MIDAS Outcome Evaluation

FINAL REPORT

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INTRODUCTION

As the jail and prison population numbers continue to increase, criminal justice planners and politicians have two choices: build new institutions, or release offenders under community supervision. Community sentences are relatively inexpensive when compared to the cost of building new prisons, and as such, these forms of supervision have seen renewed interest among policy-makers in the recent years (Travis & Visher, 2005; Petersilia, 2003).

Research suggests that one way to reduce recidivism among ex-offenders involves helping them find work. Convicted felons usually enter and exit prison with a history of low educational attainment, unemployment, and few job skills (Uggen et al., 2005). Laub and Sampson (2003) argue that employment is linked to the daily activities of offenders, and provides a form of social control. Furthermore, being employed might help former prisoners develop identities as law-abiding citizens and integrate them into conventional social networks (Laub & Sampson, 2003).

Family processes are also an area of concern for offenders. Many offenders enter prison with problems in family formations and/or communication. Furthermore, research has shown that these characteristics are strongly associated with criminal involvement (Sampson, 1987). The development of quality relationships and strong family ties may reduce recidivism among former inmates as they assume pro-social roles (Laub et al., 1998). As the number of ex-offenders in the community increases, supervision agencies are increasingly faced with demands to provide services that will help this population re-integrate successfully in their communities.

As more inmates are released to the community, states have begun to take a closer look at reentry processes and the factors related to successful offender adjustment back into the community. A recent study conducted by the Pennsylvania Department of Corrections

(PADOC) Office of Planning, Research, Statistics, and Grants found that parole violators have unrealistic expectations about life outside of prison, maintain antisocial values and beliefs, and lack the adequate skills to cope with everyday life issues (Bucklen & Zajac, 2005). In order to address these issues, PADOC developed the Making Intelligent Decisions and Succeeding (MIDAS) program, which is aimed to help parole violators overcome the obstacles to successful re-entry.

Following the introduction, the report is divided into five sections. The first section provides an overview of the MIDAS program. The second section lists the research questions and outlines the methods used to address those questions. The third section presents the results from the outcome study. A summary of the findings is presented in the fourth section, and the fifth and final section provides recommendations based on the findings of this report.

THE MIDAS PROGRAM

The MIDAS program was developed in order to increase the social skills and reduce the anti-social attitudes of parole violators. MIDAS attempts to target antisocial beliefs in parole violators, while simultaneously attempting to increase their employment, education and family communication skills. By improving these skills, MIDAS ultimately seeks to reduce the recidivism rates of parole violators.

The program was piloted in three Pennsylvania State Correctional Institutions (SCIs) in three cycles, each lasting ninety days. Implementation of the program started in February 2007 and was completed in March 2008. The participating institutions were SCI Dallas and SCI Somerset, which house male offenders, and SCI Muncy, a women's correctional institution. During every cycle, the MIDAS curriculum was delivered every weekday through three-hour sessions.

To be eligible for participation in the program, parole violators were required to be at least six month, but no more than twelve months away from their next parole board review. Furthermore, participants were required to score 21 or greater on the Level of Service Inventory – Revised (LSI-R) and be in need of basic adult education. Once determined eligible to participate in the MIDAS program, participants were randomly assigned to a treatment or control group. Individuals in the treatment group received all of the MIDAS treatment modules, while the control group individuals received the usual services available to all offenders at each of the piloting institutions.

SCI Muncy participants and some of the participants in SCI Dallas were assessed through the Comprehensive Adult Student Assessment System (CASAS). This assessment is used to diagnose basic math, reading, writing, listening, and speaking skills. Furthermore, these institutions used CareerScope, a tool that assesses career interest and aptitudes. SCI Somerset assessed offenders using the CASAS Occupational Specific assessment, which assesses reading and comprehension skills within the occupational specific areas. Lastly, program participants at all three sites were assessed with the Test of Adult Basic Education (TABE), which diagnoses an individual's reading and math skills. At program completion, participants in the treatment group were re-assessed with the TABE instruments, while control group participants were simply assessed three months after the initial evaluation. In SCI Dallas and SCI Muncy posttests were also administered for the CASAS instrument.

The treatment modules for the MIDAS program consisted of basic adult educational materials that prepare participants to sit for the GED test, such as employment skills materials and financial materials. Moreover, curricula that seek to improve pro-social problem-solving skills and improve family communications was also part of the services delivered by MIDAS.

More specifically, the MIDAS treatment modules included *The Lifelines* and *Madison Heights Workbooks,* the *Tools for Success Workbook*, the *FDIC Financial Education Curriculum MoneySmart* booklets, the *Job Interview Tips for People with Not-so-Hot Backgrounds* (Krannich, 2004) and the *Best Resumes and Letters for Ex-Offenders* (Enelow & Krannich, 2006). For a more comprehensive description of these materials, please refer to the MIDAS Process Evaluation Report (Latessa, et al., 2008).

The process evaluation of the pilot for the MIDAS program, as well as an Evidence-Based Correctional Program Checklist (CPC)[1] was provided in a previous report. The current evaluation will focus on identifying the impact that the MIDAS program had on its participants.

METHODS

Research Questions

PADOC piloted the MIDAS program from February 2007 to March 2008, and contracted the University of Cincinnati to provide an evaluation of this pilot effort. The purpose of this study is to provide information on the impact of MIDAS on its participants. Specifically, it seeks to answer the following research questions:

- *Are characteristics of the treatment group participants different from those of the control group participants?*

- *What are the characteristics of the MIDAS participants who complete the program and how do they compare to those who fail to complete the treatment?*

- *Is there a difference in adult basic education scores of the participants who received MIDAS as compared to those who did not?*

- *Is there a difference between those who received MIDAS and those who did not in obtaining subsequent employment?*

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[1] The CPC is a tool designed to assess correctional programs and is used to ascertain how closely these interventions adhere to the principles of effective intervention. During the assessment, a detailed review of the services and program materials is conducted, and compared with the "best practices" literature in corrections. For more information on the MIDAS CPC evaluation, refer to the MIDAS Process Evaluation (2008).

- *Is there a difference between the control and treatment group participants in recidivating after release from the institutions?*

- *Did any characteristics of participants in the treatment and control group influence employment attainment and recidivism after release? If so, how?*

- *What factors predict the likelihood of success/failure in program outcomes of completers and non-completers of MIDAS?*

- *Was the treatment effect different across LSI-R risk categories?*

Research Design

The evaluation used a randomized experimental design to determine the impact of the MIDAS pilot on recidivism and employment. Referrals for offenders eligible to participate in the program came from the PADOC. Each piloting institutions randomly assigned eligible offenders to an experimental or a control group for each of the MIDAS phases. This resulted in two groups: a treatment group—those who received MIDAS programming—and a control group—those who received the usual services provided by the institution, but did not receive MIDAS programming. Random assignment allows for greater internal validity, as the resulting groups are probabilistically equivalent (Shadish, Cook, and Campbell, 2002). As such, any differences in outcome measures between the treatment and control groups can be attributed to the treatment process.[2]

Sample

The sample for the evaluation is comprised of men and women from three institutions. Two of the institutions, SCI Dallas and SCI Somerset, housed male participants, while SCI Muncy housed women. Both men and women were randomly assigned to either the treatment or

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[2] To be sure, random assignment may not always produce two similar groups due to chance alone. Thus, it is necessary to compare each group on characteristics thought to influence an outcome (e.g., age, gender, risk level, etc.) to determine if random assignment was successful. Inspection of the random assignment process is presented in the results section.

control group. The sample included participants from all three phases of the MIDAS program, which started in February 2007 and was completed in March 2008. The current evaluation provides information on 414 participants, of which 339 are men and 75 are women. Of these participants, 206 constituted the control group and 208 were part of the treatment group.

Data Collection

Information on each program participants was collected by each of the participating pilot sites. School principals or treatment staff gathered pre- and posttest data on participants during each pilot phase. Data included program start date, program completion, reasons for not completing the program, pretest and posttest scores, and any special circumstances surrounding any of the participants. Data were then sent to University of Cincinnati researchers to be compiled, cleaned, and analyzed.

After completion of all three phases and release from prison, follow-up data on employment and re-arrest/parole violations were gathered by PADOC. Employment data on a limited number of sample participants were gathered by the Pennsylvania Parole Board and transferred to University of Cincinnati researchers[3]. Information on re-arrest/parole violations post release was obtained through criminal history checks provided by the Pennsylvania Commission on Crime and passed on to researchers.[4] All outcome data were then cleaned, inspected, and merged with previously provided data. The last date of data collection was November 18th, 2008.

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[3] Employment data for the released offenders was transferred to University of Cincinnati via a secure, internet, data file download.

[4] Outcome data was not available for the entire sample, as some of the participants were not yet released from prison at the time data were collected.

Variables Examined

Participant Characteristics. This evaluation provides descriptive statistics for participants in the treatment and control group for each of the MIDAS sites. Thus, information about each participants age, race, gender, and offense type and frequency were made available. In addition, the PADOC uses several standardized assessments to assess the offenders. Specifically, the criminogenic risk and need level was assessed through the Level of Service Inventory-Revised (LSI-R) (Andrews & Bonta, 1995). Additionally, the Criminal Sentiments Scale-Modified (CSS-M) (Shields & Simourd, 1991) and the Hostile Interpretations Questionnaire (HIQ) (Mamuza & Simourd, 1997) were also used to assess criminal thinking and attitudes in many of the offenders that participated in the program. Offenders were also assessed with the TCU Drug Screen II, which measures an individual's substance abuse for the past 12 months.

Pretest data on the LSI-R were available for all the participants, and CSS-M criminal attitudes scores, HIQ scores, and TCU addiction scores were made available for some of the offenders participating in the program[5]. The CASAS Occupation Specific outcomes were made available for some of the program participants[6]. This information is disaggregated between the treatment and control group to illustrate any significant differences between them. Furthermore, completion rates and average stay in the program are also depicted to provide a more complete picture of the MIDAS program experience.

Participant Outcomes. Outcome data includes comparison of pre- and posttest scores for the Test of Adult Basic Education (TABE) Math and Reading Modules to determine what effect treatment had on adult basic education. As SCIs differed in the type of tests that they

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[5] TCU scores were available for 127 participants, CSS-M scores were available for 136 participants, and HIQ scores were available for 133 participants.
[6] Only SCI Somerset administered the CASAS Occupation Specific test.

administered, results will be presented for the data that was made available by the pilot sites. The major outcome measures included recidivism and employment. As noted above, recidivism is any new arrest or parole violation after release from prison, and employment is defined as obtaining employment in the community upon release.[7]

Data Analysis

To determine differences between treatment and control group and inspect the random assignment process, appropriate statistical techniques were employed to examine descriptive measures, assessment measurement scores, and outcome measures by group status. As such, series of chi-square tests and/or independent sample t-tests are used to illustrate the differences, if any, between these groups. Although the assessment tools use continuous scales, chi-squares were computed because the PADOC sentencing decisions and classifications are based on the category scores. T-tests were also computed using the assessment scores as continuous variables. Similar techniques are used to determine differences across variables between completers of MIDAS and non-completers of MIDAS. Moreover, differences by time spent in program, institution, and phase are examined with bivariate analyses.

Paired samples t-tests for both the treatment and comparison group are conducted on TABE Reading and Math component scores to assess whether MIDAS improved the reading and math skills of participants. Moreover, independent sample t-tests are conducted to determine differences at time of measurement between the two groups. Chi-square analyses are used to examine the influence of various characteristics on employment and recidivism outcomes. After

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[7] Data on employment post release were made available on 243 participants; however, 42 of these individuals had maintained jobs that were secured prior to admission. As such, these individuals were not included in analyses predicting employment because the influence of MIDAS on employment could not be determined for these individuals.

these bivariate analyses were conducted, multivariate logistic regression was used to examine the influence of multiple variables on employment and recidivism.

Logistic regression allows for the detection of the amount of power that each variable contributes in influencing the outcome one at a time, while controlling for every other variable in the equation. In an effort to portray substantive differences of the significant predictors, logged-odds ratios were translated into simple odds ratios and then were converted into percentages. Results are presented through a series of tables and graphs.

Additionally, the impact of the treatment modules offered by the MIDAS pilot program was assessed through a series of pre-post tests statistical analysis. The comparison of pre and posttest scores on the modules available allow for examination of the program impact. Furthermore, chi square tests were also used to demonstrate any differences between those who completed the program and those who dropped out. Recidivism and employment data collected after program completion further illustrate the effectiveness of the program.

RESULTS

Social Demographics, Standardized Assessments, and Offense Type

Demographics and assessment instrument scores on program participants were collected in order to describe and compare the program participants in the treatment and control groups. By presenting information on basic demographic characteristic such as race, gender, age, offense type and scores from several standardized risk and antisocial attitudes measurements, and a substance abuse tool, the following question was addressed:

- ***Are characteristics of treatment group participants different from those of the control group participants?***

Table 1 presents the demographic characteristics of the MIDAS participants disaggregated by treatment and control groups. The majority of the MIDAS participants in both

groups were male (80.8% in the treatment group and 83% in the control group), and black (57.1% in the treatment group and 52% in the control group). Furthermore, both groups had similar age distributions (about 36 for each group). There were no significant differences between the control and treatment group on gender, age, or race.

