

2012

Evaluation of the Windham School District Correctional Education Programs

Submitted by

Dr. Gaylene Armstrong, Sam Houston State University

Dr. Dennis Giever, Indiana University of Pennsylvania

Dr. Daniel Lee, Indiana University of Pennsylvania

With assistance from SHSU Graduate Research Assistants



Sam Houston[™]
STATE UNIVERSITY

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™

Disclaimer

The research described in this paper or presentation was conducted for the Windham School District. Research funds were provided by the District for this project; however, this does not imply the District's endorsement or concurrence with any statement or conclusions contained herein.

Acknowledgements

The primary contributors of this report would like to acknowledge the initial assistance and contributions to parts of the literature reviews by the following SHSU graduate students: Cassandra Atkin-Plunk, Maria Koeppel, Tasha Menaker, Jeremy Smith, and Jessica Wells.

Executive Summary

The Windham School District (WSD) provides educational services to the eligible offender population within the Texas Department of Criminal Justice. Approximately 63,000 offenders participated in services during the 2011-2012 school year. Sam Houston State University researched and reported on offender outcomes based on various levels and types of participation in educational programs.*

After a review of research and program descriptions, the findings will provide a general overview from a service delivery perspective. Next, the report examines the impact of WSD program delivery on offender outcomes, specifically the advancement of educational achievement levels and recidivism. Finally, this report presents the results of the impact of participation in WSD programs on average quarterly wages for those offenders employed subsequent to their FY2009 release. All investigative findings should take into consideration that the study found that as legislatively mandated, the WSD prioritizes services for offenders with high risk characteristics. However, because offenders within the TDCJ are not individually identified as high or low risk for re-incarceration, measuring the impact of programming to recidivism was challenging.

An individual program assessment of the pre-release program, CHANGES, is not included in the study because significant curriculum revisions infusing cognitive skills were made during the 2009 school year. However, CHANGES students were included as participants in applicable cohorts of the study.

A Brief Comparison of Literature Review and Study Findings

Literature: Research has indicated that program intensity and duration of rehabilitation programs are directly related to positive outcomes, including recidivism, for certain offenders.

Finding: Each WSD program demonstrated to a statistically significant degree that higher levels of program exposure decreased the likelihood of WSD offender re-incarceration.

Literature: The higher the overall education level of the offender, the less likely they are to recidivate.

Finding: Advances in educational achievement levels, specifically reading, led to much lower re-incarceration levels in many cases. Offenders who participated in WSD adult basic education programs had significantly higher reading, math and language grade equivalency scores as well as overall composite scores upon release in FY2009 as compared to non-participants.

Literature: Research found that participants were 1.7 times more likely to be employed upon release to the community.

Finding: WSD offenders who earned a GED were even more likely to report post-release earnings as compared to non-WSD offenders.

Literature: Empirical evidence suggests correctional education participation results in an increased likelihood of success in obtaining and maintaining employment and higher wage earnings for former offenders.

Finding: WSD offenders who had a higher level of reading ability as indicated by their reading category were more likely to report post-release earnings. Furthermore, participants in WSD programs improved their reading ability an average of two grade levels.

Literature: Studies have shown that offenders who participate in correctional education programs have higher rates of employment upon release and participating offenders earn higher wages in each successive year.

Finding: On average, WSD offenders earned higher wages per quarter as compared to Non-WSD offenders.

Literature: Researchers have found that individuals who obtain meaningful, quality employment upon release have lower recidivism rates than those who obtain employment of a lesser quality.

Finding: Obtaining Vocational Certification certificates further bolstered earnings within WSD offender groups. WSD offenders who earned vocational certifications on average earned \$3,180.81 per quarter as compared to WSD offenders who engaged in vocational programming but did not earn certification who on average earned \$2,795.37 per quarter.

Literature: Findings are relatively consistent in that participation in correctional education reduces recidivism.

Finding: Overall, younger offenders (<35) were significantly more likely to re-offend in contrast to offenders above the age of 35; however, within *both* age groups, educational achievement of WSD offenders had a suppression effect on re-incarceration.

Literature: Cognitive-behavioral treatment is well-established as an effective method for adjusting maladaptive thinking and producing positive behavioral outcomes.

Finding: WSD offenders who completed the Cognitive Intervention Program (CIP) earned significantly higher wages when post-release earnings were reported as compared to non-CIP participants.

Further Considerations

Future evaluation efforts should consider the examination the impact of consecutive or concurrent enrollment.

Given that more than 43 percent of the offenders in this sampling time frame were incarcerated on more than one occasion, future consideration should be given to program involvement across various periods of incarceration.

Future evaluations should compare differences between offenders exposed to a single correctional education program with those exposed to multiple programs.

*As compared to prior evaluations of the Windham School District, which utilized crosstabs to analyze recidivism outcomes, the current report utilized multivariate regression analyses. Multivariate regression analyses allow for a more accurate assessment of the individual influence of an educational program on the likelihood of recidivism. Multivariate regression analysis controls for the influence of potentially confounding variables such as sentence length, number of prior incarcerations, or type of offense on likelihood of recidivism.

Table of Contents

1.	Evaluation of Windham School District Correctional Education Programming – Overview	7
2.	Correctional Adult Basic Education (ABE) Programs.....	7
2.1	Correctional Education (Adult Basic Education) Literature Review.....	8
2.1.1	Correctional Education and Imprisonment Costs	10
2.1.2	Correctional Education and Recidivism	11
2.1.3	Special Education in Corrections.....	13
2.1.4	Correctional Education and Employment.....	14
2.1.5	Related Benefits of Correctional Education	15
2.2	Correctional Education Post-Secondary Education Literature Review.....	16
2.3	Notable Trends in WSD Correctional Education Programming	18
3	Career and Technical Education and College Vocational Programs	19
3.1	Post-Secondary Vocational Enrollment, Security and Program Types	23
3.2	Case Description of Ferguson Unit: FY2011-2012	24
3.3	Vocational Programming Literature Review.....	25
3.3.5	Vocational Education and Employment.....	26
3.3.6	Vocational Education and Institutional Misconduct.....	26
3.3.7	Conclusions	27
3.4	Notable Trends in CTE at WSD.....	27
4	Correctional Based Life-Skills Programs.....	29
4.1	Life Skills Programming Literature Review	29
4.1.5	Program Implementation and Components	30
4.1.6	Effectiveness of Life Skills Programs	31
4.1.7	Conclusions	32
4.2	Notable Trends in the WSD CHANGES Pre-release program.....	33
5	Cognitive-Behavioral Correctional Programming	33
5.1	Cognitive Behavioral Treatment Literature Review.....	34
5.1.5	Cognitive-Behavioral Treatments	34
5.1.6	Efficacy of Cognitive-Behavioral Treatment in Corrections.....	36
5.1.7	Cognitive-Behavioral Programs and Institutional Behavior.....	37
5.1.8	Cognitive-Behavioral Treatment Programs and Recidivism	37
5.1.9	Future Research Considerations	38
5.2	Notable Trends in the WSD Cognitive Intervention Program.....	39
6	Description of Study Data	39

6.1	FY 2009 Release Cohort Demographic Characteristics	40
7.	Findings	44
7.1	WSD Correctional Education Program Participation Level	44
7.2	WSD Correctional Education Program Exposure	44
7.3	WSD Multiple Correctional Education Program Exposure.....	46
7.4	Offender-Specific Outcomes: Educational Achievement.....	47
7.4.1	Assessment of Advances in Educational Achievement: Reading Scores	48
7.4.2	Education Program Exposure and Advances in Educational Achievement: Reading Scores..	51
7.4.3	Incarceration Length and Advances in Educational Achievement: Reading Scores	52
7.6	Recidivism: Likelihood of Re-incarceration.....	57
7.7	Impact of WSD Programs on Offender Average Quarterly Wages	59
	References	62
	References – Adult Basic Education / Academic Programming.....	62
	References – Vocational Training Programs.....	64
	References – Pre-Release / Life Skills Programming.....	66
	References – Cognitive Behavioral Interventions.....	67
	Appendix A – Windham School District, Texas Data Codebook	69
	Glossary of Concepts Measured	72

1. Evaluation of Windham School District Correctional Education Programming – Overview

Existing literature suggests that correctional education programming holds potential as a promising approach to advancing offender educational competencies during incarceration, while also holding promise for a positive and sustained behavioral impact on offender outcomes upon release to the community. In addition to educational advances, positive behavioral outcomes may include reduced occurrence of recidivism, increased success in obtaining and maintaining employment upon release, as well as higher wages among offenders who successfully obtain employment. Moreover, during incarceration correctional education programming may act as an incentive that reduces levels of behavioral misconduct among program participants. A combination of reduced recidivism and institutional misconduct would result in reduced incarceration costs.

The report presents a summary of the findings from a collaborative effort between the Windham School District (WSD), researchers from Sam Houston State University (SHSU), and researchers from Indiana University of Pennsylvania (IUP). This collaboration aimed to assess the amount of programming received by offenders during incarceration and determine the impact of Windham School District correctional education program exposure on post-release outcomes. This report includes an extensive review of current empirical literature disseminated through research briefs on topical areas of WSD correctional education programming. Additionally, project team members conducted semi-structured interviews with WSD staff members in each of the correctional education areas, and reviewed documents resulting in brief summaries of WSD correctional education programs. Finally, in addition to recidivism – the typical outcome evaluated in outcome studies of correctional education programs – the post-release employment outcomes of reported average quarterly wages were assessed.

Using data provided by WSD and the Executive Services branch of the Texas Department of Criminal Justice (TDCJ), researchers from SHSU evaluated five different program areas that WSD provides to the eligible offender population housed within the TDCJ including:

- 1) The **Adult Basic Education Program**, which includes literacy training and GED preparation;
- 2) **Post-Secondary Programs**, a continuing education in vocational and academic settings;
- 3) The **Career and Technical Education (CTE) Program**, which integrates career path planning and technology training to prepare offenders for today's work force;
- 4) The **CHANGES Program**, a pre-release, life skills program designed to prepare offenders for their return to society; and,
- 5) The **Cognitive Intervention Program** which addresses thinking patterns and is designed to improve behavior during incarceration and after release.

2. Correctional Adult Basic Education (ABE) Programs

The literacy program of the Windham School District (WSD) provides adult basic education for all eligible offenders with an education level below the sixth grade level, as well as

secondary adult education for offenders working towards a high school equivalency certificate (GED), taught by certified teachers. The program is composed of three basic education levels, beginning, intermediate and advanced (Literacy I, II, and III), as well as a Literacy I – Reading class designed for offenders with a reading level below fourth grade with a focus on instruction in reading. Basic literacy classes focus on reading, math and language components and are non-graded, competency based classes, typically lasting three hours a day on a 12 month academic year. For underachieving offenders under the age of twenty, WSD has the Title I program, which enrolls offenders into a three hour class each day, in addition to another regular program of instruction each day (total of six hours per day). The Title I teacher works with the literacy teachers to reinforce or re-teach literacy and math concepts.

In addition to the basic education levels, WSD provides Special Education services to eligible offenders who qualify for the program. Certified Special Education teachers work with the offenders to address their individual learning style. Services include interpretive services for deaf students, assistive technology and possible placement into an adaptive skills class to focus on functional literacy and life skills. Another focus on offenders with unique education needs includes WSD’s English as a Second Language (ESL) program, designed for eligible offenders with limited English proficiency.

All offenders entering the TDCJ system are screened for education levels. Offenders are selected for enrollment in WSD programs based on results from an Individualized Treatment Plan (ITP), which is initiated during the intake process. Although all offenders are screened and may be eligible for education programs, some offenders may be considered higher priority for placement in the programs. These higher priority offenders tend to be younger than 25 years old, and within five years of projected release. The rationale behind this high priority classification is that these offenders will be released into society and are at a higher risk for recidivism.

At intake, WSD will gather information regarding the educational history, which includes the offender’s self-reported highest level of education. If the offender reports completing high school or a GED, or if they report having completed some college, WSD will seek to verify that completion. Offenders with a verified GED or higher are not required to enroll in the literacy programs but may be eligible for other programs including vocational or post-secondary education programs. Offenders are given the Test of Adult Basic Education (TABE) during intake to determine their current educational achievement level. The result of the TABE will be considered in the offender’s ITP, which will report the grade level equivalent of the offender’s total composite of reading, math and language achievement, as well as their priority level to enroll in programs. Based on the ITP, priority and need, the offender will be placed in one of WSD’s multilevel literacy classes to begin their education. While enrolled in WSD programs, offenders are assessed by taking the TABE no more than three times a year, more than six weeks apart, to monitor their progress. Additionally, the ITP is routinely reevaluated to ensure the offender is properly placed in WSD programs.

2.1 Correctional Education (Adult Basic Education) Literature Review

Education has been widely accepted as an important component of a prosocial society, which provides numerous benefits for the individual while simultaneously supporting upward economic mobility of its citizenry (Brazzell, Crayton, Mukamal, Soloman, & Lindahl, 2009). In

considering the totality of American society, it is well established that educational inequities across subpopulations of the United States exist (Klein & Tolbert, 2007). As a whole, researchers have found that offenders who matriculate into the prison system tend to have lower education levels than the general population (Klein, Tolbert, Bugarin, Cataldi & Tauschek, 2004). In comparison to 18 percent of the general population in the free world who were high school drop outs in 1997, Klein and colleagues (2004) found that nearly 27 percent of federal and 40 percent of state offenders were high school dropouts upon entry into the correctional system. Further, only 8 percent of federal and 2 percent of state offenders had a college degree, as compared to 24 percent of the general population. While many factors, including structural factors and individual motivation, contribute to this initial lack of educational attainment it cannot go unnoticed that offenders are more likely to have basic literacy and linguistic difficulties, and therefore in many cases lack the foundational skills to advance their education on their own (Harrison & Schehr, 2004; Hrabowski & Robbi, 2002; Klein et al., 2004).

It follows that correctional education programs are important contributors in closing existing educational gaps. Throughout the country, a variety of correctional education programming is available to offenders. Nationwide, the availability of correctional educational programming offered depends upon program criteria, characteristics of the offender, location of the facility, as well as the individual jurisdiction and funding made available to support these programs. Programs may include academic programs at the primary, secondary and post-secondary level, vocational training and specialized programs such as cognitive behavior or life skills programs (Klein et al., 2004). A national census of state and federal correctional facilities in 2005 found that 85 percent of correctional facilities in the United States (state, federal and private prisons) offered some type of education program (Stephan, 2008). Most common was adult secondary education or GED programs (77 percent) followed by Adult Basic Education (ABE) programs (1st through 8th grade levels) at 66 percent prevalence.

Despite the seemingly evident benefits of improving an educationally disadvantaged population, research examining the impact of enhancing education levels of incarcerated persons on their success upon release has been relatively limited and beset with methodological weakness. Studies judged to be of poor methodological quality are often the result of failing to control for other programs with which the offender is involved, programming provided during previous incarcerations, and an inadequate follow up period (Cecil, Drapkin, MacKenzie & Hickman, 2000; Hull, Forrester, Brown, Jobe & McCullen, 2000; Wilson, Gallagher & MacKenzie, 2000). Recognizing limitations of some studies, the impact of correctional education on improving literacy levels appears evident when comparing academic gains made to the general population. Attributing significant literacy gains to correctional education programs, Harlow, Jenkins and Steurer (2010) found that prisoners who were “black, male, learning disabled, spoke a language other than English while young, or never used a library read better than their counterparts in the general population” (p. 68). Similarly, the National Assessment of Adult Literacy (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993) found prisoners with GEDs scored higher than members of the general population of the free world with a similar education level on reading skills assessment. These findings are indicative of the high level of anecdotal fidelity with which correctional education programs are delivered.

Given the extent of incarceration in many states, correctional budgets are stretched to the limit. In considering funding priorities public officials are seeking a practical payoff of programming such as correctional education (Adams et al., 1994). Several important benefits to correctional education programming are proposed to exist. Of primary importance is the anticipated benefit of an offender's reduced likelihood of recidivism upon release to the community (Adams et al., 1994; Brewster & Sharp, 2002; Esperian, 2010; Fabelo, 2002; Gaes, 2008; Holley & Brewster, 1997; Hull et al., 2000; Nuttall, Hollmen, & Staley, 2003; Vacca, 2004; Zgoba, Haugebrook, & Jenkins, 2008). Closely linked is the increased potential that educated offenders will have an improved opportunity to become contributing members of society through obtaining and maintaining meaningful employment (Cho & Tyler, 2008; Fabelo, 2002; Hull et al., 2000; Jenkins, Steurer, & Pendry, 1995). This study will determine the extent of existing evidence that establishes a link between correctional education and recidivism by reviewing studies which focus on ABE and GED correctional programs.

2.1.1 Correctional Education and Imprisonment Costs

- ✓ In 2009, Aos and colleagues found that investing \$985 per offender participant in academic education could save tax payers \$17, 636.

Correctional education programs cost jurisdictions large sums of money annually and often fall victim to budget constraints during periods of economic shortfall and fiscal conservation (Lillis, 1994). Although the financial impact of correctional education is hard to enumerate, Aos and colleagues have examined correctional education as part of their cost-benefit analysis of criminal justice programs (Aos, Miller, & Drake, 2006; Drake, Aos, & Miller, 2009). In their frequently cited 2006 report, Aos, Miller and Drake compared the annual cost of educational programming to the costs of incarceration for a number of system programs. They used a series of equations to estimate potential incarceration costs, average sentence lengths by offense, and estimated costs of offender matriculation through the system. Results demonstrated that investing \$962 per participant in academic education could save tax payers \$5,306 and save crime victims \$6,325 due to the predicted reduction in crime (Aos et al., 2006). The total benefit per individual investment in a correctional education participant was \$10,669. Aos and colleagues repeated their analysis in 2009 and found a similar positive financial impact. This time, the total benefit per participant was \$17,636 for \$985 invested per correctional education participant (Drake et al., 2009).

Other studies have attempted to assess the impact of programs on the cost of confinement, although in a less direct way, often explaining lower recidivism rates and higher employment as a financial benefit to society (Hrabowski & Robbi, 2002). As indirect as it may be, it is worth noting it costs taxpayers on average \$22,650 per year to incarcerate an individual (Stephan, 2004). Therefore, investing \$962 in an offender's correctional education which results in a decrease of 7 to 9 percent in recidivism could add up to substantial savings (Aos et al., 2006). Moreover, if the social benefits of avoiding victimization and the societal benefits of legal employment of offenders are considered, taxpayers gain even more (Brazzell et al., 2009).

2.1.2 Correctional Education and Recidivism

- ✓ The trend is that generally, the higher the overall education level of the offender, the less likely they are to recidivate.
- ✓ The most methodologically rigorous studies find recidivism is reduced with correctional education participation and further conclude that such programs are part of that which is promising in reentry or “what works” in corrections.
- ✓ Wilson and colleagues found that participants in correctional education were 1.44 times less likely to recidivate and 1.7 times more likely to be employed upon release to the community.

Within the literature on correctional education research, several approaches have been utilized in measuring education program participation as it pertains to having an impact on recidivism. Approaches have included dichotomizing offenders into two groups, participants and non-participants (Adams et al., 1994), or dichotomizing completion of a GED while incarcerated (Brewster & Sharp, 2002; Holley & Brewster, 1997) and contrasting this measure with eventual success upon release. Stronger methodological approaches employed have included a continuous measure of education participation consisting of total hours participated in the program (Adams et al., 1994; Fabelo, 2002) or measuring a change in actual educational performance levels (Fabelo, 2002).

Accepting the variation in measurement approaches, findings are relatively consistent in that participation in correctional education reduces recidivism (Adams et al., 1994; Brewster & Sharp, 2002; Esperian, 2010; Fabelo, 2002; Holley & Brewster, 1997; Hull et al., 2000; Nuttall et al., 2003; Vacca, 2004; Zgoba et al., 2008). This pattern coincides with an additional trend that finds generally, the higher the overall education level of the offender, the less likely they are to recidivate (MacKenzie, Browning, Skroban, & Smith, 1999; Markarios, Steiner, & Travis, 2010; Streurer & Smith, 2003; Ulmer, 2001). For example, Jancic’s (1998) review found offenders who participated in academic programs while incarcerated had lower rates of recidivism than non-participants, and further found that offenders who completed a GED had lower rates of recidivism than offenders who did not complete the program.

Studies examining offender participation in GED programs while incarcerated have found the completion of a GED program is associated with lower recidivism rates or longer survival rates (Brewster & Sharp, 2002). Specifically, offenders who obtained a GED while incarcerated consistently had lower rates of recidivism as compared to offenders who did not have a GED (Holley & Brewster, 1997; Nuttall et al., 2003; Zgoba et al., 2008). More so, offenders who obtained a GED while incarcerated showed lower rates of recidivism than offenders who had a GED or high school diploma before incarceration, 29 percent compared to 34 percent (Holley & Brewster, 1997). When the age of the offender is taken into account, the relationship between obtaining a GED and recidivism was stronger. Recidivism rates for offenders younger than 21 years old who received a GED were 14 percent lower than offenders younger than 21 years old who did not have a GED. The difference was only 5 percent for

offenders older than 21 years old (Nuttall et al., 2003). Based on existing literature, leaving prison with at least the equivalent of a high school diploma significantly improves the chances an offender will not recidivate.

