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AUTOMATED RISK ASSESSMENTS FOR PAROLE DECISIONS

Meredith, T., Speir, J. C., & Johnson, S. (2007). *Developing and Implementing Automated Risk Assessments in Parole*. *Justice Research and Policy*, 9(1), 1–24.

WHY WAS THE STUDY DONE?

Many correctional agencies use risk assessment instruments to help them make decisions about inmates' prison and community supervision level assignments. In the past, parole officers in Georgia used a paper-and-pencil risk assessment form, but beginning in 1997, each officer was provided a laptop computer, and a computerized case management system called the Field Log of Interaction Data (FLOID) was designed. FLOID captures parolee case information, supervision activity, and officer-parolee interactions – everything previously written in field notebooks is now entered daily into FLOID. The Georgia Board of Pardons and Paroles (Parole Board) contracted with the authors of this study to develop two new automated risk assessment instruments – one that determines risk on the first day of parole supervision (initial instrument) and one that monitors daily transactional data and alerts officers to changes in parolee risk throughout the course of supervision (reassessment instrument). Risk results are updated daily and are provided to parole officers through Web-based reports and e-mail. This article describes the development process.

HOW WERE THE INSTRUMENTS DEVELOPED?

The automated risk assessment instruments were developed through extensive analysis of data merged

from two sources: the Georgia Department of Corrections Offender Tracking Information System (OTIS) and the Parole Board's Field Log of Interaction Data (FLOID). Two assessment instruments were created – one for risk assessment at the start of parole and the other for a risk reassessment during parole supervision. All parolees who completed supervision during the seven-month period of July 2000 through January 2001 were used to test the instruments (N = 6,327).

Initial Risk Assessment Analysis. The initial risk assessment contained only static predictors of risk, those factors known on the first day of supervision that will not change during the course of supervision. Over 40 potential static predictor variables were identified in the corrections database, including demographic information (age, race, sex, IQ), social background (family life, employment history, mental health and substance abuse history), offense information, prison behavior, and extensive prior criminal history measures.

Risk Reassessment Analysis. Over 35 potential dynamic predictor variables were identified in the parole case management data for use in risk reassessment. These factors change over time, and include indicators of performance under parole supervision, such as employment activity, changes in residence, program participation, drug testing dates and results, supervision level changes, technical violation activity, field and

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777 North Capitol Street, N.E., Suite 801 § Washington, DC 20002
Phone: 202-842-9330 § Fax: 202-842-9329 § Web site: www.jrsa.org.

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collateral interactions, and violations and sanctions (including electronic monitoring assignments).

WHAT DID THE STUDY FIND?

Validation. In order to determine how well the new risk assessment instruments performed (that is, how well they differentiate between those who get arrested and those who do not), the assessment instruments were applied to the cohort under study. This allowed for a comparison of the instrument's predictions to actual parolee outcomes. Findings showed that the risk scales performed at least as well as the widely accepted LSI-R assessment tool for both the initial risk assessment and the reassessment.

The Importance of Parole Performance. While traditional risk assessments focus on offender characteristics and prior criminal history, this study's reassessment model demonstrates the importance of performance in the community and how parole behavior directly influences risk of reoffending. Those factors that predict a parolee's likelihood of recidivating on the first day under supervision are exacerbated among those parolees who perform poorly during parole supervision. Since the dynamic factors continually change during the course of parole, the probability of arrest must be continually recalculated (at ongoing or regularly scheduled reassessment intervals).

The Pay-Off of Jobs and Programs. This study found that the Parole Board's current emphasis on employment and treatment programs is soundly justified. The analysis of Georgia parolees indicates that the pay-off for each day of employment during parole is a 1% reduction in the likelihood of arrest. That translates into a 30% decrease in the likelihood of arrest for only one month (30 days) of employment. A parolee employed for a year is 3.5 times less likely to be arrested than a similarly situated parolee who is unemployed for the year. Similarly, each month of attending programs during parole results in a reduction of 2% in the likelihood of arrest.

