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Abstract

The following report addresses specific questions as required by statute. The research team identified the following summations on selected subgroups.

- Those who had an industry certification through a Career and Technical Education (CTE) course had an 8.6% lower re-arrest rate, a 22.5% lower recidivism rate, and an 11.8% higher employment rate.
- Those who completed CTE had a 34.6% lower recidivism rate.
- Those who completed Cognitive Intervention Program (CIP) had a 24.0% lower re-arrest rate, a 31.5% lower recidivism rate, and a 4.4% higher employment rate.
- Those who completed Changing Habits and Achieving New Goals to Empower Success (CHANGES) had an 11.4% lower re-arrest rate, a 20.3% lower recidivism rate, and a 12.0% higher employment rate.
- High School Equivalency Diploma (HSED, previously referred to as GED®) recipients had a 9.4% higher employment rate than those matched offenders who did not attain a HSED.
- The primary conclusion of the research team can best be summarized thusly: The sample of students who received WSD services saw their academic achievement go up, their job skills increased, and they were better able to find and retain a job upon release.

Introduction

The following report outlines the 2017 findings for Texas Education Code, Chapter 19, Sec. 19.0041, which requires a biennial evaluation and report assessing the effectiveness of Windham School District (WSD) programming. Texas Tech University College of Human Sciences Institute for Measurement Methodology, Analysis, and Policy (TTU), led by Dr. Eugene Wang, Ph. D., conducted extensive data analysis of WSD programming data (WSD Biennial Evaluation and Report) as it related to the offenders who released from the Texas Department of Criminal Justice (TDCJ) in the 2010, 2011, and 2012 school years (SY 2010, SY 2011, SY 2012), which encompasses releases from 9/1/09 – 8/31/12. TTU's data analysis serves as the foundation of this report. For reasons of uniformity and pragmatics, the Legislative Budget Board (LBB) definition of recidivism was used. The 2015 Legislative Budget Board's (LBB) report to the 84th Legislature entitled, *Statewide Criminal and Juvenile Justice Recidivism and Revocation Rates*, states, "To calculate a recidivism rate, a group of individuals exposed to a treatment or sanction are followed during a certain period. The number in the group who "fail" within the specified time period divided by the total number in the group is used to determine the recidivism rate. The typical follow-up period for individuals in the criminal or juvenile justice system is three years, the time period in which the largest percent of offenders are likely to recidivate." (p. 38). This same time horizon standard is applied to all relevant sections hereafter. The research methodology employs some of the most current statistically sound processes available, as well as expertise in behavioral outcomes research. In addition, the research team utilized the most sophisticated software at their disposal to optimize the data mining process. Because of this expertise and increased access to data sources, the research

team could encompass parole data, arrest records, wage data, and more relevant and timely employment data. The addition of these data provided areas of exposure previously not available.

WSD programming and outcome measures were examined in the following areas:

1. Institutional Disciplinary Violations
2. Subsequent Arrests
3. Subsequent Confinements
4. The Cost of Confinement
5. Educational Achievement
6. High school equivalency examination passage
7. The kind of training services provided
8. The kind of employment the person obtains on release
9. Whether the employment was related to training
10. The difference between the amount of the person's earnings on the date employment is obtained following release and the amount of those earnings on the first anniversary of that date
11. The retention factors associated with the employment

WSD program attendance data were used to identify correlations between WSD programming and outcome measures. Program participation included those who had attendance hours and those who attended and completed WSD programs.

Methodology:

The study focuses on approximately 180,000 distinct offenders released in SY2010, SY2011, and SY2012. Approximately 67% of the offenders participated in one or more WSD programs. The data mining methodology used by the team factored for previously uncontrollable issues such as timing between arrests, reasons for re-arrest, crime(s) of reconviction, and violent/non-violent crimes to produce valid data that was issue specific.

The resulting data is applied to the following subgroups: Career and Technical Education (CTE), high school equivalency diploma (HSED, previously referred to as the GED[®]), and life skills classes (Changing Habits and Achieving New Goals to Empower Success (CHANGES) and Cognitive Intervention Program (CIP)). In addition, those who attained an industry certification through CTE programming also yielded positive results.

As with any analysis, there are certain limitations and assumptions that merit consideration. The same is true for this report. Arguably the most significant assumption deals with a "control" group. Typically, the target population (in this case, WSD participants) is compared to a similar group who did not experience the variable (in this case, WSD programming). Since the WSD student is identified as a high-risk offender based on his/her demographics, there is not a readily available compatible comparison group. To account for this comparison difficulty, the research team employed a method known as Propensity Score Matching (PSM). This technique has been established as methodologically sound and valid and serves the ensuing analysis well. Essentially, PSM establishes several baseline characteristics (e. g. age at first arrest, race, and days served for current offense to name a few). Each participant is assigned a score based on program participation. The program

participants were then “matched” based on the baseline characteristics with a non-participant sharing the same baseline characteristics - a process known as the nearest neighbor technique (Coca-Perrailon, 2006), thus establishing the pseudo-control group for this report. In doing so, the study reflects a one-to-one pairing. Most notably, however, this type of matching best allowed for the outcomes to be a direct reflection of programming versus non-programming effects. The understanding of this technique is fundamental to the content of much of this report as it establishes the statistical validity of the outcomes. Terminology in the report often refers to “matched” and “non-matched.” This nomenclature simply refers to the two populations resultant from the PSM process thereby establishing the control group element against which the target population is measured. The term “rate” is used throughout and is determined as the percentage difference between the groups being compared. PSM is employed for many data elements, but the PSM findings may not be presented on all questions herein where sample size would have a direct impact on the statistical significance.

