Pretrial risk assessment tool developed for Alaska

Pamela Cravez

Beginning January 1, 2018, new information about defendants at their first pretrial bail hearing became available in all of Alaska’s courts. Judicial officers, defense, and prosecuting attorneys are receiving information from a new pretrial risk assessment tool that calculates whether a defendant is at low, moderate, or high risk for failure to appear at trial or to commit another crime if released. The tool, incorporated in Alaska’s new bail statute, aids in the judicial officer’s decision regarding pretrial bail conditions.

The turn to evidence-based pretrial practices is in response to the growing number of defendants who are remaining in custody through disposition of their cases. From 2004 to 2014, the number of pretrial inmates in Alaska’s prisons grew by 81 percent (Alaska Criminal Justice Commission (ACJC), 2017). “In some cases, low-risk defendants who were unlikely to engage in new criminal activity remained behind bars because they couldn’t afford bail, while high-risk defendants who were likely to engage in new criminal activity and who paid bail were released” (ACJC, 2017: 17).

A review of defendants released pretrial from 2014 to 2015 in Alaska found that the likelihood that a person released from jail on bail would fail to appear (FTA) for their court hearings was 14 percent. The likelihood that they would be re-arrested on another offense while out on bail was 37 percent (Crime and Justice Institute, 2017).

Alaska’s new pretrial assessment tool will improve these numbers and public safety, according to Geri Fox. Fox leads the Alaska Department of Corrections’ Pretrial Enforcement Division. The division, created in 2016, is performing pretrial risk assessments on all defendants, as well as providing court reports and recommendations, monitoring individuals released pretrial, and providing other pretrial supervision services.

Risk assessment tools are being used throughout the country in pretrial, sentencing, probation, and parole. This article looks at risk assessment tools in general and the development of Alaska’s pretrial risk assessment tool.

History of assessment tools

The use of predictive models in criminal justice goes back to the 1920s and efforts to address crime by incapacitating “career criminals” (Kehl, Guo, & Kessler, 2017: 3). Many early models relied on simple math and the assessment of correctional staff and clinical professionals. In the 1960s and early 1970s, studies questioned criteria being used by the models, their accuracy, and individual fairness (Kehl et al., 2017: 4–5).

Over time, risk assessment tools have evolved, with the largest shift accompanying a movement toward evidence-based practices. “Evidence-based risk/needs assessment instruments consider the interplay between static and dynamic risk factors,” according to Kehl at al. (2017: 8; emphases in original).

Static factors are those that do not change, including age at first arrest and current conditions as well as sentencing, probation, and parole. This article looks at risk assessment tools in general and the development of Alaska’s pretrial risk assessment tool.
charge. Dynamic factors are those that can change over time, including current age, employment status, and whether a person has a substance use disorder. Dynamic factors are often used to determine programming and treatment in addition to risk, since they provide a window into an offender's criminogenic needs. These factors, which are collected in interviews, have the potential drawback of perpetuating gender and racial bias.

The drawback of static factors is that their immutability makes it more difficult for a defendant to show positive behavioral change (Bonta & Andrews, 2007). The latest generation of risk assessment tools use complex algorithms and large data sets that can be tweaked and adjusted over time to new data.

**Alaska’s pretrial tool**

Alaska worked with the Crime and Justice Institute (CJI), a division of the Boston-based nonprofit research and analysis organization Community Resources for Justice, to develop an Alaska-specific pretrial risk assessment tool for two reasons. First, while pre-existing open tools such as the Arnold Foundation’s Public Safety Assessment (PSA) are available, they have not been validated against Alaska populations. Second, many off-the-shelf commercial tools are proprietary — details of how they work are not made public, which has caused some challenges. (See “Proprietary and open risk assessment tools,” below.)

CJI used sample data from the Department of Corrections, Alaska Court System, and Department of Public Safety that was comprised of defendants who were either released from custody during the pretrial period (N=20,456) or who were detained and released on or after disposition of their case (N=8610). After cleaning and coding, 19,188 cases were identified to develop the pretrial risk assessment of failure to appear (FTA) and new criminal arrest (NCA).

Similar to PSA, Alaska decided to use only static risk factors. These factors are collected electronically without the need for an interview.

CJI found that not all potential risk factors had strong correlations with FTA or NCA by gender and race (Table 1).

In addition, risk factors for FTA did not always predict well for NCA. For instance, total prior FTA warrants, FTA warrants in the past 3 years, and current FTA charge were all found to be predictive of future FTA, but not predictive of NCA. As a result, two scales were developed to contain the strongest

<table>
<thead>
<tr>
<th>Table 1. Risk Factors and Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not all potential risk factors had strong correlations with</strong></td>
</tr>
<tr>
<td><strong>Failure to Appear (FTA), New Criminal Arrest (NCA), gender, or race.</strong></td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Current age</strong></td>
</tr>
<tr>
<td><strong>Current DUI</strong></td>
</tr>
<tr>
<td><strong>Current drug</strong></td>
</tr>
<tr>
<td><strong>Current public order</strong></td>
</tr>
<tr>
<td><strong>Prior felony arrests</strong></td>
</tr>
<tr>
<td><strong>Prior convictions</strong></td>
</tr>
<tr>
<td><strong>Current probation charge</strong></td>
</tr>
<tr>
<td><strong>Prior domestic violence arrests</strong></td>
</tr>
</tbody>
</table>

*Source: Crime and Justice Institute, 2017*

### Proprietary and open risk assessment tools

Alaska, Virginia, and Pennsylvania use risk assessment tools developed specifically for their state. Most, jurisdictions, though, use one of the commercial risk-assessment tools. The Level of Service Inventory – Revised (LSI-R), developed by Multi-Health Systems (the LSI-R isn’t used in pretrial), and COMPAS, created by the Northpointe company are two popular tools. These commercial tools employ both static and dynamic factors. COMPAS, which uses proprietary software and offers little transparency regarding its calculations, has been the subject of controversy. In a recent ProPublica investigative journalism piece on the use of COMPAS in Broward County, Florida, it was found that the tool predicted re-arrest at an accuracy rate of 61 percent, “somewhat more accurate than a coin flip.” ProPublica also found that the COMPAS algorithm predicted black offenders to be “future criminals” at twice the rate of white offenders (Angwin, Larson, Mattu, & Kirchner, 2016; see also State v. Loomis, 2016).

