The Importance of Data-Driven Risk Assessment

Delaware’s Story

ICRN Conference - April 2017
Presentation Overview

• Recent history of pretrial risk assessment in Delaware
• Original assessment validation process
• Creating a data-driven pretrial risk assessment tool
• Delaware’s next steps
Recent History of Pretrial Risk Assessment in Delaware
Driven by JRI Process

- Tool creation was driven by courts and JRI oversight group
  - Governor Jack Markell issued Executive Order 27 establishing the JRI Task Force
  - Data analysis by Vera Institute of Justice

- Key findings were:
  - Pretrial detainees comprised 23% of prison population (many on low bail)
  - 76% of admitted pretrial detainees in 2010 had no violent felonies
  - 14% of 2010 detention admissions were potentially diversion-eligible

- Desire to equip Judiciary with information to inform decisions at arraignment
  - Release on own recognizance?
  - Release with conditions? (including DOC Pretrial Services)
  - Set bail?
  - Detain?
Impetus for Reform: Delaware Pretrial Detainee Population Increases

Pretrial Detainee Population Snapshots, 2008-2016

JRI Task Force launched

CRJ
Impetus for Reform: DOC Pre-Trial Services Caseload Increases

JRI Task Force launched

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CRIME AND JUSTICE INSTITUTE
Original Assessment

• JRI Legislative Package adopted in August 2012
• Aspects included:
  A. *Pretrial Risk Assessment*
  B. *Risk and Needs Information at Sentencing*
  C. *Program Completion and Earned Compliance Credits*
  D. *Case Planning*
  E. *Assessment of Community-Based Services*
  F. *Recidivism Study*
Initial Assessment Committee

• Efforts were already underway by Justice of the Peace Court circa 2009 to revise the Bench Book; hadn’t been revised since 1980s
  • Goal: update bail guidelines

• Then, JRI legislation passed
  • Multi-Disciplinary Committee tasked with developing pretrial risk assessment tool for Delaware (launched in 2013)

• Approach: through committee consensus process, create a tool based on components of other states’ pretrial risk assessments
Initial Assessment Committee

• Result: pretrial risk assessment that is automated and embedded into Court database
  • 11 questions

• Delaware pretrial risk assessment process
  • Nearly all defendants are brought before Judge at time of arrest, and a release decision is made at that point
  • Only detained if cannot post bond quickly
Original Pretrial Risk Assessment Validation Process
Validation Process

• Validation attempts to answer three questions:
  1. Is the pretrial risk assessment a valid instrument for predicting pretrial failure?
  2. Does the pretrial risk assessment classify risk levels appropriately by distinguishing between low, moderate, and high risk defendants based on increasing pretrial failure rates?
  3. Does the pretrial risk assessment appropriately predict risk of pretrial failure for various subgroups (e.g., by gender, by race)
Validation Process

- **Univariate Statistics**
  - Frequency tables describe the total sample and sub-groups

- **Bivariate Statistics**
  - Cross-tabulations that compare pretrial failure with risk score and risk level
  - Correlations that examine associations between pretrial failure and risk factors and risk score
  - AUC-ROC is used to summarize the performance of the risk score in predicting pretrial failure into a single number

- **Multivariate Statistics**
  - Logistic regression to examine factors while controlling for other factors and identify odds of pretrial failure
Total Risk Score and Pretrial Failure

- Delaware

The graph shows the relationship between total risk score and pretrial failure percentage for Delaware.
... Ideally Should Look Like This
Total Risk Level and Pretrial Failure

- Low (0-5)
- Moderate (6-10)
- High (11-14)
... Ideally Should Look Like This
Assessment Validation Results

• Assessment risk score was not a predictor of pretrial failure
  • Only 3 of 11 items significantly associated with pretrial failure in the right direction

• Assessment risk level does not distinguish groups by increasing pretrial failure

• Reaction of DE stakeholders
  • Surprise, disappointment
Assessment Validation Limitations

