



The Office of Innovation, Alignment, and Accountability
Post-Release Outcomes for Clients Exiting Juvenile
Rehabilitation, SFY15-19 Part I: Recidivism



Washington State Department of
CHILDREN, YOUTH & FAMILIES

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POST-RELEASE OUTCOMES FOR CLIENTS EXITING JUVENILE REHABILITATION PART I:
SFY15-19 RECIDIVISM



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Introduction

A key priority of the Department of Children, Youth and Families (DCYF) is to create successful transitions into adulthood, including providing appropriate supports to promote youth reentry into their communities.¹ In Juvenile Rehabilitation (JR), clients are released to their communities after serving a period of confinement. The purpose of this analysis is to increase DCYF's understanding of recidivism, or re-offending during the post-release period, and the effect of current practices on those rates, and to inform potential improvements to policies or processes. Evaluators with DCYF's Office of Innovation, Alignment, and Accountability (OIAA) identified factors that may have some relationship to recidivism, post-release. These factors are: Environmental Adherence (EA) scores, reentry preparation, monthly room confinement/isolation (RC/I) rates, and employment in the year prior to release.²

Executive Summary

Key Findings

- Increases in a client's average EA score during their time in JR, significantly decreased their likelihood of recidivism, more specifically violent felony recidivism.
- Clients who experienced a monthly RC/I rate of two or more hours per month were significantly more likely to have any recidivism, and also violent felony recidivism.
- There were no significant differences in the likelihood of recidivism by a client's degree of reentry preparation, or their employment status in the year prior to release.
- Clients who experienced higher average EA scores were less likely to experience RC/I.

About the Study Population

The current analysis examined all residential obligations that ended during SFY2015-2019. During SFY15-19, there were 2,727 total obligations that ended, of which 2,602 obligations were included in the current analysis. Obligations that were excluded from analysis include clients who transferred directly to DOC upon their release from JR, or they began another obligation at JR within two days of their release, considered a consecutive obligation ($N = 69$). Clients were also removed from multivariate analysis if they were missing EA score information or if their race or ethnicity were unknown ($N = 56$). If a client had multiple obligations during SFY15-19, each obligation was included separately in analysis. A client was considered to have recidivated if they committed a new offense within 18 months of being released, and were adjudicated of that offense within the following 12 months.

A majority of clients in the release population were under 18 at the time of their release for each fiscal year in this analysis, but the percentage of clients under 18 at release did decrease steadily in the five-year period. The number of clients who were 18 or older at the time of their release increased from SFY15-19, from 33% to 39%. The percentage of American Indian/Alaskan Native or Asian/Pacific Islander remained relatively

¹ See page 1 of [The Department of Children, Youth, and Families Strategic Priorities 2021-2026](#) for more information on the agency's Strategic Plan.

² See Technical Appendix for additional information on independent variable creation and definitions.

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consistent for SFY15-19 releases. The percentage of white clients decreased most substantially, from 48% of releases in SFY2015 to 39% of releases in SFY2019. The percentage of Black/African American clients and Hispanic clients increased overall from SFY15-19, although inconsistently. A majority of clients who released from JR during SFY15-19 were male (89%). Overall, 40% of clients who released during SFY15-19 had spent one or more days in a Community Facility (CF) during their obligation. Fifty-three percent of clients released during SFY15-19 were assigned to Parole Aftercare upon their release from their residential obligation.