In 2014, U.S. Attorney General Eric Holder voiced concern about risk assessment tools. “Although these [risk assessment] measures were crafted with the best intentions, I am concerned that they may inadvertently undermine our efforts to ensure individualized and equal justice.” Speaking at the annual meeting of the National Association of Criminal Defense Lawyers, Holder added that the tools “may exacerbate unwarranted and unjust disparities that are already far too common in our criminal justice system and our society.”

Risk assessment tools used for pretrial decisions generally focus on static risk factors. The Public Safety Assessment (PSA), developed by the Laura and John Arnold Foundation, is used by 29 jurisdictions in the country including all of Arizona, Kentucky, and New Jersey (Kehl et al., 2017: 10). PSA uses a narrow group of static risk factors — offender’s age at time of arrest, criminal history, prior FTA’s — and is based on data from 1.5 million crimes spanning 300 U.S. jurisdictions. Unlike proprietary, blackboxed commercial tools such as COMPAS, PSA makes all factors open to public scrutiny.

Lucas County, Ohio adopted the PSA tool in January 2015. A study funded by the Arnold Foundation found no race or gender bias in outcomes. Those released without bail increased from 14 percent to about 28 percent. Those out on release who were arrested for another crime was cut from 20 percent to 10 percent (Tashea, 2017).
predictors for each measure (Tables 2 and 3). (Judges will have to reconcile the two scales when using the new bail statute that only refers to one scale. Suggestions for reconciling this include using the highest on either scale to determine highest risk; see Table 4.)

Once the list of predictors was established, they were tested in terms of gender and race to make sure that they were equally predictive whether a defendant was male or female, White or Alaska Native (CJI, 2017).

The judge is still going to consider statutory guidelines such as the nature and circumstances of the offense, weight of the evidence, family ties, employment, length of residence, conviction record, FTA record, danger defendant poses to the victim, and reputation, character, and mental condition (AS 12.30.020 (i)).

Prosecutors and defense attorneys will receive information from the tool prior to a bail hearing and continue to play a critical role in assisting the court with relevant information, according to Fox.

“The judge has limited time to look at a case, try to understand it, and evaluate the risk. Alaska will now have an assessment to provide judges with some actuarial, statistical analysis of what we might be able to expect with defendants,” Fox said.

The Pretrial Enforcement Division will use the highest score of the two scales when considering recommendations for the Court, according to Geri Fox.

### Table 2. Failure to Appear (FTA) Scale

<table>
<thead>
<tr>
<th>Six risk factors</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at first arrest</td>
<td>0 = 22 and older</td>
</tr>
<tr>
<td></td>
<td>1 = 21 and younger</td>
</tr>
<tr>
<td>Prior FTA warrants</td>
<td>0 = 0 prior FTA warrants ever</td>
</tr>
<tr>
<td></td>
<td>1 = 1 prior FTA warrant ever</td>
</tr>
<tr>
<td></td>
<td>2 = 2 or more prior FTA warrants ever</td>
</tr>
<tr>
<td>FTA warrants in last 3 years</td>
<td>0 = 0 prior FTA warrants in past 3 years</td>
</tr>
<tr>
<td></td>
<td>1 = 1 prior FTA warrant in past 3 years</td>
</tr>
<tr>
<td></td>
<td>2 = 2 or more prior FTA warrants in past 2 years</td>
</tr>
<tr>
<td>Current FTA</td>
<td>0 = No current FTA charge</td>
</tr>
<tr>
<td></td>
<td>1 = Yes current FTA charge</td>
</tr>
<tr>
<td>Currently property charge</td>
<td>0 = No property charge on current arrest/case</td>
</tr>
<tr>
<td></td>
<td>1 = Yes at least one property charge on current arrest/case</td>
</tr>
<tr>
<td>Currently motor vehicle charge (non-DUI)</td>
<td>0 = No motor vehicle charge on current arrest/case</td>
</tr>
<tr>
<td></td>
<td>1 = Yes at least one motor vehicle charge on current arrest/case</td>
</tr>
</tbody>
</table>

| Total points possible                  | 0 to 8 points possible        |

*Source:* Alaska Department of Corrections, Pretrial Enforcement Division

### Table 4. Score Matrix

<table>
<thead>
<tr>
<th>Failure to Appear (FTA)</th>
<th>New Criminal Arrest (NCA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total risk score</td>
<td>Risk level</td>
</tr>
<tr>
<td>0–4</td>
<td>Low</td>
</tr>
<tr>
<td>5–6</td>
<td>Moderate</td>
</tr>
<tr>
<td>7–8</td>
<td>High</td>
</tr>
</tbody>
</table>

*Source:* Alaska Department of Corrections, Pretrial Enforcement Division

### Table 3. New Criminal Arrest (NCA) Scale

<table>
<thead>
<tr>
<th>Six risk factors</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at first arrest</td>
<td>0 = 22 and older</td>
</tr>
<tr>
<td></td>
<td>1 = 21 and younger</td>
</tr>
<tr>
<td>Arrests in last 5 years</td>
<td>0 = 0 prior arrests in past 5 years</td>
</tr>
<tr>
<td></td>
<td>1 = 1 to 2 prior arrests in past 5 years</td>
</tr>
<tr>
<td></td>
<td>2 = 3 or more prior arrests in past 5 years</td>
</tr>
<tr>
<td>Convictions in last 3 years</td>
<td>0 = 0 prior convictions in past 3 years</td>
</tr>
<tr>
<td></td>
<td>1 = 1 prior conviction in past 3 years</td>
</tr>
<tr>
<td></td>
<td>2 = 2 or more prior convictions in past 3 years</td>
</tr>
<tr>
<td>Sentences that included probation</td>
<td>0 = 0 prior probation sentences</td>
</tr>
<tr>
<td></td>
<td>1 = 1 prior probation sentence</td>
</tr>
<tr>
<td></td>
<td>2 = 2 or more prior probation sentences</td>
</tr>
<tr>
<td>Sentences in past 5 years that included probation</td>
<td>0 = 0 prior probation sentences in past 5 years</td>
</tr>
<tr>
<td></td>
<td>1 = 1 prior probation sentence in past 5 years</td>
</tr>
<tr>
<td></td>
<td>2 = 2 or more prior probation sentences in past 5 years</td>
</tr>
<tr>
<td>Sentences that included incarceration not wholly suspended in past 3 years</td>
<td>0 = 0 prior incarcerations in past 3 years</td>
</tr>
<tr>
<td></td>
<td>1 = 1 or more prior incarcerations in past 3 years</td>
</tr>
</tbody>
</table>

