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## RESEARCH REPORT

### Revalidation of the Custody Rating Scale for Indigenous Women Offenders

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**Revalidation of the Custody Rating Scale for Indigenous Women Offenders**

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2023



## Executive Summary

**Key words:** *Custody Rating Scale; Offender Security Level; Offender Case Management; Indigenous Women Offenders*

The Custody Rating Scale (CRS) is an instrument employed by the Correctional Service of Canada (CSC) to assist in determining an offender's initial security classification. The CRS is comprised of two subscales, Institutional Adjustment and Security Risk, with scores in turn informing a CRS designation of minimum, medium, or maximum security. As per [Commissioner's Directive 705-Z](#), the CRS is used in conjunction with structured professional assessment of an offender's institutional adjustment, escape risk, and public safety risk to determine an appropriate Offender Security Level (OSL).

Regarding use of the CRS for Indigenous women offenders, previous studies have noted a high degree of concordance between the CRS and OSL, as well as the tool's predictive validity with respect to institutional outcomes (Blanchette, Verbrugge, & Wichmann, 2002; Barnum & Gobeil, 2012). Providing an updated analysis, the present study re-examines use of the CRS among Indigenous women offenders admitted to federal custody between 2013/2014 and 2018/2019. The analysis includes women admitted on a new sentence, or Warrant of Committal (WOC;  $N = 708$ ), as well as women readmitted to custody following a failed conditional release ( $N = 290$ ).

Concordance between the CRS and OSL was 70% for the WOC admission group, and 66% for the revocation group, reflecting lower rates than previously reported for Indigenous women (i.e., Barnum & Gobeil, 2012). The lowest concordance rates were evident in the Pacific and Atlantic regions (59% and 61% respectively for WOC admissions). Discordant decisions (i.e., security increases and decreases) were conceptually linked to profile factors in that offenders with a discordant decision typically had greater profile similarity to their respective security group relative to the concordant group associated with their CRS designation. For new admissions, there was a strong association between CRS designations and ratings on other intake measures (i.e., Static Risk, Dynamic Need, Motivation and Criminal Risk Index). Associations were even stronger in the case of OSL relative to the CRS, suggesting conceptual congruency is enhanced through professional judgement.

A higher CRS designation corresponded with a greater likelihood of involvement in an incident and receipt of an institutional charge, particularly among new admissions. Area Under the Curve (AUC) values exceeded the threshold of 'acceptable' predictive accuracy for the WOC group. In the case of OSL, AUC values exceeded the threshold of 'good' predictive accuracy for the WOC group. Predictive accuracy was weaker when it came to the revocation group.

Overall, results affirm the predictive validity of the CRS for Indigenous women. Findings also demonstrate the efficacy of professional judgement, as evidenced by the enhanced conceptual congruency of OSL relative to CRS, as well as the predictive accuracy of OSL in regards to institutional outcomes. Further inquiry may be needed to explore regional variation and use of the CRS for offenders readmitted to custody following a failed release.

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## Introduction

The Custody Rating Scale (CRS) is an objective security classification rating tool employed by the Correctional Service of Canada (CSC) to assist in determining an offender's initial security level as minimum, medium, or maximum. It is employed for both men and women upon sentence commencement, as well as at readmission following a conditional release revocation. The CRS is used alongside structured professional assessment (i.e., a review of an offender's institutional adjustment, escape risk, and public safety risk) to determine an offender's initial Offender Security Level (OSL; see [\*Commissioner's Directive 705-7\*](#)).

The Ministry Secretariat of the Solicitor General of Canada designed and developed the CRS to enhance consistency in the security classification of federal offenders across Canada (Research Division, Ministry Secretariat, 1987). In 1989, the CRS was pilot tested as an objective instrument to inform initial security level in the Quebec and Pacific regions (Porporino et al., 1989). The instrument was subsequently nationally implemented as a component of the Offender Intake Assessment (OIA) process in 1994.

The CRS was determined to be appropriate for use among women offenders in a study by Blanchette, Verbrugge, and Wichmann (2002). Drawing on a dataset of Indigenous and non-Indigenous women offender admissions to federal custody between January of 1997 and January of 1999, they found that concordance between CRS designations and OSL classifications was 81% for Indigenous women. Results indicated that the CRS was associated with institutional outcomes and demonstrated 'good' predictive validity within a six-month follow-up period.

The tool was subsequently revalidated for Indigenous and non-Indigenous women by Barnum and Gobeil (2012). The data for this study included Indigenous and non-Indigenous women offender admissions to federal custody between 2008 and 2009. The study found a lower rate of concordance relative to the prior validation study for women (i.e., 73% for Indigenous women). It was determined that CRS designations and OSL ratings were in alignment with offender risk/need profiles. The predictive validity of the CRS was reaffirmed; i.e., CRS designations were predictive of serious indicators of institutional adjustment, namely involvement in major institutional

incidents and conviction of serious institutional charges. The CRS was also deemed predictive of discretionary release and returns to custody with a new offence. Outcomes were better predicted by OSL relative to the CRS.

Given the diverse and dynamic nature of the federal offender population, periodic revalidation of the CRS for different offender subgroups is necessary. As part of a series of revalidation studies, the present analysis examines use of the CRS among Indigenous women offenders. Drawing on a dataset of admissions to federal custody between 2013/2014 and 2018/2019, the study includes an analysis of CRS-OSL concordance, conceptual congruence between the CRS and other intake measures, and the predictive validity of the CRS with respect to institutional outcomes. Results pertaining to other offender subgroups are presented in separate reports.