- FTA rate was artificially low (about 3%)
  - Later determined to be based on an arrest for FTA
  - Did not allow for FTA to be tested as an outcome with assessment
  - FTA based on defendant behavior not tracked electronically
- Assessment was implemented within the Justice of the Peace court with a comprehensive implementation plan
  - Not so well in upper courts
- Quality assurance mechanisms not fully introduced to support tool roll out
Creating a Data-Driven Pretrial Risk Assessment
Data-driven approach

• The creation of the pretrial risk assessment is driven by the state’s own electronic data and grounded in research

• Compared to the consensus method used to create the original assessment, the data-driven approach ensures the assessment works for the population
Data-driven approach

• Receive a data extract from the jurisdiction’s data experts and create a representative sample
• Use approximately half of the sample to create the assessment
• Use the rest to validate the assessment and ensure it still works on the population
• Pilot the assessment before rolling out statewide and begin collecting ‘live’ data
• Validate the tool using the ‘live’ data to ensure that it continues to work as intended and update if needed
Delaware’s Next Steps
Next Steps

• Currently finalizing the developed pretrial risk assessment for Delaware using the state’s own electronic data

• The new tool will use FTA warrants initially as Delaware works to create an electronic means to collect defendant behavior-based FTA data
  • Next validation will explore incorporating or replacing FTA warrants as a risk factor and outcome

• Creation and implementation of a comprehensive training and implementation plan
Next Steps

• Formulate “Pretrial Praxis” that provides Judges with recommendations for release, release with conditions, or detention based on RAI Score

• Ongoing legislative discussions:
  • Reducing impact of money in pretrial decision-making
  • Preventive detention

• DOC using RAI score for tiered pre-trial supervision
# DOC Pre-Trial Services Tiered Supervision

<table>
<thead>
<tr>
<th>PRAI Score Range</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
<th>Category 5</th>
<th>Category 6</th>
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<tbody>
<tr>
<td>LOW</td>
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- **Nature of the allegation(s)** triggers specific concern that defendant poses articulable risk of danger to a victim. Offenses are characterized by acts/threats of violence, offenses of a sexual nature, weapons offenses, the victim may be a member of a vulnerable class, etc.

- **FELONY**
- **MISDEMEANOR**

- **Category 4**
  - Drug Dealing and/or Unlawful Dealing in Drugs.
  - Allegations suggest involvement in dealing, manufacturing, distributing drugs versus simply possessing for personal use.
  - Offenses alleging miscellaneous offenses against society.
  - Offenses typically allege theft, deceit, damage or disrespect to property or privacy, etc.
  - The victim is an individual.

- **Category 5**
  - Offenses alleging miscellaneous offenses against society.
  - Offenses typically allege theft, deceit, failure to respect property, Court or public order, etc.
  - The victim is an entity, corporation, state agency, governing body, etc.
### DOC Pre-Trial Services – Tiered Supervision

<table>
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<tr>
<th>Level</th>
<th>Requirements</th>
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| **ADMINISTRATIVE** | - Direct contact as ordered by Officer  
- Compliance check of special conditions every sixty (60) days  
- Minimum of one (1) CJIS criminal history/warrant check and case status check per month  
- Minimum of one (1) NCIC criminal history/warrant check every three (3) months |
| **STANDARD** | - Minimum of one (1) direct contact per month  
- Minimum of one (1) home visit every three (3) months  
- Positive home visit within sixty (60) days of case assignment and residence change  
- Compliance check of special conditions every sixty (60) days  
- Minimum of one (1) CJIS criminal history/warrant check and case status check per month  
- Minimum of one (1) NCIC criminal history/warrant check every three (3) months |
| **ENHANCED** | - Minimum of four (4) direct contacts per month at least one (1) occurring at defendant’s residence  
- Minimum of one (1) home visit every month  
- Positive home visit within thirty (30) days of case assignment and residence change  
- Compliance check of special conditions every month  
- Minimum of one (1) CJIS criminal history/warrant check and case status check per month  
- Minimum of one (1) NCIC criminal history/warrant check every two (2) months |
Questions?

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