Table 1. Frequency and Percent Distribution of Demographic Measures by Group Status

Characteristics	Treatment (N=208)		Control Group (N=206)	
	N	%	N	%
Gender				
Male	168	80.8	171	83.0
Female	40	19.2	35	17.0
χ^2 = .350; p = .554				
Age				
Less than 29	66	31.9	64	31.7
30-39	71	34.3	72	35.6
40 and older	70	33.8	66	32.7
$\bar{x}$ = 36.0	$\bar{x}$ = 36.1		$\bar{x}$ = 36.0	
t = .131; p = .896				
Race[†]				
White	45	22.0	64	31.7
Black	117	57.1	105	52.0
Hispanic	43	21.0	32	15.8
Native American	0	0.0	1	0.5
χ^2 = 5.535; p = .063				

Note: The percentages may not add to 100 % due to rounding
[†]*The Native American category was not used in the analysis because it contains only one participant.*

Table 2 presents the frequency and percentage distribution of the assessment measures for each group. The categories for the LSI-R, the TCU Addictions Scale II, the CSS-M, and the HIQ were collapsed to follow the PADOC sentencing guidelines and previous reports on inmate populations (PADOC, 2006). As such, while the original LSI-R classification of risk has more

than three categories, scores were collapsed into a low, medium and high-risk category. The

same procedure was followed with the other assessments as well.[8]

Table 2. Frequency and Percent Distribution of Assessment Measures by Group Status

Scale	Treatment Group (N=208)		Control Group (N=206)	
	N	%	N	%
LSI-R Risk/Need Levels				
Low Risk	26	12.6	29	14.4
Medium Risk	86	41.5	72	35.6
High Risk	95	45.9	101	50.0
χ^2 = 1.527; p = .466				
TCU Addiction Scale				
Low	25	34.2	21	38.9
Medium	28	38.4	15	27.8
High	20	27.4	18	33.3
χ^2 = 1.576; p = .455				
CSS-M Scale				
Low	26	35.1	20	32.3
Medium	24	32.4	12	19.4
High	24	32.4	30	48.4
χ^2 = 4.425; p = .109				
HIQ Scale*				
Low Risk	13	18.6	17	27.0
Medium Risk	30	42.9	14	22.2
High Risk	27	38.6	32	50.8
χ^2 = 6.425; p = .040				

*p<.05

Note: Independent t-tests were calculated using the continuous scores of each scale. The results were as follows: LSI-R (t=-.130; df= 407; p=.897); TCU (t=.135; df=125; p=.893); CSS-M (t=-2.097; df=134; p=.038); HIQ (t= -.731; df=131; p=.466).

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[8] Addiction scores measured by the TCU Addiction Scale instrument, scores for the HIQ, and scores for the CSS-M were not made available for all MIDAS participants; however, frequencies and percentages are portrayed for the information that was obtained.

Most of the participants fell under the high-risk category for the LSI-R, with roughly 46 percent the treatment group and 50 percent of the control group falling into this category. For the TCU addictions II scale, most of the participants in the treatment group fall under the medium category (38.4%), while most of the control group scored low (38.9%). Chi-squares did not reveal any significant differences between the two groups. Furthermore, the majority of the treatment group (35.1%) scored low on the CSS-M scale, while most of the control group participants fell under the high category (48.4%). Chi-square tests did not reveal these differences as significant. Lower scores on the CSS-M indicate more pro-social attitudes toward criminal behavior.

Lastly, most of the treatment group participants (42.9%) scored in the medium category for the HIQ, while the majority of the control group scored high (50.8%). The low risk category had the smallest number of participants in the treatment group (18.6%), while the smallest number of control group participants fell under the medium risk category (22.2%). Chi-square statistics were computed to examine any significant differences between the treatment and control groups. There were significant differences between these two groups ($\chi^2 = 6.425$; p=.04).

Table 3 depicts the frequency and percentage distribution of the offense types for the two groups. The categories for the offenses were complied following the PADOC Offense code. As such, the "Violent" offense category includes crimes such as murder, criminal homicide, and aggravated assault. Offenses such as simple assault and intimidation are grouped under the "Other Violent" category, while the "Institution/sentence related" category includes probation violations, escapes, and other technical offenses committed while in prison or on conditional release.

Table 3. Offense Type by Group Status

Offense Type	Treatment Group (N=208)		Control Group (N=206)	
	N	%	N	%
Violent	79	38.2	62	30.7
Other Violent	8	3.9	12	5.9
Property Related	40	19.3	33	16.3
Drug Related	51	24.6	65	32.2
Public Order	16	7.7	15	7.4
Sex Related	6	2.9	7	3.5
Institution/Sentence Related	7	3.4	8	4.0

$\chi^2 = 5.326$; p = .503

For the treatment group, roughly 38 percent of the participants were convicted of a "Violent" offense and almost a quarter of the individuals were convicted of a "Drug Related" offense. On the other hand, the situation was reversed in the control group. The majority of the control group was convicted of a "Drug Related" offense (32.7%), and the second largest number of offenses was "Violent" offenses (30.7%). Offenders who committed "Property Related" offenses also made up a considerable amount of the offense distribution comprising roughly 19 percent of the treatment group and nearly 16 percent of the offenses committed by the control group. It should be noted that "Sex Related" offenses comprised the smallest proportion of the offenses for the control (3.5%) and treatment (2.9%) groups. Nevertheless, there were no significant differences between the treatment and control group regarding offense distribution.

Program Completers vs. Non-Completers

An important part of evaluating the effects of the program is describing the differences between those who complete the program compared to those individuals who do not. Thus,

characteristics that may influence program completion can be identified. The following research

question was addressed below:

- ***What are the characteristics of the MIDAS participants who complete the program and how do they compare to those who fail to complete the treatment?***

Table 4 provides a picture of the distribution of the treatment group participants that

completed the program. The numbers are shown by pilot site and MIDAS phase. The largest

number of participants who completed the program came from SCI Somerset (71.6% total from

all Phases), while SCI Dallas had the lowest number of program completers (53%).

Table 4. Treatment Group Completion Status by Location and Phase

Site*	Completers (N=135)		Non-Completers (N=73)	
	N	%	N	%
SCI Muncy				
Phase I	10	25.0	4	10.0
Phase II	9	22.5	5	12.5
Phase III	8	20.0	4	10.0
Percent Completed = 67.5				
SCI Dallas				
Phase I	13	19.7	10	15.2
Phase II	13	19.7	15	22.7
Phase III	9	13.6	6	9.1
Percent Completed = 53.0				
SCI Somerset				
Phase I	22	21.6	13	12.7
Phase II	29	28.4	5	4.9
Phase III	22	21.6	11	10.8
Percent Completed = 71.6				

*$\chi^2 = 6.192$; $p = .045$. Participants from SCI Somerset were more likely to complete the program than participants from other sites. There was no difference across phases ($\chi^2=.345$; $p=.842$).
Note: Column percentages represent the overall percent of completers or non-completers for each phase. For example, for SCI Muncy, 10 people successfully completed the program in phase one and there was a total of 40 treatment group participants across all three phases. Thus, 25 percent (10/40) of the all completers for SCI Muncy were in phase 1.

The percentage of participants who completed the program at SCI Muncy was almost 68 percent. The highest number of non-completers came from Phase II of SCI Dallas, where nearly 48 percent of treatment group participants did not complete the program. There were significant differences between completers and not completers across sites. More specifically, clients from SCI Somerset were more likely to have completed the program than clients from the other sites ($\chi^2 = 6.192$; $p = .05$). There were no significant differences in completion percentages across phases of MIDAS.

Reasons for not completing the program are depicted in Table 5 and are separated by MIDAS piloting site. The majority of the participants who did not complete the program in SCI Dallas were paroled (32.3%) followed by about 24 percent in SCI Somerset and roughly 15 percent in Muncy. Another common reason for not completing the program was being sent to cell isolation; 16 percent from SCI Dallas, almost 28 percent from SCI Somerset, and 23 percent from SCI Muncy. Misconduct was the reason why almost 13 percent of the SCI Dallas participants did not complete the program, while the other two institutions did not have any participants that did not complete for this reason. Furthermore, the reason for not completing the program was not available for roughly 21 percent of the SCI Somerset participants and nearly 31 percent of the SCI Dallas participants. The rest of the reasons for not completing the program included not being able to read, medical reasons, or not being appropriate to participate in the program for already having obtained a GED.

Table 5. Treatment Group Reasons for Non-Completion by Institution

Dropout Reasons	SCI Dallas (N=31)		SCI Somerset (N=29)		SCI Muncy (N=13)	
	N	%	N	%	N	%
Paroled	10	32.3	7	24.1	2	15.4
Cell Isolation	5	16.1	8	27.6	3	23.1
Verified GED	5	16.1	0	0.0	0	0.0
Verified H.S Diploma	1	3.2	0	0.0	0	0.0
Transferred to Other Program Or Institution	2	6.5	3	10.3	1	7.7
Misconduct	4	12.9	0	0.0	0	0.0
Quit	4	12.9	2	6.9	3	23.1
Medical Reason	0	0.0	1	3.4	0	0.0
Deceased	0	0.0	1	3.4	0	0.0
Cannot Read	0	0.0	1	3.4	0	0.0
Reason Not Given	0	0.0	6	20.7	4	30.8

Table 6 presents demographic information for program completers and non-completers that were part of the treatment group in the MIDAS program. The most common age range for program completers was 40 and older (35.6%), while participants who did not complete the program were more likely to be in the 30-39 age range category (38.9%). There were no significant differences between completers and non-completers in age, race, or gender.

Table 6. Demographic Characteristics of Treatment Group Completers vs. Non-Completers

Characteristics	Completers (N=135)		Non-Completers (N=73)	
	N	%	N	%
Age (N=207)				
Less than 29	44	32.6	22	30.6
30-39	43	31.9	28	38.9
40 and older	48	35.6	22	30.6
$\bar{x} = 36.1$	$\bar{x} = 36.5$		$\bar{x} = 35.3$	
t =.819; p = .414				
Race (N=205)				
White	26	19.5	19	26.4
Black	76	57.1	41	56.9
Hispanic	31	23.3	12	16.7
$\chi^2 = 1.978$; p = .372				
Gender				
Male	108	80.0	60	82.2
Female	27	20.0	13	17.8
$\chi^2 = .147$; p = .702				

The distribution of assessment measures for the treatment group completers and non-completers are presented in Table 7. The majority of non-completers scored high on the LSI-R (51.4%), while program completers were mostly medium risk (43.7%). These differences were

not significant. Furthermore, the majority of program completers scored low on the TCU Addiction II Scale (42.0%) and on the CSS-M (37.7%), while most of those who did not complete the program scored medium on the TCU Addictions II Scale (52.2%) and high on the CSS-M scale (38.1%).

Table 7. Frequency and Percent Distribution of Assessment Measures for Treatment Group Completers vs. Non-Completers

Scale	Completers (N=135)		Non-Completers (N=73)	
	N	%	N	%
LSI-R Risk/Need Levels (N=207)				
Low Risk	18	13.3	8	11.1
Medium Risk	59	43.7	27	37.5
High Risk	58	43.0	37	51.4
χ^2 = 1.346; p = .510				
TCU Addiction Scale[†] (N=73)*				
Low	21	42.0	4	17.4
Medium	16	32.0	12	52.2
High	13	26.0	7	30.4
CSS-M Scale (N=74)				
Low	20	37.7	6	28.6
Medium	17	32.1	7	33.3
High	16	30.2	8	38.1
χ^2 = .657; p = .720				
HIQ Scale (N=70)[†]				
Low Risk	9	18.4	4	19.0
Medium Risk	23	46.9	7	33.3
High Risk	17	34.7	10	47.6

[†]*Chi-square analyses could not be conducted on these variables because a cell value was less than five.*
Note: Independent t-tests were calculated using the continuous scores of each scale. The results were as follows: LSI-R (t=-.319; df =205; p=.750); TCU (t=-2.086; df=71; p=.041); CSS-M (t=-1.174 df=72; p=.244); HIQ (=-1.238; df =68; p=.226).

The differences in the CSS-M scores were not significant.[9] Lastly, most program completers scored in the medium category on the HIQ (46.9%), while most non-completers fell in the high category (47.6%). Again, these differences were not significant.

The number of days that participants stayed in the program is depicted in Table 8 for all the participants that were part of the treatment group, and disaggregated by completion status.[10] Most of the completers (69.4%) stayed in the program 100 days or longer, whereas only 4.4% of non-completers stayed in the program this same amount but did not finish. The majority of non-completers (64.7%) were in the program for 49 days or less, while only one participant (1.6%) that completed the program was in the program for this same amount of time. The average stay for program completers was 100 days and for non-completers was approximately 38 days. Program completers stayed significantly more days in the program than non-completers did.

Table 8: Days in Treatment by Completion Status

Days in Treatment (N=130)*	Completers (N=135)		Non-Completers (N=73)	
	N	%	N	%
0 to 49 Days	1	1.6	44	64.7
50 to 99 days	18	29.0	21	30.9
100 or More Days	43	69.4	3	4.4
	$\bar{x} = 100.0$		$\bar{x} = 38.3$	

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[9] An independent t-test found a significant difference between the score distribution of completers and non-completers for the TCU assessment (t = -2.086; df = 71; p = .04). Specifically, completers of the MIDAS program had significantly lower scores on the TCU assessment when compared to non-completers.

[10] The cutoff categories for the table were chosen based on the distribution of participants. These cutoffs permitted statistical comparison of groups.

