

**STATIC-99R**

**Evaluators'  
WORKBOOK**

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## Observed Percentiles for Routine Samples of Sex Offenders

Static-99R Score	Cumulative % Starting with Lowest Score	Cumulative % Starting with Highest Score
	Percentile	Percentile
-3	0.0 – 1.8	98.2 – 100.0
-2	1.8 – 4.4	95.6 – 98.2
-1	4.4 – 13.9	86.1 – 95.6
0	13.9 – 25.6	74.4 – 86.1
1	25.6 – 39.7	60.3 – 74.4
2	39.7 – 54.4	45.6 – 60.3
3	54.4 – 69.3	30.7 – 45.6
4	69.3 – 81.4	18.6 – 30.7
5	81.4 – 89.7	10.3 – 18.6
6	89.7 – 94.9	5.1 – 10.3
7	94.9 – 97.8	2.2 – 5.1
8	97.8 – 99.1	0.9 – 2.2
9	99.1 – 99.7	0.3 – 0.9
10+	99.7 – 100.0	0.0 - 0.3

## Relative Risk Ratios

Static-99R Score	Frequency ( <i>n</i> )	Relative Risk Ratio
-3	125	.26
-2	159	.34
-1	672	.45
0	847	.59
1	1006	.77
2	1071	1.00
3	1112	1.31
4	1013	1.71
5	817	2.23
6	569	2.91
7	357	3.80
8	187	4.96
9	77	6.48
10+	35	8.47

Note: Relative risk calculated based on Cox regression coefficients derived from entering Static-99R scores ( $B = 0.267$ ;  $SE = 0.013$ ;  $Wald = 413.11$ ), with sample as strata ( $k = 22$ ,  $n = 8,047$ ).

**STATIC-99R ROUTINE SAMPLE**  
**Estimated 5-year sexual recidivism rates**

Logistic Regression Estimates			
Score	Predicted Recidivism Rate	95%	C. I.
-3	1.2	0.7	2.0
-2	1.6	1.0	2.6
-1	2.1	1.3	3.4
0	2.8	1.8	4.4
1	3.8	2.5	5.8
2	5.0	3.4	7.4
3	6.6	4.6	9.6
4	8.7	6.1	12.2
5	11.4	8.2	15.6
6	14.7	10.8	19.7
7	18.8	14.0	24.7
8	23.7	18.0	30.6
9	29.5	22.8	37.2
10	--	--	--
11	--	--	--

**STATIC-99R NON-ROUTINE SAMPLE**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95%	C. I.	Predicted Recidivism Rate	95%	C. I.
-3	2.2	1.4	3.6	4.2	2.8	6.3
-2	3.0	1.9	4.6	5.5	3.8	7.7
-1	4.0	2.6	6.0	7.0	5.2	9.5
0	5.3	3.6	7.7	9.0	7.0	11.6
1	7.0	4.9	9.8	11.5	9.3	14.1
2	9.1	6.6	12.5	14.6	12.2	17.3
3	11.9	8.8	15.9	18.3	15.6	21.2
4	15.4	11.7	20.0	22.6	19.4	26.2
5	19.6	15.2	24.9	27.7	23.7	32.2
6	24.7	19.6	30.7	33.4	28.2	39.2
7	30.6	24.6	37.2	39.7	33.0	46.8
8	37.2	30.5	44.4	46.3	38.1	54.8
9	44.3	36.9	52.0	53.1	43.4	62.6
10	51.6	43.6	59.6	59.7	48.7	69.8
11	--	--	--	--	--	--

**STATIC-99R PRESELECTED FOR TREATMENT NEED**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95%	C. I.	Predicted Recidivism Rate	95%	C. I.
-3	1.7	1.3	2.3	3.2	2.2	4.7
-2	2.3	1.8	3.0	4.2	3.1	5.7
-1	3.1	2.5	3.9	5.4	4.2	7.0
0	4.1	3.4	5.0	7.0	5.7	8.6
1	5.5	4.6	6.5	9.0	7.6	10.6
2	7.2	6.2	8.4	11.5	9.9	13.2
3	9.5	8.2	10.8	14.5	12.7	16.6
4	12.3	10.8	14.0	18.2	15.8	20.9
5	15.9	13.8	18.1	22.6	19.2	26.4
6	20.2	17.5	23.3	27.6	22.9	32.9
7	25.4	21.8	29.4	33.3	27.0	40.3
8	31.4	26.7	36.6	39.6	31.5	48.3
9	38.1	32.1	44.4	--	--	--
10	--	--	--	--	--	--
11	--	--	--	--	--	--

