

Employment of Correctional Education Program Participants: FY2018 SR Releases

Prepared by the Research - Evaluation Unit
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VIRGINIA DEPARTMENT OF CORRECTIONS

Presentation Outline

- Overview of the Career and Technical Education (CTE), CTE Career Clusters, Career Readiness Certificate (CRC), and General Education Development (GED) programs
- Overview of the FY2018 State Responsible (SR) releases from a DOC facility
- Recidivism of employed versus unemployed
- Employment statistics:
 - Quarterly and Annual Wages
 - Time to Employment
 - Percent of Eligible Quarters Employed
 - Number of Employers
 - Quarterly and Annual Employment Rates
- Summary

Career and Technical Education Program (CTE)

- Purpose: Provide students with courses that emphasize cultivating career information, technical skills, and industry-based certification and licensing
 - Outcomes: improve employability and workplace readiness
- CTE Course Program
 - Courses are diverse (47 types, with ~293 courses offered): Automotive Repair, Food Services, Pipefitting, CAD, Masonry, HVAC, Optical, Electricity and Welding, and many others
 - Courses are offered statewide and wait lists are common
 - Prerequisites vary depending on the CTE Course
 - Minimum TABE scores; GED®/HSE; HSD
 - Sufficient time left in sentence to complete course (or a substantial component)
 - Challenges
 - Students transferred prior to class completion; limitations of space and resources; lack of qualified instructors; competing programming needs

CTE Career Clusters*

- CTE career clusters are CTE courses that are grouped together based on the type of career those courses fall under
- The eight career clusters examined, and their composition are:
 - Agriculture, Food, Natural Resources, and Hospitality
 - Courses in Horticulture, Commercial Foods, and Dog Training
 - Architecture and Construction
 - Courses in Building Maintenance, Carpentry, Electricity, HVAC, Masonry, Plumbing, Fiber Optics, etc.
 - Arts, Audio/Video Technology, and Communications
 - Courses in Communication, Arts, Design, and Print Production
 - Human Services
 - Courses in Barbering, Cosmetology, and Teacher's Assistant
 - Information Technology and Finance
 - Courses in Business Software Applications, Computer Literacy, Economics, Personal Finance, Office Machine Repair, and Entrepreneurship
 - Manufacturing
 - Courses in Sheet Metal, Upholstery, and Welding
 - Science, Technology, Engineering, and Mathematics
 - Courses in Small Engine Repair, Computer-Aided Design, Optical Lens Technology, and Water Treatment
 - Transportation, Distribution, and Logistics
 - Courses in Automotive Technology, Auto Body, Motorcycle Repair, and Commercial Drivers Licensure

Note:

* Career cluster categories were provided by VADOC Correctional Education.

The VADOC Career Readiness Certificate Program

- Purpose: To illustrate an individual's job behavior and potential success in the workplace
- VADOC CRC program consists of three WorkKeys* assessments in work-related skills:
 - Used Virginia-specific CRC prior to 2018: Applied Math; Reading for Information; Locating Information
 - Transitioned to National CRC in 2018: Applied Math; Graphic Literacy; Workplace Documents
- Eligibility Qualifications for CRC Program ([OP 601.4](#)):
 - Inmates within one year of release
 - Academic level requirements:
 - Minimum of an 8th grade equivalency on TABE for reading and mathematics -or-
 - Earned a verifiable HSD/GED® -or-
 - Successfully completed one or more college courses with a grade of C or higher

Note:

* A job skills assessment system that helps employers select, hire, train, develop, and retain a high-performance workforce

Source:

<https://www.vccs.edu/job-training-certificates/#career-readiness-certificate>

<https://law.lis.virginia.gov/vacode/title2.2/chapter24/section2.2-2477/>

General Education Development Program (GED®)

- Purpose: Provide individuals who have not graduated from high school the opportunity to demonstrate attainment of necessary skills and earn an HSE credential
 - A research study (Pompoco et al., 2017) shows that attainment of a GED® while incarcerated has a positive impact on three-year recidivism rates
 - Resulting in increased employment, advanced training, and higher education opportunities
 - Meeting minimum proficiency requirements
 - Increased earning potential for GED® credential earners versus those without GED®
- GED® Tests
 - Test version evolution
 - 1978 & 1988: Tests = writing, social studies, science, interpreting literature and the arts, math
 - 2002: Tests = reading, writing, science, social studies, math; informed by Bloom's Taxonomy;* paper and pencil
 - 2014: Tests = language, science, social studies, math; informed by Webb's Depth of Knowledge,** Common Core State Standards,† and College and Career Readiness Standards; computer-based

Notes:

* A hierarchal framework used by educators to distinguishing different levels of cognition.

** A framework for measuring levels of knowledge demonstrated on assessments.

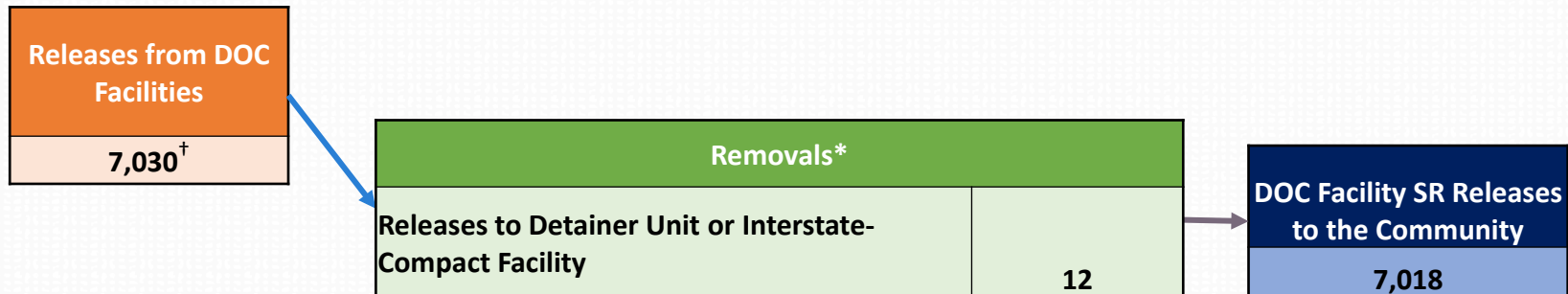
† Standards for what students are supposed to learn from kindergarten through high school.

Sources: Pompoco, A., Wooldredge, J., Lugo, M., Sullivan, C., & Latessa, E. J. (2017). Reducing inmate misconduct and prison returns with facility education programs. *Criminology & Public Policy*, 16(2), 515-547. <https://doi.org/10.1111/1745-9133.12290>; GED Test Comparison: https://ged.com/score_scale/

Virginia Employment Commission (VEC)

- All employing units that are subject to the taxing provisions of the unemployment compensation laws are required to report wages to the VEC
 - Typically required if a company has: one or more employees who work a portion of a day in twenty different weeks of a calendar year OR have a total gross payroll for any calendar quarter of \$1,500 or more
- Wages are reported quarterly
 - Wages are defined as: wages, salary, commissions, tips, annual bonuses, severance pay, and back pay
- Important to note that only Virginia employers who report wages will be in the data set
 - Under the table pay/freelance work was not included
 - Employment records from outside of Virginia are not included

FY2018 State Responsible (SR) Releases from DOC Facilities: Correctional Education Program Eligible



- FY2018 SR Releases from DOC facilities included **7,030** inmates
- After reviewing the overall release group, we removed **12** inmates*
- The resulting group used for analysis has **7,018** inmates
 - Eligible inmates had the potential to participate in Correctional Education programs

Notes:

¹ Deaths in Custody (n=101) were already removed from the original release file. Additionally, inmates that spent one day or less in a DOC facility (n=33) were removed. Two inmates who escaped from a local/regional jail prior to transfer to a DOC facility were excluded from the analysis.