## **Method**

### **Data**

A dataset of all federal admissions between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019 included 2,880 women. Cases included both Warrant of Committal (WOC) admissions (i.e., offenders entering federal custody on a new federal sentence) as well as readmissions tied to conditional release revocation. Exclusions were made based on case factors that could present limits to analysis ( $N = 30$ ); specifically, cases involving offenders under provincial jurisdiction, who died prior to sentence completion, who had a court ordered release, or who were transferred to a foreign country during their sentence were excluded. Duplicate cases within the WOC and revocation groups were removed (i.e., a unique offender could only appear once per group), resulting in a total of 2,167 women offenders in the WOC group, and 683 in the revocation group. The present analysis focuses on Indigenous women offenders, who accounted for 708 offenders in the WOC group, and 290 offenders in the revocation group.

### **Measures**

#### *Custody Rating Scale*

The CRS includes two independently scored subscales, namely Institutional Adjustment (five items) and Security Risk (seven items). The CRS designation is based on the scores of the two

subscales in conjunction with established cut-off values for minimum, medium and maximum groups:

<b>Minimum security</b>	0 to 85 on the Institutional Adjustment dimension and 0 to 63 on the Security Risk dimension.
<b>Medium security</b>	Between 86 and 94 on the Institutional Adjustment dimension and between 0 and 133 on the Security Risk dimension; or between 0 and 85 on the Institutional Adjustment dimension and between 64 and 133 on the Security Risk dimension.
<b>Maximum security</b>	95 or greater on the Institutional Adjustment dimension or 134 or greater on the Security Risk dimension.

- i. The **Institutional Adjustment** subscale of the CRS includes items that are tied to institutional behaviour/involvement in incidents:
  1. Previous institutional incidents
  2. Escape history
  3. Street stability
  4. Alcohol/drug use
  5. Age at sentencing
  
- ii. The **Security Risk** subscale of CRS includes items tied to public safety risk:
  1. Prior conviction count
  2. Most severe outstanding charge
  3. Current offence severity
  4. Sentence length
  5. Street stability
  6. Prior conditional releases
  7. Age at first federal admission

Analysis of scale items was undertaken by examining the percentage of cases in which the score exceeded the minimum value. For the Institutional Adjustment scale, the minimum value is zero in the case of all items. For the Security Risk scale, the minimum value is zero in all cases except

offence severity, for which the minimum value is 12, and sentence length, for which the minimum value is 5.

### *Offender Security Level*

Offender Security Level (OSL) refers to an offender's actual security classification as minimum, medium, or maximum. OSL is indicative of the institutional security level at which the offender is housed. The CRS is one component of the initial OSL decision-making process. In an Assessment for Decision report, the Parole Officer must also undertake a professional assessment of institutional adjustment, escape risk, and public safety risk and assign ratings of low, moderate or high in each case. A security level recommendation is put forth, with a final decision rendered by the Institutional Head or District Director, unless case factors mandate a higher level of authorization (see [Commissioner's Directive 705-7](#)).

### *Offender Intake Assessment Measures*

Several measures that are components of the Offender Intake Assessment (OIA; see [Commissioner's Directive 705-6](#)) were used in the present analysis to understand population characteristics, patterns in CRS-OSL concordance, and CRS and OSL congruence with conceptually-related measures.

- i. Static Risk:** Overall level of Static Risk is determined by the Static Factors Assessment (SFA) Report, which pertains to the scope and severity of an offender's criminal history and sexual offence history. Responses include low, medium or high. High Static Risk reflects greater involvement in the criminal justice system, considerable harm to victims, and/or considerable sexual offending.
- ii. Dynamic Need:** Overall level of Dynamic Need is determined by the Dynamic Factor Identification and Analysis Revised (DFIA-R) Assessment Report, which pertains to criminogenic factors in seven domain areas that can be targeted through correctional interventions. Responses for overall need level include high, medium and low. High Dynamic Need reflects the presence of multiple dynamic need factors and/or a high level of need within identified need areas.

- iii. **Motivation:** An offender's motivation level is tied to their desire or willingness to change. Responses include high, medium and low. High Motivation reflects the presence of self-motivation and active participation in addressing problem areas.
- iv. **Accountability:** An offender's accountability level is tied to their degree of involvement in their Correctional Plan to address problem areas. Responses include high, medium and low. High Accountability reflects responsibility for actions and recognition of problem areas, willingness to self disclose, demonstration of guilt and victim empathy, and evidence indicating a low level of cognitive distortion.
- v. **Reintegration Potential:** An offender's Reintegration Potential level reflects their likelihood of successful reintegration into society as a law-abiding citizen. The measure is calculated based on the results of other OIA tools (the Custody Rating Scale, the Revised Statistical Information on Recidivism and the Static Risk Rating for non-Indigenous men, and the Custody Rating Scale, the Static Risk Rating and the Dynamic Need Rating for women and Indigenous offenders). High Reintegration Potential typically corresponds with a lack of need for formal correctional interventions within an institutional setting, though other interventions may be used.
- vi. **Engagement:** Offender engagement reflects the offender's willingness to engage in their Correctional Plan. Responses include yes (the offender is engaged) or no.
- vii. **Responsivity:** Responsivity factors reflect the presence of a characteristic that influences the offender's capacity to benefit from targeted interventions, such as learning barriers. Responses include yes (presence of a responsivity factor) or no.
- viii. **Criminal Risk Index (CRI):** The CRI is derived from the Criminal History Record section of the Static Factors Assessment and is used to guide offender intervention level. Numerical scores are used in conjunction with established cut-offs to assign program intensity, i.e., no/low, moderate or high (see Motiuk, & Vuong, 2018).

#### *Outcome Measures*

- i. **Institutional incidents:** Institutional incidents are recorded in the Offender Management System (OMS) and are categorized by type of incident. The presence of 'any incident' reflects an offender's involvement in at least one security or behavioural incident during the sentence for which the CRS was applied and following CRS

administration. Only incidents with a role qualifier of ‘instigator’ or ‘victim’ were included.

- ii. **Institutional charges:** Disciplinary charges are recoded in OMS and are categorized as minor or serious. The variable ‘any charge’ pertains to an offender’s receipt of any serious or minor disciplinary charge during the sentence for which the CRS was applied and following CRS administration. Only charges resulting in an outcome of ‘guilty’ were included. Serious and minor charges were also analyzed as separate outcomes.

