Applying Problem Solving Approaches to Issues of Inmate Re-entry: The Indianapolis Pilot Project*

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Abstract

From 1990 to 2000 the number of former prisoners released annually from U.S. prisons has increased from approximately 400,000 to 600,000. Research has found that approximately two-thirds will re-offend within three years of release. This high rate of offending poses public safety problems for communities and neighborhoods as well as a loss in human capital for these former inmates and their families. Marion County (Indianapolis) is not immune to these trends. As the state of Indiana's largest urban center it experiences the largest number of former inmates returning to the community. Indeed, approximately 2,400 male and 300 female inmates return to the county each year.

The Indianapolis Violence Reduction Partnership (IVRP) decided to employ a problem solving approach to the issue of inmate re-entry. The project began with an analysis of the re-entry population. The analysis included a profile of prison releases during 2000, a survival analysis of a sample of inmates, and interviews and focus groups with recently released inmates and service providers experienced in working with former inmates. The problem analysis indicated that 40 percent of former inmates were arrested within one year of release. Younger inmates and those with more extensive criminal histories were at higher risk for re-offending as were African-American inmates. Both former inmates and service providers described a common set of barriers to successful re-entry including housing, substance abuse, negative peer influences, and anxiety of not "making it."

As a result of these findings the IVRP decided to implement a pilot project. The project consisted of having recently released inmates attend a neighborhood-based group meeting convened by criminal justice officials and including community representatives and service providers. The meetings were based on the notion of combining deterrence and social support (linkage to services). The pilot project was evaluated using a quasi-experimental design. The treatment group consisted of 93 former inmates who attended one of five meetings. The comparison group consisted of 107 former inmates released at the same time period as the treatment group but in a different neighborhood. The meetings were rotated geographically throughout the city so both treatment and comparison groups were drawn from the three targeted areas of the city. The meetings were well-received by criminal justice officials, neighborhood representatives, service providers, and by the inmates but the analysis failed to detect a measurable effect on future offending. Approximately 40 percent of both treatment and control groups were re-arrested during the follow-up period that ranged from 10 to 24 months. The treatment group survived longer (average = 172 days) than did the comparison group (120 days) before being re-arrested, yet this difference did not prove statistically significant in the survival analysis.

The findings should be tempered by the small sample size that resulted in low statistical power for detecting differences. More importantly, the treatment is a relatively low dosage intervention. Other communities have utilized similar types of meetings with former inmates but have initiated the process while the offender was still in prison and given more attention to follow-up after the meeting. These approaches with greater intensity of intervention should be subject to evaluation given the importance of this issue.

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Applying Problem Solving Approaches to Issues of Inmate Re-entry: The Indianapolis Pilot Project

The mid- to late- 1990's witnessed unprecedented declines in crime. Although scholars debate the causes for the decrease, the large growth in incarceration, through possible incapacitation and deterrence effects, is likely to have played some role. With nearly 1.4 million inmates in custody in state and federal prisons at mid-year 2001 (Bureau of Justice Statistics, 2002), however, a corresponding set of issues emerges as the nation faces the effects of a large number of individuals leaving correctional institutions and returning to communities. Indeed, at least 95 percent of state prisoners are expected to be released (Bureau of Justice Statistics, 2002). From 1990 to 2000 the number of former prisoners being released from prison to the community has increased from slightly more than 400,000 per year to approximately 600,000 per year (Travis, Solomon and Waul, 2001). Given the steady increase in prison populations, the number released will continue to escalate as well. Given the problems of re-entry into society, and the high rates of recidivism among former inmates, it is crucial that the nation devise effective mechanisms for assisting the transition of inmates from prison to community.

The state of Indiana has not been immune to these trends. In 1998, over 9,200 inmates were released from state correctional facilities. Marion County (Indianapolis), the state's largest urban center, is witnessing over 200 inmates per month returning to the community. Approximately half of these inmates are under parole supervision and half are on probation as part of a split sentence.

Both the state Department of Correction (DOC), that administers transition programs and parole, and county probation recognize the importance of the transition process and have developed programs to assist re-entry. Like most correctional agencies,

however, they find their resources stretched and have found it very difficult to engage in either systematic problem analysis or evaluation of the effectiveness of their transition efforts. This project sought to address this limitation by creating a research partnership between the DOC, Marion (County) Superior Court Probation Department (MCPD), and the Crime Control Policy Center of the Hudson Institute. The partnership built on a successful similar effort to use problem solving approaches to reduce homicide and gun violence as part of the National Institute of Justice's Strategic Approaches to Community Safety Initiative (McGarrell and Chermak, 2003a and b).[1] Under this partnership, Hudson Institute worked with DOC and MCPD to engage in problem analysis, development or refinement of re-entry initiatives, and evaluation of re-entry programming.[2]

INTRODUCTION

Successful offender reintegration has long drawn the interest of correctional policy makers. Scholars have identified numerous barriers prisoners face when attempting to make a successful transition back into society. They include, but are not limited to, family and social support networks, employment, living accommodations, substance abuse, and resources such as money, transportation, medical treatment, and spiritual support. That these barriers are important is underscored by the number of parolees who are returned to prison each year. In 1995, for example, 178,641 parole

[1] The Strategic Approaches to Community Safety Initiative has now become a key element of the Department of Justice's Project Safe Neighborhoods, a nationwide effort to reduce firearms-related violence (www.psn.gov).

[2] The Indianapolis problem solving initiative is known as the Indianapolis Violence Reduction Partnership (IVRP).

violators were returned to prison. This comprised 32 percent of all prison admissions (Maguire and Pastore, 1998).

One goal of the current project was to identify mechanisms to match former inmates with employment opportunities. We believed, however, that merely identifying job opportunities would not address the myriad of barriers facing returning inmates. Unfortunately, the current knowledge base on the problems facing inmates during the re-entry process was very limited. Thus, we proposed a formal problem solving process that included analysis of re-entry problems, analysis of job opportunities and social support, development of strategies to address these problems, and assessment of impact and refinement based on assessment.

The current project had two fundamental objectives. The first was to extend the current practitioner-researcher partnership created in the Indianapolis Violence Reduction Partnership (IVRP) to the re-entry issue. The second objective was to engage in the problem solving process with respect to the particular issue of inmate re-entry. This involved analysis of inmate needs, social supports, jobs and jobs training, and linking inmates to community supports and services.

Problem Solving Approaches to the Issue of Offender Re-entry

To describe this project, we will organize the discussion on the basis of the SARA problem solving model (Goldstein, 1990; Eck and Spelman, 1987). Although developed and applied in the context of the police, we believed that the SARA problem-solving model could fruitfully be applied to the issue of offender re-entry. Further, the SARA model was familiar to the working group of the IVRP that had been employing the SARA

model to issues of homicide and gun violence. The IVRP consisted of representatives of every local, state, and federal criminal justice agency serving the Marion County region. This obviously included the Indiana Department of Correction's Parole Division as well as the Marion (County) Superior Court Probation Department. Additionally, the IVRP had built strong relationships to a variety of service providers, community groups, members of the faith community, and similar groups and individuals who were concerned with both the potential crime generated by individuals returning from prison but also the potential human costs associated with the failure to support felons returning to the community. Thus, the IVRP provided a mechanism for getting to the table many of the key players crucial for an offender re-entry initiative.

The SARA model consists of four dynamic processes:

Scanning. In many respects, the IVRP and the DOC and MCPD officials, as well as community leaders such as the 10 Point Coalition, had already engaged in the scanning process. These groups had all identified the need to more effectively address the inmate re-entry process.

Analysis. A main task of the research partners was to conduct a thorough problem analysis. This included both problems facing inmates as well as logistical obstacles facing DOC and probation officials. It included an asset inventory in terms of the currently existing programs as well as additional resources that could be accessed to enhance re-entry programming.

Response. Once the problem analysis and asset inventory were conducted, the IVRP working group focused on developing interventions intended to increase the likelihood of successful transition to the community.

Assessment. The problem solving model also includes both an ongoing assessment of process as well as an evaluation mechanism to determine whether the responses to inmate re-entry were having their intended effects.

PROBLEM ANALYSIS

This project began with researchers trying to determine the general profile of offenders who were coming back into Marion County. That is, what do we know about the context of people coming back into the community? At the time the project was initiated, very little was known, even among committed professionals responsible for parole and probation populations, about the picture of inmates returning to the community.

Initial Profile of Offenders Returning to Marion County

The research team began by examining Indiana Department of Correction (IDOC) fiscal year (FY) 2000 release data for Marion County (Indianapolis). These data included information on three groups of individuals: those who were released, those who were recommitted, and those who were nearing release. There were roughly 2,400 adult males and 300 adult females released to Marion County in FY 2000. There appeared to be a common profile for all three groups (i.e. releases, recommitments, and those nearing release). The average age of individuals was 32 years. Roughly 65 percent of individuals were African American and over three-quarters had an 11^{th} grade education or less. Additionally, first-time offenders and repeat offenders were also compared along several dimensions. Table 1 displays the comparison.

Table 1: Baseline sample comparison between first-time offenders and repeat offenders

	First-time offenders	Repeat offenders
	%	%
Type of Release		
Parole	38%	45%
Probation	47%	44%
Other	5%	5%
No Supervision	10%	6%
Average Length of Sentence	4 years	4 years
Average Length of Stay	1.75 years	2.34 years

As the Table indicates, the profile of inmates released in Marion County is consistent with that observed for inmate releasees across the United States (Bureau of Justice Statistics, 2002). The average length of stay is relatively short. For the most part, first time offenders did not differ much from repeat offenders as far as type of release, average length of sentence and average length of stay. Slightly more repeat offenders than first-time offenders were released to parole, while the opposite was true for individuals released to no supervision.

The criminal histories of repeat offenders were examined for their time to failure. This was a retrospective assessment examining the time from the previous commitment (i.e. release) to the current commitment. Table 2 displays the time to failure for repeat offenders. One-third failed within the first year of release and just over half of repeat offenders did not survive 24 months before being recommitted. The majority (86%) of these repeat offenders were recommitted for a new offense as opposed to a parole or probation technical violation (See Table 3).

Table 2: Baseline sample time to failure for repeat offenders

	Repeat offenders
	%
Time to Failure	
6 months or less	16%
6 to 12 months	14%
12 to 24 months	22%
24 to 36 months	24%
More than 36 months	28%

Table 3: Baseline sample intake status for recommitted offenders

	Repeat Offenders
	%
Type of Intake	
New offense	86%
Parole violation	6%
Probation violation	8%

Finally, the most serious offense type for offenders nearing release was examined. There was quite a bit of variation in offense type. As shown in Table 4, just over 28 percent of individuals nearing release had committed a crime against a person as his or her most serious offense. Crimes against property (25.6%) and drug offenses (21.3%) were almost as common.

Table 4: Baseline sample offense type for inmates nearing release

	Offenders nearing release
	%
Offense Type	
Crimes against person	28.3%
Weapons offenses	6.7%
Crimes against property	25.6%
Drug offenses	21.3%
Other	18.1%

Mapping

Upon release, ex-offenders must indicate where they will be living upon release. Using this information and Geographic Information System (GIS) mapping, the research team found that the majority of ex-offenders being released into Marion County were residing in concentrated areas of the county. In particular, the majority of returning inmates were going to live in high crime neighborhoods of Indianapolis. This finding suggested potential crime problems for both the neighborhoods and for the returning ex-offenders. Additionally, it also suggested that responses to inmate re-entry might include a neighborhood-based dimension.