**STATIC-99R HIGH RISK/NEED GROUP**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95%	C. I.	Predicted Recidivism Rate	95%	C. I.
-3	--	--	--	--	--	--
-2	--	--	--	--	--	--
-1	5.4	4.2	7.0	9.8	7.4	12.9
0	7.2	5.7	8.9	12.5	9.9	15.6
1	9.4	7.7	11.4	15.7	13.0	18.9
2	12.2	10.3	14.5	19.7	16.8	22.9
3	15.8	13.5	18.3	24.3	21.2	27.7
4	20.1	17.4	23.1	29.6	25.9	33.6
5	25.2	22.0	28.8	35.5	30.9	40.5
6	31.2	27.2	35.5	41.9	36.0	48.0
7	37.9	33.1	42.9	48.6	41.4	55.9
8	45.0	39.3	50.8	55.3	46.8	63.6
9	52.4	45.9	58.8	61.9	52.2	70.7
10	59.7	52.6	66.4	68.0	57.6	77.0
11	--	--	--	--	--	--

## Static-99R Samples for Recidivism Tables

**(with fixed 5-year follow-up data,  $k = 23$ ,  $n = 5,760$ ; with 10-year follow-up data,  $k = 11$ ,  $n = 1,642$ )**

### **Routine Corrections**

**(with 5-year data,  $k = 8$ ,  $n = 2,406$ )**

Bartosh et al. (2003)  
Bigras (2007)  
Boer (2003)  
Craissati et al. (2008)  
Eher et al. (2008)  
Epperson (2003)  
Hanson et al. (2007)  
Langstrom (2004)

### **Non-Routine**

**(with 5-year data,  $k = 15$ ,  $n = 3,354$ ; with 10-year data,  $k = 11$ ,  $n = 1,642$ )**

Allan et al. (2007)  
Bengtson (2008)  
Bonta & Yessine (2005)  
Brouillette-Alarie & Proulx (2008)  
Cortoni & Nunes (2007)  
Haag (2005)  
Harkins & Beech (2007)  
Hill et al. (2008)  
Johansen (2007)  
Knight & Thornton (2007)  
Nicholaichuk (2001)  
Saum (2007)  
Swinburne Romine et al. (2008)  
Ternowski (2004)  
Wilson et al. (2007A & B)

### **Preselected Treatment Need**

**with 5-year data,  $k = 6$ ,  $n = 1,782$ ; with 10-year data,  $k = 5$ ,  $n = 866$ )**

Allan et al. (2007)  
Brouillette-Alarie & Proulx (2008)  
Harkins & Beech (2007)  
Johansen (2007)  
Swinburne Romine et al. (2008)  
Ternowski (2004)

### **Preselected High-Risk/Need**

**(with 5-year data,  $k = 6$ ,  $n = 1,313$ ; with 10-year data,  $k = 5$ ,  $n = 722$ )**

Bengtson (2008)  
Bonta & Yessine (2005)  
Haag (2005)  
Knight & Thornton (2007)  
Nicholaichuk (2001)  
Wilson et al. (2007A & B)

## Static-99R Samples for Recidivism Tables

### Routine Corrections

*Bartosh, Garby, Lewis, & Gray, 2003.* The study sample consists of sex offenders released from the Arizona Department of Corrections and subject to registration and notification. The Static-99 was scored from file information and recidivism was coded from FBI records. Interrater reliability was reported ( $r = .90$ ), although the number of cases coded by multiple raters is unknown.

*Bigras, 2007.* The original sample contained 94% of all sexual offenders receiving a federal sentence (two or more years) in Quebec between 1995 and 2000 (6% refused participation in the research or were unable to provide consent). Assessment information was extracted from file data and interviews with offenders. Recidivism data was collected using CPIC records.