* 6 inmates were released to the Detainer Unit and 6 to Interstate-Compact Facilities. These inmates were excluded because we do not have the ability to track their recidivism information.

Three-Year Employment Rates for SR Releases from DOC Facilities

FY2018 SR Releases From DOC Facilities: Employment Rates						
		All FY2018 SR Releases	Overall CTE Completers [†]	Overall CRC Earners [†]	Overall GED Earners [†]	Non-Completers/Non-Earners [†]
Males	N	5,929	1,364	480	352	4,122
	Employment Rate	63%	70%	72%	74%	60%
Females	N	1,089	181	140	38	803
	Employment Rate	67%*	75%	76%	76%	64%**
Overall	N	7,018	1,545	620	390	4,925
	Employment Rate	64%	71%	73%	74%	60%

- Employment was defined as having any wages reported during the three-year follow-up period¹
- Overall, Female FY2018 SR releases and female releases who did not complete a CTE course or earn a CRC or GED had a significantly higher employment rate than males within their respective categories
- FY2018 SR releases who completed a CTE course, earned a GED, or earned a CRC had higher employment rates than all FY2018 SR Releases and releases who did not complete any correctional education
- Females who completed a CTE course, earned a GED, or earned a CRC had higher employment rate than males who did the same

Notes:

* Chi-Square Test was significant (p < .02).

** Chi-Square Test was significant (p = .04).

[†] Overall CTE completers, CRC earners, and GED earners are not mutually exclusive groups.

^{††} Releases in the Non-Completers/Non-Earners group are releases who did not complete a CTE course or earn a CRC or GED.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Employment Rate by CTE Career Cluster

FY2018 SR Releases From DOC Facilities: CTE Completers		
Career Cluster*	Number of Completers**	Employment Rate ⁺
Agriculture, Food, Natural Resources, and Hospitality	131	72%
Architecture and Construction	954	72%
Arts, Audio/Video Technology and Communications	49 [‡]	69%
Human Services	30 [‡]	77%
Information Technology and Finance	419	68%
Manufacturing	99 [‡]	71%
Science, Technology, Engineering, and Mathematics	110	62%
Transportation, Distribution, and Logistics	24 [‡]	67%
Overall CTE Completers	1,545	71%

- Releases who completed a CTE course in Human Services had the highest employment rate (77%) of any career cluster[‡]
- All career clusters had a higher employment rate than releases who did not participate or complete a correctional education program (60%)
- Manufacturing, Architecture & Construction, and Agriculture, Food, Natural Resources, and Hospitality all had employment rates over 70%

Notes:

*Career cluster categories were provided by VADOC Correctional Education.

**Students can participate in more than one career cluster type and will be counted once per career cluster.

⁺ Employment was defined as having any wages reported during the three-year follow-up period.

[‡] Due to small numbers, results should be interpreted with caution.

Employment Statistics¹

FY2018 Employment Statistics				
	CTE Completers (N=1,089)*	CRC Earners (N=450)*	GED Earners (N=288)*	Non-Completers/ Non-Earners (N=2,974)**
Quarterly Wages				
Mean	\$5,429.28	\$4,781.93	\$4,741.91	\$4,581.22
Median	\$4,855.44	\$4,217.04	\$4,044.68	\$3,720.47
Time to Employment				
Mean	1.4 Quarters	1.3 Quarters	1.3 Quarters	1.5 Quarters
Median	1.0 Quarter	1.0 Quarter	1.0 Quarter	1.0 Quarter
Percent of Eligible Quarters Employed				
Mean	61%	59%	58%	51%
Median	62%	62%	62%	46%
Number of Employers				
Mean	3.4	3.6	3.7	3.1
Median	3.0	3.0	3.0	2.0

- Quarterly, CTE completers earned approximately \$650 more than CRC earners, \$700 more than GED earners, and \$850 more than releases who did not complete a CTE course or earn a GED or CRC
- CTE completers, CRC earners, and GED earners had comparable times to employment, percent of quarters employed, and number of employers
- Releases who did not complete a CTE course or earn a GED or CRC had lower quarterly wages and a lower percent of eligible quarters employed than releases that had completed a CTE course or earned a GED or CRC

Notes:

*Overall CTE completers, CRC earners, and GED earners are not mutually exclusive groups

**Releases in the Non-Completers/Non-Earners group are releases who did not complete a CTE course or earn a CRC or GED.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Recidivism Rates[†] By Employment Status Three Years After Release

FY2018 SR Releases From DOC Facilities: Recidivism Rates

		All FY2018 SR Releases	Overall CTE Completers [‡]	Overall CRC Earners [‡]	Overall GED Earners [‡]	Non-Completers/ Non-Earners ^{‡‡}
Employed	N	4,456	1,089	450	288	2,974
	Recidivism Rate	16.6%*	11.8%	15.1%	16.7%	18.4%*
Unemployed	N	2,562	456	170	102	1,951
	Recidivism Rate	20.8%	13.8%	20.6%	17.6%	22.3%
Overall	N	7,018	1,545	620	390	4,925
	Recidivism Rate	18.2%	12.4%	16.6%	16.9%	19.9%

- All CTE completers, CRC earners, and GED earners who were employed during the follow-up period¹ had lower recidivism rates than those who were unemployed. However, the results were not significantly different
- Overall, employed FY2018 SR releases and releases who did not complete a CTE course or earn a GED or CRC had significantly lower recidivism rates than those who were unemployed

Notes:

* Chi-Square Test was significant (p < .001).

[†] Recidivism for this study is defined as a new state responsible term of re-incarceration occurring within three years of an individual's release.

[‡] Overall CTE completers, CRC earners, and GED earners are not mutually exclusive groups.

^{‡‡} Releases in the Non-Completers/Non-Earners group are releases who did not complete a CTE course or earn a CRC or GED.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Case-Control Matching Process

- In order to match inmates that completed a CTE course, earned a GED, or earned a CRC with a comparison group with similar characteristics, case-control matching was used
- The existing study group was matched with a case-control created comparison group with user-defined tolerances for each matching variable
- The variables the CTE and CRC study and comparison groups were matched on include:
 - Gender, age at release (± 2 years), crime type, number of prior SR terms (± 1 SR term), mental health status, and confirmed gang status at release
- The variables the GED study and comparison groups were matched on include:
 - Gender, age at release (± 3 years), crime type, number of prior SR terms (± 1 SR term), initial ABE level, mental health status, and confirmed gang status at release
- The matches between the study and comparison groups are random and are as close to a randomized control trial as possible
- Individuals in the study group that are unable to be matched with the comparison group are removed from the study
- Outcomes of the comparison are analyzed for significant group differences

Employment Rates Three Years After Release: Matched[‡] Cases and Comparison Group

FY2018 SR Releases: Employment Rate By Gender			
Correctional Education Status for Current Term	N	Study	Comparison
CTE			
Male	1,321	70%*	57%
Female	177	75%**	63%
Overall	1,498	71%*	58%
CRC			
Male	469	72%*	61%
Female	135	76%	69%
Overall	604	73%*	63%
GED			
Male	259	75%**	66%
Female	19	79%	53%
Overall	278	76%**	65%

- All study groups had higher employment rates during the follow-up period¹ than the comparison group
- The employment rates for all three overall study groups, males in any study group, and females in the CTE study group were significantly higher than the comparison group

Notes:

* Chi-Square Test was significant (p < .001).

