# Exhibit 3:

Dr. Karl Hanson Expert Report

# DECLARATION OF R. KARL HANSON

In reference to challenge to Michigan's Sex Offenders Registration Act

I, R. Karl Hanson, declare as follows:

1. I am a psychologist registered in Ontario, Canada, and Adjunct Research Professor in the Psychology Department of Carleton University, Ottawa, Ontario, Canada, and President of SAARNA – the Society for the Advancement of Actuarial Risk Need Assessment, a not-for-profit training and education organization that promotes the use of actuarial risk/need assessment tools in corrections and forensic mental health. Throughout my career, I have studied recidivism, with a focus on individuals with a history of sexual crime. I discuss in this declaration key findings and conclusions of research scientists, including myself, regarding recidivism risk of individuals with a history of sexual crime and individuals with a history of nonsexual crime. If called upon to testify, I could and would competently testify thereto.

2. The information in this declaration is based upon my personal knowledge and my research and scholarship, which is listed in my CV, as well as on research and scholarship in the field, including sources of the type which researchers in my field would rely upon in their work. I have also reviewed data on the number of individuals added to Michigan's registry from 1997 to 2013.

## Summary of Declaration

3. My research on recidivism shows the following:
   a. Recidivism rates are not uniform but vary considerably across all individuals with a history of sexual crime. Risk of re-offending varies based on well-known factors. *See* ¶¶ 12, 15-17, 29.

b. The average sexual recidivism rate of individuals with a history of sexual crime is low. Once convicted, most are never re-convicted of another sexual offence. *See* ¶ 14.

c. The risk for sexual recidivism declines with age, with a particular strong decline for individuals of advanced age. There are very few individuals over the age of 60 who present any significant risk for sexual recidivism. *See* ¶ 26.

d. The nature of the sexual offence conviction (the name of the offence or criminal code section) is unrelated to the risk of recidivism. Consequently, conviction-based registries, such as Michigan's, impose restrictive requirements on individuals who pose no more risk for recidivism than individuals to whom the restrictions are not applied. *See* ¶¶ 27-28.

e. The risk for sexual recidivism can be reliably predicted by widely-used risk assessment tools, such as the Static-99R, which are used to classify individuals into various risk levels. *See* ¶¶ 29-32.

f. Contrary to the popular notion that all individuals who have ever committed a sexual offence remain at risk of re-offending through their lifespan, the longer individuals remain offence-free in the community, the less likely they are to re-offend sexually. Eventually, they are less likely to re-offend than the risk of a spontaneous, out-of-the-blue sexual offence among males in the general population (the baseline rate). *See* ¶¶ 55-72.

    i. How quickly someone with a sexual offending history reaches the baseline rate depends on their risk level at the time of sentencing/release. The lowest risk individuals are below the baseline from the outset. *See* ¶¶ 66-68.

    ii. After 10 years in the community without committing a sex offence, most individuals with a history of sexual offending pose no more risk of sexual offending than do males in the general population. *See* ¶ 74.

    iii. After 20 years without a new arrest for a sex-related offence, all individuals with a history of sexual crime no longer pose any more risk of committing a sex offence than do males in the general population. *See* ¶¶ 69, 71-72.

    iv. Given that the risk of new sexual offending drops below baseline levels for most individuals after 10 years, and for

all individuals after 20 years, lengthy and lifetime registration terms serve no public protection function. *See* ¶ 79.

g. There appear to be tens of thousands of people on Michigan's registry who have lived offence-free in the community for decades and are very low risk for sexual recidivism. By ten years after release, over half of those with past sex offence convictions will present no more risk of committing a new sex offence than the general male population, and almost three-quarters would present no more risk than individuals convicted of non-sex crimes—a group that is not subject to registration. *See* ¶ 75.

h. Based on the research, I conclude that individuals who have committed a sexual offence are not continuous, lifelong threats. The recidivism risk of many registrants was already very low, or has declined to, baseline levels; consequently, policies and resources directed towards these very low risk individuals serve no public protection function. I can think of no practical reason for imposing restrictions on this very low risk group when similar restrictions are not imposed on individuals convicted of nonsexual crimes, or, for that matter, all males in Michigan. *See* ¶¶ 57, 79.

## Background and Experience

4. I am a psychologist registered in Ontario, Canada. For the past 30 years, my practice has focused on research concerning the assessment and treatment of sexual offenders. In 2017, I retired as Manager of Corrections Research at Public Safety Canada after a 25-year career as a Canadian public servant. Public Safety Canada is a federal department that was created in 2003 to ensure coordination across all federal departments and agencies responsible for national security and the safety of Canadians. The Department's responsibilities include emergency management, policy development, and advice to the Minister of Public Safety on matters of national security, implementing Canada's National Crime Prevention Strategy, developing national policies for new and evolving crime and border issues, and developing legislation and policies governing corrections.

5. I held the position of Manager of Corrections Research at Public Safety Canada between 2015 and 2017, and related positions since 1991. From 1991 to 2009, I served as Senior Research Officer for the Solicitor General of Canada and Public Safety Canada, and from 2009 to 2015, I was a Senior Research Scientist with Public Safety Canada. From 1986 to 1991, I was a psychologist in private practice, specializing in the assessment and short-term treatment of offenders on probation and parole. During that time, I was also Course Director for psychology courses at York University (Personality, Abnormal Psychology, Research Methods) and Trent University (Abnormal Psychology). I earned my Ph.D. in Clinical Psychology from the University of Waterloo in 1986, and my B.A. with honors in Psychology from Simon Fraser University in 1981. Between 2009 and 2012, I was the Chair of the Research Committee of the Association for the Treatment of Sexual Abusers. Between 1996 and 2018, I was the Secretary/Treasurer for the Criminal Justice Section of the Canadian Psychological Association. Since 2000, I have served on the Scientific Advisor Committee International Association for the Treatment of Sexual Offenders. I have been a member of the Ontario College of Psychology since 1986. I serve on a variety of editorial boards, scientific committees, and working groups, including serving as the advisor to the DSM-5 Sexual Disorders Workgroup of the American Psychiatric Association (2009-2013). Since 1997, I have provided training and consulting services concerning sexual offender risk assessment to the many U.S. states, including California, New York, Colorado, Massachusetts, Michigan, Utah, Alaska, and Georgia. I am currently on the following international advisory boards: (i) Centre International de Criminologie Comparée (Montréal), Collaborator-member (since 2010); (ii) Dutch Ministry of Justice, Expertise Center for Forensic Psychiatry, Scientific Council (since 2010); (iii) Forensic Psychology Research Centre, Carleton University (Ottawa), Research Associate (since 2013); (iv) Singapore National Council of Social Service, International Research Advisor

(since 2014); and (v) Hong Kong Correctional Services, Advisory and Member of Accreditation Panel (2010 – 2016, 2018 to present). I have received four lifetime achievement awards from a) the Association for the Treatment of Sexual Abusers, b) Public Safety Canada, c) The International Association for the Treatment of Sexual Offenders, and d) the Correctional Psychology Division of the Canadian Psychological Association.

6. Throughout my career I have studied recidivism, particularly recidivism among individuals with a history of sexual offending, and have written numerous articles on this topic. A true and correct copy of my CV, which includes a list of my publications, is attached to this declaration as Exhibit 1.

7. Since 2016, I have served as an expert in 22 cases, and provided oral testimony in about half of them. A list of these cases is provided as Exhibit 2.

8. The following are a selection of cases where I have served an expert: *Doe v. Harris*, Docket No. C12-5713 THE (N.D. Cal.), involving a challenge to Internet-related reporting requirements for registered sex offenders, in *John Doe #1, et al., v. Luther Strange, et al.*, Docket No. 2:15-cv-606 WKW (M.D. Ala.) challenging the Alabama Sex Offender and Community Notification Act, in *Does v Swearigan*, Docket No. 18-cv-24145-KMW (S.D. Fla.), in *State in the Interest of C.K.*, (233 N.J 44, 2018; Superior Court of New Jersey), and in *B.K. v. Gurbir Grewal, Attorney General of the State of New Jersey*, Docket No. 3:19-cv-5587-FLW-LHG (D.N.J.). In these cases, I provided declarations. As well I have contributed to Amicus Curiae briefs in *USA v. Haymond* (Supreme Court of the United States), *Vasquez v. Foxx* (Supreme Court of the United States), *David Millard, Eugene Knight, Arturo Vega v. Michael Rankin* (Tenth Circuit Court of Appeals), and *Gundy v. United States* (Supreme Court of the United States). I have provided oral testimony concerning sexual recidivism risk assessment to, among others, the

Magistrates Court of Tel Aviv (Yafo, Israel), the Cour de Québec (Québec, Canada), and the Court of Common Pleas of Chester County (Pennsylvania, USA).

## Compensation

9. I am being compensated at a rate of $250/hour for writing this expert report.

## Recidivism Risk for Individuals with a History of Sexual Crime

10. Although the risk of recidivism of individuals convicted of sexual crimes has been a perennial public concern, there were few empirical studies on the topic prior to the 1980s. During the 1980s, there was a sharp increase in public awareness of the problem of sexual victimization, with many states updating their sexual crimes laws with the goal of increased public protection from this type of offence. During the past 30 years, there has been increasing consensus among the public and the scientific professional communities that sexual victimization is a widespread and serious social problem. This consensus has been supported by a large body of research, including surveys showing high rates of sexual victimization in the general population[1,2], and by follow-up studies showing negative

[1] Pereda, N, Guilera, G, Forns, M, & Gomez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: a meta-analysis. *Clinical Psychology Review, 29,* 328-338.