*Boer, 2003.* The study sample consists of all male federal offenders serving a sentence for a sexual offense in British Columbia whose Warrant Expiry Date (WED; the end of their sentence) was between January 1990 and May 1994. Many offenders are granted conditional release prior to their WED; thus, offenders in this sample were released as early as 1976. Recidivism information was collected using CPIC records. Category B sexual offenses (see A. J. R. Harris et al., 2003) were excluded from the definition of sexual recidivism.

*Craissati, Bierer, & South, 2008.* The study sample consists of all contact sex offenders on probation in two boroughs in South East London during the study period. The Static-99 was coded from file information and recidivism data was collected from four sources: the Police National Computer, the Violent and Sex Offenders Register, the Multiple Criminal Remote Access, and the EApps database.

*Eher, Rettenberger, Schilling, & Pfafflin, 2009.* The study sample consists of sex offenders released from prison in Austria (see Eher, Rettenberger, Schilling, & Pfafflin, 2008). Interrater reliability was assessed by having four raters code 27 cases ( $ICC = .90$ ). Recidivism information was collected from the Federal Department of the Interior.

*Epperson, 2003.* The study sample consists of sex offenders in North Dakota who were either incarcerated or on probation. Recidivism information was collected from North Dakota state records.

*Hanson, Harris, Scott, & Helmus, 2007.* This prospective study followed offenders on community supervision between 2001-2005 in Canada, Alaska, and Iowa, although only Canadian offenders were used in the current study. Static-99 was coded by community supervision officers and sent to the project staff, and interrater reliability was examined through file review of 88 cases coded by the officers ( $ICC = .91$ ). Recidivism information was collected from CPIC records, supervising officers, provincial records, and informal police contacts (additionally, one recidivist was identified in a newspaper article).

*Långström, 2004.* The study sample consists of sex offenders released from prison in Sweden. The Static-99 was coded from file information and recidivism was coded from the National Council for Crime Prevention.

## **Non-Routine**

### **Selected as Needing Treatment**

*Allan, Grace, Rutherford, & Hudson, 2007.* The study sample consists of child molesters who completed the prison-based Kia Marama sex offender treatment program in Christchurch, New Zealand. Recidivism information was collected from the New Zealand Department of Corrections.

*Brouillette-Alarie & Proulx, 2008.* The study sample consists of offenders treated or assessed at a maximum security psychiatric facility in Quebec. A sample from this facility was used in the original development samples of Static-99, but any overlapping cases were removed in the present study. Recidivism information was collected from CPIC records and Montreal courthouse records.

*Harkins & Beech, 2007.* This sample included offenders from three other studies in the United Kingdom. The first sample consisted of offenders from the mid to late 1990s in Her Majesty's Prison Service's Sex Offender Treatment Programme. The second sample was drawn from a community treatment program in the early 1990s, and the third sample included offenders who underwent community treatment in the late 1990s in West Midlands. The intensity of the treatment varied and treatment dropouts were retained in the sample. Recidivism data was collected from the Home Office offenders Index and Police National Computer.

*Johansen, 2007.* The study sample consists of participants from a prison-based sex offender treatment program in Washington State. Static-99 was coded from file information and recidivism was coded from the Office of the Administrators of the Courts and the Department of Corrections Offender Based Tracking System.

*Swinburne Romine, Dwyer, Mathiowetz, & Thomas, 2008.* The study sample consists of offenders assessed or treated at an outpatient treatment program at the University of Minnesota. Recidivism information was coded from the Bureau of Criminal Apprehension records.

*Ternowski, 2004.* The study sample consists of sex offenders referred to the Stave Lake Correctional Centre Program, located in a provincial institution in B.C. Recidivism information was coded from provincial correctional records maintained by the Minister of the Attorney General of British Columbia.

