism and Revocation Rates
  - Three year recidivism rates for juveniles who:
    - Disposed to deferred prosecution supervision
    - Disposed to probation supervision
    - Exited secure placement

- “December 1 Report”
  - Community Juvenile Justice Appropriations, Riders and Special Diversion Programs

- Quarterly Performance Measures to LBB
How TJJD Uses Recidivism Data

- Evaluate overall program effectiveness in achieving objectives
  - Process → development, implementation, and operation of a program
  - Outcome → effect of a program (recidivism)
  - Main goal of all juvenile justice programs is to reduce recidivism

- Compare program outcomes
  - Program A recidivism = 75%
  - Program B recidivism = 40%

Which program appears to be doing a better job?

- Program A = Violent, chronic offenders
- Program B = First time offenders
HOW TJJD USES RECIDIVISM DATA

• Compare supervision outcomes (one year)
  • Deferred Supervision Recidivism = 30%
  • Probation Supervision Recidivism = 50%

• Visualize trend in recidivism over time
  • One Year Probation Recidivism 2013 = 50%
  • One Year Probation Recidivism 2012 = 55%
  • One Year Probation Recidivism 2011 = 60%
**How we calculate Recidivism: DPS Data**

- Send to DPS any juvenile in our time frame:
  - Referred or disposed
  - Supervision
  - Placement
  - Program

Example:

```
LAST, FIRST MIDDLE            SRYYYYMMDD     00000000999999999       XXXXXXX
```

- Name
- Sex Race DOB
- DPS SID
- SSN
- Agency identifier
**How we calculate Recidivism: DPS Data**

- File sent to DPS includes variation of names
  - E.g. Last, First, Middle AND Last, First
- Total of 516,344 records sent for FY 2009 – FY 2014 matching
- DPS sends back:
  - Identification: name, unique identifies, and demographic information
  - Charges: arrest dates, offense information, unique identifier
  - Court: arrest/disposition dates, sentence, unique identifier
DPS Matching

- Match DPS identification table with our Child table to remove any false matches
- Add DPS charges and court records with TJJD referral data
  - Match based on SID number
- Clean and remove any exact duplicate records
**DPS Matching-Data Quality**

- Match with child table first on TJJD number
- Calculate best match based on SID, SSN, DOB, Name, TJJD number
  - If any of these are missing on either file, the record will not match
  - If the information is incorrect, could lead to a mismatch in data
- Important to ensure unique identifying variables are entered correctly and in a timely manner
  - **EXAMPLE:**
    - DPS file name=Doe,John
    - Extract child table name=DoeJr.,John
**TDCJ Data**

- Send cleaned and matched file of DPS/TJJD data to TDCJ
- TDCJ matches incarceration records based on unique identifiers (DPS SID)
- TDCJ sends back any incarceration records that match our records based on unique identifiers
CALCULATING SUPERVISION RECIDIVISM

- Supervision cohorts selected for given fiscal year
  
  based on start of tracking period

  - Only select those with a match to DPS file
  
  - Disposed to probation or deferred prosecution supervision

- EXCEPTION:

  - Juveniles on supervision for a Class C offense OR

  - Juveniles referred to the department by someone other than law enforcement
CALCULATING SUPERVISION RECIDIVISM

- One year analysis:
  Supervision Disposition Date: 9/1/2013-8/31/2014
  Tracked for recidivism event prior to: 9/1/2014-8/31/2015
  Cohort: 300
  - 100
  - 50
  - 10

- Three year analysis:
  Supervision Disposition Date: 9/1/2011-8/31/2012
  Tracked for recidivism event prior to: 9/1/2014-8/31/2015
  Cohort: 200
  - 50
  Cohort: 150
  - 10
CALCULATING SUPERVISION RECIDIVISM

Example:

We have 300 juveniles who started probation supervision in FY 2014, 50 were re-referred or re-arrested for a Misdemeanor B offense or higher within one year of their disposition to supervision. The equation will look something like this:

\[
\frac{50}{300} = 0.16667 \times 100 = 16.7\%
\]

\[=(D11/D12)\times100\]
Of Note

- All juveniles in cohort MUST have complete data for the ENTIRE study period
  - E.g. if do not have DPS/adult data, juveniles older than 16 must be excluded for one year analysis
- Using incomplete or incorrect data may skew your rate to appear lower
STATEWIDE RE-OFFENSE RESULTS

### One Year Analysis

<table>
<thead>
<tr>
<th></th>
<th>FY 2011 Cohort</th>
<th>FY 2012 Cohort</th>
<th>FY 2013 Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Offenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred</td>
<td>28.2%</td>
<td>27.9%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Probation</td>
<td>55.9%</td>
<td>57.2%</td>
<td>56.9%</td>
</tr>
<tr>
<td><strong>Misd B &amp; Higher</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred</td>
<td>23.2%</td>
<td>22.5%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Probation</td>
<td>34.8%</td>
<td>35.1%</td>
<td>35.5%</td>
</tr>
</tbody>
</table>