[2] Stoltenborgh, M, van Ijzendoorn MH, Euser, EM, & Bakermans-Kranenburg, MJ. (2011). A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child Maltreatment, 16,* 79-101.

consequences of sexual victimization on health[3,4] and psychological adjustment[5]. During the period in which sexual victimization was being first recognized as a serious social problem (the 1980s and 1990s), there also developed a public perception that individuals convicted of sexual crimes were very likely to reoffend sexually. As well, there was a common belief among the public, policy makers, and researchers that this risk endured for decades, if not for the offender's whole life. Such beliefs were not based on strong research evidence. Instead, they were based on highly publicized cases of serious new offences (sexual murders) by individuals known to the justice system, and follow-up studies of small groups of individuals who, based on how they were selected, were unusually high risk to reoffend.

11. It turns out we were wrong. As the research evidence accumulated, the empirical findings painted a different picture of individuals with a history of sexual crime: the recidivism risk of most of these individuals is actually quite low, and they are even less likely to commit another offence the longer they remain offence-free in the community. Eventually, if they remain sexual offence free, all individuals convicted of a sexual offence will be no more likely to commit another sexual

[3] Maniglio, R. (2009). The impact of child sexual abuse on health: a systematic review of reviews. *Clinical Psychology Review, 29*, 647-657.

[4] Paras, ML, Murad, MH, Chen, LP, Goranson, EN, Sattler, AL, Colbenson, KM., et al. (2009). Sexual abuse and lifetime diagnosis of somatic disorders: a systematic review and meta-analysis. *Journal of the American Medical Association, 302*, 550-61.

[5] Chen, LP, Murad, MH, Paras, ML, Colbenson, KM, Sattler, AL, Goranson, EN, et al. (201). Sexual abuse and lifetime diagnosis of psychiatric disorders: systematic review and meta-analysis. *Mayo Clinic Proceedings, 85*(7), 618-629.

offence than the rate of spontaneous "out-of-the-blue" sexual offences in the general population[6,7].

12. The science supporting offender risk assessment is a specialized application of the field of prediction or prognostic modeling. In order to estimate the likelihood of anything, the starting point should be the base rate. The base rate is the expected proportion of future events that will contain the outcome of interest. If I want to know whether the Rideau Canal will freeze in January, for example, it is useful to know that it has frozen every January since the canal was built in the 1832. People, however, are not that predictable. In the social sciences, outcomes are rarely determined by a single factor, or even a fixed constellation of factors. Instead, the events that we are interested in predicting are influenced by a number of different factors, each of which has a modest relationship with the outcome.

13. Individuals with a sexual offence history are less likely to reoffend with any offence or a violent offence than are individuals convicted of non-sexual offences[8]. The only category of new offences that is higher among individuals with a history of sexual offence convictions than among individuals with convictions for non-sexual offences is sexual offences. Among individuals with a history of non-sexual offending, general recidivism rates of 30% to 40% after two years are common. When the outcome is restricted to violent recidivism, the observed rates among those with nonsexual convictions are 15% to 25% after two years. For

[6] Hanson, RK, Harris, AJR, Helmus, L, & Thornton, D. (2014). High risk sex offenders may not be high risk forever. *Journal of Interpersonal Violence, 29*, 2792-2813.

[7] Hanson, RK, Harris, AJR, Letourneau, E, Helmus, LM, & Thornton, D. (2018). Reductions in risk based on time offence free in the community: Once a sexual offender, not always a sexual offender. *Psychology, Public Policy and Law, 24*(1), 48-63. doi:10.1037/law0000135.

[8] Alper, M, & Durose, MR. (2019). Recidivism of sex offenders released from state prison: A 9-year follow-up (2005-14). Special Report NCJ 251773, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

individuals with a criminal conviction but no sexual offending history, the rate of spontaneous, out-of-the-blue sexual offending is 1% to 2% after 5 years[9,10].

14. A summary of the rates of sexual recidivism among individuals with a history of sexual crime is provided in the table below. On average, the observed sexual recidivism rates are in the 5% to 15% range after 5 years, and between 10% and 20% after 10 years. In other words, out of a sample of 100 such individuals released to the community, between 5 and 15 would be caught for a new sexual offence after 5 years. If the same 100 individuals were followed for another 5 years (years 6 to 10), an additional 5 individuals would be caught. Conversely, out of the initial 100 individuals with a history of sexual crime, between 80 and 90 would not be identified as recidivists even if they were followed for 10 years. These sexual recidivism rates are based on large, aggregated samples from diverse jurisdictions[11,12,13].

[9] Kahn, RE, Ambroziak, G, Hanson, RK, & Thornton, D. (2017). Release from the sex offender label. *Archives of Sexual Behavior*, *46*(4), 861-864. doi:10.1007/x10508-017-0972-y.

[10] Alper & Durose (2019) *supra* note 8.

[11] Harris, AJR & Hanson, RK. (2004). *Sex Offender Recidivism: A Simple Question 2004-03*. Public Safety and Emergency Preparedness Canada, available at http://www.publicsafety.gc.ca/res/cor/rep/2004-03-se-off-eng.aspx.

[12] Hanson et al. (2014) *supra* note 6.

[13] Lee, SC, & Hanson, RK. (2021). Updated 5-year and new 10-year sexual recidivism rate norms for Static-99R with routine/complete samples. *Law and Human Behavior*. *45*(1), 24-38. https://doi.org/10.1037/lhb0000436.

Sexual Recidivism Rates (%)

| | 5 years | 10 years |
|---|---|---|
| Mixed groups of sex offenders | 5-15 | 10-20 |
| Victim type | | |
| Adults (rapists) | 14 | 21 |
| Related children (incest offenders) | 6 | 9 |
| Unrelated girls | 9 | 13 |
| Unrelated boys | 23 | 28 |
| Risk Level | | |
| Below Average | 1-2 | 1-5 |
| Average | 3-7 | 5-10 |
| Above Average | 9-40 | 14-50 |

Source for Table 1: Hanson et al. (2014) at 6; Harris & Hanson (2004) at 11; Lee & Hanson (2021) at 13.

15. Not all individuals with a history of sexual crime, however, are equally likely to reoffend. In general, the individuals at highest recidivism risk are those who have committed violent offences against adult women or who have victimized unrelated boys, while the lowest risk offenders are those who only victimize related girls. There are also a large number of other characteristics of the individuals and their environments that increase or decrease their likelihood of sexual recidivism (see Table 1 at the end of this report). There is scientific and professional consensus that, on average, individuals with more risk factors are higher risk to reoffend than

individuals with fewer risk factors. There is also scientific and professional consensus that structured risk assessments are more accurate than unstructured risk assessments, although debate remains concerning how best to structure risk assessments[14,15]. In general, how the risk factors are combined into an overall evaluation of risk is less important than ensuring that relevant items are considered[16,17].

16. The major risk factors for sexual recidivism are presented in Table 1. These factors can be grouped into the broad categories of age (immaturity), sexual criminality, and general criminality[18,19,20]. Sexual crimes are crimes and, as such, are associated with the same characteristics associated with other forms of rule breaking (e.g., antisocial orientation, hostility, low self-control). There are, however, certain distinctive characteristics associated with the risk for sexual crime, such as sexual preoccupations and deviant sexual interests. Whereas most people can appreciate the goals, if not the means, of bank robbers and thieves, not everybody is motivated to expose their genitals to strangers or penetrate a pleading victim at

---

[14] Hanson, RK & Morton-Bourgon, KE. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment, 21,* 1-21.

[15] Skeem, JL & Monahan, J (2011). Current directions in violence risk assessment. *Current Directions in Psychological Science, 20,* 38-42.

[16] Dawes, RM. (1979). The robust beauty of improper linear models in decision making. *American Psychologist, 34,* 571-582.

[17] See Kahneman, D, Sibony, O, & Sunstein, CR. (2021). *Noise: A flaw in human judgment.* Little, Brown Spark. pp. 124-127.

[18] Barbaree, HE, Langton, CM, Blanchard, R, & Cantor, JM. (2009). Aging versus stable enduring traits as explanatory constructs in sex offender recidivism: Partitioning actuarial prediction into conceptually meaningful components. *Criminal Justice and Behavior, 36,* 443-465.

[19] Brouillette-Alarie, S, Babchishin, KM, Hanson, RK, & Helmus, L. (2015). Latent constructs of static risk scales for the prediction of sexual aggression: A 3-factor solution. *Assessment, 23,* 96-111.

[20] Hanson, RK & Morton-Bourgon, KE. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73,* 1154-1163.

knifepoint. Furthermore, certain individuals who have committed sexual crime may be well socialized and productive members of society in all areas but their sexual offending (e.g., pedophilic priests, teachers). Compared to other individuals in the criminal justice system, individuals with convictions for sexual crime are less likely to commit non-sexual crimes. Men who have sexual victimized children rarely rob banks[21].