The most methodologically rigorous studies find recidivism is reduced with correctional education participation and further conclude that such programs are part of that which is promising in reentry (Seiter & Kadela, 2003) or “what works” in corrections (Cecil et al., 2000; Jensen & Reed, 2006). Specifically, in their meta-analysis of 14 ABE and GED programs, Wilson and colleagues (2000) found participants were 1.44 times less likely to recidivate and 1.7 times more likely to be employed upon release to the community.

In addition to variation in the manner that educational participation has been measured, measurement of outcomes has also varied. A meta-analysis of 14 correctional education programs found that 66 percent of the studies measured recidivism through re-incarceration, 19 percent used arrest, 11 percent used re-conviction and 4 percent used parole revocation (Wilson et al., 2000). Studies that use re-incarceration as the outcome measure also vary based on the time elapsed after release although most studies utilize a 2 to 3 year period (Adams et al., 1994; Fabelo, 2002; Holley & Brewster, 1997; Hull et al., 2000; Nuttall et al., 2003). A few studies have used a dichotomous measure determining whether the offender has been re-incarcerated by a specific date (see for example Brewster & Sharp, 2002).

Other considerations of measurement variation across existing studies of correctional education programming and recidivism include dosage, consideration of interim milestones, and completion of the educational program. Studies measuring the total number of education programming hours in which the offender participated have found a negative association with recidivism to exist. That is, as educational programming hours increased, offender recidivism decreased. Specifically, studies have found that offenders who received *fewer* than 200 hours of programming were more likely to recidivate after 2 years (Adams et al., 1994).

Second, given that a direct goal of correctional education programming is to improve offender’s education levels globally in addition to achievement of a certificate or degree, interim assessment is important. Thus, an additional approach to measuring the success of a correctional education program is to track and examine offender’s educational achievement (EA) levels by recording pre- and post-tests or entry and exit exams, completed at the beginning and end of each education program (Fabelo, 2002; Messemer & Valentine, 2004; Shippen, 2008). A limited number of studies have utilized repeated measurement of educational attainment during the course of a correctional education program and found EA level to be related to recidivism. For example, offenders who had lower educational attainment levels at intake had higher recidivism rates upon completion (Adams et al., 1994). In 2002, Fabelo studied Texas adult correctional facilities finding that offenders who were released with an educational achievement score of 9 or higher had an 18 percent lower recidivism rate than those with EA scores of 4 or lower (Fabelo, 2002). Moreover, educational achievement, as measured by moving from one level to the next, was associated with an 11 percent decrease in recidivism rates (Fabelo, 2002).

In addition to their relationship with recidivism, interim educational assessments can be used to indicate program fidelity and individual offender progress. One extensive assessment

approach included pre- and post-tests with six components: testing visual auditory learning, letter identification, word identification, word attack, word comprehension, and passage comprehension (Shippen, 2008). During involvement in correctional education programming, results from offender pre- and post-tests indicated positive trends in educational attainment. Specifically, Shippen (2008) found offenders increased their literacy level by a mean of 1.1 grades in a six month program. In another study, Fabelo (2002) found the results differed based on the level of education at which the offender began. Although all three beginner levels showed positive improvements, the nonreader and illiterate levels gained 2.7 grade levels based off of entry and exit scores, while the GED level gained 1.4 grades (Fabelo, 2002).

Messemer and Valentine (2004) examined reading, math, and language classes separately to determine educational attainment in each. Forty-six percent of offenders gained 0.5 to 1.5 grade levels in the reading classes, while 24 percent gained 1.6 to 2.5 grade levels, and 7 percent gained more than 2.6 grade levels. Forty-four percent of offenders gained 0.5 to 1.5 grade levels in math classes, while 19 percent gained 1.6 to 2.5 grade levels, and 15 percent gained 2.6 grades or more. Finally, 20 percent of offenders gained 0.5 to 1.5 grade levels in language classes, 21 percent gained 1.6 to 2.5 grade levels, and 23 percent gained more than 2.6 grade levels (Messemer & Valentine, 2004). Additionally, Messemer and Valentine (2004) isolated the number of hours of correctional education programming needed to increase one grade level in reading, math and language. The authors concluded that it took 118.4 hours to increase one grade level for reading, 54.2 hours for math, and 36.2 hours for language (Messemer & Valentine, 2004).

Finally, educational program completion matters. Recidivism rates for offenders with no educational involvement during incarceration was 49.1 percent after 2 years, but that rate dropped to 38.2 percent for offenders who were involved in education during incarceration. The rate dropped further to 19.1 percent for offenders who completed the academic programs while incarcerated (Hull et al., 2000).

2.1.3 Special Education in Corrections

Although offenders participating in correctional education programs can be challenging, special education offenders present an added challenge to institutional corrections operations and correctional education programs (Leone, Wilson, & Krezmien, 2008). Special education offender populations may include individuals with mental health, cognitive and learning disabilities, as well as offenders younger than 18 who are serving time in adult prison facilities. Identifying individuals with learning disabilities is just one of several challenges presented to correctional education program staff members (Hayes, 2007). Despite the difficulty in measuring the number of offenders with mental health and learning disabilities, it is believed a significant proportion of offenders have learning disability or mental health issues that go unidentified or are under-identified (Harlow, 2003). One study suggested as many as 66 percent of the offenders surveyed had a learning disability (Harlow, 2003), while another study of juveniles in adult correctional facilities identified 42 percent of that population had a learning disability (Beyer, 2006).

A related challenge upon identification of a disability is developing the accommodations required by the Individuals with Disabilities Education Act (IDEA) and the Americans with Disabilities Act (ADA) (Leone et al., 2008). Given the ongoing budget constraints most

jurisdictions face, providing the highly specialized, individualized attention and services required by offenders with such conditions may be challenging (Leone et al., 2008). Included in the specialized services required under IDEA is providing youth with disabilities under the age of 21 with a public education, despite the lack of fulfillment of that service by correctional facilities (Leone et al., 2008). In addition to youths' right to education under IDEA, the ADA provides similar educational services to adults with disabilities, services which have been ruled to apply to correctional agencies and state prisons (Leone et al., 2008; *Pennsylvania v. Yesky* 118 S. Ct 1952 1998).

Despite having federal mandates in place, the quality of educational services available for youth and individuals with learning disabilities has been considered inconsistent across the nation. One study compared the number of offenders identified with learning disabilities to the number of offenders with disabilities in educational programs. The disparity found was quite large with only 0.3 percent of the offenders identified as having learning disabilities enrolled in appropriate educational courses (Leone et al., 2008). This gap highlights the extensive attention that needs to be provided to special education populations in prisons. Similar to offenders in the general population, education of this offender population is anticipated to have a significantly positive impact on their preparation for release and successful reentry.

2.1.4 Correctional Education and Employment

- ✓ Studies have shown that offenders who participate in correctional education programs have higher rates of employment upon release and participating offenders earn higher wages in each successive year.

Studies have shown that offenders who participate in correctional education programs have higher rates of employment upon release and participating offenders earn higher wages in each successive year. Correctional education programs should be structured with the offender's release in mind, providing a platform for offenders to succeed in the community. Too often evaluation of correctional education programs have been limited to recidivism, instead of focusing on a broader "social productivity assessment" such as impact of programming on the offender's families and communities (Lewis, 2006). Program participation, for example, may also lead to improved self-esteem, confidence, and self-awareness, all of which may aid offenders in being a more productive family member, including successfully obtaining employment upon release (Brazzell et al., 2009; Tootoonchi, 1993).

Although vocational training can provide training for specific job skills and abilities, correctional education programs should be similar to programs available in the community, which help non-offenders obtain and retain jobs (Brazzell et al., 2009). For many correctional education programs, the ability of offenders to secure a job after release is a measure of the program's impact on offender reentry. The most common measurement of this success is to follow up with program participants and/or a control group by tracking their wages through state agencies after a specific amount of time following release to determine their employment status (Cho & Tyler, 2008; Fabelo, 2002; Jenkins et al., 1995). Other measurement approaches are a

determination of the length of time employed (Hull et al., 2000) or tracking employment wages and earnings (Cho & Tyler, 2008).

Similar to the relationship between correctional education program participation and recidivism, correctional education programs have a positive impact on the likelihood of an offender gaining employment after release. Further, not only have studies shown that offenders who participate in correctional education programs have higher rates of employment upon release (Cho & Tyler, 2008; Fabelo, 2002; Gaes, 2008; Jenkins et al., 1995; Hull et al., 2000), participating offenders earn higher wages in each successive year (Steurer & Smith, 2003). One study, for example, found 61.4 percent of those who enrolled but did not complete correctional education programs and 77.9 percent of individuals who completed educational programming were employed for at least 90 days, while only 54.6 percent of individuals with no education programming were employed for at least 90 days (Hull et al., 2000). Even participation in adult basic education programs showed an increase in likelihood of employment after release (Cho & Tyler, 2008).

In addition to participation alone, researchers have found a positive relationship existed between the specific level of education attained and an increased likelihood of employment (Fabelo, 2002; Jenkins et al., 1995). Specifically, Fabelo (2002) concluded as offenders moved to a higher level of educational achievement during the program, their chances of employment and average wages increased. Offenders with the highest educational achievement (grade 9.0 or higher) were most likely to be employed and earned the highest wages (75 percent employed; average wage, \$10,139). The lowest EA level reported having 57 percent employment and average wages of \$7,697 (Fabelo, 2002).

2.1.5 Related Benefits of Correctional Education

- ✓ Empirical evidence suggests an increased likelihood of success in obtaining and maintaining employment for former offenders and higher wage earnings.
- ✓ Correctional education programs may also provide incentives for offenders to behave in a positive manner during their incarceration and reduce the cost of confinement or imprisonment through reduced levels of institutional misconduct.

Aside from examining data to understand the success of education programs, researchers have interviewed offenders about their motivation, as well as obtained feedback on programs, and individual successes (Case & Fasenfest, 2004; Hall & Killacky, 2008; Moeller, Day, & Rivera, 2004; Shivy et al., 2007). Participating offenders have repeatedly highlighted the importance of education programs for empowering them and preparing them for release. Further, they reported viewing educational programming as an opportunity to correct their behavior for loved ones (Hall & Killacky, 2008; Shivy et al., 2007). Offenders have repeatedly demonstrated that they value the importance of obtaining an education while incarcerated, as it facilitates success in their transition back into the community (Hall & Killacky, 2008; Moeller et al., 2004; Shivy et al., 2007).

Several positive outcomes of correctional education have been discussed throughout the review of existing literature. Perhaps the most researched benefit of correctional education is the

reduced levels of recidivism among participants once they are released (Adams et al., 1994; Brewster & Sharp, 2002; Esperian, 2010; Fabelo, 2002; Gaes, 2008; Holley & Brewster, 1997; Hull et al., 2000; Nuttall et al., 2003; Vacca, 2004; Zgoba et al., 2008). In addition to lower recidivism, empirical evidence suggests an increased likelihood of success in obtaining and maintaining employment for former offenders and higher wage earnings (Cho & Tyler, 2008; Fabelo, 2002; Hull et al., 2000; Jenkins et al., 1995). Correctional education programs may also provide incentives for offenders to behave in a positive manner during their incarceration and reduce the cost of confinement or imprisonment through reduced levels of institutional misconduct (Brazzell et al., 2009; Innes, 1997; Langan & Pelissier, 2001).

Constrained by budgets, correctional programs are always under scrutiny to determine if they are performing up to par. Although specific outcomes will vary by program, studies have consistently demonstrated education programs, specifically basic and secondary academic programs are able to reach their goals and make positive impacts on offenders and their success upon release. Moreover, the benefits of receiving an education while incarcerated may reach much further than obtaining employment, as program participation is also linked to improving decision-making skills and promoting pro-social thinking (Brazzell et al., 2009).

2.2 Correctional Education Post-Secondary Education Literature Review

- ✓ Offenders enrolled in post-secondary correctional education courses, for example, are less likely to commit disciplinary infractions while incarcerated, have greater chances of becoming employed post-release, have more pro-social thinking, and are less likely to recidivate upon release from prison.

Within the Windham School District, post-secondary programs are provided through independent contracts with colleges and universities serving the geographical areas surrounding the TDCJ units. All post-secondary education program participants must meet enrollment criteria for admission to each college or university as well as extensive TDCJ eligibility criteria. Offenders who meet eligibility criteria as determined by the contracting college, by the TDCJ and by WSD may also be eligible for certain funding assistance options for continuing educational programs. Eligible offenders may use Post-Secondary Education Reimbursement (PSER) funds. As per State of Texas legislation, costs incurred by the State, including tuition, fees, and any required testing, must be reimbursed by the offender as a condition of his or her parole. PSER funds may be used to pay for a qualifying offender's initial academic course each semester and/or vocational course as applicable. Offenders using PSER funds are limited to enroll in one course per semester; however, other options including self-pay are available should the offender wish to enroll in additional courses. Other funding options include Texas Public Education Grant or TPEG (available through the servicing college/university); Hazelwood Benefits (benefits available to Texas veterans who have been honorably discharged from their military service); scholarships (offered by some contracted colleges and universities); direct pay (paid directly to the college by an outside source e.g. family member or friend); or I-25 (paid by an offender from his/her Inmate Trust Fund). Prior to October 1, 2012, eligible offenders under the age of 36 could utilize the Incarcerated Individuals Program (IIP) Grant. The IIP Grant was

made available through the U.S. Department of Education under the States for Workplace and Community Transition Training for Incarcerated Individuals Program.

In today's labor market, a college education is increasingly important. Individuals with a college degree are less likely to be unemployed and are the most likely to get hired in the current economy (Center on Education and the Workforce, 2010). According to the Bureau of Labor Statistics (2012), 68.3 percent of all 2011 high school graduates were enrolled in universities or colleges as of October 2011. While the majority of free world high school graduates enroll in post-secondary education, individuals who are incarcerated in state or federal prison are far less likely to have access to and enroll in post-secondary education courses. Despite the higher value of a college degree post-incarceration compared to a GED (Schirmer, 2008), according to the Institute for Higher Education Policy (2005), only approximately five percent of prisoners nationwide have access to post-secondary correctional education. In Texas, however, approximately 11 percent of offenders are enrolled in post-secondary correctional education during the 2004-2005 academic school years (Institute for Higher Education Policy, 2005). Unfortunately, the elimination of prisoner access to Pell Grants (grants that provided monetary assistance to low-income students, including prisoners) in 1995, greatly diminished the number of post-secondary correctional education programs offered in prisons throughout the United States (Schirmer, 2008).

Not only is having a college education important for individuals in the free world, it can be vital for incarcerated individuals as well. Offenders enrolled in post-secondary correctional education courses, for example, are less likely to commit disciplinary infractions while incarcerated (Taylor, 1994), have greater chances of becoming employed post-release (Institute for Higher Education Policy, 2005), have more pro-social thinking (Fine et al., 2001), and are less likely to recidivate upon release from prison (Batiuk, Lahm, McKeever, Wilcox, & Wilcox, 2005; Chappell, 2004; Lockwood, Nally, Ho, & Knutson, 2012; Schirmer, 2008). In a meta-analysis of 15 research studies on post-secondary correctional education programs published between 1990 and 1999, Chappell (2004) found that post-secondary correctional education was statistically related to lower levels of recidivism, where offenders who had post-secondary correctional education had recidivism rates of 22 percent, while those without post-secondary correctional education had recidivism rates of 41 percent. Moreover, offenders who completed post-secondary correctional education had a recidivism rate of only 19 percent, while those without post-secondary correctional education had a recidivism rate of 38 percent.

Post-secondary correctional education has not only been found to lower recidivism rates of those who enroll and complete the courses, but post-secondary correctional education has also been found to produce lower recidivism rates than other forms of correctional education, such as adult basic education, GED certification, and vocational education (Batiuk et al., 2005; Lockwood et al., 2012). In a study of 972 Ohio offenders, Batiuk and colleagues (2005) found that offenders who completed post-secondary correctional education had 62 percent lower recidivism hazard rates and longer survival time (that is, time in the community) than offenders who received no correctional education. Additionally, post-secondary correctional education was the only form of education to significantly reduce recidivism rates (Batiuk et al., 2005). Lockwood and colleagues (2012) came to a similar conclusion in their study of 6,561 offenders released from the Indiana Department of Corrections over a five year period. Results indicated

that offenders with lower levels of education were significantly more likely to recidivate upon release. Moreover, the recidivism rate for offenders with a college degree was 31 percent, while the recidivism rate for offenders with a high school diploma/GED or below a high school degree was 46.2 and 55.9 percent, respectively (Lockwood et al., 2012).

Although there was a large drop (from 37 to 26) in the number of states offering post-secondary correctional education after the elimination of Pell Grants for prisoners in 1995 (Schirmer, 2008), the number is back on the rise (Institute for Higher Education Policy, 2005). According to the Institute for Higher Education Policy (2005), of the 46 prison systems that participated in a research study on post-secondary correctional education policy, 43 states plus the Federal Bureau of Prisons offered post-secondary correctional education in the 2003-2004 school year. Although the number of states offering post-secondary correctional education to their offenders has increased in more recent years, the number of offenders enrolled in such courses is still relatively small (Institute for Higher Education Policy, 2005). Nonetheless, many studies on the effects of post-secondary correctional education and recidivism have produced promising findings, where offenders who were enrolled in post-secondary correctional education courses while incarcerated had lower rates of recidivism upon release from prison (Batiuk et al., 2005; Chappell, 2004; Lockwood et al., 2012).

2.3 Notable Trends in WSD Correctional Education Programming

As a component of this evaluation, a review of recent Windham School District reports was completed in addition to brief interviews with stakeholders. From these sources, a few highlights from the most recent fiscal report, the 2011 Annual Performance Review were warranted for reiteration in this report as well:

- In Academic Year 2010-2011, 74,486 offenders were served through a correctional education program.
 - 35,545 offenders participated in the Literacy program
 - 1,388 offenders participated in the Special Education program
 - 990 offenders participated in the English as a Second Language program
- 85% of WSD offenders who attempted the GED earned their GED certificate.
- A total of 5,169 GED certificates were issued in Academic Year 2010-2011.
- In 2011, based on information from the Division of Administrative and Business Services, the funds appropriated per WSD academic contact hour was \$3.88.
- 8,126 offenders participated in post-secondary programs.
- 447 Associate degrees, 31 Bachelor's degrees and 9 Master's degrees were conferred in the 2010-2011 Academic Year.

3 Career and Technical Education and College Vocational Programs

WSD Offenders participating in Career and Technical Education (CTE) courses may engage in one of 34 career and technical education programs to prepare for possible careers in the labor market after release. The focus of CTE programs is to identify jobs that are high in demand with a reasonable wage and train offenders in these industries accordingly. To ensure that vocational programs remain current, WSD adds new courses, modifies existing courses, and discontinues irrelevant courses to best facilitate the offender’s ability to compete for jobs with non-offenders.

Ongoing programming updates were evident during the 2009-2010 academic year, wherein six new CTE classes were added. CTE programs also provide offenders with the ability to secure industry certification. The cost of the industry certification is included in the WSD budget. That is, WSD assists in an offender’s certification process by providing financial assistance for the industry certification testing fees for eligible students. As a result, curricula are designed to meet industry standards and offenders who successfully complete the coursework are job-ready. In order to provide offenders with sufficient knowledge in a particular technical field and ensure that curricula are adequately stringent, WSD typically hires teachers who themselves are industry-certified and who were recently employed within that industry. This type of targeted hiring can also assist in industry networking in aiding offenders with locating employment upon release.

The Windham School District was divided into four regions prior to September 1, 2011. Each of these regions had a mixture of vocational classes and short vocational classes. As of the 2010-2011 Academic Year, 69 facilities operated vocational programs with a total of 11,199 students.¹ Three facilities operated both vocational and short classes. See Table 1 for a breakdown by region. Typically, offenders in vocational programs participate six hours per day, five days per week. Offenders are matched with technical jobs in which they have experience prior to incarceration as well as technical jobs in which they are interested. Though WSD does not discriminate against which technical jobs they can learn, priority is given to those offenders who have not previously participated in vocational training.

Table 1. Number of WSD Vocational Courses by Region, 2011

	Number of Units with Vocational Programs	Number of Units with Short Courses	Number of Vocational Programs ²
North Texas	16	1	47
Gulf Coast	18	0	42
West Texas	16	0	37
South Texas	19	2	40
Total	69	3	166

¹ The offenders enrolled in vocational classes at facilities with vocational and short classes were included in the overall number of offenders enrolled in vocational classes.

² Some facilities do not operate vocational classes due to the physical limitations of the facilities.

