

*Data Driven Decisions*

# WINDSOR COUNTY SPARROW PROJECT: OUTCOME EVALUATION

## DRAFT REPORT

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*Submitted to:*

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# **WINDSOR COUNTY SPARROW PROJECT:**

## **OUTCOME EVALUATION**

*Submitted By*

**THE VERMONT CENTER FOR JUSTICE RESEARCH**

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## **EXECUTIVE SUMMARY**

The Sparrow Project was initiated in the spring of 2009 when it was awarded an H.859 Justice Reinvestment Pilot Project grant from the Vermont Court Administrator's office (CAO). The grant application was submitted by Health Care and Rehabilitation Services of Southeastern Vermont (HCRS) in collaboration with the Windsor District Court, the Windsor County State's Attorneys Office, a group of Windsor County public defenders, the Springfield and Hartford probation and parole offices, and the field service division of the Agency of Human Services for the Springfield and Hartford districts. Bill H.859 was passed during the 2007/2008 Legislative session.

The Sparrow Project was designed to address a critical need in the community to meet the challenges facing defendants with substance abuse and/or mental health issues. The Sparrow Project offers effective alternatives to incarceration through a viable community-based treatment plan. Through clinical case management services, the Sparrow Project is focused on increasing the availability of therapeutic services to defendants and veterans charged with non-violent property and drug felony, and other charges in Windsor County. The Sparrow Project is designed to help improve the quality of life for these individuals by decreasing recidivism, helping them develop the skills they need to make healthy decisions, and moving them towards recovery, in order to become successful participants in our community.

### **METHODOLOGY**

An outcome evaluation attempts to determine the effects that a program has on participants. In the case of the Sparrow Project the objective of this outcome evaluation was to determine the extent to which participation in the Sparrow Project reduced recidivism among program participants.

An indicator of post-program criminal behavior that is commonly used in outcome evaluations of criminal justice programs is the number of participants who recidivate -- that is, are convicted of a crime after they complete the program or, in the case of this study, while they are in the program or after they are dis-enrolled from the program.

An analysis of the criminal history records of the 103 subjects who were referred and accepted into the Sparrow Project from March 30, 2009 to October 28, 2011 was conducted using the Vermont criminal history record of participants as provided by the Vermont Criminal Information Center at the Department of Public Safety. The Vermont criminal history record on which the recidivism analysis was based included all charges and convictions prosecuted in a Vermont District Court that were available as of January 23, 2012. The criminal records on

which the study was based do not contain Federal prosecutions, out-of-state prosecutions, or traffic tickets.

## **MAJOR CONCLUSIONS**

### **1. The Sparrow Project appears to be a promising approach for reducing recidivism among project participants who completed the Project.**

Participants who successfully completed the Project had a reconviction rate of 17.9% which is substantially less than the 29.3% recidivism rate for those participants who were dis-enrolled from the Project.

### **2. Participants who successfully completed the Sparrow Project recidivated at the same pace as did participants who were dis-enrolled from the Project.**

For the recidivists who successfully completed the Sparrow Project, 100% of those reconvictions for any new crime occurred in less than one year. For the recidivists who were unsuccessful in completing the Project, 91.7% (11 of 12) of reconvictions for any new crime occurred in less than one year, and only one occurred during the first year after being dis-enrolled from the Project. Further analysis indicated that though the vast majority of recidivism occurs within the first year, it is unlikely that recidivism will increase substantially as post-project elapsed time continues to increase for participants.

### **3. The Sparrow Project appears to be a promising approach for reducing the number of post-project reconvictions for participants who completed the Project.**

The reconviction rate for those participants who completed the Project was 39 reconvictions per 100 participants versus 66 reconvictions per 100 participants for the dis-enrolled group. There were no felony reconvictions for participants who successfully completed the Project, whereas there were four felony reconvictions for the dis-enrolled group. For both groups approximately 85% of their reconvictions involved (listed in order of frequency) motor vehicle charges, violations of conditions of release, drug crimes, theft, false information to a law enforcement officer, and violation of probation. There was only one reconviction for a violent crime (Domestic Assault); it involved a participant from the “successful completion” group.

**4. The Windsor County Sparrow Project recidivists tended to commit post-project crime in Windsor County**

84% of the reconvictions for Sparrow Project participants occurred in Windsor County. 16% of the reconvictions occurred in Chittenden, Orange, Rutland, Washington, and Windham Counties.

**5. SPARROW PROJECT PARTICIPANTS WHO ARE SENTENCED TO INCARCERATIVE SENTENCES HAVE A HIGHER PROBABILITY OF RECIDIVATING THAN DO PARTICIPANTS WHO ARE SENTENCED TO A COMMUNITY-BASED ALTERNATIVE.**

The results of a discriminant analysis conducted to determine if any of the characteristics of Project participants were strongly correlated to the tendency to recidivate indicated that the sentence the participant received prior to admission into the Project was the most important in predicting recidivism.

## **INTRODUCTION**

This outcome evaluation of the Sparrow Project was designed to answer five questions associated with the in-project and post-project behavior of subjects who participated in the Sparrow Project from March 30, 2009 through October 28, 2011.

1. Which subjects were convicted of additional crimes during or after their participation in the Sparrow Project?
2. For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, when were they convicted?
3. For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, which crimes did they commit?
4. For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, in which counties were the subjects convicted?
5. Which demographic and criminal history characteristics are important in predicting whether or not participants in the Sparrow Project recidivate?

In this evaluation post-project behavior was divided into two groups – those participants that successfully completed the Project and those participants who were dis-enrolled before completing the Project.

This outcome evaluation was supported through funds provided by the Vermont Court Administrator’s Office (CAO). However, the findings and conclusions, expressed in this report are those of the authors and do not necessarily reflect the views of the CAO.

## **SPARROW PROJECT**

**March 2009 – November 2011**

### **Overview**

The Sparrow Project began in the spring of 2009 when it was awarded a H.859 Justice Reinvestment Pilot Project grant from the Vermont Court Administrator’s office (CAO). The grant application was submitted by Health Care and Rehabilitation Services of Southeastern Vermont (HCRS) in collaboration with the Windsor District Court, the Windsor County State’s Attorneys office, a group of Windsor County public defenders, Probation & Parole for the Springfield and Hartford Districts, and the Field Service Division of the Agency of Human Services for the Springfield and Hartford Districts. Bill H.859 was passed during the 2007/2008 Legislative session with the intent “to reduce recidivism, increase public safety, and reduce the cost to the state of incarcerating offenders by increasing substance abuse treatment services, vocational



training, and transitional housing available to offenders, and by establishing processes for reducing incarceration time when appropriate.”<sup>1</sup> Sparrow is designed to bring criminal justice and social service providers together to develop an integrated approach to serving the needs of individuals with substance abuse and co-occurring mental health issues who come in contact with the criminal justice system.<sup>2</sup> The Project targets interventions at Sequential Intercept Model<sup>3</sup> point two (i.e., post-arrest: initial detention and initial hearings) as referenced in the *Chief Justice Task Force Strategic Plan* dated July, 2008.<sup>4</sup>

## EVALUATION METHODOLOGY

An outcome evaluation attempts to determine the effects that a program has on participants. In the case of the Sparrow Project the objective of this outcome evaluation was to determine the extent to which participation in the Sparrow Project reduced recidivism among Project participants.