** Chi-Square Test was significant (p < .02).

[‡] CTE and CRC were matched on the following: gender, age at release (± 2 yrs.), crime type, prior SR terms (± 1 SR term), mental health status, and confirmed gang status at release. GED was matched on the following: gender, age at release (± 3 yrs.), crime type, prior SR terms (± 1 SR term), initial ABE level, mental health status, and confirmed gang status at release.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

CTE Employment Statistics¹

FY2018 Employment Statistics: CTE		
	Study (N=1,059)	Comparison (N=867)
Quarterly Wages		
Mean	\$5,407.65*	\$4,972.48
Median	\$4,825.28	\$4,199.54
Time to Employment		
Mean	1.4 Quarters	1.5 Quarters
Median	1.0 Quarter	1.0 Quarter
Percent of Eligible Quarters Employed		
Mean	61%**	55%
Median	62%	54%
Number of Employers		
Mean	3.5***	3.1
Median	3.0	2.0

- On average, CTE completers earned significantly more money per quarter than the comparison group
- CTE completers and the comparison group, on average, gained employment within one- and one-half (1.5) quarters of release
- CTE completers were employed for a significantly greater percentage of quarters than the comparison group while at liberty (61% and 55%, respectively)
- CTE completers averaged significantly more different employers than the comparison group (3.5 and 3.1, respectively)

Notes:

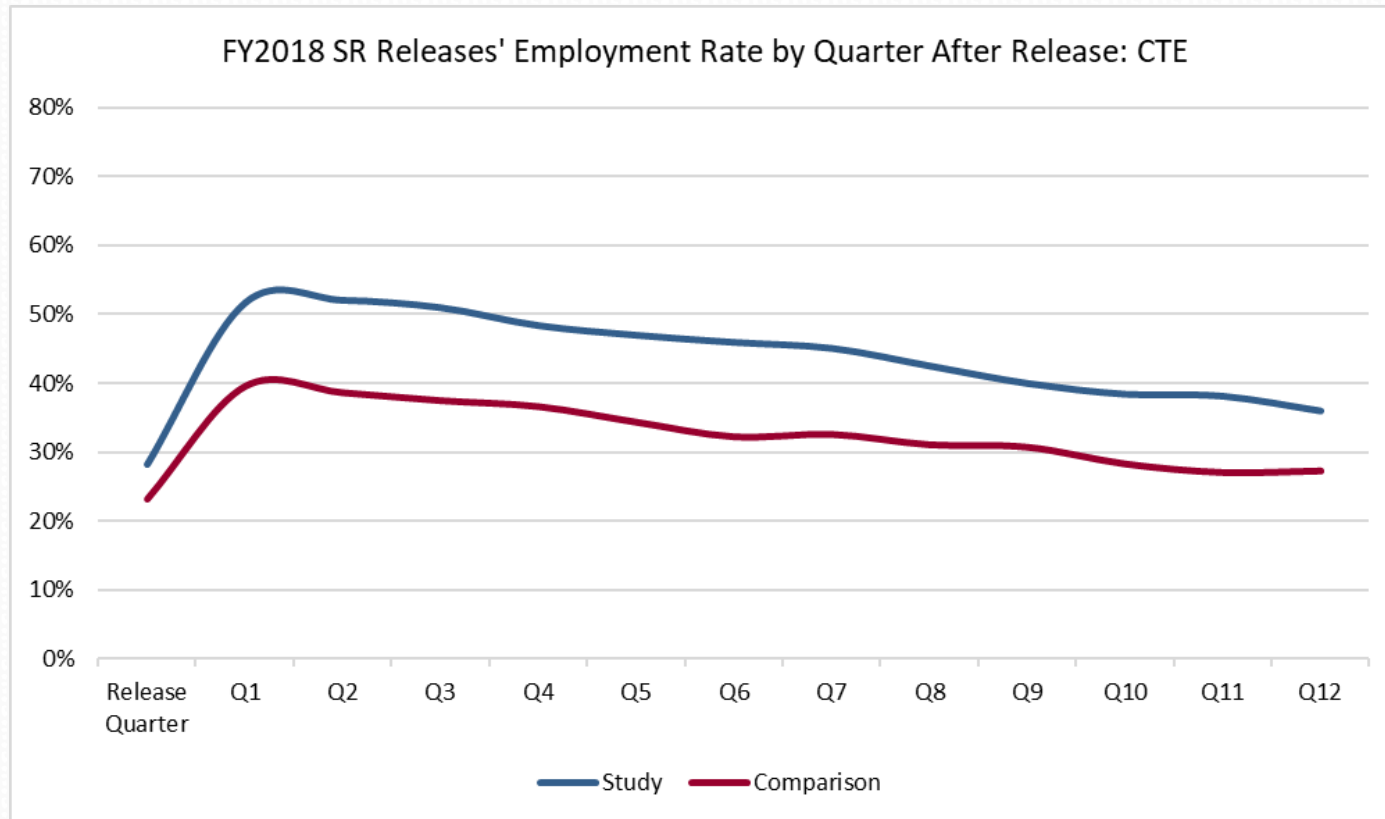
* $t(13968)=-5.920, p < .001.$

** $t(1924)=-4.085, p < .001.$

*** $t(1924)=-2.889, p = .004.$

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Quarterly Employment Rate¹: CTE



- Overall employment rate was higher in every quarter after release, including the release quarter, for the CTE completion group

Note:

¹ Number of releases with wages reported during a quarter out of the total number of releases that were at liberty to work.

Annual Employment Rate: CTE

FY2018 SR Releases: Annual Employment Rates of CTE Study and Comparison Groups				
	Year One	Year Two	Year Three	All
Study	35.8%	34.5%	27.2%	18.4%
Comparison	24.8%	22.8%	19.9%	11.9%
Difference	11.1%	11.6%	7.3%	6.5%

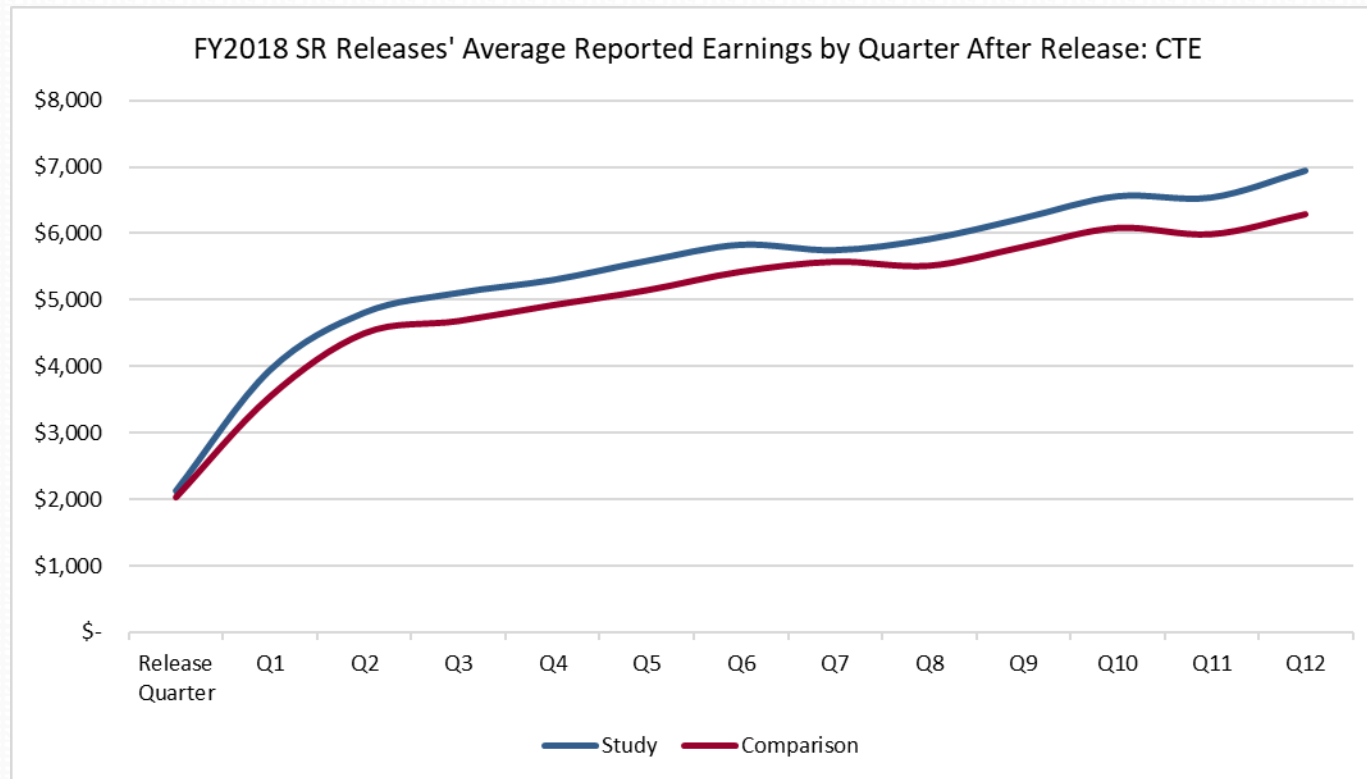
- Annual employment rate¹ is the rate at which an individual was employed all four quarters of the year
- The largest difference in employment rate occurred during year two (12%)
- 18% of the CTE study group maintained employment for the entire follow-up period² compared to 12% of the comparison group