Table 2. Type of WSD Vocational Courses offered by Region and Facility, 2010-2011

Facility	Location	Vocational Courses Offered
Region: North Texas		
Beto	Tennessee Colony	<ul style="list-style-type: none"> • Bricklaying/Stone Masonry • Construction Carpentry • Mill & Cabinetmaking • Piping Trades/Plumbing • Welding
Boyd	Teague	<ul style="list-style-type: none"> • Automotive Specialization (Transmission) • Construction Carpentry • Landscape Design, Construction & Maintenance
Cole State Jail	Bonham	<ul style="list-style-type: none"> • Electrical Trades • Heating, Ventilation, Air Conditioning & Refrigeration
Eastham	Lovelady	<ul style="list-style-type: none"> • Automotive Specialization (Engine Performance)
Ellis	Huntsville	<ul style="list-style-type: none"> • Computer Maintenance Technician
Estelle	Huntsville	<ul style="list-style-type: none"> • Bricklaying/Stone Masonry • Business Computer Information Systems II • Horticulture • Painting & Decorating
Ferguson	Midway	<ul style="list-style-type: none"> • Diversified Career Preparation (Food Service) • Electrical Trades • Mill & Cabinetmaking • Small Engine Repair • Technical Introduction to Computer-Aided Drafting • Welding • Culinary Arts <p><i>Short Courses : Equine Science (Horse Shoeing)</i></p>
Hobby	Marlin	<ul style="list-style-type: none"> • Automotive Specialization (Brakes) • Business Computer Information Systems II • Painting & Decorating
Hodge	Rusk	<ul style="list-style-type: none"> • Custodial Technician • Landscape Design, Construction & Maintenance • Personal & Family Development
Holliday	Huntsville	<ul style="list-style-type: none"> • Landscape Design, Construction & Maintenance
Huntsville	Huntsville	<ul style="list-style-type: none"> • Business Image Management & Multimedia
Hutchins State Jail	Dallas	<ul style="list-style-type: none"> • Business Computer Information Systems I • Technical Introduction to Computer-Aided Drafting
Michael	Tennessee Colony	<ul style="list-style-type: none"> • Automotive Specialization (Electronics) • Piping Trades/Plumbing • Sheet Metal
Powledge	Palestine	<ul style="list-style-type: none"> • Auto Collision Repair & Refinishing Technology • Painting & Decorating • Welding
Telford	New Boston	<ul style="list-style-type: none"> • Construction Carpentry • Plant Maintenance • Small Engine Repair

Wynne	Huntsville	<ul style="list-style-type: none"> • Computer Maintenance Technician • Diesel Mechanics • Small Engine Repair • Welding
Region: Gulf Coast		
Central	Sugarland	<ul style="list-style-type: none"> • Truck Driving
Clemens	Brazoria	<ul style="list-style-type: none"> • Bricklaying/Stone Masonry • Computer Maintenance Technician • Construction Carpentry
Darrington	Rosharon	<ul style="list-style-type: none"> • Automotive Specialization (Air Conditioning & Heating) • Heating, Ventilation, Air Conditioning & Refrigeration
Gist State Jail	Beaumont	<ul style="list-style-type: none"> • Business Computer Information Systems I • Technical Introduction to Computer-Aided Drafting
Goodman	Jasper	<ul style="list-style-type: none"> • Business Computer Information Systems II
Hamilton	Bryan	<ul style="list-style-type: none"> • Building Trades I • Introduction to Construction Careers
Henley	Dayton	<ul style="list-style-type: none"> • Business Computer Information Systems I
Hightower	Dayton	<ul style="list-style-type: none"> • Construction Carpentry • Heating, Ventilation, Air Conditioning & Refrigeration
Jester III	Richmond	<ul style="list-style-type: none"> • Business Computer Information Systems II
Lewis	Woodville	<ul style="list-style-type: none"> • Electrical Trades • Heating, Ventilation, Air Conditioning & Refrigeration • Mill & Cabinetmaking
Luther	Navasota	<ul style="list-style-type: none"> • Automotive Specialization (Brakes) • Electrical Trades • Landscape Design, Construction & Maintenance • Welding
Lynchner State Jail	Humble	<ul style="list-style-type: none"> • Business Computer Information Systems I • Technical Introduction to Computer-Aided Drafting
Pack	Navasota	<ul style="list-style-type: none"> • Construction Carpentry • Heating, Ventilation, Air Conditioning & Refrigeration
Plane State Jail	Dayton	<ul style="list-style-type: none"> • Business Computer Information Systems • Construction Carpentry • Landscape Design, Construction & Maintenance
Polunsky	Livingston	<ul style="list-style-type: none"> • Automotive Specialization (Transmission) • Electrical Trades • Heating, Ventilation, Air Conditioning & Refrigeration • Mill & Cabinetmaking
Ramsey I	Rosharon	<ul style="list-style-type: none"> • Automotive Specialization (Air Conditioning & Heating) • Automotive Specialization (Brakes) • Diversified Career Preparation • Mill & Cabinetmaking
Stringfellow	Rosharon	<ul style="list-style-type: none"> • Construction Carpentry • Technical Introduction to Computer-Aided Drafting
Terrell	Rosharon	<ul style="list-style-type: none"> • Diversified Career Preparation • Electrical Trades • Welding

Region: West Texas		
Allred	Wichita Falls	<ul style="list-style-type: none"> • Automotive Specialization (Air Conditioning & Heating) • Bricklaying/Stone Masonry • Small Engine Repair
Clements	Amarillo	<ul style="list-style-type: none"> • Automotive Specialization (Brakes) • Electrical Trades • Horticulture
Dalhart	Dalhart	<ul style="list-style-type: none"> • Construction Carpentry • Piping Trades/Plumbing
Daniel	Snyder	<ul style="list-style-type: none"> • Automotive Specialization (Brakes) • Construction Carpentry
Formby State Jail	Plainview	<ul style="list-style-type: none"> • Construction Carpentry • Electrical Trades
Havins	Brownwood	<ul style="list-style-type: none"> • Business Computer Information Systems I
Jordan	Pampa	<ul style="list-style-type: none"> • Electrical Trades
Lynaugh	Fort Stockton	<ul style="list-style-type: none"> • Automotive Specialization (Air Conditioning & Heating) • Electrical Trades • Piping Trades/Plumbing
Neal	Amarillo	<ul style="list-style-type: none"> • Business Computer Information Systems II • Construction Carpentry • Plant Maintenance
Roach	Childress	<ul style="list-style-type: none"> • Construction Carpentry • Electrical Trades • Heating, Ventilation, Air Conditioning & Refrigeration • Landscape Design, Construction & Maintenance
Robertson	Abilene	<ul style="list-style-type: none"> • Custodial Technician • Heating, Ventilation, Air Conditioning & Refrigeration • Small Engine Repair
Sanchez State Jail	El Paso	<ul style="list-style-type: none"> • Construction Carpentry • Heating, Ventilation, Air Conditioning & Refrigeration
Smith	Lamesa	<ul style="list-style-type: none"> • Electrical Trades • Mill & Cabinetmaking • Piping Trades/Plumbing
Wallace	Colorado City	<ul style="list-style-type: none"> • Automotive Specialization (Brakes & Engine Performance) • Construction Carpentry
Ware	Colorado City	<ul style="list-style-type: none"> • Construction Carpentry • Landscape Design, Construction & Maintenance
Wheeler	Plainview	<ul style="list-style-type: none"> • Business Computer Information Systems I
Region: South Texas		
Briscoe	Dilley	<ul style="list-style-type: none"> • Construction Carpentry • Electrical Trades • Landscape Design, Construction & Maintenance
Connally	Kennedy	<ul style="list-style-type: none"> • Construction Carpentry • Piping Trades/Plumbing
Crain	Gatesville	<ul style="list-style-type: none"> • Business Computer Information Systems I • Construction Carpentry • Personal & Family Development

Dominquez State Jail	San Antonio	<ul style="list-style-type: none"> • Computer Maintenance Technician • Technical Introduction to Computer-Aided Drafting <i>Short: Plant Processing (Warehouse Equipment Operations)</i>
Garza East	Beeville	<ul style="list-style-type: none"> • Business Computer Information Systems I
Glossbrenner	San Diego	<ul style="list-style-type: none"> • Business Computer Information Systems I
Halbert	Burnet	<ul style="list-style-type: none"> • Business Computer Information Systems I
Hilltop	Gatesville	<ul style="list-style-type: none"> • Business Image Management & Multimedia • Diversified Career Preparation (Food Service)
Hughes	Gatesville	<ul style="list-style-type: none"> • Custodial Technician • Piping Trades/Plumbing
Lopez State Jail	Edinburg	<ul style="list-style-type: none"> • Construction Carpentry • Electrical Trades
McConnell	Beeville	<ul style="list-style-type: none"> • Custodial Technician
Mountain View	Gatesville	<ul style="list-style-type: none"> • Business Computer Information Systems II • Computer Maintenance Technician • Landscape Design, Construction & Maintenance <i>Short Courses</i> <ul style="list-style-type: none"> • VCP-COM and Media Systems-Literacy • VCP-COM and Media Systems-Textbook Formatting • VCP-COM and Media Systems-Tactile
Murray	Gatesville	<ul style="list-style-type: none"> • Custodial Technician
Ney	Hondo	<ul style="list-style-type: none"> • Business Computer Information Systems I
Segovia	Edinburg	<ul style="list-style-type: none"> • Business Computer Information Systems I
Stevenson	Cuero	<ul style="list-style-type: none"> • Electrical Trades • Piping Trades/Plumbing
Torres	Hondo	<ul style="list-style-type: none"> • Electrical Trades • Heating, Ventilation, Air Conditioning & Refrigeration
Travis County State Jail	Austin	<ul style="list-style-type: none"> • Business Computer Information Systems I • Business Image Management & Multimedia • Landscape Design, Construction & Maintenance
Woodman State Jail	Gatesville	<ul style="list-style-type: none"> • Business Computer Information Systems I • Custodial Technician • Painting & Decorating

3.1 Post-Secondary Vocational Enrollment, Security and Program Types

Enrollment in some of the vocational courses is contingent upon the offender’s security level and incarceration offense. Offenders classified as sex offenders are ineligible to enroll in classes that require students to use computers, such as computer-aided drafting or microcomputer programming. Aside from restricting enrollment to specific security levels or incarceration offenses, class enrollment may be guided by the offender’s Educational Achievement scores.

For the 2010-2011 Academic Year, vocational classes for college credit were offered in 22 fields. These classes are divided between classroom training and shop training to immerse students in a realistic work environment. College vocational programs are available in 30 state-operated facilities. WSD also offers college non-credit classes to provide students with a flexible

response to changing industry needs. These programs offer classes in seven different occupational trades and were available in three state-operated facilities during the 2010-2011 academic year. Similar to the credit programs, the non-credit programs are divided between classroom and shop training. Finally, the school district offered a workforce program that focused on specific occupational objectives. These non-credit programs were available in 2 state-operated facilities and are not offered today.

Table 3. Type of Post-Secondary Vocational Courses Offered

2010-2011 College Credit Vocational Courses	
Advanced Baking	Data Processing
Advanced Welding	Drafting
Air Conditioning/Refrigeration	Electrical Technology
Auto Body Repair	Electronics
Auto Mechanics	Food Service Preparation
Cabinet Making	Graphic Arts
Computer Networking	Horticulture
Computer Repair	Masonry
Computer Web Authoring	Office Administration
Construction Carpentry	Truck Driving
Culinary Arts/Hospitality Management	Welding

3.2 Case Description of Ferguson Unit: FY2011-2012

The Ferguson Unit is situated on 5,000 acres of land and offers a variety of vocational and educational opportunities for offenders to learn necessary skills for obtaining and retaining employment after release. The WSD and post-secondary vocational classes offered at the Ferguson Unit include welding, small engine repair, mill and cabinetmaking, computer-aided drafting, culinary arts, data processing, microcomputer application, and electrical trades. All vocational classes meet five days a week, are typically six hours in length, and are designed to teach offenders the basic knowledge necessary for obtaining employment. Offenders are limited to two WSD vocational classes during their incarceration period. Once the offender has successfully completed the vocational course, the offender cannot retake the same course.

Courses cataloged to allow course completion for college credit are taught by instructors employed by the sponsoring college. Currently, only cabinet making and data processing classes apply as college credit for Lee College Associate’s Degree. CTE courses offered by the WSD utilize teachers certified by the Texas Education Agency’s State Board for Educator Certification. WSD teachers also hold industry licenses or certifications related to their field of instruction. The Ferguson Unit offers an additional vocational class that is unique in program design. The Diversified Career Preparation (Food Service) utilizes a classroom component for direct instruction and also provides opportunities for students to work in a commercial kitchen at the Ferguson unit.

The most popular vocational course offered at Ferguson is welding. Welding is a 600 hour course that requires approximately six to seven months to complete. Currently, the welding and cabinetmaking classes are “double-shifted” with one class meeting in the morning and the other in the afternoon. Only 22 students are allowed to enroll in either shift of the welding class.

According to Principal Starns, not only is welding the most popular vocational class offered at Ferguson, but welding jobs are plentiful in Texas which offers the offender a better opportunity for obtaining a job upon release.

3.3 Vocational Programming Literature Review

- ✓ Researchers have also found vocational education programs to successfully reduce recidivism.
- ✓ Completion of a vocational education program demonstrated stronger effects on recidivism as compared to participation alone.

Finding a solution to the ‘revolving door’ of the correctional system is a goal of researchers and practitioners alike. The high rate of individuals returning to jail or prison subsequent to their release is disconcerting given the totality of resources supporting deterrent and rehabilitative efforts (see Levine, 2009). Vocational education is one branch under the wide umbrella of correctional education programs that has held promise in reducing recidivism and increasing positive post-release opportunities for offenders. The fundamental goal of vocational education programs is to support a significant reduction in recidivism.

In the state of Texas during the 2010-2011 school year, 34 different occupational trades at 69 state facilities were made available to offenders. These programs combine classroom and technical training in order to provide students with skills needed for post-release success. Additionally, the WSD vocational programs are designed to provide offenders with two types of certification upon successful completion of the program. Through partnerships with certification and licensing agencies, WSD provides training and certifications that meet business and industry standards. CTE students can earn certificates of achievement from WSD and industry certificates from various certifying agencies. By offering industry certifications, WSD maintains communication and/or accreditation status with the various certifying entities. This also helps WSD keep in touch with potential employment opportunities for ex-offenders. In the 2010-2011 academic school year, 11,199 offenders participated in vocational education with 5,786 vocational certificates issued and 5,835 industry certificates awarded (Windham School District, 2011). With such high demand and participation it is of great interest as to whether these programs are performing well and effectively.

Meta-analytic approaches to reviewing existing literature have demonstrated that vocational education works to reduce recidivism. Although Bouffard, MacKenzie, and Hickman (2000) found both effective and non-effective vocational education programs, the authors were able to conclude that vocational education is successful in reducing offender recidivism when a proper methodological approach is utilized. Other researchers have also found vocational education programs to successfully reduce recidivism (Flinchum et al., 2006; Gordon & Weldon, 2003). Additionally, completion of a vocational education program demonstrated stronger effects on recidivism as compared to participation alone (Hull, Stewart, Brown, Jobe, & McCullen, 2000).

As noted, prior literature has found decreased recidivism levels for offenders who participate in and complete vocational education. Unfortunately, this body of research is not

without challenges and conflicting findings. Some research has failed to detect statistically significant differences in recidivism among offenders who participated in vocational education as compared with other offenders who did not complete this type of education (Visher, Winterfield, & Coggeshall, 2005). Additionally, Brewster and Sharp (2002) found a decreased time to recidivate for participants of vocational education, despite an overall finding that correctional education did lead to lower levels of recidivism rates. That is, while correctional education participants were less likely to recidivate, among those offenders who did recidivate, vocational education participants did so quickest. Findings such as these necessitate continued examination of the effects of vocational education on offender recidivism. Specifically whether the effects of vocational education programming on recidivism are impacted by the total amount of exposure to vocational programming, and whether factors beyond recidivism, such as wage levels, are influenced by participation in this type of vocational education programming.

3.3.5 Vocational Education and Employment

- ✓ Researchers have found that individuals who obtain meaningful, quality employment upon release have lower recidivism rates than those who obtain employment of a lesser quality.

In addition to reduced levels of recidivism, success of offenders who participate in vocational education programs can be defined in terms of various employment related outcomes. While an offender's success is typically equated to an offender's ability to abstain from returning to the criminal justice system (whether through re-arrest, reconviction, or re-incarceration), vocational education also aims to support offenders in their development of an improved means of employment upon release. Given the number of mediating factors that lead to successful reentry, it is not surprising that participation in vocational education would be one such factor. Researchers have found that individuals who obtain meaningful, quality employment upon release have lower recidivism rates than those who obtain employment of a lesser quality (Uggen & Staff, 2001). For this reason, success can also be detected in a released offender's ability to obtain employment, find employment that is more meaningful than would otherwise be available, and earn higher wages (Jenkins, Steurer, & Pendry, 1995). Wilson and colleagues (2000) examined the success of vocational education from this perspective. After controlling for methodological rigor of the studies examined, the authors found vocational education programs led to increased employment rates for vocational education participants.

3.3.6 Vocational Education and Institutional Misconduct

Although post-release results of correctional education are important, positive effects of vocational education programming may occur during an offender's incarceration period. Specifically, institutional misconduct may be reduced when offenders have incentive to participate in correctional education programs. Lahm (2009) demonstrated that institutional misconduct for offenders participating in post-secondary correctional education programs, including vocational programming, was lower than for offenders participating in other types of correctional education programs. This finding supported earlier research efforts that reported

offenders participating in vocational education are less likely to participate in offender misconduct (Flanagan, 1983, Gerber & Fritsch, 1995; Saylor & Gaes, 1992).

3.3.7 Conclusions

Numerous methodological issues stemming from data collection methods plague correctional education research, ultimately affecting its validity (Duguid, Hawkey, & Pawson, 1996). Lichtenberger and Ogle (2006) assert that outcome measures often vary by source, sources are often incomplete, and merging data sources is simply difficult without adequate identifying information and without adequate funds to attempt follow-up interviewing. As a result, error is introduced into such research. Additionally, issues exist in variable definitions across studies. Recidivism has been defined as re-arrest, reconviction, as well as re-incarceration. Although these three measures vary due to data availability, and research has shown correctional education to reduce all three of these factors (Steuer & Smith, 2003), variation in research conclusions may be a result of such a definitional caveat. Finally, other methodological limitations exist as a result of research designs. Without equal comparison and treatment groups, observed variation may be due to some extraneous factor such as whether participation is voluntary, or variation in motivation to change that may confound the results.

Through literature reviews and meta-analytic techniques, researchers have noted ongoing methodological short-comings, and consequently devised a system to weigh research finding based on the scientific merit of a study. Even after weighing these methodological shortcomings, existing research tends to support the effects of vocational education, and correctional education in general, as part of the ‘what works’ in correctional programming. Future research can benefit from abridging these methodological shortcomings at the outset as well as evaluating various outcome measures that may not be reflected directly in recidivism measures. Since correctional education may transform costly would-be offenders into productive, tax-paying, employed ex-offenders, it is necessary to continue to provide the means by which this transformation may be occurring and continue evaluation to ensure that participants and/or completers are benefitting under the goals set forth by programming.

3.4 Notable Trends in CTE at WSD

As a component of this evaluation, a review of recent Windham School District reports was completed in addition to brief interviews with stakeholders. From these sources, a few highlights from the most recent fiscal report, the 2011 Annual Performance Review were warranted for reiteration in this report as well:

- In the 2010-2011 academic year, 11,199 offenders participated in CTE programs.
- Of participating offenders, 11,000 offenders were full-length CTE course participants, 126 offenders were short-course participants, and 98 offenders were apprenticeship related training participants.
- During the 2010-2011 academic year, 5,786 WSD completion certificates and 5,835 industry certifications were awarded.
- In comparison to the prior academic year, a notable increase in the number of industry certificates awarded was found and attributed to WSD receiving funds to

facilitate industry certification testing and payment. WSD payment for industry certification began in January 2010.

- In comparison to the prior academic year, the notable reduction in the number of students completing apprenticeship programs was attributed to discontinuation of several programs.
- In the 2010-2011 academic year, based on information from the Division of Administrative and Business Services, the funds appropriated per Vocational contact hour was \$2.96.

