2015 ISRB Release Decisions

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Chapter 1: Purpose of this Study

In 1981, Washington State passed the Sentencing Reform Act which abolished parole and indeterminate sentencing and instated determinate sentences for all new charges. A determinate sentence is a sentence that states "with exactitude the number of actual years, months, or days of total confinement, of partial confinement, of community custody, the number of actual hours or days of community restitution work, or dollars or terms of a legal financial obligation" (Sentencing Reform Act of 1981, 2016). There is a precise beginning and end, and any time off can be calculated with a specific formula. Common reductions are earned time credits, or time off for good behavior, which is a ratio of time without infractions converted to time off an offender's sentence (Sentencing Reform Act of 1981, 2015). The determinate sentencing structure took away any uncertainty or ambiguity in the length of sentencing, and it took away the discretion of the parole board to determine when an offender would be eligible for release.

However, in 2001, a form of indeterminate sentencing was reinstated for a specific group of offenders (Sentencing Reform Act of 1981, 2008). Offenders who are convicted of specific sexual crimes in Washington State are currently subject to determinate plus sentencing. Under this structure, sex offenders serve a minimum term, minus any earned time credits, at which time they become eligible for parole. The parole board, officially converted to the Indeterminate Sentence Review Board (ISRB), is made up of four members who consider variables associated with risk for re-offense from a variety of sources. To determine whether an offender will be released into community custody, an examination, or end of sentence review, will be conducted. The specific contents/parameters of the procedure are not legislated, but they will use "methodologies that are recognized by experts in the prediction of sexual dangerousness" (RCW 9.95.420(1)(a), 2009). A determination is made as to whether the offender, on a more probable

than not basis, is considered likely to reoffend if released into community custody. The ISRB then allows for the offender's release or sets a new minimum term, after which the offender will be reviewed again and considered for release.

This system allows for large amounts of discretion on the part of the board members, but there are some standards which are in place and considerations that are taken to assure safety and procedural equity to both the offenders and the community at large. One of these standards is the application of actuarial risk assessment tools. These tools are generally applied as part of the end of sentence review procedure when the offender is preparing for an ISRB release hearing. These tools are based on usually static variables that have been developed for the specific assessment of risk for sex offenders. These tools are utilized in the case of every offender and represent a standard measure of risk for re-offense. If the offender is unwilling or refuses to go through the process, it will not be utilized during his release hearing and subsequent considerations.

Besides these actuarial assessments, there are other variables the board members can consider (*see* Table A-1, Factors Considered for Release Decisions). However, the application of these variables is much less standard. This becomes problematic for several reasons. First, each assessment variable may or may not be present in the considerations of each offender's case for release. This results in variations in assessment within the inmate population. Secondly, variations in assessment variables may lead to differences in outcomes across offenders depending on which variables were applied in any given case. Thirdly, variations in assessment variables results in an informal standard, or criteria for release, by the review board. This is problematic because of the high stakes these decisions have for the public and the offender. Fourthly, this makes it difficult to hold boards accountable for the decisions they make because there is no standard by which review of decisions can be compared.

Therefore, this study proposes the following 3 research questions:

1) Which variables are present in the ISRB release decisions? I hypothesize that assessment of actuarial risk, criminal history, current offense, custodial infractions, and sentencing will be the variable constructs most consistently present in the decisions.

2) Are there patterns in the data among the variables that are present in the release decisions? I hypothesize that patterns that will develop will involve offender activity while incarcerated on a more consistent level than the static variables used in risk assessment.

3) Which variables are most highly correlated with release to community custody? I hypothesize that low actuarial risk assessment and completion of SOTP treatment will be most highly correlated with decisions granting release.

There is no provision under the statute for independent review of the ISRB and their decision-making process. Lack of ISRB review becomes problematic because it does not allow for successful release parameters to be established. The first step to establishing parameters is finding out which variables are being applied in practice. While the board is considered to be independent, having release decisions reviewed allows for the investigation of which variables are actually being utilized for release considerations. Without a review mechanism in place, it cannot be known which variables are most impactful in decisions and which conditions are most conducive to release or further detention. Because there is no formal methodology, review is the only way to assess which variables are applied consistently for successful release.

Release is subject to a lenient standard of "more probable than not" that the offender will not reoffend. This is risk contingent. While there are some very hard-and-fast determinants of risk, how they are utilized and applied has bearing on how risk is actually perceived and established in practice. This information is important for determining accountability for the

board, both internally and for public use. There is risk to the public should an individual reoffend, but there is a risk to offenders if he is detained beyond the necessary term. To be able to know if they are successfully adhering to specific methodologies, the release decisions need to be reviewed for outcomes. Analyzing decisions for expressed and non-expressed release variables might also help to determine what release barriers exist. This can help guide resource allocation, programming, and policy, as well as reinforce ISRB procedure if it is in alignment with desired methodologies.

Risk can be determined by means of actuarial assessment, behavioral cues, clinical evaluation, and direct expressions, and it can be mitigated through various interventions, treatments, and programming. Knowing how risk is to be assessed, theoretically and practically, is an asset to board members that will allow them to utilize their methodology more concisely. Analyzing how specific variables are utilized by the ISRB can help track whether the board is exhibiting uniformity or accountability in sentencing and custodial decisions. Reviewing release decisions for accountability to these methodologies benefits not only the ISRB, but offenders seeking release, those developing and implementing programming geared towards release, and policy makers designing protocol and juggling resource allocation.

For the purposes of this study, it will be most useful to define key independent variables as ISRB expressed variables that are considered when conducting release hearings. Consistent with the informal factors (constructs) considered for prerelease by the ISRB, 78 variables have been identified (*see* Table B-1, Variable Matrix). These constructs pertain to the expressed ISRB factors previously identified in Table A-1, Factors Considered for Release Decisions. The variables identified prior to document analysis pertain to the constructs identified with recommendations of the sentencing judge/prosecutor and statutory direction (criminal history,

sentencing); institutional and prior supervision behavior (custodial disciplinary infractions, prior release); treatment and programming engagement; offender change; release plans; victim involvement/input; and actuarial risk. Constructs which were not easily defined which became more evident as the decisions were more thoroughly analyzed relate strongly to case specific information (initiating charge characteristics, victim characteristics, offender demographics) and public safety. Constructs that were discovered which were not expressed by the board relate to offender self-expressions and perception of risk (other than actuarial assessment). The construct identified by the board that was not defined through document analysis is discordant information. The key dependent variable of study is release decision.

Each variable construct can be broken up into more specific variable measures, which might act alone or work together to mitigate variables within or across variable groups. The interaction of actuarial assessments with variables that relate to behavior in custody and reports of clinicians and/or custodians shows insight to the relevance of programming. The way the ISRB considers and prioritizes these variables against one another certainly shows personal discernment and discretion, and finding a framework for this interaction of variables could prove fruitful. The weight of variables may reveal or be steered towards an interpretation consistent with an established methodology of risk determination.

Offender and specific crime demographics to be considered may or may not be captured in the static actuarial assessments, so these are categorized separately to show independent interaction. decisions. Offender demographics include age of the offender at the index crime and at the hearing, race, mental illness diagnosis, and chemical dependency. Initiating charge characteristics include the number of incidences, the range of incidences, the number of counts, the severity, the offender score, the offense type, presence of violence, and presence of a minor.

Criminal history includes the number of previous felony and misdemeanor charges, the number of prior sex and violent offenses, and time since last criminal charge in months, and prior unprosecuted sexual offending. The sentencing variables measured are the minimum time offered, time served under the ISRB jurisdiction, maximum sentence, and requirements for Sex Offender Treatment Programming (SOTP) and other forms of programming. Victim variables measured were the age of the victim and relation of victim to the offender, the number of victims for the originating offense, the presence or known content of a victim's statement, and whether the victim supports or opposes release.

Institutional and release behavior is categorized by behavior in and out of custody. Custodial disciplinary infractions measured are the total number of infractions, the number of sexual infractions, the number of violent infractions, the number of general infractions, and the number of serious infractions, and time placement within incarceration are measured. Information concerning prior release is broken down to include prior Sex Offender Special Sentencing Alternative (SOSSA) revocation or community custody revocation, as well as whether this was an offender's first hearing before the ISRB.

Engagement with and completion of programming and specific treatment programs while in custody is not universally measured for these offenders, but only according to whether it is present in supportive documents and release decision language. Treatments/programs measured are chemical dependency treatment, mental health treatment, anger management treatment, and educational programming, with each type of treatment is considered as a separate variable. Because these variables were difficult to measure universally, most were ultimately dropped from the study, with the exception of chemical dependency treatment. The variable of sex offender treatment was measured according to whether an offender was offered treatment,

whether the offender participated in treatment, and whether the offender completed treatment. This variable is protected medically, but was present in mandatory risk reviews and decision language.

The concept of offender change is more vague, ultimately measured by whether an offender attempted/participated in change, whether an offender refused to attempt/participate in change, and whether and offender had made successful progress towards change. Specific offender expressions while in custody measured are whether an offender expresses guilt regarding his offense, whether an offender denies guilt regarding his offense, whether an offender expresses remorse, whether an offender expresses empathy with the victim, and whether an offender expresses a desire or intent to reoffend. Release plans were measured by determining whether there is an active release plan, whether that plan is deemed acceptable/favored by the board, and whether there is a plan to generate a release plan in the future. There were additional variables identified that included a recommendation for a sexually violent predator evaluation for civil commitment and release from ISRB jurisdiction to another form of custody.

