

STATIC-99R & STATIC-2002R

Evaluators' WORKBOOK

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This version updates and replaces the July 26, 2012 *Static-99R & Static-2002R Evaluators' Workbook* and all other previous versions. From the July 26, 2012 version, changes have been made to the absolute recidivism rate estimates, the sample reporting paragraphs, and references. All other statistics (e.g., risk ratios, percentiles) remain unchanged from the 2012 version.

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Estimated Percentiles for Canadian Sex Offenders

Static-99R Score	Percentile Rank defined as mid-point average		Observed Percentages		
	Percentile	95% CI	Below	Same	Higher
-3	1.3	0 – 2.9	0	2.7	97.3
-2	4.2	2.4 – 6.1	2.7	3.0	94.3
-1	9.7	5.7 – 13.9	5.7	7.9	86.4
0	18.7	13.4 – 24.1	13.6	10.3	76.1
1	31.7	23.8 – 39.7	23.9	15.7	60.4
2	48.3	39.5 – 57.1	39.6	17.5	42.9
3	65.7	57.0 – 74.3	57.1	17.2	25.7
4	79.6	74.0 – 85.1	74.3	10.7	15.0
5	88.7	84.6 – 92.5	85.0	7.4	7.6
6	94.2	91.9 – 96.2	92.4	3.6	4.0
7	97.2	95.6 – 98.6	96.0	2.5	1.5
8	99.1	98.2 – 99.8	98.5	1.2	0.3
9	99.9	99.5 – 100.0	99.7	0.28	0.02
10+	99.99	99.8 – 100.0	99.98	0.02	0

Static-2002R Score	Percentile Rank defined as mid-point average		Observed Percentages		
	Percentile	95% CI	Below	Same	Higher
-2	1.4	0 – 3.0	0	2.8	97.2
-1	4.2	2.6 – 6.1	2.8	2.9	94.3
0	9.0	5.5 – 12.8	5.7	6.7	87.6
1	17.3	12.3 – 22.5	12.4	9.7	77.9
2	30.1	22.2 – 38.3	22.1	16.0	61.9
3	47.1	38.1 – 56.1	38.1	17.9	44.0
4	63.7	55.9 – 71.4	56.0	15.3	28.7
5	78.0	71.1 – 84.7	71.3	13.5	15.2
6	88.3	84.3 – 92.1	84.8	7.1	8.1
7	93.3	91.3 – 95.1	91.9	2.8	5.3
8	95.9	94.2 – 97.4	94.7	2.5	2.8
9	98.3	96.9 – 99.5	97.2	2.3	0.5
10	99.7	99.3 – 100.0	99.5	0.4	0.1
11	99.97	99.8 – 100.0	99.9	0.09	0.01
12+	99.99	99.8 – 100.0	99.99	0.01	0

Source: Hanson, Lloyd, Helmus & Thornton (2012)

Relative Risk Ratios

Static-99R Score	Frequency (<i>n</i>)	Relative Risk Ratio
-3	73	0.19
-2	105	0.26
-1	384	0.37
0	473	0.52
1	565	0.72
2	599	1.00
3	598	1.39
4	491	1.94
5	333	2.70
6	209	3.77
7	120	5.25
8+	87	7.32

Note: Risk ratios were calculated from hazard ratios based on Cox regression coefficients derived from entering the continuous (i.e., unclumped) Static-99R scores ($\beta = 0.332$; SE = .022), with sample as strata ($k = 8$, $n = 4,037$). Due to small sample size, risk ratios are not presented for Static-99R scores greater than 8. The analyses were based on routine (i.e., relatively unselected) correctional samples.

Static-2002R Score	Frequency (<i>n</i>)	Relative Risk Ratio
-2	30	0.20
-1	36	0.28
0	102	0.38
1	135	0.52
2	192	0.72
3	221	1.00
4	220	1.38
5	195	1.90
6	137	2.63
7	88	3.62
8	45	5.00
9+	51	6.90

Note: Risk ratios were calculated from hazard ratios based on Cox regression coefficients derived from entering the continuous (i.e., unclumped) Static-2002R scores ($\beta = 0.322$; SE = .038), with sample as strata ($k = 3$, $n = 1,452$). Due to small sample size, risk ratios are not presented for Static-2002R scores greater than 9. The analyses were based on routine (i.e., relatively unselected) correctional samples.

Source: Babchishin, Hanson, & Helmus (2012); Hanson, Babchishin, Helmus, & Thornton (2013)

WHAT'S NEW IN 2015

Static-99R/2002R Sexual Recidivism Estimates

As empirical actuarial risk tools, Static-99R and Static-2002R norms are updated as new information becomes available. The most recent updates contain two significant changes.

First, norms are only presented for the Routine and High Risk/High Need (HRHN) samples. Norms are not presented for samples pre-selected for treatment needs as the differences between the routine and treatment needs samples were no longer meaningful with the addition of three new routine samples. New non-routine norms are not available and are not recommended for use.

The second major change is that the Routine and the HRHN were allowed to have different relative risk parameters (B_1) for the smoothed logistic regression estimates. Previously, only the base rate parameter (B_0 , centered on 2 for Static-99R and 3 for Static-2002R) was allowed to vary across the groups. With the addition of the new samples, the variability in the relative risk parameters across groups is now significant or approaching significance, with lower increases in relative risk per score in the HRHN samples than in the Routine Samples.