4 Correctional Based Life-Skills Programs

The Windham School District Changing Habits and Achieving New Goals to Empower Success (CHANGES) is a 60-day pre-release program designed to prepare offenders for successful release into the community setting. Offenders who are within two years of projected release are eligible to participate in the program. Offenders who are notified by parole (FI-3R report) that they will be released from prison upon completion of the CHANGES program are given highest priority for entrance into CHANGES. The program content includes family relationships and parenting, civic and legal responsibilities, victim sensitivity, health maintenance, employability, money management, and other related life skills. The program consists of seven modules with five lessons per module, totaling 35 lessons. The modules include: personal development, healthy relationships, living responsibilities, drug education, living well, putting together a new start, and going home. Although CHANGES addresses many important aspects of offender re-entry, CHANGES II, which was implemented February 26, 2009, has a larger cognitive component than the original CHANGES program. According to WSD administrative staff, the program normally takes approximately four months to complete and targets offenders at the end of their sentence. Teachers determine whether or not the offender exhibited progress in a particular module and whether the offender passed the module. It is important to note that the cohort of offenders in this study was exposed to the original CHANGES curriculum, which does not include the cognitive-based component in the current version of the curriculum.

4.1 Life Skills Programming Literature Review

While life-skills programming is a newer addition to many correctional based programs, life-skills programs have been utilized in various other contexts for some time (Schram & Morash, 2002). For instance, life skills programs have been used to reduce the onset of cigarette smoking in youth populations (Botvin, Eng, & Williams, 1980), increase suicide prevention (LaFromboise & Howard-Pitney, 1995), increase skill acquisition for individuals with severe mental illness (Dilk & Bond, 1996), and reduce adolescent sexual risk behaviors (Magnani et al., 2005). Whereas life-skills programs have been developed for offenders under supervision of the criminal justice system as a whole (see Schram & Morash, 2002 for a list of examples), the importance of life-skills development for incarcerated individuals emerged around the turn of the 21st century. In 2003, the U.S. Department of Education, under the Life Skills for State and Local Prisoners Program, awarded over \$4.7 million to 13 state and county correctional facilities for the development of life-skills programs for offenders (Linton, 2003). While this was not the first or last time the Department of Education awarded funding for correctional based life-skills programs, it was one of the more lucrative awarding periods.

In general, life-skills as they relate to correctional programming refers to “functional skills with general applications in the everyday demands of contemporary life, such skills as the ability to fill out a job application, to read and interpret a bus schedule, or to construct and complete a functional household budget” (Linton, 2005, p. 91). Many correctional based life-skills programs use this definition or one very similar to define life-skills (Bates, 2005; Finn, 1998; Jalazo, 2005; Schwartz, 2005; Scruggs, 2005). Overall, life-skills programs attempt to

address the many needs and skill deficits of offenders, so they are better equipped to successfully reintegrate back to society and remain crime free.

4.1.5 Program Implementation and Components

- ✓ Research has indicated that program intensity and duration of rehabilitation programs are directly related to positive outcomes, including recidivism, for certain offenders.

Correctional based life-skills programs have been implemented in a variety of ways within departments' existing programming structure. Some jurisdictions, for example, have added life skills classes to existing programs (e.g., substance abuse, domestic violence, vocational, and restorative justice programs), where offenders attend their normally assigned program in addition to life-skills classes (Bates, 2005; Schwartz, 2005). Other jurisdictions have developed life skills programs that are separate from all other correctional programming (Jalazo, 2005; Schram & Morash, 2002; Scruggs, 2005). Although many are integrated with other classes, some of these separate life-skills programs are implemented away from the general correctional population by utilizing a therapeutic community approach (Jalazo, 2005).

Life-skills programs include many different components designed to address the deficits experienced by incarcerated individuals. Jurisdictions differ in the number and type of life-skills components offered to offenders; however, all life-skills components address the preexisting needs of incarcerated individuals. Common components of life-skills programs include, but are not limited to, employability skills, money management (e.g., credit and banking), parenting skills, AIDS awareness, communication skills, interpersonal relationship development, stress and anger management, fatherhood classes, family responsibilities, health issues, motor vehicle regulations, social services, and cultural differences (Bates, 2005; Finn, 1998; Jalazo, 2005; Schwartz, 2005). Life-skills programs designed specifically for women address similar issues, including problem solving, stress, anger, money, and time management, self-esteem, negotiation skills, parenting, employability skills, interpersonal skills, behavior awareness, and life management (Schram & Morash, 2002; Scruggs, 2005).

Research has indicated that program intensity and duration of rehabilitation programs are directly related to positive outcomes, including recidivism, for certain offenders (Andrews & Bonta, 2010; Lowenkamp, Latessa, & Holsinger, 2006). Life-skills programs vary by jurisdiction in the amount of time offenders spend in life-skills classes. In one life-skills program designed for women, participants spent three hours a day for at least three days a week over a six month period in life-skills sessions (Schram & Morash, 2002). In another life-skills program designed for women, women spent 12 weeks in life-skills classes, however, the length of time spent per day was not noted (Scruggs, 2005). Another life-skills program offered to adult men, occurred over a nine week period, with program participants attending classes at least eight hours a day for six days a week (Jalazo, 2005), while another program ran three hours a day for four months (Finn, 1998). As can be seen, for the studies that note the length of time spent in life-skills programs, the duration of time varies by jurisdiction, with some offenders spending as little as three hours a day in life-skills programs (Finn, 1998; Schram & Morash, 2002), with other offenders spending full eight hour days in life-skills programs (Jalazo, 2005).

4.1.6 Effectiveness of Life Skills Programs

Little consensus exists regarding the effectiveness of correctional based life-skills programs in reducing recidivism (MacKenzie, 2006). While some programs claim to have a positive impact on participants (Bates, 2005; Jalazo, 2005; Schwartz, 2005; Scruggs, 2005), more rigorous studies find inconclusive results (MacKenzie, 2006; Schram & Morash, 2002). In an early review of the life-skills literature, Gerber and Fritsch (1995) stated that offender participation in correctional education programs in general was associated with positive outcomes including reduced recidivism. The authors noted that existing literature has indicated that many positive outcomes are associated with participation in life-skills programming including more social skills, better adjustment to life post-release, and lower recidivism rates. In contrast however, other authors remain cautious. For example, Jensen and Reed (2006) suggested that results from life-skills evaluations are still inconclusive and it is unknown whether or not life-skills programs are effective at reducing recidivism of offenders. Jensen and Reed's argument was primarily based on the lack of scientific rigor of evaluations that have been conducted on correctional based life-skills programs.

A special issue of the *Journal of Correctional Education* in 2005 contained a series of articles that discussed life-skills programs implemented in various U.S. jurisdictions. Two common threads existed between these programs: (1) all programs received funding from the U.S. Department of Education under the Life Skills for State and Local Prisoners Program, and (2) all programs found a positive impact of the respective life-skills programs on reducing recidivism rates. Since little information was provided on the methodology or statistical techniques utilized in the studies, caution should be taken when considering their conclusions. Specifically, Jalazco (2005) found program graduates had a 13-14 percent lower recidivism level and remained in the community for 25 percent longer as compared to control groups. Schwartz (2005) also noted significantly lower re-arrest rates for violent crimes among life-skills participants as compared to a control group. Bates (2005) indicated almost a 24 percent decrease in recidivism rates of program completers as compared to all offenders booked into the county jail, and an almost 44 percent reduction in recidivism compared to all offenders booked into the county jail and who remained in custody for over 48 hours. Finally, Scruggs (2005) indicated that female offenders who participated in a life-skills program and were released for at least six months had a 21 percent re-arrest rate compared to a 70 percent re-arrest rate in the general population offenders.

Other positive program effects were also noted for the above mentioned studies. For example, in-prison violence for offenders in special cell blocks (i.e., those receiving rehabilitation programming) was reduced as compared to control cellblocks (Schwartz, 2005). Additionally, results indicated that program participants who maintained employment, established credit, or opened a checking or savings account upon release (implemented skills taught as part of the curriculum) were significantly less likely to recidivate compared to those who did not (26.3 percent re-arrest rate for those gainfully employed vs. 38.6 percent re-arrest rate for those not employed; Jalazo, 2005). Furthermore, results from an evaluation of one life-skills program found offenders who participated in the program had an increase in knowledge between pre- and post-testing in various life-skill components, including employment, money management, and parenting (Bates, 2005).

While most life skills programs focus on adult male offenders, researchers and program developers make note of the importance of gender specific life-skills programming in correctional settings (Linton, 2003; Schram & Morash, 2002; Scruggs, 2005). To date, positive effects of life skills programming seems to be most apparent among female life-skills program participants. Schram and Morash (2002) found that 60 days after release, women who participated in the life-skills program were significantly less likely to return to the correctional system (approximately 10 percent) as compared to a control group (approximately 25 percent). Additionally, after comparing pre- and post-test scores, participants in the life-skills program scored higher on a coping with problems scale after completion of the program and participants had “more realistic expectations of their children as a result of participating in the program” (Schram & Morash, 2002, p. 64). Furthermore, an evaluation of a life-skills program implemented at four correctional facilities in Delaware found the recidivism rate for the first cycle of program participants to be 19 percent, while the control group experienced a recidivism rate of 27 percent (Finn, 1998). Two years after release, female participants had a 15 percent recidivism rate (charge or conviction) compared with 51 percent of the comparison group, while male participants had a 23 percent recidivism rate compared with 50 percent of the comparison group (Finn, 1998). Overall, these life-skills programs indicate positive results, with significantly reduced recidivism rates when compared to control groups.

More comprehensive meta-analytical techniques have been conducted on life-skills programs as well but given the relatively weak methodological rigor, authors have also concluded that study results must be interpreted cautiously. As part of a report to the U.S. Congress, MacKenzie (2000, 2006) and her colleagues conducted a meta-analysis of four life-skills programs (Melton & Pennel, 1998; Miller, 1995; 1997; Ross, Fabiano, & Ewles, 1988). Only two of the programs (Melton & Pennel, 1998; Miller, 1997) utilized statistical tests and “neither reported significant differences in recidivism between participants and control groups” (MacKenzie, 2006, p. 77). MacKenzie (2006) noted that participants in the life-skills programs generally had lower recidivism rates than comparison groups; however, because half the studies did not utilize statistical tests, MacKenzie (2006) states there is “insufficient evidence” (p. 77) to determine whether life-skills programs are effective in reducing recidivism.

4.1.7 Conclusions

Life-skills programs have become increasingly common within U.S. correctional facilities (Phelps, 2011). In 1995, 65 percent of correctional facilities reported having life-skills and community adjustment programs and by 2005, the percentage of correctional facilities with life-skills and community adjustment programs had grown to 79 percent (Phelps, 2011). This increase came at a time when policy makers, correctional administrators, and researchers began emphasizing the need for successful reentry of offenders back to the community and the deficits returning offenders possess (MacKenzie, 2006; Phelps, 2011). Results regarding the effectiveness of life-skills programs at reducing recidivism and producing other positive outcomes are mixed and overwhelmingly inconclusive due to methodological limitations (Jensen & Reed, 2006; MacKenzie, 2006). Although some studies have found significant reductions in recidivism rates and other outcomes (e.g., in-prison violence) for individuals who participated in correctional based life-skills programs when compared to control or comparison groups (Bates, 2005; Finn, 1998; Jalazo, 2005; Schram & Morash, 2002; Schwartz, 2005; Scruggs, 2005), while

literature reviews and meta-analyses have deemed evidence regarding life-skills programs to be inconclusive (Jensen & Reed, 2006; MacKenzie, 2006). In sum, additional methodologically sound research, utilizing experimental or quasi-experimental designs, should ideally be conducted before conclusions can be made regarding the effectiveness of correctional based life-skills programs.

4.2 Notable Trends in the WSD CHANGES Pre-release program

As a component of this evaluation, a review of recent Windham School District reports was completed in addition to brief interviews with stakeholders. From these sources, a few highlights from the most recent fiscal report, the 2010 Annual Performance Review were warranted for reiteration in this report as well:

- ✓ In the most recent School Year 2010-2011, a total of 26,735 offenders participated in the CHANGES II pre-release program.

5 Cognitive-Behavioral Correctional Programming

The Windham School District Cognitive Intervention Program is a 60-day program offered at 79 different facilities for the 2010-2011 Academic Year that teaches students to “meet their needs without trespassing on the rights of others.” The program allows for participant entry at any point during the course of the curriculum, thereby allowing students who are further along in the program to serve as mentors and role models to incoming participants. The program utilizes an internally developed cognitive-based curriculum, which combines teaching and classroom exercises to help offenders strengthen their problem-solving skills, develop accountability and responsibility, manage anger and impulsive behavior, overcome criminal thinking, create positive attitudes and beliefs, and set goals. The program emphasizes class discussions and role-playing exercises to assist offenders in critically reviewing past harmful behaviors and developing methods to control such behaviors as well as implement pro-social actions in the future. The program emphasis is on changing maladaptive thinking patterns which precipitate antisocial behavior into more adaptive and appropriate cognitions. The program is designed to decrease recidivism rates, as well as improve institutional behavior. The cognitive intervention program utilizes the Criminal Sentiments Scale for pre- and post-assessments of criminal thinking among participants.

The cognitive intervention program accepts male and female participants who have committed either a violent or nonviolent offense such as drug-related offenses, theft, burglary, assault, robbery, sex offenses, and homicide. In other words, participants are not screened based on the nature of their offense alone (i.e., violent or nonviolent) resulting in a waiting list of individuals who voluntarily wish to participate in the program. Offenders may be referred to the cognitive intervention program for a variety of reasons, one of which is a pattern of disruptive behavior. In addition, referral may be made by WSD staff members, including teachers, counselors, or TDCJ personnel.

5.1 Cognitive Behavioral Treatment Literature Review

- ✓ Cognitive-behavioral treatment is well-established as an effective method for adjusting maladaptive thinking and producing positive behavioral outcomes.

Cognitive-behavioral treatment is well-established as an effective method for adjusting maladaptive thinking and producing positive behavioral outcomes (Beck & Weishaar, 2008). It is the predominant therapeutic approach within psychology, and its utility for a range of mental illness and behavioral problems has led to its application in several contexts (Butler, Chapman, Forman, & Beck, 2006). Indeed, cognitive-behavioral programming is among the most common approaches within the correctional system for changing offenders' criminal thinking and ultimately reducing recidivism (MacKenzie, 2006). To date, cognitive-behavioral interventions have demonstrated considerable success in decreasing recidivism rates among offenders, and there is evidence to support its continued use among incarcerated populations (Allen, MacKenzie, & Hickman, 2001).

This section describes the goals and methods of cognitive-behavioral treatment, particularly as it is used with incarcerated individuals. Predominant cognitive-behavioral approaches are described, including Moral Reconciliation Therapy (MRT) and Reasoning and Rehabilitation (R&R) programming. Individual studies examining the efficacy of cognitive-behavioral interventions in reducing recidivism among offenders are reviewed, with a specific focus on studies including both treatment and comparison groups. Then, the utility of cognitive-behavioral treatment in decreasing institutional misconduct is explored. A review of recent meta-analyses on the effectiveness of cognitive-behavioral correctional programming follows, and implications are detailed. Finally, directions for future research are discussed.

5.1.5 Cognitive-Behavioral Treatments

Cognitive-behavioral treatments target an individual's maladaptive cognitions or thought patterns in order to change the problematic behavior associated with these thoughts (Dobson, 2001). It is based on the assumption that individuals respond to their physical and social environment according to their perceptions and interpretations of events (Beck & Weishaar, 2008). It follows that, if a person has a maladaptive pattern of thinking or tends toward dysfunctional interpretation; their behavioral responses will be accordingly impaired. Thus, cognitive intervention is designed to guide individuals in identifying their misperceptions and develop more positive ways of thinking about themselves and life situations (Beck & Weishaar, 2008).

Within correctional institutions, the primary goal of cognitive-behavioral programs is reducing rates of recidivism. Thus, programs must address cognitions that precipitate criminal behavior. Research suggests offenders share patterns of thinking less commonly seen in noncriminal populations, such as antisocial attitudes, that strongly predict antisocial behavior and prison misconduct (Gendreau, Goggin, & Law, 1997; Gendreau, Little, & Goggin, 1996). Other thinking styles shown to be associated with criminality among offenders include excusing, rationalizing, and externalizing blame for the negative consequences of one's actions, as well as feelings of entitlement, need for power and control, and a sense of impunity (Walters, 2003).

Studies also indicate that offenders often have weak critical thinking abilities and fail to recognize or acknowledge the aversive effects of their behavior (Walters, 1995).

Several variations of cognitive-behavioral treatments have been developed to address the diverse needs of correctional populations. These include cognitive restructuring, coping skills training, problem-solving and reasoning, and moral development (MacKenzie, 2006). Each addresses criminal behavior through the adjustment of criminal thought processes, although some include components of adaptive coping skills development and morality building (MacKenzie, 2006). While many programs involve a blend of these approaches, Moral Reconciliation Therapy (MRT) and Reasoning and Rehabilitation (R&R) are predominant in correctional institutions in the United States (Armstrong, 2004; Wilson, Bouffard, & MacKenzie, 2005).

Moral Reconciliation Therapy was developed by Little and Robinson in 1988. It is designed to improve behavior by addressing offenders' deficits in moral development, with the assumption that individuals with higher moral development are more capable of abstract thinking and perspective-taking, and that persons with greater sense of identity are more functional and satisfied with life (Little & Robinson, 1988). In implementation, however, MRT does not focus on developing moral beliefs specifically, but instead encourages appropriate goals and values, as well as the analysis of negative life experiences and behaviors contributing to these experiences, in order to foster more pro-social behaviors and positive outcomes (Little & Robinson, 1988).

Similar to MRT, Reasoning and Rehabilitation programs also suppose that criminal thinking precludes criminal behavior. Developed by Ross and Fabiano in 1985, the R&R program targets offenders' cognitive delays, believed responsible for impairments in critical and social reasoning, coping skills, and empathy (MacKenzie, 2006). R&R presumes that offenders' maladaptive thinking also leads to impulsive tendencies and antisocial beliefs and behaviors (Ross & Fabiano, 1985). Consequently, R&R works to increase offenders' critical thinking and problem solving skills by thinking before acting, considering the impact of their behavior on others, and developing alternative responses to interpersonal and social discord (MacKenzie, 2006).

Despite small differences in theory and implementation among cognitive-behavioral programming, such interventions all endeavor to change behavior through adjustments in maladaptive or criminal thinking. Most programs are administered in a group setting with a small number of participants, often between six and eight (MacKenzie, 2006). Since the curricula of cognitive behavioral interventions are typically standardized for similar implementation across groups, such programs can be facilitated by a range of individuals with adequate training (MacKenzie, 2006). This is particularly important in correctional settings, which often lack the funds necessary to hire psychologists or other specialized mental health providers full-time. Some programs, such as R&R, were subsequently designed for potential administration by correctional officers or other prison personnel (MacKenzie, 2006). Strategies utilized in cognitive-behavioral treatments often include workbook exercises (Wilson et al., 2005) and role-playing and discussion groups (Ross, Fabiano, & Ewles, 1988). While the length of participation will vary among correctional institutions and according to the type of program utilized, most cognitive-behavioral programs are relatively short-term, typically lasting no longer than twelve weeks (MacKenzie, 2006).

5.1.6 Efficacy of Cognitive-Behavioral Treatment in Corrections

A review of methodologically sound research demonstrates that cognitive-behavioral treatment is, overall, effective in decreasing criminal behavior. Cognitive-behavioral treatment has a long history of success in reducing criminal behavior among offenders. Its efficacy has been demonstrated with juvenile offenders (e.g., Andrews et al., 1990) as well as incarcerated women (Lipsey, Landenberger, & Wilson, 2007). There have been multiple studies of the effectiveness of cognitive treatment programs with offenders exhibiting a range of problematic behavior (e.g., aggression and violence, drug and alcohol use, domestic violence) (MacKenzie, 2006). In addition, several meta-analyses have examined the use of cognitive-behavioral correctional programs in decreasing recidivism, as compared to no treatment or other treatment types. While some studies have found no significant differences in rates of recidivism between those receiving cognitive-behavioral treatment and other participants, a review of methodologically sound research demonstrates that cognitive-behavioral treatment is, overall, effective in decreasing criminal behavior (MacKenzie, 2006).

The utility of cognitive-behavioral treatment programs in reducing recidivism is perhaps best determined through a comparison of cognitive-behavioral program completers and a control or comparison group. In a study by Porporino and Robinson (1995), for example, male federal offenders were randomly assigned to R&R programs and control groups. Although results revealed lower re-incarceration rates for offenders that had completed treatment, the difference between treatment and control groups was not statistically significant in this regard. On the other hand, a subsequent study by Henning and Frueh (1996) found a significant difference in recidivism between a cognitive-behavioral treatment group (50 percent recidivism rate) and a comparison group (70 percent) in a sample of male offenders. This is consistent with results from Godwin, Stone, and Hambrock's (1995) evaluation of moral recondition treatment with male prisoners in Florida. Godwin and colleagues determined that participants in the MRT program had significantly lower rates of recidivism than did a comparison group, although findings must be interpreted with caution given the lack of random assignment or matching between groups in the study.