| Total points possible                        | 0 to 10 points possible       |

*Source:* Alaska Department of Corrections, Pretrial Enforcement Division
Although judges have discretion to make bail decisions, research shows that when presented with an algorithm, judges and prosecutors frequently give the actuarial analysis more weight. Rejection of the algorithm is often based on bias (Christin, Rosenblat, & Boyd, 2015: 7).

Studies also suggest that a well-designed algorithm may be far more accurate than a judge alone (Neufeld, 2017).

Prosecutors and defense attorneys will receive information from the tool prior to a bail hearing and continue to play a critical role in assisting the court with relevant information, according to Fox.

Transparency and oversight are two features of assessment tools that critics call essential to reducing inequities (Tashea, 2007).

Fox is committed to continuing to improve Alaska’s tool while providing information about how it is being used. (See “Limitations and quality assessment of Alaska pretrial screening tool” below.)

Pamela Cravez is editor of the Alaska Justice Forum.

References

Limitations and quality assessment of Alaska pretrial screening tool

Some of the strategies the Pretrial Division team will use to ensure quality pretrial assessment is a process they refer to as Inner-Rater Reliability (IRR), according to Pretrial Division Director Geri Fox. Every month, approximately six percent of all assessments will be scored by another officer who is unaware that the assessment was previously scored. When errors are detected, officers will receive coaching to assist them with future assessment. Officers also receive initial training and follow up training to ensure quality assessment. Finally, the software application has internal checks to reduce potential errors, according to Fox.

Juvenile convictions are not generally part of pretrial assessment tools, Fox pointed out.

The current Alaska pretrial assessment tool lacks out-of-state criminal history information due to FBI security rules for criminal justice data. However, over the next year, Fox’s team will collect information about out-of-state convictions. A new validation study will be completed to include out of state criminal history as part of future pretrial assessments. In the meantime, judges have discretion in most cases to factor any out-of-state criminal history into release decisions. Multiple data points will be tracked over the next few years and outcomes of the new pretrial functions monitored, according to Fox.

The tool will change over time, Fox says, as information is collected about its effectiveness. It will continue to improve. “This is part of the reason criminal justice systems have adopted evidence based practices. Information and quality data can assist with future policy making to enhance public safety.“

The Crime and Justice Institute webinar “Alaska Pretrial Risk Assessment” describes the risk assessment tool, and can be viewed by registering name and email address at https://attendee.gotowebinar.com/recording/1467307448127263490.

Alaska’s evidence-based investment

As we enter a new year, there is heightened awareness of the important goals of public safety and investing state dollars wisely. Evidence-based practices — those which have undergone rigorous academic study — have been incorporated in Alaska and other places with the goal of addressing both of these concerns. In this issue, we look at a new evidence-based practice, the pretrial risk assessment tool, and a recent report that provides a benefit cost analysis of Alaska’s more established evidence-based programs designed to reduce recidivism.

It will take a while before we know whether Alaska’s new pretrial risk assessment tool will improve public safety and reduce criminal justice costs as intended. What we do know, however, is that most of Alaska’s evidence-based adult criminal justice programs are showing positive return on state investment of money. The Alaska Justice Information Center’s (AJiC) Alaska Results First analysis not only shows the benefit to cost ratio — or monetary return on the state’s investment — it also provides tools for assessing how changing the cost structure and delivery method can impact benefit to cost ratios of current programs as well as providing benefit to cost ratio estimates for prospective programs. An added benefit to the analysis — a new eight-year recidivism rate study.

As always, I encourage you to go online to read the Alaska Justice Forum where you will find the full AJiC Alaska Results First report as well as a video discussion of the new pretrial risk assessment tool.

Pamela Cravez
AlaskaJusticeForum@alaska.edu
Benefit vs. cost of Alaska criminal justice programs

In October 2017, the Alaska Justice Information Center (AjIC) released its Alaska Results First (RF) report on Alaska’s adult criminal justice programs. The report found that approximately $20.58 million in state funds were invested annually in 19 programs whose effectiveness has been evaluated by academic studies and rigorous reviews. Using Alaska-specific inputs, including program costs, recidivism patterns, and criminal justice system costs, along with national criminal justice data from the Pew-MacArthur Results First Initiative, Alaska RF provides a benefit cost analysis of the state’s investment in evidence-based programs.

Benefits and costs

The benefit to cost ratio, or monetary return on the state’s investment in adult criminal justice programs, was calculated by comparing program costs with costs avoided by a program’s ability to reduce recidivism. Avoided costs — or benefits — include avoided future criminal justice costs and avoided future victimization costs.

In order to calculate a program’s ability to reduce recidivism, AjIC needed to understand Alaska’s patterns of recidivism without the programs. To do this, AjIC collected information on all convicted offenders released from Alaska Department of Corrections (DOC) institutional custody in 2007. Because of the date of release, these individuals had likely not participated in the evidence-based programs.

Calculating recidivism

AjIC developed nine cohorts from among the offenders released in 2007. These cohorts were made up of groups of offenders who would have been eligible to participate in the evidence-based programs. Table 1 shows the characteristics of offenders selected for each cohort.