Additional outcomes tied to release were explored in line with previous validation studies (Luciani, Motiuk, Nafekh, 1996; Grant & Luciani, 1998; Gobeil, 2011; Barnum & Gobeil, 2012). Post-release outcomes, however, were not used for validation purposes given that the CRS is tied to institutional behaviour and is not intended to predict community behaviour.

- i. **Release suspension:** In cases in which an offender was released from federal custody on the sentence for which the CRS was applied, release suspension reflects the presence of at least one suspension of the offender’s conditional release. A suspension of an offender’s conditional release may occur: (a) when a breach of release conditions has occurred; (b) to prevent a breach of conditions; or (c) to protect society (see: [\*Commissioner’s Directive 715-2\*](#)).
- ii. **Release revocation:** In cases in which an offender was released from federal custody on the sentence for which the CRS was applied, release revocation reflects the presence of at least one revocation, with or without a new offence, tied to the offender’s conditional release. As per the [\*Corrections and Conditional Release Act\*](#) (CCRA), the Parole Board of Canada has the authority to revoke an offender’s conditional release.
- iii. **Release revocation with offence:** In cases in which an offender was released from federal custody on the sentence for which the CRS was applied, release revocation with offence reflects the presence of at least one revocation in which the offender incurred a new criminal offence.

### **Analytic Strategy**

The analytic strategy for the present study included four central components. First, descriptive

statistics were computed to understand the characteristics of the WOC and revocation admission groups. Second, concordance between CRS designations and OSL ratings was analyzed by examining the percentage of cases in which levels overlapped. The percentage of security increases versus decreases between the CRS and OSL was also examined. Concordance patterns were explored by region and with respect to key profile characteristics. Third, congruency was explored between the CRS and conceptually-related measures (i.e., Static Risk, Dynamic Need, Criminal Risk Index, and Motivation). Congruency was also examined for OSL.

Finally, the association between the CRS and institutional outcomes was examined to consider whether a higher CRS corresponded with a greater likelihood of involvement in negative institutional events. Further, the level of predictive accuracy of the CRS with respect to institutional outcomes was examined using Receiver Operating Characteristic (ROC) curves. Institutional outcomes were also explored in relation to OSL. Release outcomes were examined for the purpose of consistency with prior validation studies; however, given that the CRS pertains to the institutional environment and is not intended to predict release outcomes, results from this analysis are largely contained in the Appendix.



## **Results**

### **Profile Information**

#### ***Sentence Information***

The majority of Indigenous women admitted to federal custody between 2013/2014 and 2018/2019 were first time federal offenders. Federal recidivists accounted for 15% of WOC admissions, and 17% of revocation admissions. Most offenders were serving a relatively short (i.e., less than four year) sentence (77% of the WOC group, and 78% of the revocation group). With respect to major index offence, offenders were most often serving time for a drug offence or robbery (see Table 1).

#### ***Risk/Need Measures***

Across both the WOC and revocation groups, offenders tended to have a moderate CRI score, high Dynamic Need and medium ratings on the measures of Static Risk, Motivation, Accountability, and Reintegration Potential. Roughly one-third had a Responsivity flag and most were engaged with their Correctional Plan. Offenders in the revocation group were more likely to have a high CRI score and high Static Risk, however, they were less likely to have high dynamic need (see Table 2).

Table 1. *Sentence Information of Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Characteristic	Warrant of Committal Admissions		Revocation Admissions	
	<i>N</i>	%	<i>N</i>	%
Sentence Number				
First	604	85.3%	240	82.8%
Second Or Higher	104	14.7%	50	17.2%
Sentence Length				
Four Years or Less	544	76.8%	227	78.3%
Over Fours Year to Six Years	97	13.7%	37	12.8%
Over Six Years to 10 Years	40	5.6%	13	4.5%
Over Ten Years	†	†	†	†
Indeterminate	26	3.7%	9	3.1%
Major Index Offence				
Assault	110	15.5%	53	18.3%
Drug Offence	177	25.0%	55	19.0%
Homicide Related	104	14.7%	49	16.9%
Other Non-Violent Offence	37	5.2%	13	4.5%
Other Violent Offence	59	8.3%	14	4.8%
Property Offence	67	9.5%	34	11.7%
Robbery	132	18.6%	71	24.5%
Sexual Offence	16	2.3%	†	†
Missing	6	.8%	†	†

†Information suppressed due to frequency fewer than 5.

Table 2. Risk/Need Measures for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1st, 2013 and March 31st, 2019.

Measure	Warrant of Committal Admissions*	Revocation Admissions*
<b>CRI</b>		
Low (1-8)	187 30.4%	42 17.3%
Moderate (9-18)	285 46.3%	125 51.4%
High (19+)	143 23.3%	76 31.3%
<b>Static Risk</b>		
Low	136 19.2%	29 15.4%
Medium	361 51.0%	89 47.3%
High	211 29.8%	70 37.2%
<b>Dynamic Need</b>		
Low	23 3.2%	† †
Medium	172 24.3%	64 34.0%
High	513 72.5%	121 64.4%
<b>Motivation</b>		
Low	35 4.9%	22 11.7%
Medium	415 58.6%	94 50.0%
High	258 36.4%	72 38.3%
<b>Accountability</b>		
Low	51 7.2%	15 8.0%
Medium	460 65.0%	111 59.0%
High	197 27.8%	62 33.0%
<b>Reintegration Potential</b>		
Low	162 22.9%	30 16.0%
Medium	466 65.8%	142 75.5%
High	80 11.3%	16 8.5%
<b>Responsivity Flag</b>	243 34.3%	67 35.6%
<b>Engagement Flag</b>	642 90.7%	148 78.7%

\*Data was missing for CRI in 93 WOC admission cases, and 47 revocation admission cases. Data was missing for other intake measures in 102 cases for the revocation admission group. Percentages were calculated with missing data excluded. †Information suppressed due to frequency fewer than 5.

