

**Office of the State's Attorney for Baltimore City
Implementing Evidence Based Risk Assessment During the Pretrial Phase
Strategic Plan**

I. Target Problem

Baltimore City experiences a high volume of violent crime. In 2014, there were 2,675 gun crimes in Baltimore City, including 160 homicides involving a firearm and 211 non-fatal shootings. The city accounted for 60 percent of homicides statewide, yet accounted for only 10 percent of the state's population.¹

Baltimore City's incarceration rate is three times higher than both state and national averages. In 2011, The Maryland Department of Public Safety and Correctional Services (DPSCS) approximated 4,827 arrests per month. In December 2015, DPSCS estimated 3,050 arrests per month. Of this total, the percentage of individuals booked in Baltimore City that were detained and housed by the Division of Pretrial Detention and Services (DPDS) remained relatively consistent between 2011 and 2015. In 2011, that percentage was 54.7%, as compared to 2015, when it was 52.3%. DPSCS estimated in December of 2015, that approximately 69% of those held at the Baltimore City Detention Center (BCDC) were charged with a non-violent crime (e.g., violation of probation, property crime, failure to appear in court, prostitution, etc.). Of those detained, 35% were charged with a drug offense as well.

Numbers of arrestees are down slightly from 2015; approximately 2,500 to 3,000 individuals are arrested and booked in Baltimore City each month. Over half of the individuals booked in the city are detained by DPDS; in FY16, 57% of individuals booked in Baltimore City were ultimately detained and housed by DPDS.² These statistics are on par with the state average. Statewide, the percent of arrestees committed to DPDS facilities has remained between 50% and 60% in recent history, despite fluctuating arrest rates.³

DPDS houses, on average, 3,500 individuals on any given day in Baltimore's detention facilities. The vast majority of these individuals are African American males between the ages of 18 and 44. In FY16, approximately 57% of the individuals detained in DPDS facilities await trial.

¹ FBI Uniform Crime Reports (2013).

² Arrest and Detention Data, Maryland Department of Public Safety and Correctional Services, Office of Grants, Policy, and Statistics (June 2016).

³ Department of Public Safety and Correctional Services, Division of Pretrial Detention and Services May 2016 Statistics Report to the Criminal Justice Coordinating Council.

This is on par with both national and statewide statistics. Nationwide, roughly 60% of jailed inmates are on pre-trial and in Maryland, over the past ten years, the pretrial population has ranged from 60-66%.² In July 2016, there were approximately 797 individuals being supervised by pretrial supervision.⁴ Among the pretrial detainees in Baltimore, just under two-thirds, 64% in FY16, are being held without bail. The remaining pretrial detainees were issued a bail of either \$5,000 or less (3% in FY16) or a bail over \$5,000 (33% in FY16).

Most alarming is the amount of time pretrial detainees spend behind bars awaiting trial. In FY16, 40% of detainees in Baltimore's detention facilities have been detained for 90 days or more; it costs approximately \$150 per day to house an inmate.² These long pretrial detention periods are contributing to a significant increase in the overall length of stay for arrestees in Maryland. A report issued by the Maryland Justice Reinvestment Council found that arrestees in Maryland are spending 23 percent longer behind bars, seven additional months on average, than they were a decade ago.⁵ In addition, the United States Courts found that in the federal system, it is 10 times more expensive to house an individual in jail, than to release them on pretrial services.⁶

Once an arrest occurs, charging prosecutors at the Baltimore City State's Attorney's Office (SAO) review an individual's prior criminal history, current offense, and charges, then provide recommendations for bond amount (bail) or release, to the Court Commissioner and then to the Judge reviewing that bail. Prosecutors routinely identify those arrestees with a history of violent felony offenses and handgun violations when making bail recommendations. During a pretrial hearing, the prosecutor's recommendations are taken into consideration by both the Court Commissioner and the Judge before commitment is ordered and a bond amount is set, or the arrestee is released on his/her own recognizance. Currently, those recommendations are based on an arrestee's prior record, the current charges and facts of the arrest event, the arrestee's prior failures to appear for court, the arrestee's current record, as well as the prosecutor's experience and practice. Charging prosecutors currently lack the ability to make evidence-based recommendations for bail or pretrial release to the Bail Commissioner or the Court. An evidence-based matrix for bail or pretrial release would cut down on pre-trial costs, would reduce