Two additional studies were conducted with the same sample of felony offenders who had either participated in MRT while incarcerated or were unable to participate due to lack of space (Little, Robinson, & Burnette, 1994; Little, Robinson, Burnette, & Swan, 1996). Findings suggested that MRT was effective in reducing recidivism among participants, as individuals who had received MRT had significantly lower re-arrest and re-incarceration rates than did the control group at five and seven year follow-ups. While the MRT group maintained lower re-arrest rates at seven years, the difference did not remain statistically significant. Similar to the study by Godwin et al. (1995), however, the aforementioned studies did not ensure that the treatment and control groups were statistically equivalent, nor were participants randomly assigned.

5.1.7 Cognitive-Behavioral Programs and Institutional Behavior

Although the reduction of recidivism rates is a primary focus among correctional programs, research indicates that cognitive-behavioral treatment can function to decrease problematic institutional behavior as well. For instance, Baro (1999) examined the effects of a cognitive restructuring program on the number of disciplinary infractions committed by adult male offenders in Michigan. Dependent variables included assaults (i.e., assault and battery on another prisoner, staff member, or other person), disobeying a direct order, the total number of major misconducts (i.e., sum of all major rule violations), days of detention (i.e., isolation), days lost, and transfers to high-security prisons.

Individuals who had participated in the program longer (i.e., at least six months) were significantly less likely to disobey direct orders or assault others than those who had been in the program less than six months or were involved in other self-help programming. More specifically, more than half (59 percent and 61 percent) of offenders in cognitive restructuring did not disobey a direct order in the follow-up period compared to only 34 percent of those in the other self-help group. With regard to assaults, only 12 percent of those who had participated in six-or-more months of cognitive restructuring committed an assault on another person during the follow-up year. Conversely, 25 percent of participants in other forms of self-help committed at least one assault during the follow-up period. There were, however, no significant differences between groups regarding the total number of major misconducts.

More recently, French and Gendreau (2006) conducted a meta-analysis of 68 studies to explore the effectiveness of correctional treatment programs, including behavior modification and cognitive intervention approaches, in reducing institutional misconduct. Results of the meta-analysis suggested that prison treatment programs decrease incidence of institutional misbehavior. Moreover, they found that offenders with lower levels of misconduct also had lower recidivism rates. Interestingly, French and Gendreau (2006) found programs that had greater therapeutic integrity and addressed more of participants' criminogenic needs were associated with the strongest effect sizes. This indicates that empirically-based and well-implemented correctional programming is useful in not only reducing criminal behavior among offenders upon release, but also in diminishing the prevalence of institutional misconduct.

5.1.8 Cognitive-Behavioral Treatment Programs and Recidivism

There have been a number of meta-analyses examining the effectiveness of cognitive-behavioral treatments in reducing recidivism. Generally, these meta-analyses provide strong support for the utility of cognitive-behavioral correctional programs in decreasing rates of re-arrest and re-incarceration. It is important, however, to note inconsistencies across meta-analyses in terms of the operationalization of cognitive-behavioral programs and authors' inclusiveness in this regard (Lipsey et al., 2007). Furthermore, systematic reviews of cognitive-behavioral correctional programming include diverse offender types and a range of outcome variables (Lipsey et al., 2007). Although meta-analyses are useful and important to understanding correctional programs and identifying content optimal for such programs, continued research is necessary as methods for cognitive-behavioral treatments with offenders evolve.

To date, meta-analyses have demonstrated that cognitive-behavioral treatments for offenders are effective in reducing criminal thinking and behavior. In a meta-analysis by Pearson, Lipton, Cleland, and Yee (2002), for example, purely behavioral programs (e.g., involving token economies) were compared with cognitive-behavioral programs in reducing recidivism among adults and juveniles in prison, jail, probation, and parole settings. Results indicated that exposure to treatment of either kind was effective in reducing recidivism; however, participants of cognitive-behavioral programs were less likely to engage in criminal behavior than those in programs addressing behavior without a cognitive component.

Two meta-analyses in 2005 found similar results. Wilson and colleagues (2005) examined 20 structured, group-oriented cognitive-behavioral programs for offenders and found that cognitive-behavioral treatments, in several variations, were effective in reducing criminal behavior. Specifically, they found support for the utility of MRT, and R& R, and a range of cognitive restructuring approaches in decreasing recidivism. Landenberger and Lipsey (2005) also reviewed 58 experimental and quasi-experimental studies of the efficacy of cognitive-behavioral therapy in reducing recidivism among juvenile and adult offenders. Moreover, they examined moderators to distinguish factors associated with effective treatment.

Findings revealed that participation in cognitive-behavioral therapy decreased rates of recidivism by 25 percent and, furthermore, that among the most “effective configurations” of cognitive-behavioral therapy, recidivism rates were more than 50 percent less for treatment group participants (Landenberger & Lipsey, 2005, p. 470). Landenberger and Lipsey (2005) also identified the following factors as producing the greatest reductions in recidivism: (a) the treatment of high-risk offenders, (b) high quality treatment implementation, and (c) cognitive-behavioral programs that included anger management and interpersonal problem-solving components (p. 451).

These findings have implementations for both practice and research regarding cognitive-behavioral correctional programs. Results suggest that cognitive-behavioral programs are, overall, effective in reducing rates of recidivism among offenders. Cognitive-behavioral treatments may be most beneficial, however, when used with offenders at high risk for recidivism, in a way that includes intensive, quality administration and targets multiple criminogenic needs (e.g., antisocial values and beliefs). Studies also reveal program components that diminish the effects of cognitive-behavioral intervention and, thus, might be excluded from future implementations of cognitive-behavioral programs in correctional institutions. Landenberger and Lipsey (2005) found, for example, that components addressing victim impact and behavior modification decreased the efficacy of treatment. Conversely, they identified anger control and interpersonal problem solving modules as enhancing treatment effects, illustrating the utility of integrating these components in current and future programs.

5.1.9 Future Research Considerations

Despite inconsistencies in technique, positive and large recidivism effects are generally present in systematic reviews of cognitive-behavioral treatment programs with incarcerated offenders. A review of meta-analyses and current literature reveals that cognitive-behavioral programs, in multiple forms, are effective in reducing criminal behavior among adults and juveniles, giving credence to the theory that criminal and maladaptive thinking patterns prelude

antisocial behavior. While findings provide implications for adjusting and developing cognitive-behavioral programs in correctional settings, many of these suggestions remain absent from current correctional practice (Lipsey & Cullen, 2007). Thus, if cognitive-behavioral programs are to effectively reduce recidivism, the breach between research and practice must be diminished.

There remains, however, a considerable need for further research about cognitive-behavioral correctional programs, in order to further identify the components of effective treatment. Without more specific detail in terms of program components and administration, it is difficult to recognize which strategies are most successful with a range of offenders in diverse settings. As some scholars have noted, consistent results regarding the efficacy of cognitive-behavioral approaches demands the question of why it is most successful and in which contexts (Lipsey et al., 2007). Future research should target these issues using sound methodological design (i.e., use of random assignment, statistically equivalent control and comparison groups, and controls for attrition) (MacKenzie, 2006, p. 29).

Decades of research have demonstrated the ineffective, and often detrimental, results of overly punitive responses to offenders (see MacKenzie, 2006). In terms of rehabilitation strategies, cognitive-behavioral approaches show promise with offenders varying in age, gender, and offense type. Thus, there is considerable evidence in support of cognitive-behavioral treatment in correctional settings, in order to reduce misbehavior in prison and criminal behavior in the community. In practice, it is important that correctional institutions implement well-designed cognitive-behavioral programs informed by current empirical literature. Indeed, greater use of evidence-based correctional programs allows for the evaluation of these interventions and furthers understanding about cognitive-behavioral treatment and its optimal design.

5.2 Notable Trends in the WSD Cognitive Intervention Program

As a component of this evaluation, a review of recent Windham School District reports was completed in addition to brief interviews with stakeholders. From these sources, a few highlights from the most recent fiscal report, the 2011 Annual Performance Review were warranted for reiteration in this report as well:

- ✓ In the most recent 2010-2011 academic year, a total of 16,522 offenders participated in the Cognitive Intervention Program.

6 Description of Study Data

The composition of the targeted offender population studied as part of this evaluation varied depending upon the outcome examined. In aspects that considered a follow up period, the FY2009 release cohort was used as the point of demarcation to allow for a sufficient follow up period. In assessing the level of WSD services provided to offenders, a broad approach was taken to include any exposure to WSD programs for an offender. To contextualize differences in the proportion of the population served, of the 72,218 offenders released in FY2009, 51,058 offenders participated in some form of Windham School District correctional education programming prior to their release. Each section of the outcomes study discusses the specific offender population utilized in its assessment to allow for replicability and comparison to earlier WSD evaluations completed.

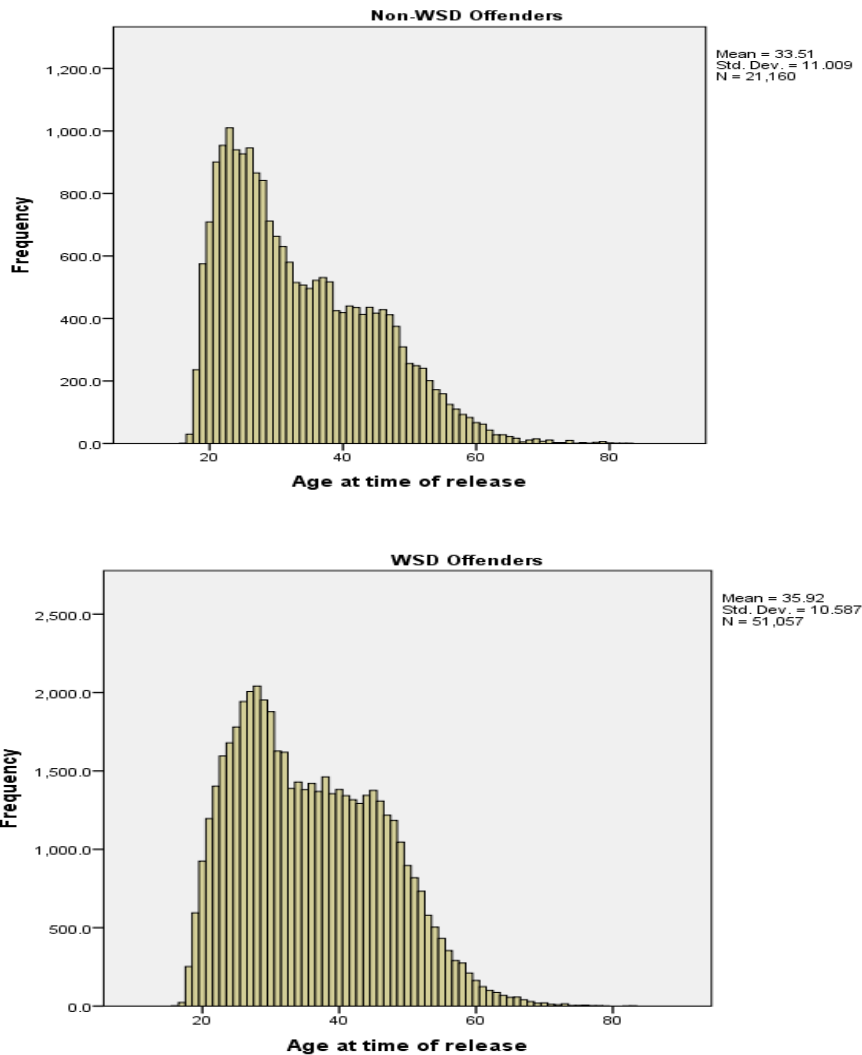
6.1 FY 2009 Release Cohort Demographic Characteristics

This section begins with the description of a typical fiscal year offender release cohort – FY2009 – to identify compositional differences between offenders who have participated in WSD programs and those offenders who did not participate in WSD programs. A typical offender released in FY2009 was a thirty-five year old male of either an African American or White racial background. As indicated in Table 4, in considering differences between offenders who participated in WSD programming (hereafter “WSD offenders”) and offenders who did not participate in WSD (hereafter “non-WSD offenders”) results demonstrated that the overall composition of WSD offenders included a greater proportion of African American offenders and fewer White or Hispanic offenders than non-WSD offenders. Similar percentages of female WSD offenders also comprised non-WSD offenders. The average age of WSD offenders was higher (mean difference of two years) as compared to non-WSD offenders. However, when examined by individual correctional education program, it is evident that the literacy program has disproportionately younger offenders with lower IQ levels. Further, as indicated in Figure 1, a greater proportion of WSD offenders were aged 40+ as compared to non-WSD offenders, resulting in a higher overall average age for WSD offenders.

Table 4. Comparison of demographic characteristics between the total FY2009 release cohort, WSD offenders, and Non-WSD offenders.

	FY2009 Offender Release Cohort		
	FY2009 Cohort Total	WSD Offenders	Non-WSD Offenders
Gender (% male)	84.8	84.9	84.4
Race			
African American	35.4	37.6	30.1
White	33.3	32.6	35.0
Hispanic	30.9	29.4	34.3
Other	.5	.4	.6
Age at Release <u>M</u> , (SD)	35.2 (10.8)	35.9 (10.6)	33.5 (11.0)

Figure 1. Age distribution of WSD offenders vs. non-WSD offenders.



As indicated in Table 5, in considering legal factors related to the two offender groups, a relatively small proportion of the WSD offenders were incarcerated for the first time (39.5%) as compared to non-WSD offenders (75.0%). In assessing the group differences between the offense types that resulted in the incarceration period ending with release in FY2009, Table 5 indicates that WSD offenders were more likely to be convicted of a **person** offense, and less likely to be convicted of a **property** offense, which is the likely explanation for the differences in typical length of incarceration. Both WSD offenders and non-WSD offenders were equally likely to be convicted of a drug or “other” offense. Most interesting is the contrast in the sentence lengths served between the two populations. As evident in the final rows of Table 5, WSD offenders are serving significantly longer sentences as compared to Non-WSD offenders. Almost three quarters of the non-WSD offenders are serving two years or less as compared to approximately thirty-nine percent of WSD offenders with that same sentence. Existing literature demonstrates that a greater history of prior incarceration and longer periods of incarceration (i.e., sentence length) are both important risk factors in the likelihood of future offending.

Table 5. Legal Characteristics, WSD offenders vs. non-WSD offenders, 2009.

	Total FY2009 release cohort	WSD offenders	Non-WSD offenders
Number of Prior Incarcerations (%)			
0 (current offense is 1 st incarceration)	49.9	39.5	75.0
1	21.8	24.2	16.1
2	11.9	14.7	5.1
3	6.9	8.9	2.2
4 or more	9.5	12.7	1.6
Incarceration Offense (%)			
Person	20.1	22.9	13.3
Property	28.2	26.7	32.0
Drug	42.2	41.0	45.1
Other	9.5	9.4	9.6
Length of Sentence for Current Offense			
6 months or less	12.6	8.6	22.3
>6 months to 1 year	15.3	12.5	22.0
>1 year to 2 years	20.1	17.7	25.9
>2 years to 5 years	17.5	19	14.0
>5 years to 10 years	18.6	21.8	10.6
>10 years	15.9	20.4	5.2

Results from demographic characteristic comparisons in the FY2009 offender release cohort indicate that WSD offenders are distinct in their population composition regarding age distribution, history of incarceration, length of sentence and offense type. To contextualize this report, it is important to recognize in line with their stated priorities, WSD serves a higher risk offender population as compared to non-WSD offenders. These factors must be considered in subsequent analyses and in future research or outcome evaluations within WSD.

Applicable for only WSD offenders in the FY2009 release cohort, Table 6 displays the average hours of WSD program participation for offenders released during FY2009. Similar to the data presented in this report that examines a broader time frame, WSD offenders who participated in Special Education programs on average received the greatest program exposure (902 hours) followed by Vocational Education (596 hours), English as a Second Language programs (574 hours), Adult Basic Education (525 hours), and College Vocational programs (446 hours). It should be noted that significant variation in program exposure existed as indicated by the minimum and maximum number of hours displayed in the table below. Given the significant variation between offenders in program exposure, the median (most common) number of hours of program participation is also presented.

Table 6. WSD Offender Participation in WSD programs, FY2009 Release Cohort

	N	Minimum	Maximum	Mean	Median	Std. Deviation
Adult Basic Education	33338	.00	9138	525.4	270	725.5
Vocational	14893	.00	3844	596.1	562	449.8
Cognitive Intervention	14504	.00	1155	159.6	180	89.0
Pre-Release CHANGES	32904	.00	2198	194.4	180	114.2
Special Education	1400	.00	8018	902.7	485	1113.1
College Academic	3250	.00	2988	333.0	183	127.9
College Vocational	4058	.00	2541	445.6	485	356.8
ESL	745	.00	7889	574.0	316	801.0

7. Findings

This evaluation considered multiple aspects of WSD correctional education programming. First, the extent to which WSD offenders participated in programming was assessed. The importance here was to determine the amount of programming, discussed as program exposure, delivered both overall and to a typical participant in each WSD correctional education program. While variation between WSD offenders would be expected for a number of reasons, the first section of the findings will provide a general overview from a service delivery perspective on services received.

Next, this report examines the impact of WSD program delivery on offender outcomes, specifically the advancement of educational achievement levels. While the adult basic education programs focus on numerous skills, advances in literacy levels are specifically highlighted to be consistent within the broader literature, and to allow comparison with prior evaluations of the WSD (see for example the Criminal Justice Policy Council Report publically available at: http://www.lbb.state.tx.us/PubSafety_CrimJustice/PubSafety_CrimJustice.htm).

Finally, this report presents the results of the impact of participation in WSD programs on average quarterly wages as reported to the Texas Workforce Commission for those offenders employed subsequent to their FY2009 release.

7.1 WSD Correctional Education Program Participation Level

In the first section that follows³, WSD program data from January 1, 2007 through December 31, 2011 were used to examine the extent of service provision to WSD offenders during this period with regard to:

1. The level of program exposure for offenders participating in WSD correctional education programs.
2. An assessment of the extent to which offenders participated in single versus multiple correctional education programs, including a determination of common combinations.

7.2 WSD Correctional Education Program Exposure

Offenders varied significantly in their sentence lengths. As a result, offenders also varied in the extent to which they engaged in correctional education programming. Since the level of *program exposure* may have differentially occurred for offenders, it may have a distinct impact on outcomes. We considered both whether offenders participated in a particular WSD program and the total amount of program exposure during the stated period. *Program exposure*, as calculated here, accounts for the *concentration* of any particular correctional education program during confinement by considering the *proportion* of confinement an offender was engaged in a correctional education program: the total hours of program attendance were divided by the total

³ An important caveat that should be recognized within this section of the report is that some of the current WSD programs have undergone program modifications. Thus, the data and findings associated with the sampling time frame of offenders (2007-2011) may vary over time within this study and in comparison to program offerings in 2012-2013. One example is that significant curricular changes occurred in the CHANGES program in 2009.

days incarcerated. In Table 7, program exposure values are displayed for each correctional education program between January 1, 2007 and December 31, 2011. Higher values indicate a greater proportion of the offender's sentence spent in correctional education programming.

- ✓ **WSD Offenders spent on average 4 ½ hours each week engaged in correctional education programming throughout their entire incarceration.**

In row 2, column 2 of Table 7, total program exposure is .6201. On average, offenders participating in WSD spent .62 of an hour, or 37 minutes, in correctional programming for each day incarcerated. This value considers the totality of an offender's incarceration(s), which for 43.2 percent of the offenders incarcerated during this period included multiple instances of incarceration and all correctional education programs. When offenders had more than one period of incarceration during this five year period, both the total number of program hours, as well as the total number of days incarcerated was combined.

Table 7. Comparison of Program Exposure and Total Hours of Program Attendance across Correctional Education Programs.

Program Type	Program Exposure	Total Hours (Average)	Participants between 1/1/2007 and 12/31/2011
Total Attendance in All Programs	.6201	860.0	
Attendance in English as a Second Language	.4529	678.5	3,789
Attendance in Academic Program	.4178	592.1	147,424
Attendance in Vocational Program	.3516	602.8	69,477
Attendance in Special Education Program	.2914	1085.8	6,942
Attendance in CHANGES Prerelease program	.2236	197.6	132,889
Attendance in College Vocational Program	.1911	478.5	22,172
Attendance in Cognitive Intervention Program	.1423	172.6	86,364
Attendance in College Academic Program	.0458	134.0	20,168

Note: The average time incarcerated for offenders during this five year period was 1787 days, or 59.5 months.

- ✓ **WSD Offenders were typically involved in multiple forms of educational programming.**

No individual correctional education program exposure level in Column 2, rows 3 to 10 is close to the .62 value. This finding is notable because it shows that offenders are concurrently or consecutively enrolled in multiple correctional education programs. That is, an offender may have attended both an Academic program as well as the CHANGES pre-release program, either concurrently or consecutively. A weakness of evaluations in correctional education is that program effects are typically considered and consecutive or concurrent enrollment in multiple programs is ignored. Future evaluation efforts should consider the examination of these impacts.