### **Selected as High Risk/Needs**

*Bengtson, 2008.* The study sample consists of sex offenders who received a pre-trial forensic psychiatric evaluation in Denmark. Such evaluations were typically conducted for offenders suspected of mental disorder or mental retardation, offenders

deemed high risk by the courts, those accused of serious offenses, and those for whom an indefinite sentence was being considered. The Static-99 was coded from file information and criminal records. Recidivism information was obtained from the Danish Central Crime Register, and interrater reliability was assessed by having two raters code 20 cases ( $ICC = .94$ ).

*Bonta & Yessine, 2005.* The original sample consisted of three subgroups of Canadian offenders: 1) offenders flagged as potential Dangerous Offenders (subject to indeterminate sentence) by the National Flagging System, 2) offenders designated as Dangerous Offenders, and 3) offenders who committed a violent reoffense after being detained until their Warrant Expiry Date. Only offenders in the first group (flagged offenders), however, had Static-99 scores available. For these offenders, Static-99 was coded from file information and recidivism was coded from CPIC records and Offender Management System (OMS) records from the Correctional Service of Canada (CSC). The definition of sexual recidivism excluded prostitution offenses, indecent phone calls, and possession of child pornography. Given the low frequency of these offenses, it is expected that this restricted definition would have minimal impact on the results. In some cases the offender's "current" offense (i.e., the offense that precipitated the flag) was non-sexual but there was a prior sexual offense on record. Their most recent sex offense was used as the index sex offense for Static-99 scoring purposes (as per the coding rules), but these cases are somewhat unique because the offenders spent time in the community after their index sex offense but before the recidivism follow-up period began. To retain a sample of offenders who were serving a sentence for a sexual offense or who had a recent sex offense on file, offenders with more than two years between their index sex offense and the current offense for which they were flagged were deleted ( $n = 22$ ).

*Haag, 2005.* The original study sample included all male Canadian federal sex offenders whose Warrant Expiry Date was in 1995, although 75% of offenders were released prior to their WED. Follow-up information was collected for 7 years after the WED. Because recidivism information was not recorded for the time period after release but before the WED, offenders who were released more than 30 days in advance of their WED were deleted, effectively reducing the sample to offenders who were detained until Warrant Expiry. Under Canadian legislation, offenders are to be automatically released after serving two thirds of their sentence. In some cases, however, CSC will make an application to have the offender detained until Warrant Expiry if the parole board is satisfied that if released, the offender poses a significant risk of committing a serious offense before their sentence expires. Recidivism information was collected from CPIC records. Interrater reliability was assessed by having 66 cases from the original sample coded by the main researcher and a CSC psychologist ( $r = .92$ ).

*Knight & Thornton, 2007.* This study followed offenders who were either assessed or treated at the Massachusetts Treatment Center (MTC; a treatment center for sexually dangerous persons) between 1959 and 1984. Static-99 was retrospectively coded from file data by raters who were blind to recidivism status. Recidivism information was obtained from four sources: Massachusetts Board of Probation records, Massachusetts Parole Board records, MTC Authorized Absence Program records, and FBI records. Interrater reliability was evaluated by having 232 Static-99 cases coded by

two raters ( $r = .87$ ). In the original dataset, total scores were averaged across raters as opposed to generating a consensus rating. For this project, a consensus score was identified wherever possible. For example, given inconsistent coding concerning age at release, the offender's birth date and release date were used to obtain the correct score. Also, if one rater's score did not make sense given other information in the dataset, then the other rater's score was used. When consensus ratings could not be generated, the rating was determined by flipping a coin.

*Nicholaichuk, 2001.* The study sample consists of sex offenders treated at the Clearwater sex offender treatment program, located in a federal maximum-security forensic mental health facility in Saskatchewan. Recidivism information was coded from CPIC records.

*Wilson and colleagues (2007a & b).* The study sample consists of Canadian offenders combined from two previous studies: Wilson, Cortoni, and Vermani (2007a), and Wilson, Picheca, and Prinzo (2007b). Both studies consist of high-risk sex offenders who were detained in prison until their Warrant Expiry Date (the end of their sentence). In both studies, half of the offenders participated in Circles of Support and Accountability, while another (matched) group of sex offenders did not. Although the two studies had separate samples, they were combined into one dataset because both samples were selected in the same way and the basic descriptive information was the same for both studies.