⁴ Arrest and Detention Data, Maryland Department of Public Safety and Correctional Services, Office of Grants, Policy, and Statistics (August 2016)

⁵ Justice Reinvestment Coordinating Council Final Report, December 2015, available at: <http://goccp.maryland.gov/jrcc/documents/jrcc-final-report.pdf>

⁶ Commission to Reform Maryland's Pretrial System, Final Report (December 2014, p. 19), available at: <http://goccp.maryland.gov/pretrial/documents/2014-pretrial-commission-final-report.pdf>

overcrowding, limit the amount of court-resources that are used, and ensure that those who are held are done so because of public safety risks and not because they are unable to afford the cost of their bail.

II. Approach

SAO along with its research partner Applied Research Services (“ARS”), is developing a locally-tailored, automated risk assessment for charging prosecutors to evaluate individuals charged at BCDC. This tool will allow prosecutors to make evidence-based recommendations for release, release on their own recognizance, release under pretrial supervision, or setting a bond amount.⁷ The pretrial risk assessment will identify individuals posing a low, medium, or high risk for endangering public safety and failing to appear at future court dates. The goal is to make evidence-based recommendations for bail and conditions of release for arrestees to the commissioners and court. Implementing an automated pretrial risk assessment will enable prosecutors to recommend release or release with specified conditions for low risk arrestees and prevent those individuals from suffering further collateral consequences from detention. At the same time, the risk assessment will enable prosecutors to identify the high risk individuals, and make a recommendation of no bail based on evidence-based practices.

The 2014 the Maryland Pretrial Risk Assessment Data Collection Study, by Dr. James Austin, examined six jurisdictions in Maryland. This study demonstrated that when arrestees in Baltimore City were scored against an evidence-based risk assessment, the Court released 83% of low risk, 69% of moderate risk, and 56% of higher risk individuals back into society. This study concluded that of all six jurisdictions, Baltimore City had the lowest release rate of higher risk arrestees. Austin’s study also revealed a lack of correlation between risk level and bond amount set by the court in the respective jurisdiction; in many cases, low risk individuals received higher bail amounts than the moderate and high risk individuals.⁸ The research findings are based on Baltimore City’s target population and fully support the implementation of a pre-trial risk

⁷ The target population is arrestees excluding federal detainees, individuals arrested on a retake warrant, and individuals arrested on a probation or parole warrant.

⁸ Commission to Reform Maryland’s Pretrial System, Final Report, Referencing Maryland Pretrial Risk Assessment Data Collection (December 2014, Appendix B), available at: <http://goccp.maryland.gov/pretrial/documents/2014-pretrial-commission-final-report.pdf>

assessment to distinguish low, moderate and high risk arrestees for bail and release recommendations.

Data sets from various local and state agencies are being acquired to develop a tailored pretrial risk assessment. The assessment will identify arrestees as low or high risk arrestees for the prospective appearance at court dates (FTA) and public safety concerns. This data will also be used to create, validate, and re-validate the risk assessment tool.

We will begin by revisiting the booking process flow chart, ensuring that it continues to accurately depict the functions and processes. Once assured that the chart is accurate and complete, we will identify measurable indicators for each of the functions and processes, and begin to collect baseline data. Concurrently, we will work with the team to identify potential means of streamlining the booking process, with an eye towards reducing duplication of efforts, increasing efficiency, and decreasing costs. A significant part of this process will be deciding which risk assessments to employ and where in the process they will be employed. It is expected that existing assessments will be considered as a guide to developing the risk assessment for the particular population. Once decisions have been made by the team regarding the risk assessments and a period of baseline data has been completed, the risk assessments will be implemented in the field, along with training all relevant staff on the implementation and scoring of the risk assessments. Specifically, the goals at this point will be to ensure reliable and valid administration of the risk assessments, a process aided by continual training and validity checks throughout the first year of implementation. Our goal is to automate each of the risk assessments as much as possible, relying on institutional data and automated scoring to reduce error.