Table 1:
Client Demographics by SFY Release, SFY15-19 (N=2,602)

	SFY2015	SFY2016	SFY2017	SFY2018	SFY2019
Client Demographic					
Age at Release					
Under 18	67%	67%	69%	65%	61%
18 or Older	33%	33%	31%	35%	39%
Racial Category					
American Indian/Alaskan Native	9%	12%	9%	10%	8%
Asian/Pacific Islander	4%	2%	2%	3%	5%
Black/African American	19%	21%	23%	26%	23%
Hispanic	20%	20%	24%	23%	25%
White	48%	44%	42%	38%	39%
Offense Type					
Person	38%	38%	41%	40%	47%
Other (Including Sex Offenses)	62%	62%	59%	60%	53%
Gender					
Male	89%	88%	90%	91%	88%
Female	11%	12%	10%	9%	12%
Went to a CF					
Yes	45%	41%	37%	36%	39%
No	56%	59%	63%	64%	61%
Follow-up during COVID					
Yes	N/A	N/A	N/A	83%	100%
No	100%	100%	100%	17%	N/A
Parole Aftercare					
Had Parole	56%	49%	53%	56%	49%
Did not receive Parole Aftercare	44%	51%	47%	44%	51%
	590	535	559	505	413

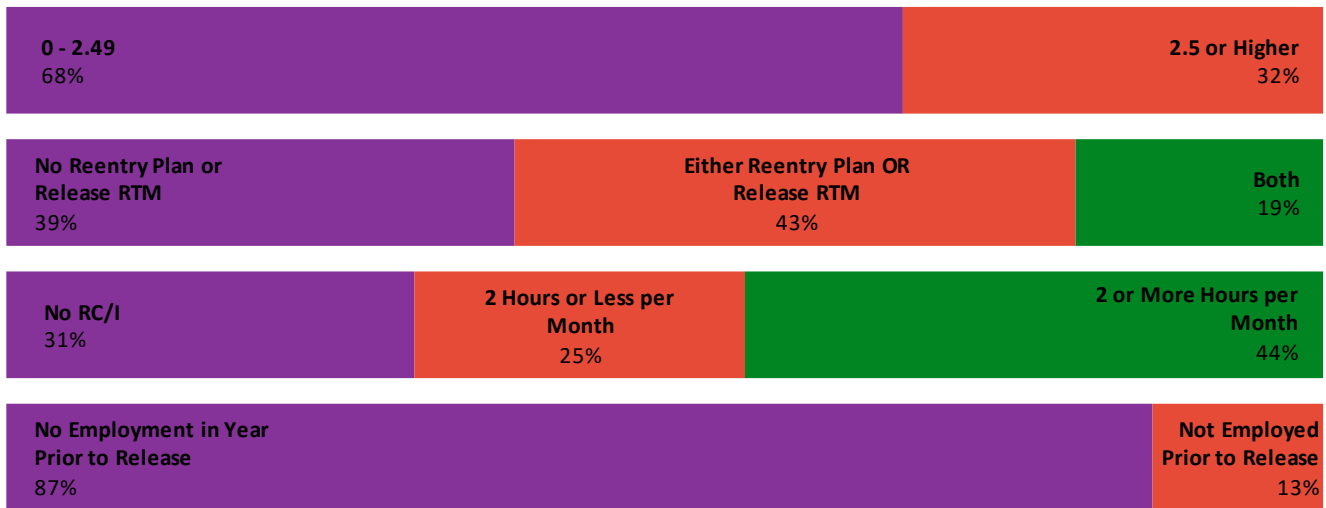
Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019].

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Figure 2 below shows the percent of clients released during SFY15-19 by the factors of interest. Thirty-two percent of clients experienced an EA score of 2.5 or higher during their time in JR.³ A majority of clients released during SFY15-19 had either a reentry plan or release RTM, or both, within 60 days prior to their release. Sixty-nine percent of clients released experienced RC/I during their obligation. Of those, 44% experienced a monthly RC/I rate of more than two hours. Thirteen percent of clients had some employment reported to employment security in the year prior to their release.

Figure 2:
Percent of Release Population by Independent Variables SFY15-19 (N = 2,602)



Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019].

Findings

Recidivism Rates

Logistic regression was used to analyze the relationship between EA Scores, reentry preparation, monthly RC/I rates, employment in the year prior to release, and recidivism. Client age at release, race/ethnicity, and gender were included in the statistical model as control variables, as well as a client’s receipt of parole aftercare or if they were indicated as having spent one or more days in a CF during their obligation⁴. The State of Emergency declared in Washington in response to COVID-19 was also included as a control in the model⁵.