Reading and Math Skills

As stated previously, one of the purposes of the MIDAS program was to improve the educational levels of the participants, which was measured through improvement of reading levels and math skills. Thus, the following research question was addressed:

- *Is there a difference in adult basic education scores of the participants who received MIDAS as compared to those who did not?*

The differences between pretest and posttest scores for the TABE test are pictured in Figure 1 and Figure 2. The scores for these tests are also presented in Table A-1 in the Appendix. Figure 1 depicts the pre- and posttests scores for the reading component of the TABE test. The mean score of the pretest for the treatment group in the Reading component was 6.51, while the control group mean was 6.52. The mean posttest score for the treatment group was 6.97, while the mean posttest score for the control group was 6.1. Accordingly, the control group posttest scores decreased while the treatment group posttest scores increased. To evaluate whether or not each group's score significantly changed over the course of treatment, a paired sample t-test was conducted. The statistic shows that the treatment group had significantly higher scores than the control group on the TABE Reading posttest (t=1.961; df=216; p=.05).

Furthermore, paired sample t-tests were performed comparing the pre-and posttest scores for the treatment group. The test shows that there was a significant difference between these scores, indicating that posttests scores for the treatment group were significantly higher than the pretest scores. In addition, there were no significant differences in the scores for the pre- and posttest scores for the control group for the Reading component.

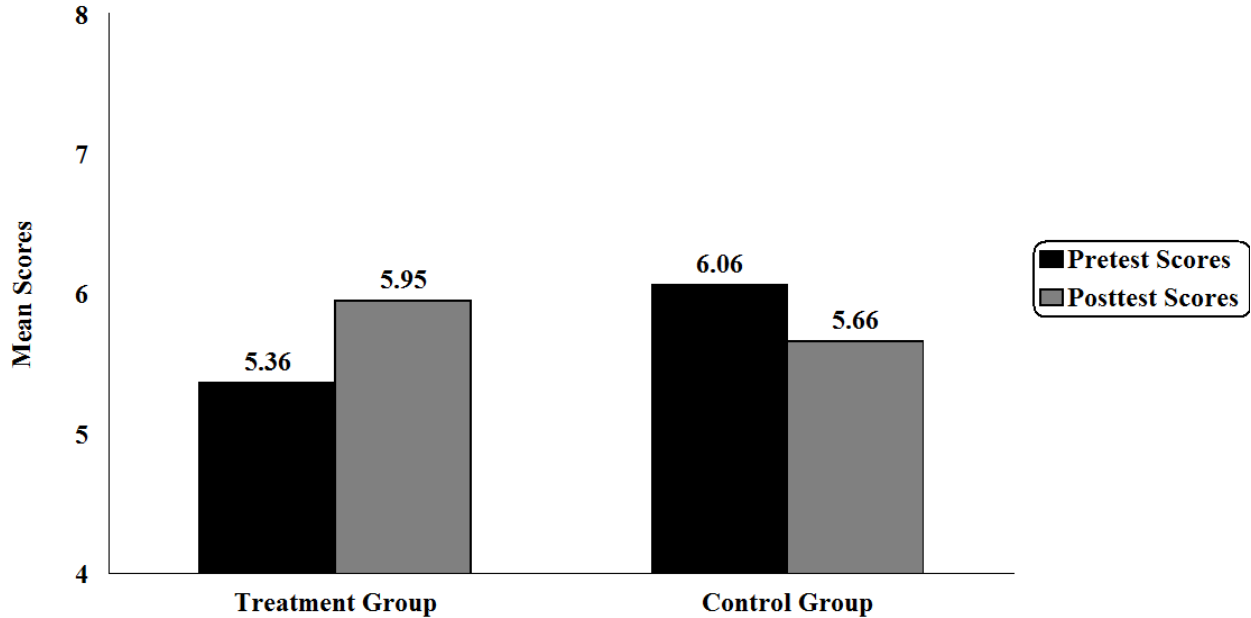**Figure 1. TABE Reading Pretest and Posttest Score by Group Status**
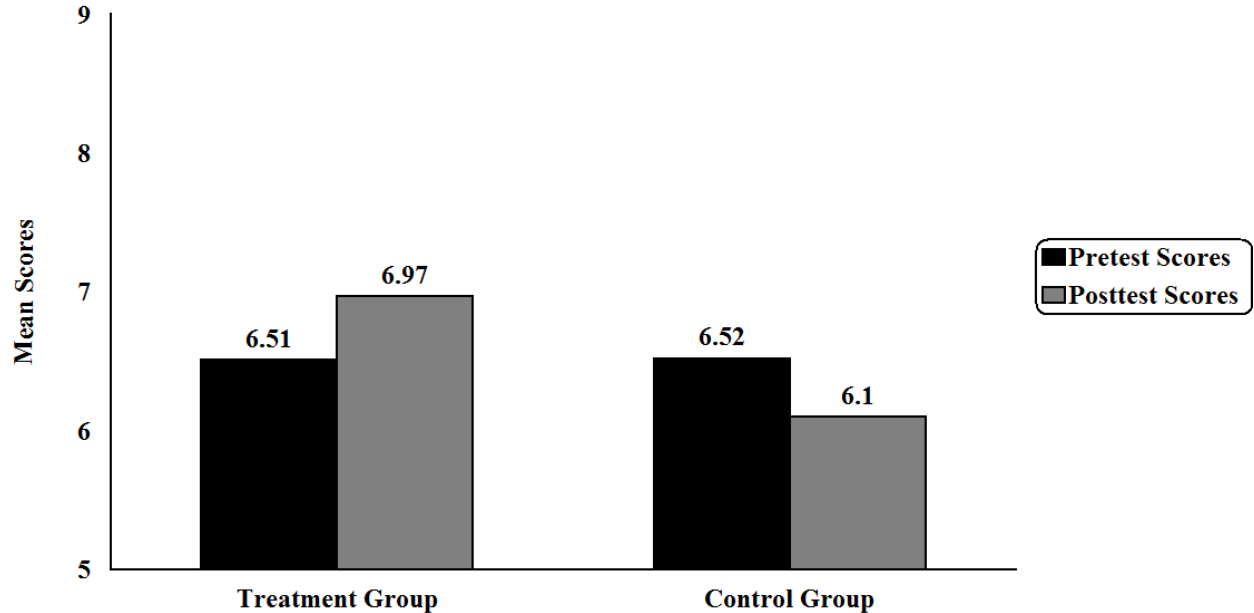
Note: The treatment group significantly improved their scores from pretest to posttest (t=-1.958; df=124; p=.05). There was no significant difference between the control group pretest and posttest scores (t=1.370; df= 88; p=.17)

Figure 2 presents the pre and posttests scores for the Math component of the TABE test. The mean score for the pretest in the treatment group was 5.36 and the pretest mean score for the control group was 6.06. The mean pretest score for the control group was 5.95, while the mean posttest score was 5.66. Paired sample t-tests were conducted to examine any differences between pre-and posttests scores for each group. For the control group the paired sample t-test revealed no significant differences between these two scores. In other words, the control group experienced no significant change in their Math TABE scores.

Additionally, a paired sample t-test comparing these pre-and posttest scores for the treatment group revealed significant differences between the two mean scores. Specifically, posttest scores for the treatment group were significantly higher than pretest scores.

Figure 2: TABE Math Pretest and Posttest Score by Group Status

Note: The treatment group significantly improved their scores from pretest to posttest (t=-3.066; df=124; p=.00). There was no significant difference between the control group pretest and posttest scores (t=1.565; df=89; p=.12).

The CASAS Reading and Math tests were administered in SCI Muncy and SCI Dallas, while SCI Somerset administered the CASAS Occupational Specific test. Therefore, the data for the CASAS tests in figures 3 and 4 represent only scores from SCI Muncy and SCI Dallas. Figure 3 depicts the mean scores for the Reading component of the CASAS test. The treatment group's pretest score was 226.12 and the control group's mean score was 223.13. The mean posttest score for the treatment group was 223.96, while control group participants had a mean of 225.44 in their posttest scores. Independent sample t-test comparing pre-and posttests scores for the groups found no significant difference between them. In addition, there was no significant difference between treatment group pre-and posttest scores. No significant differences were found in pre-and posttest score for the control group.

Figure 3. CASAS Reading Pretest and Posttest Scores by Group Status
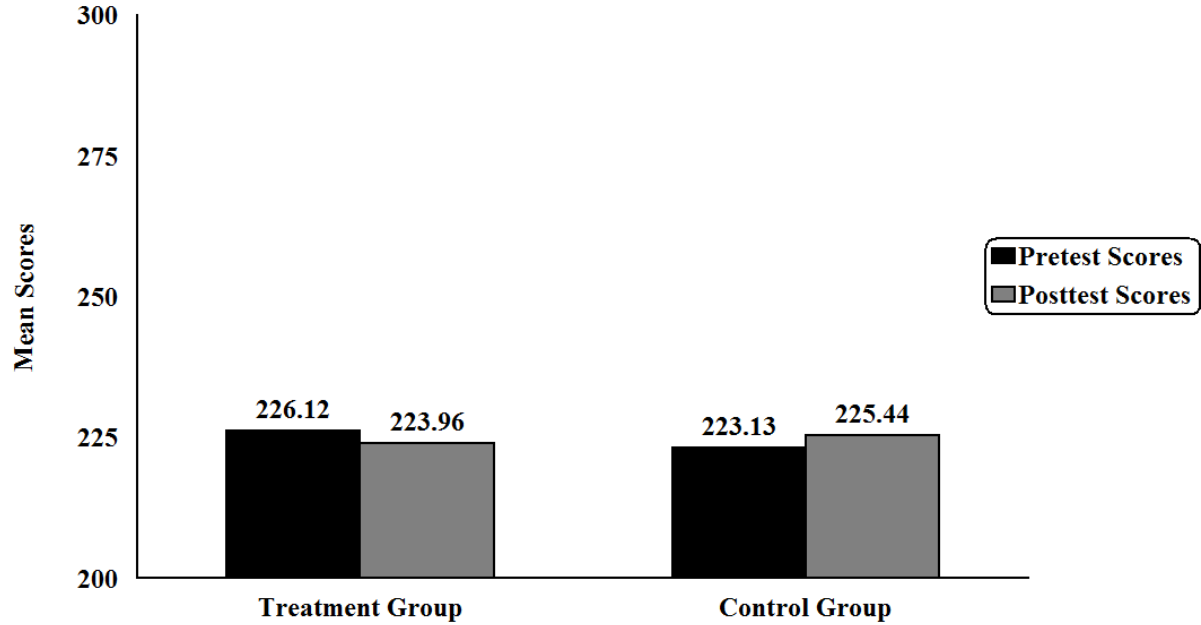
Note: There was no significant difference between the treatment group pretest and posttest scores (t=1.112; df=25; p=.28). There was no significant difference between the control group pretest and posttest scores (t=-.997; df=15; p=.34). The treatment group sample size was 26 and the Control group sample size was 16.

Figure 4 depicts the mean scores for the Math component of the CASAS test. The treatment group has a mean pretest score of 213.73 and a mean posttest score of 210.63. The change in these scores was not statistically significant. The situation was similar for the control group. Statistical tests did not reveal any significant differences between the pre-and posttest score for this group.
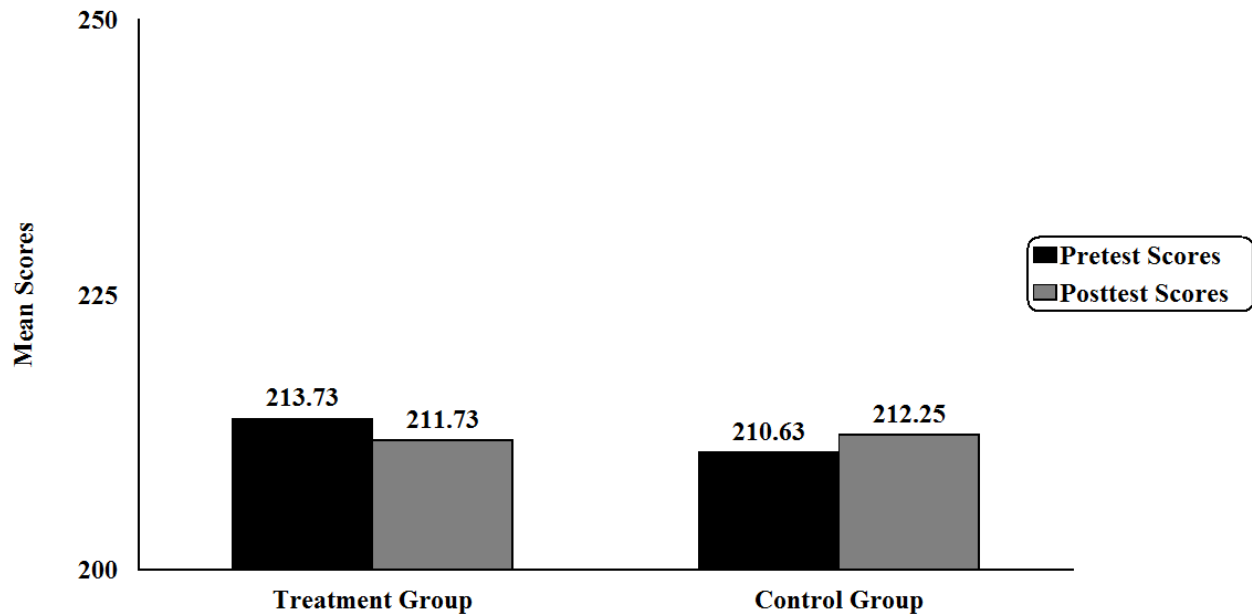
Figure 4. CASAS Math Pretest and Posttest Scores by Group Status

Note: There was no significant difference between the treatment group pretest and posttest scores (t=1.066; df=25; p=.30). There was no significant difference between the control group pretest and posttest scores (t=-1.625; df=15; p= 18). The treatment group sample size was 26 and the Control group sample size was 16.