ARS will collect program and participant data (process, fidelity of implementation, and outcome data) on an ongoing basis, providing quarterly evaluation reports and data summaries in written and oral formats to ensure that the project remains on target to meet its stated objectives. In addition, a monthly conference call will be held in order to ensure that the team members are in constant communication with ARS and any other external agencies over the course of this project.

The booking process flow chart, when combined with the funder-specified performance measures, specify the types of data necessary to address the program goals, objectives, and performance measures. Together these also serve as a guide to the overall evaluation, in that they specify the links between the steps in the booking process at baseline. The chart will be modified to include the risk assessment(s) implemented and the alternative steps for low, moderate, and

high-risk arrestees. An evaluation plan based on these documents will specify the location of the data (typically one or more agency data systems, e.g., the court information system and the state computerized criminal history) as well as who is responsible for collecting and entering the data. Most of the agency data is stored in these automated systems, which will be accessed by agency staff and provided to ARS in the form of data extracts. ARS will use common identifiers (e.g., SID numbers) to link the data across systems, which will then be subjected to a series of analyses to assess the degree to which the SAO has met its outcome goals. Additional program-level data regarding collaborative functioning and related process data will be used to inform the staff and stakeholders regarding the risk assessment tool and its success. Taken together, these data and evaluation findings will provide an effective means of understanding the degree to which the SAO has been successful in achieving both individual and program-level goals and objectives. These findings will be shared in an ongoing manner with the team and stakeholders in the form of interim quarterly reports, regular meetings, and a final, comprehensive evaluation report. Once the SAO develops and implements the Risk Assessment Tool (“RAT”) , the team will focus on action research and usability and will follow up with a process of continuous quality improvement with the hopes of maximizing the potential of the RAT and the ability of the SAO to meet and exceed its specified goals.

The evaluation will comprise process, outcome, and impact evaluation components. The process evaluation components will address the “who, what, where, when, how, and how much” associated with implementation of the RAT. The outcome evaluation will address the degree to which the RAT has been developed, normed, and re-normed on the Baltimore pretrial population and in accordance with best-practice standards regarding risk assessment. Finally, the impact evaluation (detailed in a subsequent section) will assess the degree to which the RAT correctly identifies risk among the pretrial population and has resulted in an increased degree to which low-risk pretrial cases are released and high-risk cases are detained in the jail. This mixed-methods approach and action-oriented framework will provide the ongoing evaluation feedback mechanisms necessary to provide a means of continuous quality improvement. In addition to the aforementioned quarterly brief evaluation reports, ARS will also provide a comprehensive final evaluation report that will document all evaluation activities and findings. This final report will document the degree to which the SAO met its stated goals, objectives, and federal performance

measures. Furthermore, the report will address issues of sustainability and scalability, provide detailed conclusions, and any necessary recommendations.

III. Project Modification

The grant application describes the implementation of an automated risk and needs assessment during the pretrial phase. A change in strategy since the grant submission is the design of the pre-trial risk assessment. The automated assessment will address an arrestee's risk, but not the needs of the individual. This change in strategy is necessary due to the current processing of arrestees at BCDC. The system is not structured to handle a non-automated assessment of individual needs.

IV. Partnerships and Collaborations

The SAO developed partnerships and collaborations to identify existing inefficiencies and gather data to improve public safety, reduce criminal recidivism, and reduce unnecessary incarceration. Those partnerships include: (1) Maryland Department of Public Safety and Correctional Services, (2) Pretrial Services Division, (3) the Judiciary, and (4) Baltimore Police Department. Once the risk assessment is implemented, the SAO will provide programmatic information to the Maryland Office of the Public Defender.