In addition to PSM, the research team employed many other data mining practices including Random Sampling, Decision Trees, Classification Trees, and Whole Group Comparisons. These techniques may be further explained in the applicable sections in order to provide context to the results.

Another significant assumption deals with sample size. Because of the enhanced data access, the sample size is more robust than previous reports. The volume of the sample size gives more data, making the trends more reliable and the predictors more accurate. In specific reference to WSD, this large sample size gives a more relevant and accurate picture of the effects of its programs involving released offenders from a 3-year cohort, thereby providing a type of linear picture.

Lastly, and arguably most significantly, the level of educational achievement has been shown to influence offender behavior(s) and outcomes in numerous studies. As a result, those offenders who have not achieved a HSED inherently present a higher risk student. In simple terms, they are the ones who need the services the most. This fundamental thought gives an over-arching perspective to all question responses insofar as offenders who have not participated in any WSD programs, in general, have not displayed the need for services. Moreover, since 33% of the cohort received no WSD services, comparisons between the various subgroups of program participation may/may not reflect homogenous characteristics. In short, the overwhelming majority of offenders received WSD services of some type in some capacity. Attempts to isolate impacts against a disproportionate non-WSD group may display trends, but may not display definitive conclusions. This assumption further substantiates the need for PSM methodology.

An important limitation deals with sample selection. Insofar as parole data was used, only ex-offenders on the current parole register at the time were selected for post-release employment related analysis. The advantages of using parole employment and wage data (as opposed to Social Security employment and wage data) far outweigh the negative impacts of the sample selection.

A second limitation of this methodology involves the comparison of participant groups and completion groups. Completion groups are offenders who have completed the respective course. Participant groups include offenders who have completed the respective course and those who have attended but not completed the respective course. Therefore, participant group figures generally reflect a more positive relationship than the non-completion groups.

While there may be other assumptions and limitations, these few conditions give a brief, yet necessary, foundational understanding that provide better context to the findings hereafter.

Programmatic Information

WSD programs may be grouped into three primary areas: 1. Academic (includes all Literacy classes), 2. Vocational (includes full length and specialized courses), and 3. Life Skills (only includes CIP and CHANGES). These three program areas will be discussed in greater detail in various report sections; however, the framework for WSD programs is important in that the data often differs from program area to program area.

Academic:

WSD academic programs are required by both policy and statute for eligible offenders who have not attained a high school diploma or HSED. As such, these offenders are not placed in academic programs by choice. Mandated attendance, in this instance often carries a certain degree of attitudinal inherency; consequently, every offender may not necessarily want to attend school.

WSD academic programs are also conducted in an open enrollment manner. The number of students in academic programs differs daily because new offenders may be enrolled every day. This enrollment pattern results in WSD academic programs serving approximately 10% more students than the other two program areas combined. These factors, discretely and collectively, may contribute to the disparity in data.

Life Skills:

The WSD life skills programs CHANGES and CIP serve unique offender concerns through an affective, or thought process, approach. As such, there are certain assumptions associated with this type of program that stem from the address of the thought patterns of the offender(s).

The CHANGES program targets offenders whose anticipated release date is within two years. Participation in the CHANGES program will also satisfy a mandatory condition of early parole release known as FI3R. This program requires that eligible offenders within two years of release be enrolled and typically spans approximately three months. The enrollment pattern generally allows for 3-4 cycles in a school year. The enrollment pattern for CHANGES is, in general, open. Therefore, the population of each class is relatively fluid. As a pre-release program, the CHANGES program addresses various areas that may present unique challenges for the offender as he/she re-prepares for life outside of prison. For many offenders, this program provides insights into a world not seen for many years. The program makes no distinction in academic ability level, so there may be students on the 1st grade reading level in the same class as students who have college degrees.

The CIP directly addresses the criminal thinking patterns and seeks to “re-channel” the thought process behind the criminal behavior. This course generally spans about 3-4 months. Much like CHANGES, there is little, if any, distinction in ability level. In fact, the course functions best with a wide diversity of abilities and ethnicities. CIP is an intense course wherein students are encouraged to think through behaviors and the consequences of those behaviors. By doing so, the offender is facilitated to realize the outcomes of his/her

behaviors. This course also keeps contact with past completers through an after-care program in which the instructor continually “refreshes” the course experiences. The offenders take a pre-test and post-test, known as the Criminal Sentiment Scale, to evaluate the changes in the individual thought processes from the outset of the course to the end of the course. This course also serves as a required component of the GRAD program (gang renouncement), but is taught in that instance in the GRAD environment.