The measurement of risk includes the specific actuarial risk assessment tools used in the end of sentence reviews. This is broken down into whether a tool was utilized in the review and the number of tools used. For both the STATIC-99 and the MnSOST, whether the tool was used, the score, and risk level of each tool will be determined. The combined or final risk level is the highest level expressed by either of the actuarial tests, and is sometimes aggravated or mitigated. The final score, presence of aggravation or mitigation, and adjusted score are all measured as well. The board's expressions of how it considers risk is also measured by whether it is present in the release decision language. These expressions refer to the presence of statement concerning

actuarial risk, the offender's ability to self-identify risk, and the specific risk of re-offense/mitigation of risk. Risk also relates strongly to public safety upon release, which was measured as whether the board made statements concerning public health, community concerns, and conditions of release.

The dependent variable is whether the offender was recommended for release or not. Discovering how the many variables considered by the board eventually lead to release or further confinement allows for determinations to be made about a profile of successful release. From this, a standard of current considerations can be considered. This can be used to consider accountability, to look at ways that the ISRB is functioning, and to find ways to intervene in other aspects of confinement and release that will provide for increased public safety, a fair release process for offenders, and the best use of resources.

Chapter 2: Review of Literature

This study seeks to partially replicate research that analyzed hearings held through the year 2008. The early research provided initial analysis to offenders, attorneys, and other invested parties (Helfgott & Strah, 2013). The study provided an initial review of the ISRB release decisions, and found that while the STATIC-99 and other actuarial risk assessment tools had among the highest correlation rates with release, after controlling for other variables under a regression test, the strongest predictor of release was completion of a sex offender treatment program. "The results suggest that the Determinate-Plus sex offender most likely to be granted release by the ISRB is a younger offender who has served a shorter sentence, successfully completed sex offender treatment, scores lower on the WSSORLCT, has no indication of a specific mental illness diagnosis, and has a lower sex offender level classification" (Helfgott & Strah, 2013). The findings indicated the board considered variables most strongly related to public safety and recidivism.

The study suggests that sex offenders have some control over their release, since some dynamic factors are considered by the board. However, there is a dependence on static variables, which cannot be impacted by any type of offender or outside intervention. This is suggested as a way to inform offenders of release obstacles and educate board members on future decisions (Helfgott & Strah, 2013). The specific combination of variables and, moreover, their method of combination is a component that will allow for this discussion within the ISRB and for those invested in ISRB release outcomes.

The interplay of actuarial assessment and variables is the subject a growing body of research. The most successful actuarial tools have been found to focus on static variables. However, how these tools are applied to assess risk accurately in combination with other

measures to create a methodology is still under study. This has resulted in focus on dynamic variables and some reclassification of variables. Other components of risk, such as offender life-course trajectories, are being developed to assist in prediction. Although actuarial tools are currently the best predictors available, the possibility for greater accuracy and desire to improve dynamic interventions on offender recidivism are leading to exploration of the methodology of actuarial tool applications.

The predictive accuracy of actuarial tools has been found to be more effective than clinical assessment. Clinical assessment is defined as when a clinician collects and processes information without any explicit rules or structured prediction procedures. A direct comparison of clinical assessment and actuarial tools on the same sample of offenders for a lengthened time period found weak correlation between predictions for recidivism made by clinical judgment and actuarial assessments (Bengston & Langstrom, 2007). Unguided clinical assessments missed 88-90% of recidivists, but still had a high rate of false positives. Actuarial assessments increased positive predictions 3-7 times, depending on the risk category.

The Static-99 has been tested against other actuarial predictive tests in multiple studies to determine effectiveness. Actuarial tests, as a group, predict non-re-offense at high rates, but misclassify up to ¾ of reoffenders (Allan, Dawson, & Allan, 2006). When tested on male offenders in Australia, the Static-99 scored better than many tests, correctly predicting at a rate of 92.2% for non-re-offense, but was only moderate for re-offense at a rate of 52.2%. Furthermore, there were disparities in results between violent and non-violent offenders. These findings suggest that group differences should be accounted for in risk assessment. This may be expressed by the ISRB expressed factor of "case specific information," which would attempt to differentiate specifics of the crime and offender from the actuarial prediction.

Harris and Rice (2003) have suggested the role of actuarial assessment should pertain to two components: determining custodial and supervisions status and adjusting supervision dynamics. However, successful community monitoring will consider dynamic factors in light of historical static factors. They suggest that reductions in recidivism by some treatment models may be caused by presumptive variables. Once a good treatment and prediction model is established, historical actuarial tools may be less necessary.

The methodology of application for static and dynamic variables to achieve better recidivism predictability and reduce risk is presently forming. The practice of enhancing static assessments through the application of tools that measure potentially dynamic factors is developing through studies for effectiveness. An early study found that deviancy contributed to reconviction independently when considered with static risk, increasing the predictability of recidivism (Beech, Friendship, Erikson, & Hanson, 2002). The results were limited, but encouraging for the usefulness of accounting for psychological problems in a risk assessment protocol. A concurrent and separate study conceptualized deviancy into four domains and suggested the Structured Risk Assessment methodology (Thornton, 2002). The Static-99 is administered in conjunction with an initial deviance assessment to capture the domains of deviancy. The assessment was again captured through psychometric testing in this study. The results again indicated that static assessments and deviance variables made independent contributions to predicting recidivism, and dynamic variables could extend the predictability of static assessments.

A later study found that factors from a self-report psychometric assessment administered to child molesters fell into dimensions significantly correlated to recidivism (Allan, Grace, Rutherford, & Hudson, 2007). Again, when combined with the Static-99, prediction ability was

improved. The tests were administered to offenders who were entering a prison-based treatment program voluntarily. It is suggested that dynamic factors with the highest correlation to recidivism, sexual interests and pro-offending attitudes, should be the focus of treatment resources at the institution in study. The presence of socially desirable responding may impact self-reports and psychological battery used to determine dynamic placement post-treatment. However, this is not shown to pose a threat to the validity of dynamic assessments (Stevens, Tan, & Grace, 2016).

The general usefulness of psychological testing and behavioral therapy in treatment models has translated to specialized SOTP. Sex offender treatment programing has been studied for effectiveness in reducing recidivism as a specific method for impacting dynamic variables. The impact of cognitive behavioral approaches has been found to be generally effective in reducing recidivism (Friendship, Mann, & Beech, 2003; Woodrow & Bright, 2010). Prisoners who completed prison-based cognitive treatment programs found that "measures of treatment change derived from the psychometrics significantly predicted sexual recidivism," when controlling for a psychometric battery and STATIC-99. This indicates that "measures of treatment gain are correlated and associated with reduced sexual recidivism after controlling for both static and dynamic factors, consistent with the rationale for sex offender treatment that dynamic factors are changeable and measurable and that their amelioration leads to a reduction in reoffense risk" (Beggs & Grace, 2011). This would support the use of actuarial tests based on dynamic factors, as well as focus on SOTP programming.

Dynamic risk factors have been classified and studied according to their propensity for change. The SONAR methodology classifies dynamic variables as stable, with relatively enduring propensities, or acute, with the ability to change rapidly and precipitate reoffending

(Hanson & Harris, A Structured Approach to Evaluating Change Among Sexual Offenders, 2001). The model showed moderate abilities to distinguish recidivists and non-recidivists, even after controlling for established factors. The interplay of dynamic and static variables has also been examined through life-course trajectories, determining that there are trends identified through group-based modeling rather than individual variable-based modeling. Taking a sex crime into consideration as a point in time for an offending career allows for individual characteristic to be viewed not only statically, but in light of a dynamic pattern with known trajectory (Lussier & Davies, 2011). Real trajectories develop, which rely on age and rate of offending as a base to generate a career model. Age and recent offending are found to be good indicators of trajectory placement for an individual, and can begin to be utilized in more than a static sense when seen as dynamic indicators as well.

Specific static variables that relate to factors expressed by the ISRB have been studied for their effectiveness in predicting recidivism. The length of time high-risk offenders has been released has been found to decrease their risk over time. High-risk static markers, such as prior offenses, victim characteristics, etc. are valid, but time-dependent (Hanson R. K., Harris, Helmus, & Thornton, 2014). Personal characteristics and offender change are suggested causes, but are not included in the study. However, release plans and support during initial release phases are strongly emphasized as mechanisms to decrease recidivism. This supports the ISRB factor considering release plans.

Offender age has been found to affect offending and recidivism in several capacities. Age-specific offending behavior variables were found to account for additional variance and improved predictive accuracy above and beyond the STATIC-99. "Characteristics of actual crime scene behavior of sexual offending had a predictive power in addition to the variables

already included in common risk measures" (Janka, Gallasch-Nemitz, Biedermann, & Dahle, 2012). This would relate the ISRB expressed factor case specific information to offender age to improve predictive capacity. In a separate series of studies, the link between offender age and recidivism was explored. Age at first offense and age at index offense were better predictors than age at release. It is suggested that factors relating to offender traits are established at an early age, and more enduring components of life-course trajectories might be at play (Rice & Harris, 2013).

The general predictive capacity of static actuarial tools is well established, and now the methodology is evolving to improve on known methods through exploration of additional factors or remodeling known factors. Due to the evolving methodology of risk determination and factor development, standardization to a single methodology by the ISRB is not prudent. However, determining the presence or strength of a factor in relevance to an applicable model will give insight as to how the board members currently assess risk. The absence of a given structure necessitates modeling to determine what methodological adherence, if any, is present.

Chapter 3: Methodology

Participants

The target population of this study is offenders who have been sentenced to community custody under the jurisdiction of the ISRB who had hearing to determine release since the ISRB was last reviewed in 2008. This sample is known and can be readily identified through disclosure by the DOC. However, the volume of documents associated with these 1,200+ hearings was too large for production in the time frame of this research, and would have taken several years.