We also made a number of minor changes in the selection and analysis of the data designed to increase the confidence in the findings. Specifically, we removed the data from Knight and Thornton (2007) from the HRHN norms because it represented a significantly earlier cohort than any of the other datasets, and it was a statistical outlier in certain analyses. As well, we used fixed-effect rather than random-effects statistics to aggregate within sample-type because the estimate of between-study variability (τ) is unreliable when the number of studies is small ($k < 20$; Schulze, 2007).

Norms were only presented when there were sufficient data. Sufficient was defined, a priori, as approximately 100 recidivists (Vergouwe, Steyerberg, Eijkemans, & Habbeman, 2005) from at least two samples. Consequently, 5 year norms are presented for Routine and HRHN samples for both Static-99R and Static-2002R; however, 10 year estimates are only available for HRHN samples for Static-99R.

New samples included in the new Routine norms include Hanson, Lunetta, Phenix, Neely, and Epperson (2014), and Lehmann et al. (2013), and updated follow-up on a larger sample size from the Dynamic Supervision Project (Hanson, Helmus, & Harris, 2014). A description of these samples follows later in this document.

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

Logistic Regression Estimates			
Score	Predicted Recidivism Rate	95% C.I.	
-3	0.9	0.6	1.3
-2	1.3	1.0	1.8
-1	1.9	1.4	2.5
0	2.8	2.2	3.5
1	3.9	3.3	4.7
2	5.6	4.8	6.5
3	7.9	7.0	8.8
4	11.0	10.0	12.1
5	15.2	13.8	16.6
6	20.5	18.4	22.8
7	27.2	24.0	30.7
8	35.1	30.5	40.0
9	43.8	37.8	50.1
10	53.0	45.6	60.3
11	--	--	--

Source: Hanson, Thornton, Helmus, & Babchishin (in press)

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	5.6	3.5	9.1	10.6	5.8	18.4
0	7.2	4.7	10.7	13.0	7.9	20.5
1	9.0	6.4	12.5	15.8	10.7	22.8
2	11.3	8.6	14.6	19.1	14.1	25.4
3	14.0	11.3	17.2	22.9	18.2	28.5
4	17.3	14.5	20.5	27.3	22.5	32.6
5	21.2	18.0	24.8	32.1	26.7	37.9
6	25.7	21.5	30.3	37.3	30.5	44.7
7	30.7	25.1	37.0	42.8	33.9	52.3
8	36.3	28.8	44.5	48.5	37.1	60.1
9	42.2	32.6	52.5	--	--	--
10	48.4	36.6	60.5	--	--	--
11	--	--	--	--	--	--

STATIC-2002R ROUTINE SAMPLE
Estimated 5-year sexual recidivism rates

Logistic Regression Estimates

Score	Predicted Recidivism Rate	95% C. I.	
-2	1.0	0.6	1.7
-1	1.5	0.9	2.3
0	2.2	1.5	3.2
1	3.2	2.3	4.4
2	4.6	3.6	6.0
3	6.8	5.5	8.2
4	9.7	8.3	11.3
5	13.8	12.2	15.6
6	19.2	16.9	21.6
7	26.0	22.6	29.8
8	34.3	29.1	40.0
9	43.7	36.5	51.2
10	53.5	44.4	62.4
11	-	-	-
12	-	-	-
13	-	-	-

STATIC-2002R HIGH RISK/NEED GROUP
Estimated 5-year sexual recidivism rates

Logistic Regression Estimates

Score	Predicted Recidivism Rate	95% C. I.	
-2	-	-	-
-1	-	-	-
0	7.4	4.2	12.6
1	9.0	5.6	14.1
2	11.0	7.5	15.7
3	13.3	9.8	17.7
4	16.0	12.6	20.0
5	19.1	15.8	23.0
6	22.7	18.9	27.0
7	26.8	21.9	32.3
8	31.2	24.6	38.7
9	36.1	27.3	45.9
10	41.2	30.0	53.4
11	-	-	-
12	-	-	-
13	-	-	-

Samples Used To Construct Percentile Ranks for Static-99R and Static-2002R

Ideally the percentiles calculated in the Evaluator Workbook would consider all Canadian adults convicted of a sexual offense as the reference category. An unbiased sample of all Canadian sexual offenders was not available; however, we were able to identify four relatively unbiased samples of sexual offenders released between 1990 and 2005 from the three major divisions of the Canadian criminal justice system: a) community, b) provincial prison (sentences of less than 2 years that are administered by the provinces), and c) federal prison (sentences of 2 years or more that are administered federally by the Correctional Service of Canada). We then used standard survey sampling statistics (Kalton, 1983) to estimate a representative normative (Canadian) sample from these multiple independent samples (see Hanson et al., 2012).

Canadian Samples

Dynamic Supervision Project (Hanson, Harris, Scott, & Helmus, 2007). This prospective study followed sex offenders on community supervision between 2001-2005 in all Canadian provinces and territories, and two U.S. states. For the current study, only Canadian offenders were considered because of difficulty obtaining reliable recidivism information for the U.S. states. Participating probation officers ($n = 137$) were requested to submit demographic, offense history, and risk assessment information (Static-99, STABLE-2007, ACUTE-2007) on sex offenders consecutively entering their caseload. File review indicated that the cases were not always consecutive; however, the sample can be considered representative of the diverse group of sex offenders on community supervision.