The Negative Influence of Drug Use and Residential Instability. This analysis demonstrated the negative influence of drug use and residential instability during parole supervision. For each incremental change in the ratio (positive to total tests), there was a 60% increase in the likelihood of arrest. Finally, there was a 25% increase in the likelihood of arrest each time a parolee changes address.

Methodology. To weigh the strengths and weaknesses of various risk assessment options, the authors identified and considered the

findings of 50 risk assessment studies published in the past 20 years. The initial risk assessment was developed to contain only static predictors of risk, and a multivariate logistic regression analysis was conducted to predict arrest as a function of key offender and offense characteristics. The method for developing the reassessment instrument was the same as with the initial risk assessment instrument. Potential static and dynamic risk factors from both OTIS and FLOID were examined via multivariate logistic regression analysis to predict the probability of arrest for a new offense while under parole supervision.

The automated initial risk assessment instrument went into the field in the spring of 2001, replacing the existing paper-and-pencil form. Test piloting of the reassessment instrument began in early 2003. Statewide training on both assessment instruments took place in May and June 2003. All Georgia parole officers and chiefs attended a four-hour training session where the authors reviewed the development of the instruments, the notification system, and how officers were to use the new information being provided. By January 2004, the new risk assessment system was fully implemented statewide.

PREDICTING NONCOMPLIANT BEHAVIOR IN PROBATIONERS

Schulenberg, J. L. (2007). Predicting Noncompliant Behavior: Disparities in the Social Locations of Male and Female Probationers. Justice Research and Policy, 9(1), 25-57.

WHY WAS THE STUDY DONE?

There were 4,141,125 adults on probation in 2004, roughly 59% of all persons under adult correctional supervision. Although women comprise a small proportion of the criminal justice system population, the arrest and incarceration rates of women are rising significantly faster than the comparable rates for men, and women are more likely to receive a probation sentence.

Researchers have examined post-probation recidivism, characteristics of typical probationers, and factors affecting recidivism while under probation supervision (revocation for a new offense or a technical violation). Little has been done, however, to explore the linkage between gender, risk factors, and noncompliant behavior for probationers under supervision, despite the fact that almost a quarter of the probation population is female.

This exploratory study looks at sex-based differences in the characteristics and behavior of probationers who showed noncompliant behavior but did not have their probation revoked. Specifically, it investigates the relative impact of offense and offender characteristics for active probationers on three indicators of noncompliant probation behavior: missed payments in the last year, reprimands or warnings from the probation officer for rule violations, and formal disciplinary hearings that did not result in revocation.

WHAT DID THE STUDY FIND?

This study found that factors predicting noncompliant behavior in probationers differed by sex and that there were fewer predictive variables for women. Age, race, education level, job stability, employment status, residential instability, and familial criminality were common predictors for missing a payment, being reprimanded for rule violations, and having a disciplinary hearing. Men and women faced multiple inequalities but did so from different social locations. (Social location refers to one's place or status within the broader social structure). Nonwhite women and those with little stability were at higher odds for noncompliant behavior, whereas offense and prior history factors were predictive of some but not all noncompliant behavior by men.

Although these findings have some similarities to those from other studies, these results challenge some of the assumptions that exist about the factors affecting probation outcomes. Assumptions cannot be made that men and women probationers who exhibit similar behavior come from the same social locations. While both men and women are in marginal social situations based on personal and stability characteristics, they are situated in different social locations with different factors working together to affect probation behavior. However, it appears the situation is more tenuous for women, as factors such as race and job or residential instability double the odds for women. Lastly, characteristics of the offense and the sentence provided little explanation for these probation behaviors.

Future research is needed that looks explicitly at the differences between men and women. When analyzing males and females individually, differences emerged between each subsample and from the overall sample with both sexes combined. Additionally, prior history variables that were not commonly included in prior research, such as parental and familial criminality, were

found to have a different impact on men and women. Future studies need to consider the sex of the individual as the center of the research question rather than as a control variable. In this way, more information can be gathered about female and male offenders to aid in their supervision and rehabilitation.