After discussion with the disclosing entity, it was determined that a sample of 100 cases and associated documents could be fully and reasonably produced in the specified time frame. Deciding to limit the sample was considered several ways. If the sample were to cover the same 8-year time period, it would provide very few cases per year. While it would attempt to show change over time, it would also have to account for changes in procedures, policies, and board members. This would be hard to capture with the reduced sample size.

The time frame the hearing documents were to be pulled from was therefore narrowed from an 8-year span to only hearings that were held in the year 2015. This would ensure that the hearings were held under the same conditions, although it would no longer show any change over time. However, there was an appointment of a new board member in April, 2015. Nonetheless, since it is a recent time period, it may also prove useful as a "snapshot" of current ISRB release hearing outcomes. This reduced time frame yielded 360 hearings. A random sample of 100 cases was selected from these to represent the research sample. This list was submitted to the DOC for production.

Participants were not notified of their inclusion in the study. Since all records are publicly available and non-confidential, there is no specific need to inform participants. No identifying information will be present in the study itself, and there is no perceivable way for participants to be identified through the results of this study.

Design and Materials

The holistic design for this descriptive case study focuses on the Washington State ISRB for the unit of analysis. The primary level of description is the board's decision-making profile, although it will be described through measurement of individual offender outcomes. The purpose is not to create a description of the offender, but a description of the board's treatment of his case. A demographic workup of offenders will only be useful in how those demographics are utilized by the board to rule for custody or release. Sampling limits discussed earlier make it impractical to focus on the individual board members. Therefore, the holistic design is preferable, rather than incorporating embedded units of measure.

This is a retroactive study, with the focus on a hearing determinations for a single year. It does follow the one-shot multiple case study design model. This is not problematic because it is not attempting to show causality. The purpose of this study is to check for co-occurrence as the main mechanism for the study. It is not important for this study to show the causal relationships behind the independent and dependent variables to describe their release outcomes. Establishing a standard or profile does not need to show causality, only what is present. This study does not seek to ask *why*, but only attempts to determine *what* exists as a basis for standardization and accountability.

The focus on actuarial risk assessment based on static variables and its interplay with other variables and assessment techniques is due to the lack of any official framework for ISRB

evaluation of the individual offender's cases. This references commonly studied approaches and methods for predicting risk and recidivism. Since the board is engaging in expert recognized methodologies, it will be helpful to view the case in light of the most prominent methods. The breakdown of variables by categories allows for the board's behaviors to be checked against multiple theories to see how each might be prevalent and the implications that might arise from each outcome. The resulting data set will also allow for prospective theory work in application or further study, especially on the issue of accountability.

The design of this study focuses on hearing file documents for the selected offenders/hearings. The materials requested from each file were the reasons and decisions, judgment and sentence for the initiating crime, infraction history, criminal history, and actuarial risk assessment tool scoring sheets. The judgment and sentence contains important information about sentencing recommendations, demographics, and time frames. The infraction history provides all the information for the group of variables relating to custodial infraction history. The criminal history provides information and context on the specifics of prior criminal conduct. The risk assessment scoring tools received also have the end of sentence review documentation attached. This provides the actual scoring of the tools, which can provide some demographic information, but also the entire set of data for the group of actuarial variables.

Many of the variables were assessed by coding the language of the reasons and decisions. These text documents contain several sections that give rationale for the release determination that is made. The board discusses many of the aspects uniformly, but in some cases, certain variables are not present. These documents were not utilized as an exhaustive report of all the variables considered in each release determination, but a reasoning by the board of important variables and how they may interact with each offender's specific outcome. During this analysis,

it was discovered that victim input variables would need to be dismissed from the study. However, the offender expression variables became highly evident through this technique.

Because the reasons and decisions are not a uniform inquiry, they did not provide analysis of all the same variables uniformly. Specific variables were defined by analyzing the board's phrasing or common expressions. Variables that were defined and coded through the language of the board were coded as affirmative, negative, or not mentioned. Because these variables are found to be present only through contextual analysis, coding them as missing would reduce their ability to be included in any analysis. In fact, when a variable that is contextually defined was not mentioned, it being not mentioned was sometimes the significant definition of the variable. This was the case for some variables that expressed risk and public safety, as well as some offender expressions during the hearing. Being not mentioned is not that the variable was missing, only that it was not determined as a relevant consideration in the release determination.

Conversely, variables that were gleaned from supportive documentation that did not contain variable information for a specific case were coded as missing. This is because this was the documentation that was provided to the board during the hearing. If it was not available to the board at the time of the hearing, it was excluded from this specific analysis. The exception to this is the inclusion of key demographic information. For the purposes of public disclosure, chemical dependency and mental health information is medically protected. While some of the non-specific diagnosis and/or participation in mental health programming is recorded in the reasons and decisions, for the most part this information is redacted from supporting documents. Some information about participation in chemical dependency treatment is present in the scoring

sheets, but it is not always possible to determine dependency from this program participation. Because of this, mental illness and treatment were ultimately excluded from the study.

This case study engages in variable analysis, which leaves out some of the context of the ISRB decisions. By not attempting to show causation, it may be impractical to analyze this case for accountability. It may also be limiting to leave out the individual board members as a separate unit of analysis to consider accountability. The descriptive variables are isolated from broader context or purpose, leaving a shallow basis for analysis as to a methodological compliance overall. This is especially relevant for variables that are defined through the language of the release decisions. For this reason, the main focus of the study pertains to methodological theory description with the caveat that no methodological framework is provided by the ISRB as a basis for accountability discussion. Theory selection is speculative and bound by the current literature.

Data Collection Procedure

The data for this research was produced by the Washington State Department of Corrections and the office of the ISRB. A public disclosure request was put in for the entire hearing files for the requested data and offenders. Through conversations with the department staff, it was determined which documents in the files were publicly available and would contain requested information. Because of the length of time needed to produce these documents, not every case document could still be produced and still maintain the sample size. There were also confidential documents and sensitive information that would never be made available or would require signed HIPAA releases, which would extend the production beyond the time frame of this research. It was finally determined that the judgment and sentence for the initiating crime, criminal history, infraction history, risk assessment tool scores, and reasons and decisions would

be provided for the sample of offenders. The data was provided over a period of 6 months in installments. It was reviewed as it was produced to ensure that the specific documents requested were correct and contained the specific information necessary for each case.

Data Analysis Procedure

This study utilized a two-step data analysis process. The first step in this analysis required an assessment of the informal variables outlined in Table A-1, which outlines prerelease factors considered by the ISRB as published on their website. This provided an overall description of the data. It also gave a general framework for definition of variables as they might arise through the document analysis. The main study variables were analyzed through a three-step process.

For question one, content analysis was used to identify all possible variables that appear in the release documents. This allowed for known variables to be quantified or categorized according to their presence in the decisions. The data was coded according to the language and parameters of the specific hearing file documents for the desired defined variables. As previously mentioned, additional variables became apparent for new definition when the documents were more fully reviewed. It also became apparent that not enough information was available to measure some variables as designed and operationalized. The data was coded for the specific intent of future quantitative analysis.

For question two, principle component analysis was used to determine themes that emerged from the set of variables identified by content analysis. While there were groupings of variables identified in Table B-1, this principle component analysis was used as a basis to determine trends between variables within components present in the data. This trending is used as a basis for analysis of interaction between the variables based on outcomes.

For question three, a lasso regression method was used to understand the association between assessment variables and release to community custody. This method was chosen because of the ability to include all relevant variables to generate the strongest correlation model. This correlation model prioritizes the variables with the strongest influence, to generate a model that is inclusive of this data set but can also have predictive properties.

Ethical Considerations

This study was submitted for IRB review once the final determination on which documents would be utilized was made. Even though there would be no contact with any subject directly, it was submitted to the Human Subjects Division as a precautionary measure due to the sensitive nature of the research materials. The research subjects are considered to be a vulnerable population as prisoners or former prisoners, and due to the nature of the crimes and variables regarding victims and treatment, it was a step to ensure that this research would not need further review or precautions. The research was found to be exempt and not based on human subjects because the materials sought were obtained through no direct contact and were publicly available and non-confidential. The DOC has its own process of redaction that removes all medical and victim information.

Because of the coding and lack of identifying information present in this data after its presentation, it removes all perceivable ethical concerns surrounding the sensitivity of the data for the effect to the offenders and to those indirectly associated with the crimes. The original data does contain identifying information, but since it is publicly available, it is not a concern that it may be released from the possession of the researcher. Any person wishing to access this data may do so at no cost to himself through a request to the appropriate agency. Furthermore,

the contents of the sample are not tied to the study, so it would be difficult to replicate the precise sample and determine individual characteristics.

Chapter 4: Results and Discussion

Content Analysis

The content analysis was completed in two steps. First, variables that were identified prior to document review were defined and operationalized. These variables were related to offender characteristics, criminal background, sentencing, custodial infractions, offender expressions of guilt, SOTP and programming participation, offender change, release plan, and actuarial risk assessment. These variables were extracted from the documents through case-by-case review. Through this analysis, it was determined that the victim's involvement in the hearing process was not present in any of the documentation. Furthermore, the extent of the redactions on the availability of mental health and chemical dependency data was determined at this stage. There was not always a uniformity in the quality of the redactions, making the variables somewhat misleading. Because it is due entirely to the time constraints on the records specialist fulfilling the request, the information was sometimes redacted in entirety, and sometimes selectively for only sensitive content. Therefore, in some cases there was information that was redacted more heavily than in others. This created a total lack of uniformity in coding mental health variables.