An indicator of in-program and post program criminal behavior that is commonly used in outcome evaluations of criminal justice programs is the number of participants who recidivate -- that is, are convicted of a crime after they complete the program or, in the case of this study, while they are in the program or after they are dis-enrolled from the program.

An analysis of the criminal history records of the 103 subjects who were referred and accepted into the Sparrow Project from March 30, 2009 to October 28, 2011 was conducted using the Vermont criminal history record of participants as provided by the Vermont Criminal Information Center at the Department of Public Safety. The Vermont criminal history record on which the recidivism analysis was based included all charges and convictions prosecuted in a Vermont District Court that were available as of January 23, 2012. The criminal records on which the study was based do not contain Federal prosecutions, out-of-state prosecutions, or traffic tickets.

### Recidivism Timeline

Typically outcome evaluations investigate the criminal behavior of program participants for a period of three years after program completion. Since the Sparrow Project had only been in place since March, 2009 when the study data was collected in January, 2012, the three-year review period of post-project behavior was not the protocol for this evaluation. The study was conducted based on the request of the Sparrow Project administrators to provide valuable

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<sup>1</sup> Vermont H.859, <http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2008/acts/ACT179.HTM>.

<sup>2</sup> Health Care and Rehabilitation Services of Southeastern Vermont grant application letter, dated November 13, 2008.

<sup>3</sup> [http://gainscenter.samhsa.gov/pdfs/integrating/GAINS\\_Sequential\\_Intercept.pdf](http://gainscenter.samhsa.gov/pdfs/integrating/GAINS_Sequential_Intercept.pdf).

<sup>4</sup> Chief Justice Task Force Strategic Plan (now referred to as the Tri-Branch Task Force), dated July 9, 2008.

interim outcome findings for their continuing assessments of the effectiveness of the Sparrow Project.

## **RECIDIVISM**

Since recidivism is usually the primary measure of interest when evaluating the effectiveness of projects such as Sparrow, it is important to consider the manner in which recidivism is defined, and how the definition affects the interpretation of study results. The Vermont Legislature in “The War on Recidivism” Act of 2011, ordered the Department of Corrections to calculate recidivism as:

[T]he rate of recidivism based upon offenders who are sentenced to more than one year of incarceration, who, after release from incarceration, return to prison within three years for a conviction for a new offense or a violation of supervision resulting, and the new incarceration sentence is at least 90 days.<sup>5</sup>

Analysis using this definition of recidivism for the Sparrow study indicates that only one subject, belonging to the dis-enrolled study segment, falls within this definition and can be classified as a recidivist. This results in a recidivism rate of approximately 3% for the dis-enrolled segment, compared to a rate of 0% for the group who completed the Project.

Despite the extremely low recidivism rate for the Sparrow Project derived from Vermont’s statutory definition of recidivism, Project administrators requested that a more rigorous definition for recidivism be used for this analysis. It was determined that a “zero tolerance” standard for recidivism would be adopted such that any Sparrow Project participant who was convicted of any crime prosecuted in a Vermont District Court, including violations of probation and motor vehicle offenses, while participating in the Project or after Project completion/dis-enrollment would be considered a recidivist.

Table 1 provides data regarding the percentage of Sparrow Project participants who recidivated during the study period as per the study definition of recidivism. An analysis of the Vermont criminal records for the 103 Sparrow Project participants shows that 10 of the 56 subjects (17.9%) who completed the Project were reconvicted of some type of crime as compared to 12 of the 41 subjects (29.3%) who failed to complete the Project and were dis-enrolled. The records also showed that none of the 6 participants who were currently in the Project had any new convictions.

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<sup>5</sup> <http://www.leg.state.vt.us/docs/2012/Acts/ACT041.pdf> Section 5, Subsection b(1).

**Table 1**  
**Subjects Reconvicted for Any Offense**

	Completed Project		Currently in Project		Dis-enrolled from Project	
	Count	Percent	Count	Percent	Count	Percent
<b>Recidivist</b>	10	17.9%	0	.0%	12	29.3%
<b>Non-recidivist</b>	46	82.1%	6	100.0%	29	70.7%
<b>Total</b>	56	100.0%	6	100.0%	41	100.0%

## **WHEN WERE SUBJECTS ARRESTED & CONVICTED?**

In addition to recidivism measures, program effectiveness can be also measured in terms of how long a participant remains conviction free in the community. Even if a participant is convicted of another offense after program completion, the longer the subject remains crime free is important in evaluating the crime prevention potential for a project. For this study the recidivism clock start date was dependent on whether the subject completed the Project, was currently in the Project, or was unsuccessful at completing the Project and was subsequently dis-enrolled.

For those participants that had **successfully completed** the Project, their recidivism clock started on their “Project Completion Date”, which was included in the participant description data provided by the CAO. If a Project completion date was not available, the recidivism clock was started on the “Sentencing Date” of the base docket case (the case that resulted in the subject’s referral to the Sparrow Project), which was also provided in the participant description data. If the sentencing date was not available, then the recidivism clock was started on the “Disposition Date” of the base docket case from the VCIC criminal history records. For subjects who were **dis-enrolled** from the Project, the recidivism clock was started on the “Dis-enrolled Date,” which was provided in the participant description data from the CAO. The elapsed time was then measured between the start of the participant’s recidivism clock and date the participant was arrested for any new offense which ended in conviction.

Table 2 summarizes the analysis of elapsed recidivism time for subjects who were convicted of any new crime during the study period. For the recidivists who **successfully completed** the Sparrow Project, 100.0% (10 of 10) of arrests for any new criminal conviction occurred in less than one year. For the recidivists who were **dis-enrolled** from the Project, 91.7% (11 of 12) of arrests for any new criminal conviction occurred in less than one year, and only one occurred during the first year after being dis-enrolled. In terms of arrests for any new criminal conviction, there was no significant difference in how quickly the Sparrow Project participants recidivated

regardless of whether they were successful in completing the Project or were dis-enrolled from the Project.

**Table 2**  
**Time to Recidivism**

<b>Participant Group</b>	<b>When First Recidivated</b>	<b>Total</b>	<b>Percentage</b>
<b>Completed Project</b>	< 1 year	10	100.0%
	During Year 1	0	0.0%
	After Year 1	0	0.0%
	<b>Total</b>	<b>10</b>	<b>100.0%</b>
<b>Dis-enrolled from Project</b>	< 1 year	11	91.7%
	During Year 1	1	8.3%
	After Year 1	0	0.0%
	<b>Total</b>	<b>12</b>	<b>100.0%</b>

If “successful outcome” for the Sparrow Project is defined as no arrest for any new criminal conviction within one year of recidivism eligibility, than the success rate for participants who completed the Project would be 82.1% (46 subjects with no arrest for any new criminal conviction within one year divided by 56 participants who successfully completed the Project). The success rate drops to 73% (30 divided by 41) for participants who were dis-enrolled from the Project.