Employment Attainment

Another goal of MIDAS was preparing its participants on obtaining employment. The effectiveness of the program was measured by examining whether the MIDAS participants obtained subsequent employment after release. Thus, the following research question was examined:

- *Is there a difference between those who received MIDAS and those who did not in obtaining subsequent employment?*

Employment attainment of the released offenders is presented for the treatment and control groups, completion status, piloting institution, MIDAS cycle, and criminogenic risk in Figure 5 through Figure 9. The frequencies and percentages for these graphs are in Table A-3 in the Appendix. Figure 5 shows that almost 76 percent of the treatment group and 79 percent of the control group became employed after being released. These differences were not statistically

Figure 5. Percent Employed at Release by Group Status
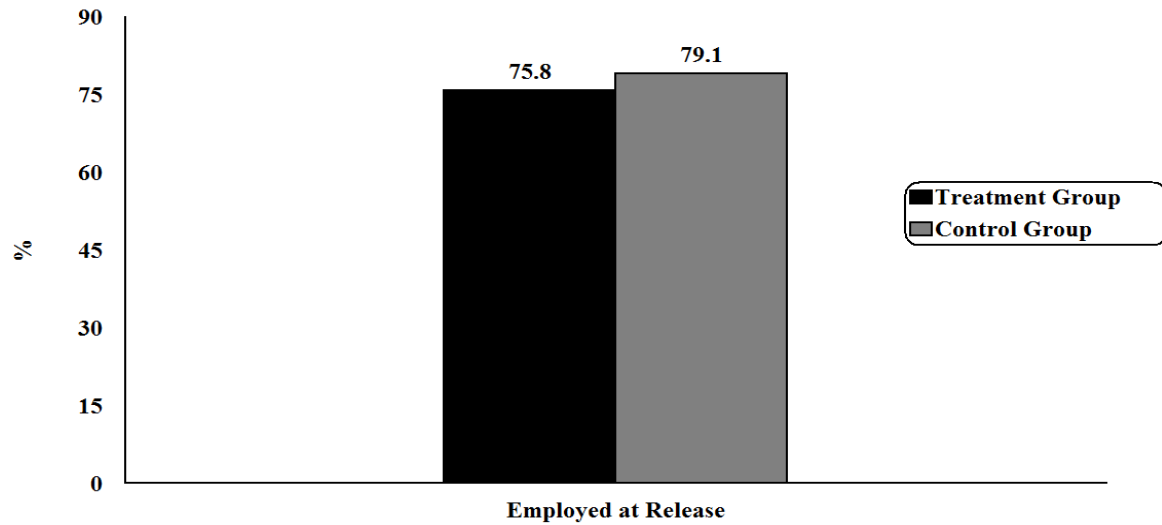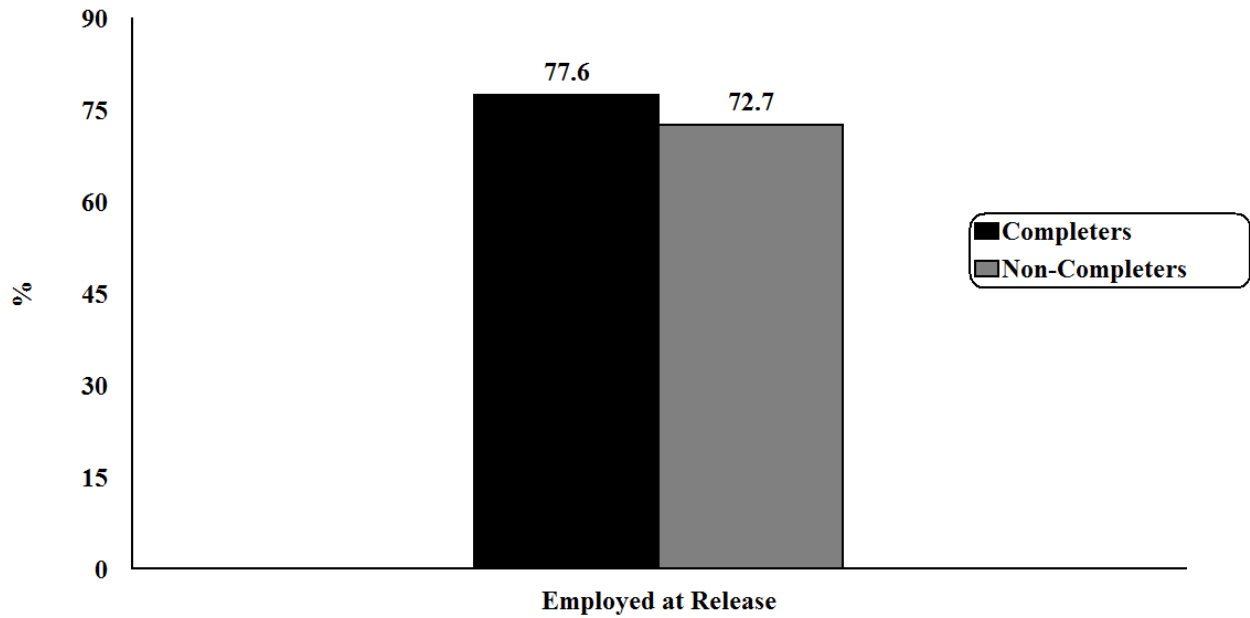

Note: There was no significant difference between the treatment group and control group on employment status at release ($\chi^2 = .306$; $p = .58$).

significant, indicating that individuals in the treatment group were no more likely than individuals in the control group to have obtained employment.

Figure 6 shows that almost 78 percent of program completers became employed at release, compared to nearly 73 percent of non-completers. The chi-square test revealed no significant difference between these groups, indicating that treatment completers were no more likely than treatment non-completers to have obtained employment.

The percentages of those who became employed after release are presented by piloting institution in Figure 7. Of those released from SCI Dallas, almost 75 percent became employed, nearly 78 percent of the SCI Somerset participants who were released became employed, and 83 percent of the participants released from SCI Muncy obtained employment. There were no significant differences between participants from different piloting institutions in obtaining employment after release, indicating that the piloting institutions did not differ in this outcome.

Figure 6: Percent Employed at Release by Completion Status

Note: There was no significant difference between treatment group completers and non-completers on employment. Status at release ($\chi^2 = .271$; $p = .60$).

Figure 7. Percent Employed at Release by Institution
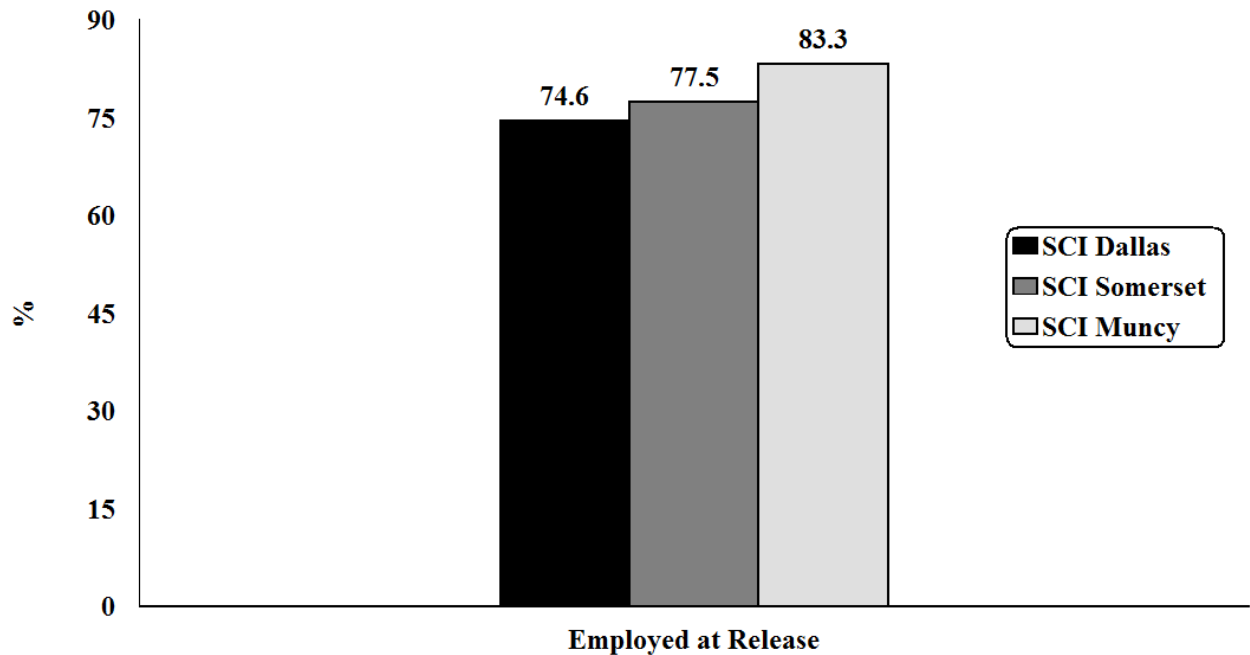
Note: There was no significant difference between institutions and employment status at release ($\chi^2 = 1.008$; $p = .60$).

Figure 8 presents the percentages of those who became employed presented by MIDAS phase. Thus, a little over 74 percent of participants from Phase I became employed, almost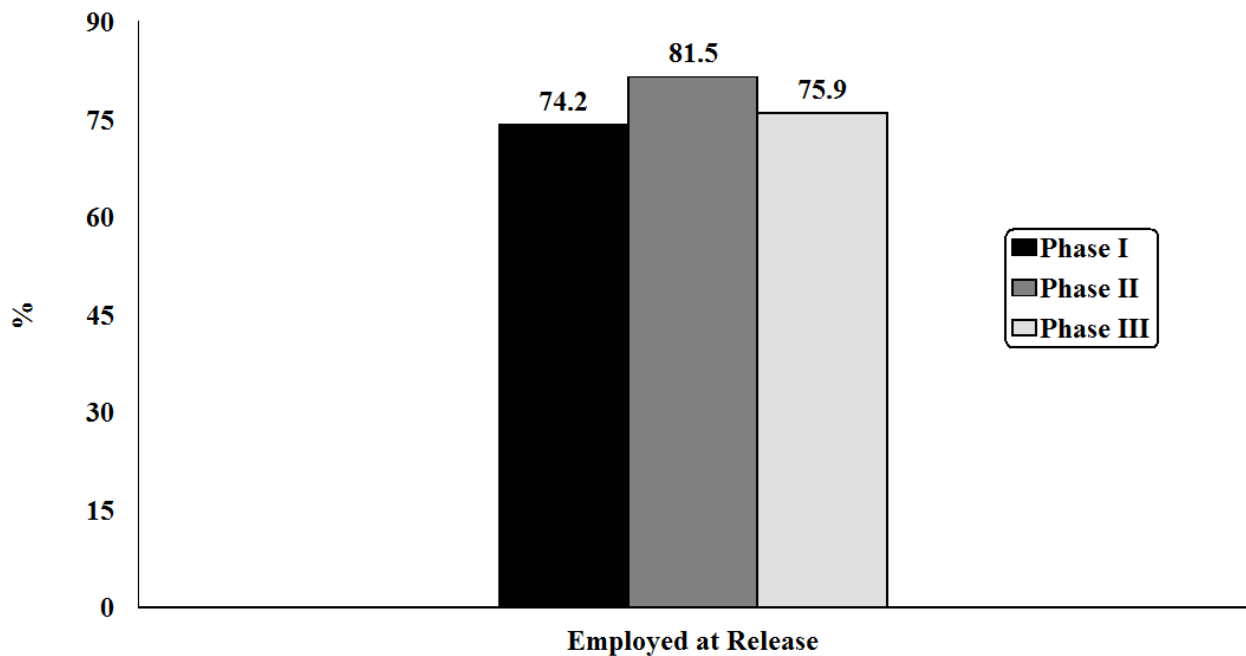 82 percent of those who were enrolled in Phase II obtained employment at release, and just under 76 percent of released Phase III participants became employed. These differences were not statistically significant; indicating that the phase a participant received MIDAS was not a factor in obtaining employment.

Figure 8. Percent Employed at Release by Phase

Note: There was no significant difference between phases and employment status at release (χ^2 = 1.218; p = .54).