The initial review was not only for the purpose of coding known variables, but identifying common language that would result in the definition of additional variables that might not otherwise have been measured. It was through this type of analysis that the functional definitions of two groups of variables were conceptualized and eventually operationalized: perceived risk and public safety. The term risk was used by the board in the reasons and decisions in different ways, referring not only to the actuarial assessments, but also to the offenders' ability to self-identify and the potential for re-offense. The concept of public safety

was operationalized to include public health, community concerns, and specific conditions of release. These two concepts were closely tied in their usage and placement in reasons and decisions document. An offender's expression of empathy for his victims was also discovered during this phase of analysis, which was separate from admissions of guilt or remorse.

Through this analysis, variables for alternative release options were discovered. The relevance of release to another form of custody (ICE detainer or general DOC custody) and a sexually violent predator referral was discovered. These release options are not part of a release plan an offender would design or submit, but were given special significance and consideration by the board. For this reason, they were included as separate variables for analysis from the presence of a release plan. Release plans are not submitted to the ISRB for approval and are typically not submitted until release is eminent, which creates barriers to measuring the relevance of offender-generated options. The board's interaction with release plans changed from an offender's ability to generate a viable plan to the board accepting a plan that is provided for the offender to another form of custody.

Variables that were not initially identified by the board but became evident were related to initiating charge characteristics and victim characteristics. These variables helped to create a more complete picture of the offending behavior, and established relevance for other variables. There were strong ties in usage with perceived risk and public safety. Charge and victim characteristics were tied to public safety through their link to victim and community concerns. They also helped to define some conditions of release. This could possibly contribute to the potential for re-offense as a perceived risk being tied to offender change. Because not all variables were uniformly measured or present, finding textual relationships or patterns in usage

helped to give a more complete picture of how the board might use related variables that can be measured universally as clues to their reasoning.

Analysis of the use of language helped to define stated variables that were otherwise hard to define. The common use of the phrasing for offender change led to the conceptualization of that group of variables as relating to programming and participation or completion of SOTP. The use of offender change was usually within the same placement as participation and outcomes of programming. It was usually a reflection of how the offender had engaged with or implemented aspects of particular programs. Content analysis helped to establish the link between these variable groups in common usage. Because the variables relating to programming were inconsistent and had to be dropped from later statistical analysis, establishing this link in usage to participation in change can give insight to the implications that programming might still have on this data set.

Demographics

All the offenders in this study were male, over the age of 18. Age had two separate measures, to capture both the age of the offender at the age of the initiating offense and the age of the offender at the age of the ISRB review hearing. Offender age at the time of the initiating offense ranges from 18 to 81, with $\overline{x}$ =32, showing a strong tendency towards a younger age at offending. Offender age at the time of the ISRB hearing ranged from 21 to 91, with $\overline{x}$ = 44, showing a similar though less pronounced tendency towards a younger age. Sixty-five percent of the offenders in this study were white, 16% black, 10% Hispanic, 1% Asian/Pacific Islander, and 2% were unidentified in the documents.

When identifying those with a mental health disorder, 51% of cases were missing. There is patient psychological information available in every ESRC report, however it is heavily

redacted for all diagnosis information. Therefore, many diagnosis implications were drawn solely from the language of the release decisions. From the cases that were present, 24% had language indicating a mental health diagnosis, while 24% had language indicating no mental health diagnosis. This variable has the tendency to be somewhat unreliable however, due to lack of availability. Offender chemical dependency status was more available. Only 9% were missing, while 67% were chemically dependent or had language indicating chemical dependency and 24% were not chemically dependent or had language indicating no dependency. Because of the nature of the missing mental illness variables and their subjectivity to redactions, this data was not included in the final analysis, despite its potential relevance.

Principal Component Analysis

In order to examine thematic properties in the variables, an exploratory principal component model was generated. This method was appropriate to this study because it has the capacity to analyze all sources of variability, not only shared variability (Mertler & Vannata, 2002). It is possible to describe the variability of the defined measures in terms of patterns, or hidden variables, that might be undefined otherwise. Components might also reinforce known or suspected relationships between variables. This model depicts how structural trends occur, and was able to generate several specific components that reinforce both content analysis trends and variable design associations.

To determine suitability for principal component analysis, the correlation matrix was examined. There was not strong correlation identified between the majority of variables (0.3 or above), but it did occur. The Kaiser-Meyer-Olkin value was at .606, above the level of significance, although not a strong measure (*see* Table C-2: Significance Tests). Bartlett's Test of Sphericity was statistically significant (.000).

There were 15 components identified with an eigenvalue over 1, accounting for 74.8% of the variance in the model. The first four components have eigenvalues over 3 (6.1-16.6% variance each), the next three components have eigenvalues over 2 (4.8-5.3% variance each), and the remaining 8 components have eigenvalues that fall between 2 and 1 (2.2-3.7% variance each). Upon examination of the scree plot (*see* Figure C-1, Scree Plot), there is a sharp observable decline from the first to the seventh component, at which point there is a distinct break. It was decided to retain the first seven components for further modeling.

The principal component analysis was run forcing the 7-component solution, which was further refined by removal of variables with low communalities. The final analysis contained only 40 variables, resulting in a model that was slightly stronger, with 61.3% total variance explained for only 7 components (*see* Table C-1: Total Variance Explained). The resulting component correlations reveal low correlation between all seven components (the highest value is .211, but the majority are under .10). Oblimin rotation was performed to so the components could be interpreted for patterns and structure (*see* Table C-3, Pattern Matrix and C-4, Structure Matrix). At the threshold of .6, the variables all load into only one component of the pattern matrix. However, even at a lower threshold, many variables do not load more than once. All components except the last contain several strong loadings, with at least 3 loadings over .6. Component seven contains only 2 loadings over the threshold of .6, with additional loadings over the threshold of .3.

Component 1 accounts for 19.9% of the variance in the final model. This component contains variables associated with static actuarial risk. Interestingly, offender age at the time of the hearing (-.932) and at the time of the index offense (-.911) are the two highest loading variables. Other variables loading above the threshold are the STATIC 99 score (.794) and

STATIC 99 risk level (.648). The rest of the variables are the scores and reporting levels for the MnSOST assessment and the final risk reporting levels, both before and after any adjustments. Offender age at the time of release is a variable on both risk assessment tools, although below the threshold of significance. Besides both measures of offender age, there are no other internal variables from the actuarial tools that load with this component. This suggests that age is specifically related to actuarial risk in this dataset, more so than any other internal determinate. The presence of age, the actuarial tools, and the reporting levels as a strong trend is not a surprising result, given that they specifically measure the same underlying variables and modify each other. This is a good indication of strong actuarial test design.

Component 2 (98.9% variance) clearly identifies variables strongly associated with the sentencing rubric used to for determinate sentences post-SRA. Index offense counts (.810), minimum sentence (.804), and offender score (.723) all reflect the use of the rubric structure in determinate sentencing, which would seem to indicate relevance to the board-expressed value of statutory direction. Component 3 (7.7% variance) follows a similar trend towards statutory direction, including seriousness level (-.777), statutory maximum (.659), prior sex offenses (.633). These two components load shared variables at less significant levels. However, component two pertains more strongly to index offense characteristics, which continues to indicate statutory direction, while component three pertains more strongly to seriousness with a link to risk of future offense, loading conditions of release and final reporting level, although weakly.

Component 4 (7.0% variance) is interesting because it confirms a trend identified in the content analysis between programming and offender change. The loadings include an offender's participation in change (-.707) and refusal towards change (-.755) with SOTP participation

(.756) and an offender self-identifying risks (.692). The relationship between other variables that identify programming were not included due to missing sets. However, the confirmation of this trend for one specific type of programming allows for speculation as to the board's use of the variables associated with change to incorporate dynamic variables and institutional programming. An offender self-identifying risk is a signal of positive responsivity to programming. While other variable loadings did not reach the same threshold of significance as the top four, all the loadings for this component related only to SOTP programming and offender change.

Component 5 (6.3% variance) loads victim age simultaneously. It stands to reason that the age of the victim at the index offense (.846) and whether the offense involved a minor (-.848) should be identified in the same subset. This component also includes offense violence (.758), and loads incidents, range, the MnSOST, and final reporting at levels that do not meet significance. This reveals that this may be a measure of victimization and associated risk. While victim impact cannot be measured directly, it is still present in this variable. Component 6 (6.1% variance) identifies institutional infractions trending together, loading all general infractions (-.742), violent infractions (.795), serious infractions (.896), and total infractions -.932). This component is not surprising, but identifies that infractions represent a common measure, indicating the board-expressed measure of institutional behavior. The only type of infraction that does not meet the threshold is sexual infractions. Finally, component 7 loads an offender's admission (.861) or denial (.856) of guilt. Although the additional loadings are at a weaker threshold, the presence of expressions of remorse (.428), sexual infractions (.451), and SOTP completion (.310) may hint weakly at a measure of the internalization or acceptance of their sexual offending.

Logistic Regression

The lasso method was used to fit a logistic regression model that would initially include all of the variables. This technique is appropriate because it utilizes shrinkage to select the subset of the variables that have the most out-of-sample predictive power using a constraint that gives the least error (Tibshirani, 1996). The coefficient estimates are constrained using a penalty that shrinks the coefficients towards zero. As some coefficients are forced to be equal to zero, those variables are excluded from the model. This method of variable selection produces a sparse model in which the least useful variables are excluded and the variables that remain can be used to generate predictions beyond the known sample (James, Witten, Hastie, & Tibshirani, 2015). The tuning parameter was selected by using ten-fold cross validation to choose a value that minimizes out-of-sample prediction error.