Vocational:

Career and Technology Education (CTE), commonly known as vocational programming, is offered at multiple TDCJ facilities, but not every class is offered at every unit simply because of space, demand, and expense limitations. WSD offers over 40 vocational courses. The course offerings are intended to fit the profile of the host unit (i. e. shorter courses at facilities that house offenders with shorter sentences). There are certain realistic and pragmatic issues that may preclude offenders from participation. For example, offenders with a history of DWI convictions are not placed in a truck driving class. WSD and TDCJ personnel work closely together to determine appropriate vocational placement for offenders. The intent of this rigorous screening placement goes to the core of TDCJ’s and WSD’s mission: public safety.

All vocational courses are competency based and focus on relevant job skills. Offenders who complete these courses are often placed in related TDCJ jobs on units throughout Texas. The CTE courses are generally semi-closed enrollment, meaning the enrollment pattern may/may not allow for students to enter at random points in the course. CTE students who do not have a high school diploma or an HSED must be concurrently enrolled toward such. CTE courses encompass formal classroom knowledge; as such, these courses typically require a requisite educational attainment level. This level is not necessarily absolute and differs with the occupational area.

Full length CTE courses typically span about 6 months and meet 6 hours a day. Since not every trade is offered on every unit, offenders often temporarily transfer to take various courses. This transfer process is coordinated through WSD and TDCJ. As such, offenders must be transferred to custody-based compatible units. Offenders housed at state jail, Substance Abuse Felony Punishment (SAFP) facilities, and transfer facilities do not typically transfer for CTE purposes since the sentence length on these types of facilities is much shorter and course availability is limited. The number of short courses is currently very fluid, as WSD is expanding this arena on a continual basis.

CTE courses also afford students the opportunity to attain industry recognized certification regardless of course type. For example, the National Center for Construction Education and Research (NCCER) is widely recognized in construction related areas to be the common competency standard. WSD offers multi-level industry certification through NCCER in numerous vocational courses. To illustrate this process, an offender who attains the NCCER industry certification in WSD’s Construction Carpentry class can go with this certification in hand to a company that builds houses, and the potential employer can know with confidence that the ex-offender has ably demonstrated the skills necessary to perform the related tasks in the same manner as a potential employee who was not incarcerated. There are multiple additional agencies (e. g. Automotive Service Excellence [ASE], *ServSafe*) through which industry certification is offered - each intended to provide WSD vocational students enhanced opportunities for post-release employment.

Part A - Program Evaluation

1. Institutional Disciplinary Violations

Although institutional disciplinary violations are not directly related to re-entry experiences, the offender disciplinary profile is relevant to the mission of WSD. Disciplinary violations within TDCJ are divided into two primary categories: major disciplinary violations and minor disciplinary violations. By definition, major discipline violations are regarded as more serious. As a result, this type of violation often carries some type of privilege sanction, a loss of days previously earned as credit toward sentence length (commonly referred to as “good time”), and/or a reduction in time-earning status, and/or a demotion of offender classification status. The disciplinary data collection is based on an annual cumulative history. Insofar as behavior often evolves and program length often differs, the annualizing of the data is the most appropriate collection method. Moreover, annualizing the data gives a much more consistent reflection. In short, every offender is looked at using the same time horizons, thereby making the group much more homogenous and the measurements more valid. Arguably the most notable assumption with regard to the disciplinary violations is that all disciplinary violations throughout the offender’s history are included in the data collection. Certain disciplinary violations apply exclusively to school; therefore, offenders not enrolled in school are not subject to these specific disciplinary violations. The institutional disciplinary results reflect the median for offenders throughout his/her cumulative incarceration. By calculating the median, the skewed results (commonly known as outliers) can be mitigated. The data regarding institutional discipline produced data regarding major disciplinary incidents, minor disciplinary incidents, and time lost (reported as days lost).

The research team found there to be no relationship between institutional disciplinary incidents, either major or minor, and WSD participation. The team deduced that the low frequency of incidents was the probable reason for the relationship absence. The annualized median for minor disciplinary incidents reflected 1.4 incidents throughout the incarceration period(s), thus illustrating the low frequency. Major disciplinary annualized median incidents reflected 0 incidents throughout the incarceration period(s), making the major disciplinary incidents throughout an offender’s incarceration(s) statistically insignificant. Days lost as a result of major disciplinary incidents reflected 24.6 days lost as a median.