17. Using risk assessment procedures that have wide acceptance in the scientific and professional communities, it is possible to differentiate between individuals whose sexual recidivism rates after five years are as low as 0.7% (less than one in 100) to as high as 49% (49 out of 100)[22]. If the follow-up is extended to longer periods (e.g., 10 years, 20 years), the cumulative rates increase predictably[23]. Although the cumulative rates increase, the residual risk for each individual *declines* the longer the individual remains sexual offence free in the community. The decline in residual risk is such that after 20 years sexual offence free, the likelihood of any further sexual offending is vanishingly small. Consequently, 20-year sexual recidivism rate estimates can be considered equivalent to lifetime rates. Using the procedures describe in our 2021 paper[24], a sexual recidivism rate of 0.7% at five years would correspond to an estimated 20-year (lifetime) sexual recidivism rate of 1.5%. A sexual recidivism rate of 49% at five years would correspond to an estimated 20-year (lifetime) sexual recidivism rate of 74%.

---

[21] Hanson, RK, Scott, H, & Steffy, RA. (1995). A comparison of child molesters and nonsexual criminals: Risk predictors and long-term recidivism. *Journal of Research in Crime and Delinquency, 32,* 325-337.

[22] Lee & Hanson (2021) *supra* note 13.

[23] Thornton, D, Hanson, RK, Kelley, SM, & Mundt, JC. (2021). Estimating lifetime and residual risk for individuals who remain sexual offense free in the community: Practical applications. *Sexual Abuse. 33*(1), 3-33. doi:10.1177/1079063219871573.

[24] Thornton et al. (2021) *supra* note 23.

18. In summary, since the 1990s we have learned that the average observed sexual recidivism rates of individuals with a history of sexual crime are between 5% and 15% after 5 years, which would correspond to 20-year (lifetime) sexual recidivism rates of between 10% and 30%. We also know that there is wide variation in the rates for subgroups of individuals with different offending histories. Although any sexual recidivism is problematic, the observed numbers are, nonetheless, lower than we previously believed. There is scientific consensus that most individuals with a sexual offence history never return to the courts because of another sexual offence.

## Likelihood of Sexual Offending Among Individuals with No Prior History of Sexual Offences

19. In order to appreciate the rates of sexual recidivism among individuals with a history of sexual offending, it is worth considering the likelihood of spontaneous, out-of-the-blue sexual offending by individuals who have no prior history of sexual offending. There are two plausible reference groups. One group is comprised of individuals with a criminal conviction for a non-sex offence but no current or prior history of sexual offending. The other reference group is the general population of adult males. Neither group is subject to sexual offender notification and registration laws. Consequently, any claim that notification and registration are intended to serve a public protection function is undermined if these requirements are applied to individuals whose risk for sexual recidivism is not perceptibly higher than the baseline ambient risk presented by these two groups. Given that the research on first-time sexual crimes among individuals in the criminal justice systems is more well developed than the research on sexual crime in the general population, the criminal justice samples will be discussed first.

20. In 2017, we conducted a review of studies regarding the expected sexual recidivism rates for individuals with a criminal conviction but no history of

sexual offending[25]. To be included in the review, the original study must have included a minimum of 1,000 individuals followed for at least 3 years. We identified 11 studies involving 543,204 individuals. In these studies, the rates of sexual recidivism among adolescents and adults with nonsexual convictions ranged from .2% to 5.8% after a 5-year follow-up period, with a median value of 1.3% among the samples of adults. We concluded that the rate of spontaneous sexual offences among individuals with nonsexual convictions was in the range of 1-2% within a 5-year period. This rate aligns with subsequent research. For example, a 2019 study published by the Bureau of Justice Statistics using information from 30 states (total sample size of 67,866) found that 2.0% of prisoners with no record of sexual offending were reconvicted for a sexual offence during a nine-year follow-up period. (The rate in the Bureau of Justice Statistics study would underestimate the rate of out-of-the-blue sexual offences because the report only counted the sexual offences of rape and sexual assault. Individuals who had been convicted of noncontact sexual offences, or of indecent acts involving children, would not be included in their definition of sexual recidivism.) Consequently, based on a strong body of evidence, it is reasonable to conclude that a 5-year sexual recidivism of just below 2% is equivalent to the rate of spontaneous, out-of-the-blue sexual offending by individuals with a criminal conviction but no known history of sexual offending. A rate of 2% at 5 years corresponds to an estimated 20-year (lifetime) rate of 3.8%.

21. The research on the prevalence of sexual offence convictions in the general population is less well developed than the research on sexual offending in criminal justice populations; nevertheless, the available studies provide some useful guidance. A UK study[26] of all males born in the 1953 has found that one out of 60

[25] Kahn et al. (2017) *supra* note 9.
[26] Marshall, P. (1997). *The prevalence of convictions for sexual offending.* (Research Finding No. 55.) London, UK: Home Office Research and Statistics Directorate.

(approximately 2%) were convicted for a sexual offence by age 40. Another study found that among non-forensic psychiatric admissions[27], the proportion with a history of sexual violence was 3% to 5%. A 2017 conference presentation reported that approximately 1% of males in the Province of British Columbia, Canada, will be supervised for a sexual offence by B.C. Corrections. The B.C. study would underestimate the rate of sexual offence convictions because not all sexual offence convictions result in community supervision by provincial corrections (some would not be supervised, others would be supervised by Canadian federal corrections). According to the National Center for Missing and Exploited Children, there were 861,837 individuals on sexual offender registries in 2016 in the United States[28]. This corresponds to a prevalence rate of 0.2% based on the complete US population. When the eligible population is restricted to adult males, the prevalence would be approximately 1 percent, assuming that 90% of the registrants were adult males (90% of 861,837 registrants is 775,653; 775,653 divided by 100,994,367 males over the age of 18 = 0.77%). Again, this would be an underestimate of the prevalence of sexual offence convictions because many individuals exit state registries after a fixed period of time (e.g., 10 years, 20 years).

22. Although none of the above studies on the prevalence of sexual offence convictions in the general population have been subject to peer review, their data and methods appear credible, and their results are reasonably consistent: between 1% and 2% of males would be expected to be convicted of a sexual offence at some point in their lives. Consequently, it is reasonable to conclude that a 20-year

[27] Hirdes, JP. (2012). *Use of the interRAI assessment instruments in forensic mental health settings*. Presentation at the Future of Forensic Care: Solutions Worth Sharing. Utrecht, Netherlands.

[28] National Center for Missing and Exploited Children. (2017). *Registered sex offenders in the United States and its Territories per 100,000 population*. Downloaded from http://www.missingkids.com/en_US/documents/Sex_Offenders_Map.pdf.

(lifetime) sexual recidivism rate of just below 2% can be said to fairly represent the prevalence of sexual offence convictions by males in the general population. Among individuals with a sexual offence history, a 20-year (lifetime) rate of 2% corresponds to a 5-year rate of 1%. The prevalence rate of sexual offence convictions for adult males appears to be roughly half the rate as that for individuals with nonsexual convictions. That the rate is lower in the general male population than it is for individuals with a nonsexual conviction should not be surprising given that general criminality is a well-established risk factor for sexual offending.

23. The above rates (for males, and for individuals with nonsexual offences) provide useful benchmarks for evaluating the risk presented by individuals with a history of sexual crime. These figures underestimate the actual rate of sexual offending among these groups because they do not include undetected offences; however, there is no reason to believe that the detection rate for sexual crimes is higher for individuals with no prior sexual offence than for those with a sexual offence history. To the contrary, it is likely that individuals with a history of sexual crime would be more likely to be detected than other individuals due to the heightened monitoring of this group by law enforcement. Consequently, these thresholds would not change based on the rate of undetected sexual offences.

24. In agreement with the Supreme Court of Pennsylvania, "the relevant question should not be whether convicted sexual offenders are committing unreported sexual crimes, but rather whether sexual offenders commit more sexual crimes than other groups not subject to similar registration laws."[29] Although any sexual recidivism is troubling, zero risk is not achievable in theory or in practice. Instead, public protection policies need to be guided by a risk threshold below which the policies are unlikely to have the intended impact because the risk is already so

[29] *Commonwealth v. Torsilieri*, 232 A.3d 567, 594 n. 22 (Pa. 2020).

low. From a practical perspective, if conditions and controls are going to be justified based on the likelihood of sexual recidivism, then the individuals subject to these restrictions should be perceptibly higher risk to commit a sexual offence than other groups that we accept as a tolerable risk (and are not subject to registration or notification).

25. As previously stated, the average sexual recidivism rates for individuals with a sexual offence history are between 5% and 15% after 5 years, which are higher than the ambient risk of males (1%), or individuals without a sexual offence conviction in the criminal justice system (2%). As I document later in this declaration, however, there are some individuals with a sexual offence history at this very low, ambient risk level at the time of sentencing/release. The proportion of individuals in this very low risk group grows over time as individuals remain sexual offence free in the community[30]. These time-free effects apply to all initial risk levels. Eventually, should individuals with a sexual offence history remain sexual offence free long enough, they will all present no more risk than the ambient risk of the male population.

## The Risk of Sexual Recidivism Decreases with Age

26. Apart from criminal history, one of the most robust risk factors for criminal behavior is age. The highest rates of offending are observed during the late teens and early 20s, followed by progressive declines thereafter. Although the risk for sexual crime decreases more slowly than the risk of non-sexual crime, the risk of

[30] Hanson et al. (2018) *supra* note 7.

sexual crime substantially decreases with advanced age[31,32], with gradual declines in the 30s, 40s, and 50s, then steep declines after the age of 60[33]. In a large, international sample of 4,673 individuals released into the community after a sexual offence, only 2.8% (131) sexual offenders were over the age of 60[34]. The sexual recidivism rate of men over the age of 60 was low, with no new sexual offences observed for 96 out of 100 cases (recidivism rates of < 4%)[35]. For older individuals with limited criminal history (sexual or nonsexual), their recidivism rate is less than 1% after 5 years[36]. This is no different than the risk of sexual offending by adult males in the general population.