To perform this analysis, variables with missing values had to first be excluded. This resulted in a model that incorporated 57 variables. The dependent variable is an indicator for whether or not the offender was released. The resulting coefficients indicate the effect the variable will have on the log of the odds ratio that the offender will be released (*see* Table D-1, Lasso Regression Coefficients). As a result, the magnitudes of the coefficients are not directly interpretable. However, the fitted model can be used to generate predicted probabilities of release for the offenders in this sample or those in a new sample. Many of the variables are indicators, so their coefficients can be compared directly to one another to gauge relative effects. Other variables, although not standardized, contain integer values that allow for comparison.

All of the variables indicating inmate change are represented in the final generated model. An inmate refusing to change while in custody has the highest effect of any of the indicator variables in the model (-1.67). Refusing to change has a negative effect nearly 1/2

times greater than the positive effect of making progress toward change (1.207). There is a separate positive effect if making progress towards change is not mentioned (.061). Whether the inmate participated in change is only represented in this model if it is not mentioned by the board, but at a level very close to zero (.061). This can indicate that this occurs randomly, or that there is some interaction that is not represented in this model, such as another variable having a specific influence on whether participation is mentioned. This is the only group of variables that is represented in its entirety in the model. Its variables also have the strongest effect on the outcome as a group.

The effect of community concerns not being mentioned has a greater negative effect than refusing to change (-1.772). The group of offenders for who these concerns are not addressed are somehow different than those for whom they are mentioned. This may indicate variables and/or interactions that have not been accounted for in this simple model. There may be other considerations that are weighted more heavily by the board, resulting in missing language from the reasons and decisions.

While the presence of offender-generated release plans was not shown to have a useful impact by this model, release to another form of custody and SVP referral were identified as indicator variables that had effects on release. Having a referral to an SVP evaluation had a negative effect (-.288), while being released to another form of custody had a positive effect on release (.971), effects that are consistent with would be expected. Being released to another form of custody was nearly as effective as making progress towards change in achieving release. Being held for SVP evaluation was only a little over 1/3 the effect in preventing release.

An offender expressing future criminal intent has a strong negative impact on release (-1.199). This is almost exactly the opposite effect as making progress towards change. This

result is particularly interesting because having achieved progress towards change and expressing future criminal intent would seem to be directly opposed to one another. The coordination of the size of the effect shows astute implementation by the board. An inmate expressing guilt has a positive effect on release recommendation (.182), which is a comparatively small effect relative to others. The offense involving a minor has a positive effect on release (.428), only slightly less than the negative effect of the offense being violent (-.484). These are less than half the effect of release to another form of custody or future criminal intent. Offender expressions and change have greater effects than offense and victim characteristics among the indicator variables.

The magnitude of the effect of non-indicator variables on the model cannot be directly compared to the effect of indicator variables. However, the direction of their effect and a comparison based on the magnitude of integer growth can still be shown. Adjusted risk level is shown to have a negative effect (-.127), so as risk level increases each level from 1 to 3, the likelihood of release decreases slightly. This is a much smaller effect than the offender change variables. While there are no other actuarial tools measures present in this model, because this is the final, cumulative measure that combines the effects of all the other variables, there is little need to account for other measures. Total custodial infractions are shown to have a negative effect (-.011) separately from violent infractions (-.057) for each additional infraction, but both decrease an offender's chances of being recommended for release.

Contrary to expectations, the seriousness level has a positive effect on release (.097). This may be due to the structure of the post-SRA sentencing rubric and the effect of plea bargaining, or it may be due to another factor or interaction that is not accounted for. Having a maximum sentence of life increases the likelihood of release (.663). Many of the offenders carry

a life sentence (86%), and having a shorter sentence may result in a lack of ability to participate in programming or other related impacts that are not accounted for in this model. Prior felony sentences have a negative effect, which does conform to expectations, although the effect is quite small relative to others (-.069).

To test the accuracy of the generated model, the predicted release probabilities were calculated (*see* Table E-2, Predicted Probabilities). First, the percent chance of achieving parole and not achieving parole was compared to in-sample outcomes. For the positive release determination "yes," the minimum was .556 and the maximum was .881, with $\overline{x}$ =.776 and $\tilde{x}$=.799. For a negative release determination "no," the minimum was .100 and the maximum was .859, with a $\overline{x}$ =.366 and $\tilde{x}$=.343. The predictive probability for a positive determination is better than a negative determination. The split is 45% higher for offenders who are released. This indicates that the model is a good fit for this data set. However, because this model is specifically generated for this dataset, these probabilities may overestimate how good the model is.

The predicted release probabilities were then generated out-of-sample on a training sample of 50%. The model was re-estimated on 50 cases, and then the fitted model was used to generate predicted release probabilities for the rest of the sample. For the positive release determination "yes," the minimum was .632 and the maximum was .901, with a $\overline{x}$ =.816 and $\tilde{x}$=.851. For a negative release determination "no," the minimum was .050 and the maximum was .901, with a $\overline{x}$ =.434 and $\tilde{x}$=.394. Compared to the in-sample predictions, negative release determinations are less accurate, but the positive determinations are more accurate, and the split is relatively unchanged. By comparing the accuracy of the model in-sample versus out-of-sample, we can gauge how well it performs. It generates similarly accurate predictions on both

the training and test samples, verifying the fit of the predictive model and indicating that the model is working well.

Discussion

The outcomes of the principal component and the regression models show two different approaches which achieve broadly similar results, giving confidence in their validity. Principal component analysis can be used as a base to gauge specific variables present in general ISRB release factors and to discover the internal strength of these factors. Logistic regression allows for the impact of specific variables to be used to speculate as to methodological compliance, to judge the impact of factors, and to find effects that might not be accounted for otherwise.

The principal component analysis identified seven components, four of which represent consistencies with ISRB expressed release factors. The components which fit the ISRB expressed model most strongly are actuarial risk, statutory direction, offender change, and custodial behavior. While some of the components do not fit the description of the ISRB expressed variables, there is still some consistency to other factors. Furthermore, viewing the loadings of the components in light of lasso regression gives insight to the effects of the ISRB factors, even if the matches are not perfect.

Victimization does not directly express victim input, but it does maintain the value of the victim in the model. This is interesting because victim input and opposition were not able to be measured due to data retrieval restrictions. That victimization still presented in the model indicates that it is relevant in how the variables are used by the board members. Two of the loadings for victimization are also present in the lasso regression model, the offense involving a minor and the offense being violent, having nearly equal but opposite effects. The impact of

victimization may have to do with not only the role of the victim, but the risk perceived from specific offending behavior that can be gleaned from the offender's interaction with the victim.

The same effect can be seen in the grouping of offender change variables. This grouping was first suspected during the content analysis, and is supported by the principal component analysis. Offender change was found to have a strong trend internally, but also to relate strongly to SOTP participation and offenders self-identifying risk, which is a specifically desired outcome for SOTP. While other programming variables were not ultimately measurable due to missing sets, the strength of the relationship between programming and change is verified in at least one program type, for not only participation, but intended outcomes as well. While this is not a specific dynamic battery as utilized in some other methodologies, the board is clearly identifying some non-static determinates of risk in release determinations.

The offender change component has by far the strongest impact on release in the regression model. Not only is making progress towards change and refusing change impactful, but so is the absence of the mention of change. The board's strong linkage of change to programming puts a highlight on how dynamic determinates of risk can be impacted and interpreted by specific behaviors, leading to the perception of risk. The inclusion of offender self-reported risk shows a link between the ISRB factor of responsivity to programming as related to change. The impact of programming response is present in how change is interpreted, leading to a perception of risk that is effective on release.

It is interesting to note that none of the static actuarial assessments present measurable correlation coefficients in the regression model. However, static variables are present through adjusted risk level as the final, comprehensive determinate of actuarial risk derived from the static assessments. Increasing risk levels does have a negative effect on release, but it is slight in

comparison to the effect of offender change. While actuarial risk has the strongest trend in the model, its effect on release is quite small in comparison to other components based on dynamic risk interpretations or institutional impacts.

Institutional impacts are most clearly visible in the release variables. While these do not have a strong component trend, they do have a strong effect on release. Being released to another form of custody and being referred to SVP evaluation are not intuitively what would be considered a release plan, but they have more impact than an offender-generated plan. Procedurally, offender plans are typically generated after release eligibility is secured, so this is not a variable that is easily measured. This is a further illustration of institutional impact. Because offenders are not submitting plans for release procedurally before board hearings, it allows for the institutional variables to be more easily measured, potentially increasing their effect.

The components indicating statutory direction and seriousness are not strongly represented in the regression model. Seriousness has an effect through maximum sentence, which positively effects release. However, due to the lack of standardization, it is difficult to tell the exact comparative effect. It is also important to note that the ISRB expressed variable of length of time served under ISRB jurisdiction is not represented in the results of either model. Custodial behavior has an expected component grouping, and also has the expected negative correlation with release.

Offender expressions to the board play an interesting role. Offender acceptance of guilt forms a weak component, with only two loadings. Expressing guilt is weakly correlated with release and has a positive impact. Expressing or denying guilt is another variable that can be tied to the receptivity to programming. It is part of a procedural disclosure that is prepared as part of

a review hearing. This shows a perception of risk that is tied to programming through an expected outcome, although the impact is not large. However, an offender expressing future criminal intent has a strong effect in the regression model, negatively impacting release. While this is a logical effect, it is another variable that is not related to static assessments that has a greater impact.