2. Subsequent Arrests

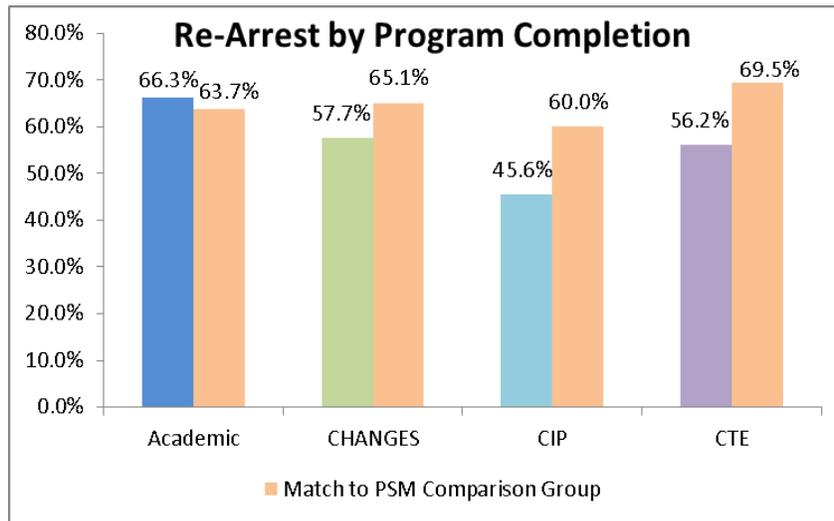
Statistical Analysis:

Approximately 60% of the cohort experienced subsequent arrests (hereafter referred to as re-arrest(s)). While this percentage may seem high, only 26% of those re-arrests were re-incarcerated for a new offense. When this re-arrest rate and re-incarceration rate is examined in greater detail, offenders who were re-arrested and whose re-arrest offense was considered a violent crime comprised less than 2% of any of the subgroups studied. The low number of violent crime re-arrests strongly suggests that the core mission of public safety is addressed.

PSM was utilized in order to gain relevant detail of post-release data. Insofar as there is a characteristic difference between offenders who complete a course and those who do not complete a course (hereafter referred to as participants), so also does the match group to which the comparison is made reflect a difference in

composition. Simply stated through example, offenders who participated in Academic programs are compared to a matched group sharing the baseline characteristics. Likewise, offenders who complete Academic programming are matched to a correspondingly similar group. The two groups to which the academic students are compared are different comparison groups since the characteristics of the respective student groups are different.

Further detail of the various matched subgroups identified some distinct points of comparison regarding re-arrest rates as depicted in the following graphs.



The data also revealed a significant positive re-arrest relationship to program completion. Individual program data for CHANGES, CIP, and CTE reflected a lower re-arrest relationship than academic programs. Academic programming did not reflect a positive relationship to re-arrest.

In addition, offenders who attained an industry certification through CTE exhibited approximately an 8.7% lower rate of re-arrest than those non-matched offenders who did not attain an industry certification.

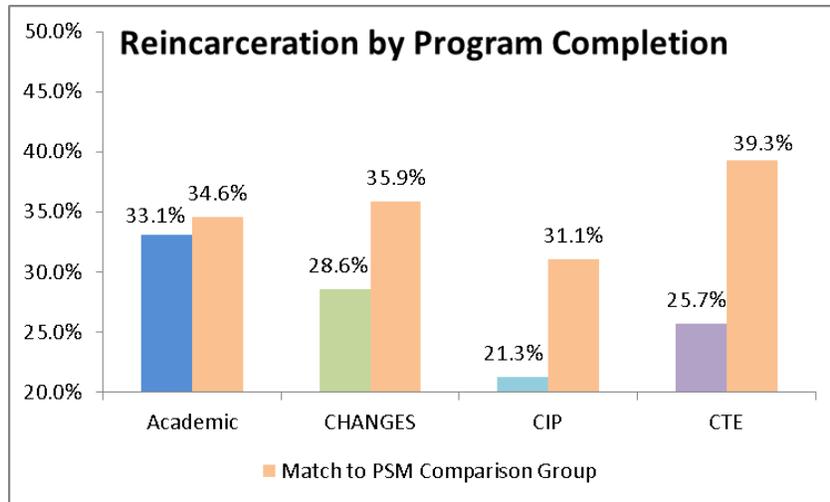
Re-arrest summary:

The data reveals that completion of a WSD course is of significant merit. Furthermore, courses that provide offenders with a verified skill (CTE and/or Industry Certification) positively impact re-arrest. Not surprisingly, the CIP data reflects the course intent to re-shape the typical offender's thought patterns. It is important to note that Academic program may/may not reflect an immediate positive impact regarding re-arrest when viewed in isolation. However, the Academic program serves as a literacy foundation for the other programs by providing offenders with literacy tools to better experience optimal benefit of these additional WSD programs.

3. Subsequent Confinements (Re-Incarceration)

Statistical Analysis:

Many of the same trends displayed in re-arrest data were also reflected in re-incarceration data, albeit in different rates. The following graph using PSM illustrates that those offenders who completed WSD programs trended toward a positive relationship regarding re-incarceration. Offenders who completed a CTE or CIP course were re-incarcerated at a significantly lower rate than the matched group. The data reflects that those who completed Academic or CHANGES were also re-incarcerated at a lower rate than those who did not complete the program.



In addition, when offenders who earned an industry certification through CTE were compared to offenders who did not earn the same while incarcerated, the data reflected a positive difference rate of 22.5% regarding re-incarceration.