## **Custody Rating Scale**

### ***Institutional Adjustment***

#### *i. Overall Rating*

Distributions on Institutional Adjustment were similar for the WOC and revocation groups (see Table 3). Most offenders were rated low (i.e., 89% in the WOC group, and 84% in the revocation group), very few were rated medium (1% and 4%), and a small subset were rated high (10% and 12%).

#### *ii. Subscale Items*

With respect to the five items that comprise the Institutional Adjustment subscale, the percentage of offenders who scored above the minimum value was highest for street stability (i.e., 94% for the WOC group, and nearly 100% for the revocation group), followed by alcohol / drug use (i.e., 91% for the WOC group, and 97% for the revocation group; see Table 4). Offenders in the revocation group were more likely than offenders in the WOC group to score above the minimum value on all items. The biggest difference pertained to history of institutional incidents (39% compared to 64% scored above the minimum).

### ***Security Risk***

#### *i. Overall Rating*

With respect to Security Risk, a majority of offenders were rated medium (i.e., 59% in the WOC group, and 76% in the revocation group), though offenders in the WOC group were more likely to be rated low (38% versus 21%; see Table 3). Very few offenders were rated high (i.e., 4% and 3%).

#### *ii. Subscale Items*

In regards to the seven items that comprise the Security Risk subscale, a majority of offenders in both the WOC and revocation groups scored above the minimum value in the case of prior convictions, offence severity, street stability, and age at first admission (see Table 4). The percentage of offenders who scored above the minimum was highest for street stability (i.e., 95% for the WOC group and nearly 100% for the revocation group).

### *Custody Rating Scale*

A majority of offenders in both the WOC and revocation groups had a CRS designation of medium (i.e., 52% in the WOC group and 68% in the revocation group), though offenders in the WOC group were more likely to have a minimum designation (36% versus 19%; see Table 3). A roughly similar percentage offenders across the two groups had a maximum CRS designation (12% and 13%).

Table 3. *CRS Subscales and CRS Designation for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Rating	Warrant of Committal Admissions		Revocation Admissions	
	<i>N</i>	%	<i>N</i>	%
Institutional Adjustment				
Low	629	88.8%	243	83.8%
Medium	8	1.1%	11	3.8%
High	71	10.0%	36	12.4%
Security Risk Score				
Low	267	37.7%	61	21.0%
Medium	416	58.8%	220	75.9%
High	25	3.5%	9	3.1%
Custody Rating Scale				
Minimum	252	35.6%	56	19.3%
Medium	371	52.4%	197	67.9%
Maximum	85	12.0%	37	12.8%

Table 4. *Percent above Minimum Value for CRS Scale Items for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

CRS Subscale Item	Percentage above Minimum Score	
	Warrant of Committal Admissions	Revocation Admissions
<b>Institutional Adjustment</b>		
History of institutional incidents (0-88)	277 39.1%	186 64.1%
Escape history (0-28)	29 4.1%	31 10.7%
Street stability (0-32)	666 94.1%	289 99.7%
Alcohol / drug use (0-36)	643 90.8%	281 96.9%
Age at time of sentencing (0-24)	324 45.8%	152 52.4%
<b>Security Risk</b>		
Number of prior convictions (0-15)	505 71.3%	242 83.4%
Most serious outstanding charge (0-35)	85 12.0%	52 17.9%
Severity of current offence (12-69)	525 74.2%	215 74.4%
Sentence length (5-65)	138 19.5%	55 19.0%
Street stability (0-20)	672 94.9%	289 99.7%
Prior parole / statutory release (0-63)	90 12.7%	274 94.5%
Age at first federal admission (0-30)	496 70.1%	235 81.0%

\*The minimum value is zero for all items except 'Severity of current offence' (min. value = 12) and 'Sentence length' (min. value = 5).

### Concordance between CRS and OSL

With respect to actual security classification, or OSL, a majority of offenders were classified as medium (61% for the WOC group, and 78% in the revocation group), with offenders in the WOC group being considerably more likely to have a minimum security classification (31% versus 10%; see Table 5). The percentage of offenders classified as maximum security was 8% for the WOC group, and 12% for the revocation group.

Concordance between the CRS designation and OSL rating was evident in 70% of cases within the WOC group, and 66% of cases within the revocation group (see Table 6). Within the WOC group, there was an equal percentage of security increases and decreases (i.e., 15% in both cases). Within the revocation group, there were more security increases (21%) than security decreases (12%).

Concordance was highest for medium security designations (80% for the WOC group, and 84% for the revocation group; see Table 7). Within the WOC group, a minimum CRS designation corresponded with a minimum OSL in 61% of cases (in the remaining cases, there was a security level increase), while a maximum CRS designation corresponded with a maximum OSL in 53% of cases (in the remaining cases, there was a security level decrease). Greater discordance was evident in the revocation group; a minimum CRS designation corresponded with a minimum OSL in 27% of cases, while a maximum CRS corresponded with a maximum OSL in 35% of cases.

Table 5. *OSL Classification for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

OSL	Warrant of Committal Admissions		Revocation Admissions	
	<i>N</i>	%	<i>N</i>	%
Minimum	221	31.2%	29	10.0%
Medium	431	60.9%	225	77.6%
Maximum	56	7.9%	36	12.4%

Table 6. *CRS-OSL Relationship for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

CRS-OSL Relationship	Warrant of Committal Admissions		Revocation Admissions	
	<i>N</i>	%	<i>N</i>	%
Concordant	494	69.8%	193	66.6%
Security Increase	107	15.1%	61	21.0%
Security Decrease	107	15.1%	36	12.4%

Table 7. *OSL by CRS Designation for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

OSL	CRS Level					
	Warrant of Committal Admissions			Revocation Admissions		
	Minimum	Medium	Maximum	Minimum	Medium	Maximum
Minimum	154 61.1%	67 18.1%	† †	15 26.8%	12 6.1%	† †
Medium	96 38.1%	295 79.5%	40 47.1%	38 67.9%	165 83.8%	22 59.5%
Maximum	† †	9 2.4%	45 52.9%	† †	20 10.2%	13 35.1%

†Information suppressed due to frequency fewer than 5.