Static-99 scores were coded prospectively by the probation officers. Static-2002 scores were coded by graduate students based on information from Static-99 scores and Canadian Police Information Centre (CPIC) records maintained by the Royal Canadian Mounted Police (RCMP). Static-99R and Static-2002R were created by retrospectively reweighting the age variables of these measures.

Of the 595 offenders with the necessary data for the current analyses, 38 were supervised following a federal sentence ($n = 38$, 6.4%), 254 following a provincial sentence (42.7%), and 303 received solely a non-custodial sentence (e.g., probation, conditional sentence order, or in rare cases, a peace bond; 50.9%). Twenty-four offenders (4.0%) had a non-sexual violent index offense.

Interrater reliability for Static-99 was examined through file review of 88 cases coded by probation officers participating in the DSP project ($ICC = .91$). An exceptionally high interrater reliability for Static-2002 coding ($ICC = .98$, $n = 25$ cases) was observed. Coding was based upon probation officers' obtained Static-99 scores and conviction information rather than interpretation of victim information or offense circumstances. Consequently, reliability for Static-2002 scores in this study should not be considered representative or typical.

Canadian federal offenders: B.C. (Boer, 2003). Archival data from the Offender Management System (OMS) maintained by Correctional Service Canada (CSC) were used to identify all federal male 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 before their WED; thus, offenders in this sample were released as early as 1986 ($n = 296$). Interrater reliability was unavailable for this sample.

Canadian federal offenders: 1995 WED (Haag, 2005). OMS records were used to identify all federal sex offenders with a WED in 1995. Offenders were released as early as 1987 ($n = 663$). Interrater reliability for Static-99 and Static-2002 scores was high ($r = .92$ and $.84$, respectively; $n = 66$ cases) when assessed by the lead researcher (Haag) and another psychologist.

Canadian federal offenders: Quebec (Bigras, 2007). This study included 94% of all sex offenders receiving a federal sentence in Quebec between 1995-2000 (6% refused participation in the research or were unable to provide consent). Static-99 and Static-2002 scores were coded from file data and offender interviews ($n = 457$). Interrater reliability was unavailable for this sample.

Characteristics of Canadian Samples

Sample	<i>N</i>	Age <i>M (SD)</i>	Offender Type: % Rapists/ % Child Molesters	Static-99 <i>M (SD)</i>	Static-99R <i>M (SD)</i>	Static-2002 <i>M (SD)</i>	Static-2002R <i>M (SD)</i>
Dynamic Supervision Project	595	42 (14)	36/54	2.6 (1.9)	2.1 (2.3)	3.8 (2.2)	3.2 (2.4)
Federal: B.C.	296	41 (12)	40/55	3.2 (2.3)	2.8 (2.8)	4.5 (2.5)	3.9 (2.7)
Federal: 1995 WED	663	41 (12)	46/52	2.8 (2.0)	2.5 (2.6)	4.6 (2.4)	4.1 (2.6)
Federal: Quebec	457	43 (12)	38/46	2.7 (2.0)	2.1 (2.4)	4.1 (2.3)	3.5 (2.5)
Total	2,011	42 (13)	40/52	2.8 (2.0)	2.3 (2.5)	4.2 (2.3)	3.7 (2.5)

Note. Age refers to age at release.

Samples Used To Construct Risk Ratios for Static-99R and Static-2002R

A risk ratio is a global term to describe a ratio to compare recidivism among two groups (e.g., scores of 7 compared to the median score of 2 on Static-99R or a score of 7 compared to the median score of 3 on Static-2002R). There are different ways to calculate risk ratios such as rate ratios, odds ratios, or hazard ratios. In these datasets, hazard ratios were used to define risk ratios (see Babchishin et al., 2012; Hanson et al., 2013).

The 8 samples ($n = 4,037$) used in the current study were selected from a larger group of studies used for the re-norming of Static-99 (Helmus, 2009). Of the 29 datasets available, 23 had the necessary information for calculating Static-99R risk ratios for sexual recidivism; however, only eight approximated routine samples that had not been preselected on risk-relevant characteristics or the need for treatment. These 8 samples were selected as most representative of the complete population of sexual offenders in their respective jurisdictions. Of these, 3 samples also had Static-2002R scores (Bigras [2007], Boer [2003], and Hanson et al. [2007]).

Bartosh, Garby, Lewis, & Gray (2003). The study examined sex offenders released from the Arizona Department of Corrections and subject to registration and notification.

Bigras (2007). The sample included 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).

Boer (2003). The study examined all male federal offenders serving a federal 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.

Craissati, Bierer, & South (2008). The study examined all contact sex offenders on probation in two boroughs in South East London during the study period.

Eher, Rettenberger, Schilling, & Pfafflin (2009). The study examined sex offenders released from prison in Austria. The sample size in this dataset was approximately twice the size of the sample in an earlier report of this project (Eher, Rettenberger, Schilling, & Pfafflin, 2008).

Epperson (2003). The study examined sex offenders in North Dakota who were either incarcerated or on probation.

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.

Långström (2004). The study examined sex offenders released from prison in Sweden.