Survival Analysis

Following the initial profile of DOC data, the research team undertook a more thorough analysis of the patterns of former inmate re-offending (failure) and survival (success). Specifically, survival analysis techniques were employed with a sample of former inmates released in Marion County.

- **Analysis of the risk of failure among a sample of recent prison releasees**

The baseline sample originally consisted of all men released from prison into Marion County between January 1, 2000 and April 30, 2000 (N = 769). This time period was chosen because it provided a sufficient sample size for analysis purposes while still allowing for a minimum 12 month follow-up period. Unfortunately, the data were not computerized. Thus, the process consisted of gathering raw data on prison releases from the DOC and then conducting checks of the Marion County JUSTIS System criminal records system during 2001 to determine whether the ex-offender had been re-arrested during the time period. The data should be considered a conservative estimate of re-offending because they only cover rearrests within Marion County.

The recidivism data were last gathered on May 1, 2001, resulting in a follow-up period which ranged from about 12 to 16 months, depending on when the offender was released. A small portion of the sample was excluded from all survival analyses due to missing data (N = 42). For most of these excluded cases, the gallery number (a unique offender identifier) was missing, so it was impossible to check for recidivism data (N = 34). The other excluded cases had a duplicate gallery number (N = 4), or had a time at risk that could not be calculated due to a missing release date and/or a missing rearrest date (N = 4). The analysis sample and the cases that were excluded did not differ significantly by race (Chi Square = 0.341, $p = 0.559$) (Table 5). The excluded sample's average age upon release from prison was slightly younger than that of the analysis sample (30.3 and 33.4 years, respectively), a difference which approached significance ($t = -1.918$; $p = 0.056$). Comparisons could not be made between the two samples on measures related to criminal history because so many of the excluded cases had a missing

or incorrect gallery number, which in turn led to missing criminal history data. All remaining descriptions and analyses focus only on those sample members who had a valid time to rearrest (N = 727).

Table 5: Baseline sample characteristics and comparison to excluded cases

	Survival analysis sample (N = 727)		Excluded cases due to missing data (N = 42)			
	Valid N	%	Valid N	%	Chi Square	*p* value
Race					0.341	0.559
White	239	32.9%	12	28.6%		
Non-white	487	67.1%	30	71.4%		
	Valid N	Average	Valid N	Average	*t* value	*p* value
Age at release	723	33.432	37	30.300	-1.918	0.056
Prior misdemeanor arrests	727	6.378	12			
Prior felony arrests	727	4.983	12			
Prior convictions	727	5.858	12			
Prior times on probation	727	2.481	12			
Prior times on parole	727	0.565	12			
Prior times incarcerated	727	1.499	12			

The baseline sample was mostly African-American (65.4%), followed by White (32.95), Hispanic (1.2%) and Asian (0.4%) offenders. On average, these offenders were 33.4 years old upon release from prison. The offenders demonstrated significant prior criminal records, averaging 6.4 prior misdemeanor arrests, 5.0 prior felony arrests, and 5.9 prior convictions. These offenders had been on probation an average of 2.5 times, and on parole an average of 0.6 times. They had been incarcerated 1.5 times in the past. Most sample members survived the 12 to 16 month follow-up period without a rearrest (58.6%), yet over 40 percent were arrested during the follow-up period (Table 6).

Table 6: Baseline sample study outcome

	N	%	Avg. months at risk
Study outcome			
Survived	426	58.6%	14.185
Failed	301	41.4%	5.495
TOTAL	727	100.0%	10.587

Analysis

The primary goal of the current analysis was to describe how the population targeted by the re-entry program was likely to behave in the absence of the experimental program. Survival analysis was used to describe the time to rearrest, as well as likely predictors of the risk of failure during the approximately one year after release from prison. The utility of survival analysis over more traditional recidivism analysis methods (e.g., linear regression) has been described in detail elsewhere (e.g., Hepburn and Albonetti, 1994). Survival analysis is especially well suited to the current sample, as controls for varying times at risk are built into the model. The baseline sample members were released from prison over a four-month period, but recidivism data were gathered at a single point in time. Therefore, the follow-up period for this sample ranges from 12 to 16 months. Survival analysis controls for varying times at risk by incorporating both the study outcome (whether or not the individual failed) as well as the time until failure or follow-up period end if the offender survived into each survival model.

Time until failure begins on the day the offender is released from prison. It ends on the failure date if the individual fails, or on the last date of the observation period if the individual survives. The findings section below will first describe the time until

failure for the entire sample through life tables. Cox regression will then utilize background characteristics such as race, age, and prior criminal history to predict the risk of failure over the entire follow-up period, and at specific points while the sample is at risk for failure.

Findings

As mentioned above, the majority of the sample survived throughout the follow-up period, while 41.4% failed (Table 6). The cumulative proportion of the sample surviving fell at a steady rate through the first 12 months of the follow-up period, after which the survival curve remained almost flat during the last four months (Figure 1). Table 7 describes the failure rates of the sample during each four-month interval of the follow-up period. The sample lost its greatest proportion of members due to failure during the first four months of the follow-up period, when 17.3% of the sample failed. During months 4-8, 16.5% of the offenders who had survived up until month 4 had failed by month 8. Similarly, 12.4% of the offenders surviving at month 8 were rearrested prior to month 12. And only 3.2% of the offenders who had survived at month 12 failed some time between months 12 and 16. As expected, the risk of failure, or the hazard rate, was greatest in the first part of the follow-up period, particularly in months 3 through 6, after which it generally declined until month 16 (Figure 2).

Figure 1: Baseline sample cumulative proportion surviving

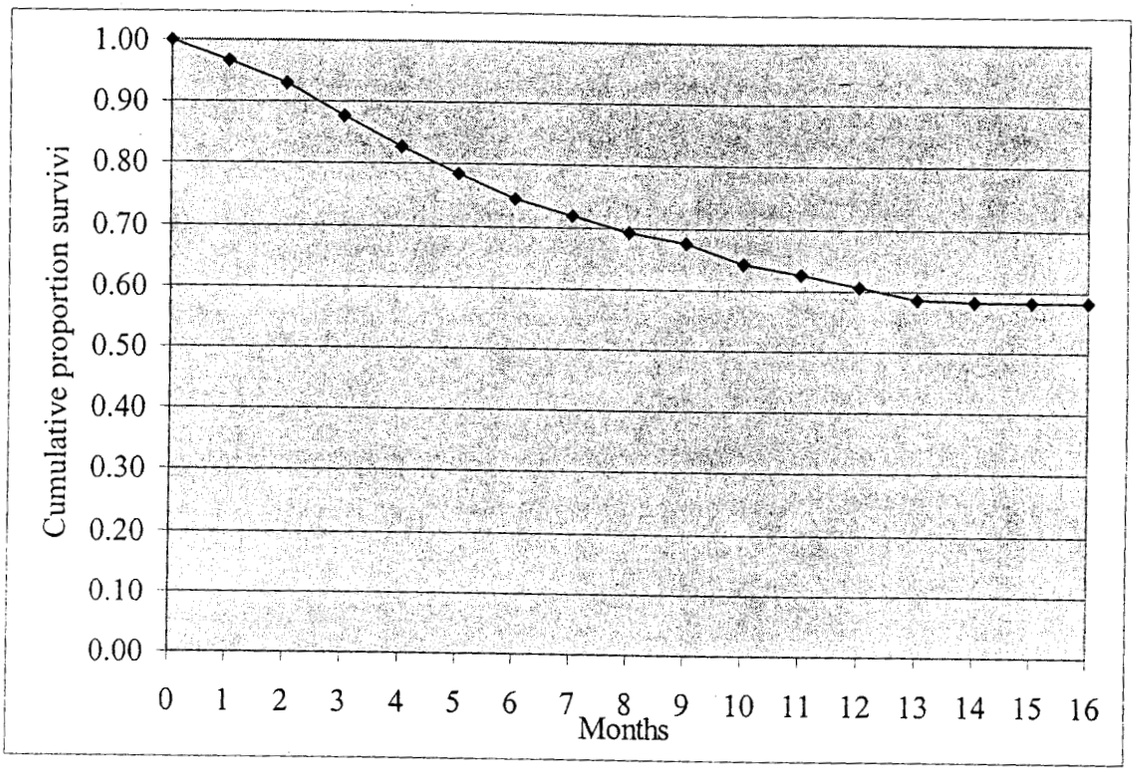
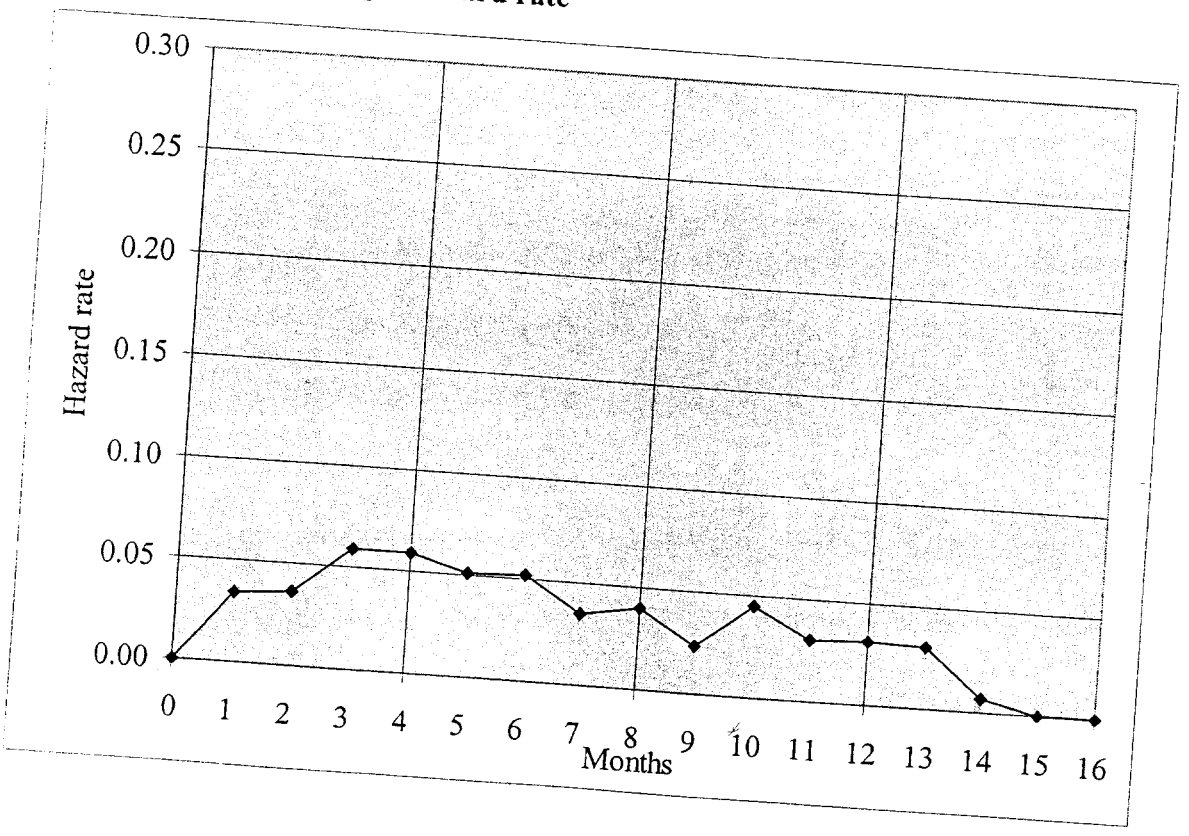