³ This EA score cutpoint was taken from a former standard implemented at Echo Glen Children’s Center which set a goal of consistently obtaining an EA score of 2.5 or higher.

⁴ Client risk assessment scores were considered for inclusion in the model, but were found to disproportionately assess risk and are no longer used in JR as a result. During the period of inclusion in this report, that was the primary risk assessment used to determine placement.

⁵ Clients were indicated as having the COVID-19 State of Emergency in their post-release follow-up period if any of those follow-up days occurred between or during March 2020 through October 2022. These dates were determined by the start and end dates of the State of Emergency.

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As a client's weighted EA score increased, a client's likelihood of recidivism decreased, controlling for demographic information and the other independent variables. For every one point increase in the client's EA score, the likelihood of any recidivism reduced by 28% (95% CI [.58, .88]).

This means that the effect of a client's average Environmental Adherence score was significant even while controlling factors like age at release and race or ethnicity. Clients with an EA score of 2.5 or higher were significantly less likely to experience RC/I than clients who had EA scores under 2.5.

Similarly, clients who had experienced any RC/I during their obligation had significantly higher odds of recidivating than clients who did not experience RC/I during their obligation. Clients who experienced a monthly RC/I rate of more than two hours had 166% higher odds of recidivism (95% CI [2.18, 3.24]) than clients who did not experience RC/I.

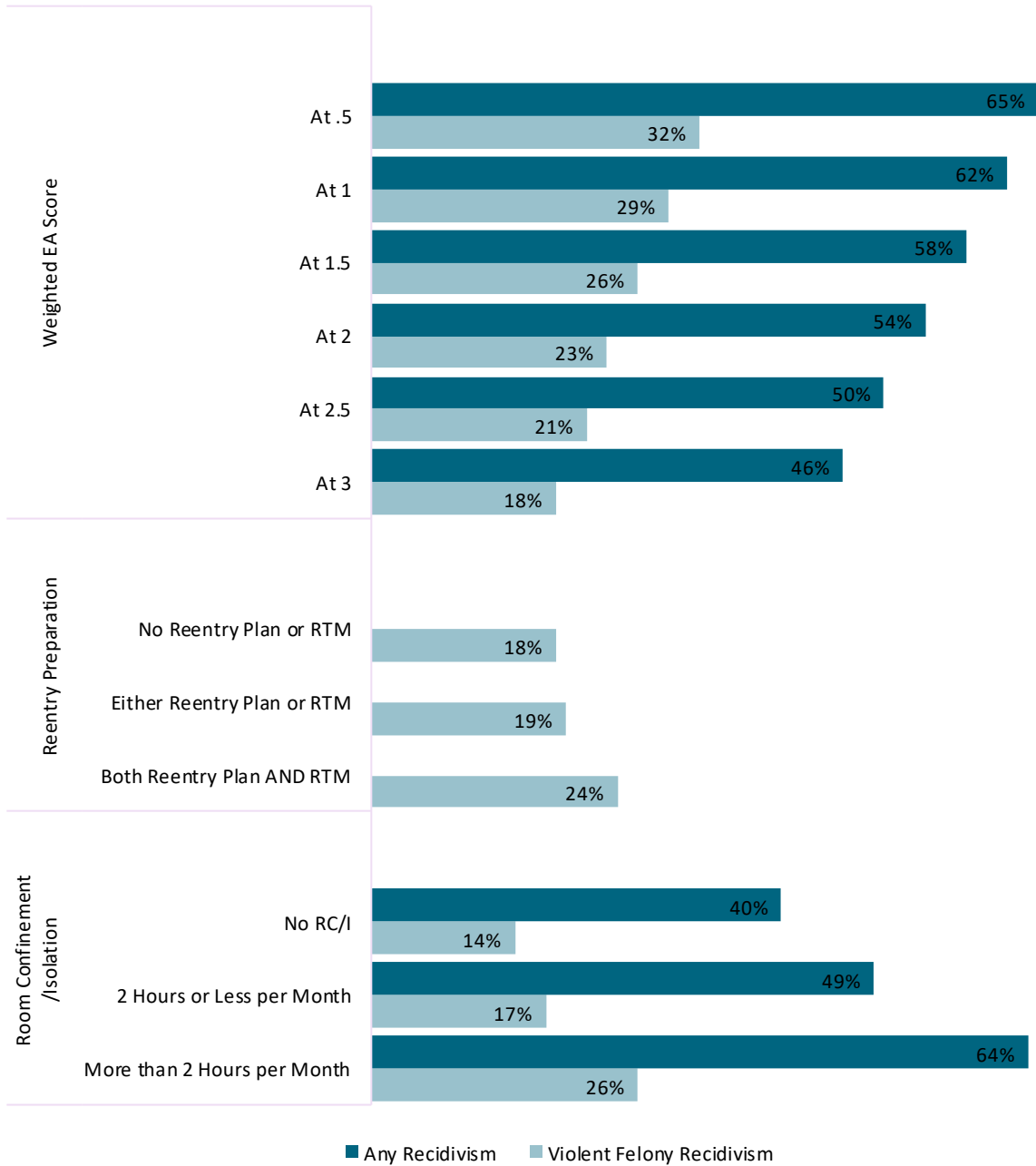
Clients who had been assigned parole aftercare upon release were more likely to have had a Reentry Plan or Release RTM. Clients who received parole aftercare also had significantly higher rates of recidivism, as parole assignment was based on a client's risk for recidivism historically. Although this is an interesting finding, it does not indicate that reentry preparation causes recidivism, rather that clients who may have already been at a higher risk to recidivate also released more frequently with some degree of reentry preparation.