Re-incarceration summary:

In general, offenders who participated in WSD programs displayed clear indicators as to the positive impacts of the program completion. As with the re-arrest data, Academic programming may not reflect full impacts when viewed in isolation. Also consistent with re-arrest results is the positive relationship between specific skills acquisition and attempts to re-shape the thought processes of the offender through CTE and CIP classes respectively.

4. Cost of Confinement

The LBB currently calculates the cost of confinement for correctional institutions. The Windham School District cost per day \$8.34 for FY2012, (the cohort on which this report is based) was reported by the LBB in the Uniform Cost Report to the 84th Texas Legislature.

5. Educational Achievement

The differences between a typical public school student and the typical WSD student extend beyond the obvious age and setting differences. WSD structures its classes into 3 basic Literacy levels, which correspond approximately to public school grade levels: Literacy 1 (roughly correlates to public school grade levels 1-5 (grade school)), Literacy 2 (roughly correlates to public school grade levels 6-8 (middle school/junior high)); Literacy 3 (roughly correlates to public school grade levels 9-12 (high school)). The academic level is reported on grade level and month of the grade level. A student who reflects a score of 8.6 in Reading has demonstrated commensurate skills of a typical 8th grade student in his/her 6th month of the eighth-grade year. The TABE is administered on one of four different levels; each measures ability appropriate skills. The TABE is widely accepted in Adult Education settings throughout the nation and has been established as an externally and internally valid test. Therefore, the TABE yields academic results with a high degree of confidence.

A significant difference between WSD and the typical public school is the school schedule itself. The following comparison chart illustrates some of the major differences in the school schedule.

Schedule Comparison	
<i>Public School</i>	<i>WSD</i>
Approximately 180 days	Approximately 210 days
7 hours per day	3 hours per day
Multiple 1 hour blocs	Single 3-hour bloc

To normalize the data, the research team addressed this variance of school schedule as hours of instruction, as opposed to days of instruction. The academic progress was then determined by taking 180 days of instruction for 7 hours a day. This calculation resulted in a standard reference point of 1,260 hours of instruction to represent a year of academic instruction. By doing so, values can then be used to compare students' academic progress in various educational settings (i.e. public school, juvenile correctional education, and/or adult correction education).

The research team analyzed over 72,000 TABE results of the cohort. These results were broken down to measure initial Reading, Math, and Composite scores in yearly/monthly increments (0.0-0.9, 1.0-1.9, etc.) and hours of instruction reported in 100's (0-199, 200-299, etc.) This methodology allowed visibility of multiple factors that somewhat individualized scores. The team's results were reported as median scores to mitigate outliers.

Based on the 1,260-hour yearly instructional model, the median grade gains of WSD students reflected substantial progress. The research team's employment of the 1,260-hour model reflected grade gains that were higher than previously associated with yearly progress. The patterns and trends that emerged from the data are consistent across all ability levels. Due to the broad ability level, making a single and all-encompassing statement about academic progress is difficult. For example, a non-reader who learns to read may progress multiple grade levels quickly while a student who has a very high TABE score may be deficient in only one area of math and show little progress.

The 1,260-hour yearly instructional model results revealed a median grade gain of 4.0 grade levels for each testing area analyzed (Reading, Math and Composite), which translates to a median grade gain of 2.0 grade levels based on WSD's 630-hour school year instructional model.

These progress rates, however, were not necessarily the most revealing data. The team's sophisticated data mining methodology produced data that yielded some distinct trends and patterns that may serve as valuable predictors, as well as information for programming. One of the variables that predicted substantive progress was initial Reading level. In short, the lower the initial reading level of a student, the more progress he/she made in the 1,260-hour model. However, the team noted that while initial reading level was, indeed, important, the number of instructional hours to which he/she is exposed is arguably the most important factor. In each level (0.0-0.9, 1.0-1.9, etc.), progress was steady and continual throughout the year. Interestingly, each level reflected a slight deviation (positively or negatively) at approximately 1,000 hours. This deviation was present for a short duration (in most cases about 100 hours), and the steady progress then resumed and continued. Consistent with the "lower student makes more progress" observation, the lower Reading levels showed the most significant progress while the highest reading level (11.0-12.9) showed very little/no progress. The most significant gains were consistently seen in the first 600 hours of instruction. After such, progress continued, but at a less significant rate.

6. High School Equivalency Examination Passage

WSD requires students to display a proficiency level in all areas of the TABE for eligibility for HSED testing. The content on the HSED test is commensurate with the required proficiency level. Many offenders are incarcerated in TDCJ for less time than is required to attain an achievement level high enough to test for the HSED. Consequently, determination of optimal paths to the HSED is critical to student success. These predictors were one of the focal points of the team's research.

Decision trees were able to path the data along race/ethnicity characteristics, age ranges, programmatic options, offender type profiles, and facility type. This level of detail provided distinct patterns regarding HSED pass rates. Historically, WSD has about an 83% passage rate for the HSED exam.