Table 7: Baseline sample failure rate by follow-up period interval

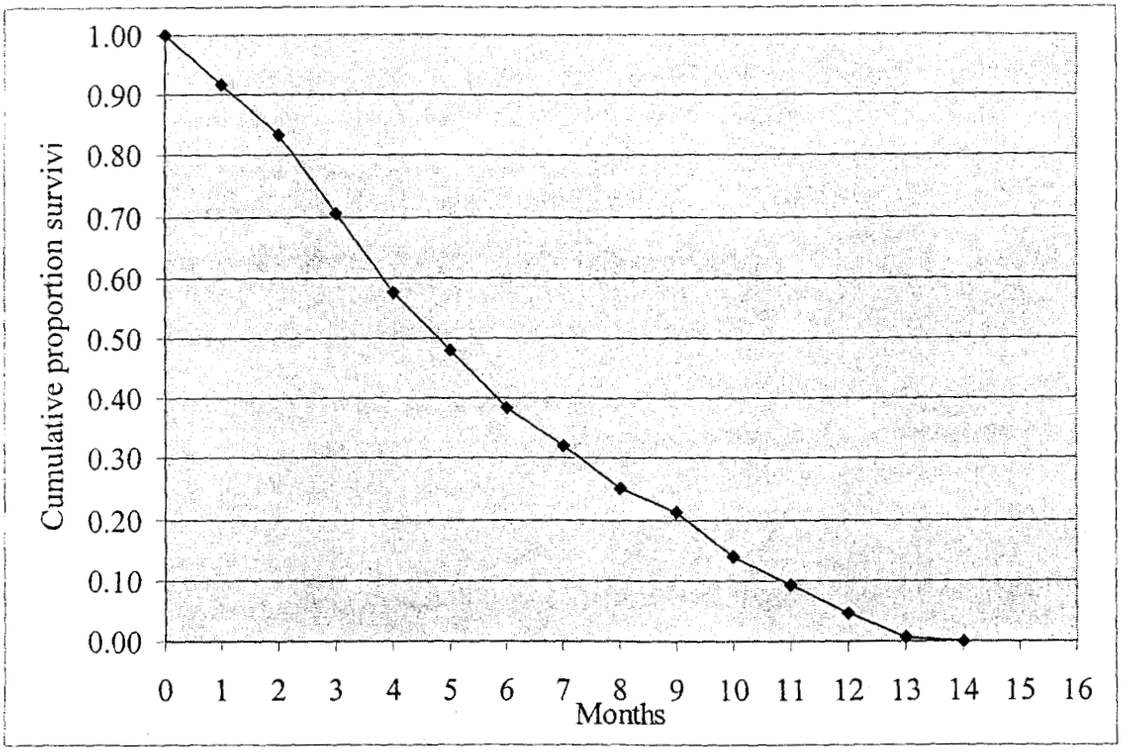
Follow-up period		N	%
Months 0-4	Total observed at least 0 months	727	100.0%
	Outcome at 4 months		
	Survived	601	82.7%
	Failed	126	17.3%
Months 4-8	Total observed at least 4 months	601	82.7%
	Outcome at 8 months		
	Survived	502	83.5%
	Failed	99	16.5%
Months 8-12	Total observed at least 8 months	502	69.1%
	Outcome at 12 months		
	Survived	440	87.6%
	Failed	62	12.4%
Months 12-16	Total observed at least 12 months	440	60.5%
	Outcome at 16 months		
	Survived	426	96.8%
	Failed	14	3.2%

Figure 2: Baseline sample hazard rate



When considering failure cases only, the cumulative proportion of the sample surviving followed a steady downward trend throughout the first year of the follow-up period (Figure 3). All failures had done so by month 14, and half of those who would eventually fail had done so by 4.8 months into the follow-up period. The hazard rate for the failure cases was low at the beginning of the follow-up period, and remained steady in months 3 through 9. After month 9, the few remaining cases had a very high risk of failure through month 14 (Figure 4).

Figure 3: Baseline sample cumulative proportion surviving – Failure cases only



Cox regression was used to examine the relationship between background characteristics such as race, age at release from prison, and prior criminal history (prior misdemeanor arrests, prior felony arrests, prior convictions, prior times on probation,

prior times on parole, and prior incarcerations). When each of these covariates was used separately to predict the hazard rate, each was a significant predictor except prior times on parole (Table 8). Nonwhite offenders had a significantly higher hazard rate, as did younger offenders. All relationships between prior criminal history were in the expected direction: having more prior arrests, convictions, times on probation, and times incarcerated predicted a significantly higher hazard rate.

Figure 4: Baseline sample hazard rate – Failure cases only

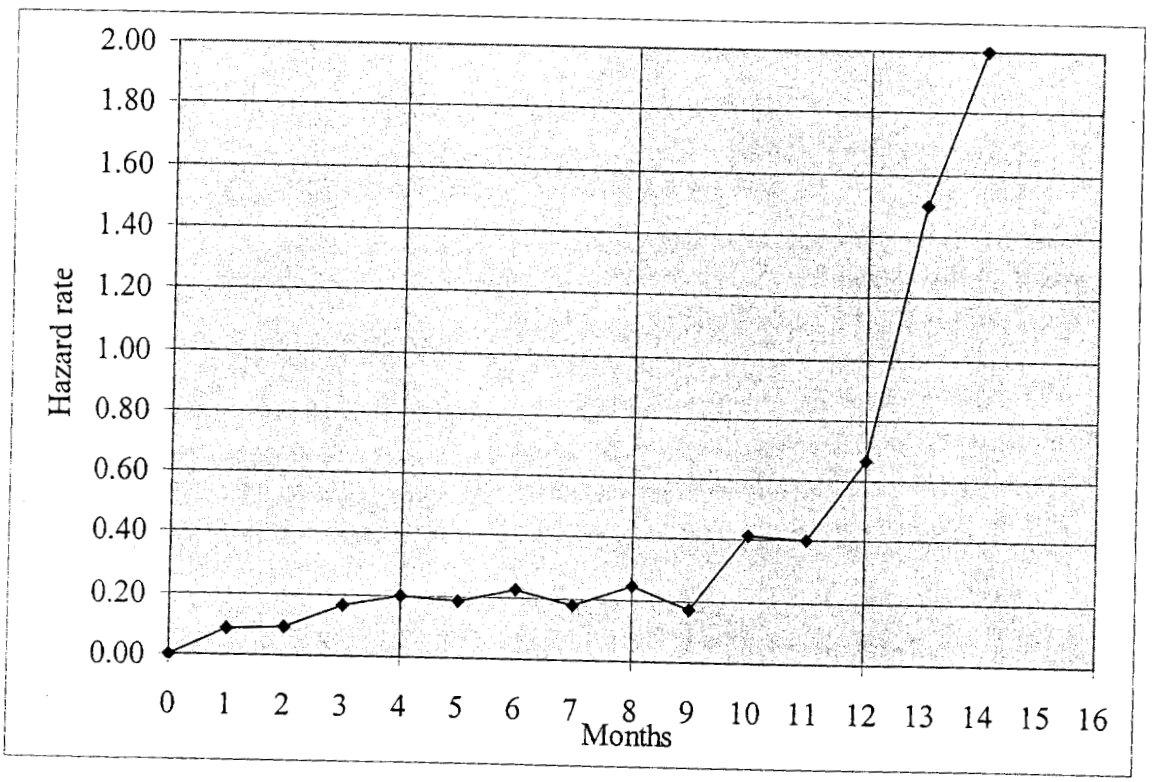


Table 8: Baseline sample background and prior criminal history characteristics regressed on hazard rate

	B	SE	Wald	Sig.	Exp(B)
Models including one predictor each					
Race (0 = Nonwhite, 1 = White)	-0.418	0.131	10.193	0.001	0.658
Release age	-0.029	0.007	19.954	0.000	0.971
Prior misdemeanor arrests	0.038	0.006	46.637	0.000	1.039
Prior felony arrests	0.103	0.011	93.493	0.000	1.109
Prior convictions	0.053	0.010	29.667	0.000	1.055
Prior times on probation	0.113	0.026	18.374	0.000	1.120
Prior times on parole	0.027	0.068	0.160	0.689	1.027
Prior times incarcerated	0.117	0.021	31.139	0.000	1.124
Most predictive model					
Release age	-0.066	0.009	55.615	0.000	0.936
Prior misdemeanor arrests	0.045	0.010	20.813	0.000	1.046
Prior felony arrests	0.157	0.019	66.178	0.000	1.170
Prior convictions	-0.062	0.026	5.875	0.015	0.940
Prior times incarcerated	0.082	0.031	6.978	0.008	1.085

N = 727; df = 1

The covariates were then added into a single model in a stepwise method to determine those most predictive of the risk of failure and to uncover any confounding relationships between them (Table 8). Younger offenders with more prior misdemeanor

arrests, more prior felony arrests, more prior incarcerations, and *less* prior convictions had a significantly greater hazard rate.

As discussed above, the sample lost a steady proportion of its members to failure during the first year following release from prison. The follow-up period was next restricted to four-month intervals to determine if one or more of the predictors had a greater or lesser effect over time (Table 9). Immediately following release from prison, age, prior felony arrests, and prior incarcerations significantly affected the hazard rate. During months 4 to 8 the risk of failure was significantly predicted by age, race, prior felony arrests, and prior incarcerations. In months 8 to 12, age, prior misdemeanor arrests, prior felony arrests, and prior convictions significantly predicted the risk of failure. And in the final four months of the follow-up period, only prior incarcerations significantly predicted the hazard rate. Interestingly, having fewer prior incarcerations predicted an *increase* in the hazard rate of about 32% during months 12 to 16 of the follow-up period.

Table 10 summarizes the predictive utility of each covariate on the hazard rate over the follow-up period as a whole, and during each follow-up period interval. Prior times on probation and on parole were not significant predictors of the hazard rate among this group of offenders. Race was only a factor during months 4 through 8. In general, it appeared that prior felony arrests and release age exerted the most consistent influence on the risk of failure throughout the follow-up period.