The cohorts were tracked for eight years following their release from DOC institutional custody in 2007. AjIC used information from the Department of Public Safety to determine when individuals in the cohorts had been arrested for a new crime that resulted in a conviction. This information made it possible to compute the percentage of those who recidivated from the release date through the end of each year during the follow-up period, or the cumulative recidivism rate.

AjIC used national data for evidence-based programs similar to those in Alaska to estimate the recidivism reduction rate that could be expected if individuals participated in Alaska’s programs. The criminal justice administration costs and costs to victims that would be avoided due to this recidivism reduction were also computed. This “benefit” was then weighed against the program’s costs to arrive at a benefit cost ratio.

The Alaska RF model provides new information including eight-year cumulative recidivism rates, how effective a program may be at reducing recidivism, how changing cost structure and delivery method can impact benefit to cost ratios and the ability to gauge benefit to cost estimates for prospective programs.

Alaska Results First Initiative

A shorter version of this article appeared in the Winter 2018 print edition.

https://www.uaa.alaska.edu/ajic/
The RF model may also be used to assess the benefit to cost ratio of new programs — providing an estimate of how a new program would impact recidivism and its return on investment using Alaska criminal justice costs.

In the following article, Araceli Valle, author of the Alaska RF report, discusses how tracking offenders for eight years for the RF project is adding to our understanding of recidivism in Alaska.

**Table 1. Cohorts in Alaska’s Results First Model**

<table>
<thead>
<tr>
<th>Name</th>
<th>Participant selection criteria*</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prison (GT120)</strong></td>
<td>Stay associated with a felony conviction</td>
<td>1,081</td>
</tr>
<tr>
<td></td>
<td>Incarcerated for more than 120 days</td>
<td></td>
</tr>
<tr>
<td><strong>Probation (LTE120)</strong></td>
<td>Stay associated with a felony conviction</td>
<td>1,279</td>
</tr>
<tr>
<td></td>
<td>Incarcerated for less than or equal to 120 days</td>
<td></td>
</tr>
<tr>
<td><strong>GT120 Prison Mix</strong></td>
<td>Incarcerated for more than 120 days</td>
<td>1,200</td>
</tr>
<tr>
<td></td>
<td>900 (75%) randomly selected from offenders whose stay was associated with a felony conviction; 300 (25%) from those whose stay was associated only with misdemeanors b</td>
<td></td>
</tr>
<tr>
<td><strong>Sex Offender</strong></td>
<td>Stay associated with a sex offense (excluding failure to register as a sex offender.)</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>Male offender</td>
<td></td>
</tr>
<tr>
<td><strong>Felony DUI</strong></td>
<td>Stay associated with a felony DUI conviction</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Offender had at least one prior DUI conviction</td>
<td></td>
</tr>
<tr>
<td><strong>Misdemeanor DUI</strong></td>
<td>Stay associated with a misdemeanor DUI conviction</td>
<td>533</td>
</tr>
<tr>
<td></td>
<td>No felony offense associated with this stay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Offender had at least one prior DUI conviction</td>
<td></td>
</tr>
<tr>
<td><strong>Drug Court</strong></td>
<td>Stay associated with a felony alcohol or drug offense</td>
<td>527</td>
</tr>
<tr>
<td></td>
<td>Stay NOT associated with an unclassified or A-level felony, a homicide or an offense involving drug distribution c</td>
<td></td>
</tr>
<tr>
<td><strong>Mental Health Proxy</strong></td>
<td>Random sample drawn to match most serious offense distribution found among FY15 Mental Health Court participants</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Domestic Violence Proxy</strong></td>
<td>Stay associated with a DV-associated statute d</td>
<td>2,325</td>
</tr>
<tr>
<td></td>
<td>Male incarcerated for less than or equal to 120 days</td>
<td></td>
</tr>
</tbody>
</table>

a. All cohorts were based on offenders discharged from DOC facilities during 2007, after an incarceration stay for an original criminal offense. Offenses associated with the incarceration stay were used to qualify the offender for a cohort. (See Valle, 2017, Appendix E.)
b. The 75% felon and 25% misdemeanor mix was based on the distribution of offenders in the PsychEd program.
c. Based on rules set for the Anchorage Wellness court.
d. Based on analysis of offenses with DPS DV conviction flag in a DPS 2012 arrest conviction data set. (See Valle, 2017, Appendix E.)

**Reference**

Expanded view of recidivism in Alaska

Araceli Valle

Recidivism is a problem, both nationally and in Alaska, with many who are released from prison returning to the criminal justice system convicted of new crimes. As part of its Alaska Results First (RF) analysis, the Alaska Justice Information Center (AJiC) looked at recidivism rates for individuals convicted of crimes who were released from an Alaska Department of Corrections (DOC) facility in 2007. By following these offenders for eight years, AJiC is expanding our understanding of recidivism patterns for a large group of offenders, beyond any prior study.

While AJiC’s analysis is consistent with older two and three-year studies of recidivism conducted by the Alaska Judicial Council (Carns et al., 2007; Carns et al., 2011), additional years of study surface questions about recidivism patterns related to offense type and changes that occur beyond three years.

Differences among offense-based cohorts

Within the framework of the RF analysis, recidivism was defined as a new criminal conviction, measured by the time of the arrest that resulted in the conviction. Only the conviction for the first re-offense was counted when calculating recidivism. (Offenders were tracked a year and a half beyond the 8-year period to address lag time between arrest and conviction.)

To illustrate differences in recidivism related to crime type, we focused on recidivism for four groups of offenders. These RF cohorts were defined based on criteria for domestic violence (DV), sex offender, and Driving Under the Influence (DUI) therapeutic court programs.

Cumulative recidivism curves, like those in Figure 1, show the percentage of offenders who have recidivated for the first time by a given year. For example, among DV offenders, 41 percent recidivated in the first year after release. By the second year, 54 percent had recidivated and by the third year, 62 percent. By the eighth year, approximately 75 percent of offenders in this cohort had recidivated.

In general, recidivism curves rise sharply in the first year, and then begin to flatten.