### Cohort Total Recidivism

<table>
<thead>
<tr>
<th></th>
<th>FY 2011-Three Year</th>
<th>FY 2012-Two Year</th>
<th>FY 2013-One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Offenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred</td>
<td>50.7%</td>
<td>41.4%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Probation</td>
<td>76.3%</td>
<td>70.0%</td>
<td>56.9%</td>
</tr>
<tr>
<td><strong>Misd B &amp; Higher</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred</td>
<td>46.0%</td>
<td>36.1%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Probation</td>
<td>54.6%</td>
<td>54.4%</td>
<td>35.5%</td>
</tr>
</tbody>
</table>
PROGRAM RECIDIVISM

- Calculated the same way as supervision recidivism

- Additional information useful to program recidivism:
  - Average Risk and Needs level of cohort
  - Average number of prior referrals for program cohort
  - Proportion of program cohort with a prior violent or assaultive referral
  - Proportion of program cohort with prior violation of probation
  - Majority offense type of program cohort
  - Re-offense type
# Program Recidivism Example - One Year Analysis

<table>
<thead>
<tr>
<th>Program*</th>
<th>N</th>
<th>Re Offend in One Year</th>
<th>1 yr Re-Offense Rate**</th>
<th>Average # of Prior Referrals</th>
<th>Prior Violent/Assaultive Referral</th>
<th>Prior VOP</th>
<th>Majority Offense Type***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant S</td>
<td>324</td>
<td>16</td>
<td>4.9%</td>
<td>0.16</td>
<td>0.6%</td>
<td>0.0%</td>
<td>Crisis Intervention</td>
</tr>
<tr>
<td>No Drugs</td>
<td>97</td>
<td>30</td>
<td>30.9%</td>
<td>1.51</td>
<td>16.5%</td>
<td>9.3%</td>
<td>Misd. Assaultive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program*</th>
<th>N</th>
<th>1 yr Re-Offense Assaultive</th>
<th>1 yr Re-Offense Drug</th>
<th>1 yr Re-Offense Property</th>
<th>1 yr Re-Offense Other**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant S</td>
<td>324</td>
<td>1.5%</td>
<td>0.6%</td>
<td>2.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>No Drugs</td>
<td>97</td>
<td>9.3%</td>
<td>9.3%</td>
<td>13.4%</td>
<td>8.2%</td>
</tr>
</tbody>
</table>
Conducting Your Own Analysis

What are my cohort characteristics?
- Disposed to supervision
- Starting a program
- Exiting placement

What am I considering as a recidivism event?
- Re-arrest
- Re-referral
- Re-adjudication
- Re-commitment
- Incarceration

What is my time frame?
- 6 months
- 1 year
- 3 years
- 5 years
CONDUCTING YOUR OWN ANALYSIS

- Important considerations before analysis:
  - All juveniles in your cohort MUST have complete data for the entire study period
  - For a one year analysis ONLY include juveniles aged 16 and younger if relying only on own data
  - For a three year analysis ONLY include juveniles 14 and younger if relying only on own data

- The rate you find may differ from the rate provided by TJJD due to limitations in data available to you
  - TJJD matches with DPS and TDCJ, allowing for a more comprehensive analysis
DEFINING YOUR RECIDIVISM EVENT AND COHORT-SUPERVISION

- Choose the first disposition for each juvenile in your time frame
  - E.g. First disposition to probation in FY 2013

- One year cohort recidivism event:
  - Juveniles with re-referral or re-arrest for a Misd B or higher offense within 1 year of disposition to supervision
  - Dependent upon unique disposition date per juvenile
DEFINING YOUR RECIDIVISM EVENT AND COHORT-PROGRAMMING

- Program Cohort Dependent upon Program Begin Date for each juvenile
  - E.g. All juveniles starting a program in FY 2013
  - Separate by Program Type or specific Program Name
  - Program must have MINIMUM 10 or more participants

- One year cohort recidivism event
  - Re-referral or re-adjudication for Misd. B or higher
    - Prior Violation of Probation can be used as risk factor
    - Highlight re-offense type
CALCULATING YOUR RECIDIVISM IN EXCEL

- Refer to handouts provided for work within Excel
- If future questions on this handout, contact me
  - Chara.heskett@tjjd.texas.gov
  - 512-490-7941
Questions?

[Comic cartoon showing a conversation between two characters. The first character says, “What? Sorry, I was using this time to think about something useful.” The second character responds, “Maybe your boss can fill you in. I was brain-golfing.”]