Table 9: Baseline sample background and prior criminal history characteristics regressed on hazard rate at each follow-up period interval

	N	B	SE	Wald	Sig.	Exp(B)
Months 0 to 4	727					
Release age		-0.070	0.013	28.342	0.000	0.932
Prior felony arrests		0.154	0.019	63.049	0.000	1.166
Prior incarcerations		0.129	0.040	10.188	0.001	1.138
Months 4 to 8	601					
Release age		-0.047	0.013	12.442	0.000	0.954
Race		-0.597	0.248	5.786	0.016	0.551
Prior felony arrests		0.096	0.025	14.792	0.000	1.100
Prior incarcerations		0.162	0.053	9.429	0.002	1.176
Months 8 to 12	502					
Release age		-0.096	0.021	20.365	0.000	0.908
Prior misdemeanor arrests		0.087	0.022	15.900	0.000	1.091
Prior felony arrests		0.252	0.049	26.525	0.000	1.286
Prior convictions		-0.120	0.053	5.222	0.022	0.887
Months 12 to 16	440					
Prior incarcerations		-1.124	0.438	6.588	0.010	0.325

df = 1

Table 10: Baseline sample predictive utility of background and criminal history characteristics on the hazard rate

Covariate	Entire 16-month follow-up period	Months 0 to 4	Months 4 to 8	Months 8 to 12	Months 12 to 16
Release age	-	-	-	-	
Race 0 = Nonwhite 1 = White			-		
Prior misdemeanor arrests	+			+	
Prior felony arrests	+	+	+	+	
Prior convictions	-			-	
Prior times on probation					
Prior times on parole					
Prior incarcerations	+	+	+		-

\+ An increase in the covariate significantly increases the hazard rate
\- A decrease in the covariate significantly increases the hazard rate

Summary of Baseline Sample Survival Analysis

A large proportion (41.4%) of the offenders released into Marion County in early 2000 recidivated within approximately one year of their release from prison. The baseline sample evaluated as part of the problem analysis stage confirms that the inmate population being released into Marion County is at a high risk for recidivism. Less than two-thirds of the sample survived without a rearrest in the first 12 to 16 months following their release from prison. Although from a policy perspective the high rate of re-offending is troublesome, from an evaluation standpoint it is important that the baseline

sample have a sufficiently high number of failures in order to observe the expected effect of re-entry programming: a reduction in rearrest among this group of offenders.

While some sample members continued to fail as late as 14 months after release, nearly all eventual failures were rearrested during the first year following release, and half of the eventual failures did so within five months. The risk for recidivism was therefore especially high during the first few months following release, thus re-entry programming should focus on this high-risk period. The analyses also suggest the important role of criminal history (especially prior felony arrests) and age on the risk of failure. This part of the analysis, thus suggested that reintegration programming developed by the IVRP should focus on this group of highly vulnerable offenders. In short, the risk of failure among the baseline sample of releasees confirmed both the need for and the evaluability of an experimental re-entry program in Indianapolis.

Focus Groups and Interviews with ex-offenders and service providers

In order to complement the picture derived from the survival analysis, interviews and focus groups involving both probationers and parolees were utilized to identify obstacles to re-entry as well as to identify factors related to successful transition. Similar interviews and focus group sessions were conducted with DOC and probation officials as well as other service providers to identify both obstacles and assets. The interviews and focus groups occurred in a pre-release center for inmates and in a privately-run vocational training and job placement center that provided services to many recently released offenders. The interviews and focus groups were conducted by having a member of the research team visit these centers on several days per week over the course

of several months. In terms of offenders, these were convenience samples and are of unknown representativeness. Former inmates most likely to be missed include those who quickly located employment upon release as well as inmates who refused to partake of the services offered. In terms of service providers, the participants included key staff of the largest programs serving Marion County.

- **Focus Groups and Interviews with Ex-offenders**

Interviews with ex-offenders occurred within 90 days of the individual's release. The biggest fear among ex-offenders was "not making it" and going back to prison. Many former inmates described themselves as being anxious and on edge and worried about a variety factors that could cause problems (hanging out with the wrong individuals, family problems, not knowing how they were going to support themselves). Many claimed that the biggest challenge they faced was abstaining from drug and/or alcohol use. When asked about their greatest challenge now that they are out of prison, two ex-offenders replied "[s]taying off drugs," and "[j]ust staying away from booze cigs, and drugs."

Ex-offenders had varying levels of family support. Some described support from family members as the most critical factor in their return to the community. When asked what things or what people have been most helpful or supportive to you, an ex-offender replied, "My fiancée, my mom, my family is behind me. They love me. They didn't like what I did but they stand behind me." Others had little or no contact with family members. As noted in their description of their anxiety, many found it difficult to find employment. One ex-offender inmate said, "I need a job. [I] need positive people

around me. I can't go back to the old scene and get hooked up into it..." Although those participating in the interviews and focus group sessions had found housing, typically it was in high crime locations and many spoke of their desire to live in a crime-free environment. There was significant variation among the ex-offenders in their awareness and perceived access to services such as vocational training, job placement, substance abuse, and ex-offender support groups. Given that these were offenders within a formal program, it is likely that many former inmates are unaware of available community services.

- **Focus Groups and Interviews with Service Providers**

Focus groups and interviews were also conducted with service providers that work with ex-offenders. When asked their perspective on ex-offenders, service providers gave a quite similar description to those given by the ex-offenders themselves. Service providers said that the greatest challenge for ex-offenders is obtaining housing and employment. The service providers placed a heavy emphasis on the role that substance abuse plays in creating problems for ex-offenders. Service providers also found it very difficult to make a connection to ex-offenders and realized that there were many more former inmates returning to the community that they were not reaching. Additional problems facing many returning offenders involve anger management issues and the transient nature of the ex-offender population. Additionally, service providers often find that ex-offenders have little self-esteem, little hope, and are unwilling to trust them.

When asked about the "ideal" program for ex-offenders, service providers identified a range of program elements that should be included. Several of the suggestions involved "system improvements." Many talked about the lack of integrated

services. That is, while the community has many different types of services in place, they are uncoordinated and it is very difficult to connect offender to service. To make these type of service changes the providers thought that there would need to be a change in thinking on part of probation and parole services, that service delivery would need to start in the prisons and be connected to the community, and that training was needed for the network of service providers in terms of working with an ex-offender population.

Similar comments were made in terms of working with area employers. Indianapolis had experienced a very healthy economy for the entire decade of the 1990s with virtually zero unemployment. The problem was not the need for workers but rather connecting ex-offenders to employers and demonstrating to employers that ex-offenders were appropriate for many jobs. The service providers recommended creating and maintaining a job bank of employers willing to work with ex-offenders.

Additional recommendations related to perceived gaps in current services. The service providers noted the crucial role that former offenders can play as staff in these programs. Former offenders who had "made it" were seen as having credibility with returning inmates that could help build relationships with these offenders. Ex-offenders were seen as needing help in establishing goals and the providers discussed the need for ongoing anger and stress management for intervention at crisis points that occur as ex-offenders face obstacles and difficulties. Finally, the service providers believed there was a need for more shelters to provide transitional housing for offenders returning to the community and for ex-offenders who may find themselves in temporary need of housing.

Figure 5: Recommended Services for Ex-Offenders According to Service Providers

- Network of coordinated partners working together to assist those coming out of prison
- Parole/Probation mindset change
- Training for service providers
- Job bank of employers who will hire ex-offenders
- Education programs for employers
- Mentoring program staffed by those who have "been there"
- Anger and stress management on an on-going basis
- Help with establishing goals
- More shelters

Finally, one additional finding emerged from the interviews and focus groups with both offenders and service providers. Both spoke of the distinction between younger and older inmates returning to the community. The perception was that many of the younger inmates, having served their first or perhaps second prison sentence, often returned to the streets ready to get "back in the action." In contrast, older and more "veteran" inmates were seen as eventually growing tired of prison and as being more motivated to go straight. Discussed in fairly "fatalistic" terms, the comments were consistent with the statistical analyses indicating higher risk for younger offenders.

In summary, there are approximately 200 individuals released to the community (Marion County) each month. The analysis of data on re-offending demonstrates, consistent with national data and prior research, that this is a high-risk population with over 40 percent re-arrested within the first year of release. Former inmates and service providers consistently describe a common set of obstacles confronting former inmates as they return to the community. These include multiple problems such as housing, employment, substance abuse, criminogenic influences, and fear and anxiety of "not making it." Both ex-offenders and service providers note a difficulty in making connection with each other. As the IVRP group began to consider a response to the

challenge of former inmates returning to the community, these were the dimensions that warranted attention.

RESPONSE: CRAFTING RE-ENTRY INTERVENTIONS

The next step in the problem solving process was to implement a response based on the problem analysis. Among the key dimensions of the findings from the problem analysis were:

- Younger inmates with extensive arrest histories
- Greatest risk in initial time period following release
- Housing, substance abuse, and employment problems
- Lack of support to address anger, anxiety, and similar challenges
- Difficulty in making the connection between offenders and programs/services
- Return to high crime neighborhoods

In considering the development of interventions, the IVRP working group was also convinced that there was not going to be any infusion of dollars and resources for the development of ex-offender transition programs. Further, whatever was going to occur was going to come on top of the current responsibilities of probation and parole officers and service providers.

As an initial step in the response stage, the IVRP working group asked the research team to help develop an inventory of existing services and programs that could be utilized in offender re-entry. The research team worked with the Office of the Mayor, United Way, Weed and Seed, public schools, neighborhood groups, and faith-based groups, to identify a wide variety of programs and services that already existed within the community. Many of these programs already intentionally dealt with ex-offenders, others worked with ex-offenders on a haphazard basis when ex-offenders happened to be referred to them, and others had limited experience with ex-offenders but were willing to

do so. Some of the programs were city- or county-wide and many were neighborhood-based (or were county-wide with neighborhood satellite offices). Although there remained limited options in terms of housing, there did appear to be a wide array of service providers addressing the key issues confronting former inmates.

With this as context, the IVRP working group decided to craft a pilot project designed to improve the connection between returning offenders and these services and programs. The project involved an adaptation of an approach developed in Boston to communicate directly with gang members believed to be at risk for involvement in firearms violence. The Boston approach, known as lever pulling or offender notification meetings, involves bringing a group of at-risk individuals to a meeting where criminal justice officials describe the sanctions that will be applied to individuals and groups involved in gun violence as well as legitimate options that are available to those seeking to avoid criminal activity (Kennedy, 1998). These lever pulling meetings had been adapted in Minneapolis (Kennedy and Braga, 1998) and in many of the sites participating in the Strategic Approaches to Community Safety Initiative (Coleman et al. 1999). The IVRP had adopted lever pulling meetings as a key element of its strategic intervention to reduce homicide and gun violence. Beginning in late fall 1998, groups involved in serious violence were identified and members on probation and parole would be called into a lever pulling session. Probationers and parolees would hear a message from police, prosecutors, probation and parole, neighborhood representatives, and service providers that:

- The level of violence is unacceptable
- All local, state, and federal agencies are working together like never before to reduce the violence

- Given the probationers and parolee's previous behavior they are at high risk for either being the victim or the perpetrator of violence
- Neither the community representatives nor the criminal justice officials want to see the probationers or parolees be either the victim of the homicide or to be incarcerated as a convicted felon.
- Convicted felons in possession of a firearm are subject to severe sanctions, particularly in the federal system with no right to bail, the likelihood of being incarcerated far outside the state, and the expectation of serving at least 85 percent of the federal sentence.
- That alternatives and legitimate opportunities exist as described by community members and service providers that were included in the meeting (e.g., job training, job placement, educational and vocational programs, drug treatment, ex-offender mentoring, faith-based support, etc.).(McGarrell and Chermak, 2003a)

The IVRP working group believed that the meetings were at least a vehicle for communicating with potential offenders. Further, the city had experienced a significant reduction in homicide since the broader IVRP strategy was implemented (McGarrell and Chermak 2003a and b) and thus the group believed there may be value in the lever pulling meetings. Two additional factors led the group to using lever pulling meetings as a key element of the re-entry pilot program. First, several service providers had already participated in lever pulling meetings and additional service providers expressed an interest in meeting with returning inmates in this type of meeting. Second, this was a strategy that was under the control of IVRP members. Returning inmates could be ordered to a meeting as a condition of probation or parole. Other than the time commitment, it did not involve new resources or budgetary approval. Consequently, the IVRP group decided to hold a series of experimental lever pulling meetings with offenders who had recently been released from prison.