Although all RF cohorts followed this trend, there were differences among cohorts. Some cohorts rose more sharply, some flattened more quickly, demonstrating the differences in cumulative recidivism among the cohorts. For instance, although the percentage of first time recidivists is highest in the first year among all cohorts, the rate for the DV cohort is 20 points higher than other cohorts.

Overall, the DV cohort had the highest rate of recidivism, and the sex offender cohort had the lowest rate, during each year of the follow-up period. DUI cohorts had recidivism rates in between these two. The greatest difference occurred in the third year, when 62 percent of offenders in the DV cohort and 35 percent of those in the sex offender cohort had recidivated.

Looking at the pattern beyond the three-year mark (the vertical line in Figure 1) we see that the gradual flattening of the recidivism curve does not continue smoothly among all cohorts. Curves for the DUI felon and sex offender cohorts begin to steepen slightly during the last two years, rather than continue to flatten.

In the following, we look at the three general offense types: sex offenders, domestic violence, and DUI offenders (misdemeanor and felony). We also look at cumulative recidivism rates of felons versus misdemeanants.

Least likely to recidivate: Sex offenders

After one year, 20 percent of sex offenders had recidivated, similar to the rate for the DUI-related cohorts. By year two, sex offenders had the lowest rate of recidivism of all cohorts. Over half remained clear of a new conviction for seven years after release. In all other cohorts, more than half of offenders recidivated by the fifth year or earlier.
Overall, these results are consistent with prior reports that sex offenders are less likely to recidivate than other offenders (Carns et al., 2007; Carns et al., 2011; Durose et al., 2014). Nonetheless, the steepening of the curve in the last two years surfaces questions about what might be accounting for a rise in recidivism when offenders are tracked for a longer period of time and how this trajectory might look if tracked even longer.

Consistent with prior research, when sex offenders recidivated, they were most often convicted of a misdemeanor (Myrstol, Rivera, & Parker, 2016). The RF analysis found 70 percent convicted of a misdemeanor and less than 10 percent convicted of another felony sex offense.

**Most likely to recidivate: DV**

Domestic violence is defined by Alaska Statute 18.66.990. A DV offense is determined by the relationship between the offender and the victim, and may involve a variety of offenses, including murder, assault, burglary, criminal trespass, arson, terroristic threatening, harassment, and violating a protective order. The Department of Public Safety (DPS) maintains a DV-conviction flag in offenders’ criminal history, but the information is not available in DOC records.

AJiC used DPS records from 2014 to identify the distribution of offenses associated with a DV-conviction. Misdemeanor assault (65.4%), violation of a DV protective order (7.1%), and assault 3 (5.3%) accounted for 77 percent of DV offenders who recidivated committed another offense associated with a DV-conviction flag. A third of these offenses were assaults, most often assault in the fourth degree, a misdemeanor (Valle, 2017: 36).

**Felons versus misdemeanants**

The upturn in the felony DUI but not the misdemeanor DUI curves, and upturn in the

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By following offenders for eight years, AJiC expands our understanding of recidivism patterns in Alaska.

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**Figure 2. Cumulative Recidivism Rates (2007–2015): Felons versus Misdemeanants**

Recidivism was defined as any new criminal offense that resulted in a conviction.

![Cumulative Recidivism Rates](chart.png)

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**DUI offenders**

Offenders convicted of DUI offenses were more likely to be reconvicted than sex offenders, and less likely to be reconvicted than DV offenders.

Recidivism patterns for DUI misdemeanant and DUI felon cohorts were very similar for the first four years after release, but then diverged. At eight years, felons had a 10-point higher rate of recidivism than misdemeanants (66% versus 56%).

For misdemeanor DUI offenders, the cumulative recidivism curve flattens beginning in year five. In each of the next four years, only about two percent were added to the ranks of recidivists.

In year five, the curve for felony DUI diverges from the misdemeanor curve, becoming steeper, and showing a higher cumulative recidivism rate. In the eighth year, the felony DUI curve turns upward. Here, as in the sex offender cohort, the longer time line surfaces questions about what might be influencing an upswing in recidivism when we look farther out. What would we see if we were to extend our analysis beyond year eight? Would it continue to go up, level off, or go down?

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Sex offender but not the mostly (85%) misdemeanor-based DV cohort, raises questions about what we might find if we looked at patterns of recidivism among general groups of felons versus misdemeanants over an eight-year period. Information collected by AJiC researchers while doing the RF analysis made it possible to do this analysis.

In the RF analysis, reconviction data were established for all convicted offenders released from DOC in 2007, but recidivism rates were only computed for the cohorts used to model RF programs. To compute cumulative recidivism for all felons, we identified offenders whose jail time was associated with at least one felony...
conviction (N = 2,360). For misdemeanants, we included those with no felony convictions and at least one misdemeanor conviction (N = 8,659). Results are shown in Figure 2.

Offenders are at greatest risk for a return to crime during their first year post-release. Close to a third of offenders were arrested and later convicted of crimes committed during this period. This is more than twice the rate of first time recidivism seen in any other year. This result is important for policy because it suggests that the immediate reentry period is critical. Programs that facilitate the transition back to the community may have a particularly positive impact on recidivism.

When we look at all felons and misdemeanants in the eighth year, the felons who had been less likely than misdemeanants to recidivate initially are slightly more likely to do so.

At first, cumulative recidivism is slightly higher for misdemeanants than for felons, consistent with prior results (Carns et al., 2011). However, beginning in the third year, the curve for misdemeanants flattens more quickly than that for felons. The difference between the cohorts becomes smaller, until year five, when the two lines overlap for a couple of years. By year seven, the recidivism rates are slightly higher for felons than for misdemeanants.

For misdemeanants, the recidivism curve continues to flatten through the eight-year follow-up period. In contrast, the percentage of felons who recidivated for the first time increases in the eighth year over the prior year.

The general felony and misdemeanor analysis mirrors the findings of our RF cohort analysis, surfacing questions about why we are seeing a slight uptick in recidivism when we look farther out.