Methodology. Data used in this research are from the 1995 Survey of Adults on Probation (SAP) conducted by the Bureau of Justice Statistics; they were obtained from the Inter-University Consortium for Political and Social Research. The SAP is the first nationally representative sample that includes individual characteristics of adult probationers under the supervision of state, county, and municipal agencies. The survey contains two sections: a records check that uses probationers' administrative files (N = 5,867) and personal interview data collected from a subset of probationers (N = 2,030). Those 2,030 probationers who completed the interview are in the current sample.

Dependent Variables. Three measures of nonconforming behavior are used as probation outcomes: missing a payment, being reprimanded or warned about rule violations, and having a formal disciplinary hearing.

Independent Variables. For the current study, factors affecting probation behavior were grouped into the categories of personal, prior history, stability, and current offense and sentence characteristics.

Bivariate analyses were used to assess any differences and similarities between male and female probationers based on their personal, prior history, current stability, and offense characteristics. Chi-square analyses determined whether the differences between men and women in the percentages of the independent variables were statistically significant. Multivariate logistic regressions were used to assess the independent contribution of each predictor for probation behavior. It became necessary to refine the model so as to minimize the impact of the smaller sample size when examining only female probationers. Only those independent variables that were statistically significant at the bivariate level were included in the multivariate logistic regression equation for each dependent variable. In addition to the simple entry procedure, stepwise logistic regression was used to detect any anomalies or possible interaction effects.

SEX OFFENDER RESIDENCE RESTRICTIONS

Levenson, J. S., & Hern, A. L. (2007). *Sex Offender Residence Restrictions: Unintended Consequences and Community Reentry*. *Justice Research and Policy*, 9(1), 59–73.

WHY WAS THE STUDY DONE?

Twenty-two states now have laws restricting where sex offenders can live, with 1,000- to 2,000-foot exclusionary zones being most common. Few studies have investigated the impact or effectiveness of such residence restrictions, however, and there is little evidence that links residential proximity to schools with sex offense recidivism. Nonetheless, zoning restrictions are widely popular, partly due to the belief that sex offenders have extraordinarily high recidivism rates. While extensive media attention to sexually motivated abductions of children may create a perception that violent sex crimes are on the rise, research indicates that the majority of sex offenders are unlikely to be rearrested for new sex crimes following a conviction. In addition, residence restrictions are designed to prevent assaults by strangers, but such crimes are relatively rare events. In the majority of sexual assaults, perpetrators are well known to their victim.

Research has found that social stability and support increase the likelihood of successful reintegration into the community for criminal offenders. For example, various studies found that: sex offenders who had a positive support system in their lives had significantly lower recidivism; those who maintain social bonds to communities through stable employment and family relationships had lower recidivism rates than those without jobs or significant others; and, self-concept, civic participation, and social resources are essential to an offender's identity as a conforming citizen and ultimately to his or her desistance from crime. Policies such as residence restrictions can disrupt the stability of sex offenders and interfere with the potential to develop social bonds, secure employment, and engage in positive activities, raising concerns that ultimately they might be counterproductive.

This study investigated the positive and negative, intended and unintended consequences of residence restrictions on sex offenders. Rather than propose specific hypotheses, the study sought to clarify offenders' experiences and perceptions of the impact of residence restrictions on their lives.

WHAT DID THE STUDY FIND?

Of the 148 adult male sex offenders surveyed for this study, about 18% said they were forced to move from a home or apartment due to residence restrictions, and about a quarter said they were unable to return to their homes after release from prison. More than a third reported that they were unable to live with supportive family members, and 38% found it difficult to find affordable housing because of restrictions on where they can live. Younger offenders were particularly affected in these two regards.

Almost half of the sample (45%) reported depression, anger, and hopelessness resulting from housing restrictions. Many reported that they had to live further from employment opportunities, social and mental health services, and supportive family and friends. More than half (64%) were anxious that they would not be able to find a place to live at some point in the future.

Regarding reoffending, most did not consider housing restrictions helpful in managing their risk of reoffending. Although 26% said that zoning laws limited their access to children, only 19% said that such restrictions help prevent offending. About three quarters of the respondents said that if they were motivated to reoffend, they would be able to find a way to do so despite residence restrictions.