### **Non-Routine - Other**

*Cortoni & Nunes, 2007.* The study sample consists of Canadian federal offenders who received the low or moderate intensity National Sexual Offender Treatment Program (implemented in 2000). The original study also used a comparison group of federal offenders under community supervision in 1991, but these offenders were excluded from the present study due to insufficient follow-up information for logistic regression analyses. Recidivism information was collected from CPIC records. This sample was not included as Preselected for Treatment because offenders are screened into CSC's low risk sex offender program because they have few or no criminogenic needs.

*Hill, Haberman, Klusmann, Berner, & Briken, 2008.* The study sample consists of offenders who committed a sexual homicide. Static-99 was coded from file information and recidivism was coded from German federal criminal records.

*Saum, 2007.* The study sample consists of sex offenders treated by North Dakota's Department of Human Services. Static-99 was scored from file information and recidivism was coded from records maintained by the North Dakota Department of Corrections. Interrater reliability was assessed by having two raters code 20 cases ( $ICC = .95$ ). This sample was not included as Preselected for Treatment because it was a statistical outlier.

## Static-99R Samples for Percentiles and Relative Risk Ratios

**For percentiles, only routine samples were used ( $k = 8$ ,  $n = 4,040$ )**

Bartosh et al. (2003)  
Bigras (2007)  
Boer (2003)  
Craissati et al. (2008)  
Eher et al. (2008)  
Epperson (2003)  
Hanson et al. (2007)  
Långström (2004)

**For relative risk ratios, all but one sample was used ( $k = 22$ ,  $n = 8,047$ )**

Allan et al. (2007)  
Bartosh et al. (2003)  
Bengtson (2008)  
Bigras (2007)  
Boer (2003)  
Bonta & Yessine (2005)  
Brouillette-Alarie & Proulx (2008)  
Craissati et al. (2008)  
Eher et al. (2008)  
Epperson (2003)  
Haag (2005)  
Hanson et al. (2007)  
Harkins & Beech (2007)  
Hill et al. (2008)  
Johansen (2007)  
Knight & Thornton (2007)  
Långström (2004)  
Nicholaichuk (2001)  
Saum (2007)  
Swinburne Romine et al. (2008)  
Ternowski (2004)  
Wilson et al. (2007A & B)

Note that Cortoni & Nunes (2007) was not used for relative risk ratios because using sample as a strata variable restricts the analyses to samples with at least one recidivist.

## References

- Allan, M., Grace, R. C., Rutherford, B., & Hudson, S. M. (2007). Psychometric assessment of dynamic risk factors for child molesters. *Sexual Abuse: A Journal of Research and Treatment, 19*, 347-367.
- Bartosh, D. L., Garby, T., & Lewis, D., & Gray, S. (2003). Differences in the predictive validity of actuarial risk assessments in relation to sex offender type. *International Journal of Offender Therapy & Comparative Criminology, 47*, 422-438.
- Bengtson, S. (2008). Is newer better? A cross-validation of the Static-2002 and the Risk Matrix 2000 in a Danish sample of sexual offenders. *Psychology, Crime & Law, 14*, 85-106.
- Bigras, J. (2007). La prédiction de la récidive chez les délinquants sexuels [Prediction of recidivism among sex offenders]. *Dissertations Abstracts International, 68* (09). (UMI No. NR30941).
- Boer, A. (2003). *Evaluating the Static-99 and Static-2002 risk scales using Canadian sexual offenders*. Unpublished master's thesis, University of Leicester, Leicester, United Kingdom.
- Bonta, J., & Yessine, A. K. (2005). [Recidivism data for 124 released sexual offenders from the offenders identified in *The National Flagging System: Identifying and responding to high-risk, violent offenders* (User Report 2005-04). Ottawa: Public Safety and Emergency Preparedness Canada]. Unpublished raw data.
- Brouillette-Alarie, S., & Proulx, J. (2008, October). *Predictive and convergent validity of phallometric assessment in relation to sexual recidivism risk*. Poster presented at the annual conference for the Association for the Treatment of Sexual Abusers, Atlanta, GA.
- Cortoni, F., & Nunes, K. L. (2007). *Assessing the effectiveness of the National Sexual Offender Program* (Research Report No. R-183). Unpublished report, Correctional Service of Canada.
- Craissati, J., Bierer, K., & South, R. (2008). *What do sex offenders really get up to? Risk prediction, community failure and "sexually risky behaviours" in a nine year follow up study*. Unpublished manuscript.
- Eher, R., Rettenberger, M., Schilling, F., & Pfafflin, F. (2009). [Data from sex offenders released from prison in Austria]. Unpublished raw data.
- Eher, R., Rettenberger, M., Schilling, F., & Pfafflin, F. (2008). Failure of Static-99 and SORAG to predict relevant reoffense categories in relevant sexual offender subtypes: A prospective study. *Sexual Offender Treatment, 8*(1), 1-20. [Note: this reference provides some information on the raw data used from Eher et al., 2009.]