The working group decided that the meetings should be organized geographically, by section of the city so as to maximize the connection to neighborhood-based services. The meetings would be organized by police districts. Although the police districts

encompassed several neighborhoods, they were organized to correspond to identified neighborhoods of the city. The pilot project would focus on the three police districts where the majority of ex-offenders returned. These also included the neighborhoods with the highest levels of crime in the city. The final ingredient of the pilot project was that it be implemented in the spirit of the problem solving framework and thus include an evaluation component.

To facilitate these objectives, a target group of former inmates within 60 days of release[3] was selected based on geographical area (i.e. one of three targeted police districts). Probation and parole officers would order ex-offenders under their supervision to attend one of these modified lever-pulling meetings. The selected individuals were sent a letter informing them of the meeting.

The message delivered at each meeting was similar to that delivered to probationers and parolees in the community (who were not recent prison releases). It was recognized, however, that the message needed to modified to be respectful of the fact that the meeting participants had done their time and were now being welcomed back into the community. At the same time, IVRP analyses had indicated that former inmates were often involved in violent crime and the DOC data indicated that approximately one-third of the offenses committed by former inmates involved person and weapon offenses. Consequently, the group wanted to combine the deterrence-based intolerance of violence message with the linkage to services. Key elements of the delivered message included:

- Violence is not being tolerated
- All the criminal justice agencies (local, state, federal) are working together to reduce violence

[3] The goal was to hold a meeting within 60 days of release although on occasion offenders within 90 days of release were included.

- If you engage in violence, all the available levers will be applied
- The streets are likely to be safer than when you were sent to prison and you will not need a gun for protection and are prohibited from possessing a gun.
- There are many services available to support reentry. Further, there are people present who will provide support in accessing these services or in supporting in any other way the transition back to the community.

The meetings included criminal justice officials, service providers, and neighborhood leaders. The meeting was opened by either the U.S. Attorney for the Southern District of Indiana or the coordinator of the IVRP. The first speaker was typically a speaker from the neighborhood. Representatives from the police department, local and federal prosecution, and probation or parole would then speak. The session would then be concluded by a community representative. Often times this was an individual who years ago had been involved in crime and done time ("lived the life") but who had straightened himself out and was now working with neighborhood groups and with law enforcement to reduce violence in the neighborhood. At this point in the meeting, there was a shift to a number of service providers. In relatively brief presentations, each provider would describe their services, their desire to work with the participants, and their desire to work together to improve the community. Some examples of service providers that attended the modified lever-pulling meetings include:

- Neighborhood Associations/Weed & Seed
- 10 Point Coalition/Faith Based Organizations
- Ex-Offender Support Groups and Programs
- Goodwill Industries (vocational training and job placement)
- Workforce Centers
- Junior College Training Programs
- Commission on African-American Males
- Probation Services-Job Placement, Vocational, Education
- Substance Abuse Treatment

At the conclusion of the meeting, criminal justice officials would leave and encourage the offenders to meet with the neighborhood representatives and the service providers.

Observations indicated that a high percentage of the ex-offenders did stay at the end of the meeting to meet with service providers.[4]

The combination of the communication of potential sanctions plus linkages to services and opportunities was indicative of the two theoretical bases of the planned intervention. Specifically, the IVRP was interested in increasing the perceived likelihood of sanctions as part of the deterrence of criminal activity, particularly firearms violence (Kennedy, 1998). At the same time, there was a commitment to increasing levels of social support for returning ex-offenders (Cullen, 1994).

ANALYSIS

Design

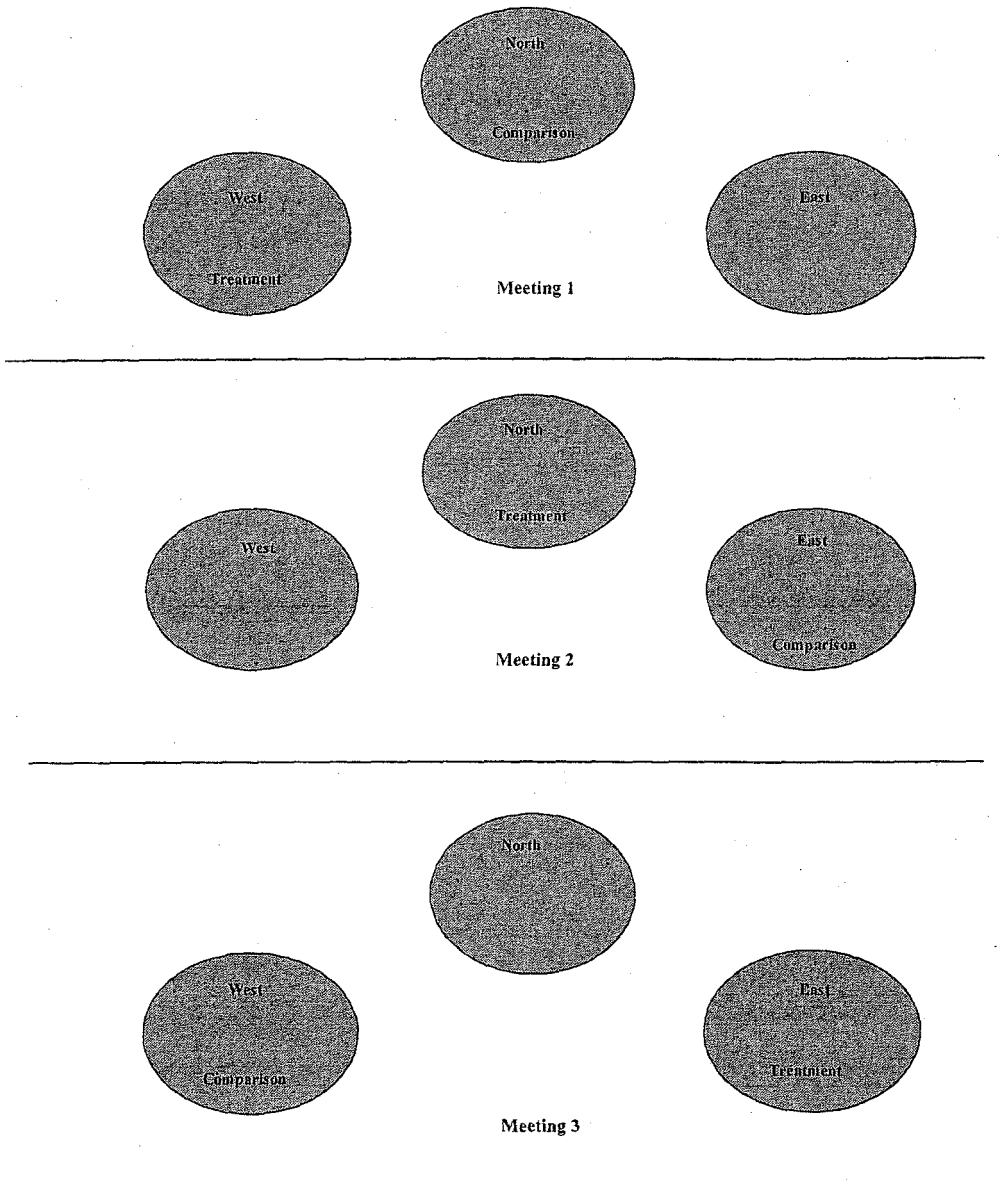
In order to facilitate the evaluation, a comparison group was also selected for each meeting. Although it would have been preferred to implement a true experimental design, this was considered logistically impossible for the pilot project. Thus, a quasi-experimental approach was implemented. The comparison group included individuals released to other parts of the city during the same time period. Meeting locations and thus target and comparison group locations were rotated across three geographic districts (see Figure 6).

The principal outcome measure was re-arrest. Re-entry lever pulling meeting participants and comparison group members were tracked for at least 12 months to determine whether they had been re-arrested during the study period. A limited number of interviews (N=16) were also conducted with lever pulling meeting attendees in the

[4] Although systematic data were not available, comparisons of the re-entry lever pulling meetings with the other IVRP lever pulling meetings suggested that former inmates were more likely to stay after the meeting to talk with neighborhood representatives and the service providers.

days following the meeting. These interviews were intended to gather attendee's reaction to the meetings and an initial impression of the likelihood of following up on services offered during the meetings.

Figure 6: Quasi-Experimental Design



Description of the Samples

The pilot project consisted of five re-entry lever pulling meetings consisting of 93 offenders. The comparison group consisted of 107 ex-offenders released to one of the other police districts during the same 60-90 day period. Table 11 presents some of the demographic data on the two groups. They are quite comparable. The treatment group (those attending a meeting) was comprised of slightly more African-Americans (75%) than the comparison group (70%). The treatment group had an average age of just under 33 whereas the comparison group was just over 34.

Table 11: Race/ethnicity comparison of re-entry treatment and comparison groups

	Treatment Group	Comparison Group	Total
	N	N	Total N
Race/Ethnicity			
Valid Cases	72	92	164
Missing Cases	21	15	36
Total	93	107	200
	%	%	%
African American	75.0	69.3	72.0
White	23.6	28.3	26.2
Hispanic	1.4	1.1	1.2
Asian	0	1.1	0.6
	Years	Years	Years
Age at release (mean)	32.8	34.3	33.6
Standard Deviation	9.8	10.2	10.0

Both groups demonstrated extensive criminal histories with the comparison group having somewhat more arrests than the treatment group (see Table 12). On average the treatment group had been arrested nine times with nearly five convictions. The comparison group had an average of twelve arrests and six convictions. The two groups

were indistinguishable in terms of the number of times on probation, parole, and in prison. The median length of stay for the treatment group was slightly more than one year whereas for the comparison group it was approximately one year and two months. The mean average length of stay for both groups was more than twice as long as the median thus reflecting a smaller group of offenders serving longer sentences.

Table 12: Prior Records of Re-entry Treatment and Comparison Groups

	Mean	Median	Standard Deviation
Prior misdemeanor arrests			
Treatment Group	5.4	4.0	6.1
Comparison Group	8.3	3.0	13.6
Prior felony arrests			
Treatment Group	3.7	2.0	4.1
Comparison Group	3.9	2.0	4.6
Prior convictions			
Treatment Group	4.8	3.0	5.1
Comparison Group	6.0	3.0	8.4
Number of times on probation			
Treatment Group	1.8	1.0	1.9
Comparison Group	1.9	1.0	2.4
Number of times on parole			
Treatment Group	0.3	0	0.7
Comparison Group	0.3	0	0.7
Number of times in DOC			
Treatment Group	0.9	1.0	1.1
Comparison Group	0.8	0	1.2
Length of stay in DOC (most recent)			
Treatment Group	731.2 days	375.0 days	942.9 days
Comparison Group	936.4 days	404.5 days	1387.0 days

Re-offending

As an initial assessment of outcome, we compared the two groups for whether or not they had been re-arrested during the follow-up period. The follow-up period ranged from 10 months to twenty-four months but was quite similar for the two groups. Similar to the DOC data examined earlier, nearly 40 percent of the former inmates had been re-arrested during the follow-up period. Treatment group participants were slightly less likely to have been re-arrested but the differences were not significant (see Table 13). The treatment group was less likely to be re-arrested for a violent crime (19% compared to 24%) and more likely to be arrested for a public order offense (41% compared to 36%) but the differences were not pronounced (see Table 14). There was, however, a fairly sizeable difference between the two groups in time to failure. The treatment group, on average, was arrest free for an additional 50 days. To consider this more carefully, we then conducted a survival analysis.