Notes:

¹ Number of releases with wages reported in all four quarters of a year out of the total number of releases that were at liberty to work all four quarters of that year. Year One represents the first four quarters post-release, Year Two represents quarters five through eight post-release, and Year Three represents quarters nine through twelve post release.

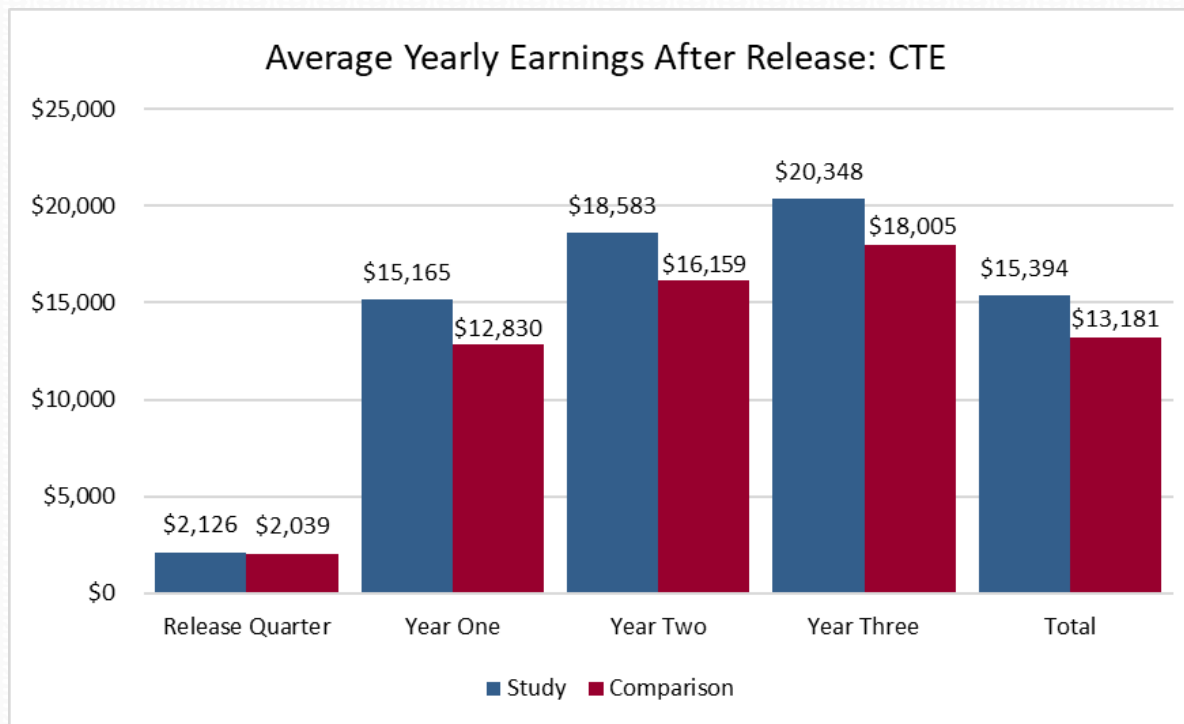
² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Average Reported Quarterly Earnings: CTE



- Average quarterly earnings were higher in every quarter after release, including the release quarter, for the CTE study group

Average Reported Yearly Earnings: CTE



- CTE completers' yearly average wages were higher than the comparison group every year after release and for the release quarter
- This difference was statistically significant each year¹ after release

Note:

¹ Year 1: $t(1728)=-3.619$, $p < .001$; Year 2: $t(1408)=-2.875$, $p = .004$; Year 3: $t(1146)=-2.196$, $p = .028$; Total: $t(5058)=-5.096$, $p < .001$.

CTE Career Cluster Employment Statistics: Quarterly Wages

FY2018 Career Clusters: Quarterly Wages			
Career Cluster	N	Mean	Median
Agriculture, Food, Natural Resources, and Hospitality			
Study	90	\$5,507.53	\$5,091.05
Comparison	57	\$5,625.42	\$4,756.58
Architecture and Construction			
Study	663	\$5,509.10*	\$4,785.71
Comparison	551	\$5,085.56	\$4,344.66
Arts, Audio/Video Technology and Communications			
Study	33	\$6,029.78	\$5,820.80
Comparison	31	\$5,920.02	\$4,647.27
Human Services			
Study	22	\$3,785.93	\$3,500.96
Comparison	18	\$6,019.21*	\$3,867.55
Information Technology and Finance			
Study	276	\$5,430.86*	\$4,939.69
Comparison	230	\$4,876.21	\$4,178.48
Manufacturing			
Study	69	\$6,241.90*	\$6,056.75
Comparison	61	\$4,946.01	\$4,779.00
Science, Technology, Engineering, and Mathematics			
Study	64	\$5,295.44	\$5,015.43
Comparison	56	\$4,751.62	\$3,078.88
Transportation, Distribution, and Logistics			
Study	16	\$5,428.95	\$5,188.42
Comparison	13	\$6,992.17*	\$5,656.95

- Inmates that completed a CTE course in the Architecture and Construction, Information Technology and Finance, and Manufacturing career clusters earned significantly more than the comparison groups during the follow-up period¹
- Inmates in the Human Services and Transportation, Distribution, and Logistics career clusters earned significantly less than the comparison groups²

Notes:

* Architecture and Construction: $t(8853)=-4.439, p < .001$. Human Services: $t(252)=4.232, p < .001$. Information Technology and Finance: $t(3688)=-3.928, p < .001$. Manufacturing: $t(934)=-5.182, p < .001$. Transportation, Distribution, and Logistics: $t(241)=2.793, p = .006$.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

² Results should be interpreted with caution due to the small numbers.

CTE Career Cluster Employment Statistics: Time to Employment

FY2018 Career Clusters: Time to Employment			
Career Cluster	N	Mean	Median
Agriculture, Food, Natural Resources, and Hospitality			
Study	90	1.5 Quarters	1.0 Quarter
Comparison	57	1.9 Quarters	1.0 Quarter
Architecture and Construction			
Study	663	1.4 Quarters	1.0 Quarter
Comparison	551	1.4 Quarters	1.0 Quarter
Arts, Audio/Video Technology and Communications			
Study	33	1.4 Quarters	1.0 Quarter
Comparison	31	1.2 Quarters	1.0 Quarter
Human Services			
Study	22	1.9 Quarters	1.0 Quarter
Comparison	18	1.9 Quarters	1.0 Quarter
Information Technology and Finance			
Study	276	1.6 Quarters	1.0 Quarter
Comparison	230	1.5 Quarters	1.0 Quarter
Manufacturing			
Study	69	1.1 Quarters*	1.0 Quarter
Comparison	61	1.9 Quarters	1.0 Quarter
Science, Technology, Engineering, and Mathematics			
Study	64	1.7 Quarters	1.0 Quarter
Comparison	56	1.2 Quarters	1.0 Quarter
Transportation, Distribution, and Logistics			
Study	16	1.1 Quarters	1.0 Quarter
Comparison	13	0.6 Quarters	0.0 Quarters

- On average, inmates that completed a CTE course in the Manufacturing career cluster had a significantly shorter time to employment¹ than the comparison group during the follow-up period²

Notes:

* $t(128)=2.526, p = .013$.