Program exposure was the greatest for offenders participating in the English as a Second Language program followed closely by Academic Programs. More intensive program exposure was also indicated for offenders involved in Vocational programs, Special Education programs, and the CHANGES pre-release program. The concentration of program exposure, as well as total

participation, are important considerations given the existing literature suggesting a minimum threshold of correctional education programming hours exists to affect behavioral changes such as recidivism.

Noted in Table 7, column 3 is the **average total hours of program attendance** for offenders who participated in each program (i.e., if an offender did not participate in a particular program, they were not included in the calculation of the average values). Typically, special education program participants engaged in the greatest number of program hours followed by English as a Second Language program participants, Vocational program participants, and last Academic program participants. Offenders typically participated to a lesser extent in the CHANGES pre-release program (197.6 hours), the Cognitive Intervention program (173 hours), and College Academic programs (134 hours), in part because these latter programs are time-limited, curriculum based programs. For example, the CHANGES pre-release program has a specified curriculum which once completed, signifies the end of participation. College Academic program participation is also limited by the number of college courses that an offender may enroll in during their incarceration.

These findings could aid WSD in developing a benchmark for correctional education program exposure for offenders in the future. It should be recognized that program participation is influenced by academic needs and abilities, institutional behavior and classification, funding, program availability and other factors. WSD staff members may consider the development of appropriate combinations of programs as part of ITP planning with a goal of meeting a minimum threshold of program exposure.

7.3 WSD Multiple Correctional Education Program Exposure

Typically evaluations of correctional education do not consider the extent to which offenders participate in multiple correctional education programs either concurrently or consecutively during their incarceration. For example, an offender may be involved in Academic programming, and as their release draws near concurrently participate in the CHANGES pre-release program. In other instances where programming may be intensive, such as WSD's vocational education programs, an offender may only participate in one particular program. Furthermore, given that more than 43 percent of the offenders in this sampling time frame were incarcerated on more than one occasion, future consideration should be given to program involvement across various periods of incarceration.

This section presents a descriptive assessment of the extent to which program exposure overlap occurred within the same offender. Table 8 displays the percentage of offenders who attended (at any level of program exposure) the correctional education programs that intersect in each row and column of the table. For example, the value in row 2, column 2 indicates that 21 percent of WSD offenders participated in both Academic and Vocational programming while incarcerated.

- ✓ **Most commonly, WSD Offenders participating in either Academic or Vocational programming were also involved in another educational program.**

As indicated in Table 8, the highest percentage of program exposure overlap is between academic programming and programs such as the CHANGES pre-release program (34.4

percent), the Cognitive Intervention program (23.6 percent), or Vocational education (21 percent). The majority of offenders enrolled in adult basic education were *not* enrolled in English as a Second Language (ESL) program, Special Education, or College level programming. Significant program exposure overlap also existed between Vocational programming and the CHANGES pre-release program (19.8 percent), or the Cognitive Intervention program (15.9 percent). To a lesser extent, program exposure overlap exists between Vocational programming and College Academic programming (4.5 percent), or College Vocational programming (4.9 percent). The final area of relatively significant program exposure overlap is between the CHANGES pre-release program and the Cognitive Intervention program (22.2 percent).

Table 8. Percent of WSD Offenders who attended 2 Correctional Education Programs.

Participation Overlap (%)	Vocational	ESL	Special Education	CHANGES	Cognitive Intervention	College Academic	College Vocational
Academic	21.0	0.7	2.8	34.4	23.6	4.8	5.6
Vocational	---	0.2	1.5	19.8	15.9	4.5	4.9
English as Second Language (ESL)	---	---	0.1	0.4	0.3	0.0	0.0
Special Education	---	---	---	1.9	1.4	0.1	0.1
CHANGES Prerelease	---	---	---	---	22.2	4.8	5.9
Cognitive Intervention	---	---	---	---	---	5.0	5.6
College Academic	---	---	---	---	---	---	4.4

In further descriptive analyses, an examination of correctional education program exposure to three or more programs was examined. Some overlap was found with participation in three programs, and only limited overlap with four programs. Table 9 indicates between 10 and 14 percent of the offenders during this incarceration period were exposed to three programs, either concurrently or consecutively, many of whom were involved in both academic and vocational training.

Table 9. Percent of WSD Offenders Incarcerated between 2007 and 2009 who attended 3 Correctional Education Programs.

Correctional Education Program	CHANGES	Vocational	Cognitive Intervention
Academic (ABE) + Cognitive Intervention	14.6	11.8	---
Academic (ABE) + CHANGES	---	14.5	14.6
Vocational + CHANGES	---	---	10.6

- ✓ Future evaluations should compare differences between offenders exposed to a single correctional education program with those exposed to multiple programs.

7.4 Offender-Specific Outcomes: Educational Achievement

This section presents the findings from an assessment of the impact on WSD correctional education program participation on offender educational achievement. For this assessment, researchers selected the FY2009 offender release cohort to examine all WSD offenders who

participated in adult basic education programming. Where appropriate, comparisons were made to offenders incarcerated in a TDCJ facility who were also released in FY2009 but did NOT participate in any type of WSD correctional education programming. Thus, the specific focus of this section is on the educational achievement advances of WSD offenders in adult basic education programs.

Educational achievement was assessed through an examination of grade equivalency levels in reading, math and language. As discussed earlier in this report, as part of the intake process offenders typically are assessed for their educational achievement levels, which results in grade equivalency scores for each area and an overall composite score. For WSD offenders participating in adult basic education programs, these three educational areas are re-assessed a maximum of three times per year, at least six weeks apart. Resulting grade equivalency (GE) scores range from below 1.0 to 12.9, and coincide with grade level and month during the academic year. For example, 3.8 is equivalent to third grade, eighth month of the academic calendar.

To determine the impact of academic program participation, advances in the WSD offender’s grade equivalency level were considered by making a comparison between the highest GE scores attained in reading, math and language and the incoming GE scores for each of these areas as well as the overall composite score. Table 10 displays the average outgoing education levels between WSD offenders and Non-WSD offenders. As noted, three areas of educational achievement are assessed – reading, math and language. Further, a composite score of all three measured is also included. As shown in Table 10, at time of release in FY2009 WSD offenders are significantly more academically prepared in all three subject areas in comparison to Non-WSD offenders.

Table 10. Grade Equivalency: WSD Adult Basic Education Offenders vs. Non-WSD Offenders, FY2009 Release Cohort

Grade Equivalency	WSD Offenders at Intake	WSD Offenders At Release	Non-WSD Offenders Intake/Release
Composite GE	6.58	8.16	7.25
Reading GE	7.35	9.08	8.13
Math GE	6.18	7.78	6.97
Language GE	5.92	8.11	6.80

- ✓ As compared to non-WSD offenders, WSD offenders who participated in adult basic education programs had significantly higher reading, math and language grade equivalency scores as well as overall composite scores upon release in FY2009.

7.4.1 Assessment of Advances in Educational Achievement: Reading Scores

For the purposes of this section of the evaluation, WSD offenders who demonstrated a grade equivalency reading level of 3.9 or lower were labeled “non-readers.” Offenders who demonstrated a reading level that ranged between 4.0 and 5.9 were labeled “readers.” Offenders

who demonstrated a reading level of 6.0 through 8.9 were labeled “literate.” Finally, offenders who demonstrated a reading level of 9.0 or higher were labeled “advanced readers.” The lowest reading score obtained during a reading test given at any one point in time was considered the minimum score which typically was the incoming score or near the time of intake. Maximum reading levels achieved were measured as the highest reading score obtained by WSD offenders during any subsequent reading assessments given to the offender.

- ✓ Significant improvement in reading ability occurred among WSD offenders in the FY2009 release cohort.

Among WSD offenders in the FY2009 release cohort who participated in adult basic education, 41 percent were less than literate in their reading ability at initial assessment. Approximately 19 percent were considered “non-readers” possessing reading skills below a fourth grade level similar to the 18.9 percent of non-WSD offenders. Almost twenty-two percent of WSD offenders were considered “readers” at initial assessment as compared to 18.6 percent of non-WSD offenders. Approximately 26 percent of the WSD offenders released in FY2009 were labeled as “literate” at time of intake as compared to 22.1 percent of non-WSD offenders. Finally, approximately 33 percent of WSD offenders were considered advanced readers at a 9th grade or higher level at intake, as compared to 40.3 percent of non-WSD offenders.

Table 11: Incoming Reading Level, FY2009 Release Cohort, WSD offenders vs. non-WSD offenders

Reading level	WSD Offenders		Non WSD Offenders	
	Frequency	%	Frequency	%
Non-reader	9,134	19.2	2,897	18.9
Reader	10,415	21.9	2,858	18.6
Literate	12,336	25.9	3,396	22.1
Advanced reader	15,667	33.0	6,183	40.3

On average, subsequent to participation in Windham School District programming, offender reading levels significantly improved. Specifically, within the FY2009 release cohort more than 80 percent the population was considered to be “literate” or an “advanced reader” upon release as compared to the 60 percent “literate” or “advanced readers” at intake. Only seven percent of this cohort remained illiterate, although improvements as per grade equivalencies were made among this subgroup. It is assumed that since non-WSD offenders did not engage in educational programming, their reading levels did not change.

Table 12: Highest Achieved Reading Level (Highest reading test score achieved) as compared to initial reading levels, FY2009 Release Cohort, WSD offenders ONLY

Reading level	Frequency	% at Release	Initial Level at Intake
Non-reader	3,380	7.1	19.2
Reader	5,736	12.1	21.9
Literate	12,002	25.2	25.9
Advanced reader	26,444	55.6	33.0

- ✓ Approximately 63% of non-reader offenders among the FY2009 release cohort became “readers,” fully “literate,” or “advanced readers” while incarcerated.

As a result of participation in WSD programs, offenders improved an average of two grade levels in their reading ability. Among offenders who were initially classified as **non-readers**, 63% became **readers**, fully **literate**, or **advanced readers** while incarcerated.

Table 13: Change in group classification: Non-readers (NR) only, FY2009 Release Cohort

Reading level	Frequency	%
No change – Non-reader (NR)	3,380	37
NR to Reader	2,476	27.1
NR to Literate	2,086	22.8
NR to Advanced Readers	1,192	13.1

For offenders who initially possessed some reading ability, significant gains were also made. Specifically, among offenders initially classified as **readers**, 68.7% significantly increased their reading levels to become fully **literate** or advanced **readers** during incarceration. Finally, offenders who were initially literate also improved their reading ability. Of those offenders, who were already literate, 54.1 percent improved their reading levels to become an advanced reader.

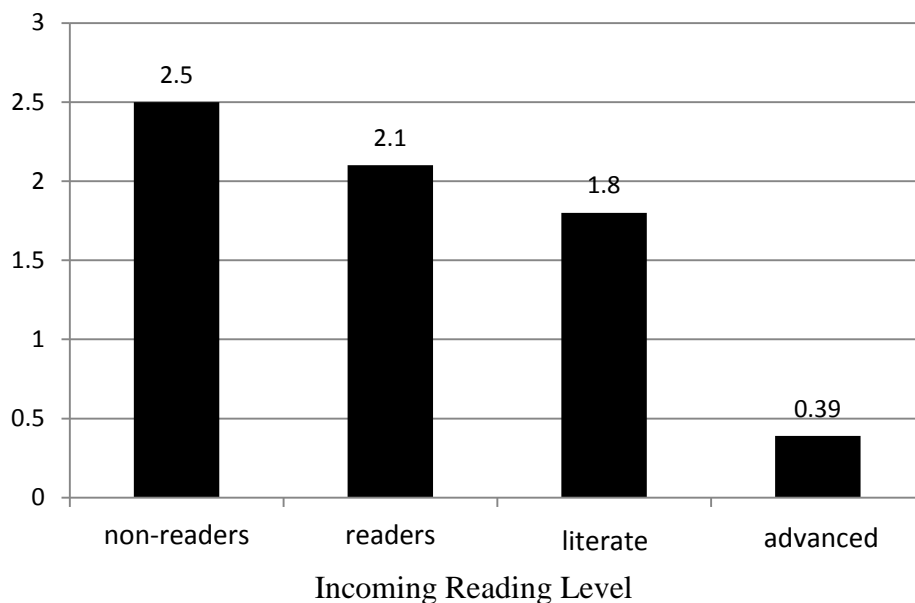
Table 14: Change in group classification: Readers only, FY2009 Release Cohort

	Frequency	%
Readers, no change	3,260	31.3
Readers to Literate	4,250	40.8
Readers to Advanced Readers	2,905	27.9

In examining specific grade level equivalencies in reading ability, Figure 2 indicates the extent of reading level change occurring during incarceration. The horizontal axis of the graph displays the incoming grade level equivalent of the offender’s reading test, with the bars representing the average increase in reading level experienced among offenders with that initial grade level reading equivalency. Offenders with lower reading scores at intake made the largest

gains in reading levels; however, significant grade level improvements in reading scores are demonstrated even among literate offenders.

Figure 2: Gains in grade equivalencies of reading levels among WSD offenders released in FY2009 who participated in WSD correctional education programming, grouped by incoming reading level



7.4.2 Education Program Exposure and Advances in Educational Achievement: Reading Scores

- ✓ The greater the number of adult basic education programming hours experienced, the greater the reading level gains made by offenders in the FY2009 release cohort.

Data from the WSD offenders in the FY2009 release cohort who were incarcerated for the first time and engaged in adult basic education programming were examined across four levels of correctional education program exposure. The aim of this analysis was to determine the minimum level of program exposure required to detect educational gains. Offenders were categorized according to the following exposure levels: [1] <325 hours, [2] 325-749 hours, [3] 750-1074 hours, and [4] >1075 hours. The average advancement in reading grade equivalencies by level of academic program exposure is displayed in Table 15.

A number of findings are evident. First, WSD offenders incarcerated for the first time who had a lower initial reading level as indicated by the grade level equivalency tended to engage in more hours of adult basic education programming. Thus, offenders with high levels of educational needs are accurately matched with higher levels of service. Second, as indicated in the final column of Table 15, the greatest advancements in reading levels coincided with the highest levels of academic program exposure. Stated differently, higher levels of program exposure hours resulted in higher levels of average change in reading scores.

Table 15: Average Reading Scores of Offenders among FY2009 Release Cohort who were incarcerated for the first time, grouped by program exposure hours.

Program Exposure	Average Incoming Score (Reading)	Average Highest Score (Reading)	Average Change (Reading)
<325 hours	7.5	8.7	1.2
325 – 749 hours	6.3	9.0	2.8
750 – 1074 hours	5.5	9.1	3.7
1075 or more hours	4.6	8.9	4.4

7.4.3 Incarceration Length and Advances in Educational Achievement: Reading Scores

The length of time that an offender from the FY2009 release cohort was incarcerated varied. To determine whether gains in reading levels could be made with offenders incarcerated for a relatively short duration, WSD offenders who were incarcerated for less than one year were examined for change in reading group classification.

The following table displays the initial reading group level contrasted with the highest reading level achieved prior to release in FY2009. The numerical content of the table indicated the average number of program exposure hours to adult basic education that occurred for offenders within each category of reading group change. For example, offenders who were initially non-readers and failed to advance to the next reading group, on average only engaged in 155 hours of educational instruction. This level of program exposure was insufficient to affect reading group classification though some gains in skills may have occurred. Educational hours required to affect change in reading group status are indicated by bolded numbers. For example, offenders incarcerated for less than one year who were initially non-readers but engaged in an average of 513 hours of educational programming became readers, based on subsequent reading assessments. Similar gains were made for other groups of offenders with some non-readers advancing to the literate level or advanced level. Additionally, some readers advanced to literate or advanced levels as well in a relatively short period of time.

Table 16: Average number of adult basic education program exposure hours among offenders incarcerated less than 365 days, FY2009 release cohort.

Highest Reading Level Achieved	Initial Reading Level			
	Non-Reader	Reader	Literate	Advanced
Non-reader	155	---	---	
Reader	513	155	---	
Literate	736	507	183	
Advanced	585	631	397	155

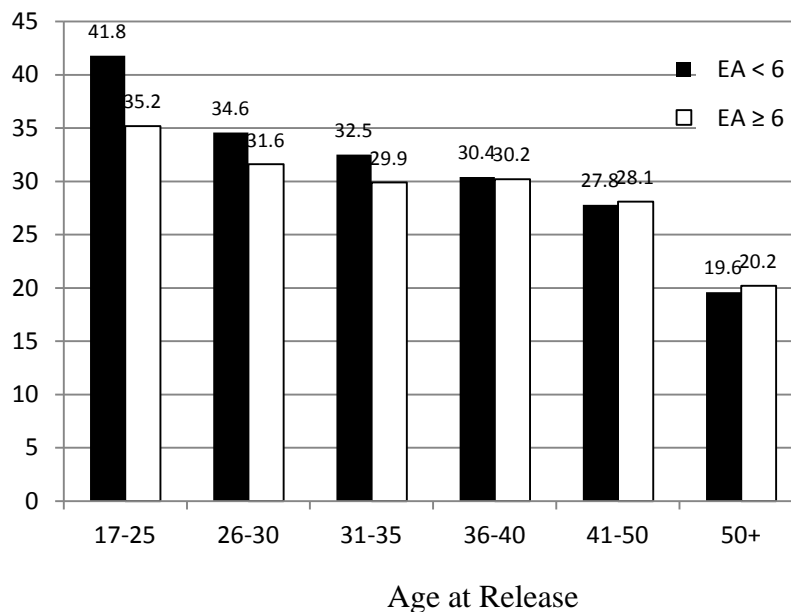
- ✓ Given that WSD offenders are able to participate in up to six hours of education per day, SIGNIFICANT gains in reading ability can be made in 4-6 months even for offenders at the very lowest reading levels.

7.5 Educational Achievement Level as a Recidivism Factor

Age and Educational Achievement Level of First Time Incarcerated Offenders, FY2009 Release Cohort (WSD and non-WSD Offenders)

- ✓ Older offenders are less likely to be re-incarcerated.

Figure 3. Age, Educational Achievement and Re-incarceration Levels, Percent Re-incarcerated within Age Group



- In examining recidivism by the age of offenders at time of release, a clear declining recidivism trend is evident as age at time of release increases. Specifically, of offenders who

were older than 50 years old at time of release demonstrated recidivism rates near 20 percent as compared to the youngest offenders (aged 17 to 25) of whom ranged between 35.2 and 41.8 percent recidivated.

- Age of the offender is a significant contributing factor in the likelihood of offender re-incarceration.
- An analysis of the percentage of offenders within each age group who held an educational achievement level (EA) lower than the 6th grade level demonstrated on average, younger offenders with lower levels of education attained recidivated at higher rates.
- This further establishes that education efforts on younger offenders who have low levels of educational achievement are an important factor in reducing recidivism.

Raising Educational Achievement Levels in both age groups including older WSD Offenders demonstrates reductions in re-incarceration

- Offender age is an important risk factor influencing the likelihood of re-incarceration in addition to low educational achievement levels.
 - Similar trends of re-incarceration for both WSD and non-WSD offenders are evident such that on average younger offenders are re-incarcerated more frequently as compared to older offenders.
 - An important distinction between groups is that WSD offenders who are older with a higher educational achievement level are re-incarcerated at a lower level than offenders in their age group with lower education levels. This is not true for non-WSD offenders and provides evidence that improving the education levels of older offenders will reduce their likelihood of re-incarceration.
- Overall, younger offenders (<35) were significantly more likely to re-offend in contrast to offenders above the age of 35. Within *both* age groups, educational achievement of WSD offenders had a suppression effect on re-incarceration.

Table 17. Effect of age and educational achievement level on recidivism.

Educational Achievement at Time of Release	Recidivism: Percent Re-incarcerated	
	WSD Offenders	
	Younger <35	Older 35+
EA <6.0	29.7%	15.2%
EA ≥6.0	26.6%	13.3%

Younger Property Offenders with Low Educational Achievement Levels are the Likeliest to be Re-incarcerated among both WSD and non-WSD Offenders Incarcerated for their First Time

Table 18. Effect of Incarceration Offense Type and Age on Recidivism

Educational Achievement at Time of Release	Recidivism: Percent Re-incarcerated							
	WSD Offenders							
	Younger (<35)				Older (35+)			
	Property	Person	Drug	Other	Property	Person	Drug	Other
EA <6.0	39.6	28.9	31.3	36.6	23.3	12.4	13.8	21.1
EA >6.0	31.4	22.9	25.5	33.4	18.1	11.0	14.4	11.8

- For both WSD and non-WSD offenders incarcerated for the first time, age and offense type influence the likelihood of re-incarceration.
- An important distinction is the difference in re-incarceration rates between EA levels within WSD offenders as compared to the difference in re-incarceration rates between EA levels within non-WSD offenders. Specifically, WSD offenders who were incarcerated for a property offense with an EA level above 6.0 had a re-incarceration difference of 8.2 percent as compared to 4.6 percent difference between EA levels of non-WSD property offenders. Similar trends appear for all offense types for younger offenders.
- Similar findings between EA levels in both younger and older WSD offenders support the positive influence of increased EA levels that occurs within WSD offenders.