Lastly, Figure 9 depicts employment status at release grouped by offenders' risk. One hundred percent of low risk offenders became employed, a little over 78 percent of medium risk individuals obtained subsequent employment, and 69 percent of the released high-risk MIDAS participants obtained employment at release. These differences were significant (χ^2= 14.012; p=.00) as people with lower LSI-R scores (lower risk) were significantly more likely to obtain employment at release when compared to individuals with higher LSI-R scores (higher risk).
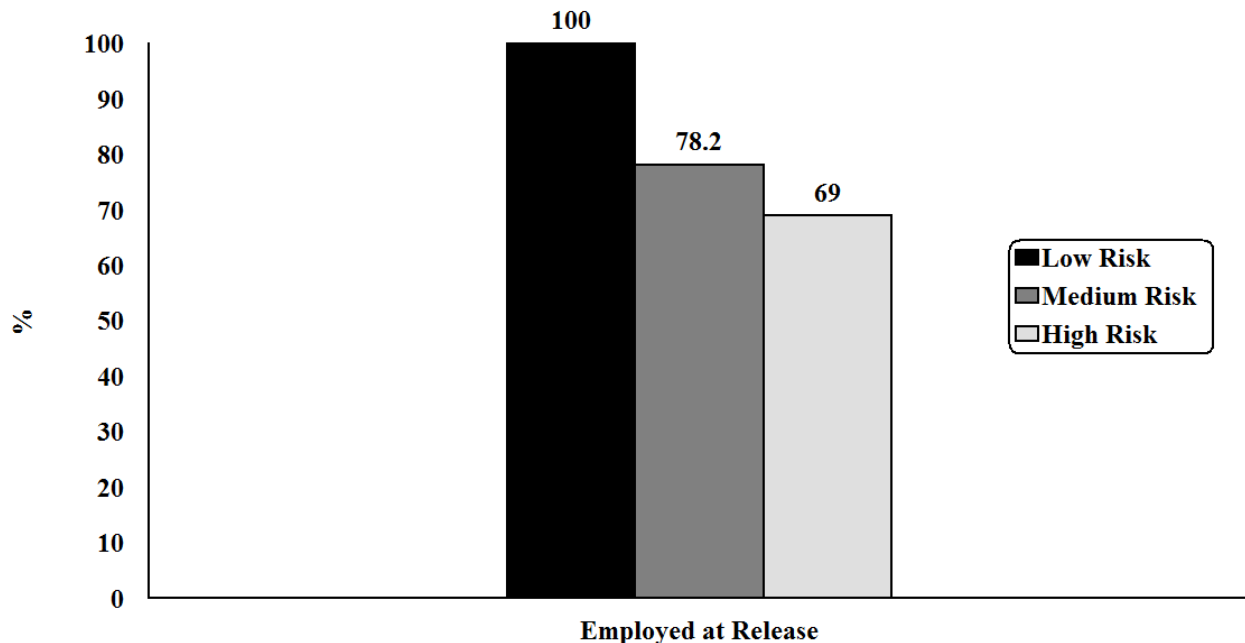
Figure 9. Percent Employed at Release by Risk Level

Note: There was a significant difference between risk level and employment status at release ($\chi^2 = 14.012; p = .00$).

Recidivism

Ultimately, the goal of MIDAS was to reduce recidivism among its participants. Therefore, program effectiveness is assessed through the frequency of recidivism at release of control and treatment group participants. For the purposes of this evaluation, recidivism is measured as any arrest or parole violation for the follow-up period, which starts at the day of release and ended on the last day of data collection (November 18th, 2008). The following research question was addressed:

- *Is there a difference between the control and treatment group participants in recidivating after release from the institutions?*

Recidivism status at release is presented for the treatment and control groups, completion status, piloting institution, MIDAS cycle, and criminogenic risk through graphs in Figures 10-14. Table A-4 in the Appendix contains the frequency and percentage distribution used to create these figures. Figure 10 depicts the percentage of treatment and control group

participants that recidivated. Almost 30 percent of the treatment group participants recidivated, compared to just under 31 percent of control group participants. There were no significant differences in recidivism status between the two groups, specifying that individuals receiving MIDAS were no more likely to recidivate compared to individuals who did not receive MIDAS.

Figure 10. Percent Recidivating after Release by Group Status
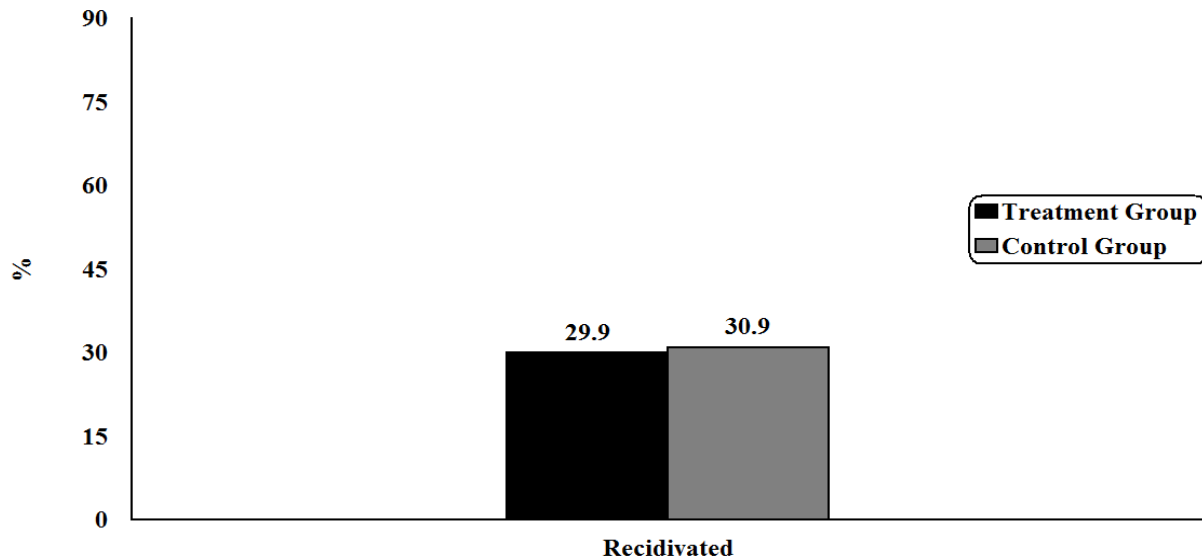
Note: There was no significant difference between the treatment group and control group on recidivating (χ^2 = .027; p = .87).

Figure 11 presents recidivism percentages for completers and non-completers for the MIDAS treatment group. Of the released participants, roughly 28 percent of program completers and nearly 33 percent of those who did not complete the program recidivated. The difference between groups was not significant. Accordingly, it can be interpreted as completers were no less likely to recidivate compared to non-completers.
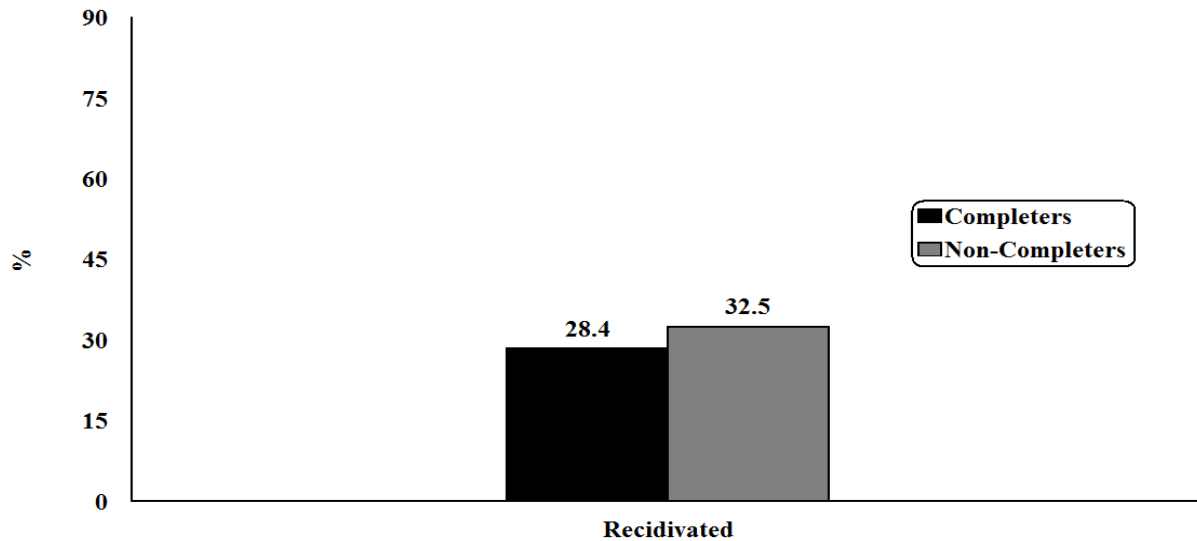
Figure 11. Percent Recidivating after Release by Completion Status

Note: There was no significant difference between treatment group completers and non-completers on recidivating ($\chi^2 = .205$; $p = .65$).

Additionally, Figure 12 shows recidivism status of participants divided by piloting institutions. Nearly 25 percent of the MIDAS participants from SCI Dallas recidivated after release, whereas 38 percent of participants released from SCI Somerset, and 17 percent of SCI Muncy participants recidivated. There were significant differences between these groups, as individuals from SCI Muncy recidivated significantly less than individuals from other institutions ($\chi^2 = 8.078$; $p = .02$).

The percentage differences in recidivism status between the MIDAS three phases are portrayed in Figure 13. Of those participating in Phase I, roughly 33 percent recidivated after release. In addition, just short of 32 percent of Phase II participants and 25 percent of Phase III participants recidivated. A chi-square test showed no significant differences between Phase involvement and recidivism rates.

Figure 12. Percent Recidivating after Release by Institution
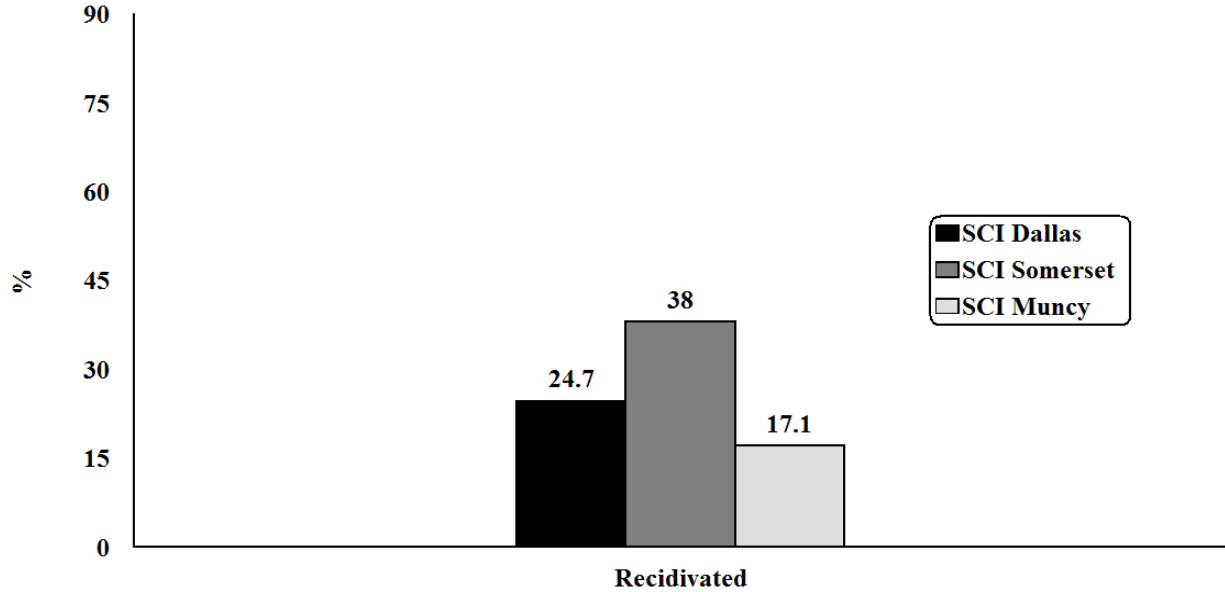
Note: There was a significant difference between institutions and recidivating ($\chi^2 = 8.078$; $p = .02$).

Figure 13. Percent Recidivate after Release by Phase
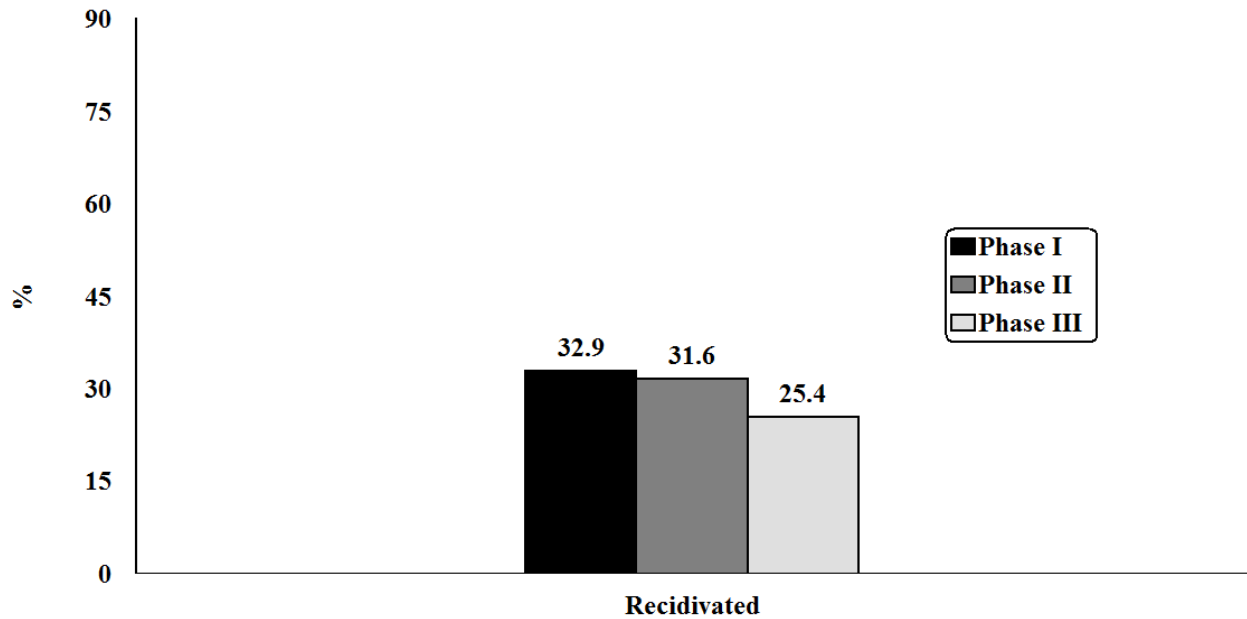
Note: There was no significant difference between phases and recidivating ($\chi^2 = 1.062$; $p = .59$).