Descriptive Information for Static-99R samples

Study	Cox Regression N	N _{5-year} (Logistic Regression)	Static-99R M (SD)	Country	Recidivism Criteria	Type of Sample	Mostly Treated	Release Period	Md Year Release
Bartosh et al. (2003)	186	90	3.3 (2.9)	U.S.	Charges	Routine correctional	-	1996	1996
Bigras (2007)	480	206	2.1 (2.4)	Canada	Charges	Routine CSC	Mixed	1995-2004	1999
Boer (2003)	299	299	2.8 (2.8)	Canada	Conviction	Routine CSC	-	1976-1994	1990
Craissati et al. (2008)	209	200	2.2 (2.3)	U.K.	Conviction	Routine community supervision	Mixed	1992-2005	1998
Eher et al. (2008)	706	151	2.3 (2.3)	Austria	Conviction	Routine European prison	-	2000-2005	2003
Epperson (2003)	177	150	2.5 (2.6)	U.S.	Charges	Routine correctional	-	1989-1998	1995
Hanson et al. (2007)	702	-	2.4 (2.4)	Canada	Charges	Routine community supervision	-	2001-2005	2002
Långström (2004)	1,278	1,278	2.0 (2.4)	Sweden	Conviction	Routine European prison	No	1993-1997	1995
Total	4,037	2,374	2.3 (2.5)	-	-	-	-	1976-2005	1997

Note. CSC = Correctional Service Canada (administers all sentences of at least two years). Average Static-99R computed using sample size from cox regression. Sample includes all cases available for cox regression with sample as strata; three cases were deleted because the total follow-up time was less than the time to first observed recidivism event. Thirty-one cases from Hanson et al. (2007) were excluded from all 5-year analyses because there were no sexual recidivists in that group.

Descriptive Information for Static-2002R samples

Study	Cox Regression N	N _{5-year} (Logistic Regression)	Static-02R M (SD)	Country	Recidivism Criteria	Type of Sample	Mostly Treated	Release Period	Mdn Year Release
Bigras (2007)	454	196	3.5 (2.5)	Canada	Charges	Routine CSC	Mixed	1995-2004	1999
Boer (2003)	296	296	3.9 (2.7)	Canada	Conviction	Routine CSC	-	1976-1994	1990
Hanson et al. (2007)	702	-	3.5 (2.5)	Canada	Charges	Routine community supervision	-	2001-2005	2002
Total	1,452	492	3.6 (2.5)	-	-	-	-	1976-2005	1997

Note. CSC = Correctional Service Canada (administers all sentences of at least two years). Average Static-2002R computed using sample size from cox regression. Sample includes all cases available for cox regression with sample as strata; three cases were deleted because the total follow-up time was less than the time to first observed recidivism event. Thirty-one cases from Hanson et al. (2007) were excluded from all 5-year analyses because there were no sexual recidivists in that group.

Static-99R Summary List of Samples for Recidivism Tables

Routine Corrections

(with 5-year data, 10 samples, $n = 4,325$, with 358 recidivists)

Bartosh et al. (2003)
Bigras (2007)
Boer (2003)
Craissati et al. (2011)
Eher et al. (2008)
Epperson (2003)
Hanson et al. (2014)
Hanson et al. (2013)
Långström (2004)
Lehmann et al. (2013)

Preselected High-Risk/Need

(with 5-year data, 5 samples, $n = 860$, with 164 recidivists; with 10-year data, $k = 2$, $n = 350$, with 98 recidivists)

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

Static-99R Sample Descriptions 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, 2011. 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, Helmus, & Harris, 2014. 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).

Hanson, Lunetta, Phenix, Neely, & Epperson, 2014. This prospective study included a random sample of offenders released from the California Department of Corrections and Rehabilitation (CDCR) and who had a Static-99 scored between June, 2006 and June, 2007. Static-99 was scored by CDCR staff as part of routine practice. Interrater was assessed by having 55 corrections and probation officers score Static-99R for 14 common cases ($ICC = .78$), Recidivism information was provided by the California Department of Justice.

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.

Lehmann et al. (2013). This sample included sexual offenders reported to the Berlin state police during the years 1994-2001 for a violent or abusive sexual offence. Static-99R items were extracted from police and criminal history record databases. Recidivism information was obtained from the National Conviction Registry of Germany.

Preselected 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 ($r = .92$).

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.

Static-2002R Summary List of Samples for Recidivism Tables

Routine

(with 5-year data, 4 samples, $n = 1,964$, with 217 recidivists)

Bigras (2007)

Boer (2003)

Hanson et al. (2014)

Lehmann et al. (2013)

Preselected High-risk/Need

(with 5-year data, 2 samples, $n = 497$, with 97 recidivists)

Bengston (2008)

Haag (2005)

Static-2002R Sample Descriptions for Recidivism Tables

Routine

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.

Hanson, Helmus, & Harris, 2014. 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).

Lehmann et al. (2013). This sample included sexual offenders reported to the Berlin state police during the years 1994-2001 for a violent or abusive sexual offense. Static-99R items were extracted from police and criminal history record databases. Recidivism information was obtained from the National Conviction Registry of Germany.

Preselected as High Risk/High Need (HRHN)

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 ($ICC = .94$).

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 ($r = .92$).

Report Writing Templates for Static-99R and Static-2002R

The remaining sections of this Workbook provide various templates that could be used for reporting the results of Static-99R and Static-2002R (Hanson & Phenix, 2013). These templates are provided as examples only. Evaluators are free to use them, or to revise the wording as they see fit. Further information concerning the research upon which this template is based can be found at www.static99.org.