Advances in Educational Achievement (Reading Scores) Led to Lower Re-incarceration Rates for most Educational Achievement Levels across Offense Types

- ✓ Advances in educational achievement levels, specifically reading, led to much lower re-incarceration levels in many cases. Some examples include:
 - WSD Offenders incarcerated for their first time with a **person offense** who improved their educational achievement levels as measured through reading scores from a non-reader to an advanced reader had a lower re-incarceration rate (12.9%) as compared to those offenders who advanced one stage to the reader level (18.1%).
 - WSD Offenders incarcerated for their first time with a **property offense** who improved their educational achievement levels as measured through reading scores from a reader to an advanced reader (three or more grade levels) had a lower re-incarceration rate (25%) as compared to those offenders who made improvements but remained classified as a reader (35.4%).
 - WSD Offenders incarcerated for their first time with a **drug offense** who improved their educational achievement levels as measured through reading scores from a non-reader to an advanced reader had a lower re-incarceration rate (26.4%) as compared to those offenders who advanced one stage to the reader level (31.8%).
 - WSD Offenders incarcerated for their first time with an **“other” offense** (one that did not fall into the above categorizations) who improved their educational achievement levels as measured through reading scores from a non-reader to a reader status had a 7% lower re-incarceration rate as compared to WSD offenders who remained in the non-reader category (37.4% vs. 30.2%).
 - WSD Offenders incarcerated for their first time with an **“other” offense** (one that did not fall into the above categorizations) who improved their educational achievement levels as measured through reading scores from a non-reader to an advanced reader had a much lower re-incarceration rate (23.1%) as compared to those offenders who did not advance reading categories despite improvements in grade equivalencies (37.4%).

7.6 Recidivism: Likelihood of Re-incarceration

The next section of this report focuses on the impact of WSD correctional education program exposure on recidivism of offenders who were released in FY2009. Program exposure (i.e., the total number of correctional education program hours completed prior to release in FY2009) was considered to be a salient factor in addition to educational advancement and offender demographic characteristics. An examination of the impact of program exposure prior to release on the likelihood of re-incarceration between their release date and December 31, 2011 was conducted. The WSD offender population examined included all WSD offenders released during FY2009 who participated in some form of WSD correctional education programming prior to their release in FY2009.

Binary logistic regression analysis was used to determine the impact of program exposure on re-incarceration, controlling for offender demographics, initial educational achievement level, and educational advancement (where appropriate). The magnitude and statistical significance of each correctional education program's impact on the likelihood of re-incarcerated is indicated by a likelihood coefficient as listed in Row 1 of Table 19.

A likelihood coefficient >1.0 indicates that a one unit increase in program exposure leads to an increase in the likelihood of an offender's re-incarceration. Similarly, a likelihood coefficient <1.0 indicates that a one unit increase in program exposure leads to a decrease in the likelihood of re-incarceration. The direction of the relationship can also be confirmed through an examination of the direction of the beta coefficient (B) associated with the program exposure; however, the beta (B) value does not have a meaningful interpretation as it pertains to re-incarceration.

- ✓ Higher levels of a WSD offender's program exposure reduced their likelihood of re-incarceration.
 - Each WSD program demonstrated to a statistically significant degree that higher levels of program exposure decreased the likelihood of WSD offender re-incarceration.
 - For example, as indicated in Row 1 of Table 19, increased levels of program participation in WSD academic programming, WSD vocational programming, College academic programming, College vocational programming, and Cognitive Intervention programming resulted in significant reductions in the likelihood of offender re-incarceration.
- ✓ Covariates explored in earlier analysis that compared WSD offenders and non-WSD offenders were also typically significant in these analyses.
 - WSD offenders who were female, older, and incarcerated for the first time were less likely to be re-incarcerated subsequent to their FY2009 release.

- Offense type remained an important consideration such that as compared to property offenders, both drug offenders and person offenders were more likely to be re-incarcerated.
- ✓ The amount of change in reading scores⁴ were significantly related to re-incarceration such that those offenders who had lower incoming reading scores (most potential for change) were more likely to recidivate. However, offenders with higher reading scores were less likely to recidivate overall.
- Further, these findings allow for the inference that offenders with higher initial test scores were less likely to be re-incarcerated indicating the significant risk posed by offenders with lower educational achievement levels as exhibited earlier in this study.

Table 19. Impact of Program Exposure on Re-Incarceration for WSD Offenders Released in 2009: Relative Risk [Exp (B)] Coefficients, Cox-Regression results

	WSD Academic ⁵	WSD Vocational ⁶	College Academic ⁷	College Vocational	Cognitive Intervention ⁸
WSD Program Hours [Exp(B)]	.95**	.82**	.48**	.73**	.84**
WSD Program Hours (B)	-.05**	-.40**	-.26**	-.32**	-.18**
Reading Group Level Change	1.09**	---	1.01	---	---
Outgoing Reading Levels	.97**	---	1.01	---	---
Age (<35 = 1; 35+ = 0)	1.54**	1.30**	1.21	1.25**	1.41**
Sex (1 = male; 0 = female)	1.41**	1.41**	1.37	1.13	1.37**
IQ	.98	.95*	.99	.91	.89**
First Time Incarceration (1 = yes; 0 = no)	.45**	.37**	.41**	.42**	.38**
Person Offense (Person = 1; Property = 0)	.52**	.52**	.47**	.73**	.51**
Drug Offense (Drug = 1; Property = 0)	.63**	.62**	.67**	.61**	.62**
Other Offense (Other = 1; Property = 0)	.85**	.80**	.64**	.69**	.84**

Note: * p < .05; ** p < .01.

⁴ Advances in reading level were highly correlated with advances in math and writing scores precluding the inclusion in this statistical model. To parallel the earlier emphasis on reading ability, we selected to include reading group measures rather than composite, math or writing scores. No significant differences in results would be anticipated due to this statistical approach.

⁵ WSD Academic Program Exposure grouped into 4 groups by hours as presented earlier in this section (<325, 325-749, 750-1074).

⁶ WSD Vocational Program and College Vocational offenders were grouped in two groups approximating time required to gain vocational certification (0 = <600 hours; 1 = 600+ hours).

⁷ College Academic Exposure was grouped into 2 groups (1=exposure above 50th percentile; 0=exposure below 50th percentile).

⁸ For cognitive intervention, WSD offenders who completed the program (equal to 1) were compared to those who did not complete the program (equal to 0).

7.7 Impact of WSD Programs on Offender Average Quarterly Wages

The final area of assessment is the examination of the impact of involvement in WSD correctional education programs on offender average quarterly wages. As noted earlier, it is important to consider alternative measures of offender success upon release from incarceration in addition to recidivism. An offender who is released into the community and avoids re-arrest should be considered a success; however, that same offender who avoids re-arrest *and* becomes a productive member of society by securing legal employment is an even greater success. Ex-offenders who are gainfully employed contribute to the state and society through taxes paid and reduced utilization of social benefits. Higher wage levels for employed offenders further enable offenders to support himself or herself without aid from the state, to contribute to their own debt management, and adequately support family or dependents.

The impact of WSD correctional education program participation on offenders' average quarterly earnings, when earnings were reported to the Texas Workforce Commission, were examined for offenders in the FY2009 release cohort. Earnings computed as average quarterly wages from their release date through the fourth quarter of 2011 were considered. An examination of this time frame allows for a minimum of twenty-seven months and a maximum of forty months of time in which offenders may have been employed depending upon the point during FY2009 that release occurred. Included in the FY2009 release cohort were two distinct groups: [1] offenders incarcerated in a TDCJ facility who participated in some level of WSD programming as outlined in the earlier section, and [2] offenders incarcerated in a TDCJ facility who did NOT participate in any type of WSD correctional education programming. To allow for a relatively comparable WSD offender group with a non-WSD offender group, only those offenders who were incarcerated for the first time were considered in these analyses.

Importance of WSD Vocational Certification regarding Offender Average Quarterly Wages upon Release

- ✓ Obtaining Vocational Certification certificates further bolstered earnings within WSD offender groups. WSD offenders who earned vocational certifications on average earned \$3,180.81 per quarter as compared to WSD offenders who engaged in vocational programming but did not earn certification who on average earned \$2,795.37 per quarter.

Vocational programming results in a higher average quarterly wage for WSD offenders. Both WSD vocational groups (certified and non-certified) earned significantly more than WSD offenders who only participated in other types of programming. Non-vocational WSD offenders earned on average \$2,509.41 per quarter.

Differences in Average Quarterly Wages, WSD vs. Non-WSD offenders

- ✓ On average, WSD offenders earned \$2,646.56 per quarter as compared to Non-WSD offenders who earned \$2,585.95 per quarter.
- ✓ Among offenders who successfully remained in the community, on average WSD offenders earned \$2,902.84 in comparison to non-WSD offenders who successfully remained in the community who earned \$2,784.18.

Educational Achievement Levels influenced whether Earnings were Reported and Average Quarterly Wages, WSD vs. Non-WSD offenders

- ✓ WSD offenders who had a higher level of reading ability as indicated by their reading category were more likely to report post-release earnings. As indicated in Table 20, WSD offenders who were at the literate or advanced reading levels were more likely to report post-release earnings as compared to Non-WSD offenders

Table 20. Employed post-release as per availability of Texas Workforce Commission Reported Earnings

		Highest Reading Category				
		Non-readers	Readers	Literate	Advanced	Total
Non-WSD Offenders	Count	337	495	775	1654	7658
	% employed within reading category	18.7%	26.5%	31.5%	34.6%	29.9%
WSD Offenders	Count	246	584	1366	3634	5830
	% employed within reading category	17.3%	25.7%	32.2%	36.2%	32.5%

- ✓ Education achievement levels remained as an important influence that further set apart WSD offender earnings from non-WSD offenders. For example, WSD offenders who successfully remained in the community and obtained an EA level equal to or greater than 6.0 on average earned \$3,014.77 per quarter. This results in an annual difference of \$587.00 as compared to the earnings of non-WSD offenders.

Involvement in WSD programs (non-academic) was related to higher levels of post-release earnings

- ✓ WSD offenders who completed the Cognitive Intervention Program earned significantly higher wages when post-release earnings were reported: \$3,010.59 average quarterly wage among CIP completers, as compared to \$2,843.65 average quarterly wage among non-CIP participants.
- ✓ WSD offenders who completed vocational certification earned a significantly higher average quarterly wage when post-release earnings were reported: \$3,180.81 as compared to an average quarterly wage of \$2,795.39 among WSD offenders who may have engaged in vocational training, but did not receive a vocational certification.

References

References – Adult Basic Education / Academic Programming

- Adams, K., Bennett, K., Flanagan, T., Marquart, J., Cuvelier, S., Fritsch, E., Gerber, J., Longmire, D., & Burton, V. (1994). A large-scale multidimensional test of the effect of prison education programs on offenders' behavior. *The Prison Journal*, 74, 433-449.
- Aos, S., Miller, M., & Drake, E. (2006). *Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates*. Olympia: Washington State Institute for Public Policy.
- Beyer, M. (2006). Fifty delinquents in juvenile and adult court. *American Journal of Orthopsychiatry*, 76, 206-214.
- Brazzell, D., Crayton, A., Mukamal, D., Soloman, A., & Lindahl, N. (2009). *From the classroom to the community: Exploring the role of education during incarceration and reentry*. The Urban Institute.
- Brewster, D., & Sharp, S. (2002). Educational programs and recidivism in Oklahoma: Another look. *The Prison Journal*, 82, 314-334.
- Case, P., & Fassenfest, D. (2004). Expectations for opportunities following prison education: A discussion of race and gender. *Journal of Correctional Education*, 55, 24-39.
- Cecil, D., Drapkin, D., MacKenzie, D., & Hickman, L. (2000). The effectiveness of adult basic education and life-skills programs in reducing recidivism: A review and assessment of the research. *Journal of Correctional Education*, 51, 207-226.
- Cho, R., & Tyler, J. (2008). Prison-based adult basic education (ABE) and post-release labor market outcomes. Paper presented at the John Jay Reentry Roundtable on Education.
- Drake, E., Aos, S., & Miller, M. (2009). Evidence-based public policy options to reduce crime and criminal justice costs: Implications in Washington state. *Victims and Offenders*, 4, 170-196.
- Esperian, J. (2010). The effect of prison education programs on recidivism. *Journal of Correctional Education*, 61, 316-334.
- Fabelo, T. (2002). The impact of prison education on community reintegration of inmates: The Texas case. *Journal of Correctional Education*, 53, 106-110.
- Gaes, G. (2008). The impact of prison education programs on post-release outcomes. Paper presented at the John Jay Reentry Roundtable on Education.
- Hall, R., & Killacky, J. (2008). Correctional education from the perspective of the prisoner student. *Journal of Correctional Education*, 59, 301-320.
- Harlow, C. (2003). *Education and correctional populations*. Office of Justice Programs, Bureau of Justice Statistics, Special Report. Washington, DC: U.S. Department of Justice. NCJ 195670.
- Harlow, C. W., Jenkins, D. H. & Steurer, S. (2010). GED holders in prison read better than those in the household population: Why? *The Journal of Correctional Education*, 61, 68-92.
- Harrison, B., Schehr, R. (2004). Offenders and post-release jobs: Variables influencing success and failure. *Journal of Offender Rehabilitation*, 39, 35-68.
- Hayes, S. (2007). Missing out: Offenders with learning disabilities and the criminal justice system. *British Journal of Learning Disabilities*, 35, 146-153.

- Holley, P., & Brewster, D. (1997). An examination of the effectiveness of GED programs within the Oklahoma department of correction. *Journal of the Oklahoma Criminal Justice Research Consortium, 4*.
- Hrabowski, F. & Robbi, J. (2002). The benefits of correctional education, *Journal of Correctional Education, 53*(3), 96-99.
- Hull, K., Forrester, S., Brown, J., Jobe, D., & McCullen, C. (2000). Analysis of recidivism rates for participants of the academic/vocational/transition education programs offered by the Virginia department of correctional education. *Journal of Correctional Education, 51*, 256-261.
- Innes, C. (1997). Patterns of misconduct in the federal prison system. *Criminal Justice Review, 22*, 157-174.
- Jancic, M. (1998). Does correctional education have an effect on recidivism? *Journal of Correctional Education, 49*, 152-161.
- Jenkins, H., Steurer, S., & Pendry, J. (1995). A post release follow up of correctional education program completers released in 1990-1991. *Journal of Correctional Education, 46*, 20-24.
- Jensen, E., & Reed, G. (2006). Adult correctional education programs: An update on current status based on recent studies. *Journal of Offender Rehabilitation, 44*, 81-96.
- Klein, S., & Tolbert, M. (2007). Correctional education: Getting the data we need. *The Journal of Correctional Education, 58*, 284-292.
- Klein, S., Tolbert, M., Bugarin, R., Cataldi, E., & Tauschek, G. (2004). Correctional education: Assessing the status of prison programs and information needs. MPR Associates, Inc. Berkeley, CA.
- Kirsch, I.S., Jungeblut, A., Jenkins, L., & Kolstad, A. (1993). *Adult literacy in America: A first look at the results of the National Adult Literacy Survey*, National Center for Education Statistics, U.S. Department of Education.
- Langan, N., & Pelissier, B. (2001). The effect of drug treatment on inmate misconduct in federal prisons. *Journal of Offender Rehabilitation, 34*, 1-18.
- Leone, P., Wilson, M., & Krezmien, M. (2008). Understanding and responding to the education needs of special populations in adult corrections. Paper presented at the John Jay Reentry Roundtable on Education.
- Lillis, J. (1994). Prison education programs reduced. *Corrections Compendium, 19*, 1-11.
- MacKenzie, D., Browning, K., Skroban, S., & Smith, D. (1999). The impact of probation on the criminal activities of offenders. *Journal of Research in Crime and Delinquency, 36*, 423-453.
- Markarios, M., Steiner, B., & Travis, L. (2010). Examining the predictors of recidivism among men and women released from prison in Ohio. *Criminal Justice and Behavior, 37*, 1377-1391.
- Messemer, J., & Valentine, T. (2004). The learning gains of male inmates participating in a basic skills program. *Adult Basic Education, 14*, 67-89.
- Moeller, M., Day, S., & Rivera, B. (2004). How is education perceived on the inside? A preliminary study of adult males in a correctional setting. *Journal of Correctional Education, 55*, 40-59.
- Nuttall, J., Hollmen, L., & Staley, E. (2003). The effect of earning a GED on recidivism rates. *Journal of Correctional Education, 54*, 90-94.
- Seiter, R., & Kadela, K. (2003). Prisoner reentry: What works, what does not and what is promising. *Crime and Delinquency, 49*, 360-388.

- Shippen, M. (2008). A pilot study of the efficacy of two adult basic literacy programs for incarcerated males. *Journal of Correctional Education*, 59, 339-347.
- Shivy, V., Wu, J., Moon, A., Mann, S., Holland, J., & Eacho, C. (2007). Ex-offenders reentering the workforce. *Journal of Counseling Psychology*, 54, 466-473.
- Stephan, J. (2004). State prison expenditures, 2001. Bureau of Justice Statistics, NCJ 202949
- Stephan, J. (2008). Census of state and federal correctional facilities, 2005. Bureau of Justice Statistics, NCJ, 222182.
- Steurer, S., & Smith, L. (2003). *Education reduces crime: Three-state recidivism study*. Centerville, UT: Management and Training Corporation.
- Tootoonchi, A. (1993). College education in prisons: The inmates' perspectives. *Federal Probation*, 57, 34-40.
- Ulmer, J. (2001). Intermediate sanctions: A comparative analysis of the probability and severity of recidivism. *Sociological Inquiry*, 71, 164-193.
- Vacca, J. (2004). Educated prisoners are less likely to return to prison. *Journal of Correctional Education*, 55, 297-305.
- Wilson, D., Gallagher, C., & MacKenzie, D. (2000). A meta-analysis of corrections-based education, vocation and work programs for adult offenders. *Journal of Research in Crime and Delinquency*, 37, 347-368.
- Windham School District (2010). Annual performance report 2009-2010.
- Zgoba, K., Haugebrook, S., & Jenkins, K. (2008). The influence of GED obtainment on inmate release outcome. *Criminal Justice and Behavior*, 35, 375-387
- Pennsylvania v. Yesky* 118 S. Ct 1952 1998

References – Vocational Training Programs

- Anderson, D. B. (1981). The relationship between correctional education and parole success. *Journal of Offender Counseling, Services and Rehabilitation*, 5(3-4), 13-26.
- Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28(3), 369-404.
- Batiuk, M. E., Lahm, K. F., McKeever, M., Wilcox, N., & Wilcox, P. (2005). Disentangling the effects of correctional education: Are current policies misguided? *Criminology and Criminal Justice*, 5(1), 55-74.
- Bouffard, J. A., MacKenzie, D. L., & Hickman, L. J. (2000) Effectiveness of vocational education and employment programs for adult offenders: A methodology-based analysis of the literature. *Journal of Offender Rehabilitation*, 31, 1-41.
- Brewster, D. R. & Sharp, S. F. (2002). Educational programs and recidivism in Oklahoma: Another look. *The Prison Journal*, 82(3), 314-334.
- Burke, L., & Vivian, J. (2001). The effect of college programming on recidivism rates at the Hampden County House of Corrections: A 5-year study. *Journal of Correctional Education*, 52, 160-162.
- Cecil, D., Drapkin, D., MacKenzie, D., & Hickman, L. (2000). The effectiveness of adult basic education and life-skills programs in reducing recidivism: A review and assessment of the research. *Journal of Correctional Education*, 51, 207-226.