Finally, Figure 14 depicts recidivism status groups by risk level. Of the low risk participants nearly 22 percent recidivated, compared to almost 33 percent of medium risk and nearly 32 percent of high-risk offenders. There were no significant differences between different risk levels and recidivism rates.

Figure 14. Percent Recidivate after Release by LSI Risk Category
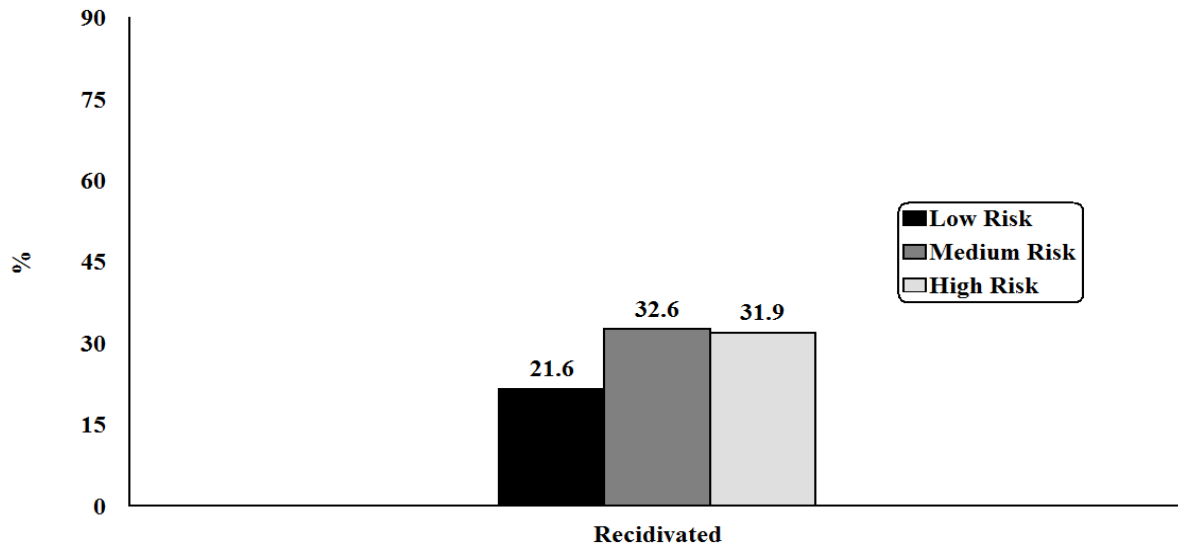
Note: There was no significant difference between risk level and recidivating (χ^2 = 1.664; p = .44).

Predicting Employment Attainment and Recidivism (Treatment vs. Control)

Characteristics of participants can influence the effectiveness of the program, and subsequently, the outcomes. The data allowed analysis of any of these characteristics that affected subsequent employment and recidivism of MIDAS participants. As such, the following specific question was addressed:

- *Did any characteristics of participants in the treatment and control group influence employment attainment and recidivism at release? If so, how?*

Multivariate analyses were employed to statistically control for the various characteristics of the individuals in the sample. Specifically, logistic regression was used to determine the

factors that predicted employment obtainment or recidivism. Logistic regression allows for the detection of the amount of power that each variable contributes in influencing the outcome one at a time, while controlling for every other variable in the equation.[11] The data from the regression are presented in Table 9. The output for all logistic regression provides a coefficient, standard error, and the logged odds ratio. The logged odds ratios are centered on one, meaning that logged odds ratios greater than one are associated with the increased odds of an event (e.g., becoming employed, having a new arrest/new parole violation), while odds ratios of less than one are associated with a decrease in odds.

While logistic regression provides the logged odds of a particular outcome, this can often be difficult to interpret. In an effort to portray substantive differences of the significant predictors, logged-odds ratios were translated into simple odds ratios and then converted into percentages.[12] Figures 15 and 16 display the estimated success in obtaining employment/failure (recidivism) rates by the significant model predictors. These estimated success/failure rates permit a somewhat more direct assessment of the magnitude of the effect of the significant predictor.

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[11] To control for an individual's risk level, LSI-R scores were solely used. That is, because the LSI-R is correlated highly with the TCU Addiction Scale, HIQ, and CSS-M, only LSI-R scores were used to reduce problems associated with multicolinearity. Logistic regression analyses were conducted that included all risk variables and those results were not substantively different from the presented results.

[12] The log-odds probabilities are the estimates of the antilogs of the constants. This has the effect of using the parameter estimates that control for the differences to estimate the odds of failure. Using the constant to derive the "base failure expectancy" has the effect of setting all the other values to 0. The estimate thus was derived from the following formula: log odds of failure-constant + $b$gender(0) + $b$race(0) + $b$employment(0) +… $b$group(0). The odds ratios were converted from the log odds by taking the antilog of the estimates described above. The estimated percentages presented throughout the report were derived from the odds ratios. For example an odds ratio of .644 would be translated to a percentage by taking its reciprocal (1/.644=1.55) to derive the odds (1:1.55). The odds ratio means that the sample was comprised of 1 failure and 1.55 successes. The total sample then would be the sum of failure and success (1 + 1.55 = 2.55), and the percent who failed was (1/2.55)*100=39.2. For a more detailed description of this procedure see: Langworthy, R. and E. Latessa (1993) Treatment of Chronic Drunk Drivers: The Turning Point Project. *Journal of Criminal Justice, 21*:265-276.

Predicting Employment

According to Table 9, race and LSI-R risk score were significant in predicting employment after release. Looking at the logged odds ratios, whites were 28 percent less likely to obtain employment than blacks were. Furthermore, LSI-R score was significant in predicting employment status at release. This means that, when controlling for all the other variables the chances of obtaining employment increases as the LSI-R score decreases. Of note, group status was not significantly different. This means that while controlling for other variables, individuals in the treatment group were no more likely to obtain employment at release than individuals in the control group.

Table 9. Logistic Regression Predicting Employment and Recidivism: Treatment versus Control

Variable	Employment B (SE) Odds Ratio	Any recidivism B (SE) Odds Ratio
Gender	.626 (.535) 1.869	-.782 (.518) .457
Race		
White	-1.273 (.456) .280*	-.480 (.450) .619
Hispanic	-.123 (.546) .884	.210 (.444) 1.234
Age	-.005 (.021) .995	-.090 (.024) .914*
Group Status	-.642 (.407) .526	.312 (.358) 1.366
LSI-R Score	-.123 (.029) .884*	.027 (.023) 1.028
Time at Risk	.078 (.044) 1.081	.146 (.040) 1.157*
Employment Status	--	-.280 (.461) .756
Constant	4.927 (1.292) 137.950*	.219 (1.168) 1.245

*p<.01

Note: Reference groups for the logistic regression categorical variables of Gender, Race, Group Status, and Employment Status were: Male, Black, Control Group, and No Employment post release, respectively.

Figure 15 depicts the success rate[13] of significant predictors—race and LSI-R risk score— on obtaining employment at release. Blacks had the highest rate of success of obtaining employment (89%), followed by Hispanics (88%) and then whites (69%). When examining risk level of participants, low risk participants had a higher success rate of obtaining employment (95%), followed by medium risk participants (89%). High-risk participants had the lowest likelihood of obtaining employment at release (75%).

Figure 15. Impact of Significant Predictors on Probability of Obtaining Employment: Treatment versus Control
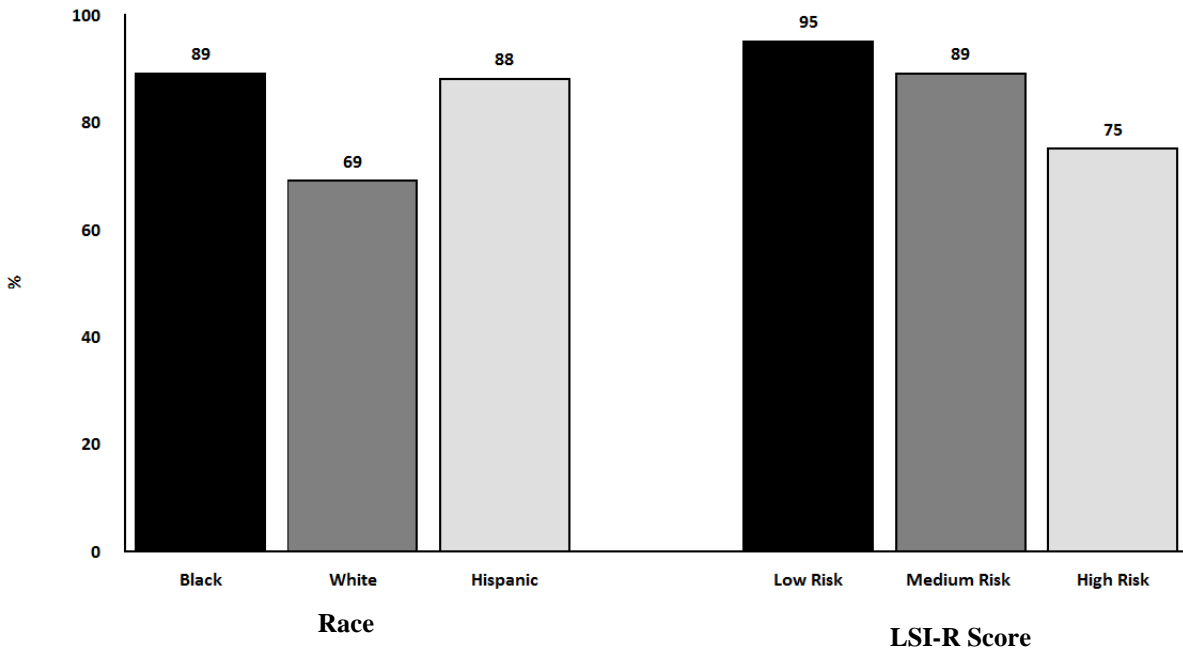
Predicting Recidivism

The odds of recidivating at release are also presented in Table 9. Age and time at risk were significant in influencing the recidivism status of released participants. The "Time at Risk" variable represents the time period from the day offenders were released from the institution to the data collection day, calculated in months. For the current evaluation, the data collection day

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[13] The employment model is predicting whether the individual successfully obtained employment, whereas the recidivism model predicting recidivism, or failure. As such, when discussing employment models, it is deemed a success rate and not a failure rate.

was November 18th, 2008. This variable was included since an independent t-test revealed a significant difference between treatment and control group and the time each was at risk (t=2.756; df=241; p=.00). More specifically, because control group participants were released from the institution for a significantly longer period of time (roughly 2 months) and, thus, had more of an opportunity to recidivate, a time at risk variable was included to control for this finding.

Regression analysis showed that when controlling for all other variables, the likelihood of recidivating decreased as the age of the released offenders increased. In other words, older offenders were less likely to recidivate than younger offenders. Furthermore, the longer the participants were out in the community (the longer the time at risk), the higher the likelihood of recidivating became, when controlling for all other variables. In addition, group status was not a significant predictor of recidivism. Accordingly, individuals from the treatment group were no less likely to have recidivated compared to the control group.

Consequently, Figure 16 shows that the rate at which one fails (recidivates) increases as offenders are out in the community for longer periods of time. Thus, the participants that had been in the community up to five months failed at a rate of 15 percent, but at 12 months or more, the rate of failure increased to nearly 40 percent. The situation reverses when examining participants' ages. Participants of age 29 years or less had a failed at a rate of 44 percent, when compared to failure rate of 25 percent for participants in the 30-39 years age category, and those aged 40 and older recidivated at a rate of 12 percent.

Figure 16. Impact of Significant Predictors on Probability of Recidivating: Treatment versus Control
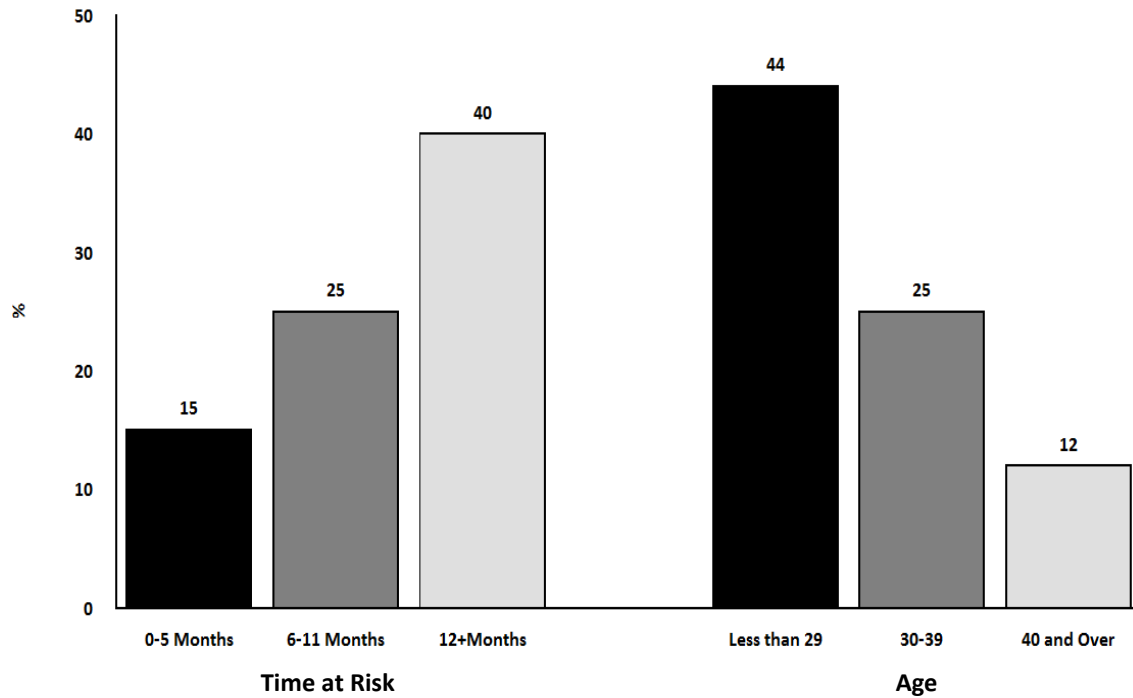
Predicting Employment Attainment and Recidivism (Completers vs. Non-Completers)

This section identifies the impact of characteristics of program completers and non-completers on subsequent employment attainment and recidivism. The research question addressed was as follows:

- *What factors predict the likelihood of success/failure in program outcomes of completers and non-completers of MIDAS?*

Table 10 presents the results of a logistic regression model for the MIDAS treatment group completers and non-completers. The LSI-R score is the only significant predictor of employment. As LSI-R score increases (and risk level increases), the likelihood of obtaining a job at release decreases. Completion status was not a significant predictor of employment at release. Therefore, when controlling for all other variables, those who completed the MIDAS

program were no less likely to have become employed at release compared to those who did not

complete the MIDAS program.