## The Nature of the Sexual Offence Conviction Is Not Related to Recidivism Risk

27. Notably absent from the list of established risk factors is the type of sexual crime conviction, the age of the victim, and the length of the sentence received. Although there are clear differences in the moral seriousness of sexual crimes, the seriousness of the offence is largely unrelated to the likelihood of

[31] Hanson, RK. (2002). Recidivism and age: Follow-up data on 4,673 sexual offenders. *Journal of Interpersonal Violence, 17,* 1046-1062.

[32] Barbaree, HE, & Blanchard, R. (2008). Sexual deviance over the lifespan: Reduction in deviant sexual behavior in the aging sex offender. In DR Laws & WT O'Donahue, (Eds.), *Sexual deviance: Theory, assessment, and treatment (*2nd ed.; pp. 37-60). Guilford.

[33] Helmus, L, Thornton, D, Hanson, RK, & Babchishin, KM. (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.

[34] Hanson (2002) *supra* note 31.

[35] Helmus et al. (2012) *supra* note 33.

[36] Lee & Hanson (2021) *supra* note 13.

recidivism[37,38]. Individuals who have committed offences with high levels of sexual intrusiveness (e.g., penetration) are, if anything, less likely to reoffend than individuals who have only committed non-contact sexual offences, such as exhibitionism and voyeurism[39]. There are no reliable differences in recidivism rates based on whether the victim was a child (12 or under), youth (13 to 17), or adult (18+).

28. Although it is common for lawmakers to use the age of the victims and offence seriousness as the basis of systems for determining tiers or levels of restrictions, obligations, and sanctions, offence-based levels have little relationship to the likelihood of sexual recidivism. K. Zgoba and colleagues[40] found that individuals assigned higher tiers (Tier 3) based on the Adam Walsh Act (SORNA) criteria had lower sexual recidivism rates than those assigned lower tiers (Tier 2) – challenging arguments that the tiers are valid indicators of recidivism risk. These results cannot be interpreted that the tiers worked (i.e., registration and notification decreased the risk of the highest risk individuals) because the individuals were in the community well before the implementation of the Adam Walsh Act and the assessment of their presumptive tiers was computed retrospectively by the researchers. In contrast, empirically derived actuarial risk tools, such as the Static-99R discussed below, showed moderated predictive accuracy in the same sample. The lack of correspondence between the Adam Walsh Act tiers and sexual recidivism

[37] Hanson, RK, & Bussière, MT. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*(2), 348-362. doi:10.1037/0022-006X.66.2.348.

[38] Hanson & Morton-Bourgon (2005) *supra* note 20.

[39] Hanson & Morton-Bourgon (2005) *supra* note 20.

[40] Zgoba, KM, Miner, M, Levenson, J, Knight, R, Letourneau, E, & Thornton, D. (2016). The Adam Walsh Act: An examination of sex offender risk classification systems. *Sexual Abuse: A Journal of Research and Treatment, 28*(8), 741-754. doi:10.1177/107906321556943.

risk should have been expected given that the criteria used for the Adam Walsh Act tiers (age of child victims, degree of force) are not established risk factors.

**Risk Assessment Tools Exist to Predict the Risk of Sexual Reoffending**

29. Although it has long been suspected that recidivism rates are not uniform across all individuals with a history of sexual crime, it is only in the last few decades that researchers have developed tools specifically designed to assess the risk for sexual recidivism. In 1999, I, along with my colleague David Thornton, created a 10-item actuarial scale that assesses the recidivism risk of adult male with a history of sexual crime, known as the Static-99. We created the Static-99 as a more-accurate replacement for earlier assessment tools. The 10 items cover the nature of sex-related offence or offences that led to the most recent arrest (the "index offence"), demographics (age at release, relationship history), sexual criminal history (prior sexual offences, any male victims, any unrelated victims, any stranger victims, any non-contact sexual offences), and general criminal history (prior sentencing dates, non-sexual violence committed along with the index offence, prior non-sexual violence). The Static-99 is intended to be used with adult males who have committed either a contact or non-contact sexual offence and have reached the age of 18 prior to release to the community.

30. In 2009, the Static-99 was revised based on new evidence showing predictable reductions in sexual recidivism for older individuals. Whereas Static-99 only made a distinction between young males (less than 25 years) and older males, Static-99R recognizes that risk continues to decline for individuals in their 30s, 40s, 50s, and 60s. Specifically, Static-99R increases the score by 1 point if the individual was less than 35 years old at release; it makes no adjustment if the individual was between 35 and 40 at release; it lowers it by 1 point if he was aged 40 to 60; and it lowers it by 3 points if he was age 60 or older. This means that Static-99R scores

can range from -3 up to 12. The coding form for the Static-99R can be found at http://www.static99.org/pdfdocs/static-99rcodingform.pdf, a true and correct copy of which is attached to this declaration as Exhibit 3. Research has found that the new age weights resulted in greater predictive accuracy than the original version[41].

31. The Static-99 and the Static-99R are the most widely used sex offence risk assessment instruments in the world, and are extensively used in the United States[42], Canada[43], and other nations[44].

32. In addition, as noted above, from 1997 to the 2011, I provided training and consulting for the California Department of Mental Health about Static-99/99R scoring and interpretation, and since 2012 I have been collaborating with California's SARATSO (State Authorized Risk Assessment Tool for Sex Offenders) Committee and other researchers on research on California's use of Static-99 and Static-99R. It is my understanding that California currently uses Static-99R (i) to assess every eligible sex-offender prior to release on parole, (ii) to assess every eligible sex offender pre-sentencing and on a probation caseload, and (iii) prior to release of an eligible sex offender from a state hospital. *See* http://www.saratso.org/index.cfm?pid=467. Our research studies have found that

[41] Helmus, Thornton et al. (2012) *supra* note 33.

[42] McGrath, RJ, Cumming, GF, Burchard, BL, Zeoli, S & Ellerby, L. (2010). *Current practices and emerging trends in sexual abuser management: The Safer Society 2009 North American Survey*. Brandon, VT: Safer Society Press.

[43] Bourgon, G, Mugford, R, Hanson, RK, & Coligado, M. (2018). Offender risk assessment practices vary across Canada. *Canadian Journal of Criminology and Criminal Justice,* 60(2), 167-205. doi:10.3138/cjccj.2016-0024.

[44] Neal, TMS, & Grisso, T. (2014). Assessment practices and expert judgment methods in forensic psychology and psychiatry: An international snapshot. *Criminal Justice and Behavior, 41,* 1406-1421. doi:10.1177/0093854814548449.

Static-99R is a reliable and valid risk tool as implemented in California[45,46,47,48]. Static-99R is routinely used by the Michigan Department of Corrections and I have provided Static-99R training to their evaluators. Additional information about these tools can be found at http://www.static99.org/ and http://www.saarna.org.

## Standardized Risk Levels

33. Before discussing the risk levels associated with Static-99R scores, I will describe their development. Labels such as "high risk" and "low risk" are ubiquitous in law and public protection policies, and have considerable consequences both for the individuals so labeled and for the systems responsible for the labeling. A significant problem, however, is that these terms are unlikely to mean the same thing when used by different people in different contexts. Although structured risk tools are widely used to assess the recidivism potential of individuals in the criminal justice system, these tools often use different labels to describe the same

[45] Hanson, RK, Lunetta, A, Phenix, A, Neeley, J, & Epperson, D. (2014): The Field Validity of Static-99/R Sex Offender Risk Assessment Tool in California. *Journal of Threat Assessment and Management*, 1(2), 102-117.

[46] Lee, SC, & Hanson, RK. (2017). Similar predictive accuracy of the Static-99R risk tool for White, Black, and Hispanic sex offenders in California. *Criminal Justice and Behavior, 44*, 1125-1140. doi:10.1177/0093854817711477.

[47] Lee, SC, Hanson, RK, Fullmer, N, Neeley, J, & Ramos, K. (2018). *The predictive validity of Static-99R over 10 years for sexual offenders in California: 2018 update.* Sacremento, CA: SARATSO (State Authorized Risk Assessment Tool for Sex Offenders) Review Committee. Available from www.saratso.org.

[48] Lee, SC, Restrepo, A, Satariano, A, & Hanson, RK. (2016). *The predictive validity of Static-99R for sexual offenders in California: 2016 update.* Sacramento, CA: SARATSO (State Authorized Risk Assessment Tool for Sex Offenders) Review Committee. Available from www.saratso.org.

risk relevant characteristics[49]. Consequently, it is common for the same individual to be rated as high risk by one tool and moderate risk by another.

34. It is also important to recognize that individuals' current risk levels may be quite different from their initial risk level as assigned by risk tools such as the Static-99R. Like many "static" risk tools, Static-99R estimates risk at time of release based on factors present at that time. To evaluate risk at a later time, evaluators of *current* risk should consider initial risk, but should also consider information unavailable at time of release, such as subsequent nonsexual convictions, and the number of years sexual offence free in the community[50]. Standardized risk levels can be used to describe both initial risk (at time of sentencing/release) and current risk. Even though the risk factors included in the Static-99R are *static*, risk level placements are not.