¹ Results should be interpreted with caution due to the small numbers.

² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

CTE Career Cluster Employment Statistics: Percent of Quarters Employed

FY2018 Career Clusters: Percent of Quarters Employed			
Career Cluster	N	Mean	Median
Agriculture, Food, Natural Resources, and Hospitality			
Study	90	62%	69%
Comparison	57	56%	50%
Architecture and Construction			
Study	663	61%*	62%
Comparison	551	55%	54%
Arts, Audio/Video Technology and Communications			
Study	33	67%	69%
Comparison	31	61%	63%
Human Services			
Study	22	53%	46%
Comparison	18	49%	46%
Information Technology and Finance			
Study	276	61%*	67%
Comparison	230	55%	54%
Manufacturing			
Study	69	60%	62%
Comparison	61	55%	54%
Science, Technology, Engineering, and Mathematics			
Study	64	59%	62%
Comparison	56	54%	54%
Transportation, Distribution, and Logistics			
Study	16	70%	88%
Comparison	13	65%	71%

Notes:
* Architecture and Construction: $t(1212)=-3.456, p < .001$. Information Technology and Finance: $t(504)=-2.078, p = .038$.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

- On average, inmates who completed a CTE course in any career cluster were employed a greater percentage of quarters than the comparison group while at liberty
- The Architecture and Construction and Information Technology and Finance study groups were employed for a significantly greater percentage of quarters during the follow-up period, while at liberty¹

CTE Career Cluster Employment Statistics: Employer Count

FY2018 Career Clusters: Number of Employers			
Career Cluster	N	Mean	Median
Agriculture, Food, Natural Resources, and Hospitality			
Study	90	3.1	2.0
Comparison	57	2.7	2.0
Architecture and Construction			
Study	663	3.6*	3.0
Comparison	551	3.1	3.0
Arts, Audio/Video Technology and Communications			
Study	33	3.8	3.0
Comparison	31	3.2	2.0
Human Services			
Study	22	3.8	2.5
Comparison	18	2.3	2.0
Information Technology and Finance			
Study	276	3.3	3.0
Comparison	230	3.1	2.0
Manufacturing			
Study	69	3.1	2.0
Comparison	61	3.1	3.0
Science, Technology, Engineering, and Mathematics			
Study	64	3.5	2.0
Comparison	56	3.5	3.0
Transportation, Distribution, and Logistics			
Study	16	3.0	2.5
Comparison	13	2.9	2.0

- On average, the Architecture and Construction study group had significantly more employers than the study group during the follow-up period¹

Notes:

* $t(1212) = -3.256, p = .001$.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

CRC Employment Statistics¹

FY2018 Employment Statistics: CRC		
	Study (N=439)	Comparison (N=380)
Quarterly Wages		
Mean	\$4,802.70	\$4,760.16
Median	\$4,232.84	\$3,572.40
Time to Employment		
Mean	1.2 Quarters*	1.6 Quarters
Median	1.0 Quarter	1.0 Quarter
Percent of Eligible Quarters Employed		
Mean	59%**	54%
Median	62%	54%
Number of Employers		
Mean	3.6***	3.2
Median	3.0	2.0

- On average, the study group and comparison group had comparable mean quarterly wages. However, the study group had higher median wages than the comparison group.
 - This is due to the comparison group having outliers with very high wages, which makes the median a better measure of central tendency
- On average, CRC earners gained employment significantly faster than the comparison group (1.2 quarters and 1.6 quarters, respectively)
- CRC earners were employed for a significantly greater percentage of quarters than the comparison group while at liberty (59% and 54%, respectively)
- CRC earners had significantly more different employers than the comparison group (3.6 and 3.2, respectively) during the follow-up period

Notes:

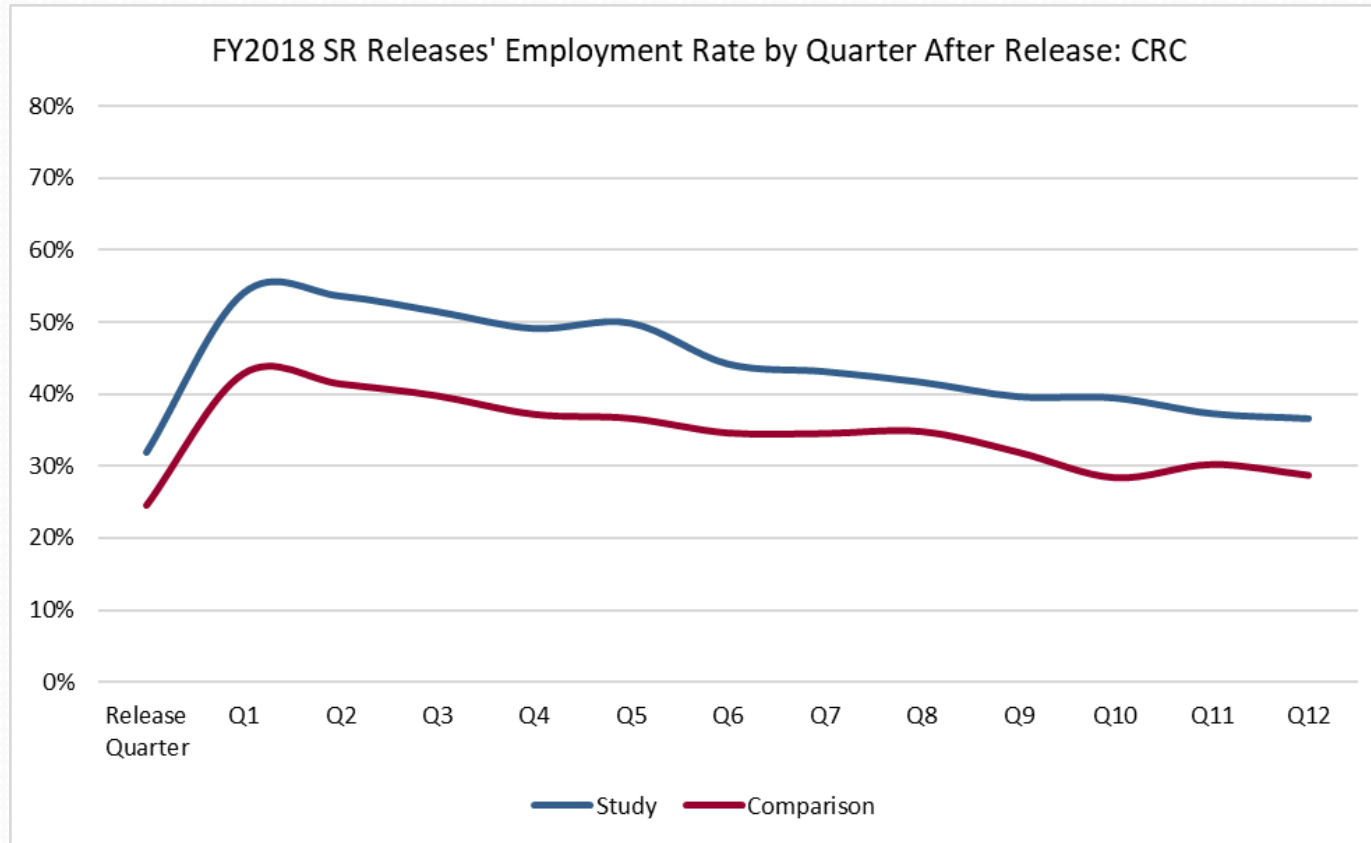
* t(817)=2.152, p = .032.