Overall, the ISRB is shown to consider factors in line with their expressed intent. These align with components that indicate actuarial risk, statutory direction, offender change/responsivity to programming, and institutional behavior. However, the component suggesting statutory direction is not correlated with release, and components indicating actuarial risk and institutional behavior have a weak effect. The strongest correlation is with offender change, highlighting the importance of institutional programming, specifically SOTP. Other relationships indicate that victimization may be related to the perception of risk, preserving victim importance in the model. Release plans did not form a strong component, but were shown to still have a strong effect on release outcomes. There is also some impact suggested by inmate expressions, which are not an ISRB expressed factor. While the trends within the data suggest the ISRB is considering components that capture its intended factors, the effect of these factors is not necessarily correlated with release.

Release is strongly correlated with variables that relate to risk through strong perception and institutional impacts. Inmate change through perceived responsiveness to programming, release plans that include custody transfers, and offender expressions to the board were shown to have the greatest impact in the regression model. The perception of risk by the board is shown to based not primarily on static actuarial assessments, but it is established through the interaction of

variables relating to offender change and dynamic risk with other institutional factors. This results in a concept of risk that is perceptive and procedurally based.

Chapter 5: Conclusion

Limitations

Because this study is retroactive, does not employ an experimental structure/depend on treatments, and does not have any time element, it avoids other sources of internal invalidity. Because there is no attempt to show true causation, variable interaction is merely explanatory. A new board member is introduced during the study, but due to the sample size, accounting for this change would be problematic. Constraints on the document production had the real effect of invalidating some variables that were suspected to have a large impact. However, the human impact of the records specialist should also be taken into account. The availability of time and resources on a varying basis may have played a role in the document redactions, which also greatly limited the dataset. Beyond expanding the timeframe for the production or limiting the scope of the documents requested, there was no way to avoid the interference of the records production.

The limits of this experiment were mainly related to the data collection constraints. Many variables were not able to be measured universally, and had to be dropped from the study. Variables that were drawn from the supporting documents which would have been otherwise available to the board were coded as missing if they were not present in the document as produced. This was often problematic, causing variables to ultimately be dropped from the final analysis. Often the board members have access to a broader range of information and documents. They are also able to gather information during the hearing. There are also specific protections that are given sensitive information, which might have been relevant if it were to be included. This data retrieval limit is the main source of internal invalidity for this study, and has the potential to be fairly significant.

Furthermore, the content of the hearings is only present as it is expressed in the written decisions of the board. The reasons and decisions are not an account of the hearing proceedings, but only outline the relevant information and considerations of the board that led to the decision. Specific variables that are contingent on the board's expression of their relevance at the hearing that were missing from the reasons and decisions were coded as not mentioned. This resulted in significance being given to their lack of mention. This result allows for deeper analysis into interactions, but does not result in a uniform coding of missing information.

The external validity of this study may not have far-reaching applications for correctional systems that do not employ similar hearing structure or utilize similar methodologies. It is certainly valid for evaluating the behavior of the ISRB in community custody release determinations beyond this sample. The consideration of the hearing as a treatment for the board may have an impact, but overall this study has validity for its application to board outcomes for comparison to established methodologies.

Implications

The major findings of this study show a general compliance with the stated ISRB factors considered in release decisions. There is evidence to suggest that major factors considered are inmate change, which is strongly tied to participation in and responsivity to SOTP; actuarial risk assessment scores; institutional behavior as evidenced by behavioral infractions; and release plans, excluding offender generated plans but including institutional options. The strongest patterns of variables developed in the principal component analysis pertained to static variables, which is likely due to the intentional design of the actuarial tools and sentencing design structures. However, these components were not those most strongly correlated with release. Offenders' behavior while in custody, reflected through the board's perception of inmate

risk/change, and expressions to the board had the strongest correlation with release. Given that these variables asses risk, a lack of systematic collection of these variables across each parolee may result in incomplete data. This may have implications for assessing the social service/support, programming, and release resource needs of the larger parolee population.

This study suggests a general compliance with methodologies that include reliance on static actuarial risk. There is no evidence of establishing dynamic risk factors through psychological testing. Instead, perceived inmate SOTP responsivity is the main indicator of change. SOTP is considered an effective means of impacting recidivism, but including other dynamic variables associated with psychological states might allow for better understanding of responsivity. Reliance on clinicians to report change may be unreliable compared to dynamic testing designed to capture states associated with risk of recidivism. Furthermore, standardization of the definition of some factors considered for release would allow for greater data collection. This would allow for currently developing methodologies surrounding recidivism to be utilized by board members. Having known variables associated with prominent methodologies measured to a standard definition could give board members further tools to evaluate risk on a less perceptive basis. Further research should focus on board members as the unit of analysis, which would allow for intent to be introduced, allow for greater valuation of the hearing process, and allow for individual characteristics to be introduced.

Appendix A: ISRB Expressed Variables

Table A-1: Factors Considered for Release Decisions (Washington State Department of Corrections, 2016)

ISRB Expressed Factors	Variable Coding Concepts
The original recommendation of the sentencing Judge and Prosecutor to the ISRB (if available)	Criminal history, sentencing
The length of time an inmate has served so far	Sentencing
Actuarial Risk Assessment Scores (static, dynamic and protective)	Risk assessment
Responsivity to Programming (level and dosage of program)	Treatment
Institutional and Previous Supervision Behavior	Violations, prior release
Inmate Change (participation, refusal, progress)	Change
Release Plan	Release plan
Case Specific Information	Offense characteristics, victim characteristics
Discordant Information	None identified
Victim Input	Victim characteristics
Public Safety	Public safety, perceived risk
Statutory Direction	Criminal history, sentencing, offense characteristics

Appendix B: Study Variables

Table B-1: Variable Matrix

Label	Variable	Construct	Measure	Values	Definition
Offender ID	ID	None	Scale	Numeric	Offender assigned case ID number
Offender Age at Index Crime	ofrcrm	Offender Demographics	Scale	Numeric	Age of the offender at time of originating offense
Offender Age at ISRB Hearing	ofrhr	Offender Demographics	Scale	Numeric	Age of the offender at the time of the hearing
Offender Race	ofrrac	Offender Demographics	Nominal	White; Hispanic; Native American; Asian/Pacific Islander; Black	Race of the offender
Mental Health Diagnosis	ofrmx	Offender Demographics	Nominal	No; Yes	Whether an offender has mental health diagnosis
Chemical Dependency Issues	ofrchx	Offender Demographics	Nominal	No; Yes	Whether an offender has chemical dependency issues
Offense Type	ofstyp	Offense Characteristics	Nominal	Assault; Molestation; Rape; Other [with sexual motivation]	The type of originating offense by category
Offender Score	ofssco	Offense Characteristics	Ordinal	Numeric	The calculated offender score for sentencing purposes
Seriousness Level	ofsser	Offense Characteristics	Ordinal	Numeric	The severity of the originating offense by seriousness level
Violent Offense	ofsv	Offense Characteristics	Nominal	No; Yes	Whether the originating offense was violent
Offense Involving Minor	ofsmnr	Offense Characteristics	Nominal	No; Yes	Whether the originating offense involved a minor victim
Counts	ofscnt	Offense Characteristics	Scale	Numeric	Number of counts within the initiating charge/offense
Incidents	ofsinc	Offense Characteristics	Scale	Numeric, with top value coded as Many [unspecified number]	Number of incidents within the initiating charge/offense
Misdemeanors	ofsprm	Criminal History	Scale	Numeric	Number of prior misdemeanor convictions

Label	Variable	Construct	Measure	Values	Definition
Felonies	ofsprf	Criminal History	Scale	Numeric	Number of prior felony convictions
Sex Offenses	ofsprx	Criminal History	Scale	Numeric	Number of prior sex offenses an offender has
Violent Offenses	ofsprv	Criminal History	Scale	Numeric	Number of prior violent offenses an offender has
Previous Unprosecuted Events Considered	ofspru	Criminal History	Nominal	No; Yes	Whether there are prior, unprosecuted events of sexual offending considered
Time Previous to Index Charge	ofstime	Criminal History	Scale	Numeric	The length of time since the last/previous criminal charge
Range of Offending, in Months	ofsrng	Criminal History	Scale	Numeric	The range of sexual offending for the index offense
Minimum Sentence	senmin	Sentencing	Scale	Numeric	The minimum time of the originating sentence
Time Served ISRB Jurisdiction	sensrv	Sentencing	Scale	Numeric	The time the offender had served under ISRB jurisdiction
Maximum Sentence	senmax	Sentencing	Scale	Numeric, with top value coded as Life	The maximum sentence allowed under statute
SOTP Sentence	sentx	Sentencing	Nominal	No; Yes	Whether sex offender treatment was recommended
Alt. Programming Sentence	senprg	Sentencing	Nominal	No; Yes	Whether other programming was recommended
Victim Type	vmtype	Victim Characteristics	Nominal	Family; Friend; Acquaintance; Stranger; Non-relative Domestic; Other	The type of victim
Victim Count	vmcnt	Victim Characteristics	Scale	Numeric, with top value coded as Many [unspecified number]	Number of victims for originating offense
Age of Victim at Time of Offense	vmage	Victim Characteristics	Scale	Numeric, with 19 coded as Unspecified Adult	The age of the victim at the time of the index offense
Victim Statement	vmstmt	Victim Characteristics	Nominal	No; Yes	Whether the victim/representative made an impact statement
Victim Opposes Release	vmopp	Victim Characteristics	Nominal	No; Yes	Whether the victim supports or opposes release