In the following examples, two versions are presented: a simple, direct version and a more detailed version. The simple versions are intended for familiar audiences, i.e., readers expected to have some familiarity with the risk tool and its use in their setting. The more detailed versions are intended for audiences who may be being introduced to Static-99R/Static-2002R for the first time. In highly adversarial settings, greater detail may be desired in order to address real or anticipated criticisms.

Template 1a

Nominal Risk Categories, Familiar Audience (e.g., routine corrections)

Mr. XXXX was scored on Static-99R. Static-99R is an empirically derived risk tool designed to evaluate the risk of sexual recidivism based on commonly available demographic and criminal history information.

Static-99R has moderate accuracy in ranking offenders according to their relative risk for sexual recidivism, and is widely accepted by the scientific community and by applied evaluators. For further information, see www.static99.org.

Mr. XXXX's Static-99R was calculated based on official criminal history records provided by the RCMP dated August 15, 2013, and files provided by the Ontario Ministry of Community Safety and Correctional Services dated September 4, 2013. As well, Mr. XXXX was interviewed on September 10, 2013, in order to verify the accuracy of the information contained in the police and correctional files.

Mr. XXXX received a total score of XXX which places him in the Low, Moderate-Low, Moderate-High, or High Risk Category for being charged or convicted of another sexual offence.

Template 1b

Nominal Risk Categories, Familiar Audience, Slightly Longer Description

Mr. XXXX was scored on Static-99R^{1,2}. Static-99R is an empirically derived risk tool designed to evaluate the risk of sexual recidivism based on commonly available demographic and criminal history information. Static-99R contains 10 items, which are added together to create a total score.

Static-99R has moderate accuracy in ranking offenders according to their relative risk for sexual recidivism³. On average, there is a 70% chance that a randomly selected recidivist would have a higher score than a randomly selected non-recidivist. The ability of Static-99R to assess relative risk has been fairly consistent across a wide variety of samples, countries, and unique settings. Static-99R is widely accepted by

¹ Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*(1), 119-136. doi:10.1023/A:1005482921333

² Helmus, L., Thornton, D., Hanson, R. K., & Babchishin, K. M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse: A Journal of Research and Treatment, 24*(1), 64-101. doi:10.1177/1079063211409951

³ Babchishin, K. M., Hanson, R. K., & Helmus, L. (2012). Even highly correlated measures can add incrementally to predicting recidivism among sex offenders. *Assessment, 19*, 442-461. doi:10.1177/1073191112458312

the scientific community, by courts, and by applied evaluators. For further information, see www.static99.org.

Mr. XXXX's Static-99R was calculated based on official criminal history records provided by the RCMP dated August 15, 2013, and files provided by the Ontario Ministry of Community Safety and Correctional Services dated September 4, 2013. As well, Mr. XXXX was interviewed on September 10, 2013, in order to verify the accuracy of the information contained in the police and correctional files.

Static-99R Score Summary

Risk Factor	Yes = 1, No = 0	Scores
1	Age at Release? (Score range is -3 to 1)	
2	Ever lived with (no two year relationship)?	
3	Index non-sexual violence, any conviction?	
4	Prior non-sexual violence, any convictions?	
5	Prior sex offenses? (Score range is 0-3)	
6	Prior sentencing dates (excluding index)?	
7	Convictions for non-contact sex offenses?	
8	Any unrelated victims?	
9	Any stranger victims?	
10	Any male victims?	
TOTAL SCORE =		_____
RISK CATEGORY=		_____

Mr. XXXX received a total score of **XXX** which places him in the **Low, Moderate-Low, Moderate-High, or High** Risk Category for being charged or convicted of another sexual offence.

Static-99R does not measure all relevant risk factors and Mr. XXXX's recidivism risk may be higher or lower than that indicated by Static-99R based on factors not included in this risk tool.

Template 2

Absolute recidivism rates – Routine sample as default reference group

In routine samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

Mr. XX's Static-99R score was XX. In routine samples with the same score, the 5 year sexual recidivism rate is between XX% and XX%. This means that out of 100 sexual offenders with the same risk score between XX and XX would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between XX and XX would not be reconvicted of a new sexual offence during that time period.

The above values are based on the table entitled "Static-99R Routine Sample: Estimated 5-year Sexual Recidivism Rates" in Phenix, Helmus & Hanson (January 1, 2015) Static-99R & Static-2002R Evaluators' Workbook. Available from www.static99.org.

Static-99R does not measure all relevant risk factors and Mr. XXXX's recidivism risk may be higher or lower than that indicated by Static-99R based on factors not included in this risk tool.

Template 3a

Absolute recidivism rates – Routine sample as considered reference group

In routine samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

In order to use Static-99R to estimate recidivism rates, it is necessary to select the reference group that the offender most closely resembles. Recidivism rate norms are provided for routine samples and samples that have been preselected to be high risk and high needs. The routine samples are the appropriate reference group for most situations, but it is possible that the high risk and high needs samples may be appropriate in some circumstances. This determination is based on the density of external risk factors not measured by Static-99R.

The STABLE-2007⁴ was used to assess risk factors external to Static-99R. Mr. XX's STABLE-2007 was 6, which is similar to the average value in routine correctional samples (7)⁵. Consequently, there was not a strong justification to use norms other than the routine correctional samples as the reference group for Mr. XX.

Mr. XX's Static-99R score was XX. In routine samples with the same score, the 5 year sexual recidivism rate is XX. The margin of error for this estimate is between XX% and XX%, 19 times out of 20. A recidivism rate of between XX% and XX% means that out of 100 sexual offenders with the same risk score between XX and XX would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between XX and XX would not be reconvicted of a new sexual offence during that time period.