Several factors impacted HSED passage. However, the team noted that irrespective of these factors, HSED pass rates are primarily increased by providing at least 45 hours of instruction combined with at least 15 hours of CTE programming. These correlations hold across race and offender type, and are more pronounced for younger students. That over-arching profile serves as a backdrop, of sorts, for further analysis.

Offenders housed on Institutional Division (ID), and SAFP facilities tended to perform at a higher HSED passage rate when receiving approximately 40 hours of instruction than their State Jail counterparts under the same hours-of-instruction paradigm. Offenders under 19 years of age reflected approximately a 31% positive difference rate than offenders over 19 years of age regarding HSED passage. The team was able to determine a positive relationship when Academic programming was coupled with additional programming, regardless of program type, regarding the HSED pass rate.

7. The Kind of Training Services Provided

The CTE training programs are designed to offer basic occupational skills in a multitude of areas, often known as career pathways or clusters. WSD currently offers occupational training in over 40 vocational programs. Many students complete vocational programming in more than one course.

The number of courses offered has changed throughout the years, as well as the nature of the vocational training programs. The comprehensive data mining methodology produced a wide range of vocational programs that have been offered throughout the years, as the cohort showed participation and/or completion in vocational training in courses other than those currently offered. The average number of participation hours differed greatly from course to course. There was a significantly large standard deviation in all courses, indicating that the participation hours of each and every course were widely dispersed. This large standard deviation makes it difficult to make single assumptions about the vocational training experience in and of itself. Subsequent question responses discuss these courses as they relate to post-release outcomes.

WSD historical CTE courses include these career pathways or clusters:

- Agriculture, Food & Natural Resources
- Architecture & Construction
- Arts, A/V Technology & Communications
- Business Management & Administration
- Health Sciences
- Hospitality & Tourism
- Human Services
- Information Technology
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

Most vocational programs also offer additional certification known as industry certification. This industry certification requires knowledge and skill consistent with the workforce outside of prison. By offering this industry certification, the offender is better able to compete for jobs post-release. Industry certification is discussed in greater detail and context in subsequent sections of this report.

Academic and Life Skills programs provide valuable skills that compliment vocational training to enable the offender to compete and function better in the post-release workplace. Academic skills often provide a baseline (i.e., HSED) that makes one eligible for employment, and Life Skills programs emphasize “soft skills” necessary for obtaining and sustaining employment.

8. The Kind of Employment the Person Obtains on Release

The research team identified over 20 types of employment obtained by paroled offenders upon their release. The data was based on the Dictionary of Occupational Titles (DOT) codes. The association of employment to DOT code is obtained and input by the parole officer based on wage earning documentation and direct offender interview with the parole officer, with additional information obtained from the employer where necessary. The employment categories and the associated percentage of all offenders employed in these categories follows.

<u>Job Description</u>	<u>Number of Offenders</u>	<u>Percentage (%)</u>
Company Laborer	10,645	17.55%
Construction Worker	3,426	5.65%
Cook (Fast Food)	2,448	4.04%
Landscape Laborer	1,793	2.96%
Carpenter	1,484	2.45%
Auto Mechanic	1,420	2.34%
Student	1,332	2.20%
Waitress/Waiter	1,028	1.69%
Loading & Warehouse	1,003	1.65%
Plumber	967	1.59%
Car Wash Attendant	869	1.43%
Temporary Laborer	847	1.40%
Cashier	782	1.29%
Service Manager	753	1.24%
Welder	716	1.18%
Painter	568	0.94%
Truck Driver	544	0.90%
Contractor	539	0.89%
Cook	538	0.89%
Clerk	530	0.87%
<u>Other</u>	<u>28,436</u>	<u>46.85%</u>
Total	60,668	100%

9. Whether the employment was related to training

To extend the post-release employment discussion, the next logical area looks at whether the released offender has obtained employment related to his/her training experience while incarcerated. By doing so, the relevance and effectiveness of correctional training programs (i. e. WSD vocational training programs) can be better evaluated. This type of data is valuable not only to measure past post-release outcomes, but can also serve as valuable predictive data, thereby impacting future programming options.

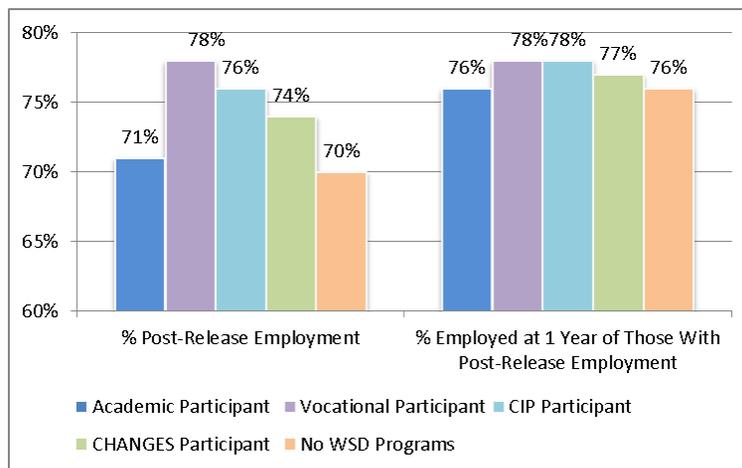
The research team used random sampling of the employed parolee cohort and determined the areas of employment obtained upon release. This finding was then cross-matched to individual offender's WSD vocational training while he/she was incarcerated. The resultant data revealed that overall, approximately 36%

of the individuals who had completed at least one WSD vocational course had obtained post-release employment related to his/her WSD vocational training.