V. Expected Results

The expected result of implementing the automated pretrial risk assessment is to increase efficiency and improve prosecutors' decisions for determining bail and release recommendations. A recommendation for pretrial release of low risk arrestees may prevent those individuals from harmful exposure to violent individuals in a pretrial detention setting. Furthermore, it will also assist these individuals in avoiding further economic desolation as a direct result of incarceration. When low risk arrestees are incarcerated, they may lose their jobs and even their homes because they are unable to continue working.⁹ In addition, if an individual is self-employed it may require them to shut down their business for a period of time, while they resolve the criminal charges.

⁹ Clark, John. "Finishing the Job: Modernizing Maryland's Bail System" The Abell Report, Volume 29, Number 2, (June 2016), available at: [www.abell.org/sites/default/files/files/cja-pretrial616\(1\).pdf](http://www.abell.org/sites/default/files/files/cja-pretrial616(1).pdf)

Furthermore, individuals can ultimately experience a disruption in their medical care and in some cases lose the ability to receive health insurance. In turn, this will affect the survival of their entire family because without the extra income, day-to-day activities become impossible. Children are also affected when a parent becomes incarcerated because they may be required to live with other family members or friends, which can lead to disruptions in their life along with the trauma of having an incarcerated parent.¹⁰ Incarceration can also affect the entire community as well. Often times social networks, social relationships, and life prospects are damaged because of incarceration. Furthermore, the community's infrastructure is also corrupted, no longer making the area a good place to live, work, or raise children. In turn, these communities often become overpowered with a lack of employment, increased poverty, and become an unsafe area in which to live.¹¹ Therefore, individuals who are charged with a violent crime will receive an appropriate recommendation using the RAT, since they will be considered high risk arrestees and this may improve public safety as a whole. Furthermore, a direct result of the SAO's strategy may be a reduction in the jail population at BCDC and ultimate cost savings.

VI. Long-Term Vision and Sustainment

The long-term vision and sustainment of this initiative is to continue use of the pretrial risk assessment beyond the life of the grant. Once the assessment is implemented, it will require revalidation every five years. The SAO's Information Technology Department can provide continuous technical support. The SAO expects to demonstrate project success, including cost efficiency and a decrease in jail population to marshal financial support from the Department of Public Safety and Correctional Services (DPSCS) or partner with this agency to obtain foundation funding to hire a researcher to revalidate the pretrial risk assessment at the appropriate time period. In the future, SAO plans to partner with other agencies for continual funding of this project. Currently, SAO has already established a relationship with the Abell Foundation, who is also interested in bail reform. Furthermore, SAO has reached out to the Governor's Office of Crime,

¹⁰ "Bail Fail: Why the U.S. should end the practice of using money for bail" The Justice Policy Institute, (September 2012), available at:

http://www.justicepolicy.org/uploads/justicepolicy/documents/bailfail_executive_summary.pdf

¹¹ Clear, Todd R. "The Effects of High Imprisonment Rates on Communities." The University of Chicago Press, Crime and Justice, Vol. 37, No.1 (2008), pp. 99, 102, available at:
<http://myweb.fsu.edu/bstults/ccj5625/readings/clear-cj-2008.pdf>

Control, and Prevention (GOCCP) to establish a relationship that could also be of assistance in providing future funding. Other foundations that may be interested in funding the project in the future include, but are not limited to, the MacArthur Foundation, Open Society Foundation, Arnold Foundation, and Public Welfare Foundation.