The above values are based on the table entitled "Static-99R Routine Sample: Estimated 5-year Sexual Recidivism Rates" in Phenix, Helmus & Hanson (January 1, 2015) Static-99R & Static-2002R Evaluators' Workbook. Available from www.static99.org.

Template 3b

⁴ 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 User Report No 2007-05). Ottawa, ON: Public Safety Canada. Available at www.publicsafety.gc.ca

⁵ Distribution norms for the STABLE-2007 were based on the meta-analysis by R. K. Hanson & D. Thornton (2012, October). *Preselection effects can explain variability in sexual recidivism base rates in Static-99R and Static-2002R validation studies*. Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.

Absolute recidivism rates – High Risk/High Need (HRHN) as considered reference group

In routine samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%^{6,7}. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

In order to use Static-99R to estimate recidivism rates, it is necessary to select the reference group that the offender most closely resembles. Recidivism rate norms are provided for routine samples and samples that have been preselected to be high risk and high needs. The routine samples are the appropriate reference group for most situations, but it is possible that the high risk and high needs samples may be appropriate in some circumstances. This determination is based on the density of external risk factors not measured by Static-99R.

The VRS-SO⁸ was used to assess risk factors external to Static-99R. Mr. XX's VRS-SO Dynamic Risk score was 30, which is similar to the average value in pre-selected groups of higher risk sexual offenders (27.2)⁹. Consequently, the norms for High Risk/High Need samples were used as the reference group for Mr. XX.

Mr. XX's Static-99R score was XX. In High Risk/High Need samples with the same score, the 5 year sexual recidivism rate is XX. The margin of error for this estimate is between XX% and XX%, 19 times out of 20. A recidivism rate of between XX% and XX% means that out of 100 sexual offenders with the same risk score between XX and XX would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between XX and XX would not be reconvicted of a new sexual offence during that time period.

The above values are based on the table entitled "Static-99R High Risk/Need Group: Estimated 5-Year and 10-Year Sexual Recidivism Rates" in Phenix, Helmus & Hanson (January 1, 2015) Static-99R & Static-2002R Evaluators' Workbook. Available from www.static99.org.

⁶ Helmus, L., Hanson, R. K., Thornton, D., Babchishin, K. M., & Harris, A. J. R. (2012). Absolute recidivism rates predicted by Static-99R and Static-2002R sex offender risk assessment tools vary across samples: A meta-analysis. *Criminal Justice and Behavior*, 39(9), 1148-1171.

⁷ Harris, A.J.R., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question* (Corrections Research User Report No. 2004-03). Public Safety and Emergency Preparedness Canada. Available from www.publicsafety.gc.ca

⁸ Olver, M. E., Wong, S. C., Nicholaichuk, T., & Gordon, A. (2007). The validity and reliability of the Violence Risk Scale-Sexual Offender version: assessing sex offender risk and evaluating therapeutic change. *Psychological Assessment*, 19(3), 318-329.

⁹ Distribution norms for the VRS-SO were based on the meta-analysis by R. K. Hanson & D. Thornton (2012, October). *Preselection effects can explain variability in sexual recidivism base rates in Static-99R and Static-2002R validation studies*. Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.

Template 4a

Percentile Ranks – midpoint average as default, for familiar audience

Mr. XX scored 6 on Static-2002R. Mr. XX's score is higher than 88% of sexual offenders in routine correctional samples.

or

Mr. XX scored -1 on Static-2002R. Mr. XX's score places him in the bottom 4% of sexual offenders in routine correctional samples. In other words, out of 100 sexual offenders, 3 would have a lower score and 94 would have a higher score.

Template 4b

Percentile Ranks – extended version

Percentile ranks describe the offender's risk in comparison to other sexual offenders. Because some offenders have the same scores, there are different ways of reporting percentile ranks (% higher, % lower, mid-point average). Absolute recidivism rates cannot be inferred from percentile rankings. For Static-99R, percentile ranks are based on routine/complete correctional samples from Canada, which have shown to be reasonably stable in international comparisons with Sweden and California¹⁰.

Mr. XX's Static-99R score was 0. In routine correctional samples, this score represents the 19th percentile, defined as a mid-point average (14% have a lower score, 76% have a higher score, and 10% have the same score). In other words, out of 100 sexual offenders, 14 would have a lower score, 10 would have the same score, and 76 would have a higher score.

¹⁰ Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk scales. *International Journal of Forensic Mental Health*, 11(1), 9-23.
doi:10.1080/14999013.2012.667511

Template 5a

Risk Ratios – for familiar audience

In routine samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

Mr. XX had a Static-2002R score of 1. On average, offenders with this score have a sexual recidivism rate that is half the rate of offenders in the middle of the risk distribution.

or

Mr. XX had a Static-2002R score of 3. On average, offenders with this score have a sexual recidivism rate that is the same as the rate of offenders in the middle of the risk distribution.

or

Mr. XX had a Static-2002R score of 7. On average, offenders with this score have a sexual recidivism rate that is the 3.6 times the rate of offenders in the middle of the risk distribution.