Table 13: Pilot study re-arrest after release from DOC

	Treatment Group		Comparison Group	
Total N for sample groups	82		103	
	N	%	N	%
Follow-up Status				
Re-arrested	32	39.0%	42	40.8%
Not re-arrested	50	61.0%	61	59.2%
Mean number days until failure	172.2 days		120.5 days	
Median number of days until failure	88.0 days		69.0 days	

Table 14: Pilot study sample type of offense for those re-arrested

	Treatment	Control	Total
	%	%	
Type of offense			
Violent	18.8%	23.8%	21.6%
Property	21.9%	19.0%	20.3%
Drug	18.8%	21.4%	20.3%
Public order	40.6%	35.7%	37.8%
Total	32	42	74

Survival Analysis

As with the baseline sample (N=769) discussed earlier in this report, researchers followed the pilot project sample (N=200) offenders for one to two years following their release from prison to determine the effect of reentry programming on their risk of failure. The survival analyses described below were restricted to the 185 sample members with valid follow-up end points and rearrest data. The excluded sample members (N = 15) did not differ significantly from the survival analysis sample by their geographic district, meeting date, or age (Table 15). Excluded sample members were significantly more likely to be assigned to the experimental re-entry group, however. Due to missing data, comparisons could not be made on other background characteristics such as race and criminal history.

Table 15: Pilot Study baseline sample characteristics and comparison to excluded cases

	Survival analysis sample (N = 185)		Excluded cases due to missing data (N = 15)		Chi Square
	Valid N	%	Valid N	%	
Group*					4.693
Control	103	55.7%	4	26.67%	
Treatment	82	44.3%	11	73.33%	
Geographic district					0.064
North	48	26.0%	4	26.67%	
East	55	29.7%	4	26.67%	
West	82	44.3%	7	46.67%	
Meeting date*					12.367
November 2000	21	11.4%	6	40.0%	
April 2001	39	21.1%	4	26.7%	
May 2001	39	21.1%	2	13.3%	
July 2001	39	21.1%	0	0.0%	
November 2001	47	25.4%	3	20.0%	

	Survival analysis sample (N = 185)		Excluded cases due to missing data (N = 15)		
	Valid N	Average	Valid N	Average	*t* value
Age at meeting	185	33.650	7	32.570	2.780

*$p \leq 0.05$

Sample members were assigned to control (N = 103) and re-entry (N = 82) groups (Table 16) based on the address provided at the time of release. About one-fourth of the sample was white (26.2%), and the vast majority of the non-white sample members were African-American (one sample member was Asian, two were Hispanic). The average age was 34 years old. As expected, most sample members had a criminal history that included misdemeanor arrests, felony arrests, prior convictions, and prior probation sentences. About one-fifth of the sample had previously been on parole (18.4%) and less

than half were incarcerated prior to their current incarceration period (44.3%). The average current incarceration period was more than two years (28 months), and the treatment sample averaged about a month and a half from their release date to their lever-pulling meeting.

As expected, comparison of the two groups on demographic, criminal history, and meeting characteristics revealed few significant differences (Table 16). The re-entry group was significantly more likely to be in the East meeting geographic concentration compared to the control sample. There were no significant differences between the groups when considering when the meeting occurred, demographics (age and race), current incarceration period, months until lever pulling meeting, or prior criminal history. Differences between the groups approached significance ($p \leq 0.10$) for the number of prior misdemeanor arrests (t value = 1.952) and whether the sample member had been previously incarcerated (Chi Square = 2.837).

Table 16: Pilot Study background and prior criminal history characteristics

	Control (N = 103)		Re-entry (N = 82)		Total (N = 185)		Chi
	N	%	N	%	N	%	Square
Geographic concentration for meeting*							9.717
North	30	29.1%	18	22.0%	48	25.9%	
East	21	20.4%	34	41.5%	55	29.7%	
West	52	50.5%	30	36.6%	82	44.3%	
Sequence number of meeting							6.384
November 2000	7	6.8%	14	17.1%	21	11.4%	
April 2001	21	20.4%	18	22.0%	39	21.1%	
May 2001	26	25.2%	13	15.9%	39	21.1%	
July 2001	23	22.3%	16	19.5%	39	21.1%	
November 2001	26	25.2%	21	25.6%	47	25.4%	
Race†							0.451
Nonwhite	66	71.7%	55	76.4%	121	73.8%	
White	26	28.3%	17	23.6%	43	26.2%	
Prior misdemeanors							0.080
None	27	26.2%	20	24.4%	47	25.4%	
1 or more	76	73.8%	62	75.6%	138	74.6%	
Prior felonies							0.098
None	28	27.2%	24	29.3%	52	28.1%	
1 or more	75	72.8%	58	70.7%	133	71.9%	
Prior convictions							0.832
None	30	29.1%	19	23.2%	49	26.5%	
1 or more	73	70.9%	63	76.8%	136	73.5%	
Prior times on probation							0.337
None	42	40.8%	30	36.6%	72	38.9%	
1 or more	61	59.2%	52	63.4%	113	61.1%	
Prior times on parole							0.544
None	86	83.5%	65	79.3%	151	81.6%	
1 or more	17	16.5%	17	20.7%	34	18.4%	
Prior times incarcerated							2.837
None	63	61.2%	40	48.8%	103	55.7%	
1 or more	40	38.8%	42	51.2%	82	44.3%	

* $p \leq 0.05$

† Percents are of valid cases only.

Table 16 (continued)

	Control (N = 103)		Re-entry (N = 82)		Total (N = 185)		
	Mean	SD	Mean	SD	Mean	SD	*t* value
Age at meeting	34.590	10.113	32.460	9.743	33.650	9.980	1.446
Prior misdemeanors	8.330	13.662	5.390	6.114	7.030	11.049	1.952
Prior felonies	3.910	4.617	3.740	4.139	3.840	4.401	0.258
Prior convictions	6.040	8.411	4.800	5.117	5.490	7.150	1.230
Prior times on probation	1.930	2.439	1.840	1.947	1.890	2.229	0.274
Prior times on parole	0.300	0.765	0.290	0.694	0.300	0.732	0.076
Prior times incarcerated	0.790	1.258	0.940	1.126	0.850	1.200	-0.859
Months incarcerated	30.969	45.744	24.200	30.829	27.969	39.871	1.148
Months until meeting	1.626	0.804	1.767	0.833	1.688	0.818	-1.161

Analysis

The current study uses survival analysis to determine whether attending the experimental re-entry programming had a significant effect on the risk of failure among this sample of recent prison releasees. Survival analysis will be used to describe the time to rearrest, as well as likely predictors of the risk of failure during the follow-up period. The utility of survival analysis over more traditional recidivism analysis methods (e.g., linear regression) has been described in detail elsewhere (e.g., Hepburn and Albonetti, 1994). Survival analysis is especially well suited to the current sample, as controls for varying times at risk are built into the model. The sample members were released from prison between June 2000 and October 2001, but recidivism data were gathered at a

single point in time. Therefore, the follow-up period for this sample ranges from 10 to 24 months. Survival analysis controls for varying times at risk by incorporating both the study outcome (whether or not the individual failed) as well as the time until failure or follow-up period end if the offender survived into each survival model.

Time until failure begins on the day the offender is released from prison. It ends on the failure date if the individual fails, or on the last date of the observation period if the individual survives. The Findings section below will first describe the time until failure for the entire sample through life tables. Cox regression will then incorporate several independent variables (sample assignment and other background characteristics such as race, age, and prior criminal history) to predict the risk of failure over the entire follow-up period, and at specific points while the sample is at risk for failure. Finally, Cox regression will incorporate the time dependent covariate, the date of the lever-pulling meeting, to determine its effect on the risk of failure.

Findings

Most sample members survived throughout the follow-up period (60.5%). The failure arrest was most often for a public order crime (38.4%), followed by an equal dispersion of person, property and drug crimes (21.9%, 20.5%, and 19.2%, respectively). The average time to failure among those who were rearrested was 7.12 months, and ranged from less than one month (0.07) to more than 20 months (20.60). The re-entry treatment group was less likely to re-offend for a person offense and survived for a longer time period before re-offending, though these differences did not attain statistical significance. Indeed, there were no significant differences between the re-entry and control groups on these descriptive outcome variables (Table 17).

Table 17: Pilot Study follow-up period characteristics and outcome by sample

	Control		Re-entry		Total		Chi
	N	%	N	%	N	%	Square
Study outcome							0.012
Survived	62	60.2%	50	61.0%	112	60.5%	
Failed	41	39.8%	32	39.0%	73	39.5%	
Failure type[†]							0.393
Person	10	24.4%	6	18.8%	16	21.9%	
Property	8	19.5%	7	21.9%	15	20.5%	
Drug	8	19.5%	6	18.8%	14	19.2%	
Public order	15	36.6%	13	40.6%	28	38.4%	
TOTAL	103	100.0%	82	100.0%	185	100.0%	

[†]Percents are of failure cases only

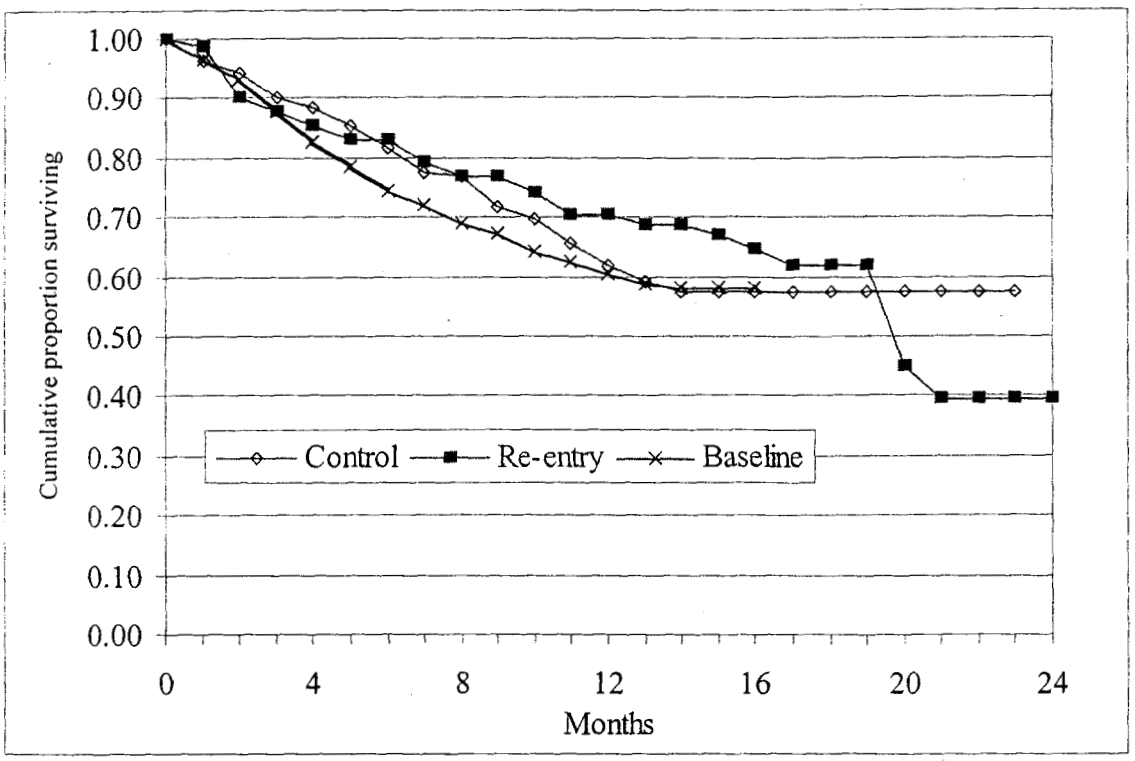
	Months at Risk						
	Control		Re-entry		Total		*t* value
Study outcome	Mean	SD	Mean	SD	Mean	SD	
Survived	14.576	3.105	15.691	3.870	15.074	3.495	-1.692
Failed	6.470	3.829	7.954	6.349	7.120	5.104	-1.167
TOTAL	11.349	5.236	12.672	6.237	11.936	5.723	-1.567