To provide a more detailed analysis of when recidivism occurs, Table 3 presents recidivism data in yearly increments – focusing on the number of participants who were eligible to recidivate during a time period and the number of participants who were reconvicted during that time period. Looking at the first column of data – the time period up to one year after Project completion/dis-enrollment – all 97 post-project participants appear in this increment because at the time of the study every post-project participant had been away from the Project for at least a year. During that time period, 21 of the participants (21.6%) were reconvicted. Looking at the 2<sup>nd</sup> column of data – the first full year after Project completion/disenrollment – 69 of the participants had reached that point of elapsed time since Project completion. During “Year 1” only one participant was reconvicted (1.4%). After “Year 1”, no additional participants were reconvicted.

Of interest in Table 3 is the fact that though recidivism was highest within one year of Project completion/disenrollment (21.6%), the recidivism percentage declines sharply during “Year 1” after Project completion (1.4%) and continues to drop to zero (0.0%) during “Year 2”. This data suggests that though the vast majority of recidivism occurs within the first year, it is unlikely that recidivism will increase substantially as participants increase their post-project elapsed time to three or more years. Therefore, though few participants had reached the three-year elapsed time period typically used to assess program effectiveness, the data from the study period

suggests that recidivism is likely to remain very low as post-project elapsed time continues to increase for participants.

**Table 3**  
**Time to Recidivate by Years of Eligibility to Re-offend – All Participants**

	Post-Project Elapsed Time		
	< 1 Year	Year 1	Year 2
<b>Time Period in Which Participant Recidivated</b>	21	1	0
<b>Total # of Participants who were eligible to recidivate during the time period*</b>	97	69	29
<b>% Recidivated</b>	<b>21.6%</b>	<b>1.4%</b>	<b>0%</b>

\*The data in this row represents all participants who had completed the Project or were dis-enrolled from the Project for certain time periods. Participants may appear in more than one column based on the longevity of their post-project elapsed time. For example each of the 29 participants who appear in the “Year 2” column also appear in the “< 1 Year” and “Year 1” columns because, having completed two years of post-project elapsed time, they necessarily have also completed less than one year and one year of elapsed time as well.

## **CRIMES FOR WHICH PARTICIPANTS WERE CONVICTED**

When considering the effect that the Sparrow Project had on participants it is important to differentiate between the number of participants who recidivated and the number of crimes for which participants were convicted during the study period. For example, if a participant’s case were disposed in 2009 and s/he was convicted of two crimes in 2010 and then three crimes in 2011, the participant would be counted as a recidivist only once. However, in order to understand the full offense pattern of participants and to assess the full impact of the Sparrow Project on the criminal behavior of participants it is important to also note that the defendant was convicted of those five additional crimes during the study period. While the first section of this evaluation focused on whether or not a *participant* was reconvicted during the study period, this section of the analysis focuses on the *number of crimes* for which participants were reconvicted.

## Participant Offense Levels and Patterns

Table 4 indicates that the combined recidivists from the Sparrow Project were convicted of a total of 49 crimes during the follow-up period. Sparrow Project participants who completed the Project were convicted of a total of 22 crimes during the study period – no felonies and 22 misdemeanors. Sparrow Project participants who were dis-enrolled from the Project were convicted of 27 crimes during the study period – four felonies and 23 misdemeanors. Since the size of the two study groups was different a reconviction rate per 100 is a more valid measure. The reconviction rate for those participants who completed the Project was 39 reconvictions per 100 participants (22 reconvictions divided by the 56 subjects who completed the Project) versus 66 reconvictions per 100 participants for the dis-enrolled group (27 reconvictions divided by the 41 subjects who were dis-enrolled).

**Table 4**  
**Offense Levels For All Crimes For Which Subjects Were Reconvicted**

	Completed Project		Dis-enrolled from Project		Total	
	# of Convictions	%	# of Convictions	%	# of Convictions	%
<b>Felony</b>	0	0.0%	4	14.8%	4	8.2%
<b>Misdemeanor</b>	22	100.0%	23	85.2%	45	91.8%
<b>Total</b>	<b>22</b>	100.0%	<b>27</b>	100.0%	<b>49</b>	100.0%

Table 5 shows the types of crime for which the subjects were reconvicted. The Sparrow Project participants who completed the Project averaged 2.2 convictions with a median of 1.0 and maximum of 5 convictions. Approximately 85% of their reconvictions included (listed in order of frequency) motor vehicle violations, violations of conditions of release, theft, violations of probation, drug crimes, and false information to a law enforcement officer charges. There was only one violent crime conviction for recidivists who completed the Sparrow Project (domestic assault). Motor vehicles violations for participants who completed the Project consisted of driving with license suspended exclusively.

The subjects who were dis-enrolled from the Project averaged 2.3 convictions with a median number of convictions of 2.0 and a maximum of 5 convictions. They showed similar offense patterns as those that completed the Project, with approximately 85% of their reconvictions including (listed in order of frequency) drug crimes, motor vehicle violations, violations of conditions of release, theft, and false information to a law enforcement officer charges. There were no violent crime convictions for the dis-enrolled group. Motor vehicles violations for participants who were dis-enrolled from the Project consisted of attempting to elude (2), reckless and gross negligence (2), careless and negligent driving (1) and driving with license suspended (1).

**Table 5**  
**All Crimes For Which Subjects Were Reconvicted**

	Completed Project		Dis-enrolled from Project		Total	
	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent
<b>Motor Vehicle Violations (DMV)</b>	5	22.7%	6	22.2%	11	22.4%
<b>Violation of Conditions of Release</b>	5	22.7%	4	14.8%	9	18.3%
<b>Drug</b>	1	4.5%	7	25.9%	8	16.3%
<b>Theft</b>	4	18.2%	3	11.1%	7	14.3%
<b>False Information-LE Officer/Implicate another/No info</b>	1	4.5%	3	11.1%	4	8.2%
<b>Violation of Probation</b>	3	13.6%	0	.0%	3	6.1%
<b>Alcohol</b>	1	4.5%	0	.0%	1	2.0%
<b>Domestic Assault</b>	1	4.5%	0	.0%	1	2.0%
<b>Temporary Restraining Order Violation</b>	1	4.5%	0	.0%	1	2.0%
<b>Acts Prohibited/Prostitution</b>	0	.0%	1	3.7%	1	2.0%
<b>DUI</b>	0	.0%	1	3.7%	1	2.0%
<b>Stolen Property</b>	0	.0%	1	3.7%	1	2.0%
<b>Unlawful Mischief</b>	0	.0%	1	3.7%	1	2.0%
<b>Total Convictions</b>	<b>22</b>	<b>100.0%</b>	<b>27</b>	<b>100.0%</b>	<b>49</b>	<b>100.0%</b>
<b>Number of Recidivists</b>	<b>10</b>		<b>12</b>		<b>22</b>	
<b>Average # of Convictions</b>	<b>2.2</b>		<b>2.3</b>		<b>2.2</b>	
<b>Median # of Convictions</b>	<b>1.0</b>		<b>2.0</b>		<b>2.0</b>	
<b>Maximum # of Convictions</b>	<b>5</b>		<b>5</b>		<b>5</b>	

## **IN WHICH COUNTIES WERE SUBJECTS RECONVICED?**

Table 6 provides a summary of the distribution of reconvictions by county for all Sparrow Project participants. Eighty-four percent (41 of 49) of the reconvictions occurred in Windsor County. Slightly more than 16% (8 out of 49) of the reconvictions occurred in Chittenden, Orange, Rutland, Washington, and Windham Counties.