Label	Variable	Construct	Measure	Values	Definition
Total Custodial Infractions	vlcnt	Violations	Scale	Numeric	Number of violations committed in custody
Sexual Custodial Infractions	vlx	Violations	Scale	Numeric	Number of sexual infractions
Violent Custodial Infractions	vlv	Violations	Scale	Numeric	Number of violent infractions
General Custodial Infractions	vlgen	Violations	Scale	Numeric	Number of general violations
Serious Custodial Infractions	vlser	Violations	Scale	Numeric	Number of serious violations
Time Since Last Infraction	vlhr	Violations	Scale	Numeric	Time since the last serious infraction(s) until the hearing
Time to First Infraction	vlcust	Violations	Scale	Numeric	Time since incarceration until the first serious infraction(s)
Offender Expressed Remorse	exprem	Offender Expressions	Nominal	No; Yes; Not Mentioned	Whether an offender expressed remorse
Offender Expressed Guilt	expglt	Offender Expressions	Nominal	No; Yes; Not Mentioned	Whether an offender expressed guilt
Offender Denied Guilt	expden	Offender Expressions	Nominal	No; Yes; Not Mentioned	Whether an offender specifically denied guilt
Offender Expressed Future Criminal Intent	expcrm	Offender Expressions	Nominal	No; Yes; Not Mentioned	Whether an offender expressed desire/intent to reoffend
Offender Expressed Victim Empathy	expemp	Offender Expressions	Nominal	No; Yes; Not Mentioned	Whether an offender expressed empathy for his victim
SOTP Offered	txoffr	Treatment	Nominal	No; Yes	Whether an offender was offered sex offender treatment
SOTP Participated	txpart	Treatment	Nominal	No; Yes	Whether an offender participated in sex offender treatment
SOTP Completed	txcomp	Treatment	Nominal	No; Yes; Terminated	Whether an offender completed sex offender treatment
Chemical Dependency Programming	txchx	Treatment	Nominal	No; Yes	Whether an offender participated in chemical dependency treatment
Mental Health Programming	txmx	Treatment	Nominal	No; Yes	Whether an offender participated in mental health treatment

Label	Variable	Construct	Measure	Values	Definition
Anger Management Programming	txangr	Treatment	Nominal	No; Yes	Whether an offender participated in anger management
Educational/ Vocational Programming	txed	Treatment	Nominal	No; Yes	Whether an offender participated in educational/vocational training
Participated in Change	chpart	Change	Nominal	No; Yes	Whether there is language expressing offender participating in change
Refused Change	chref	Change	Nominal	No; Yes	Whether there is language expressing offender refusing to participate in change
Progress towards Change	chprog	Change	Nominal	No; Yes	Whether there is language expressing offender making progress towards change
Active Release Plan	rppres	Release Plan	Nominal	No; Yes	Whether there is an active release plan
Release Plan Accepted	rpacpt	Release Plan	Nominal	No; Yes	Whether the plan is accepted/favored by the board
Future Release Plan	rpfutr	Release Plan	Nominal	No; Yes	Whether there is a future intention to generate a plan for release
Release to other custody	rpcust	Release Plan	Nominal	No; Yes	Whether the offender will be released into another form of law enforcement custody
SVP Evaluation Recommended	rpSVP	Release Plan	Nominal	No; Yes	Whether an SVP evaluation was recommended
Risk Assessment	rapres	Risk assessment	Nominal	No; Yes	Whether a risk assessment tool was used in evaluating offender
Number Risk Assessment Tools	ratool	Risk assessment	Scale	Numeric	Number of risk tools used in each case
STATIC-99	ra99	Risk assessment	Nominal	No; Yes	Whether the STATIC-99 was used
STATIC-99 Score	ra99s	Risk assessment	Ordinal	Numeric	Risk assessment result/score from STATIC-99 tool
STATIC-99 Risk Level	ra99l	Risk assessment	Ordinal	Numeric	Proposed STATIC-99 sex offender level
MnSOST	raMN	Risk assessment	Nominal	No; Yes	Whether the MnSOST was used
MnSOST Score	raMNs	Risk assessment	Ordinal	Numeric	Risk assessment result/score from MnSOST tool
MnSOST Risk Level	raMNl	Risk assessment	Ordinal	Numeric	Proposed MnSOST sex offender level
Law Enforcement Reporting Risk Level	ralvl	Risk assessment	Ordinal	Numeric	Combined risk level expressed in decision from tools and mitigating statements

Label	Variable	Construct	Measure	Values	Definition
Risk Level Aggravated/Mitigated	ramit	Risk assessment	Nominal	No; Yes	Whether a mitigating statement was present
Adjusted Law Enforcement Reporting Risk Level	raadj	Risk assessment	Ordinal	Numeric	Adjusted reporting level suggested in the mitigating statement
Final Reporting Risk Level	Raadj0	Risk assessment	Ordinal	Numeric	Final law enforcement reporting risk level
Risk of Reoffense Addressed	raexp	Perceived Risk	Nominal	Unmitigated Risk; Mitigated Risk; Not Mentioned	Whether release decision expressly addressed risk to reoffend
Static Risk Assessment Addressed	raexps	Perceived Risk	Nominal	No; Yes; Not Mentioned	Whether release decision expressly addressed static risk assessment
Offender Self-Identified Risk	raexpo	Perceived Risk	Nominal	No; Yes; Not Mentioned	Whether offender self-identified high risks
Public Health Addressed	rapubh	Public Safety	Nominal	Concerns Expressed; Mitigated Concerns Expressed; Not Mentioned	Whether the release decision expressly address public health in its language
Conditions of Release Addressed	rapubc	Public Safety	Nominal	Conditions Addressed; No Conditions Necessary; Not Mentioned	Whether the release decision expressly addressed conditions of release
Public/ Community Concerns Addressed	rapub	Public Safety	Nominal	Concerns Expressed; Mitigated Concerns Expressed; Not Mentioned	Whether the release decision expressly expressed community/public concerns
Suspended SSASO	relSSOSA	Prior Release	Nominal	No; Yes	Whether the offender had previously revoked SOSSA
Revoked Prior Release	relpr	Prior Release	Nominal	No; Yes	Whether the offender had prior release revoked
Number of ISRB Hearings	relhr	Prior Release	Nominal	One; More than One	Number of previous ISRB hearings
Release Recommended	decrel	Outcome	Nominal	No; Yes	Whether an offender was recommended for release

Appendix C: Principal Component Analysis

Table C-1: Total Variance Explained (Forced 7 Component Model)

Component	Initial Eigenvalues Total	% of Variance	Cumulative %	Extraction Sums of Squared Loadings Total	% of Variance	Cumulative %	Rotation Sums of Squared Loadings[a] Total
1	7.941	19.853	19.853	7.941	19.853	19.853	5.072
2	3.558	8.894	28.747	3.558	8.894	28.747	3.279
3	3.075	7.686	36.433	3.075	7.686	36.433	3.743
4	2.784	6.960	43.393	2.784	6.960	43.393	3.174
5	2.527	6.317	49.710	2.527	6.317	49.710	4.660
6	2.445	6.112	55.821	2.445	6.112	55.821	4.991
7	2.188	5.469	61.291	2.188	5.469	61.291	2.594

Table C-2: Significance Tests

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	3211.072
	df	780
	Sig.	.000