Template 5b

Risk Ratios – extended version

In routine correctional samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%^{11,12}. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

Risk ratios describe differences between recidivism rates. For Static-99R, risk ratios compare the expected recidivism rate for offenders with a particular score, to the expected recidivism rate of offenders in the middle of the risk distribution. The middle of the risk distribution is defined as the rate for offenders having the median score

¹¹ Helmus, L., Hanson, R. K., Thornton, D., Babchishin, K .M., & Harris, A. J. R. (2012). Absolute recidivism rates predicted by Static-99R and Static-2002R sex offender risk assessment tools vary across samples: A meta-analysis. *Criminal Justice and Behavior*, 39(9), 1148-1171. doi:10.1177/0093854812443648

¹² Harris, A.J.R., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question* (Corrections Research User Report No. 2004-03). Public Safety and Emergency Preparedness Canada. Available from www.publicsafety.gc.ca

(2). Risk ratios for Static-99R are reasonably stable across follow-up times and jurisdictions¹³.

Mr. XX had a Static-99R score of 1. On average, offenders with this score have a sexual recidivism rate that is 3/4 the rate of offenders in the middle of the risk distribution.

¹³ Hanson, R. K., Babchishin, K. M., Helmus, L., & Thornton, D. (2013). Quantifying the relative risk of sex offenders: Risk ratios for Static-99R. *Sexual Abuse: A Journal of Research and Treatment*, 25 (5), 482 - 515. doi:10.1177/1079063212469060

Template 6a

Complete results (categories and quantitative indicators) – Routine as default reference, for familiar audiences

Mr. XXXX was scored on Static-99R. Static-99R is an empirically derived risk tool designed to evaluate the risk of sexual recidivism based on commonly available demographic and criminal history information.

Static-99R has moderate accuracy in ranking offenders according to their relative risk for sexual recidivism, and is widely accepted by the scientific community and by applied evaluators. For further information, see www.static99.org.

Mr. XXXX's Static-99R was calculated based on official criminal history records provided by the RCMP dated August 15, 2013, and files provided by the Ontario Ministry of Community Safety and Correctional Services dated September 4, 2013. As well, Mr. XXXX was interviewed on September 10, 2013, in order to verify the accuracy of the information contained in the police and correctional files.

Mr. XXXX received a total score of 6 which places him in the High Risk Category for being charged or convicted of another sexual offence. Mr. XX's score is higher than 94% of routine samples of sexual offenders.

In routine samples of sexual offenders, the average 5 year sexual recidivism rate is between 5% and 15%. This means that out of 100 sexual offenders of mixed risk levels, between 5 and 15 would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 85 and 95 would not be reconvicted of a new sexual offence during that time period.

On average, offenders with a Static-99R score of 6 have a sexual recidivism rate that is the 3.8 times the rate of offenders in the middle of the risk distribution.

Within routine correctional samples of sexual offenders with a Static-99R score of 6, the 5 year sexual recidivism rate is between 18% and 23%. This means that out of 100 sexual offenders with the same risk score between 18 and 23 individuals would be reconvicted of a new sexual offence after 5 years in the community. Conversely, between 77 and 82 individuals would not be reconvicted of a new sexual offence during that time period.

Static-99R does not measure all relevant risk factors and Mr. XXXX's recidivism risk may be higher or lower than that indicated by Static-99R based on factors not included in this risk tool.

References

- Aalen, O. O., Borgan, O., & Gjessing, H. K. (2008). *Survival and event history analysis: A process point of view*. New York: Springer.
- 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.
- Babchishin, K. M., & Hanson, R. K. (2009). Improving our talk: Moving beyond the “low”, “moderate”, and “high” typology of risk communication. *Crime Scene, 16*(1), 11-14.
- Babchishin, K. M., Hanson, R. K., & Helmus, L. (2012). Even highly correlated measures can add incrementally to actuarial risk prediction. *Assessment, 19*, 442-461. doi:10.1177/1073191112458312
- Babchishin, K. M., Hanson, R. K., & Helmus, L. (2012). Communicating risk for sex offenders: Risk ratios for Static-2002R. *Sexual Offender Treatment, 7*(2), 1-12. Available from <http://www.sexual-offender-treatment.org/111.html>
- 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. (2011). Risk, reconviction, and “sexually risky behaviour” in sex offenders. *Journal of Sexual Aggression, 17*, 153-165. doi:10.1080/13552600.2010.490306
- Crawford, J. R., & Garthwaite, P. H. (2009). Percentiles please: The case for expressing neuropsychological test scores and accompanying confidence limits as percentile ranks. *The Clinical Neuropsychologist, 23*, 193-204. doi:10.1080/13854040801968450
- Crawford, J. R., Garthwaite, P. H., & Slick, D. J. (2009). On percentile norms in neuropsychology: Proposed reporting standards and methods for quantifying the uncertainty over the percentile ranks of test scores. *The Clinical Neuropsychologist, 23*, 1173-1195. doi:10.1080/13854040902795018
- 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.
- Grann, M., & Pallvik, A. (2002). An empirical investigation of written risk communication in forensic psychiatric evaluations. *Psychology, Crime & Law, 8*, 113-130. doi:10.1080/10683160208401812
- 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., Babchishin, K. M., Helmus, L., & Thornton, D. (2013). Quantifying the relative risk of sex offenders: Risk ratios for Static-99R. *Sexual Abuse: A*