Life Tables

Life tables were used to describe the survival curves of the two groups throughout the follow-up period (Figure 7). The survival curve of the baseline sample was also included to describe how the groups might have behaved in the absence of the lever-pulling meeting. Although the re-entry group lost a smaller proportion of its members to failure during each of the first 18 months of the follow-up period, there was no significant difference between the two survival curves (Wilcoxon statistic = 0.551, $p = 0.458$). Both groups lost about a fourth of their members during the first 10 months of the follow-up period. The greatest difference between the two survival curves occurred during months 10 to 16. After month 18, the re-entry survival curve appeared to drop significantly, but

this was due to the very small number of sample members whose follow-up period lasted that long. In fact, only 4 re-entry group members failed after month 18. The control sample, on the other hand, did not lose any of its members to failure after month 15. The life tables were rerun by the type of failure arrest: violent, property, drug, or public order. There were no significant differences between the two groups in time to specific failure type for any of these analyses.

Figure 7: Cumulative proportion surviving by sample

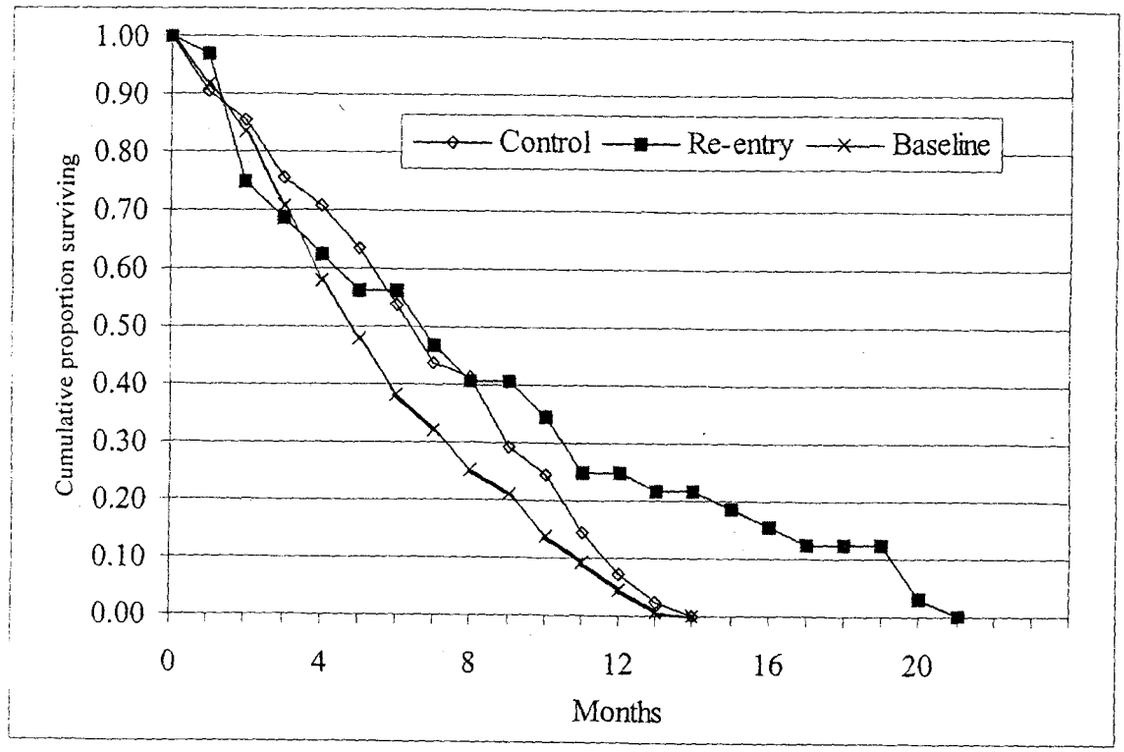


Wilcoxon statistic = 0.551 (p = 0.458)

Figure 8 displays the survival curves of failure cases only. The survival curves of the two groups remain proportional throughout the first year of the follow-up period. At month 12, the control sample survival curve continues to fall at the same rate, while the

re-entry curve levels off for the next several months. Again, there was no significant difference between the two failure survival curves, but Figure 2 does suggest that the re-entry programming may be prolonging the failure of some sample members who survive at least a year into the follow-up period.

Figure 8: Cumulative proportion surviving by sample – failure cases only



Wilcoxon statistic = 0.188 ($p = 0.665$)

Cox regression models

Cox regression was used to examine the relationship between group assignment and the risk of failure, or the hazard rate. The hazard rate is displayed in Figure 9 below. Unlike the life tables described above, Cox regression enables more than one independent variable to be used to estimate the risk of failure among this sample, such as demographics and prior criminal history (See Table 16 for descriptives of these predictors

by sample). Selected results of these regression models are shown in Table 18. As expected, group assignment did not significantly affect the risk of failure (Model 1). Neither age, meeting district, or the timing of the lever-pulling meeting significantly predicted the risk of failure. Being white significantly decreased the risk of failure, however (Model 2). When entered into the regression models separately, all the criminal history variables significantly increased the hazard rate, including prior misdemeanor arrests, prior felony arrests, prior convictions, prior incarcerations, prior probation, and prior parole. The length of the current incarceration did not significantly affect the hazard rate, however, nor did the length of time from prison release to the lever-pulling meeting. The covariates were then added into a single model in a stepwise method to determine the most predictive of the risk of failure and to uncover any confounding relationships between them (Model 3). Non-white sample members with at least one prior incarceration had a significantly greater risk of failure. Model 4 re-estimates this model to include the independent variable of interest, group assignment. Inclusion of this variable had no effect on any of the covariates.

Figure 9: Hazard rate by sample

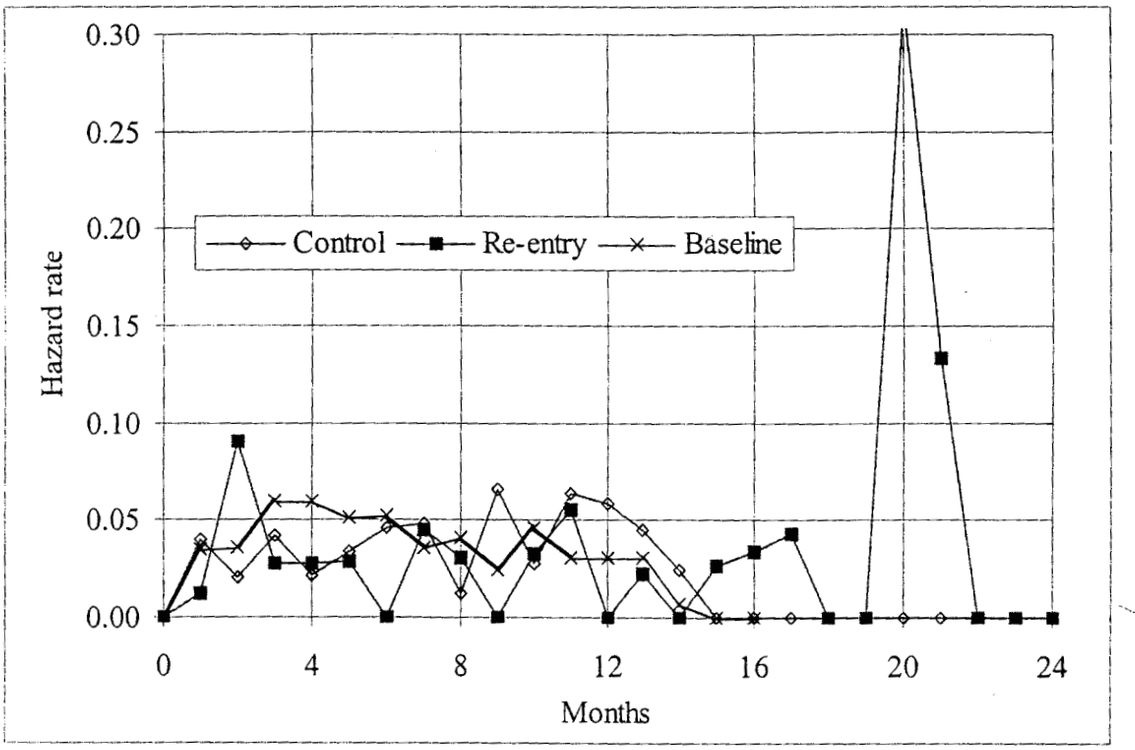


Table 18: Pilot study cox regression models

Model	B	SE	Wald	df	Sig.	Exp(B)
1 Group	-0.155	0.240	0.418	1	0.518	0.856
(0 = Control, 1 = Re-entry)						
2 Group	-0.239	0.243	0.970	1	0.325	0.787
Race	-1.277	0.349	13.360	1	0.000	0.279
(0 = Nonwhite, 1 = White)						
3 Race	-1.086	0.357	9.228	1	0.002	0.338
Prior incarceration	0.500	0.250	3.998	1	0.046	1.649
4 Group	-0.348	0.248	1.972	1	0.160	0.706
Race	-1.117	0.358	9.714	1	0.002	0.327
Prior incarceration	0.567	0.254	4.992	1	0.025	1.763

The follow-up period was next restricted to four-month intervals to determine if one or more of the predictors had a greater or lesser effect over time (Table 19). After one year into the follow-up period, the sample still at risk for failure diminished substantially, so months 12 through 24 were collapsed into the final follow-up period interval. Table 19 shows the proportion of group members who failed in each of the four follow-up period intervals. There were no significant differences in any of these intervals. Cox regression models revealed similar results to the Chi Square analyses reported in Table 19. The difference between the two groups did approach significance during months 8 to 12, however.

Table 19: Pilot study follow-up period intervals by sample

	Control		Re-entry		Total		
	N	%	N	%	N	%	Chi Square
Total observed at least 0 mos.	103	100.0%	82	100.0%	185	100.0%	
Outcome at 4 mos.							0.360
Survived	91	88.3%	70	85.4%	161	87.0%	
Failed	12	11.7%	12	14.6%	24	13.0%	
Total observed at least 4 mos.	91	88.3%	70	85.4%	161	87.0%	
Outcome at 8 mos.							0.386
Survived	79	86.8%	63	90.0%	142	88.2%	
Failed	12	13.2%	7	10.0%	19	11.8%	
Total observed at least 8 mos.	79	76.7%	63	76.8%	142	76.8%	
Outcome at 12 mos.							2.895
Survived	65	82.3%	58	92.1%	123	86.6%	
Failed	14	17.7%	5	7.9%	19	13.4%	
Total observed at least 12 mos.	45	43.7%	45	54.9%	90	48.6%	2.589
Outcome at 24 mos.							
Survived	42	53.2%	37	58.7%	79	55.6%	
Failed	3	3.8%	8	12.7%	11	7.7%	

Cox regression models were also estimated with the other covariates in each of the four follow-up periods (Table 20). During the first four months, non-white sample members with more prior felonies had a significantly greater risk of failure. In months 4 to 8, individuals with more prior felony arrests had a significantly greater hazard rate. Interestingly, the only significant predictor in months 8 to 12 was a lever-pulling meeting in the West District. During the second year of the follow-up period, non-white sample members had a significantly greater risk of failure. Table 21 summarizes the significant predictors' effect on the hazard rate in the entire follow-up period and in each of the follow-up period intervals.