Reentry preparation and employment in the year prior to release did not have a significant impact on recidivism.

In addition to the factors of interest in the analysis, clients' age at release and race/ethnicity had significant associations on recidivism. With each additional year of age a client had at release, their odds of recidivating decreased by 29% when controlling for all other variables in analysis (95% CI [.76, .87]). Native American/Alaska Native, Black /African American, and Hispanic/Latino clients all had higher odds of recidivism than white clients, again while controlling for all other variables in analysis.

Figure 3 below shows the marginal effects, in this case representing predicted recidivism rate, from the logistic regression model. The percentages in this graph represent the estimated recidivism rate for each group when controlling for other variables in the model. These rates are the statistical estimates of recidivism related to our variables of interest. Essentially, we are estimating how recidivism rates would vary if clients were all the same as each other, except on the factor we are testing (i.e. EA score, RCI, Reentry Prep, Employment). Figure 3 only includes the variables that were significantly related to recidivism post-release.

Figure 3:
Predicted Recidivism Rates by Independent Variable Groups, Marginal Effects From Logistic Regression Model



*Variables that were not significantly related to recidivism were not included in Figure 3. For this reason, the figure does not show the predicted rates of any recidivism by reentry preparation or employment in the year prior to release, and does not show the predicted rate of violent felony recidivism by employment in the year prior to release.
 Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019]. Conviction data provided by Washington State Center for Court Research (April 2022).[2008-2019].