**Table 6**  
**County of Prosecution for New Convictions: All Participants**

	Chittenden		Orange		Rutland		Washington		Windham		Windsor	
	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent
DMV	0	.0%	0	.0%	1	33.3%	0	.0%	0	.0%	10	24.4%
Violations of Conditions of Release	0	.0%	1	100.0%	0	.0%	0	.0%	0	.0%	8	19.5%
Drug	0	.0%	0	.0%	1	33.3%	0	.0%	1	50.0%	6	14.6%
Theft	1	100.0%	0	.0%	0	.0%	0	.0%	1	50.0%	5	12.2%
False information-LE officer	0	.0%	0	.0%	1	33.3%	0	.0%	0	.0%	3	7.3%
Violation of Probation	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	3	7.3%
DWI	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Acts Prohibited/Prostitution	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Alcohol	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Stolen Property	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Temporary Restraining Order Violation	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Unlawful Mischief	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	1	2.4%
Domestic Assault	0	.0%	0	.0%	0	.0%	1	100.0%	0	.0%	0	.0%
<b>Total Convictions</b>	<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>

Table 7 provides the distribution of reconvictions for Sparrow Project participants who successfully completed the Project by the county in which the case was prosecuted which, more than likely, was the county where the crime was committed. Approximately 91% of the 22, or all but two new convictions for Sparrow participants who successfully completed the Project, occurred in Windsor County. One violation of conditions of release was prosecuted in Orange County, and one domestic assault was prosecuted in Washington County.



**Table 7**  
**County of Prosecution for Reconvictions: Participants Who Completed Project**

	Orange		Washington		Windsor	
	Number of Convictions	Percentage	Number of Convictions	Percentage	Number of Convictions	Percentage
Motor Vehicle Violations (DMV)	0	.0%	0	.0%	5	25.0%
Violations of Conditions of Release	1	100.0%	0	.0%	4	20.0%
Theft	0	.0%	0	.0%	4	20.0%
Violation of Probation	0	.0%	0	.0%	3	15.0%
Drug	0	.0%	0	.0%	1	5.0%
Alcohol	0	.0%	0	.0%	1	5.0%
Temporary Restraining Order Violation	0	.0%	0	.0%	1	5.0%
False information-LE officer/Implicate another/No information	0	.0%	0	.0%	1	5.0%
Domestic Assault	0	.0%	1	100.0%	0	.0%
<b>Total Convictions</b>	<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>

Table 8 provides the county distribution of reconvictions for the Sparrow Project participants who were dis-enrolled from the Project. The results show that 21 of the 27 new convictions (77.8%) occurred in Windsor County. The six exceptions were one theft conviction prosecuted in Chittenden County, two convictions (drug crime and theft) prosecuted in Windham County, and three convictions (DMV, drug, and false information) prosecuted in Rutland County.

**Table 8**  
**County of Prosecution for Reconvictions: Participants Who Were Dis-enrolled from Project**

	Chittenden		Rutland		Windham		Windsor	
	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent
Motor Vehicle Violations (DMV)	0	.0%	1	33.3%	0	.0%	6	28.6%
Drug	0	.0%	1	33.3%	1	50.0%	5	23.8%
Violations of Conditions of Release	0	.0%	0	.0%	0	.0%	4	19.0%
False information-LE officer/Implicate another/No information	0	.0%	1	33.3%	0	.0%	2	9.5%
Unlawful Mischief	0	.0%	0	.0%	0	.0%	1	4.8%
Acts Prohibited/Prostitution	0	.0%	0	.0%	0	.0%	1	4.8%
Theft	1	100.0%	0	.0%	1	50.0%	1	4.8%
Stolen Property	0	.0%	0	.0%	0	.0%	1	4.8%
<b>Total Convictions</b>	<b>1</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>21</b>	<b>100.0%</b>

## PARTICIPANT PROFILE COMPARISONS

No data was available regarding the characteristics of participants other than that which could be gleaned from participants' criminal records. As such, the following profiles and variables were the only factors used to examine whether the two groups were equivalent or not.

- Demographic Profile: Gender, age at disposition of base docket, race, and state of birth
- Criminal History Profile: Age at first conviction and prior criminal record
- Case Profile: Offense level, and case disposition & sentence type

### Demographic Profile

Table 9 presents the gender composition of the study group. The total study group for the Sparrow Project consisted of approximately 25% females and 75% males. No statistically significant differences in gender profile were observed across the three study segments. The group of subjects that were dis-enrolled from the Project skewed directionally more male. The six that were currently enrolled in the Project skewed more female.

**Table 9  
Gender**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>Female</b>	14	25.0%	2	33.3%	9	22.0%	25	24.3%
<b>Male</b>	42	75.0%	4	66.7%	32	78.0%	78	75.7%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Table 10 summarizes the age distribution of the study segments at the time their base dockets (cases) were disposed. The case that resulted in their referral to the Sparrow Project is referred to as the "base docket" since it serves as the basis for all recidivism calculations. Although no statistically significant differences were found between the segments in *each* age category, there was a statistically significant difference between the study segments in the percentage of participants in the *combined* age segments representing ages under 30 and over 40. The participants who were dis-enrolled from the Project skewed significantly younger compared to those that successfully completed the Project who skewed significantly older.

**Table 10**  
**Age At Disposition of Base Docket**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>16 to 20</b>	9	16.1%	2	33.3%	11	26.8%	22	21.4%
<b>21 to 29</b>	13	23.2%	1	16.7%	15	36.6%	29	28.2%
<b>30 to 39</b>	8	14.3%	1	16.7%	5	12.2%	14	13.6%
<b>40 to 49</b>	18	32.1%	2	33.3%	5	12.2%	25	24.3%
<b>50 to 59</b>	6	10.7%	0	.0%	5	12.2%	11	10.7%
<b>60 and over</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>Missing / unknown</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>
<b>Total under 30</b>	22	39.3%	3	50.0%	26	63.4%	51	49.6%
<b>Total over 40</b>	25	44.6%	2	33.3%	10	24.4%	37	35.0%
<b>Mean</b>	<b>35.4</b>		<b>29.8</b>		<b>30.6</b>		<b>33.2</b>	
<b>Median</b>	<b>36.4</b>		<b>30.0</b>		<b>26.2</b>		<b>30.0</b>	

Note: Values in the same row that are shaded in gray are significantly different at  $p < 0.05$  in the two-sided test of equality for column proportions.