Table 10. Logistic Regression Predicting Employment and Recidivism: Treatment Group Completers versus Non-Completers

Variable	Employment B (SE) Odds Ratio	Any recidivism B (SE) Odds Ratio
Gender	-.104 (.685) .901	-1.049 (.803) .350
Race		
White	-.731 (.698) .481	-1.165 (.841) .312
Hispanic	.113 (.675) 1.120	-.366 (.711) .694
Age	-.024 (.026) .976	-.156 (.048) .856**
Completion Status	.570 (.562) 1.768	-.279 (.608) .757
LSI-R Score	-.089 (.039) .915*	.001 (.039) 1.001
Time at Risk	.116 (.070) 1.123	.222 (.078) 1.248**
Employment Status	--	-.532 (.706) .587
Constant	3.284 (1.677) 26.674*	3.236 (1.845) 25.444

*p<.05; **p<.01
Note: Reference groups for the logistic regression categorical variables of Gender, Race, Completion Status, and Employment Status were: Male, Black, Non-Completer, and No Employment post release, respectively.

Figure 17 depicts the impact of the significant predictors of employment obtainment.

Low risk participants had a success rate of 93 percent, compared to an 88 percent success rate of

medium risk offenders, and a 79 percent success rate for high-risk offenders. When observing

the predictors for recidivism, age and time at risk emerge as significant predictors. Similar with

the previous logistic regression model, as age of participants increases, their likelihood of

recidivating decreases, and as time at risk increases, so does the likelihood of recidivating for

MIDAS participants. Again, those who completed the MIDAS program were no more likely to

have recidivated compared to those who did not complete the MIDAS program.

Figure 17. Impact of Significant Predictors on Probability of Obtaining Employment: Completers versus Non-Completers
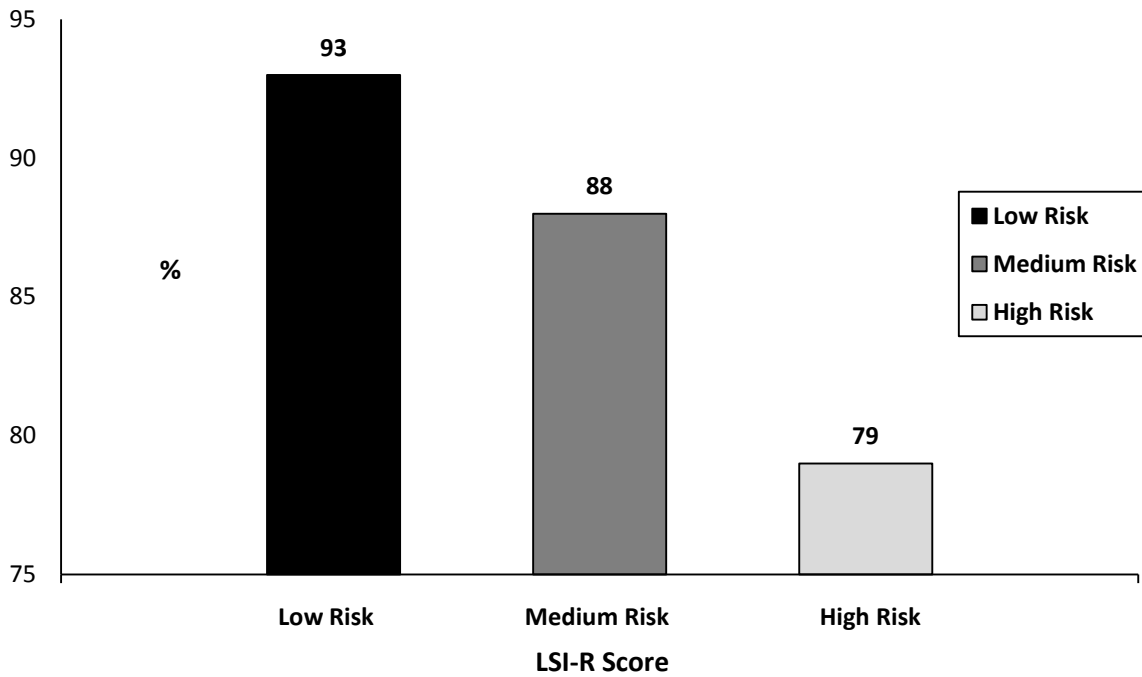
The impact of time at risk, age and completion status on predicting recidivism is shown in Figure 18. The failure rate increases as the time at risk increases. Thus, the rate of failure increases from 11 percent at up to five months after being released, to 43 percent when the time at risk is 12 months or more. On the other hand, the probability of recidivating decreases as age increases. Individuals in the age category of 29 years or less have a 59 percent rate of failure, which decreases to almost 6 percent for the age category of 40 years or older.

Figure 18. Impact of Significant Predictors on Probability of Recidivating: Completers versus Non-Completers
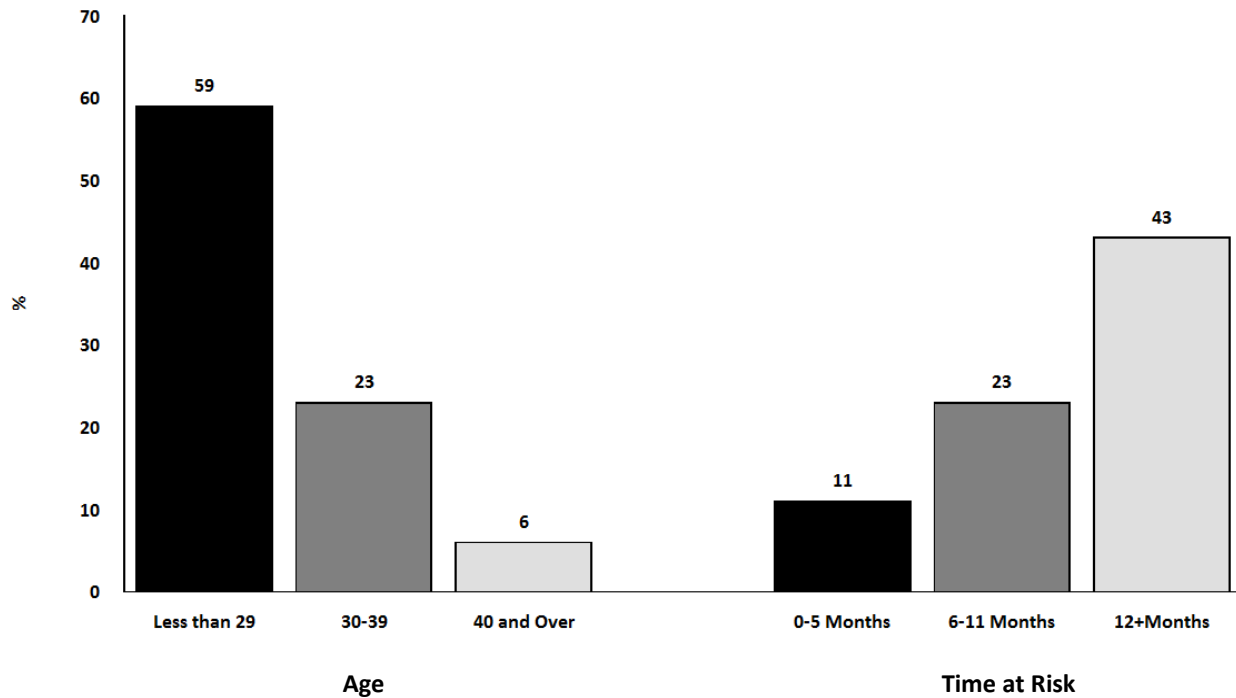
Risk Treatment Effect

MIDAS attempted to target the needs of high-risk offenders. As such, the following section addresses the research question:

- *Was the treatment effect different across LSI-R risk categories?*

Figures 19 and 20 depict the percent distributions of those employed and those who recidivated disaggregated by LSI-R risk level and by group status. The frequencies and

percentages for these figures are also presented in Table A-5 in the Appendix. Figure 19 shows that all low risk participants from the treatment and control group obtained employment. Of the medium risk category, nearly 73 percent of the treatment group and about 84 percent of the control group became employed, but these differences were not statistically significant. Additionally, about 70 percent of the high-risk treatment group participants obtained employment, compared to 68 percent of the control group participants. There were no significant differences between these groups. Observing the treatment group only, the lower risk offenders were more likely to obtain employment, followed by the medium risk offenders, with the high-risk offenders the least likely of the three categories to obtain employment. The picture was similar for the control group participants.

Figure 19. Percent Employed by Risk Category: Risk Treatment Effect
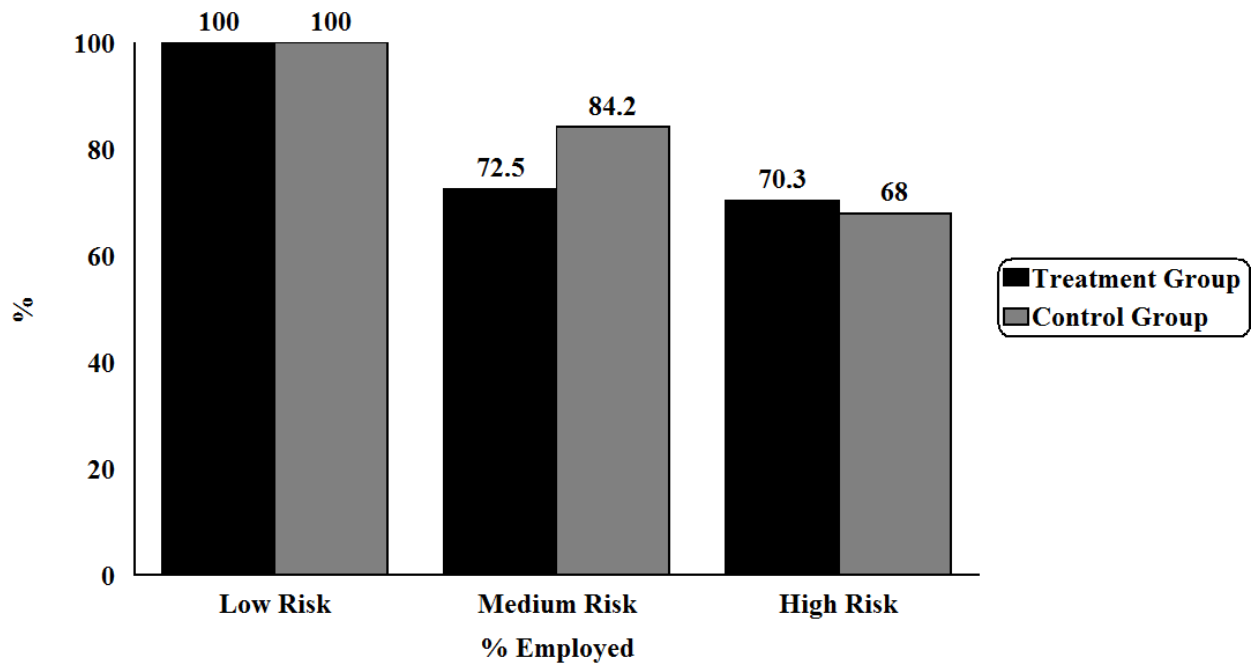
Note: Chi-square analysis was not performed on the low risk category because cell frequencies were less than one There were no significant difference on employment for low risk, medium risk ($\chi^2 = 1.568$; $p = .21$), or high risk ($\chi^2 = .051$; $p = .82$).