**Conclusion**

Recent AJIC research to support Alaska RF is providing a more nuanced look at recidivism among Alaska’s criminal offenders. In general, the RF findings corroborate reports of recidivism patterns one to three years after release (Carns et al. 2007; Carns et al., 2011). In particular, these results confirm the critical importance of supporting the early transition to the community.

What sets the RF study apart, however, is that it explores conviction patterns for general offenders beyond three years. This allows us to extend patterns and surface questions about longer term recidivism. Recidivism curves continue to flatten beyond the three-year mark of previous Alaska studies. However, this trend begins to change by year six.

In year six, we begin to see a difference between felony offense-based cohorts and misdemeanor cohorts. The felony cohorts’ recidivism curves rise more steeply relative to previous years while the misdemeanor curves continue to flatten. When we look at all felons and misdemeanants in the eighth year, the felons, who had been less likely than misdemeanants to recidivate initially, are slightly more likely to do so. Taken together, these findings hint at a possible emergence of higher long-term recidivism for felons versus misdemeanants.

Further exploration of long-term patterns is important to understand factors that might explain and mitigate an increase in risk of recidivism after many crime-free years.

**References**


This presentation appears exclusively in the online edition of the Alaska Justice Forum.

Alaska pretrial risk assessment tool

Geri Fox and Pamela Cravez

This is a transcript of a video presentation, which can be found at https://youtu.be/wYEP3wDnVVQ

Alaska Pretrial Risk Assessment Tool

Geri Fox, Director, Pretrial Enforcement Division, Alaska Department of Corrections

Pamela Cravez, Editor, Alaska Justice Forum

Geri Fox, Director of the Pretrial Enforcement Division, Alaska Department of Corrections, and Pamela Cravez, editor of the Alaska Justice Forum

Pam Cravez:

I’m Pam Cravez, editor of the Alaska Justice Forum at UAA’s Justice Center.

I’m here with Geri Fox, who heads up the Alaska Department of Corrections’ new Pretrial Enforcement Division.

This division, beginning January 1st, 2018, is providing courts throughout the state information about defendants who are up for their first pretrial hearing. The information comes from a new pretrial risk assessment tool. The tool calculates whether a defendant is high, medium, or low risk for failure to appear at their next court appearance or for committing a new crime if released pretrial.
Geri, you’ve spent the last year going around the state and talking with judges and lawyers and law enforcement about this new pretrial risk assessment tool. Can you tell us a little bit about the tool and the work that you are doing and how you’ve come to this work?

**Geri Fox:**

Yeah, I have been in correctional work now for more than 20 years, so it really is my life’s work — this is where I have developed some academic background, as well as a practitioner background.

And so, in my work in this area, I have really familiarized with evidence-based practices. I started working with evidence-based models about 15 years ago or so, and I’ve been introducing those in almost every capacity ever since.

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**Why is Alaska using a pretrial assessment tool?**

- Evidence-based practice
- 81% growth in pretrial inmates

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So, Alaska chose to take on an evidence-based model for our state, so when pretrial came about, I started really digging in and trying to learn about how we got here.

So one of the ways we got here is we have an 81 percent growth in our unsentenced population that is remaining behind bars, and in most cases these people are eligible for bail. So the question becomes, how are we growing at this kind of rate? It did not make sense with what we see in terms of our conviction rate. So that was one of the things that was really a red flag. Something seemed wrong in our pretrial justice system.
And we also have two baselines now that tell us a lot about what’s happening in Alaska and how a new pretrial assessment process will affect the future.

One of those baselines is for our failure to appear measurement. What we know is that if we let a defendant out of jail approximately 14 percent of those individuals will fail to appear for court.

We also now know that if someone is released from custody, there’s about a 37 percent likelihood that they will be rearrested for a new criminal offense before they ever go to trial.

Those are those are pretty telling numbers, and it gives us a starting point as we release a new assessment tool to let us know how we’re doing in the future.

▶ Pam Cravez:
So you’ll be able to measure the success of this new pretrial assessment tool if the numbers of people who are held in jail goes down, pretrial, and also, if these other numbers go down — that you have fewer people failing to appear and fewer people committing a new crime if released pretrial on bail.

▶ Geri Fox:
And there’s all kinds of ways to interpret numbers as well, so we need to look at down the road why numbers shift and in what ways they shift.

There are really three pillars that all have to be balanced in pretrial — a good pretrial model — so good pretrial models find the bright balance between releasing people and achieving public safety and court appearance.
So those are the three things that we need to measure: What does happen to incarceration rates? — Do we continue this 81% growth in the incarcerated population? It's a really important number that we're going to watch.

Another thing as well — if we if we have more people out, for example: What happens to failure to appear rates? Do they go up slightly, do they go down slightly?

And how do we balance that with public safety? So those three pillars really do tell us the overall effectiveness of a pretrial process.

➤ Pam Cravez:
So how does an assessment tool help address what’s happening to the population?

➤ Geri Fox:
Great question. So the assessment tool will help us know who is a lower risk for pretrial failure and who is a higher risk for pretrial failure. There’s a lot of detail around what those terms even mean, but an assessment tool gives the judiciary a way of objectively evaluating whether or not we’re comfortable with certain types of releases — under what conditions we should make those releases — and particularly a risk assessment helps those who are experiencing conditions of poverty achieve release if in fact they are a lower risk anyway.

So we’ve never known much about risk. What we knew is, do you have the ability to pay? That was mostly how our justice system has made release decisions. And so we end up with disparities — unintentional disparities in our system with regard to who gets released and who doesn’t, and what we missed was risk. I mean it just seems so obvious, right? — so obvious. I mean, when I talked to the public about what risk assessment does, they’re like, we haven’t been doing risk assessment? What? How did we miss that? So now we are in our state, and it’s a national trend that we’re seeing.

➤ Pam Cravez:
So we’re doing it in our state, and it’s a national trend. How do people develop risk assessment tools?