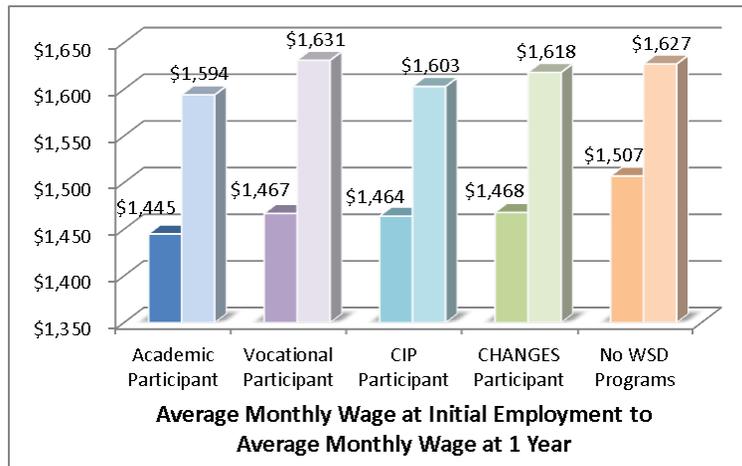
10. The difference between the amount of the person’s earnings on the date employment is obtained following release and the amount of those earnings on the first anniversary of that date

Obtaining employment upon release presents unique challenges for an offender. Moreover, sustaining employment is equally challenging, if not more so, than obtaining initial employment. Numerous studies have found positive correlations between sustained employment and reincarnation. Analyzing wage data, employment information, and time horizons is integral to program evaluation as well as forecasting future WSD programming.

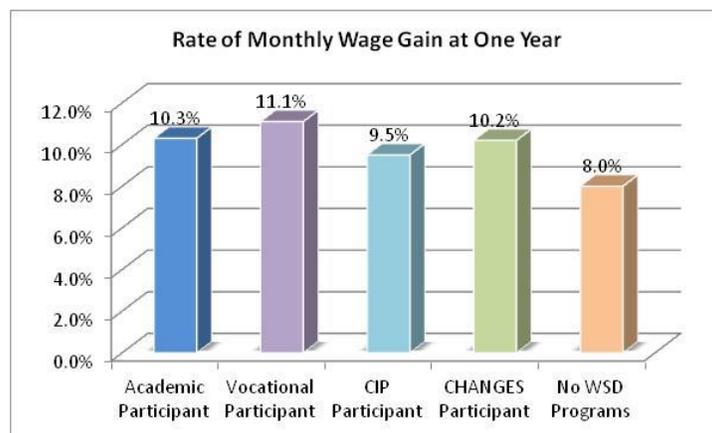
Overall, approximately 73% of ex-offenders on parole obtained post-release employment. Approximately 77% of that group was still employed one year later (referred to hereafter as the anniversary date). The research team viewed those meeting the one-year time horizon independently by WSD program participation and in aggregate. The following graph provides a visual representation of the individual program’s respective initial employment rates and the anniversary date employment rates.



Specific wage data is also critical in the evaluation of post-release employment. The overall average monthly salary of those who met the 1-year anniversary time horizon was about \$1,471. The research team detailed the data in order to establish monetary relationships to the various WSD programs/subgroups. The detailed statistics are reflected in the following graph.



The resultant data reflects that those paroled offenders who obtained post-release employment and participated in no WSD programs were employed at a slightly higher initial monthly wage than those who participated in WSD programs. However, analysis of wage increase rates on the anniversary date can be measured with the available data, and that analysis yielded interesting results. These rates of increase are of significant note in that they help construct a linear picture of the post-release employment experience. The rate of first year wage increase is depicted by program in the graph below.



The employment related graphs presented above illustrate three salient-points with respect to post-release employment and WSD programs:

- Offenders who participated in WSD programs obtained initial post-release employment at a slightly higher rate than those who did not participate in WSD programming. As seen in the first employment graph, in all measured subgroups, those who participated in WSD programs were employed at a higher

rate (ranging from 71% to 78%). Approximately 70% of the offenders who did not participate in WSD programs obtained initial employment.