### ***CRS and OSL Concordance by Region***

The concordance rate varied considerably across CSC’s five regions (see Table 8). Among the WOC group, the concordance rate was highest in the Quebec region (74%) and Prairie region (72%), and lowest in the Pacific region (59%) and Atlantic region (61%). Security increases were the least common in the Prairie region (i.e., 13%) and most common in the Ontario region (i.e., 21%), while security decreases were the least common in Quebec (i.e., 8%) and most common in the Atlantic and Pacific regions (i.e., 21% in both regions). Due to lower numbers, regional patterns in discordance could not be examined for the revocation group. Note that the disproportionate percentage of Indigenous women offenders in the Prairie region (66% in the WOC group and 72% in the revocation group) results in national trends being shaped largely by trends in that region.

Table 8. *CRS-OSL Relationship by Region for Indigenous Women Offenders Admitted on a Warrant of Committal to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

CRS-OSL Relationship	Region					Total
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Concordant	23 60.5%	29 74.4%	70 65.4%	339 72.4%	33 58.9%	494 69.8%
Security Increase	7 18.4%	7 17.9%	22 20.6%	60 12.8%	11 19.6%	107 15.1%
Security Decrease	8 21.1%	† †	15 14.0%	69 14.7%	12 21.4%	107 15.1%
<i>Total</i>	38 100.0%	39 100.0%	107 100.0%	468 100.0%	56 100.0%	708 100.0%

†Information suppressed due to frequency fewer than 5.

### ***Profile Factors and CRS-OSL Concordance***

Within the WOC group, security decreases were conceptually linked to profile factors in a way that would be theoretically expected; i.e., offenders with a security decrease had key profile similarities to their respective security group (see Table 9). In a similar fashion, offenders with a security increase to medium security had greater profile similarity to their concordant security group relative to the concordant group associated with their CRS.

For example, the percentage of offenders with low Static Risk was 48% for the concordant

minimum security group, and 40% for the security decrease minimum group, compared to 8% of the concordant medium security group. The percentage of offenders with high Dynamic Need was 44% and 54%, compared to 85%, across the three groups. Similarities were also evident in regards to Motivation, CRI and Accountability ratings. There were insufficient cases to conduct similar profile comparisons within the revocation group.

Table 9. *Select\* Profile Information for Concordant and Discordant Security Groups for Indigenous Women Offenders Admitted on a Warrant of Committal to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Profile Measure	Minimum Concordant	Minimum Security Decrease	Medium Security Increase	Medium Concordant
Low Static Risk	48%	40%	13%	8%
High Dynamic Need	44%	54%	72%	85%
High Motivation	68%	57%	31%	23%
Low CRI	59%	45%	25%	23%
High Accountability	57%	42%	24%	16%

\*See Appendix A for detailed Table.

### Congruence Between CRS and OSL with Conceptually-Related Measures

The association between CRS designations and ratings on other offender intake measures was explored to assess conceptual congruence across instruments (see Table 10). For the WOC group, both the CRS subscales and overall designation were positively and strongly associated with Static Risk and Dynamic Need, while negatively and strongly associated with Motivation. In addition, the Institutional Adjustment subscale and overall CRS designation were strongly associated with CRI. Within the revocation group, associations between the CRS and intake measures were weaker, though a strong association was evident in the case of Static Risk.

Conceptual congruence was even stronger in the case of OSL; all four intake measures were strongly associated with OSL in the case of both the WOC and revocation groups (see Table 11). The strongest association was in regards to Static Risk and Dynamic Need for the WOC group, and Motivation and Dynamic Need in the case of the revocation group. These findings suggest professional judgement (i.e., the use of security increases and decreases from the CRS designation) serves to enhance conceptual consistency.

Table 10. *Association between Risk/Need Measures and CRS Subscales and Designation for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Measure	Association ( $\gamma$ )					
	Warrant of Committal Admissions			Revocation Admissions		
	IA	SR	CRS	IA	SR	CRS
Static Risk	.600	.502	.533	.254	.373	.357
Dynamic Need	.833	.518	.566	.499	-.094	.099
Motivation	-.494	-.419	-.441	-.534	-.062	-.199
CRI	.537	.294	.388	.275	.186	.197

*Note.* IA = Institutional Adjustment; SR = Security Risk; CRS= Custody Rating Scale

Table 11. Association between Risk/Need Measures and OSL for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.

Measure	Association ( $\gamma$ )	
	Warrant of Committal Admissions	Revocation Admissions
Static Risk	.774	.403
Dynamic Need	.705	.644
Motivation	-.679	-.673
CRI	.538	.312

### **Institutional Outcomes**

Within the WOC group, 69% of offenders were involved in at least one institutional incident and 64% incurred at least one institutional charge (59% incurred a minor charge and 32% incurred a serious charge; see Table 12). Within the revocation group, 50% of offenders were involved in at least one institutional incident and 45% incurred at least one institutional charge (38% incurred a minor charge and 17% incurred a serious charge). More favourable outcomes for offenders in the revocation group may be tied to the larger proportion of sentence served at the time of readmission.

Involvement in negative institutional events was associated with CRS designations as conceptually expected; a higher CRS designation corresponded with a greater likelihood of involvement in an incident or receipt of a charge. The association was stronger for the WOC group relative to the revocation group, with the strongest association in regards to any serious charge followed by any charge. Specifically, the percentage of offenders who incurred a serious charge within the WOC group was 15%, 36% and 64% for offenders with a CRS designation of minimum, medium and maximum respectively. Within the WOC group, the association was stronger for the CRS relative to the two subscales (Institutional Adjustment and Security Risk) independently. However, for the revocation group, Institutional Adjustment ratings had stronger associations with institutional outcomes than the Security Risk subscale and overall CRS designation.