** t(817)=-2.769, p = .006.

*** t(817)=-2.023, p = .043.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Quarterly Employment Rate:¹ CRC



- There was a higher employment rate in every quarter after release, including the release quarter, for the CRC study group

Note:

¹ Number of releases with wages reported during a quarter out of the total number of releases that were at liberty to work.

Annual Employment Rate: CRC

FY2018 SR Releases: Annual Employment Rates of CRC Study and Comparison Groups				
	Year One	Year Two	Year Three	All
Study	36.3%	32.1%	26.7%	17.4%
Comparison	24.9%	24.0%	19.5%	11.6%
Difference	11.4%	8.0%	7.3%	5.8%

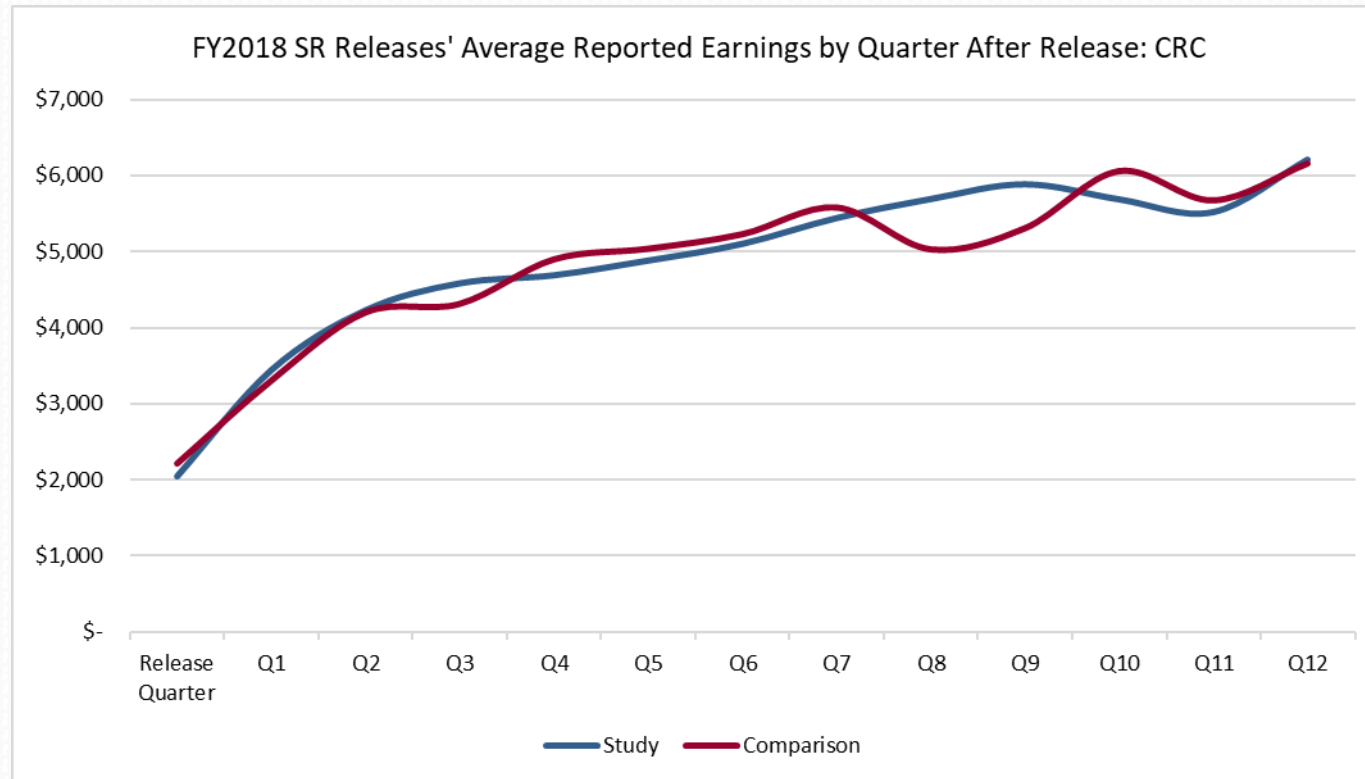
- Annual employment rate¹ is the rate at which an individual was employed all four quarters of the year
- The largest difference in employment rate occurred during year one (11%)
- 17% of the CRC study group maintained employment for the entire follow-up period² compared to 12% of the comparison group

Notes:

¹ Number of releases with wages reported in all four quarters of a year out of the total number of releases that were at liberty to work all four quarters of that year. Year One represents the first four quarters post-release, Year Two represents quarters five through eight post-release, and Year Three represents quarters nine through twelve post release.

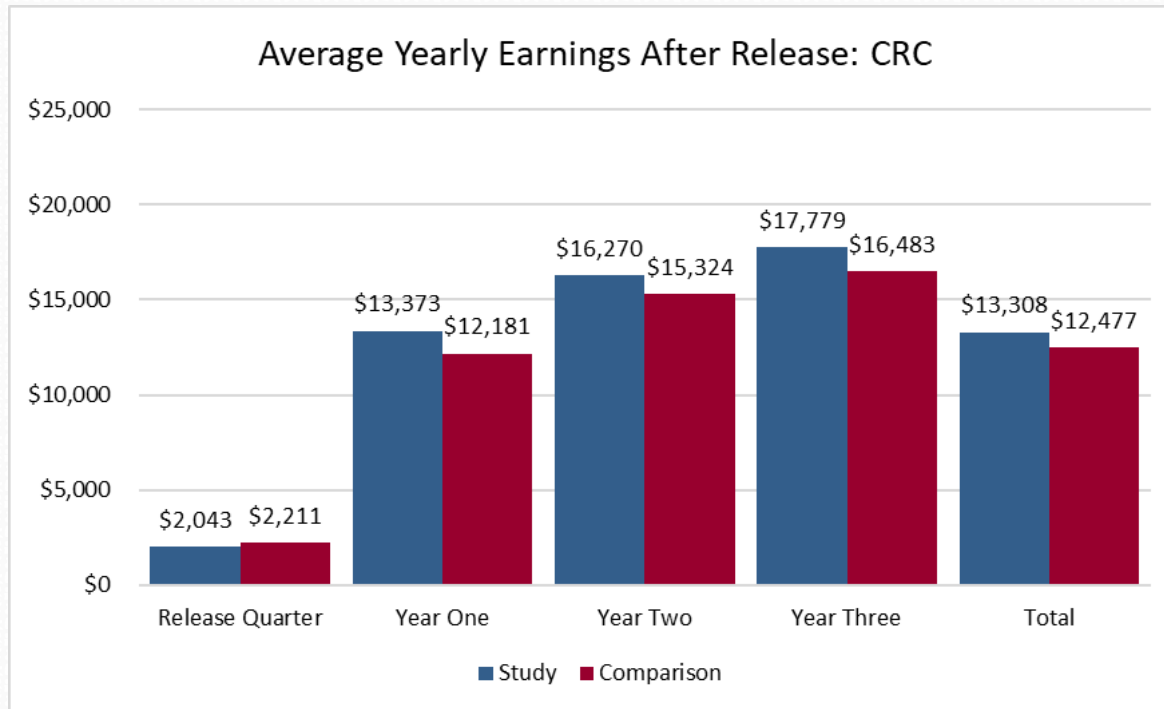
² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Average Reported Quarterly Earnings: CRC



- Average quarterly earnings for the CRC study group were higher than the comparison in quarters eight and nine

Average Reported Yearly Earnings: CRC



- CRC earners' average yearly wages were higher than the comparison group every year after release, but were not significantly different