POLICY IMPLICATIONS

The study concluded that housing restrictions appear to disrupt the stability of sex offenders by forcing them to relocate, sometimes multiple times, creating transience, financial hardship, and emotional volatility. Zoning laws appear to push sex offenders out of major metropolitan areas into more rural communities where employment, social services, mental health treatment, and social support are less accessible. Because the majority of sex offenders are unlikely to recidivate, overly broad housing restrictions may be unnecessary and lead to an inefficient distribution of limited resources. Alternative approaches to managing sex offenders could reduce the incidence of negative unintended consequences and increase the likelihood of successful community adjustment for many sex offenders.

Methodology. A sample of 148 was drawn from a pool of adult male sex offenders attending four outpatient sex offender counseling centers in Indianapolis, South Bend, and New Albany, Indiana. (Currently there are approximately 8,250 registered sex offenders in Indiana.) All 200 clients attending treatment at the cooperating facilities were invited to complete a survey about the impact of sexual offender policies on their community reintegration. Out of 200 surveys administered, 148 were returned, a response rate of 74%. Clients had been on probation for an average of 24 months. Slightly more than half (51%) had been in their current treatment group for less than one year, 33% had been in treatment for one to two years, and 16% had been in treatment for over two years. About half had abused children under 12, 40% had abused minor teens, and 9% were convicted of rape of adults. The survey gathered client demographic data and information regarding offense history using forced-choice categorical responses in order to better protect anonymity. Participants rated three-point and five-point Likert scales indicating their degree of agreement with survey questions, and could also provide narrative responses. Data were collected in November 2005.

CRIMINOLOGICAL RESEARCH IN A HOSPITAL

Hassett-Walker, C., & Boyle, D. J. (2007). *Conducting Criminological Research in a Hospital: The Results of Two Exploratory Studies and Implications for Prevention. Justice Research and Policy, 9*(1), 75–94.

Criminologists use a variety of data sets and types in their research, each with its own strengths and weaknesses, which can affect a study's conclusions. This article discusses two exploratory studies that used a less common source of data for criminology—hospital data on intentional assault injury. While some research involving hospital-based injury surveillance has been conducted, the results of such efforts have been published largely in public health and medical journals.

Study #1 is a two-year, gunshot wound (GSW) surveillance effort conducted in a Level One Trauma Center located in Newark, New Jersey. The data were extracted from medical charts and medical histories of 920 patients to record information such as prior violent injuries. The geographic locations of the shootings (i.e., the EMS patient retrieval address) were included in map form, a unique contribution for studies using hospital data. Study

#2 was conducted after the first study, in the same facility, and involved more detailed interviews with 30 assaulted adolescent and young adult patients in an effort to collect data about individual-level, contextual factors related to assault. A main goal of Study #2 was to use the data gathered to plan an intervention to prevent reinjury.

WHAT DID THE STUDY FIND?

Study #1

Patients' Prior Assault Injuries. Nearly one in five GSW patients had some notation—either in their medical chart or in one of the hospital's databases—about having sustained a prior assault-related injury.

Patients' Prior Criminal Activity. Notations were found in nearly 8% of GSW patients' medical charts indicating they had current or past criminal involvement. This is most likely an underestimate, since the medical staff are not required to document this information.

Spatial and Time Distribution of GSWs. The data's geographical distribution showed that certain areas of the city were significantly more likely to produce GSW victims. The late night/early morning hours were found to be peak times for gun violence, and Sundays and Mondays were peak days for gun violence.

Socio-Structural Characteristics of GSW Hotspot Neighborhoods. Analyses revealed significant, positive relationships between a neighborhood's GSW rate and its concentrated poverty and percentage of vacant housing units.

Comparing GSW and Arrest Data. The study compared the GSW data with State Police arrest data collected during the same two-year time period (2004–2005). The overall violent crime index for New Jersey's 15 urban centers increased during this period, and the GSW data show an increase as well. The increase in New Jersey's crime varied by location. Eight of New Jersey's 15 urban centers had increases in the violent crime index from 2004–2005, while six had decreases, and one city remained virtually the same.