OSL had an even stronger association with institutional outcomes (see Table 13). Among the WOC group, OSL had the strongest association with receipt of any charge. The percentage of offenders in the WOC group who incurred a charge was 33%, 76% and 95% for offenders with classifications

of minimum, medium and maximum respectively. As in the case of the CRS, associations were weaker for the revocation group, though the same conceptual pattern was evident.

Table 12. *Institutional Outcomes by CRS Designation for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcome	Custody Rating Scale Designation					
	Warrant of Committal Admissions			Revocation Admissions		
	Minimum	Medium	Maximum	Minimum	Medium	Maximum
Any Incident	139 55.2%	273 73.6%	77 90.6%	23 41.1%	96 48.7%	26 70.3%
Any Minor Charge	101 40.1%	250 67.4%	69 81.2%	15 26.8%	74 37.6%	22 59.5%
Any Serious Charge	37 14.7%	133 35.8%	54 63.5%	7 12.5%	27 13.7%	14 37.8%
Any Charge	110 43.7%	267 72.0%	74 87.1%	18 32.1%	88 44.7%	24 64.9%

Table 13. *Institutional Outcomes by OSL for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcome	Offender Security Level					
	Warrant of Committal Admissions			Revocation Admissions		
	Minimum	Medium	Maximum	Minimum	Medium	Maximum
Any Incident	94 42.5%	342 79.4%	53 94.6%	6 20.7%	115 51.1%	24 66.7%
Any Minor Charge	67 30.3%	301 69.8%	52 92.9%	† †	89 39.6%	18 50.0%
Any Serious Charge	17 7.7%	163 37.8%	44 78.6%	† †	33 14.7%	14 38.9%
Any Charge	72 32.6%	326 75.6%	53 94.6%	5 17.2%	103 45.8%	22 61.1%

†Information suppressed due to frequency fewer than 5.

Table 14. Association between CRS Subscales and CRS Designation and Institutional Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.

Institutional Outcome	Association ( $\phi_c$ )					
	Warrant of Committal Admissions			Revocation Admissions		
	IA	SR	CRS	IA	SR	CRS
Any Incident	.150	.226	.252	.221	.061	.166
Any Minor Charge	.166	.286	.304	.225	.080	.188
Any Serious Charge	.232	.277	.329	.266	.035	.219
Any Charge	.185	.302	.325	.226	.091	.182

Note. IA = Institutional Adjustment; SR = Security Risk; CRS= Custody Rating Scale

Table 15. Association between OSL and Institutional Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.

Institutional Outcome	Association ( $\phi_c$ )	
	Warrant of Committal Admissions	Revocation Admissions
Any Incident	.396	.220
Any Minor Charge	.417	.182
Any Serious Charge	.417	.243
Any Charge	.448	.211

The Area Under the Curve (AUC) values were examined to assess the predictive ability of the CRS and OSL in relation to institutional outcomes. Within the WOC group, AUC values for all institutional outcomes exceeded the threshold of ‘acceptable’ predictive accuracy as per established guidelines (i.e., 0.60 or greater; Hosmer & Lemeshow, 2000; see Table 16). Predictive accuracy was greater for OSL, with AUC values exceeding the threshold of ‘good’ predictive accuracy (i.e., 0.70) across institutional outcomes for the WOC group (see Table 17). Predictive accuracy was lower for the revocation group in the case of both the CRS and OSL.

Table 16. *ROC Analyses: Predictive Ability of the CRS for Institutional Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcomes	ROC Analyses					
	Warrant of Committal			Revocation Admissions		
	AUC	SD	95% CI	AUC	SD	95% CI
Any Incident	.641	.020	.602 - .679	.572	.028	.518 - .626
Any Charge	.675	.019	.638 - .711	.585	.027	.531 - .639
Any Minor Charge	.660	.019	.623 - .670	.587	.028	.532 - .643
Any Serious Charge	.680	.019	.643 - .717	.604	.042	.522 - .686

*Note.* AUC= Area Under the Curve; SD = Standard Deviation; CI = Confidence Interval

Table 17. *ROC Analyses: Predictive Ability of OSL for Institutional Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcomes	ROC Analyses					
	Warrant of Committal			Revocation Admissions		
	AUC	SD	95% CI	AUC	SD	95% CI
Any Incident	.711	.018	.675 - .747	.589	.024	.542 - .635
Any Charge	.730	.017	.696 - .763	.586	.024	.539 - .632
Any Minor Charge	.711	.017	.677 - .744	.573	.024	.526 - .620
Any Serious Charge	.718	.016	.687 - .749	.632	.034	.565 - .698

*Note.* AUC= Area Under the Curve; SD = Standard Deviation; CI = Confidence Interval

Institutional outcomes were compared for concordant and discordant security groups for the WOC group (see Table 18). As most offenders were classified as medium (61%) or minimum security (31%), comparisons were limited to these two security level groups. Offenders with a discordant security decision fared closer to the concordant groups associated with their security level, relative to the concordant groups associated with their CRS. In particular, offenders with a security decrease to minimum fared much closer to concordant minimum security offenders than concordant medium offenders. The percentage of offenders involved in an any incident was 43% for concordant minimum security offenders, and 42% for discordant minimum security offenders, compared to 80% for concordant medium security offenders. Likewise, offenders with a security increase to medium fared closer to concordant medium security offenders than concordant



minimum security offenders. Overall, these patterns suggest efficacy in professional judgement as evidenced by the similarity in institutional outcomes across concordant and discordant security groups.