- Epperson, D. L. (2003). *Validation of the MnSOST-R, Static-99, and RRASOR with North Dakota prison and probation samples*. Unpublished Technical Assistance Report, North Dakota Division of Parole and Probation.
- Haag, A. M. (2005). [recidivism data from 198 offenders detained until their warrant expiry date. From: Do psychological interventions impact on actuarial measures: An analysis of the predictive validity of the Static-99 and Static-2002 on a re-conviction measure of sexual recidivism. *Dissertations Abstracts International*, 66 (08), 4531B. (UMI No. NR05662)]. Unpublished raw data.
- Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (Corrections Research User Report No. 2007-05). Ottawa, ON, Canada: Public Safety Canada.
- Harkins, L., & Beech, A.R. (2007). *Examining the effectiveness of sexual offender treatment using risk band analysis*. Unpublished manuscript.
- Hill, A., Habermann, N., Klusmann, D., Berner, W., & Briken, P. (2008). Criminal recidivism in sexual homicide perpetrators. *International Journal of Offender Therapy and Comparative Criminology*, 52, 5-20.
- Johansen, S. H. (2007). Accuracy of predictions of sexual offense recidivism: A comparison of actuarial and clinical methods. *Dissertations Abstracts International*, 68 (03), B. (UMI No. 3255527).
- Knight, R. A., & Thornton, D. (2007). *Evaluating and improving risk assessment schemes for sexual recidivism: A long-term follow-up of convicted sexual offenders* (Document No. 217618). Submitted to the U.S. Department of Justice.
- Långström, N. (2004). Accuracy of actuarial procedures for assessment of sexual offender recidivism risk may vary across ethnicity. *Sexual Abuse: A Journal of Research and Treatment*, 16, 107-120.
- Nicholaichuk, T. (2001, November). *The comparison of two standardized risk assessment instruments in a sample of Canadian Aboriginal sexual offenders*. Paper presented at the annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, San Antonio, TX.
- Saum, S. (2007). A comparison of an actuarial risk prediction measure (Static-99) and a stable dynamic risk prediction measure (Stable-2000) in making risk predictions for a group of sexual offenders. *Dissertations Abstracts International*, 68 (03), B. (UMI No. 3255539).
- Swinburne Romine, R., Dwyer, S. M., Mathiowetz, C., & Thomas, M. (2008, October). *Thirty years of sex offender specific treatment: A follow-up Study*. Poster presented at the conference for the Association for the Treatment of Sexual Abusers, Atlanta, GA.

Ternowski, D. R. (2004). Sex offender treatment: An evaluation of the Stave Lake Correctional Centre Program. *Dissertations Abstracts International*, 66 (06), 3428B. (UMI No. NR03201).

Wilson, R. J., Cortoni, F., & Vermani, M. (2007a). *Circles of support and accountability: A national replication of outcome findings* (Report No. R-185). Ottawa, ON: Correctional Service of Canada.

Wilson, R. J., Picheca, J. E., & Prinzo, M. (2007b). Evaluating the effectiveness of professionally-facilitated volunteerism in the community-based management of high-risk sexual offenders: Part two – A comparison of recidivism rates. *The Howard Journal*, 46, 327-337.