GED Employment Statistics¹

FY2018 Employment Statistics: GED		
	Study (N=210)	Comparison (N=180)
Quarterly Wages		
Mean	\$4,771.28*	\$4,390.76
Median	\$4,073.38	\$2,967.22
Time to Employment		
Mean	1.3 Quarters	1.5 Quarters
Median	1.0 Quarter	1.0 Quarter
Percent of Eligible Quarters Employed		
Mean	60%**	51%
Median	62%	50%
Number of Employers		
Mean	3.7	3.5
Median	3.0	3.0

- On average, GED earners earned significantly more money per quarter than the comparison group
- GED earners gained employment after release marginally sooner than the comparison group (1.3 quarters and 1.5 quarters, respectively)
- GED earners were employed for significantly more quarters than the comparison group while at liberty (60% and 51%, respectively)
- GED earners averaged more different employers than the comparison group (3.7 and 3.5, respectively) during the follow-up period

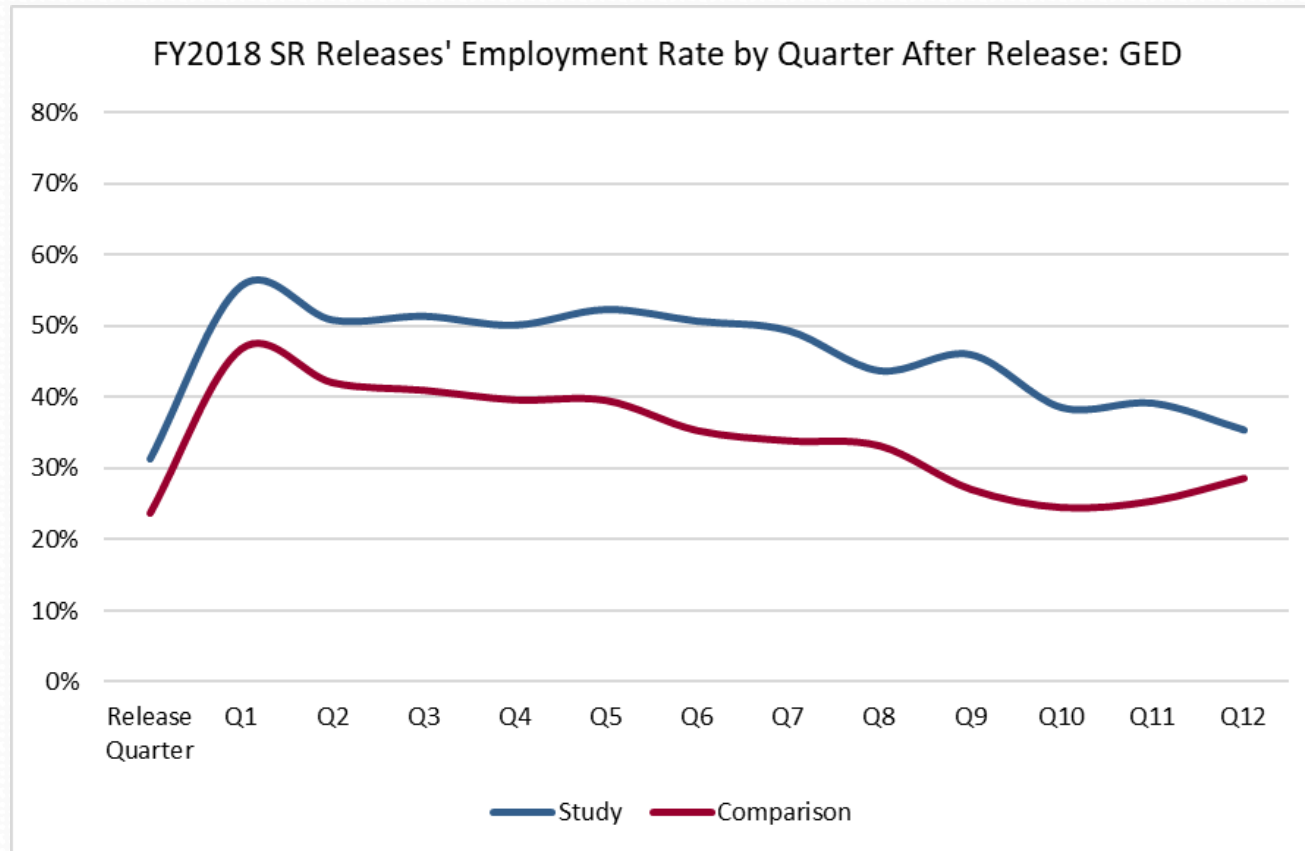
Notes:

* $t(2680) = -2.173$, $p = .03$.

** $t(388) = -2.785$, $p = .006$.

¹ Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Quarterly Employment Rate:¹ GED



- Quarterly employment rate was higher in every quarter after release, including the release quarter, for the GED study group

Note:

¹ Number of releases with wages reported during a quarter out of the total number of releases that were at liberty to work.

Annual Employment Rate: GED

FY2018 SR Releases: Annual Employment Rates of GED Study and Comparison Groups				
	Year One	Year Two	Year Three	All
Study	35.2%	34.0%	25.5%	14.0%
Comparison	27.2%	21.1%	18.8%	12.7%
Difference	8.0%	12.9%	6.7%	1.3%

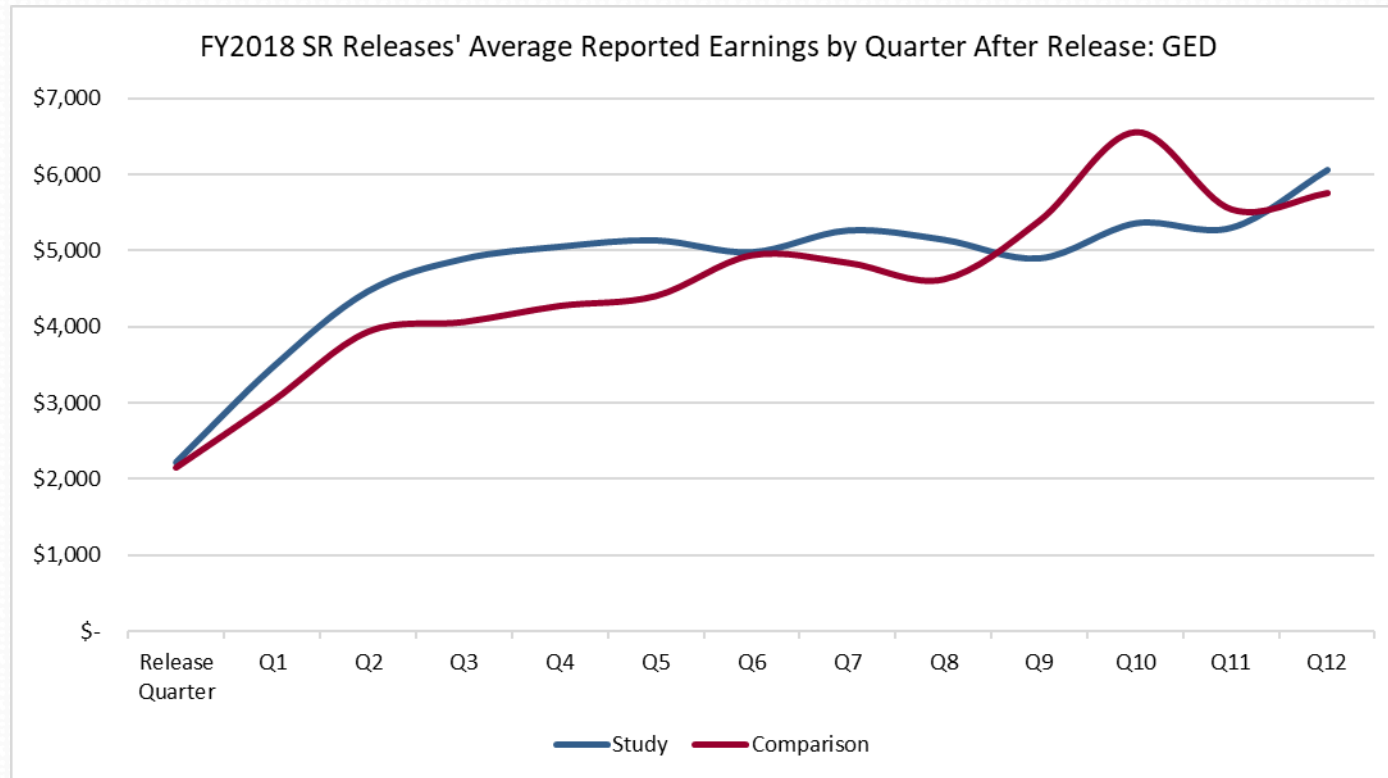
- Annual employment rate¹ is the rate at which an individual was employed all four quarters of the year
- The largest difference in employment rate occurred during year two (13%)
- There was only a 1% difference between the GED study group and comparison group in employment rates for the entire follow-up period² (14% and 13%, respectively)