Journal of Research and Treatment, 25, 482-515.
doi:10.1177/1079063212469060

- 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.
- Hanson, R. K., Helmus, L., & Harris, A. J. R. (2014). *Assessing the risk and needs of supervised sexual offenders: A prospective study*. Unpublished manuscript.
- Hanson, R. K., Helmus, L., & Thornton, D. (2010). Predicting recidivism amongst sexual offenders: a multi-site study of Static-2002. *Law and Human Behavior*, 34, 198-211. doi:10.1007/s10979-009-9180-1
- Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk tools. *International Journal of Forensic Mental Health*, 11(1), 9-23. doi:10.1080/14999013.2012.667511
- Hanson, R. K., Lunetta, A., Phenix, A., Neeley, J., & Epperson, D. (2014). The field validity of the Static-99/R sex offender risk assessment tool in California. *Journal of Threat Assessment and Management*, 1, 102-117.
- Hanson, R. K., & Phenix, A. (2013, October). *Report writing for Static-99R and Static-2002R*. Preconference workshop presented at the 32nd Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Chicago, IL.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior*, 24, 119-136. doi:10.1023/A:1005482921333
- Hanson, R. K. & Thornton, D. (2012, October). *Preselection effects can explain variability in sexual recidivism base rates in Static-99R and Static-2002R validation studies*. Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.
- Hanson, R. K., Thornton, D., Helmus, L.-M., & Babchishin, K. M. (in press). What sexual recidivism rates are associated with Static-99R and Static-2002R scores? *Sexual Abuse: A Journal of Research and Treatment*.
- Harkins, L., & Beech, A.R. (2007). *Examining the effectiveness of sexual offender treatment using risk band analysis*. Unpublished manuscript.

- Harris, A.J.R., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question* (Corrections Research User Report No. 2004-03). Public Safety and Emergency Preparedness Canada. Available from www.publicsafety.gc.ca
- Harris, A. J. R., Phenix, A., Hanson, R. K., & Thornton, D. (2003). *Static-99 coding rules: Revised 2003*. Ottawa, ON: Solicitor General Canada. Retrieved from http://www.publicsafety.gc.ca/res/cor/rep/_fl/2003-03-stc-cde-eng.pdf
- Heilbrun, K., O'Neil, M. L., Stevens, T. N., Strohmman, M. A., Bowman, Q., & Lo, Y. W. L. (2004). Assessing normative approaches to communicating violence risk: A national survey of psychologist. *Behavioral Sciences and the Law*, 22, 187-196. doi:10.1002/bsl.570
- Heilbrun, K., O'Neil, M. L., Strohmman, L. K., Bowman, Q., & Philipson, J. (2000). Expert approaches to communicating violent risk. *Law and Human Behavior*, 24, 137-148. doi:10.1023/A:1005435005404
- Helmus, L., Hanson, R. K., Thornton, D., Babchishin, K. M., & Harris, A. J. R. (2012). Absolute recidivism rates predicted by Static-99R and Static-2002R sex offender risk assessment tools vary across samples: A meta-analysis. *Criminal Justice & Behavior*, 39, 1148-1171. doi:10.1177/0093854812443648
- Helmus, L., Thornton, D., Hanson, R. K., & Babchishin, K. M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse: Journal of Research and Treatment*, 24(1), 64-101. doi:10.1177/1079063211409951
- 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.
- Hilton, N. Z., Carter, A., Harris, G. T., Sharpe, A. J. B. (2008). Does using nonnumerical terms to describe risk aid violence risk communication? *Journal of Interpersonal Violence*, 23, 171-188. doi:10.1177/0886260507309337
- Hilton, N. Z., Harris, G. T., & Rice, M. E. (2010). *Risk assessment for domestically violent men: Tools for criminal justice, offender interventions, and victim services*. Washington, DC: American Psychological Association.
- 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).
- Kalton, G. (1983). *Introduction to survey sampling*. Beverly Hills, CA: Sage Publications

- 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.
- Lehmann, R. J. B., Hanson, R. K., Babchishin, K. M., Gallasch-Nemitz, F., Biedermann, J., & Dahle, K.-P. (2013). Interpreting multiple risk scales for sex offenders: Evidence for averaging. *Psychological Assessment*, 25, 1019-1024. doi:10.1037/a0033098
- Monahan, J., & Silver, E. (2003). Judicial decision thresholds for violence risk management. *International Journal of Forensic Mental Health*, 2, 1-6.
- 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.
- Olver, M. E., Wong, S. C., Nicholaichuk, T., & Gordon, A. (2007). The validity and reliability of the Violence Risk Scale-Sexual Offender version: assessing sex offender risk and evaluating therapeutic change. *Psychological Assessment*, 19(3), 318-329.
- Phenix, A., Doren, D., Helmus, L., Hanson, R. K., & Thornton, D. (2009). *Coding rules for Static-2002*. Ottawa, ON: Public Safety Canada. Retrieved from <http://www.publicsafety.gc.ca/res/cor/rep/sttc-2002-eng.aspx>
- 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).
- Schulze, R. (2007). Current methods for meta-analysis: Approaches, Issues, and Developments. *Zeitschrift für Psychologie*, 215, 90-103.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and even occurrence*. New York: Oxford University Press.
- 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).

- Vergouwe, Y., Steyerberg, E. W., Eijkemans, M. J. C., & Habbeman, J. D. F. (2005). Substantial effective samples sizes were required for external validation studies of predictive logistic regression models. *Journal of Clinical Epidemiology*, *58*, 475-483. doi:10.1016/j.jclinepi.2004.06.017
- 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.