Table 20: Pilot study cox regression models by follow-up period

	B	SE	Wald	df	Sig.	Exp(B)
Months 0 to 4						
Race	-1.937	1.027	3.558	1.000	0.059	0.144
Prior felonies	0.093	0.030	10.014	1.000	0.002	1.098
Months 4 to 8						
Prior felonies	0.126	0.032	15.665	1.000	0.000	1.134
Months 8 to 12						
West district	-1.135	0.563	4.065	1.000	0.044	0.322
Months 12 to 24						
Race	-1.726	0.801	4.642	1.000	0.031	0.178

Table 21: Pilot study cox regression summary

Covariate	Entire 24-month follow-up period	Months 0 to 4	Months 4 to 8	Months 8 to 12	Months 12 to 24
Race 0 = Nonwhite 1 = White	-	-			-
Age at meeting					
West District				-	
Prior felonies		+	+		
Prior convictions					
Prior incarceration	+				

\+ An increase in the covariate significantly increases the hazard rate

\- A decrease in the covariate significantly increases the hazard rate

Cox regression with time dependent covariates

Static Cox regression models did not reveal any significant relationship between the time until the lever-pulling meeting (months from release until that meeting) and the risk of failure. A final model was estimated using time-dependent covariates to determine whether attending a meeting in the month or two prior had any effect on the risk of failure in the current month. As expected, group assignment continued to have little effect on the hazard rate when the time-dependent covariates were introduced into the model (Table 8). Models 1 and 2 examine the effect of a meeting on the risk of failure in the following month, while Models 3 and 4 examine the risk of failure in the following 2 months. The timing of the lever-pulling meeting did not significantly affect the risk of failure immediately after that meeting.

Table 22: Pilot study cox regression with time dependent covariates

Model		B	SE	Wald	df	Sig.	Exp(B)
1	In meeting during month of failure	0.248	0.455	0.299	1.000	0.585	1.282
2	Group	-0.156	0.240	0.420	1.000	0.517	0.856
	In meeting	0.249	0.455	0.300	1.000	0.584	1.283
3	In meeting during month of failure or previous month	0.248	0.450	0.304	1.000	0.582	1.281
4	Group	-0.156	0.240	0.422	1.000	0.516	0.856
	In meeting	0.249	0.449	0.307	1.000	0.580	1.283

Summary of Pilot Study Sample Survival Analysis

Inmates released in Marion County continue to be at a high risk for failure in the first year after their release from prison. The pilot program examined in the current

evaluation hoped to have an effect on these high-risk individuals. Group assignment did not significantly affect the time to failure or the risk of failure, however. Instead, criminal history variables and the sample member's race were the only consistently significant predictors of the risk of failure. Furthermore, the timing of the lever-pulling meeting was not a significant predictor either. Visual analysis of the survival curves suggested that re-entry programming might be having its greatest effect on the time to failure after one year into the follow-up period. This suggestion was not supported through the survival analyses, however.

Although the timing of the lever-pulling meeting did not predict the risk of failure, other time-dependent covariates related to the re-entry programming may have a significant effect. In fact, several characteristics of the re-entry programming itself should be further evaluated to determine why the experimental sample behaved so similarly to both the control and the baseline samples. Such aspects of the experimental program include the length of re-entry programming, and its timing in comparison to the release date. Faithfulness of the re-entry programming to its deterrence, social control, and social support bases should also be further evaluated. The current analyses, however, do not support the effectiveness of re-entry programming to prolong or prevent the failure among prison releasees in Marion County.

POLICY IMPLICATIONS

As with prior research on offender re-entry (Travis, Solomon, and Waul, 2001), the findings of the current study demonstrate the importance of the re-entry issue. Forty percent of all inmates returning in 2001, as well as those included in the treatment and

control groups re-offended within approximately one year. Given the increase in the sheer number of returning offenders in Indiana and nationally, this is indeed an important public policy issue.

Table 23 shows the estimated number of arrests that would be expected based on the 2,400 inmates expected to return to Marion County in a given year. The offense estimates are based on the percent of inmates in our study sample committing person, property, drug, and public order offenses. As indicated, the 2,400 returning inmates can be expected to be involved in just under 1,000 arrests during the first 16 months following release. The offending estimates should be considered conservative as well and are based only on offending within Marion County and only include the first arrest for an offender who may commit more than one offense. Further, given that most offenses do not result in an arrest, the number of crimes generated by returning inmates is likely to be quite significant for a community like Indianapolis.

Table 23: Estimated arrests of former inmates returning to Marion County

Based on N=2400 male former inmates returning to county annually	Arrest prevalence rate	Estimated Number
Person offenses	8.6	206
Property offenses	8.1	195
Drug offenses	7.6	182
Public order offenses	15.1	363
Total	39.4	946

Another perspective on these estimated number of arrests is provided by considering the costs associated with these offenses. While official government estimates of street crimes have been around for years, new cost benefit analysis methodologies have attempted to incorporate the monetary values of other costs associated with crime such as pain, suffering, and lost quality of life (Cohen, Miller, and Rossman, 1994; Miller, Cohen and Wiersema, 1996; Cohen, 2000).

As a rough guide for policymakers considering this issue, we consider the number of offenses and the estimated social costs of these offenses attributable to returning former inmates. Looking at only the pilot study sample of 200 inmates, those men that recidivated generated 25 arrests for person and property crimes such as auto theft (3), battery/assault (9), burglary (2), robbery (1), and theft (10). Using Miller et al.'s (1996) estimates of the costs per victimization, just this small number of offenses generated a total loss of $166,700.

If multiplied for an annual cohort of 2,400 released inmates, the costs of crime associated with these returning offenders are substantial. One policy implication of these cost estimates is that investments in initiatives that would actually reduce re-offending by returning inmates would likely yield significant savings in terms of the costs of crime associated with these individuals.

CONCLUSION

The findings from this study are consistent with the limited prior research on former inmate re-entry to the community. Former inmates are at high risk of re-offending and pose difficult challenges for criminal justice officials and communities.

The analysis indicated that inmates returning to the community are a high-risk group. The population includes individuals with extensive prior criminal histories consisting of an average of 11 arrests, 6 convictions, and 1.5 prior incarcerations. Forty percent of these former inmates can be expected to be re-arrested within 12 to 16 months of release. For a community like Marion County, the 2,400 inmates released annually are likely to generate nearly 1,000 arrests, including 200 for persons offenses, during the first 16 months of release. Most of the failures will occur within three to six months of release.

These findings translate into significant costs for the community, the criminal justice system, and for the former inmates and their families. Further, most former inmates return to neighborhoods with high rates of crime thus being exposed to criminogenic influences and further contributing to the crime problem in these locales (Rose and Clear, 1998).

The findings from the problem analysis also revealed several patterns that helped shape the intervention. Both interviews and the statistical analysis suggested that younger former inmates, and those with extensive criminal histories, particularly with more felony arrests, were more likely to re-offend. Former offenders and service providers described a very similar set of obstacles to successful re-entry and both groups

noted the difficulty of linking former inmates to available community services intended to address many of these barriers.

The intervention crafted by Indianapolis officials was based on a promising intervention utilized with gang and group-involved offenders in Boston, Minneapolis and Indianapolis (Kennedy, Braga, and Piehl, 2001; Kennedy and Braga, 1998; McGarrell and Chermak, 2003a and b). The intent of the meeting was to combine a deterrence-based message from local, state, and federal law enforcement with a social support message provided by neighborhood representatives and service providers.

The evaluation of the pilot project did not yield evidence of impact in terms of reducing future offending. Forty percent of both the treatment and the comparison group had been re-arrested within the follow-up period. The most promising finding was in terms of an increase in the time to failure for the treatment group. Specifically, the treatment group averaged an additional 50 days before being re-arrested in comparison to the control group. This evidence must be tempered, however, with the fact that the difference was not statistically significant in the survival analysis. Thus, we cannot rule out the possibility that the difference was produced by chance.

The findings should be qualified, however. The pilot project had a relatively small sample of approximately 100 inmates in the treatment as well as comparison group. This does not generate a high level of statistical power for detecting differences. Additionally, the intervention itself is a relatively "low dosage" treatment consisting of a one-hour meeting with no systematic follow-up. Contrasting the one hour meeting with the years in prison and the much longer history of involvement in criminal behavior suggests the challenges of crafting meaningful interventions in the often resource-starved

environment of probation and parole. Indeed, one of the attractive features of the re-entry offender notification meetings for local criminal justice officials was that it could be implemented using already available resources.

Observations and discussions with criminal justice officials, community members, and service providers did suggest several side benefits of the pilot project. All three groups recognized the importance of the re-entry issue and felt that they were at least doing something about the issue. Many community members spoke of their concern about crime issues within their neighborhoods as well as the sense of loss of having so many individuals from the community incarcerated. They were very appreciative of the effort of criminal justice officials and service providers to collaborate and to reach out to former inmates. Similarly, many service providers spoke positively of the meetings as a way of communicating directly with the hard-to-reach population of former inmates. Thus, the meetings seemed to provide a vehicle for community building consistent with a community policing or community justice framework.

Given the more positive findings of the impact of these meetings with gang and group-involved offenders, the community building observations noted in Indianapolis, and the relatively efficient use of existing resources associated with the meetings, we suggest additional experimentation and continued research. From a research standpoint, it would be helpful to know whether the deterrence-based message was credible to a group of returning inmates.[5] Similarly, it would be important to know the extent to which former inmates actually attempted to access resources and the extent to which those who attempted to utilize resources actually were able to do so. That is, more needs

to be known about the perceptions of these meetings and whether the attempt to link offenders to services actually resulted in greater service delivery.

From an intervention standpoint, the key issue seems to be increasing the intensity of the treatment. One potential example comes from Portland whereby a similar task force to the IVRP decided to meet with inmates at the prison prior to their release. Similarly, in Winston-Salem, North Carolina, there appears to be more attention to follow-up after the offender notification meeting.[6] A program that begins in prison, attempts to build in family or other social supports, and that includes strategies for follow-up beyond the initial meeting with offenders may prove more successful than the Indianapolis pilot project. Given the increasing numbers of returning offenders, the high rate of re-offending, and the costs associated with such criminal activity, continued experimentation and research is warranted.

[5] Research on these meetings with gang and group-involved inmates in Indianapolis did find some evidence of a deterrent effect with recently arrested individuals but the current study did not include a mechanism to test this for former inmates (McGarrell and Chermak, 2003b).

[6] The information on the Portland and Winston-Salem re-entry efforts was provided by the project coordinators for the Strategic Approaches to Community Safety Initiative in each city (see Coleman, et al. 1999).

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