Table 18. *Institutional Outcomes by CRS-OSL Group for Indigenous Women Offenders Admitted on a Warrant of Committal to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcome	Minimum		Medium		
	Concordant	Security Decrease	Security Increase	Concordant	Security Decrease
Incident	43%	42%	74%	80%	88%
Charge	31%	37%	64%	79%	80%

## Discussion

The present study of Indigenous women offenders admitted to federal custody between 2013/2014 and 2018/2019 revealed a somewhat lower rate of CRS-OSL concordance relative to prior studies. Specifically, the concordance rate was 70% for new admissions, and 66% for readmissions in the present study, compared to 73% in the most recent previous study (Barnum & Gobeil, 2012). Concordance trends at a national level are shaped significantly by trends in the Prairie region, where the majority of Indigenous women offenders were admitted. At a regional level, trends in concordance were diverse. The Pacific and Atlantic regions, for example, had lower rates of concordance (59% and 61%), with a relatively even split between security increases and decreases, while the Quebec region had far more security increases (18%) than decreases (8%). While not all validation studies have included regional analyses, variation across CSC’s five regions with respect to concordance trends was noted in early reports (e.g., Luciani, Motiuk & Nafekh, 1996; Grant & Luciani, 1998). Discerning the causes of regional variation was beyond the scope of the present analysis but may warrant further inquiry.

The CRS was associated with ratings on other intake measures (i.e., Static Risk, Dynamic Need, Motivation, and CRI), with stronger associations for the WOC group relative to the revocation group. OSL had stronger associations with intake measures relative to the CRS, indicating

professional judgement enhances conceptual congruency across measures. This was particularly evident in the case of the revocation group. The enhanced conceptual consistency associated with OSL versus CRS likely reflects the fact that ratings on profile factors contribute to decisions that deviate from the CRS designation.

The CRS was associated with institutional outcomes (incidents and charges) in an expected fashion; a higher CRS designation corresponded with a greater likelihood of involvement in negative institutional events. Associations were stronger for the WOC group relative to the revocation group. For the WOC group, AUC values exceeded the threshold of 'acceptable' predictive accuracy. Across both the WOC and revocation groups, predictive accuracy was stronger in the case of OSL. For the WOC group, AUC values exceeded the threshold of 'good' predictive accuracy across outcomes when it came to OSL.

These findings affirm the predictive validity of the CRS for Indigenous women offenders and the efficacy of professional judgement as evidenced by the stronger predictive accuracy of OSL versus CRS. Patterns in institutional outcomes across concordant and discordant security groups likewise suggest professional judgement is utilized effectively to increase or decrease security classification.

Limitations to this analysis include the possible impact of the institutional environment on behavioural outcomes. Involvement in incidents and charges in higher security levels may be a function of the environment as well as individual level behaviour. However, it is not possible to analyze individual behavioural outcomes outside of a social environment. In addition, outcome measures do not necessarily speak to the scope or severity of involvement in negative institutional events, nor do they account for changes over time.

## **Conclusion**

As a key aspect of security level decision-making, the CRS must be periodically re-examined to ensure its appropriateness among offender subgroups, particularly given the dynamic nature of the federal offender population. The present analysis reaffirms certain findings from previous studies analyzing the CRS in relation to Indigenous women offenders. Specifically, the CRS holds predictive validity for new admissions and predictive accuracy is enhanced when the CRS is used in conjunction with professional judgement. This was evidenced by the greater conceptual congruency and predictive accuracy of actual security classification, or OSL, relative to the CRS. Unique to the present analysis was the analytical separation of new admissions from readmissions, which revealed that the CRS holds greater conceptual congruency and predictive accuracy for offenders at initial intake relative to those returning to custody following a failed conditional release. Further inquiry may be needed to explore the appropriateness of the CRS in the case of readmissions.

## References

- Barnum, G., & Gobeil, R. (2012). *Revalidation of the Custody Rating Scale for Aboriginal and non-Aboriginal women offenders (Research Report R-273)*. Ottawa, ON: Correctional Service of Canada.
- Blanchette, K. Verbrugge, P. & Wichmann, C. (2002). *The Custody Rating Scale, initial security level placement, and women offenders*. Ottawa, ON: Correctional Service of Canada.
- Gobeil, R. (2011). *The Custody Rating Scale as applied to male offenders (Research Report R-256)*. Ottawa, ON: Correctional Service of Canada.
- Grant, B. & Luciani, F. (1998). *Security classification using the Custody Rating Scale*. Ottawa, ON: Correctional Service of Canada.
- Hosmer, D.W. & Lemehow, S. (2000). *Applied logistic regression (section edition)*. New York: John Wiley & Sons.
- Luciani, F. P., Motiuk, L. L., & Nafekh, M. (1996). *An operational review of the Custody Rating Scale: Reliability, validity and practical utility*. Ottawa, ON: Correctional Service of Canada.
- Motiuk, L., & Vuong, B. (2018). *Development and validation of a Criminal Risk Index (CRI) for federally sentenced offenders in Canada (Research Report R-403)*. Ottawa, ON: Correctional Service of Canada.
- Porporino, F. J., Luciani, F., Motiuk, L., Johnston, M., & Mainwaring, B. (1989). *Pilot implementation of a Custody Rating Scale: Interim report*. Ottawa, ON: Correctional Service Canada.
- Research Division, Ministry Secretariat. (1987). *Development of a security classification model for Canadian federal offenders*. Ottawa, ON: Ministry of the Solicitor General of Canada.