Table 11 presents the racial characteristics of the study groups. Not surprisingly, over 95% of all subjects were white. African Americans comprised approximately 3% of the study participants, and only one participant was Asian. No other racial groups were represented. There were no significant differences between the study segments in regards to race, although all of the non-white participants were in the dis-enrolled group.

**Table 11**  
**Race Of Participants**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>African American</b>	0	.0%	0	.0%	3	7.3%	3	2.9%
<b>Asian</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>Caucasian</b>	56	100.0%	6	100.0%	37	90.2%	99	96.1%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Table 12 presents information regarding the states where participants were born. Only 39% of the Sparrow Project participants were born in Vermont. Significantly more participants who were dis-enrolled from the Sparrow Project were born in Vermont compared to those who successfully completed the Project (53.7% vs. 28.6%, respectively). After Vermont, 15 other states and two countries were represented with New Hampshire, Connecticut, Massachusetts, and New York the most common birth states.

**Table 12**  
**State or Country of Birth**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>VT</b>	16	28.6%	2	33.3%	22	53.7%	40	38.8%
<b>NH</b>	18	32.1%	3	50.0%	5	12.2%	26	25.2%
<b>CT</b>	4	7.1%	1	16.7%	3	7.3%	8	7.8%
<b>MA</b>	4	7.1%	0	.0%	3	7.3%	7	6.8%
<b>NY</b>	6	10.7%	0	.0%	0	.0%	6	5.8%
<b>NJ</b>	2	3.6%	0	.0%	1	2.4%	3	2.9%
<b>SC</b>	1	1.8%	0	.0%	1	2.4%	2	1.9%
<b>DE</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>FL</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>KY</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>MD</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>ME</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>NM</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>OK</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>RI</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>WV</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>Japan</b>	0	.0%	0	.0%	1	2.4%	1	1.0%
<b>Kosovo</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Note: Values in the same row that are shaded in gray are significantly different at  $p < 0.05$  in the two-sided test of equality for column proportions.

### Criminal History Profile

Table 13 summarizes data regarding the age of participants at their first criminal conviction. Although no significant differences were found between the segments in each age category, when the under 30 age categories are combined, the participants who were dis-enrolled from the Project skewed significantly younger than those that successfully completed the Project who skewed significantly older.

**Table 13**  
**Age At First Conviction**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>16 to 20</b>	25	44.6%	4	66.7%	23	56.1%	52	50.5%
<b>21 to 29</b>	12	21.4%	1	16.7%	13	31.7%	26	25.2%
<b>30 to 39</b>	3	5.4%	1	16.7%	4	9.8%	8	7.8%
<b>40 to 49</b>	7	12.5%	0	.0%	1	2.4%	8	7.8%
<b>50 and over</b>	1	1.8%	0	.0%	0	.0%	1	1.0%
<b>Never convicted</b>	8	14.3%	0	.0%	0	.0%	8	7.8%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>
<b>Total under 30</b>	37	66.0%	5	83.4%	36	87.8%	78	75.7%

Note: Values in the same row that are shaded in gray are significantly different at  $p < 0.05$  in the two-sided test of equality for column proportions.

Table 14 presents data on the prior convictions of study subjects. The criminal records of participants were examined to determine the number of times they had been convicted of criminal offenses *prior* to their involvement with the Sparrow Project. The average number of prior convictions per subject was approximately three with no significant difference between those subjects that completed the Project and those that were dis-enrolled. The six subjects that were currently in the Project only accounted for 11 total convictions, or an average of 1.8 convictions per subject, but because of the low sample size study this finding should only be considered directional information. Over 50% of prior convictions for all the Sparrow Project participants included (listed in order of frequency) DUI charges, motor vehicle charges, theft, and disorderly conduct. Approximately 75% of motor vehicle violations involved driving with license suspended, careless and negligent driving, and reckless/gross negligent operation.

**Table 14**  
**Prior Convictions**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total Convictions	
	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent	Number of Convictions	Percent
DUI	30	17.9%	4	36.4%	20	14.7%	54	17.1%
Motor Vehicle Violations (DMV)	27	16.1%	2	18.2%	22	16.2%	51	16.2%
Theft	15	8.9%	0	.0%	13	9.6%	28	8.9%
Disorderly Conduct	14	8.3%	0	.0%	12	8.8%	26	8.3%
Drug	7	4.2%	3	27.3%	13	9.6%	23	7.3%
Violation of Conditions of Release	11	6.5%	0	.0%	11	8.1%	22	7.0%
Alcohol	14	8.3%	0	.0%	7	5.1%	21	6.7%
Assault	9	5.4%	0	.0%	8	5.9%	17	5.4%
Domestic Assault	10	6.0%	1	9.1%	2	1.5%	13	4.1%
Unlawful Mischief	8	4.8%	1	9.1%	2	1.5%	11	3.5%
Fish & Game Violation	3	1.8%	0	.0%	5	3.7%	8	2.5%
Unlawful Trespass	2	1.2%	0	.0%	5	3.7%	7	2.2%
Violation of Probation	4	2.4%	0	.0%	2	1.5%	6	1.9%
Stolen Property	3	1.8%	0	.0%	2	1.5%	5	1.6%
Disturbing the Peace	2	1.2%	0	.0%	2	1.5%	4	1.3%
Crimes vs. Justice: Contempt, False Information, Resist Arrest, etc.	3	1.8%	0	.0%	1	.7%	4	1.3%
All Other Convictions	6	3.6%	0	.0%	9	6.6%	15	4.8%
<b>Total Convictions</b>	<b>168</b>	<b>100.0%</b>	<b>11</b>	<b>100.0%</b>	<b>136</b>	<b>100.0%</b>	<b>315</b>	<b>100.0%</b>
<b>Total Subjects</b>	<b>56</b>		<b>6</b>		<b>41</b>		<b>103</b>	
<b>Average Number of Prior Convictions</b>	<b>3.0</b>		<b>1.8</b>		<b>3.3</b>		<b>3.1</b>	

### Base Docket Case Profile

Table 15 presents data regarding the most serious offense level for charges from the base docket for study participants. The subjects who were dis-enrolled from the Sparrow Project showed a higher proportion of misdemeanor to felony convictions (80.5% misdemeanor to 19.5% felony) compared to the participants who successfully completed the Project (67.9% misdemeanor to 32.2% felony) or were currently enrolled (67% misdemeanor to 32% felony). Although these differences are notable, they are not statistically significant.

**Table 15**  
**Base Docket Offense Level**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total Convictions	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>Felony</b>	18	32.1%	2	33.3%	8	19.5%	28	27.2%
<b>Misdemeanor</b>	38	67.9%	4	66.7%	33	80.5%	75	72.8%
<b>Total Convictions</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Table 16 presents data regarding the most serious charges from the base docket for study participants. The subjects who completed the Project showed noticeably more DUI charges than did those who were dis-enrolled from the Project (35.7% vs. 22.0%, respectively). However, this difference was not statistically significant. For the total study group, 65% of the base docket charges consisted of (in order of frequency) DUI charges, drug offenses, motor vehicle charges, and burglary. Slightly more than 70% of motor vehicle violations involved driving with license suspended and reckless/gross negligent operation.