Notes:

¹ Number of releases with wages reported in all four quarters of a year out of the total number of releases that were at liberty to work all four quarters of that year. Year One represents the first four quarters post-release, Year Two represents quarters five through eight post-release, and Year Three represents quarters nine through twelve post release.

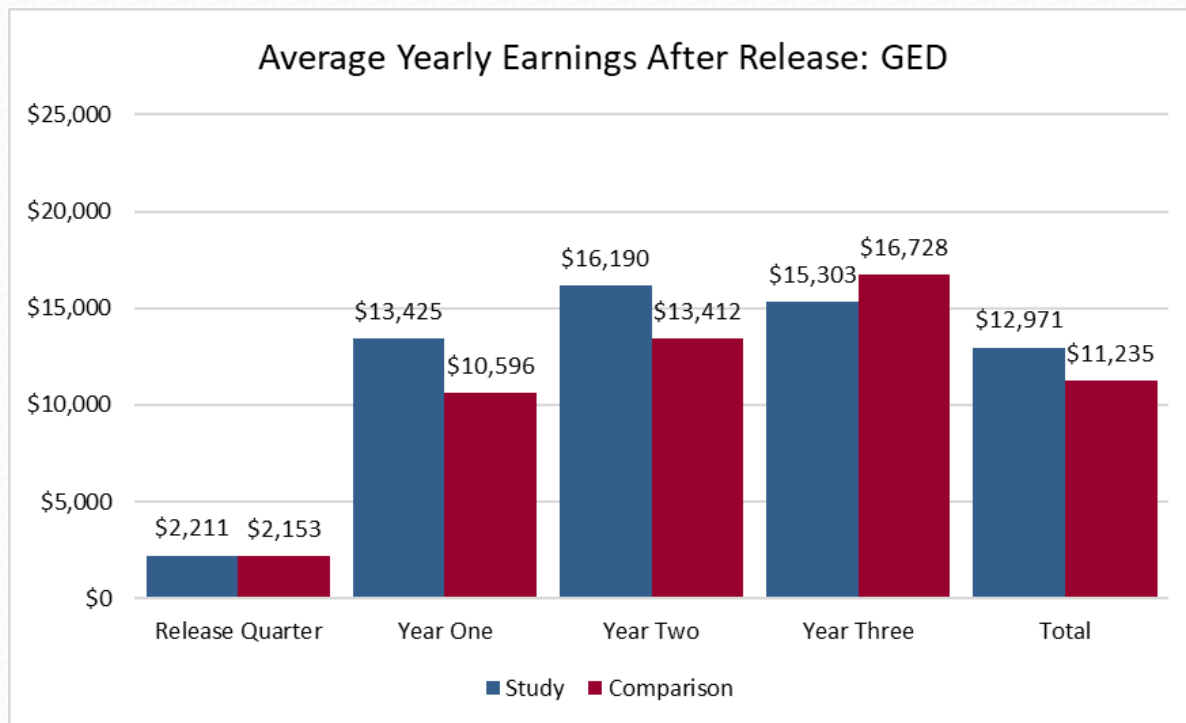
² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Average Reported Quarterly Earnings: GED



- The GED study group had higher average quarterly earnings in the majority of quarters during the follow-up period

Average Reported Yearly Earnings: GED



- GED earners' yearly average wages were higher than the comparison group for year one, year two, and overall
- The comparison group had higher total wages and wages in year three
- This difference was statistically significant only in the first year after release¹

Note:

¹ Year 1: $t(353) = -1.965$, $p = .05$.

Overall Employment Rates Three Years After Release: ABE Levels¹

FY2018 Employment Rates By ABE Level		
ABE Level	N	Employment Rate
ABE I	36	42%
ABE II	238	45%
ABE III	535	61%
ABE IV	955	66%
ABE V	635	68%
ABE VI	610	66%

- FY2018 SR releases with an ABE level of 5 were more likely to be employed (68%) at some point during the three-year follow-up period² after release than inmates of any other ABE level
- Inmates who reached at least an ABE level of 3 (ABE level III through VI) had an employment rate of 64% compared to inmates who had an ABE level of less than 3 (44%)
- As ABE level increased up to ABE V, so did employment rate

Notes:

¹ Inmates' maximum TABE scores during the current release term of incarceration were used to calculate ABE levels.

² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

Employment Statistics by ABE Level¹

FY2018 Employment Statistics by ABE Level								
ABE Level	Quarterly Wages		Time to Employment		Percent of Eligible Quarters Employed		Number of Employers	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
ABE I (N=15)*	\$4,355.01	\$3,924.64	0.7 Quarters	0.0 Quarters	69%	77%	4.1	2.0
ABE II (N=106)	\$4,034.06	\$3,292.11	1.9 Quarters	1.0 Quarter	49%	46%	2.8	2.0
ABE III (N=325)	\$3,947.09	\$3,245.03	1.7 Quarters	1.0 Quarter	49%	46%	3.0	2.0
ABE IV (N=634)	\$4,443.40	\$3,621.53	1.5 Quarters	1.0 Quarter	53%	54%	3.4	3.0
ABE V (N=429)	\$5,118.84	\$4,410.38	1.4 Quarters	1.0 Quarter	59%	62%	3.4	3.0
ABE VI (N=402)	\$5,277.55	\$4,654.65	1.5 Quarters	1.0 Quarter	59%	62%	3.4	3.0

- On average, FY2018 SR releases with an ABE level of 6 had the highest quarterly wages during the follow-up period²
- Those with an ABE level of 1 had the shortest time to employment (0.7 quarters) and the highest percentage of time employed (69%) while at liberty*

Notes:

¹ Inmates' maximum TABE scores during the current release term of incarceration were used to calculate ABE levels.

² Follow-up period was from the quarter/year the inmate was released through 12 additional quarters or through the quarter/year that the inmate recidivated.

* Results should be interpreted with caution due to the small numbers.

Summary

- All inmates who completed a CTE, earned a GED, or earned a CRC had higher employment rates than the overall FY2018 release cohort
- FY2018 SR releases who completed a CTE, earned a GED, or earned a CRC had higher quarterly wages and were employed for a greater percent of eligible quarters than releases who did not complete a CTE or earn a GED or CRC
- CTE completers earned more, on average, than any other group examined
- All employed FY2018 SR releases had lower recidivism rates than those who did not find employment after release
- The CTE and GED study groups earned significantly more, on average, than the comparison groups
- On average, inmates that completed a CTE course in any career cluster were employed for more quarters than the comparison groups
- Improvements in ABE levels can be impactful
 - As ABE levels increased, employment rates increased, earnings increased, and the amount of time employed increased
 - FY2018 SR releases with an ABE level of 5 or 6 earned more, on average, than any other ABE levels
- Higher employment rates and wages may contribute to the lower recidivism rates* of CTE completers, GED earners, and CRC earners

Note:

* [VADOC Recidivism: FY2018 State Responsible Releases.](#)

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