VII. Impact Evaluation

ARS research staff will work alongside the SAO team, functioning as an unbiased member of the team responsible for evaluation and performance measurement of the project. ARS has worked with similar court and other teams in this very role, having evaluated over a dozen similar, federally-funded problem solving courts. The impact evaluation will assess the degree to which implementation of the Pretrial Risk Assessment has met its stated objectives. These objectives include the following:

1. Assessing the degree to which the measure successfully categorizes the pretrial population according to risk (that is, low risk detainees are those with the least likelihood of pretrial failure, while high risk detainees are those with the highest risk of pretrial failure).
2. Assessing the degree to which the measure is incorporated into the decision-making processes at the SAO.
3. Assessing the degree to which the results of the measure are used in release recommendations provided to other stakeholders.
4. Assessing the degree to which release decisions are consistent with the results of the measure.
5. Assessing the degree to which implementation of the measure has resulted in changes in release decisions and their impact on jail bed space and expenditures.
6. The grant's Government Performance Results Act ("GPRA") outcome measures to be reported on are as follows:
 - a. Percent of program goals and objectives completed that are directly linked to grant funding and address a specific problem
 - b. Number of new solutions employed
 - c. Number of evidence-based practices deployed
 - d. Number of engagements with the TTA partner

- e. Percent of prosecutors involved in the initiative using data analysis
- f. Number of partnerships established with other criminal justice organizations or agencies
- g. Number of public/community briefings or trainings promoting evidence-based practices
- h. Number of research partner engagements

The overarching goal of this initiative is to identify arrestees at the high and low ends of the risk continuum using the risk assessment. From there, the SAO will make appropriate bail recommendations to the Court Commissioner and Judge based off of the risk assessment. The objective is to recommend the release of low risk arrestees from incarceration so that they are not consuming valuable resources, spending unnecessary time in jail, and suffering consequences of incarceration when they do not endanger the community nor pose a risk of failing to appear at subsequent hearings. Furthermore, those at the high end of the risk continuum will be accurately identified as such, and SAO will recommend that these individuals be held longer and directed towards pretrial services aimed at ameliorating their risk and criminogenic needs.

ARS will collect relevant data for all of these processes and actions. This practice allows for an evaluation of the degree to which arrestees are properly identified according to risk (predictive validity) and the degree to which implementation of the risk assessment(s) has increased efficiency in recommending the appropriate bail recommendations to Court Commissioners and Judges. We will also incorporate into the evaluation plan the performance measures required by the grant, ensuring that means of collecting the data needed to address the performance measure is in place. This will occur by mapping the performance measures to the existing data systems, identifying any gaps, and developing/instituting systems and tools to cover any gaps.

The bulk of the data necessary for the development and testing of the RAT will be obtained via the provision of relevant data extracts covering a specified time frame from the SAO and the DPSCS. These data will include individual-level data, and will contain common identifiers so that the individual-level data from different sources can be accurately matched and married together. Together the data will include: demographic details (e.g., date of birth, age, sex, race); offense details (e.g., type of charge, charge category); details concerning booking events (e.g, date of

admission, date of departure, length of stay); court data (e.g., case outcome, date case disposed); and criminal history (e.g., number of prior arrests, number of prior felonies, number of prior FTAs). Unfortunately, data gathered during pretrial supervision is not captured electronically at this time. As a result, a review of paper charts from previous pretrial cases will be conducted with relevant data collected (e.g., length of time on pretrial supervision, outcome of pretrial supervision, whether the case included an FTA) and stored in an electron database being developed by the SAO IT team. We have proposed to DPSCS the ongoing electronic collection of this same data, using this same database going forward. Data on ongoing cases will be necessary in order to collect the key outcomes associated with pretrial supervision, allowing for an evaluation of the degree to which the RAT has achieved acceptable levels of predictive validity.

The fitness of the RAT will be assessed with respect to its validity, that is, the degree to which the measure does what it purports to do. The RAT by definition is designed to provide an assessment of risk for pretrial failure that is automated and actuarial in nature. That means that administration of the RAT does not require a face-to-face interview and instead relies on institutional datasets used on a daily basis by the SAO and DPSCS. The measure is actuarial in that the risk score is arrived at through a mechanical process of combining predictors (typically weighted to account for their specific predictive power) using a mathematical equation (often referred to as an algorithm). The algorithm combines the selected predictor variables in the form of an equation, and does so the same way every time (that is, it is reliable). The result is a risk score that is computed according to said algorithm and applied to each individual in the pretrial population. The risk score will assess the likelihood of pretrial failure, which in this case is defined as issuance of an FTA and/or commission of an offense deemed to constitute a risk to public safety, both while on pretrial supervised release. The predictive validity of the RAT is assessed by determining the degree to which the RAT produces accurate predictions. The RAT should correctly identify those assessed as low risk by identifying those members of the pretrial population who have the lowest rate of failure while on pretrial release. The RAT should also correctly identify those assessed as high risk by identifying those members of the pretrial population with the highest rates of failure while on pretrial supervision. Finally, the RAT should correctly identify those assessed as moderate risk by identifying those members of the pretrial population with rates of failure while on pretrial supervision that fall in between the failure rates of those assessed as low and high risk.