35. Based on shared concerns about the lack of consistency of risk level labels, I collaborated with the US Council of State Governments Justice Center to develop standardized risk levels for general offending risk tools. These risk levels were intended for the general correctional population, and were not specific to individuals with a sexual offending history. The development process involved consultations and discussions with leading researchers, correctional administrators, and correctional staff. Our initiative produced five standardized risk/need levels that could apply regardless of the setting or risk assessment tool used[51]. They could also

[49] Bourgon, G, Mugford, R, Hanson, RK, & Coligado, M. (2018). Offender risk assessment practices vary across Canada. *Canadian Journal of Criminology and Criminal Justice,* 60(2), 167-205. doi:10.3138/cjccj.2016-0024.

[50] Thornton et al. (2021) *supra* note 23.

[51] Hanson, RK, Bourgon, G, McGrath, R, Kroner, D, D'Amora, DA, Thomas, SS, Tavarez, LP. (2017). *A five-level risk and needs system: Maximizing assessment results in corrections through the development of a common language.* New York: The Council of State Governments Justice Center.

be used to describe the changes in risk over time, including changes due to effective correctional interventions.

36. The lowest risk category (Level I) are generally prosocial individuals who have nonetheless committed crime. They would not be expected to have the criminal backgrounds, significant life problems, or the prognosis typical of most individuals in the criminal justice system. The recidivism rates (for any offences) of Level I individuals would be indistinguishable from the rates of spontaneous offending among young males with no criminal history. Level II are higher risk than the general public, but lower risk than most individuals in the criminal justice system. Level II individuals have some criminogenic needs, but these life problems would be few and transient, and would be balanced by strengths (e.g., stable employment, prosocial friends). Level III describes the typical individuals in the middle of the risk distribution. They would have risk-relevant concerns in several areas, and require meaningful investments in structured programming to decrease their recidivism risk. Level IV describes individuals who are higher risk than the average individual in the criminal justice system. Individuals classified as Level IV have chronic histories of rule-violations, poor childhood adjustment, and significant risk-relevant problems across multiple domains. The Justice Center's framework also included a fifth category for the highest risk individuals, defined as those virtually certain to reoffend. Individuals classed as Level V are most typically found in high security settings, where considerable resources are devoted to managing *current* antisocial behavior.

37. The distribution of individuals in each of the risk levels will vary with the setting and the risk tool used. In routine correctional settings (i.e. for non-sexual offenders), most individuals would be expected to be placed in Level III, with smaller proportions in the other levels. When we created the 5-Level System, we expected the proportion at each of the levels to be approximately as follows: Level

I – 5% to 10%; Level II – 15% to 25%; Level III – 40% to 50%, Level IV – 15% to 25%, and Level V – 5%.

38. The Justice Center's five standardized risk levels were used as the model for the standardized risk levels of the Static-99R sexual recidivism risk tool[52]. The Justice Center's levels required modification because a) there are certain distinct risk factors for sexual crime (e.g., deviant sexual interests), and b) the rate of sexual recidivism among individuals with a history of sexual crime is much lower than the rate of any recidivism among individuals with prior non-sexual criminal convictions. Nevertheless, the standardized risk levels for the Static-99R are intended to convey the same general meaning as the Justice Center's standardized levels for general offending. For example, individuals classified as Level III in either system would be expected to have recidivism rates in the average range, and their risk could be reduced by moderate intensity rehabilitation programs and change-focussed community supervision.

39. Specifically, the total scores of Static-99R are grouped into 5 levels: Level I - Very low risk (Static-99R score of -3, -2); Level II - Below average risk (-1, 0); Level III - Average risk (1, 2, 3); Level IVa - Above average risk (4, 5); and Level IVb - Well above average risk (6 and higher). Level I identifies individuals with a history of sexual crime whose risk for a subsequent sexual offence is no different than the rate of spontaneous out-of-the-blue sexual offending for individuals with a criminal history but no previous sexual offences (less than 2% after 5 years). These are older individuals (60 years +) who mostly have offended against related female victims, and have no persistent problems related to sexual or

[52] Hanson, RK, Babchishin, KM, Helmus, LM, Thornton, D, & Phenix, A. (2017). Communicating the results of criterion referenced prediction measures: Risk categories for the Static-99R and Static-2002R sexual offender risk assessment tools. *Psychological Assessment, 29*(5), 582-597. doi:10.1037/pas0000371.

general offending. No special interventions are required for Level I individuals because their risk for sexual recidivism is already so low that it would be practically impossible to lower it further.

40. Level II describes individuals whose risk for sexual recidivism is slightly higher than the general population, but lower than most individuals with a sexual offence conviction (1.6% to 2.2% after 5 years)[53]. Level II individuals typically have some life problems related to general and sexual crime (e.g., substance abuse, sexual preoccupation), but these problems tend to be limited and transient. Most Level II individuals will move to Level I given short term (6 – 12 months) community supervision and focussed counseling.

41. Level III identifies individuals in the middle of the risk distribution for sexual recidivism. Out of 100 individuals classified as Level III, between 3 and 7 will be expected to be reconvicted of a sexual offence within 5 years; conversely between 93 and 97 will remain sexual offence free. Level III individuals typically have several of the life problems associated with a history of sexual crime, such as negative attitudes toward authority, poor sexual self-regulation, and problems in intimate relationships.

42. Individuals in the next level, Level IV are expected to have sexual recidivism rates of between 9% and 48% after five years. Almost all will have previous criminal convictions, and present with diverse life problems, some chronic and severe. The Static-99R risk tool does not include a Level V for sexual recidivism because the highest observed sexual recidivism rates (40% to 60%) are well below the Level V threshold of "virtually certain to reoffend". Instead, Level IV is divided into Level IVa "Above average" and Level IVb "Well above average" based on increasing severity of risk-relevant life problems.

[53] Lee & Hanson (2021) *supra* note 13.

43. At time of release, most individuals with a sexual offence history will be classified in the middle of the risk distribution (Level III – average risk) using the Static-99R risk tool[54]. Specifically, at time of release, the observed distribution is as follows: Level I – 5.7%, Level II – 18.2%, Level III – 50.4%, Level IVa – 18.1% and Level IVb – 7.6%. These risk levels only apply at time of release (or time of sentencing for individuals who receive community sentences). Subsequent behavior should be used to revise risk level placements. A new sexual offence would justify a rescoring of Static-99R because the new sexual offence would now be the index offence and what was previously the index offence would be a prior offence. For individuals who remain sexual offence free in the community, their standardized risk level declines without a change in their Static-99R score at time of release. The rate of decline is discussed later in this declaration.

44. A central purpose of the standardized risk levels is to provide evidenced-based guidance concerning the type and amount of intervention required to manage the risk of recidivism. Interventions such as supervision, monitoring, registration, notification, re-entry assistance and psychological treatment are not without costs, both for the individuals involved and for the systems mandating and managing these interventions. Insufficient intervention is a risk to public safety. Excessive intervention wastes public resources and imposes unnecessary burdens on individuals who are already unlikely to reoffend. There is also some evidence that unnecessary interventions to low-risk individuals can increase the likelihood of sexual recidivism[55].

45. Many of the US registration and notification laws were justified by a belief that individuals with a history of sexual crime were very likely to reoffend.

[54] Hanson, Babchishin et al. (2017) *supra* note 52.

[55] Lovins, B, Lowenkamp, CT, & Latessa, EJ. (2009). Applying the risk principle to sex offenders: Can treatment make some sex offenders worse? *The Prison Journal, 89,* 344-357.

As previously stated, the average 5-years sexual recidivism rates are between 5% and 15%. Furthermore, there is an identifiable subgroup (Level I) whose risk at time of release is already so low that interventions have no public protection benefits. Out of 100 individuals at this risk level, 96 to 98 will never be convicted of another sexual offence, even with follow-up periods extended to 20 years. This level of risk is the same as that presented by adult males who have never committed a sexual offence but have been convicted of a non-sexual offence, and is very close to the risk presented by males in the general population. At the time of sentencing, only a small proportion (around 5%) of individuals convicted of a sexual offence would be classified as Level I. However, over time the proportion classified as Level I predictably increases as individuals remain sexual offence free in the community. Recent research (described below) has demonstrated that after 10 to 15 years, the vast majority of individuals with a history of sexual crime will transition to Level I, indicating that their risk for future sexual crime is so low that any further interventions have no public protection benefits.

46. Although any sexual recidivism is troubling, no follow-up study has documented sexual recidivism rates greater than about 60% for even the highest risk individuals. The highest risk group according to Static-99R scores (Level IVb) is associated with observed 5-year recidivism rates of 20% to 50% at time of release. Such rates justify intensive intervention; however, Level IVb is a small group, representing only 8 out of 100 individuals convicted of sexual offences. Most individuals (85 out of 100) convicted of a sexual crime would be expected to have recidivism rates less than 10% after 5 years.

## Recidivism in the General Offender Population Declines the Longer an Ex-Offender Remains Arrest or Conviction Free

47. Most risk assessment for individuals in the criminal justice system is conducted either at the time of sentencing or at the time of release into the community. The risk labels assigned at these times are often assumed to apply in perpetuity, such that individuals who are ever labeled "high risk" are considered to remain high risk forever. This is not the case. Even when there are strong justifications to apply the high risk label to certain individuals at time of sentencing, it is unlikely that this will accurately characterize them over time, let alone for the rest of their days. Risk predictably declines with age and time offence free in the community. Research has long shown that the longer an individual remains free of arrests or convictions, the lower the chance of reoffending. In fact, most detected recidivism occurs within three years of a previous arrest and almost always within five years.