Figure C-1: Scree Plot

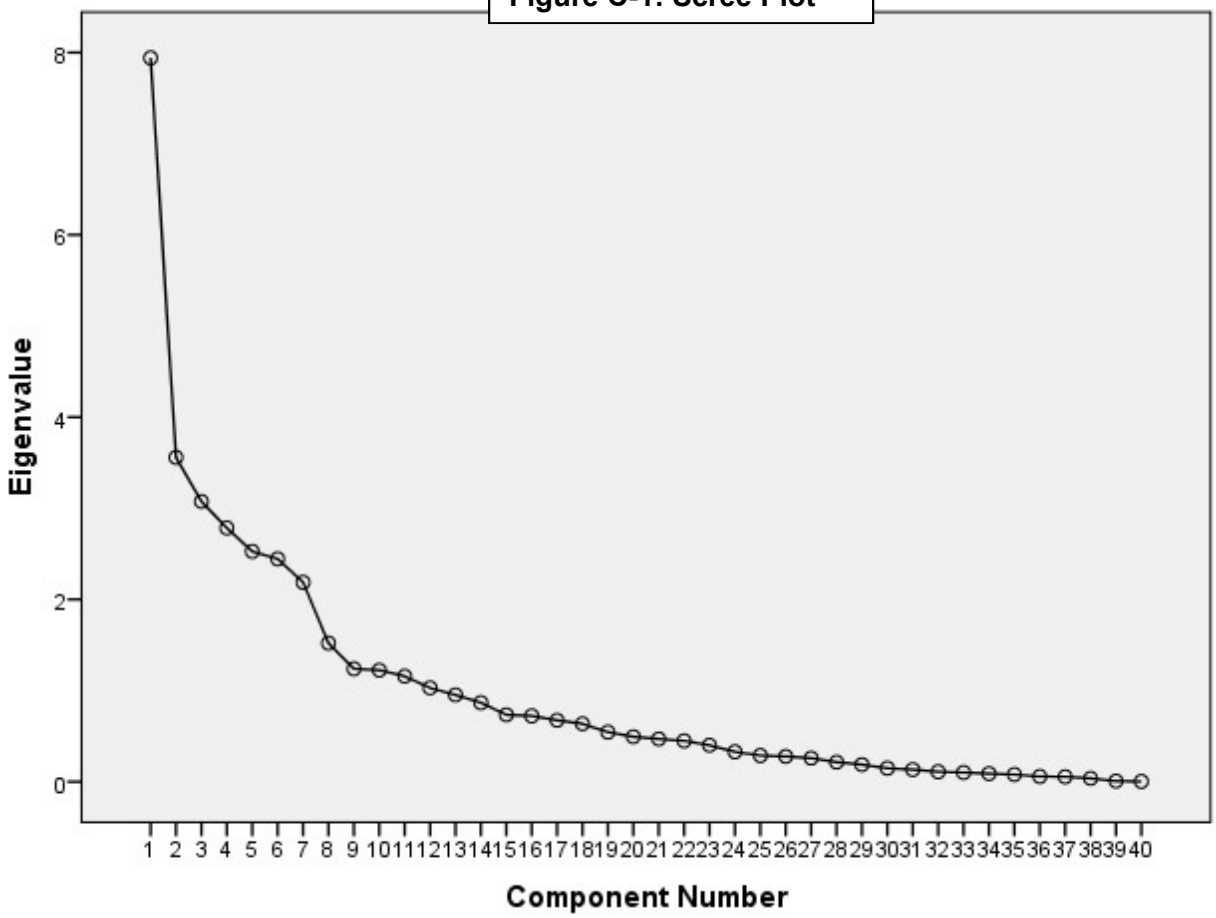

Table C-3: Pattern Matrix[a]

	Component						
	1	2	3	4	5	6	7
Participated in Change	-.143	-.061	-.040	**.707**	.085	-.013	.224
Progress towards Change	.201	.175	-.083	.493	-.136	-.219	.042
Refused Change	-.016	-.100	-.088	**.755**	.148	-.133	.002
Offender Denied Guilt	.033	-.043	.080	.095	-.009	.095	**.856**
Offender Expressed Guilt	.030	-.042	.117	.076	-.003	-.004	**.861**
Offender Expressed Remorse	-.143	.290	-.067	-.184	.118	-.143	.428
Offender Age at Index Crime	**-.911**	.019	.257	-.016	.235	-.050	-.026
Offender Age at ISRB Hearing	**-.932**	.110	.149	-.057	.290	-.007	.037
Counts	.020	**.810**	.039	.027	-.132	-.067	-.014
Incidents	-.045	.575	-.070	.077	-.478	.005	-.034
Offense Involving Minor	.038	.153	-.021	-.069	**-.848**	-.021	-.074
Range of Offending, in Months	-.151	.444	-.143	.061	-.304	.027	-.128
Offender Score	.061	**.723**	.514	.045	-.013	.123	.067
Seriousness Level	.036	.156	**-.777**	-.023	.069	-.089	-.173
Offense Type	-.124	.089	.293	-.231	-.162	-.097	.059
Violent Offense	.118	-.044	-.169	.097	**.758**	-.081	.041
Felonies	.109	.357	.425	-.037	.165	.324	.031
Misdemeanors	.014	.199	.214	-.179	.369	.175	-.146
Violent Offenses	.277	.086	.177	-.172	.272	.107	-.175
Sex Offenses	.095	.113	**.633**	-.031	.195	-.110	.093
STATIC-99 Risk Level	**.648**	.058	.246	-.091	.289	.037	.047
STATIC-99 Score	**.794**	-.024	.205	-.054	.182	.028	.042
Final Reporting Risk Level	.352	.011	.351	-.066	.363	.159	.111
Initial Reporting Risk Level	.571	.083	.260	-.137	.314	.144	.116
MnSOST Risk Level	.440	.101	.190	-.094	.224	.156	.028
MnSOST Score	.455	.227	.209	-.079	.354	.193	-.008
Offender Self-Identified Risk	.048	-.018	.085	**.692**	.014	.106	.151
Conditions of Release Addressed	-.183	-.159	.445	-.061	-.068	.393	-.181
Active Release Plan	-.090	.084	.068	.110	.033	.538	.169
Maximum Sentence	-.136	.092	**-.659**	-.147	.012	.217	.053
Minimum Sentence	.058	**.804**	-.242	.048	.194	.041	-.054
Time Served ISRB Jurisdiction	-.028	.497	-.536	-.123	.338	.270	.296
SOTP Completed	.031	-.152	-.147	-.567	.082	-.022	.310
SOTP Participated	.202	-.133	-.170	**-.756**	-.098	-.239	.123
Total Custodial Infractions	.113	-.031	-.110	-.052	-.012	**.932**	.050
General Custodial Infractions	.130	-.104	-.082	-.154	-.031	**.742**	.099
Serious Custodial Infractions	.075	.034	-.098	.077	.010	**.896**	-.011
Violent Custodial Infractions	.065	.098	-.124	.065	.031	**.795**	-.155
Sexual Custodial Infractions	.146	-.138	.026	.096	-.228	.331	.451
Age of Victim at Time of Offense	-.116	.019	-.041	.083	**.846**	.052	-.072

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]
[a.] Rotation converged in 19 iterations.

Table C-4: Structure Matrix

	Component						
	1	2	3	4	5	6	7
Participated in Change	-.138	-.081	-.122	.706	-.011	-.031	.205
Progress towards Change	.102	.133	-.165	.505	-.185	-.207	.023
Refused Change	-.049	-.126	-.167	.755	.026	-.140	-.009
Offender Denied Guilt	.133	-.050	.075	.071	.082	.171	.864
Offender Expressed Guilt	.115	-.057	.101	.049	.075	.078	.861
Offender Expressed Remorse	-.112	.287	-.070	-.197	.117	-.099	.414
Offender Age at Index Crime	-.848	.039	.196	-.031	.070	-.156	-.097
Offender Age at ISRB Hearing	-.853	.138	.101	-.069	.127	-.108	-.027
Counts	-.031	.797	.006	.011	-.097	-.021	-.038
Incidents	-.165	.550	-.152	.117	-.477	-.063	-.082
Offense Involving Minor	-.153	.110	-.131	.015	-.838	-.169	-.137
Range of Offending, in Months	-.244	.433	-.205	.101	-.344	-.056	-.167
Offender Score	.128	.726	.524	-.037	.133	.261	.065
Seriousness Level	-.062	.159	-.772	.052	-.053	-.171	-.164
Offense Type	-.135	.079	.269	-.243	-.133	-.100	.028
Violent Offense	.245	-.016	-.073	.036	.734	.063	.104
Felonies	.250	.388	.502	-.121	.334	.463	.069
Misdemeanors	.140	.238	.309	-.246	.453	.284	-.105
Violent Offenses	.363	.112	.277	-.231	.385	.234	-.121
Sex Offenses	.185	.110	.657	-.126	.299	.046	.100
STATIC-99 Risk Level	.747	.068	.364	-.175	.483	.264	.128
STATIC-99 Score	.865	-.023	.319	-.127	.391	.252	.129
Final Reporting Risk Level	.507	.036	.464	-.159	.532	.356	.179
Initial Reporting Risk Level	.707	.104	.392	-.226	.525	.370	.201
MnSOST Risk Level	.542	.120	.294	-.160	.390	.324	.095
MnSOST Score	.588	.256	.336	-.165	.535	.398	.071
Offender Self-Identified Risk	.068	-.033	.030	.675	-.003	.128	.152
Conditions of Release Addressed	-.086	-.128	.478	-.093	.015	.376	-.175
Active Release Plan	.042	.123	.120	.088	.132	.552	.201
Maximum Sentence	-.146	.119	-.628	-.079	-.045	.120	.067
Minimum Sentence	.066	.817	-.213	.027	.212	.117	-.038
Time Served ISRB Jurisdiction	.070	.539	-.450	-.124	.369	.323	.342
SOTP Completed	.082	-.135	-.077	-.561	.137	.002	.331
SOTP Participated	.159	-.136	-.114	-.730	-.045	-.228	.132
Total Custodial Infractions	.294	.042	.026	-.059	.181	.940	.133
General Custodial Infractions	.281	-.045	.039	-.159	.144	.754	.170
Serious Custodial Infractions	.243	.103	.019	.068	.176	.901	.064
Violent Custodial Infractions	.201	.162	-.016	.059	.165	.792	-.087
Sexual Custodial Infractions	.206	-.134	.037	.101	-.113	.342	.472
Age of Victim at Time of Offense	.058	.067	.065	.006	.813	.178	-.015

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Appendix D: Lasso Regression

Table E-1: Coefficients

Variable	OR
Offense Type (Molestation)	-.126
Offense Seriousness Level	.097
Violent Offense (Yes)	-.484
Offense Involving Minor (Yes)	.428
Prior Felony Offenses	-.069
Maximum Sentence (Life)	.662
Violation Count	-.011
Violent Violations	-.057
Expressed Guilt (Yes)	.182
Expressed Future Criminal Intent (Yes)	-1.199
Participated in Change (Not Mentioned)	263
Refused Change (Yes)	-1.672
Made Progress Towards Change (Not Mentioned)	.061
Made Progress Towards Change (Yes)	1.207
Release to Custody (Yes)	-.971
SVP Referral (Yes)	-.288
Adjusted Risk Level	-.127
Public/Community Concerns Addressed (Not Mentioned)	-1.772

Table E-2: Predicted Probabilities

	Decision	Min.	Q1	Median	Mean	Q3	Max
In Sample	Yes	.556	.719	.799	.776	.867	.881
	No	.010	.199	.343	.366	.463	.859
Out of Sample	Yes	.633	.721	.851	816	.901	.901
	No	.050	.193	.394	.434	.648	.901

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