**Table 16**  
**Most Serious Base Docket Charges**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total	
	# of Convictions	%	# of Convictions	%	# of Convictions	%	# of Convictions	%
DUI	20	35.7%	2	33.3%	9	22.0%	31	30.1%
Drug Offense	10	17.9%	0	.0%	8	19.5%	18	17.5%
Motor Vehicle Violations (DMV)	6	10.7%	0	.0%	5	12.2%	11	10.7%
Burglary	4	7.1%	1	16.7%	2	4.9%	7	6.8%
Simple Assault	3	5.4%	0	.0%	1	2.4%	4	3.9%
Failure to Appear	0	.0%	1	16.7%	3	7.3%	4	3.9%
Crimes vs. Justice: Contempt, False Alarms, Resist Arrest, etc.	1	1.8%	1	16.7%	2	4.9%	4	3.9%
Disorderly Conduct	3	5.4%	0	.0%	0	.0%	3	2.9%
Violation of Probation	1	1.8%	0	.0%	2	4.9%	3	2.9%
Theft	1	1.8%	0	.0%	2	4.9%	3	2.9%
Alcohol Violation	0	.0%	0	.0%	2	4.9%	2	1.9%
Fraud	0	.0%	0	.0%	2	4.9%	2	1.9%
Unlawful Mischief	1	1.8%	0	.0%	1	2.4%	2	1.9%
Unlawful Trespass	2	3.6%	0	.0%	0	.0%	2	1.9%
Temporary Restraining Order Violation	0	.0%	0	.0%	2	4.9%	2	1.9%
Cruelty to Children	1	1.8%	0	.0%	0	.0%	1	1.0%
Domestic Assault	1	1.8%	0	.0%	0	.0%	1	1.0%
Grand Larceny	1	1.8%	0	.0%	0	.0%	1	1.0%
Shoplifting	1	1.8%	0	.0%	0	.0%	1	1.0%
Missing / Unknown	0	.0%	1	16.7%	0	.0%	1	1.0%
<b>Total</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Table 17 displays information regarding the type of sentence received by participants on charges from the base docket. Case dispositions and sentences were similar for all groups except for the percentage of participants who were sentenced to incarceration. Whereas 26.8% of the participants who successfully completed the Project were sentenced to incarceration, a significantly higher percentage of the subjects who were dis-enrolled from the Sparrow Project (51.2%) were sentenced to incarceration on the charges from the base docket.



**Table 17**  
**Case Dispositions & Type of Sentence**

	Completed Project		Currently in Project		Dis-enrolled from Project		Total Convictions	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>Incarceration</b>	15	26.8%	0	.0%	21	51.2%	36	35.0%
<b>Split Sentence</b>	15	26.8%	0	.0%	6	14.6%	21	20.4%
<b>Probation</b>	7	12.5%	0	.0%	5	12.2%	12	11.7%
<b>Fine</b>	2	3.6%	0	.0%	0	.0%	2	1.9%
<b>Sentence Deferred</b>	5	8.9%	0	.0%	2	4.9%	7	6.8%
<b>Not Disp By Court</b>	3	5.4%	0	.0%	6	14.6%	9	8.7%
<b>Missing / Unknown</b>	9	16.1%	6	100.0%	1	2.4%	16	15.5%
<b>Total Convictions</b>	<b>56</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>	<b>103</b>	<b>100.0%</b>

Note: Values in the same row that are shaded in gray are significantly different at  $p < 0.05$  in the two-sided test of equality for column proportions.

Tables 18A & B show information regarding the minimum and maximum sentence lengths received by participants who were sentenced to incarceration. For the total study sample the mean minimum sentence length was 115.5 days, with a median of 34.5 days, and a maximum length of 2 years. The mean maximum sentence length was 1.2 years, with a median of 180 days, and a maximum length of 5 years.

Table 18A indicates that the minimum sentence to incarceration for participants who completed the Project was more likely to be shorter (< than 90 days) than was the case for participants who were dis-enrolled from the Project. On the other hand, Table 18B indicates that those who were dis-enrolled from the Project tended to have shorter maximum sentences to incarceration than subjects who completed the Project. The differences were not, however, statistically significant.

**Table 18A**  
**Minimum Lengths of Sentences to Incarceration**

	Completed Project		Dis-enrolled from Project		Total	
	Count	%	Count	%	Count	%
<b>&lt; 90 days</b>	12	80.0%	11	52.4%	23	63.9%
<b>90 days to &lt; 1yr</b>	0	0.0%	8	38.1%	8	22.2%
<b>1 yr to &lt; 3 yrs</b>	3	20.0%	2	9.5%	5	13.9%
<b>3+ yrs</b>	0	0.0%	0	0.0%	0	0.0%
<b>Total</b>	<b>15</b>	<b>100.0%</b>	<b>21</b>	<b>100.0%</b>	<b>36</b>	<b>100.0%</b>
<b>Mean</b>		<b>104 days</b>		<b>123.5 days</b>		<b>115.5 days</b>
<b>Median</b>		<b>30 days</b>		<b>59 days</b>		<b>34.5 days</b>
<b>Maximum</b>		<b>1.5 yrs</b>		<b>2 yrs</b>		<b>2 yrs</b>

**Table 18B**  
**Maximum Lengths of Sentences to Incarceration**

	Completed Project		Dis-enrolled from Project		Total	
	Count	%	Count	%	Count	%
< 90 days	5	33.3%	11	52.4%	16	44.4%
90 days to < 1yr	1	6.7%	6	28.6%	7	19.4%
1 yr to < 3 yrs	6	40.0%	2	9.5%	8	22.2%
3+ yrs	3	20.0%	2	9.5%	5	13.9%
<b>Total</b>	<b>15</b>	<b>100.0%</b>	<b>21</b>	<b>100.0%</b>	<b>36</b>	<b>100.0%</b>
<b>Mean</b>		<b>1.6 yrs</b>		<b>322.6 days</b>		<b>1.2 yrs</b>
<b>Median</b>		<b>1.5 yrs</b>		<b>60 days</b>		<b>180 days</b>
<b>Maximum</b>		<b>5 yrs</b>		<b>5 yrs</b>		<b>5 yrs</b>

Table 19 shows information regarding the number of days participants were sentenced to serve on split sentences. For the total study sample the mean number of days sentenced to serve was 25.4, with a median of 10 days, and a maximum of 90 days. The results showed that participants who completed the Project were sentenced to noticeably less time than those who were dis-enrolled from the Project. The average number of days sentenced to serve for participants who completed the Project was 21.3, with a median of 7 days. The average number of days sentenced to serve for participants who were dis-enrolled from the Project was 35.5, with a median of 27.5 days. These differences, however, are not statistically significant.