48. In an effort to try to assess whether it is possible to determine empirically when it is no longer necessary for an employer to be concerned about a criminal offence in a prospective employee's past, the United States Department of Justice's National Institute of Justice funded a study to actuarially estimate a point in time when an individual with a criminal record is at no greater risk of committing another crime than other individuals of the same age.

49. The study's goal was to determine empirically at what point in time the risk of recidivism was no greater than the risk for two comparison populations. Their analysis was based on a statistical concept called the "hazard rate." In this context, the hazard rate is the probability, over time, that someone who has stayed arrest-free will be arrested. For a person who has been arrested in the past, the hazard rate declines the longer he stays free of arrests.

50. The researchers—noted criminologist Alfred Blumstein and his then-doctoral student Kiminori Nakamura—obtained the criminal history records of 88,000 individuals who were arrested for the first time in New York State in 1980, and then determined whether they had been arrested for any other crime(s) during the ensuing 25 years or if they had stayed arrest-free.

51. The study showed that the hazard rates for people who committed crimes such as burglary, robbery, and aggravated assault eventually dropped below the hazard rate for other individuals of the same age in the general population. For example, for 18-year-olds who were arrested for a first offence robbery, the hazard rate declined to the same arrest rate for the general population of same-aged individuals at age 25.7, or 7.7 years after the robbery arrest. After that point, the probability that individuals would commit another crime was less than that of other 26-year-olds in the general population. The hazard rates of people who committed burglary at age 18 declined to the same as the general population somewhat earlier: 3.8 years post-arrest or at age 21.8. For aggravated assault, the hazard rates of the study group dropped below that of the general population of same-aged individuals: 4.3 years post-arrest or at age 22.3.

52. Blumstein and Nakamura also looked at the hazard rates for people whose first arrest had occurred at other ages and found individuals who were convicted of robbery at a young age took longer to transition to the risk typically found in the general population than did individuals whose first robbery convicted was later in their life.

53. The results of their study are published in a leading academic journal, *Criminology,* entitled *Redemption in the presence of widespread criminal*

*background checks*[56], and summarized in an article of the same name in the National Institute of Justice Journal, No. 263 10-17, *available at* https://www.ncjrs.gov/pdffiles1/nij/226872.pdf.

54. This reduction in risk based on time offence free has been widely replicated and is now accepted as fact by all experts in this area. To quote leading researchers in this area, Professors M. C. Kurlychek, S. D. Bushway, and R. Brame: "The general tendency for recidivism risk to decline over time is among the best replicated results in empirical criminology. It is probably not an exaggeration to say that any recidivism study with more than a 2- or 3-year follow-up period that did not find a downward-sloping marginal hazard would be immediately suspect"[57].

**The Risk of Sexual Recidivism Decreases with Time Offence-Free in the Community**

55. I have conducted studies similar to that conducted by Blumstein and Nakamura of the general offender population in order to determine recidivism rates for sex offenders and to better understand what factors affect those rates. In 2003-2004, I, working with other researchers, analyzed the data from 10 existing follow-up studies of adult males who have been convicted of a sexual offence (combined sample of 4,724)[58]. The analysis indicated that most of these individuals do not re-offend sexually; that individuals who are before the courts for the first time are significantly less likely to sexually re-offend than those with previous sexual

[56] Blumstein, A, & Nakamura, K. (2009). Redemption in the presence of widespread criminal background checks. *Criminology, 47*, 327-359. doi:10.1111/j.1745-9125.2009.00155.x

[57] Kurlychek, MC, Bushway, SD, & Brame, R. (2012). Long-term crime desistance and recidivism patterns—evidence from the Essex county convicted felon study. *Criminology, 50*, 71-103. doi:10.1111/j.1745-9125.2011.00259.x

[58] Harris & Hanson (2004) *supra* note 11.

convictions; and that individuals over the age of 50 are less likely to re-offend than are younger individuals.

56. The study also showed that the rate of sexual reoffending decreases the longer individuals with a history of sexual offending remain offence-free. The five-year recidivism rate of 14% for new releases decreased to 4% for individuals who have been sex offence free for 15 years. More specifically, the study found that after 15 years of living in the community, 73% of sexual offenders had not been charged with, or convicted of, another sexual offence. The sample was sufficiently large that very strong contradictory evidence would be necessary to substantially change these recidivism estimates, particularly because other studies have found similar results.

57. We concluded that many individuals with a history of sexual crime pose so low a risk for sexual recidivism that intensive interventions serve no public protection benefit. Instead, society will be better served when legislation and policies consider the cost/benefit break point after which resources spent tracking and supervising low-risk individuals are better re-directed toward the management of high risk individuals, crime prevention, and victim services.

## The Updated 2014 Study

58. I, along with three other researchers, conducted a similar study to examine the extent to which individuals with a history of sexual crime present an enduring risk for sexual recidivism over a 20-year follow-up period[59]. The results of this updated study were (i) presented by myself and Dr. Andrew J. R. Harris at the 32nd Annual Research and Treatment Conference held by the Association for the Treatment of Sexual Abusers in October 2012, and (ii) published in the *Journal of Interpersonal Violence* in March 2014, available at http://jiv.sagepub.com/content/29/15/2792. I have attached this study, entitled

[59] Hanson et al. (2014) *supra* note 6.

"High-Risk Sex Offenders May Not Be High Risk Forever," as Exhibit 4. The study used the same methodology as the 2003-04 study (life table survival analysis), but differed from the earlier study in two significant ways: the sample size was significantly larger ($n$ = 7,740), and the study grouped individuals according to risk (low, moderate, high) based on an established risk assessment tool (Static-99R).

59. This study confirmed that the risk of committing sexual crimes decreases the longer individuals remain sex offence-free in the community. On average, their recidivism risk dropped by approximately 50% for each five years that they remained offence-free in the community.[60] In other words, if their risk was 10% at time of release, it would drop to 5% after 5 years, and to 2.5% after 10 years. This pattern was particularly evident for the highest risk group, whose yearly recidivism rates declined from approximately 7% during the first calendar year, to less than 1% per year when they have been offence-free for 10 years or more. Thus, like the risk for general recidivism, the risk for sexual recidivism declines the longer individuals remain offence-free in the community.

60. We also determined that, just as Blumstein and Nakamura established with respect to other types of offences, individuals with a history of sexual crime who remain free of arrests for a sex offence will eventually become less likely to reoffend sexually than an individual with a non-sexual offender is to commit an "out of the blue" sexual offence.

61. In our 2014 study, we defined the level of risk at which individuals with a history of sexual crime should be treated as non-sexual offenders as the rate of sexual offences among persons who have been arrested but have no recorded history

[60] Hanson et al. (2014) *supra* note 6.

of sexual offending, which we estimated as 1% to 3% [61,62,63]. For the 2014 paper, we chose a threshold of < 3% sexual recidivism rates after 5 years as a comparison baseline.

62. Using this threshold, we found that immediately upon release, low-risk offenders (bottom 15%) pose a smaller risk of recidivism (2.2% five-year risk) than did the baseline group of individuals who have never been arrested for a sex offence (3%). After 10 years in the community without committing a sex offence, medium-risk offenders (60% of the total) also pose a risk (2.4% five-year risk) that is below this baseline. Consequently, 85% of those who remained sexual offence free for 10 years were below the threshold. For the highest risk offenders (top 15%), their recidivism rates declined substantially after 10 years offence-free, but their 5-year recidivism rate (4.2%) was still higher than the expected rate for nonsexual offenders (1%-3%)[64].

## 2018 Research Update: Time to Desistance

63. As part of program of research initially presented at the 2012 Association for the Treatment of Sexual Abusers 32nd Annual Research and Treatment Conference, we used another method of estimating the time required before individuals with a history of sexual crime are expected to no longer present a significant risk for sexual recidivism. This second method involved estimating the

[61] Duwe, G. (2012). Predicting first-time sexual offending among prisoners without a prior sex offence history: The Minnesota Sexual Criminal Offending Risk Estimate (MnSCORE). *Criminal Justice and Behavior, 39,* 1436-1456.

[62]Langan, PA, Schmitt, EL, & Durose, MR. (2003). Recidivism of sex offenders released from prison in 1984. Bureau of Justice Statistics NCJ 198281. Washington, DC: U.S. Department of Justice.

[63] Sample, LL, & Bray, TM. (2003). Are sex offenders dangerous? *Criminology and Public Policy, 3*, 59-82. doi:10.1111/j.1745-9133.2003.tb00024.x

[64] Hanson et al. (2014) *supra* note 6.

probability of sexual recidivism during 6-month periods, from the time of release to more than 20 years in the community. These discrete-time hazard rates were then modeled using logistic regression. Statistical modeling minimizes random noise in the data allowing the patterns to be observed more clearly. By statistically modeling the hazard rates, we were able to make more precise estimates of the recidivism rates than we could using the statistical procedures (life-table survival analyses) reported in our earlier analyses. The results of this study have been subsequently published in *Psychology, Public Policy, and Law,* entitled *Reductions in risk based on time offence-free in the community: Once a sexual offender, not always a sexual offender*[65]. This article is attached as Exhibit 5.