➤ Geri Fox:
It’s an advanced calculation — a statistical calculation. So risk assessment tools are developed in a variety of ways. Alaska chose to develop our risk assessment tool from drawing upon Alaska data. So there are tools in Ohio, and there’s tools in New Jersey, and there’s tools that are used in Kentucky. And those they’re all great, but those are not based on the population from Alaska.
And our representatives asked for a validated assessment tool. What that means is we need to look at Alaska. We need to look at our population, and so that’s what we did. We’ve spent the last year pulling data from all kinds of different resources, and then researchers from various fields, whose expertise is in criminal justice risk assessment, helped us develop an assessment tool.

► Pam Cravez:
What does the tool measure?

What does the tool measure?

• Likelihood for failure to appear
• Likelihood of new criminal arrest

► Geri Fox:
Another good question.

So the tool measures a likelihood for a failure to appear, and that means if someone is released after they’re arrested and they’re awaiting their trial, what’s the likelihood they’re gonna come back to court? That matters in a criminal justice release decision, right? We want to know that okay, if you if you go out, will you come back to court? So the first piece is failure to appear.

The next measurement is the likelihood of a new criminal arrest. So, arrest does not equal conviction. People may be arrested, and about 30 percent of people who are arrested will have their case dismissed. So an arrest is merely an arrest — it does not imply an ultimate conviction.

► Pam Cravez:
What are the factors that go into this model? So I’m assuming you look at things like, well, have they committed crimes in the past, or have they failed to appear in the past — that help you determine whether they’re going to do this again. Well, how do you know that these, you know, which are the right factors and how does this tool actually figure out these factors?

► Geri Fox:
Yeah. So this is part of really understanding how tools are created. Our remarkable researchers ran more than 4,000 statistical calculations to find out what of those decisions or factors actually matter. What becomes predictive in determining those two things — your likelihood to appear for court or your likelihood for a new arrest?
And so what we found was there are six factors that are most likely to predict someone’s failure to appear and six factors that are most likely to predict someone’s likelihood of a new arrest. There are things like, how many felony arrests have you had in five years? How many misdemeanor arrests have you had in three years? What was the age at your first arrest? Are you arrested on a property offense? Are you arrested on a motor vehicle offense?

So, sometimes we were surprised by what a risk factor ended up being in our state, but what we did that was right — this is what is right about these things — is we let the data tell us what’s predictive.

**Pam Cravez:**
I also understand that in other states sometimes people use both static criteria — things like prior convictions, which never change — and criteria that do change — things like whether somebody has a substance abuse problem, or they’re employed, or maybe what their income is, or ties to the community that could also change. How are all of these factors considered in our new system of using this tool?

**Geri Fox:**
So, static risk factors are things, as you said, that don’t change. Those are things like your criminal background — once you have an arrest, you have an arrest. That’s not going to go away.
So we chose a static tool. A couple of reasons for that. If we choose a static tool, we don’t have to interview defendants, and that’s important for a couple of reasons: it can save money, it can speed up the process, and a lot of our defense attorneys don’t really want us talking with defendants at that point after an arrest.

There are other states that do a dynamic AND static assessment. Usually they’re a combined thing. You don’t just have one or the other, if you have a dynamic component. So most states that do have a dynamic component have static questions, just like Alaska, and then they ask a couple of other things.

One common example is, “Do you have a cell phone?” or “Do you have a telephone?” — which we think — wait! oh, yeah — well, maybe that IS important so you can get a hold of someone, right? But what we find is, that is not a predictor of how you do. It might be helpful for the court to know, and for years we’ve developed tools based on the things that we thought would matter, right. So you — if you have employment, well, THAT should matter — that you’ll show up to court if you have a job, and you’ll show up to court if you have a cell phone, and you will show up to court if you have a stable residence — and what the research tells us is those things are not necessarily predictive. They’re helpful to know, they’re helpful in getting ahold of a defendant, but it doesn’t necessarily predict if you show up.

So states do have dynamic factors that also ARE predictive. One of the things that can be predictive in a state is substance abuse history or a mental health condition. Those things MAY be predictive.

So it depends on the state, and it depends on what kind of cost and timeline the state wants. What we know as static and dynamic tools tend to perform about equally so one is not necessarily better or worse — they tend to perform fairly, fairly equally.

So Alaska chose a good model that is cost-effective, and it gets the job done.

Pam Cravez:

What about racial and gender bias? I know with a lot of static features — engrained in those static features are inherent biases that have to do with gender and race and other things. How are these accounted for in a tool that is using static criteria?

Racial and Gender bias

- Make sure tool does not perpetuate bias
- Controlled for gender, race, ethnicity

Geri Fox:

We want to make sure that our tool doesn’t perpetuate bias. So, we can’t necessarily determine if we have disparate arrest rates, for example, for a population. A pretrial tool doesn’t resolve that. But what we don’t want it to do is PERPETUATE that.

So when we developed our tool, we specifically controlled for events like, does gender make a difference? If you’re a male or female, does the tool perform differently based on your gender? Is the tool performing differently if you are Alaska Native or Caucasian or a Spanish speaker?
And so our researchers are able to control for those kind of factors and make sure that those variables don’t affect the performance of the tool. So we specifically validated an instrument that works across gender/race/ethnicity.

And of course, you know, there may be variables that we just simply don’t have data for, as well, that might end up revealing themselves as being something that we want to pay attention to down the road. But for now, we’ve developed a tool that’s controlled for those kinds of things. And so we don’t see it perpetuating bias.

▶ Pam Cravez:
How will you evaluate this tool to see whether it’s actually doing what you want it to do?

▶ Geri Fox:
So — evaluating an assessment tool is — it’s essential — and it’s true of any assessment tool in criminal justice — it constantly needs to be revalidated. So we will run data for a year. Along the way we’re going to be doing some spot checks, so let me assure the public that we’re doing a couple of quality assurance tests along the way. We have lots of fidelity pieces that help us know that we’re administering our tool properly, and at the end of a year we will hire a new researcher — a different researcher — so that we also eliminate some research bias, or at least we control for research bias, and we’ll bring someone in to take another look at how it’s performing.