- Of those who were employed at the anniversary date, WSD participants retained employment more often. This positive relationship better provides an optimal framework for the ex-offender to avoid reincarceration. Research has demonstrated that a positive employment history is a prime indicator that a released offender will not return to prison. This positive work history is often reflected as a cost-avoidance. Perhaps, more importantly, a positive work history provides a better opportunity for the ex-offender to assimilate more effectively.
- In all groups depicted in the wage related graphs (Average Monthly Wage at Initial Employment and Rate of Monthly Wage Gain), those ex-offenders who participated in WSD programs experienced a greater wage increase rate at the 1-year anniversary. CIP participants reflected the lowest wage rate increase (approximately 9.5%) of the WSD subgroups, and CTE participants - not surprisingly - reflected the largest wage rate increase (approximately 11.1%). Those who did not participate in WSD programs demonstrated approximately an 8% wage increase rate. Compensation consultant Towers Watson forecast (as stated in a September 8, 2014 *USA Today* article) that in 2014 (a year that might realistically encompass this cohort), annual pay raises were anticipated at approximately a 3% average. The yearly wage rate increases reflected by WSD participants could easily be viewed as commensurate to non-felons' annual employee wage increase rates after one year of continual employment.

In summary, the research team found that WSD participants demonstrated positive employment and wage-earning experiences upon release and through the first year of release. These positive patterns are consistent with research and exhibited profiles of ex-offenders who do not return to prison within the first year.

11. The retention factors associated with the employment

To extend the previous question response, the research team lastly examined employment retention. For the sake of consistency the anniversary date established previously was used as the time horizon to frame employment retention. Overall, approximately 73% of the paroled offenders were employed post-release. Of that group, numerous ex-offenders could not be evaluated for various reasons (e. g. unknown ending date of employment, parole case closed, death). Of those paroled offenders whose employment could be accurately evaluated, approximately 77% were employed at the one-year anniversary date.

In context to retention, the research team used classification trees to identify the elements that could be used to best predict how long and to what extent ex-offenders experienced employment. The resultant data revealed two primary factors: first month salary and job type. First month salary was found to be a determinant for employment retention. Specifically, the wage range correlated with employment retention. Those ex-offenders whose first month's wages exceeded approximately \$900 per month displayed a higher likelihood to remain employed at the anniversary date. Secondly, job type (i. e. those jobs typically associated with higher wages versus those typically associated with lower wages) was found to be a predictor of employment retention. Essentially, what are commonly referred to as "white collar" jobs evidenced higher retention of ex-offenders than typical "blue collar" jobs. The nature of typical blue collar jobs is inherently sporadic, as many of jobs of this type may be seasonal (e. g. landscaping, day labor).

Part B - Program Changes

This program evaluation indicates that WSD is meeting its statutory goals to:

- 1) Reduce Recidivism;
- 2) Reduce the cost of confinement;
- 3) Increase the success of former inmates in obtaining and maintaining employment; and
- 4) Provide an incentive to inmates to behave in positive ways during confinement or imprisonment.

The research team's findings indicate that WSD programming has a positive relationship to many post-release experiences.

- Re-arrest and re-incarceration data exhibited a positive relationship for offenders who completed WSD programs.
- Program completion data reflects a positive relationship to program and outcome measures for the report.
- The data indicates that exposure to more than one WSD program reflects positive post-release experiences in employment, wages, and job retention.
- Over 1/3 of the cohort who were employed were employed in jobs related to his/her training while incarcerated.
- Wage increases during the first year employment cycle exhibited greater gains for all WSD programs than those individuals who did not participate in any WSD programs.
- Academic progress for WSD students reflected substantial growth in all tested areas.

WSD evaluated its programs and utilized the latest advances in predictive statistical analysis to guide the following changes:

- WSD educators were given opportunities to enhance their personal teaching strategies, use of computer-assisted learning resources, reading curriculum strategies, and efforts at developing leadership characteristics in their students through staff development events.
- Literacy teachers were provided with a curriculum focused on improving student reading levels: Reading Horizons. The WSD literacy curriculum incorporates employability skills and labor market research, integrating academic and vocational programs enabling students to set goals for employment upon release.
- The WSD collaborated with the Flippen Group to develop the Lead & Achieve Academy (LAA) at selected sites for students age 21 and under, focusing on leadership, literacy, and employability soft skills. Young offenders participating in this program build skills needed for academic success, personal development and future employability. Participation in the program provides an incentive for offenders to behave in positive ways during confinement.
- The WSD expanded educational opportunities for offenders by introducing Elective Personal Enrichment Courses (EPEC) for year-round school. Classes are focused on giving offenders skills and certificates supporting employability and successful reentry into society. Classes are voluntary and open to all minimum custody offenders in the general population.

- The curricula for CIP and CHANGES were re-written in consultation with Dr. Robert Morgan, a nationally-recognized expert and Chair of Psychology at Texas Tech University. This program evaluation and revision reflects WSD's desire and commitment to employ a contemporary and dynamic approach to Life Skills programming.
- CTE programming continues to focus on and expand industry certification opportunities for offenders. These industry certificates provide WSD vocational students enhanced opportunities for post-release employment.
- The WSD is actively building partnerships and career connections with industry to create successful employment opportunities for ex-offenders.
- WSD partners with the TDCJ to provide opportunities for offenders to gain valuable information prior to release. These events provide current job information to help soon-to-be-released offenders successfully transition into viable employment.

The *WSD Biennial Evaluation and Report* (TTU) report can be viewed in its entirety at www.wsdtx.org.