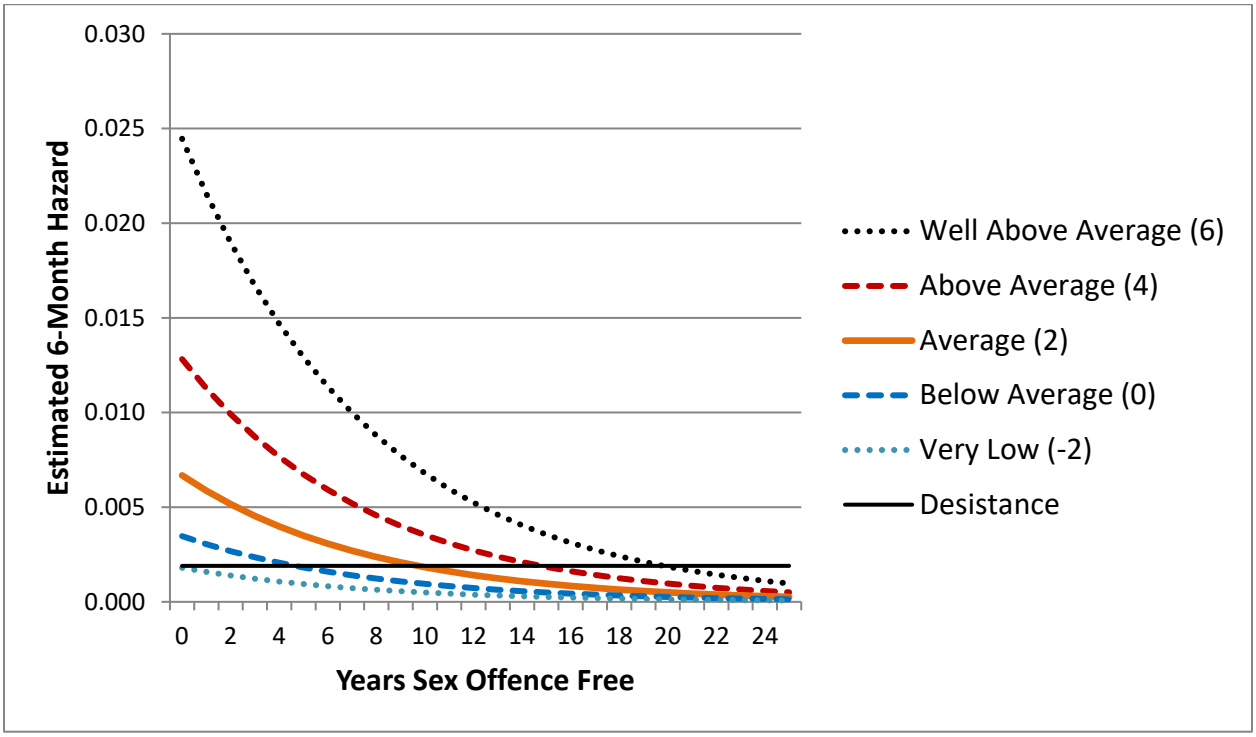
64. Also, as part of this program of research we updated our analysis of the expected sexual recidivism rate for individuals with a criminal conviction but no history of sexual offending. Based on 11 studies involving 543,204 individuals, we concluded that the rate of spontaneous sexual offences among individuals with nonsexual convictions is in the range of 1-2% within a 5-year period[66]. Consequently, we used a 5-year sexual recidivism rate of less than 2% to define a desistance threshold. Desistance meant that the individuals' risk of future sexual offending has dropped below a level where there is no longer any public protection benefit to sexual offender specific interventions. This is a somewhat lower than the 3%-over-5-years baseline that we used in our 2014 published study, discussed above; this means that the results discussed below are more conservative than those discussed above.

65. In our 2018 paper, we visually represented the decline in risk using two figures. The first figure reproduced below plots the hazard rates across time based

[65] Hanson et al. (2018) *supra* note 7.

[66] Kahn et al. (2017) *supra* note 9.

according to Static-99R standardized risk levels. As well, the graph includes a line indicating the desistance threshold. A true and correct copy of this graph (Figure 2 from Hanson et al. [2018]) is presented below.




66. As you can see, individuals from all risk levels eventually crossed the desistance threshold, although the numbers of years varied considerably. Most individuals, i.e., those in the middle of the risk distribution (Level III, Average Risk, Static-99R score of 2), crossed the desistance threshold after about 10 years. The lowest risk offenders (Level I) were already below the desistance threshold at the time of release into the community. Individuals classified at the highest risk levels (IVb – Well above average) only crossed the desistance threshold after 20 years sexual offence free in the community.

67. The second figure indicates the decline in standardize risk level across time according to initial risk (as indicated by Static-99R score) and the number of

full years sexual offence free in the community. The risk levels at year zero are the Standardized Static-99R Risk Levels at time of release. The risk levels in the remaining columns are the standardized risk levels adjusted for the number of years sexual offence free. A true and correct copy of this graph (Figure 3 from Hanson et al. [2018]) is presented below.

**Years Sexual Offence Free in the Community**

| STATIC-99R Scores | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -3 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| -2 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| -1 | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 0 | II | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 1 | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 2 | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I |
| 3 | III | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I |
| 4 | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I |
| 5 | IVa | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I |
| 6 | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II | II | II | II | II | I |
| 7 | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | II | II | II | II |
| 8 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II |
| 9 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III |
| 10 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III |

68. All individuals in the lowest risk category (Level I, very low risk) were below the desistance threshold at time of release. Individuals in risk Level II crossed the desistance threshold between 3 years (Static-99R score of -1) and 6 years (Static-99R score of 0). Individuals assessed as Level III (average risk) crossed the desistance threshold (became Level I) after 8 to 13 years sexual offence free in the

community. For risk Level IVa (above average risk), they crossed the desistance threshold by year 16 to 18. Individuals at the low end of Level IVb (Static-99R score of 6) crossed the desistance threshold at year 21. In other words, using this estimation approach, only individuals with Static-99R scores of 7 or higher (< 4% of the initial cohort) would have a risk of sexual recidivism perceptibly higher than the desistance threshold given that they have remained sexual offence free for 20 years in the community. No individuals who remained sexual offence free for 18 years would be considered to be above average risk.

69. Viewed from another perspective, our results suggest that the risk for new sexual offence has, for practical purposes, been extinguished after individuals successfully remain sexual offence free for 20 years in the community. In our dataset, there was only one sexual recidivist out of the 394 individuals followed between 20 and 25 years, when our follow-up ended. This corresponds to a 5-year recidivism rate of 0.3% in life table survival analysis, well below the expected rate of sexual recidivism among individuals with a nonsexual conviction (1.9%). In our subsequent analyses[67], we privileged the observed rates (1 out of 394) rather than Figure 3 when estimating the very long-term recidivism risk. Finding only one sexual recidivist out of 394 cases indicates that the risk for subsequent sexual recidivism is vanishingly small for all individuals who have remained 20 years sexual offence free in the community. Consequently, we considered the 20-year sexual recidivism rates to be equivalent to the lifetime (ever) sexual recidivism rates.

## 2021 Research Update: Lifetime and Residual Risk

70. Our 2014 and 2018 studies found that the rate of decline in recidivism risk was consistent over time, and equal (in relative risk terms) for all initial risk levels. Although the absolute amount of change is larger for higher risk individuals

[67] Thornton et al. (2021) *supra* note 23.

(they have more room to move) than for lower risk individuals, when the results are analyzed using the appropriate metrics (relative risk), the relative decline is the same over time and for all initial risk levels. Consequently, it is possible to use these predictable declines to calculate numeric estimates of lifetime and residual risk. Using the same sample as our 2018 study, we conducted new analyses of residual risk based on initial risk levels, time sexual offence-free in the community, and whether or not the individual was convicted of a nonsexual offence after release from an index sexual offence[68]. A copy of this study is appended as Exhibit 6. The analytic framework for these analyses was discrete-time survival analysis, a well-established method of estimating event occurrence and desistance over time[69]. Survival analysis was developed to estimate life expectancy (hence, the name) and is still widely used for that purpose. In discrete-time survival analysis, the follow-up time of interest (in our case, 20 years) is divided into convenient time intervals (e.g., one-year intervals). The likelihood of recidivism for each time interval is then calculated by dividing the number of new recidivists by the number of individuals at-risk in that time interval. This probability is called a hazard. The hazards for previous years are combined to estimate the overall likelihood for any follow-up time of interest. Once hazard rates are known, then it is possible to adjust and revise hazard rates as individuals survive the hazards of previous intervals. In Canada, for example, life expectancy at birth is 82 years; however, for individuals who have

[68] Thornton, D, Hanson, RK, Kelley, SM, & Mundt, JC. (2021). Estimating lifetime and residual risk for individuals who remain sexual offence free in the community: Practical applications. *Sexual Abuse, 33*(1), 3-33. doi:10.1177/1079063219871573.

[69] Willett, J. B., & Singer, J. D. (1993a). Investigating onset, cessation, relapse, and recovery: why you should, and how you can, use discrete-time survival analysis to examine event occurrence. *Journal of Consulting and Clinical Psychology, 61*(6), 952–965. https://doi.org/10.1037/0022-006X.61.6.952.

made it to 82, they can expect to live until 91[70]. Similarly, the risk for future sexual offending decreases when individuals remain offence-free during previous periods of relatively higher risk. Unlike death, however, sexual recidivism is not inevitable.