**Table 19**  
**Days Time Served of Split Sentences**

	Completed Project		Dis-enrolled from Project		Total	
	Count	%	Count	%	Count	%
< 15 days	9	60.0%	2	33.3%	11	52.4%
15 to < 30 days	2	13.3%	1	16.7%	3	14.3%
30 to < 60 days	1	6.7%	1	16.7%	2	9.5%
60+ days	3	20.0%	2	33.3%	5	23.8%
<b>Total</b>	<b>15</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>21</b>	<b>100.0%</b>
<b>Mean</b>		<b>21.3</b>		<b>35.5</b>		<b>25.4</b>
<b>Median</b>		<b>7.0</b>		<b>27.5</b>		<b>10.0</b>
<b>Maximum</b>		<b>90</b>		<b>90</b>		<b>90</b>

## **REGRESSION ANALYSIS: Are there demographic and criminal history characteristics that are important in predicting whether or not participants recidivate?**

To answer this question, a discriminant analysis was conducted to determine if any of the profile characteristics discussed above were strongly correlated to the tendency to recidivate.

Discriminant analysis is a multivariate logit regression methodology that is used to predict group membership -- in this case recidivists -- based on a linear combination of independent interval variables. The procedure begins with a data set of observations where both group membership and the values of the independent variables are known. For this study, the intended result of this analysis is a model that allows prediction of whether or not a Sparrow Project participant is likely to recidivate, based on the known independent variables.

The following variables were used in the discriminant analysis.

### **Independent variables:**

Gender: 1 = female, 2 = male

Race: 1 = African American, 2 = Asian, 3 = Caucasian

Study Segment: 1 = completed Project, 2 = currently enrolled, 3 = dis-enrolled.

Age at Disposition of Base Docket – age in years

Age at First Conviction – age in years

Total Prior Convictions

Prior Misdemeanor Convictions

Prior Felony Convictions

Base Charge Offense Level: 1 = felony, 2 = misdemeanor.

Base Charge Offense Rank: Higher value equals more severe offense – range 15 to 75

Base Charge Sentence Type: incarceration, split sentence, etc. Lower value equals more severe sentence.

Minimum Base Charge Sentence Length

Maximum Base Charge Sentence Length

### **Dependent variable:**

Recidivist: 1 = recidivist and 2 = non-recidivist

For a first step, a test of equality of the group means of the independent variables was conducted. Table 20 below shows this analysis and indicates that only one independent variable – “Base Docket Sentence Type” -- showed a significant difference (+99% confidence level) between the recidivist and non-recidivist groups.

**Table 20**  
**Test Of Equality Of Group Means**

	Independent Variable Means		F	Sig.
	Recidivists	Non-recidivists		
<b>Base Docket Sentence Type</b>	2.4	4.6	18.86	.000
<b>Race</b>	2.8	3.0	3.01	.086
<b>Gender</b>	1.9	1.7	1.72	.193
<b>Study Segment</b>	2.1	1.8	1.70	.196
<b>Prior Felony Convictions</b>	.4	.2	1.35	.247
<b>Age at First conviction</b>	22.5	24.9	1.23	.270
<b>Total Prior Convictions</b>	3.6	2.9	1.20	.275
<b>Base Charge Offense Level</b>	1.8	1.7	1.14	.289
<b>Prior Misdemeanor Convictions</b>	3.3	2.7	.95	.333
<b>Age at Disposition of Base Docket</b>	31.2	33.9	.85	.360
<b>Maximum Sentence Length</b>	525.5	422.0	.55	.460
<b>Minimum Sentence Length</b>	176.5	198.2	.09	.761
<b>Base Charge Offense Rank</b>	36.4	36.0	.01	.918

Note: Values in the same row that are shaded in gray are significantly different at  $p < 0.05$  in the two-sided test of equality for column proportions.

A discriminant analysis was subsequently performed to determine if a *combination* of the independent variables exists that accurately assigns cases to the two recidivist groups. A stepwise variable selection method was used to determine which variables to include or remove from the model. The final result showed that only one independent variable remained in the model – “Base Docket Sentence Type.”

Table 21 shows the resulting regression models for each group of the dependent variable – Recidivists and Non-recidivists. The coefficients and constants in the table are used to create regression equations. These equations can be used to assign each subject to the Recidivist or Non-recidivist group by multiplying the independent predictor variable value – Base Docket Sentence Type -- by its coefficient and summing these products with the constant to arrive at a classification score. Two classification scores are calculated for each subject – a Recidivist score and a Non-recidivists score. A subject is assigned to that group for which the classification score is the largest.

**Table 21**  
**Discriminant Analysis Model**

	Recidivist	Non-recidivist
<b>Base Docket Sentence Type</b>	.54	1.04
<b>Constant</b>	-2.20	-2.64

Tables 22 shows a summary of the statistical significance testing. The Canonical Correlation is a correlation between the classification scores and the categories of the dependent variable. A

high correlation indicates a function that discriminates well (1.00 is perfect). The present correlation shown of 0.397 is very low and suggests the model explains about 16% ( $R^2$  or  $0.397^2$ ) of the variation in the grouping variable, i.e. whether a subject is a recidivist or non-recidivist.

**Table 22**  
**Summary of Statistical Analysis Testing**

Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
.187	100.0	100.0	.397

The Wilks' Lambda table (Table 23) indicates the significance of the discriminant function. Although the table shows a highly significant function ( $p < .000$ ), it also shows that 84.3% of total variability is **not** explained. (Wilks' Lambda is the converse of the squared canonical correlation).

**Table 24**  
**Wilks' Lambda Table**

Wilks' Lambda	Chi-square	df	Sig.
.843	17.208	1	.000

The low correlation of the discriminant function with the dependent variable is further revealed by the classification results shown in Table 24. In this table the rows are the observed categories of the dependent variable and the columns are the predicted categories. When prediction is perfect all cases will lie on the diagonal. The percentage of cases on the diagonal is the percentage of correct classifications. The classification results reveal that only 70.9% of all Project participants were classified correctly into "Recidivists" or "Non-recidivists".

**Table 23**  
**Classification Results**

		Predicted Group Membership		Actual Group Membership
		Recidivist	Non-recidivist	
Count	Recidivist	<b>14</b>	8	22
	Non-recidivist	22	<b>59</b>	81
%	Recidivist	<b>63.6%</b>	36.4%	100.0
	Non-recidivist	27.2%	<b>72.8%</b>	100.0

Numbers/Percentages in bold are correctly predicted. 70.9% of original grouped cases correctly predicted.

The final conclusion from these analyses is that only one characteristic -- Base Docket Sentence Type -- was found to differentiate recidivists from non-recidivists and have some predictive

power in classifying subjects into the correct group, although not at a statistically robust level. The analysis also revealed that “Base Docket Sentence Type” had a positive correlation with the dependent variable. In other words, Sparrow Project participants who are sentenced to incarcerative sentences have a higher probability of recidivating than do participants who are sentenced to a community-based sentence. Although the predictive ability of the model is not very strong -- only able to correctly classify less than 3 of 4 participants -- it does suggest a further look at “Base Docket Sentence Type” in future outcome evaluations. Also since the analysis revealed less than statistically robust results, it suggests that obtaining more detailed demographic and psychographic information, including mental health and substance abuse treatment histories for Project participants should be considered. Having this data would provide a more varied set of independent variables and potentially lead to more powerful recidivism classification models to guide future programming decisions.