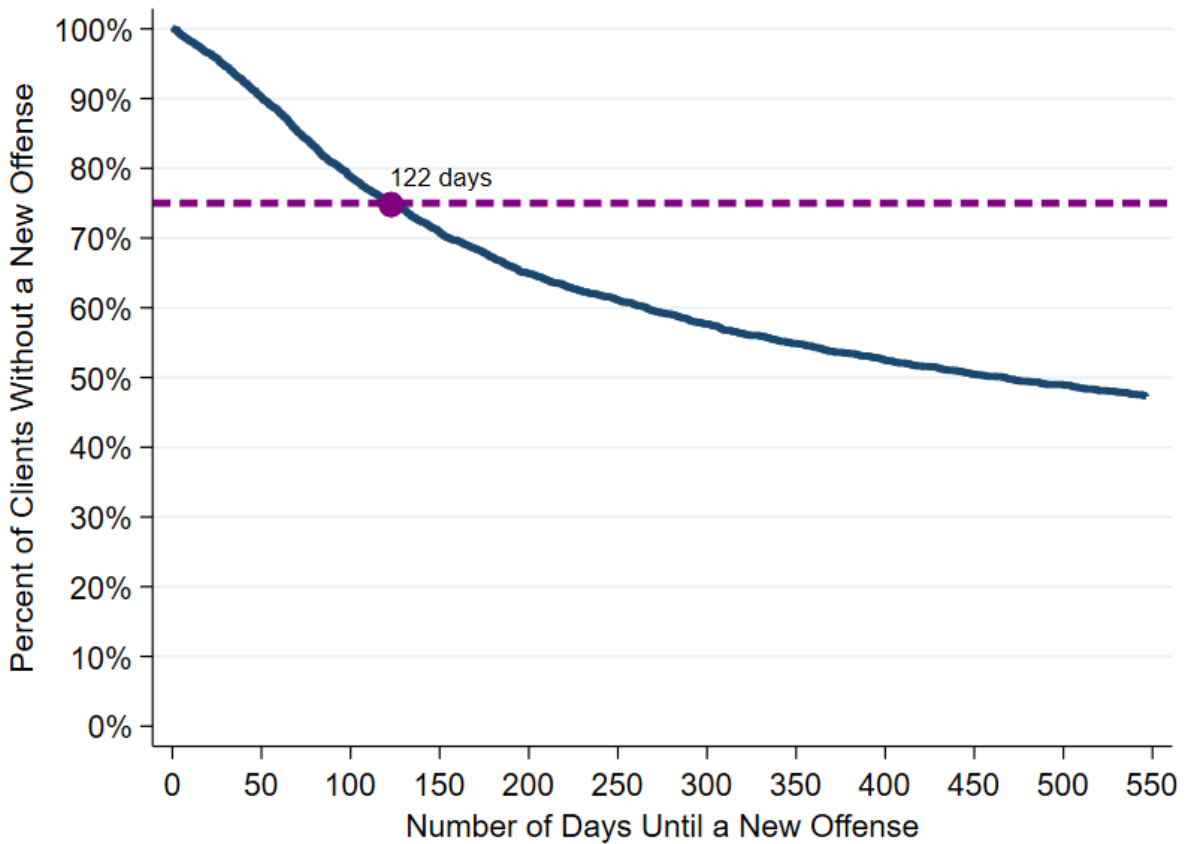
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Days to Recidivism

Using Event History Analysis⁶, we examined the number of days clients were in their communities prior to committing a new offense. The solid line in the figures below represents the percent of clients, at each time point, in days, who did not commit a new offense. The dotted line in the figures indicates the point at which 25% of the release population had recidivated. For SFY15-19 releases, 25% of the release population had committed a new offense by 122 days, or about four months post-release.

Figure 3
Clients Released During SFY15-19 Days to Recidivism



Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019]. Conviction data provided by Washington State Center for Court Research (April 2022).[2008-2019].