And we might find that something’s changed. We may find that one of the factors we thought was important is not as important now, and so we might say, well, how does that happen? Well, for the same reason that we all a sudden have an opioid epidemic. So, things change in our population. Things change with employment. Things change with substance abuses or the types of crimes that are happening. And those things also affect a predictive validity of a tool.

▶ Pam Cravez:
Will all of the parties at court get the information from this tool at the hearing? I’m thinking, you know, we have defense attorneys and prosecutors and court officials. How do you envision this tool actually being employed at court?

▶ Geri Fox:
So distribution of a report is a logistical issue. It’s a challenge for us to work through. So we’ve worked through it.

I think we have a good solution. What we’ve done is created a log-on account to the Department of Corrections database, and all of our partners can get a log-on account. So private defense attorneys can get access to a log-on account, public defenders, the prosecutors and even the courts.

▶ Pam Cravez:
Is there anything else you’d like to tell me about this tool? — have we covered -?

▶ Geri Fox:
If I could talk a little bit about the things that judges can consider.

One of the realities of any assessment tool is, it’s not a crystal ball. There is no tool out there that will tell us a hundred percent of how an individual will behave 100 percent of the time. So we need to recognize that as a criminal justice system, and Alaska did with their statute.

So the tool’s a piece — it’s one piece that the judiciary can evaluate but there are about 12 other factors in our statute that a judge can evaluate when they make release decisions.

So they can look at things like what is the weight of evidence that is against a person at the time that they are arrested? And this matters, right? — so — when there are some cases that there’s some very clear kinds of indication that we’ve got a very serious matter on our hands, the judge can look at those things. The judge can consider the type and nature of the offense that we’re dealing with. So one as-
saught doesn’t necessarily look like another, and the judge needs some discretion, and how they think through some of these events that they have to make decisions about. A judge can consider the likelihood of threat to potential future victims.

So, there’s a variety of things that they can and should consider.

► Pam Cravez:

So from what I’m gathering, one of the limitations to this is that it cannot predict 100 percent. Is there a measure of how well it has been shown to predict in other places? — and actually this is two questions — and are there some things that you’ve not been able to put in the model?

► Geri Fox:

We have a starting point. We have a baseline, so we know where we’re starting. And the way that we got a baseline is, people get out of jail now, and so we looked at what happens when people get out of jail in our state, and how do they do?

And so what we find is that we have low-risk defendants that are getting out of jail and we have moderate-risk defendants that get out of jail and we have high-risk defendants that get out of jail currently in our state. And now we know, based on our research, how those populations tend to do. So we do have baselines, and then we’ll be monitoring those baselines in the future.

And it’s really important to also note that a pretrial risk assessment tool, although it has the word “risk” in the title, it’s not a measure for dangerousness. So when we say pretrial risk assessment, it doesn’t measure how dangerous a person is. Remember, it measures the likelihood of failure to appear or the likelihood of a new criminal arrest. And in our state if someone is rearrested in pretrial status, most of those are for lower level misdemeanor offenses.

So if you are a high-risk person on this assessment tool right now — and again, we haven’t even started assessing, but we can apply the scores to the population that has been released in the past — and what we know is about 58 percent of the high-risk population may be returned on a new criminal offense. What that means is about 42 percent are NOT returned on a new criminal offense. So this is what a judge has to evaluate. Are you maybe part of the 58 percent? Or are you part of the 42 percent?

And so that’s where it’s not a crystal ball. We don’t really know where that individual will fall in that. But what a judge now has is pretrial enforcement officers that can monitor an individual if indeed they secure release.
Pam Cravez:
Do judges know the way this tool has been developed and the standards for high risk and what percentages that they show? I mean, how have they been trained to understand that even a high-risk person may not commit a new crime?

Geri Fox:
I would say probably not well enough. I think that these are the kinds of details and nuances that — it takes time, really, to understand all the parts and pieces. It’s my life — it’s what — that’s how I spend my last 18 months. My whole life is pretrial — which is fine, and again it’s an honor to do it — but communicating all of these kinds of things, they take time.

Pam Cravez:
So the risk assessment tool seems like it’s something that mirrors what we see in the insurance industry and other industries that are trying to assess risk — often when it has to do with money. And this of course has to do with people’s lives.

Geri Fox:
So yeah, it’s called an actuarial assessment tool, and to some people that has meaning and to others they have no idea what that means. So the example I like to use is that we use these tools in all kinds of industry.

One is in the medical field. So when we go to our doctor they may collect our body weight. Perhaps they ask about your family history. Perhaps they ask if you smoke, right? And the reason that the medical professionals care about all these things that we do in our lives and the way that we eat and our body weight is because those things create risk factors that might lead to us having certain medical conditions. So an example would be, what’s the likelihood that you will develop heart disease? Well, perhaps you’re overweight. Perhaps there’s a family history of heart disease. Perhaps you are a smoker, right? So those are the risk factors.

So we use those kinds of modeling statistics in criminal justice. It’s the same kind of thing. So the modeling is very similar. But does it mean that someone who smokes will have heart disease? No, it doesn’t mean that. You know, we may have somebody who’s done everything right who ends up with heart disease, and that’s true in a criminal justice actuarial tool as well. It gives us a really great way to think about the probability or the likelihood of something happening, but it is not a guarantee.

Pam Cravez:
That’s a very good way of putting it as far as helping people understand that it’s just one factor among many to be considered, and not to rely upon it too strongly, but to take it into consideration.

Geri Fox:
Thank you so much for giving us the opportunity to try to help people understand.
I want to assure my colleagues and the public that it’s not a hundred percent. We know that there are weaknesses with assessment tools, and so as a criminal justice system we have to know what those are and we have to be smart about this, and we have to really watch how it performs, and my officers have to be very vigilant in the future, to do whatever we can to make sure that we get it right.

Pam Cravez:
Thank you, Geri.
For more information about Alaska's new pretrial risk assessment tool, Go to the Alaska Justice Forum — the January 2018 edition.

Geri Fox is Director of the Pretrial Enforcement Division, Alaska Department of Corrections. Pamela Cravez is editor of the Alaska Justice Forum.

▶ Reference