# FINDINGS

## **RESEARCH QUESTION #1**

***Which subjects were convicted of additional crimes during or after their participation in the Sparrow Project?***

1.1 No subjects who were current participants in the Project at the time of the study had committed new offenses.

1.2 Participants who successfully completed the Project had a substantially lower reconviction rate (17.9%) than those participants who were dis-enrolled from the Project (29.3%).

## **RESEARCH QUESTION #2**

***For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, when were they convicted?***

2.1 None of the subjects who were current participants in the Project at the time of the study had committed new offenses.

2.2 For the recidivists who successfully completed the Sparrow Project, 100% of those reconvictions for any new crime occurred in less than one year.

2.3 For the recidivists who were unsuccessful in completing the Project, 91.7% (11 of 12) of those reconvictions for any new crime occurred in less than one year, and only one occurred during the first year after being dis-enrolled from the Project.

2.4 Participants who successfully completed the Sparrow Project recidivated at the same pace as did participants who were dis-enrolled from the Project.

2.5 When analyzing recidivism patterns for all post-project participants, recidivism was highest within one year of Project completion/disenrollment (21.6%). However, the recidivism percentage declines sharply during “Year 1” after Project completion (1.4%) and continues to drop to zero (0.0%) during “Year 2”. This data suggests that it is unlikely that recidivism will increase substantially as participants increase their post-project elapsed time to three or more years.

### **RESEARCH QUESTION #3**

***For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, which crimes did they commit?***

3.1 None of the subjects who were current participants in the Project at the time of the study had committed new offenses.

3.2 There were no felony convictions for participants who successfully completed the Project, whereas there were four felony convictions for the dis-enrolled group.

3.3 Sparrow Project participants who completed the Project were convicted of a total of 22 crimes during the study period (39 convictions per 100 participants). Approximately 85% of those convictions included (listed in order of frequency) motor vehicle charges, violations of conditions of release, theft, violations of probation, and drug crimes, and false information to a law enforcement officer charges.

3.4 Sparrow Project participants who were dis-enrolled from the Project were convicted of 27 crimes during the study period (66 convictions per 100 participants). Approximately 85% of their convictions included (listed in order of frequency) drug crimes, motor vehicle charges, violations of conditions of release, theft, and false information to a law enforcement officer charges.

### **RESEARCH QUESTION #4**

***For those subjects who were convicted of additional crimes during or after their participation in the Sparrow Project, in which counties were the subjects convicted?***

4.1 84% of the convictions for Sparrow Project participants occurred in Windsor County. Sixteen percent of the convictions occurred in Chittenden, Orange, Rutland, Washington, or Windham Counties.

4.2 For Sparrow Project participants who successfully completed the Project approximately 91% of new convictions occurred in Windsor County.

4.3 For the Sparrow Project participants who were dis-enrolled from the Project 77.8% of new convictions occurred in Windsor County.



## **RESEARCH QUESTION #5**

***Which demographic and criminal history characteristics are important in predicting whether or not participants in the Sparrow Project recidivate?***

5.1 Only one characteristic – “Base Docket Sentence Type”, -- was found to significantly differentiate between the recidivist and non-recidivist groups. A regression model was created that showed this characteristic to have some predictive power in classifying subjects into the correct recidivist group, although the predictive power of the model was not very strong -- only able to correctly classify about 70% of the participants.

5.2 The “Base Docket Sentence Type” appears to have a positive correlation with the tendency to recidivate such that Sparrow Project participants who are sentenced to incarcerative sentences have a higher probability of recidivating than do participants who are sentenced to a community-based alternative.

5.3 The predictive ability of the model is not very strong, but it does suggest a further look at “Base Docket Sentence Type”, in future programming decisions.

5.4 Since the analysis revealed less than statistically robust results, it is recommended that more detailed demographic and psychographic information, including mental health and substance abuse treatment histories for Project participants be collected and analyzed.

## CONCLUSIONS

### **1. THE SPARROW PROJECT APPEARS TO BE A PROMISING APPROACH FOR REDUCING RECIDIVISM AMONG PROJECT PARTICIPANTS WHO COMPLETED THE PROJECT.**

Participants who successfully completed the Project had a reconviction rate of 17.9% which is substantially less than the 29.3% recidivism rate for those participants who were dis-enrolled from the Project. Though the de-enrolled group is not technically a control group for those participants who did complete the Project they have characteristics which are similar to the successful participant group and therefore suggest the efficacy of the Sparrow Project.

### **2. PARTICIPANTS WHO SUCCESSFULLY COMPLETED THE SPARROW PROJECT RECIDIVATED AT THE SAME PACE AS DID PARTICIPANTS WHO WERE DIS-ENROLLED FROM THE PROJECT.**

For the recidivists who successfully completed the Sparrow Project, 100% of those reconvictions for any new crime occurred in less than one year. For the recidivists who were unsuccessful in completing the Project, 91.7% (11 of 12) of reconvictions for any new crime occurred in less than one year, and only one occurred during the first year after being dis-enrolled from the Project. Further analysis indicated that though the vast majority of recidivism occurs within the first year, it is unlikely that recidivism will increase substantially as post-project elapsed time continues to increase for participants.

### **3. THE SPARROW PROJECT APPEARS TO BE A PROMISING APPROACH FOR REDUCING THE NUMBER OF POST-PROJECT RECONVICTIONS FOR PARTICIPANTS WHO COMPLETED THE PROJECT.**

Sparrow Project participants who completed the Project were convicted of a total of 22 crimes during the study period (39 reconvictions per 100 participants). Sparrow Project participants who were dis-enrolled from the Project were convicted of 27 crimes during the study period (66 reconvictions per 100 participants). There were no felony reconvictions for participants who successfully completed the Project, whereas there were four felony reconvictions for the dis-enrolled group. For both groups approximately 85% of their reconvictions involved (listed in order of frequency) motor vehicle charges, violations of conditions of release, drug crimes, theft, false information to a law enforcement officer, and violation of probation. There was only one reconviction for a violent crime (Domestic Assault); it involved a participant from the "successful completion" group.

**4. SPARROW PROJECT RECIDIVISTS TENDED TO COMMIT POST-PROJECT CRIME IN WINDSOR COUNTY.**

84% of the reconvictions for Sparrow Project participants occurred in Windsor County. 16% of the reconvictions occurred in Chittenden, Orange, Rutland, Washington, or Windham Counties.

**5. SPARROW PROJECT PARTICIPANTS WHO ARE SENTENCED TO INCARCERATIVE SENTENCES HAVE A HIGHER PROBABILITY OF RECIDIVATING THAN DO PARTICIPANTS WHO ARE SENTENCED TO A COMMUNITY-BASED ALTERNATIVE.**

The results of a discriminant analysis conducted to determine if any of the characteristics of Project participants were strongly correlated to the tendency to recidivate indicated that the sentence the participant received prior to admission into the Project was the most important in predicting recidivism.