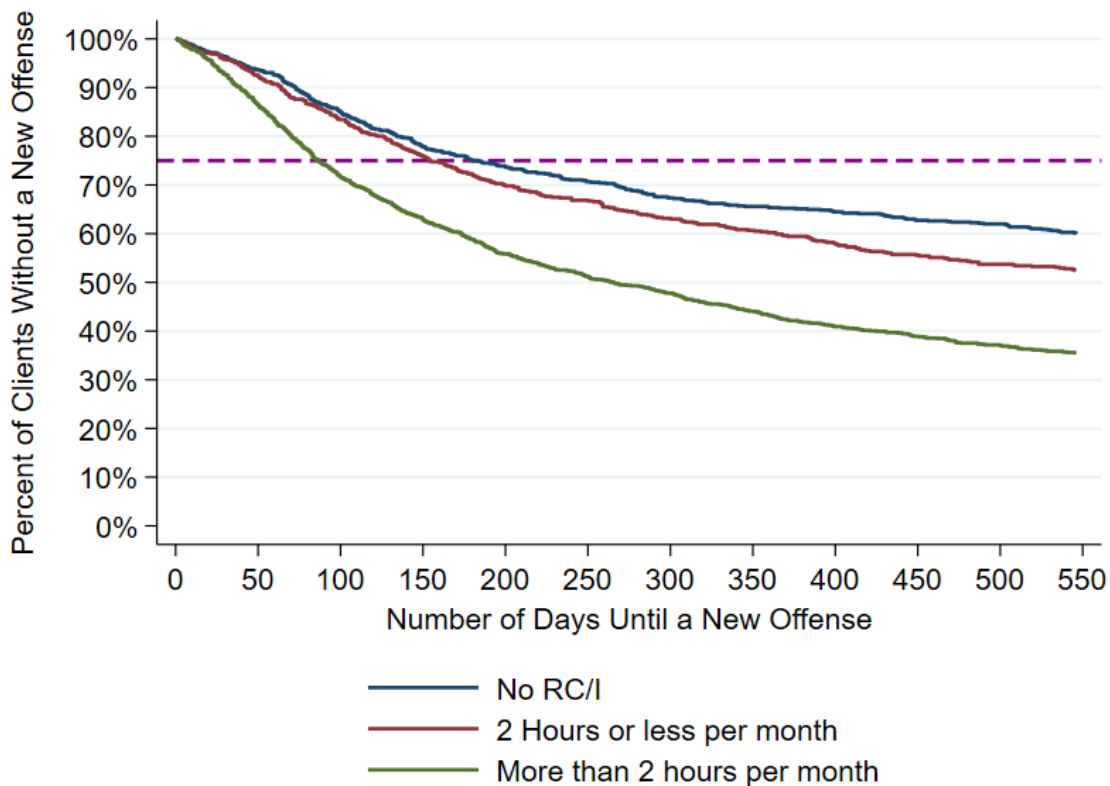
There were no substantial differences in the number of days it took clients to commit a new offense when examined by reentry preparation category. Having a reentry plan or release RTM did not have a significant relationship to the number of days to recidivism. There were substantial differences in the number of days to a new offense by EA score, monthly RC/I rate, and employment in the year prior to release.

⁶ Also commonly referred to as Survival Analysis.

Twenty-five percent of clients with an EA score of 2.5 or higher had committed a new offense by 112 days post-release, compared to 128 days for clients with a score under 2.5. After 173 days, 25% of clients who were employed in the year prior to release had committed a new offense, compared to 116 days for clients who were not employed prior to release. The differences in the number of days to commit a new offense by RC/I category is shown in Figure 4 below. After 180 days, about 6 months post-release, 25% of clients who had not experienced any RC/I had committed a new offense, whereas 25% of clients who experienced a monthly rate of two or more hours of RC/I committed a new offense after 87 days post-release, less than three months.

Figure 4

Client Days to Recidivism by RC/I Category, SFY15-19 Releases



Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019]. Conviction data provided by Washington State Center for Court Research (April 2022).[2008-2019].

Conclusion

The current analysis explores the relationship between client Environmental Adherence (EA) scores, reentry preparation, monthly RC/I rate, employment in the year prior to release, and recidivism. Findings indicated that both a client’s average EA score and their monthly rate of RC/I during their obligation have a significant effect on recidivism. Knowing this can allow JR to more appropriately design and target supports to clients at highest risk for such a severe outcome.