Other Patient Characteristics. Males comprised nearly 93% of GSW patients. The majority of GSW victims in Study #1 were African American. These results mirror other research that shows an overrepresentation by both groups

in criminal justice statistics. Young adults 20 to 24 years of age comprise about one quarter of GSW victims, whereas they make up less than 8% of Newark's population.

Study #2

Patients' Prior Assault Injuries

The hospital database showed that 20% of interviewed assault-injured patients (n = 6) had received prior treatment at the Trauma Center for an assault-related injury. In addition, half (n = 15) said they had had a physical fight (or fights) during the past year; the subjects did not always consider themselves a victim, but rather an equal participant.

Evidence of Patients' Criminal Activity. Three out of four interviewed patients (n = 23) said they had been previously arrested, and 53% (n = 16) had been previously incarcerated at both juvenile and adult detention facilities for varying lengths of time.

Other Patient Characteristics. Ninety percent of the patients interviewed were male (n = 27). Mean patient age was 18.3 years. Seventy percent of assault injury victims were African American. Nearly half of the sample (n = 14) were not currently in school, and had neither graduated from high school nor obtained their GED. Only one third of those 18 years of age or older were employed. Half of the sample had fought physically during the prior year. Twenty percent indicated that they drank regularly, and more than half (n = 16) said they use drugs (mostly marijuana). Twenty percent had used drugs shortly before the assault that led to their most recent treatment at the Trauma Center, 90% had witnessed violence in their community, and a quarter said they had lost friends or family to violence. The interviewed patients seemed at high risk for future violence-related injuries and prime candidates for an intervention.

PREVENTION IMPLICATIONS

Prevention Implications from Study #1:

Increase Neighborhood-Level Collective Efficacy

Blocks of housing that had higher GSW rates tended to be poorer and have more vacant housing units. This suggests that such areas that have less "collective efficacy," that is, residents and neighbors who look out for one another, are more prone to gun violence. City-level housing policies that target areas with more vacant housing could potentially help lessen local gun violence.

In addition, financial incentives could be offered to working and middle class residents to reside in the same block groups with more impoverished residents to reduce the effect of poverty concentration.

Prevention Implications from Study #2:

Reinjury Prevention Planning

Assault-injured patients need substance abuse and mental health treatment in addition to medical treatment. Among the next steps for Study #2 is to seek funding for the start of an intervention. A multi-pronged approach will likely be used, including reaching out to patients treated through the Trauma Center as well as their families. In addition, a prevention and/or intervention program may be offered in schools located in the high-violence neighborhoods. Because the majority of patients interviewed in Study #2 had prior histories of criminal activity, parole and probation officers may be part of the intervention planning team as well.

Methodology. For Study #1, data was collected on non-self-inflicted GSW victims treated at the University Hospital Trauma Center in Newark, New Jersey and/or the hospital's emergency room from January 1, 2004, through December 31, 2005. Data included patient demographics (i.e., gender, age, race/ethnicity); seriousness of injury; any past medical treatment for intentional assault injuries; any evidence of current or past criminal involvement; and the address at which the ambulance retrieved the patient. For Study #2, semi-structured interviews were conducted with consenting patients 13 to 21 years of age who received treatment for an intentional assault-related injury. The interviews were conducted from September 2005 through September 2006. The interviewer asked patients about their education, work history, and family environment. Patients were also asked about the context for the assault, and any role the patient may have played in the assault event; alcohol and drug use; violence in the patient's residential neighborhood; and past involvement in the criminal justice system. Statistical analyses were performed using SPSS. In addition to patients' prior assault injuries and evidence of criminal activity, the study also examined socio-structural predictors of a neighborhood's GSW rate per 1,000 residents using both correlational analysis and hierarchical regression. The socio-structural variables were taken from the U.S. Census 2000 at the level of patients' residential block group. These were: concentration of poverty, percentage of vacant housing units, and percentage of rental housing units. These latter two variables are proxy indicators of residential mobility, an element of Social Disorganization theory. Past research has shown that residential instability and low rates of home ownership correlate with many problem behaviors.