Figure 20 presents the percentages of participants who recidivated by LSI-R risk score and by group status. About 13 percent of the treatment group participants that were low risk recidivated compared to a little over 27 percent of low risk control individuals. The differences in percentages were not statistically significant. From the medium risk category, 37 percent of the treatment group and almost 29 percent of the control group participants recidivated. The differences between these groups were also not significant. Finally, nearly 29 percent of the high-risk treatment participants recidivated, compared to about 34 percent of the control group participants. These groups were not significantly different. Therefore, for the treatment group, the medium risk category participants were more likely to recidivate, followed by high-risk offenders. Low risk participants were the least likely to recidivate. The control group was similar, with the medium risk offenders being the most likely to recidivate, followed by the high risk offenders. Low risk offenders were the least likely to recidivate.
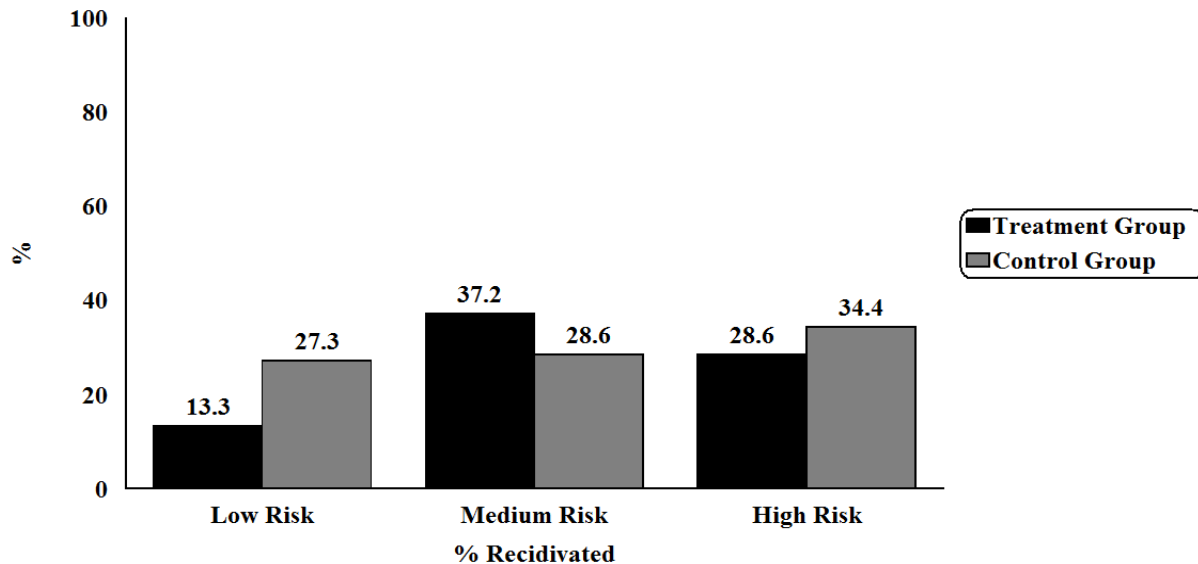
Figure 20. Percent Recidivated by Risk Category: Risk Treatment Effect

Note: Chi-square analysis was not performed on the low risk category because cell frequencies were less than one There were no significant difference on recidivating for low risk, medium risk ($\chi^2 = .778$; $p = .38$), or high risk ($\chi^2 = .431$; $p = .51$).

SUMMARY AND DISCUSSION

This report provided an outcome evaluation of the MIDAS program that was piloted in three Pennsylvania prisons from February 2007 to March 2008. The outcome evaluation offered an overview of the impact that MIDAS had on its participants. The findings of this evaluation can be summarized as follows:

Are characteristics of the treatment group participants different from those of the control group participants?

- The data show that the typical program participant in both the control and treatment groups was black, male and between the ages of 30-39. In addition, the majority of participants in both groups scored high on the LSI-R. Participants in the treatment group tended to score higher in the TCU Drug Test II, but this was not a significant difference when comparing it to the scores of the control group. Groups were not significantly different from each other on CSS-M scores. Significant differences between groups existed in the scores for the HIQ scale, with treatment group participants scoring lower than control group participants. Most of the participants in the treatment group were committed on a violent offense, while the majority of control group participants were committed on a drug related offense.

What are the characteristics of the MIDAS participants who complete the program and how do they compare to those who fail to complete the treatment?

- Analyzing treatment completers versus non-completers, there were significant differences between these groups across piloting sites. Specifically, participants from SCI Somerset were more likely to complete the program. There was no difference between completers and non-completers across phases.

- Treatment group completers did not significantly differ from non-completers in demographic characteristics like age, race or gender. Furthermore, there were no significant differences between the groups in the LSI-R risk levels, the HIQ, or the CSS-M criminal thinking attitudes. Because of low frequencies in categories, a chi-square test could not be performed for the TCU assessment. A t-test revealed significant differences, with the completers having significantly lower TCU scores than non-completers. Completers also had significantly more days in treatment than non-completers.

Is there a difference in adult basic education scores of the participants who received MIDAS as compared to those who did not?

- Evaluation of outcome measures demonstrated that the MIDAS program was effective in improving TABE scores of the treatment group participants. The Reading and Math posttest scores of the treatment group were significantly improved by the MIDAS

program. More specifically, treatment group scores improved after completing MIDAS, whereas the scores of the control group declined.

- The findings for the TABE Math scores were similar. After attending MIDAS, the treatment group participants scored significantly higher on the posttest, while there was no significant change in pre-and posttest scores for the control group. The program did not produce any significant changes in the pre-and posttest score for the CASAS Reading and Math components.

Is there a difference between those who received MIDAS and those who did not in obtaining subsequent employment?

- Being part of the treatment or control group, completion of treatment, piloting institution or phase participation did not reflect in any significant differences in a participants likelihood of being employed or not after being released into the community. The only significant difference was with regard to LSI-R scores; participants with lower LSI-R scores were significantly more likely to become employed when compared to those with higher risk scores.

Is there a difference between the control and treatment group participants in recidivating after release from the institutions?

- Membership in the treatment or control group, completion status, MIDAS phase, or risk level did not produce any significant differences in recidivism rates. Piloting institution location however, did resulted in significant differences in whether a program participant recidivated. Participants from SCI Muncy were the least likely to recidivate, but they were also all women. SCI Dallas and SCI Somerset served male offenders, who generally have higher offending and recidivism rates.

Did any characteristics of participants in the treatment and control group influence employment attainment and recidivism at release? If so, how?

- Several logistical regression models were analyzed in order to predict employment and recidivism status after release, while controlling for variables that could influence these outcomes. First, results showed that white participants were less likely than blacks in to obtain employment. In addition, participants with higher risk scores on the LSI-R were less likely to obtain employment, and the more time a participant was out in the community, the higher the likelihood of recidivism. Finally, younger offenders were more likely to recidivate when compared to older offenders.

- There were no differences between treatment and control group participants in their likelihood of obtaining employment or recidivating.

What factors predict the likelihood of success/failure in program outcomes of completers and non-completers of MIDAS?

- Comparing completers to non-completers, lower LSI-R participants were significantly more likely to obtain employment than participants with higher LSI-R scores. The likelihood of recidivism also increased as the time at risk increased. Age was also a significant predictor of recidivism, with older participants having a significantly lower likelihood of recidivating.

- There were no significant differences between completers and non-completers of the MIDAS program on their likelihood of obtaining employment or recidivating.

Was the treatment effect different across LSI-R risk categories?

- There were no significant differences in obtaining employment between the treatment and control groups across the risk categories. In other words, participants in the treatment group (low, medium, or high risk) were not significantly more likely to obtain employment than the control group participants. The two groups did not differ in recidivism. When disaggregated by risk categories, treatment and control groups were not significantly different in recidivating.

Overall, while MIDAS did significantly improve the Math and Reading skills of the treatment group participants, its positive effect were limited to this finding. Group membership was not a significant predictor in obtaining subsequent employment or recidivism. In other words, treatment group participants did not differ significantly from the control group members in obtaining employment or recidivating after release from the institutions. The program was ineffective in reducing recidivism rates, or increasing employment attainment for its participants. Additionally, completing the program did not influence program outcomes, suggesting that completing the program, or failing to complete did not influence subsequent employment or recidivism. Finally, even though MIDAS attempted to target high-risk offenders' needs, participants with lower LSI-R scores (lower risk) were more likely to obtain employment at release, indicating an ineffectiveness of the program to meet this objective.

RECOMMENDATIONS

Based on these findings, and in order to increase the effectiveness of MIDAS the following recommendations are offered:

- If the MIDAS program is continued, it should be revamped to significantly increase the targeting of criminogenic risk and needs factors of high-risk offenders. In its current form, MIDAS is an educational-based program, focusing on improving Reading, Math, and Employment skills. At best these are minor risk factors and are unlikely to produce significant reductions in recidivism. Again, if the program continues it needs to employ structured cognitive-behavioral based interventions that utilize behavioral modeling and pro-social skill building techniques. These interventions have demonstrated effectiveness in reducing recidivism. Furthermore, treatment delivery staff should be trained and well versed on the literature of effective correctional practices and cognitive-behavioral based interventions. The CPC conducted as part of the Process Evaluation of MIDAS provides more detailed recommendations on how to successfully put into practice an effective correctional program (Latessa et al., 2008).

- The program did not influence the recidivism rates of its participants. This can be attributed to the fact that MIDAS was largely implemented as an educational program, and failed to address the major criminogenic needs of its participants. The MIDAS staff consisted of schoolteachers who were not trained in effective correctional programming and cognitive behavioral interventions. Effective implementation is also an important factor in the effectiveness of correctional interventions. However, while the implementation of MIDAS across sites could be improved, there is little reason to believe that better implementation of the program in its current form would have a significant effect on outcomes.

- In addition to increasing the number of criminogenic factors targeted and improving the cognitive-behavioral aspects of the program, there needs to be an increased attention on aftercare. The MIDAS program needs to incorporate a more structured aftercare component to reduce its participants' likelihood of recidivism. Research clearly indicates that the inclusion of an aftercare component into a correctional program improves its effectiveness in reducing recidivism. This is also mentioned in the recommendations provided by the MIDAS CPC in the MIDAS Process Evaluation (see Latessa et al., 2008).

APPENDIX

Table A-1: TABE and CASAS Pretest and Posttest Assessment Scores by Group Status

Scale	Treatment Group (N=208)		Control Group (N=206)	
	N	x̄	N	x̄
TABE Reading Scores				
Pretest	125	6.51*	89	6.52
Posttest	125	6.97*	89	6.1
	t = -1.958; p = .05		t = 1.370; p = .17	
TABE Math Scores				
Pretest	125	5.35**	90	5.95
Posttest	125	6.06**	90	5.66
	t = -3.066; p = .00		t = 1.565; p = .12	
CASAS Reading Scores				
Pretest	26	226.12	16	223.13
Posttest	26	223.96	16	225.44
	t = 1.112; p = .28		t = -.997; p = .34	
CASAS Math Scores				
Pretest	26	213.73	16	210.63
Posttest	26	211.73	16	212.25
	t = 1.066; p = .30		t = -1.399; p = .18	

*p≤.05; **p<.01

Table A-2: Frequency and Percent of Sample Outcomes

Scale	Treatment Group (N=107)		Control Group (N=136)	
	N	%	N	%
Employment Post Release (N=201)				
Employed	69	75.8	87	79.1
Not Employed	22	24.2	23	20.9
χ^2= .306; p=.580				
Recidivism				
Arrested	23	21.5	29	21.3
Parole Violation	17	15.9	21	15.4
Either/Both	32	29.9	42	30.9

Table A-3. Employment Status Post Release by Outcomes

Scale	Employed (N=156)		Not Employed (N=45)	
	N	%	N	%
Group				
Treatment	69	75.8	22	24.2
Control	87	79.1	23	20.9
χ^2= .306; p=.580				
Completion Status (Treatment Group Only) (N=91)				
Completer	45	77.6	13	22.4
Non-Completer	24	72.7	9	27.3
χ^2=.271; p=.603				
Institution				
SCI Dallas	47	74.6	16	25.4
SCI Somerset	79	77.5	23	22.5
SCI Muncy	30	83.3	6	16.7
χ^2=1.008 ; p=.604				
Phase				
Phase I	49	74.2	17	25.8
Phase II	66	81.5	15	18.5
Phase III	41	75.9	13	24.1
χ^2= 1.218; p=.544				
LSI-Score*				
Low Risk	35	100.0	0	0.0
Medium Risk	61	78.2	17	21.8
High Risk	60	69.0	27	31.0
t=5.234; p=.000				

Participants with lower LSI-R scores (lower risk) are significantly more likely to have become employed at release compared to participants with higher LSI-R scores.

Table A-4: Recidivism Status Post Release by Outcomes

Scale	Recidivated (N=74)		Did Not Recidivate (N=169)	
	N	%	N	%
Group				
Treatment	32	29.9	75	70.1
Control	42	30.9	94	69.1
χ^2= .027; p=.870				
Completion Status (Treatment Group Only) (N=107)				
Completer	19	28.4	48	71.6
Non-Completer	13	32.5	27	67.5
χ^2=.205; p=.651				
Institution*				
SCI Dallas	18	24.7	55	75.3
SCI Somerset	49	38.0	80	62.0
SCI Muncy	7	17.1	34	82.9
χ^2=8.078 ; p=.018				
Phase				
Phase I	27	32.9	55	67.1
Phase II	31	31.6	67	68.4
Phase III	16	25.4	47	74.6
χ^2= 1.062; p=.588				
LSI-Score				
Low Risk	8	21.6	29	78.4
Medium Risk	30	32.6	62	67.4
High Risk	36	31.9	77	68.1
t=-1.096; p=.274				

Table A-5: Outcomes by Group Status for Each Risk Level: Risk Treatment Effect

Outcome Variable	Low Risk		Medium Risk		High Risk	
	N	%	N	%	N	%
Obtained Employment						
Treatment	14	100.0	29	72.5	26	70.3
Control	21	100.0	32	84.2	34	68.0
			$\chi^2 = 1.568$; $p = .21$		$\chi^2 = .051$; $p = .82$	
Any Recidivism						
Treatment	2	13.3	16	37.2	14	28.6
Control	6	27.3	14	28.6	22	34.4
			$\chi^2 = .778$; $p = .38$		$\chi^2 = .431$; $p = .51$	

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