Technical Appendix: Variable Definitions

Independent Variable Definitions

Environmental Adherence (EA) Scores

Environmental Adherence (EA) Scoring was developed as a Quality Assurance (QA) tool that provides a score based on observation conducted by QA staff on how well staff are adhering to the Dialectical Behavioral Therapy model (DBT), JR’s current residential treatment model. Prior to April 2021, one EA observation was expected to occur twice a year, but after an evaluation of JR’s implementation of DBT in JR⁷, the rate of observation was reduced to once per year, per a recommendation in the report based on available resources at that time.⁸ Scores range from 0 to 3, with higher scores indicating greater adherence to the treatment model.

The weighted EA score per obligation, or client, was calculated first by determining the average EA score by for each living unit, as scores reflect living unit, not individual client or staff scores. Then we examined the total number of days a client spent at each location and the average EA score that they received every day. In order to get the weighted EA score, we then divided by all of the days a client was housed in a location with an EA score. Doing so adjusted the EA score based on the number of days a client was in each location to produce a more accurate representation of the average EA score that a client experienced during their obligation. If a living unit was missing an observation, then an average of the prior and post observations were utilized.

$$\frac{\text{Average EA Score} \times \text{Number of days in specific location}}{\text{Total Number of Days in an EA scored location during obligation}} = \text{Weighted EA Score per client}$$

Reentry Preparation – Reentry Plans and Release Reentry Team Meetings (RTMs)

The reentry preparation category is intended to explore the degree to which release Reentry Team Meetings (RTM) or Reentry Plans have an impact on post-release outcomes. Both RTMs and Reentry Plans were developed as a way to formalize, document, and communicate with clients and their supports about their transition plans. A Release RTM is a meeting that the client, case manager, and other identified supports in the client’s life attend to discuss and plan for the client’s transition back to their community upon their release from residential care. These meetings are documented in case notes. A client was considered to have received a Release RTM if there was a Release RTM case note that was submitted within 60 days prior to their residential release.

The Reentry Plan is a document that a case manager or RTM facilitator prepares that includes information about a client’s housing, employment, program referrals, etc. This document is a summary of domains discussed during the Release RTM and is provided to the clients upon their release. A client was considered to

⁷ Fox, A. M., Miksicek, D., and Veele, S. (2019). An evaluation of Dialectical Behavior Therapy in Washington State’s Juvenile Rehabilitation. Olympia, WA: Department of Children, Youth, and Families, Office of Innovation, Alignment, and Accountability.
⁸ Fox, A. (2021) Residential Treatment Quality: Update on the 2019 Dialectical Behavior Therapy Recommendations.

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have a Reentry Plan if a Reentry Plan had been submitted within 60 days prior to the client's release from residential care.

Room Confinement and Isolation (RC/I)

Room Confinement and Isolation records were included in analysis if they were submitted and were at least one minute in length. To get the monthly rate of room confinement and isolation, evaluators first determined the total number of hours a client spent on RC/I, then divided it by the number of days the client was in a JR Institution in order to get a daily rate. This was then multiplied by 30 to obtain the monthly rate. Days spent in a CF were not included in this calculation because clients are not placed on RC/I in the CFs, so the rate is based only on days where a client could have been placed on room confinement.

Employment in the Year Prior to Release

Clients in JR are able to obtain employment during their obligation, and are encouraged to do so where possible. As clients transition to less restrictive environments in the JR continuum of care, namely CFs, clients' ability to gain employment increases, as they may be allotted time away from the facility to attend work. This metric identifies clients who obtained some sort of employment that was reported to the WA Employment Security Department (ESD) some time in the year prior to their release. If a client worked at all in the year prior to their release, they were considered in this analysis to have had employment during their obligation. Clients' quarter of release was not included in their indication of employment in the year prior to their release, as we cannot determine if the employment began during or after the obligation ended.

Post-Release Outcome Definitions

Recidivism

To determine recidivism rates, OIAA Evaluators identified in administrative records all clients whose residential obligation ended during SFY15-19. They obtained all conviction data from the Washington State Center for Court Research. Recidivism in this analysis is defined as an offense that occurred within 18 months of release from a residential facility, which resulted in a conviction or an adjudication. Twelve months were then allowed for the offense to go through the court process to determine if a conviction, diversion, or deferred adjudication would occur.