## Appendix A: Additional Tables

Table 19. *Risk/Need Measures by CRS-OSL Group for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Measures	Minimum		Medium		Maximum		Total	
	Concordant	Security Decrease	Security Increase	Concordant	Security Decrease	Security Increase		Concordant
<b>CRI</b>								
Low (1-13)	62	22	22	63	6	†	12	187
	58.5%	44.9%	25.3%	22.7%	15.4%	†	26.7%	30.4%
Moderate (14-21)	40	24	55	128	21	4	13	285
	37.7%	49.0%	63.2%	46.0%	53.8%	36.4%	28.9%	46.3%
High (22+)	†	†	10	87	12	7	20	143
	†	†	11.5%	31.3%	30.8%	63.6%	44.4%	23.3%
<b>Static Risk</b>								
Low	74	27	12	23	†	†	†	136
	48.1%	40.3%	12.5%	7.8%	†	†	†	19.2%
Medium	68	37	55	164	24	5	8	361
	44.2%	55.2%	57.3%	55.6%	60.0%	45.5%	17.8%	51.0%
High	12	†	29	108	16	6	37	211
	7.8%	†	30.2%	36.6%	40.0%	54.5%	82.2%	29.8%
<b>Dynamic Need</b>								
Low	17	5	†	†	†	†	†	23
	11.0%	7.5%	†	†	†	†	†	3.2%
Medium	69	26	27	44	†	†	†	172
	44.8%	38.8%	28.1%	14.9%	†	†	†	24.3%
High	68	36	69	250	37	11	42	513
	44.2%	53.7%	71.9%	84.7%	92.5%	100.0%	93.3%	72.5%
<b>Motivation</b>								
Low	†	†	†	20	†	†	6	35

Measures	Minimum		Medium		Maximum		<i>Total</i>	
	Concordant	Security Decrease	Security Increase	Concordant	Security Decrease	Security Increase		Concordant
Medium	†	†	†	6.8%	†	†	13.3%	4.9%
	50	28	62	208	25	7	35	415
High	32.5%	41.8%	64.6%	70.5%	62.5%	63.6%	77.8%	58.6%
	104	38	30	67	14	†	†	258
Accountability	67.5%	56.7%	31.3%	22.7%	35.0%	†	†	36.4%
	Low	†	†	10	25	†	†	10
Medium	†	†	10.4%	8.5%	†	†	22.2%	7.2%
	66	38	63	224	30	8	31	460
High	42.9%	56.7%	65.6%	75.9%	75.0%	72.7%	68.9%	65.0%
	88	28	23	46	7	†	†	197
	57.1%	41.8%	24.0%	15.6%	17.5%	†	†	27.8%

†Information suppressed due to frequency fewer than 5.

Table 20. *Release Outcomes by Institutional Adjustment for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Institutional Adjustment					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	Low	Medium	High	Low	Medium	High
Suspension	268 44.8%	8 100.0%	49 78%	147 61.3%	7 63.6%	23 63.9%
Revocation	278 46.5%	6 75.0%	39 61.9%	81 33.8%	† †	12 33.3%
Revocation with Offence	52 8.7%	† †	8 12.7%	28 11.7%	† †	5 13.9%

†Information suppressed due to frequency fewer than 5.

Table 21. *Release Outcomes by Security Risk for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Security Risk					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	Low	Medium	High	Low	Medium	High
Suspension	102 38.2%	223 53.6%	† †	33 54.1%	140 64.2%	† †
Revocation	102 38.6%	220 54.9%	† †	14 23.0%	78 35.8%	† †
Revocation with Offence	18 6.8%	43 10.7%	† †	6 9.8%	29 13.3%	† †

†Information suppressed due to frequency fewer than 5.

Table 22. *Release Outcomes by CRS for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Custody Rating Scale					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	Min.	Med.	Max.	Min.	Med.	Max.
Suspension	92 36.8%	191 53.1%	42 71.2%	31 55.4%	123 63.1%	23 63.9%
Revocation	93 37.2%	195 54.2%	35 59.3%	12 21.4%	71 36.4%	12 33.3%
Revocation with Offence	14 5.6%	41 11.4%	6 10.2%	5 8.9%	25 12.8%	5 13.9%

Table 23. *Association between the CRS and Release Outcomes for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Association ( $\phi_c$ )					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	IA	SR	CRS	IA	SR	CRS
Suspension	.223	.182	.208	.020	.094	.064
Revocation	.108	.162	.174	.063	.112	.124

Note. IA= Institutional Adjustment; SR= Security Risk; CRS = Custody Rating Scale

Table 24. *ROC Analyses: Predictive Ability of the CRS for Release Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcomes	ROC Analyses					
	Warrant of Committal			Revocation Admissions		
	AUC	SD	95% CI	AUC	SD	95% CI
Suspension	.565	.019	.527 - .603	.523	.029	.466 - .579
Revocation	.588	.020	.550 - .626	.546	.028	.490 - .601

Note. AUC= Area Under the Curve; SD = Standard Deviation; CI = Confidence Interval



Table 25. *Release Outcomes by OSL for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Offender Security Level					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	Min.	Med.	Max.	Min.	Med.	Max.
Suspension	68 30.8%	232 53.8%	25 44.6%	12 41.4%	139 61.8%	26 72.2%
Revocation	79 36.2%	222 53.6%	22 59.5%	6 20.7%	78 35.0%	11 31.4%
Revocation with Offence	17 7.8%	41 9.9%	† †	† †	26 11.7%	6 17.1%

†Information suppressed due to frequency fewer than 5.

Table 26. *Association between OSL and Release Outcomes for Indigenous Women Offenders Admitted to Federal Custody on a Warrant of Committal or Revocation Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Release Outcome	Association ( $\phi$ c)	
	Warrant of Committal Admissions with a Conditional Release	Revocation Admissions with a Conditional Release
Suspension	.247	.161
Revocation	.170	.092

Table 27. *ROC Analyses: Predictive Ability of OSL for Release Outcomes for Indigenous Women Offenders Admitted on a Warrant of Committal or Revocation to Federal Custody Between April 1<sup>st</sup>, 2013 and March 31<sup>st</sup>, 2019.*

Outcomes	ROC Analyses					
	Warrant of Committal Admissions with a Conditional Release			Revocation Admissions with a Conditional Release		
	AUC	SD	95% CI	AUC	SD	95% CI
Suspension	.586	.018	.550 - .622	.563	.025	.513 - .612
Revocation	.583	.019	.546 - .619	.521	.025	.472 - .570

Note. AUC= Area Under the Curve; SD = Standard Deviation; CI = Confidence Interval