In addition to maximizing the rate of correct decisions as detailed above, it will be important for the RAT to demonstrate acceptably low error rates as well. For the sake of simplicity, assume that there are only two outcomes of the RAT: a prediction of success (assessed as low risk) and a prediction of failure (assessed as high risk). Such a scenario results in a 2x2 matrix, as in the below diagram.

Decision Matrix	Actual Outcome	
	Success (Low Risk)	Failure (High Risk)
Prediction		
Success (Low Risk)	<p>CORRECT DECISION Correctly identified as low risk</p>	<p>ERROR Incorrectly identified as low risk</p>
Failure (High Risk)	<p>ERROR Incorrectly identified as high risk</p>	<p>CORRECT DECISION Correctly identified as high risk</p>

Error is unavoidable, as no pretrial risk assessment yet devised has produced a 100% success rate. Given the public safety implications and the fact that some error must be tolerated, it is assumed that the error that is to be most assiduously avoided is that in which a high risk detainee is incorrectly assessed as low risk. This error has a potentially greater cost to public safety than the corresponding error of incorrectly assessing a low risk detainee as being high risk.

The RAT will be developed by combining the institutional datasets into a single, large dataset. A subset of the individuals represented in this dataset will have been released on pretrial supervision, while a corresponding subset will not. Those that have been released on pretrial supervision will have accumulated time in the community to complete their course of pretrial supervision, and a number will have experienced some degree of pretrial failure during this period of supervised release. The combination of predictor variables from the institutional data that together best predict pretrial outcome will be weighted and combined in an algorithm that will then be validated on a new sample of pretrial releases. Once the measure has proven itself to have acceptable levels of predictive validity (using acceptable metrics and based on the particular statistic of significance to be used), the algorithm will be provided to the IT staff within the SAO, who will then write the algorithm into code and make it part of the SAO data systems. The RAT will at that point be automated and actuarial, and can be used to provide risk assessments for the Baltimore pretrial population. It will be necessary to continue on an ongoing basis assessment of

the validity of the measure across the entire population and selected sub-populations (e.g., race and sex), to ensure that the RAT is valid overall and is not unequally valid based on characteristics of certain sub-populations.

As regards the research basis for this work, the development of automated, actuarial risk assessments has a long and distinguished history in a variety of fields including, but not limited to the insurance industry, manufacturing, medicine, mental health, and criminal justice (including pretrial risk assessment, such as the current development of the PSA-Court supported by the Arnold Foundation). For supporting information, please refer to the attached documents for a sampling of the available literature in this area. In short, these methods are well-established, having been relied upon to make critical decisions in a wide range of applications across many fields for decades.

VIII. Logic Model (See Appendix A)

IX. Training and Technical Assistance

The SAO will work with the Association of Prosecuting Attorneys (APA) for training and technical assistance on a variety of issues promoting the development and implementation of a pretrial risk assessment. Technical assistance may include the following: (1) providing subject matter expertise for risk needs assessment delivery, (2) organizing a peer-to-peer site visit with a jurisdiction that has developed and implemented a pretrial risk assessment for making bail and release recommendations, (3) stakeholder training detailing implementation of the tailored risk assessment in Baltimore City, (4) SAO informational training describing use of pretrial risk assessment for prosecutorial decisions regarding bail and pretrial release, and (5) attending the NCJA Pretrial reform meeting in Baltimore City.