Recidivism types include any recidivism, misdemeanor, non-violent felony, and violent felony. All clients with any type of recidivism are included in this evaluation. Evaluators identified the most serious offense that occurred in the 18-month follow-up period to determine the type of recidivism event, and utilized the first offense date post-release to determine the number of days from release to offense.

Post-Release Employment

Post-release employment data was provided by ESD to OIAA and was then matched to SFY15-19 residential releases. Clients were considered to have had post-release employment if any hours were reported to ESD in the six calendar quarters post-release (18 months). Evaluators also determined the total number of quarters worked, and the first quarter of employment post-release for clients. Client's quarter of release is not included in post-release employment rates, as we cannot determine if the employment began during or after the obligation ended.

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Appendix A.

Table 1A:
Logistic Regression Model Predicting Any Recidivism

	Any Recidivism	
	Odds Ratio	Robust SE
<i>Independent Variables</i>		
Weighted EA Score	0.72**	(0.075)
Reentry Preparation		
Both Reentry Plan and RTM	(reference)	
No Reentry Plan or RTM	0.87	(0.120)
Either Reentry Plan or RTM	0.89	(0.111)
Room Confinement/Isolation		
No RC/I	(reference)	
2 Hours or Less per Month	1.41**	(0.155)
More than 2 Hours per Month	2.66**	(0.267)
Employment in Year Prior to Release	0.89	(0.125)
<i>Control Variables</i>		
Age at Release	0.82**	(0.028)
Racial Category		
American Indian/Alaska Native	1.63**	(0.244)
Asian/Pacific Islander	1.48	(0.363)
Black/African American	1.60**	(0.177)
Hispanic	1.33**	(0.143)
White	(reference)	
Offense Type (Other)	1.17	(0.106)
Gender (Male)	1.23	(0.190)
Went to CF	1.06	(0.101)
Had Parole	1.08	(0.096)
Follow-up period during COVID	0.84	(0.088)
N		2,602
Log pseudo-likelihood		-1694.5717
Wald chi-square		188.74**
Pseudo R-square		0.0585

*p<.05, **p<.01

Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019]. Conviction data provided by Washington State Center for Court Research (April 2022).[2008-2019].

Table 2A:
Logistic Regression Model Predicting Violent Felony Recidivism

	Violent Felony Recidivism	
	Odds Ratio	Robust SE
<i>Independent Variables</i>		
Weighted EA Score	0.71**	(0.088)
Reentry Preparation		
Both Reentry Plan and RTM	(reference)	
No Reentry Plan or RTM	0.68*	(0.112)
Either Reentry Plan or RTM	0.78	(0.113)
Room Confinement/Isolation		
No RC/I	(reference)	
2 Hours or Less per Month	1.30	(0.193)
More than 2 Hours per Month	2.10**	(0.269)
Employment in Year Prior to Release	1.02	(0.182)
<i>Control Variables</i>		
Age at Release	0.85**	(0.034)
Racial Category		
American Indian/Alaska Native	1.77**	(0.326)
Asian/Pacific Islander	3.57**	(0.925)
Black/African American	3.94**	(0.517)
Hispanic	1.91**	(0.257)
White	(reference)	
Offense Type (Other)	0.92	(0.102)
Gender (Male)	2.63**	(0.664)
Went to CF	0.87	(0.103)
Had Parole	1.45**	(0.154)
Follow-up period during COVID	0.93	(0.117)
N		2,602
Log pseudo-likelihood		-1,246.2083
Wald chi-square		230**
Pseudo R-square		0.1008

*p<.05, **p<.01

Data Source: DCYF Juvenile Rehabilitation. (November 2022). Automated Client Tracking (ACT)[2008-2019]. Conviction data provided by Washington State Center for Court Research (April 2022).[2008-2019].