- Chappell, C. A. (2004). Post-secondary correctional education and recidivism: A meta-analysis of research conducted. *The Journal of Correctional Education*, 55(2), 148-169.
- Duguid, S., Hawkey, C., & Pawson, R. (1996). Using recidivism to evaluate effectiveness in prison education programs. *Journal of Correctional Education*, 47(2), 74-85.
- Flanagan, T. (1983). Correlates of institutional misconduct among state prisoners: A research note. *Criminology*, 21, 41-65.
- Flinchum, T., Hevener, G., Jons, K., Katzenelson, S., & Moore-Gurrera, M. (2006). Correctional program evaluation: Offenders placed on probation or released from prison in fiscal year 2001/2. *North Carolina Sentencing and Policy Advisory Commission*, 103-119.
- Gerber, J., & Fritsch, E. J. (1995). Adult academic and vocational correctional education programs: A review of recent research. *Journal of Offender Rehabilitation*, 22, 119-142.
- Gordon, H. R. D., & Weldon, B. (2003). The impact of career and technical education programs on adult offenders: Learning behind bars. *Journal of Correctional Education*, 54(4), 200-209.
- Harlow, C. (2003). *Education and correctional populations*. Bureau of Justice Statistics, U.S. Department of Justice.
- Hull, K. A., Stewart, F., Brown, J., Jobe, D., & McCullen, C. (2000). Analysis of recidivism rates for participants of the academic/vocational/transition education programs offered by the Virginia Department of Correctional Education. *Journal of Correctional Education*, 51, 256-261.
- Jenkins, H. D., Steurer, S. J., & Pendry, J. (1995). A post release follow-up of correctional education program completers released in 1990-1991. *Journal of Correctional education*, 51(2), 256-261.
- Jensen, E. L., & Reed, G. E. (2006). Adult correctional education programs: An update on current status based on recent studies. *Journal of Offender Rehabilitation*, 44(1), 81-98.
- Lahm, K. F. (2009). Educational participation and inmate misconduct. *Journal of Offender Rehabilitation*, 48, 37-52.
- Levine, S. (2009). Examining the incidence of the time to recidivism within the risk contingency framework: A 20-year follow up study. *Law and Human Behavior* 33, 167-174.
- Lichtenberger, E., & Ogle, J. T. (2006). The collection of post-release outcome data for the evaluation of correctional education programs. *Journal of Correctional Education*, 57(3), 230-238.
- Lipton, D. S., Martinson, R., & Wilks, J. (1975). *The effectiveness of correctional treatment: A survey of treatment evaluation studies*. New York: Praeger.
- Lockwood, S., Nally, J. M., Ho, T., & Knutson, K. (2012). The effect of correctional education on post-release employment and recidivism: A 5-year follow-up in the state of Indiana. *Crime & Delinquency*, 58(3), 380-396.
- Nuttall, J., Hollmen, L., & Staley, M. (2003). The effect of earning a GED on recidivism rates. *Journal of Correctional Education*, 54, 90-94.
- Rose, C., Reschenberg, K., & Richards, S. (2010). The inviting convicts to college program. *Journal of Offender Rehabilitation*, 49, 293-308.
- Saylor, W. G., & Gaes, G. G. (1992). PREP study links UNICOR work experience with successful post-release outcome. *Research Forum*, 1, 1-8.
- Saylor, W. G., & Gaes, G. G. (1997). Training inmates through industrial work participation and vocational and apprenticeship instruction. *Corrections Management Quarterly*, 1(2), 8-12.

- Steuer, S. J., & Smith, L. G. (2003). *Education reduces crime: Three-state recidivism study. Executive summary*. Lanham, MD: Correctional Education Association.
- Uggen, C. & Staff, J. (2001). Work as a turning point for criminal offenders. *Corrections Management Quarterly*, 5(4), 1-16.
- Vacca, J. (2004). Educated prisoners are less likely to return to prison. *Journal of Correctional Education*, 55, 297-305.
- Visher, C. A., Winterfield, L., & Coggeshall, M. B. (2005). Ex-offender employment programs and recidivism: A meta-analysis. *Journal of Experimental Criminology*, 1, 295-315.
- Wilson, D. B., Gallagher, C. A., & MacKenzie, D. L. (2000). A meta-analysis of corrections-based education vocation, and work programs for adult offender. *Journal of Research in Crime and Delinquency*, 37(4), 347-368.
- Windham School District (2010). Windham School District Annual Performance Report 2010-2011. Huntsville, TX: Windham School District.

References – Pre-Release / Life Skills Programming

- Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). Cincinnati, OH: Anderson.
- Bates, J. P. (2005). Life skills project. *The Journal of Correctional Education*, 56(2), 101-107.
- Botvin, G. J., Eng, A., & Williams, C. L. (1980). Preventing the onset of cigarette smoking through life skills training. *Preventive Medicine*, 9(1), 135-143.
- Dilk, M. N., & Bond, G. R. (1996). Meta-analytic evaluation of skills training research for individuals with severe mental illness. *Journal of Consulting and Clinical Psychology*, 64(6), 1337-1346.
- Finn, P. (1998). *The Delaware Department of Corrections life skills program*. Washington, DC: National Institute of Justice, NCJ 169589.
- Jalazo, M. D. (2005). Life skills project. *The Journal of Correctional Education*, 56(2), 108-114.
- Jensen, E. L., & Reed, G. E. (2006). Adult correctional education programs: An update on current status based on recent studies. *Journal of Offender Rehabilitation*, 44(1), 81-98.
- LaFromboise, T., & Howard-Pitney, B. (1995). The Zuni life skills development curriculum: Description and evaluation of a suicide prevention program. *Journal of Counseling Psychology*, 42(4), 479-486.
- Linton, J. (2003). United States Department of Education update. *The Journal of Correctional Education*, 54(4), 129-130.
- Linton, J. (2005). United States Department of Education update, *The Journal of Correctional Education*, 56(2), 90-95.
- Lowenkamp, C. T., Latessa, E. J., & Holsinger, A. M. (2006). The risk principle in action: What have we learned from 13,676 offenders and 97 correctional programs? *Crime & Delinquency*, 51(1), 1-17.
- MacKenzie, D. L. (2000). Evidence-based corrections: Identifying what works. *Crime & Delinquency*, 46(4), 457-471.
- MacKenzie, D. L. (2006). *What works in corrections: Reducing the criminal activities of offenders and delinquents*. Cambridge: Cambridge University Press.

- Magnani, R., MacIntyre, K., Karim, A. M., Brown, L., Hutchinson, P., Kaufman, C.,...Dallimore, A. (2005). The impact of life skills education on adolescent sexual risk behaviors in KwaZulu-Natal, South Africa. *Journal of Adolescent Health, 36*(4), 289-304.
- Melton, R., & Pennell, S. (1998). *Staying out successfully: An evaluation of an in-custody life skills training program*. San Diego, CA: San Diego Association of Governments.
- Miller, M. (1995). The Delaware life skills program: Evaluation report. *Cognitive-Behavioral Treatment Review, 4*, 1-4.
- Miller, M. (1997). *Evaluation of the life skills program*. Division of Correctional Education, Delaware State Department of Corrections, Dover.
- Phelps, M. S. (2011). Rehabilitation in the punitive era: The gap between rhetoric and reality in U.S. prison programs. *Law & Society Review, 45*(1), 33-68.
- Ross, R., Fabiano, E. A., & Ewles, C. D. (1988). Reasoning and rehabilitation. *International Journal of Offender Therapy and Comparative Criminology, 32*, 29-35.
- Schram, P. J., & Morash, M. (2002). Evaluation of life skills program for women inmates in Michigan. *Journal of Offender Rehabilitation, 34*(4), 47-70.
- Schwartz, S. (2005). Life skills project. *The Journal of Correctional Education, 56*(2), 115-123.
- Scruggs, J. (2005). Life skills project: Lifeskills for women at Shelby County Division of Corrections "a formula for success". *The Journal of Correctional Education, 56*(2), 124-130.

References – Cognitive Behavioral Interventions

- Allen, L. C., MacKenzie, D. L., & Hickman, L. J. (2001). The effectiveness of cognitive behavioral treatment for adult offenders: A methodological, quality-based review. *International Journal of Offender Therapy and Comparative Criminology, 45*, 498-514.
- Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology, 28*, 369-404.
- Baro, A. L. (1999). Effects of a cognitive restructuring program on inmate institutional behavior. *Criminal Justice and Behavior, 26*, 466-484.
- Beck, A. T., & Weishaar, M. E. (2008). Cognitive therapy. In R. J. Corsini & D. Wedding (Eds.), *Current psychotherapies (8th Ed.)* (pp. 263-294). Belmont, CA: Thomson Higher Education.
- Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review, 26*, 17-31.
- Dobson, K. S. (Ed.). (2001). *Handbook of cognitive-behavioral therapies, (2nd ed.)*. New York: Guilford Press.
- French, S. A., & Gendreau, P. (2006). Reducing prison misconducts: What works! *Criminal Justice and Behavior, 33*, 185-218.
- Gendreau, P., Goggin, C. E., & Law, M. A. (1997). Predicting prison misconducts. *Criminal Justice and Behavior, 24*, 414-431.
- Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34*, 575-607.
- Godwin, G., Stone, S., & Hambrock, K. (1995). Recidivism study: Lake County, Florida Detention Center. *Cognitive-Behavioral Treatment Review, 4*, 6.

- Henning, K. R., & Frueh, B. C. (1996). Cognitive-behavioral treatment of incarcerated offenders: An evaluation of corrections' Cognitive Self-Change program. *Criminal Justice and Behavior*, 23, 523-541.
- Landenberger, N. A., & Lipsey, M. W. (2005). The positive effects of cognitive-behavioral programs for offenders: A meta-analysis of factors associated with effective treatment. *Journal of Experimental Criminology*, 1, 451-476.
- Lipsey, M. W., & Cullen, F. T. (2007). The effectiveness of correctional rehabilitation: A review of systematic reviews. *Annual Review of Law and Social Science*, 3, 297-320.
- Lipsey, M. W., Landenberger, N. A., & Wilson, S. J. (2007). *Effects of cognitive-behavioral programs for criminal offenders*. Oslo, Norway: The Campbell Collaboration.
- Little, G. L., & Robinson, K. D. (1988). Moral reconnection therapy: A systematic step-by-step treatment program for treatment-resistant clients. *Psychological Reports*, 62, 135-151.
- Little, G. L., Robinson, K. D., & Burnette, K. D. (1994). Treating offenders with cognitive behavioral therapy: 5-year recidivism outcome data on MRT. *Cognitive-Behavioral Treatment Review*, 5, 1-7.
- Little, G. L., Robinson, K. D., Burnette, K. D., & Swan, S. (1996). Review of outcome data with MRT: Seven-year recidivism results. *Cognitive-Behavioral Treatment Review*, 3, 1-3.
- MacKenzie, D. L. (2006). *What works in corrections: Reducing the criminal activities of offenders and delinquents*. New York, NY: Cambridge University Press.
- Pearson, F. S., Lipton, D. S., Cleland, C. M., & Yee, D. S. (2002). The effect of behavioral/cognitive-behavioral programs on recidivism. *Crime & Delinquency*, 48, 476-496.
- Porporino, F. J., & Robinson, D. (1995). An evaluation of the reasoning and rehabilitation program with Canadian federal prisoners. In R. R. Ross & B. Ross (Eds.), *Thinking straight* (pp. 155-191). Ottawa, Canada: Cognitive Centre.
- Ross, R. R., & Fabiano, E. A. (1985). *Time to think: A cognitive model of delinquency prevention and offender rehabilitation*. Johnson City, TN: The Institute of Sciences and Arts, Inc.
- Ross, R. R., & Fabiano, E. A., & Ewles, C. D. (1988). Reasoning and rehabilitation. *International Journal of Offender Therapy and Comparative Criminology*, 37, 29-36.
- Walters, G. D. (1995). The Psychological Inventory of Criminal Thinking Styles: Part I. Reliability and preliminary validity. *Criminal Justice and Behavior*, 22, 307-325.
- Walters, G. D. (2003). Changes in criminal thinking and identity in novice and experienced inmates: Prisonization revisited. *Criminal Justice and Behavior*, 30, 399-421.
- Wilson, D. A., Bouffard, L. A., & MacKenzie, D. L. (2005). A quantitative review of structured, group-oriented, cognitive-behavioral programs for offenders. *Criminal Justice and Behavior*, 32, 172-204.

Appendix A – Windham School District, Texas Data Codebook

#	Variable Name	Value Labels	Label	Notes
1	ATT_SID		Offender ID Number	
2	Enrollment_ACA			
3	Attendance_ACA			
4	Enrollment_CIP		Hours Enrolled in Cognitive Intervention	
5	Attendance_CIP		Hours Actually Attended in Cognitive Intervention	
6	Enrollment_COLL_ACA		Hours Enrolled in College ACA	
7	Attendance_COLL_ACA		Hours Actually Attended in College ACA	
8	Enrollment_COLL_VOC		Hours Enrolled in College Vocational	
9	Attendance_COLL_VOC		Hours Actually Attended in College Vocational	
10	Enrollment_ESL		Hours Enrolled in English as a Second Language	
11	Attendance_ESL		Hours Actually Attended in English as a Second Language	
12	Enrollment_Lifeskills		Hours Enrolled in Lifeskills	Can Include (Parenting, PAS, Men’s Health, Women’s Health, Life Matters)
13	Attendance_Lifeskills		Hours Actually Attended in Lifeskills	
14	Enrollment_Prerelease		Hours Enrolled in Pre-release	
15	Attendance_Prerelease		Hours Actually Attended in Pre-release	
16	Enrollment_SPED		Hours Enrolled in Special Education	
17	Attendance_SPED		Hours Actually Attended in Special Education	
18	Enrollment_VOC		Hours Enrolled in WSD Vocational	
19	Attendance_VOC		Hours Actually Attended in WSD Vocational	
20	NewAA		Number of AA Certificates Earned	
21	NewVCERT		Number of Vocational Certificates Earned	
22	NewCERT		Number of Certificates Earned	
23	NewAAS		Number of AAS Certificates Earned	
24	NewAASGS		Number of AASGS Certificates Earned	
25	NewAE		Number of AE Certificates Earned	
26	NewAES		Number of AES Certificates Earned	
27	NewAGS		Number of AGS Certificates Earned	
28	NewAS		Number of AS Certificates Earned	
29	NewAST		Number of AST Certificates Earned	
30	NewBA		Number of BA Certificates Earned	
31	NewBAAS		Number of BAAS Certificates Earned	
32	NewBBA		Number of BBA Certificates Earned	
33	NewBGS		Number of BGS Certificates Earned	
34	NewBS		Number of BS Certificates Earned	
35	NewGED		Number of GED Certificates Earned	
36	NewMA		Number of MA Certificates Earned	
37	TotalCERT		Total Number of Certificates Earned	From NewAA to NewMA
38	WAGE_mean		Average Wages Earned per Quarter	Mean Wages Earned by Offender per Quarter
39	CSS_PRESCR		Criminal Sentiment Scale Score Pre-test	
40	CSS_POSTSCR		Criminal Sentiment Scale Score Post-test	
41	CSS_Gain_Loss		Gain or (Loss) in Criminal Sentiment Scale Score	(Post-test) – (Pre-test)
42	Total_Atten		Total Number of Hours of Attendance	A total of all types of attendance listed above (from ACA to Voc)
43	Total_Diff_En		A total of the difference between the enrollment and attendance	This variable was computed to show commitment to education program (scores close to 0 are best, meaning they attended all classes they were signed up for)
44	GE_TOT_BATT_mean		Grade Equivalent Composite Score Mean	
45	GE_TOT_READ_mean		Grade Equivalent Reading Score Mean	
46	GE_TOT_MATH_mean		Grade Equivalent Math Score Mean	

47	GE_TOT_LANG_mean		Grade Equivalent Writing Score Mean	
48	GE_OV_FIELD_mean			
49	SS_READ_mean		Scale Score Reading Mean	
50	SS_MATH_CMP_mean		Scale Score Math (CMP) Mean	
51	SS_MATH_CA_mean		Scale Score Math (CA) Mean	
52	SS_LANG_M_mean		Scale Score Language (M) Mean	
53	SS_LANG_mean		Scale Score Language Mean	
54	SS_TOT_MATH_mean		Scale Score (TOT) Math Mean	
55	SS_TOT_BATT_mean		Scale Score (BATT) Mean	
56	NRS_READ_mean		NRS Level Reading Mean	
57	NRS_LANG_mean		NRS Level Language Mean	
58	NRS_MATH_mean		NRS Level Math Mean	
59	NP_READ_mean		National Percentile Reading Mean	
60	NP_MATH_CMP_mean		National Percentile Math (CMP) Mean	
61	NP_MATH_CA_mean		National Percentile Math (CA) Mean	
62	NP_LANG_M_mean		National Percentile Language (M) Mean	
63	NP_LANG_mean		National Percentile Language Mean	
64	NP_TOT_MATH_mean		National Percentile Math Mean	
65	NP_TOT_BATT_mean		National Percentile BATT Mean	
66	iq_score		IQ Score	
67	race	1 = White 2 = Hispanic 3 = Black 4 = Native American 5 = Asian 6 = Other 7 = Unknown		
68	ethnicity	H=Hispanic N=None U=Unknown		
69	sex	0-Female 1-Male		
70	Age		Age in Years	
71	A_New		Academic (WSD and College)	
72	S_New		WSD Academic – Special Education	
73	P_New		Syscode W = Changes/Syscode C=SAC (Substance Abuse Counselor Course)	
74	V_New		Vocational (WSD and College)	
75	O_New		All are WSD – Parenting, PAS, Men’s Health, Women’s Health, Life Matters	
76	I_New		WSD - CIP (Cognitive Intervention Program), CIP Aftercare	
77	C_New		WSD - Title 1 (CH1 Class #), T1 CIP (T1 Cognitive Intervention Class#)	
78	Total_Hours		Total Number of Hours in any program	
79	Average_Attend		Total Attendance divided by number of days in prison	Total Attendance divided by Number of Days in Prison
80	White	0 = Not White 1 = White		
81	Hispanic	0 = Not		

		Hispanic 1 = Hispanic		
82	Black	0 = Not Black 1 = Black		
83	Other_Race	0 = Not Other Race 1 = Other Race		
84	Time_inside_sum		Total Time Inside Prison – by Days	Includes time up to Dec 30 2011
85	Number_in		Number of Times Incarcerated	Taken from the number of times an offenders was admitted into a prison
86	Time_out2_sum		Total Number of Days Out of Prison Total – Up to Dec 30 2011	
87	time_out_days_mean		Average number of days outside of prison (between release and readmission – not those still out)	
88	Days_Out_Now		Total Number of Days Out of Prison if not in Prison on Dec 30 2011	Variable developed for all offenders who were released and had not returned to prison by Dec. 30, 2011 – so this would be all offenders who were not in prison on Dec. 30, 2011 – The total number of days since their most recent release and Dec. 30, 2011
89	Out_Now	1= Out as of 12 31 11 2 = In Prison as of 12 31 11	Offenders out now 1	
90	Average_Att_ACA		Attendance in ACA divided by Total Days In	Controls the hours of attendance by number of days in
91	Average_Att_CIP		Attendance in CIP divided by Total Days In	Controls the hours of attendance by number of days in
92	Average_Att_Coll_ACA		Attendance in Coll ACA divided by Total Days In	Controls the hours of attendance by number of days in
93	Average_Att_Coll_VOC		Attendance in Coll VOC divided by Total Days In	Controls the hours of attendance by number of days in
94	Average_Att_ESL		Attendance in ESL divided by Total Days In	Controls the hours of attendance by number of days in
95	Average_Att_Lifeskills		Attendance in Lifeskills divided by Total Days In	Controls the hours of attendance by number of days in
96	Average_Att_Prerelease		Attendance in Prerelease divided by Total Days In	Controls the hours of attendance by number of days in
97	Average_Att_SPED		Attendance in SPED divided by Total Days In	Controls the hours of attendance by number of days in
98	Average_Att_VOC		Attendance in VOC divided by Total Days In	Controls the hours of attendance by number of days in
99	Total_Average_Att		Total Average Attendance in all Programs	Added all Average Attendance Variables together
100	Ratio_Timein_Timeout		Ratio of Time Inside to Time Outside	If currently inside they are system missing

Glossary of Concepts Measured

Correctional Education Program Exposure is measured using the total number of contact hours in a particular correctional education program. These data were extracted from official class rosters. Class rosters were verified via audit in 2010 to have 100% accuracy in 95% of students. The total number of hours which the student was in the classroom rounded to the next whole hour (e.g., 110 minutes was rounded to 2 hours).

Incarcerated refers to the incarceration of an offender in the Texas Department of Criminal Justice system only to the exclusion of county jail incarceration and/or incarceration in another state prison system outside of Texas.

Days of Successful Release into the Community account for the number of days elapsed between the amount of time that an offender is lawfully released from confinement and remains in the community. This period can be truncated as the result of re-arrest and re-incarceration. The number of days of successful release into the community varies based on the date that an offender is released from confinement. These data were provided by the Windham School District in cooperation with the Texas Department of Criminal Justice.

Employment is examined using wage data provided by the Texas Workforce Commission [TWC] matched to the offender's Social Security Number. This wage data is in the form of offender quarterly earnings and used as a proxy indicator for legitimate employment. Given that employment can be intermittent including seasonal employment, loss/gain of employment can occur, or due to periods of re-incarceration, the average quarterly earnings across all periods wherein earnings were reported was used in this study. It is recognized that an offender may also earn money through illegal or unreported employment; unfortunately, these wages cannot be accounted for in this study.

Institutional Misconducts are the incidence of a written misconduct that occurs during the offender's confinement. This data would need to be requested from the Texas Department of Criminal Justice for further analysis.

Board of Regents

Donna N. Williams, *Chairman*
Arlington

Ron Mitchell, *Vice Chairman*
Horseshoe Bay

Charlie Amato
San Antonio

Dr. Jaime R. Garza
San Antonio

Kevin J. Lilly
Houston

David Montagne
Beaumont

Trisha Pollard
Bellaire

Rossanna Salazar
Austin

William F. Scott
Nederland

Andrew Greenberg, *Student Regent*
Beaumont

Brian McCall, *Chancellor*
Austin