71. The table below presents our most recent estimate of sexual recidivism rates for 6 to 20 years based on initial risk levels (Table S2 from Lee & Hanson, 2021). This table uses the same estimation approach as in Thornton et al. (2021), with the exception that the initial risk levels are estimated using the 2021 norms rather than the 2016 Static-99R Norms. Although these analyses are linked to Static-99R scores, the same patterns would apply regardless of the method used to estimate initial risk. Residual risk was set to zero after 20 years because the expected recidivism rates after 20 years sexual offence free were too small for practical significance. For moderate risk levels, the estimated lifetime risk was approximately double the observed 5-year recidivism rates. For example, for a Static-99R score of 2 (the middle of the risk distribution), the 5-year rate was 4.6% and the estimated lifetime rate was 8.7%. For the highest risk level (Level IVb, well above average), the 5-year rates were between 20% and 50% and the estimated lifetime rates were between 30% and 75%. For the lowest risk level (Static-99R very low risk, Level I), the 5-year rates were less than 2% and the lifetime rates were less than 3%.

[70] Statistics Canada. (2019). *Changes in life expectancy by selected causes of death, 2017*. https://www150.statcan.gc.ca/n1/daily-quotidien/190530/dq190530d-eng.htm

*Extrapolated Sexual Recidivism Rates for Follow-up Periods of 6 to 20 Years for Routine/Complete Samples*

*Based on Estimated 5-year Recidivism Rates* (Table S2 from Lee & Hanson, 2021)

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up year | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **5** | **0.7** | **1.1** | **1.5** | **2.2** | **3.2** | **4.6** | **6.5** | **9.2** | **12.8** | **17.6** | **23.7** | **31.0** | **39.6** | **48.7** |
| 6 | 0.8 | 1.2 | 1.8 | 2.5 | 3.6 | 5.2 | 7.4 | 10.4 | 14.4 | 19.7 | 26.4 | 34.3 | 43.5 | 53.2 |
| 7 | 0.9 | 1.3 | 1.9 | 2.8 | 4.0 | 5.7 | 8.1 | 11.4 | 15.8 | 21.6 | 28.7 | 37.2 | 46.8 | 56.8 |
| 8 | 1.0 | 1.4 | 2.1 | 3.0 | 4.3 | 6.2 | 8.7 | 12.3 | 17.0 | 23.1 | 30.7 | 39.6 | 49.6 | 59.7 |
| 9 | 1.1 | 1.5 | 2.2 | 3.2 | 4.6 | 6.6 | 9.3 | 13.0 | 18.0 | 24.5 | 32.4 | 41.6 | 51.9 | 62.2 |
| 10 | 1.1 | 1.6 | 2.3 | 3.4 | 4.8 | 6.9 | 9.8 | 13.7 | 18.9 | 25.6 | 33.8 | 43.3 | 53.8 | 64.2 |
| 11 | 1.2 | 1.7 | 2.5 | 3.5 | 5.1 | 7.2 | 10.2 | 14.3 | 19.6 | 26.6 | 35.1 | 44.8 | 55.5 | 65.9 |
| 12 | 1.2 | 1.8 | 2.5 | 3.7 | 5.3 | 7.5 | 10.6 | 14.8 | 20.3 | 27.5 | 36.2 | 46.1 | 56.9 | 67.3 |
| 13 | 1.3 | 1.8 | 2.6 | 3.8 | 5.4 | 7.7 | 10.9 | 15.2 | 20.9 | 28.3 | 37.1 | 47.2 | 58.0 | 68.5 |
| 14 | 1.3 | 1.9 | 2.7 | 3.9 | 5.6 | 7.9 | 11.2 | 15.6 | 21.4 | 28.9 | 37.9 | 48.1 | 59.1 | 69.6 |
| 15 | 1.3 | 1.9 | 2.8 | 4.0 | 5.7 | 8.1 | 11.4 | 16.0 | 21.9 | 29.5 | 38.6 | 48.9 | 60.0 | 70.4 |
| 16 | 1.4 | 1.9 | 2.8 | 4.0 | 5.8 | 8.3 | 11.6 | 16.2 | 22.3 | 30.0 | 39.2 | 49.6 | 60.7 | 71.2 |
| 17 | 1.4 | 2.0 | 2.9 | 4.1 | 5.9 | 8.4 | 11.8 | 16.5 | 22.6 | 30.5 | 39.8 | 50.2 | 61.4 | 71.8 |
| 18 | 1.4 | 2.0 | 2.9 | 4.2 | 6.0 | 8.5 | 12.0 | 16.7 | 22.9 | 30.8 | 40.2 | 50.8 | 61.9 | 72.4 |
| 19 | 1.4 | 2.0 | 2.9 | 4.2 | 6.1 | 8.6 | 12.1 | 16.9 | 23.2 | 31.2 | 40.6 | 51.2 | 62.4 | 72.9 |
| 20 | 1.4 | 2.1 | 3.0 | 4.3 | 6.1 | 8.7 | 12.3 | 17.1 | 23.4 | 31.5 | 41.0 | 51.7 | 62.8 | 73.3 |

*Note*. Bolded values are the 5-year logistic regression estimates for routine/complete samples (483 recidivists, $N$ = 7,244)

72. The next table presents residual risk based on initial risk using the 2021 Static-99R norms and the number of years sexual offence free in the community[71]. As before, the residual risk for 20 years sexual offence free was set to zero because there were no individuals who remained a significant risk after 19 years. This table can be used to estimate *when* individuals no longer present a significant risk of sexual recidivism based on their initial risk level and the number of years sexual offence free in the community. The bolded values indicate when individuals with different initial risk levels present a risk for sexual recidivism that is not distinguishable from the rate of spontaneous out-of-the-blue sexual offending by males in the general community.

[71] Lee & Hanson (2021) *supra* note 13.

*Projected Residual Risk (Sexual Recidivism Rates [%]) From Time of Release Up to 20 Years Offence Free in the Community for Routine/Complete Samples* (adapted from Table S4 from Lee & Hanson, 2021)

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| year | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| At release | **1.4** | 2.1 | 3.0 | 4.3 | 6.1 | 8.7 | 12.3 | 17.1 | 23.4 | 31.4 | 41.0 | 51.8 | 62.8 | 73.2 |
| 1 | **1.2** | **1.8** | 2.6 | 3.7 | 5.3 | 7.6 | 10.8 | 15.0 | 20.7 | 28.0 | 36.8 | 47.0 | 57.7 | 68.4 |
| 2 | **1.1** | **1.6** | 2.2 | 3.2 | 4.6 | 6.6 | 9.4 | 13.2 | 18.2 | 24.8 | 32.9 | 42.4 | 52.7 | 63.3 |
| 3 | **0.9** | **1.3** | **1.9** | 2.8 | 4.0 | 5.8 | 8.2 | 11.5 | 16.0 | 21.9 | 29.2 | 38.1 | 47.8 | 58.1 |
| 4 | **0.8** | **1.2** | **1.7** | 2.4 | 3.5 | 5.0 | 7.1 | 10.0 | 14.0 | 19.2 | 25.8 | 33.9 | 43.0 | 53.0 |
| 5 | **0.7** | **1.0** | **1.4** | 2.1 | 3.0 | 4.3 | 6.2 | 8.7 | 12.1 | 16.8 | 22.7 | 30.0 | 38.5 | 47.9 |
| 6 | **0.6** | **0.9** | **1.2** | **1.8** | 2.6 | 3.7 | 5.3 | 7.5 | 10.5 | 14.6 | 19.8 | 26.4 | 34.1 | 42.9 |
| 7 | **0.5** | **0.7** | **1.1** | **1.5** | 2.2 | 3.2 | 4.6 | 6.5 | 9.1 | 12.6 | 17.2 | 23.1 | 30.1 | 38.1 |
| 8 | **0.4** | **0.6** | **0.9** | **1.3** | **1.9** | 2.7 | 3.9 | 5.5 | 7.8 | 10.8 | 14.9 | 20.0 | 26.3 | 33.6 |
| 9 | **0.4** | **0.5** | **0.8** | **1.1** | **1.6** | 2.3 | 3.3 | 4.7 | 6.6 | 9.3 | 12.7 | 17.3 | 22.7 | 29.3 |
| 10 | **0.3** | **0.4** | **0.6** | **0.9** | **1.3** | **1.9** | 2.8 | 4.0 | 5.6 | 7.8 | 10.8 | 14.7 | 19.5 | 25.3 |
| 11 | **0.3** | **0.4** | **0.5** | **0.8** | **1.1** | **1.6** | 2.3 | 3.3 | 4.7 | 6.6 | 9.1 | 12.4 | 16.5 | 21.6 |
| 12 | **0.2** | **0.3** | **0.4** | **0.6** | **0.9** | **1.3** | **1.9** | 2.7 | 3.9 | 5.4 | 7.6 | 10.4 | 13.8 | 18.2 |
| 13 | **0.2** | **0.2** | **0.4** | **0.5** | **0.8** | **1.1** | **1.6** | 2.2 | 3.1 | 4.4 | 6.2 | 8.5 | 11.4 | 15.0 |
| 14 | **0.1** | **0.2** | **0.3** | **0.4** | **0.6** | **0.9** | **1.2** | **1.8** | 2.5 | 3.6 | 5.0 | 6.8 | 9.2 | 12.2 |
| 15 | **0.1** | **0.2** | **0.2** | **0.3** | **0.5** | **0.7** | **1.0** | **1.4** | 2.0 | 2.8 | 3.9 | 5.3 | 7.2 | 9.6 |
| 16 | **0.1** | **0.1** | **0.2** | **0.2** | **0.3** | **0.5** | **0.7** | **1.0** | **1.5** | 2.1 | 2.9 | 4.0 | 5.4 | 7.2 |
| 17 | **0.1** | **0.1** | **0.1** | **0.2** | **0.2** | **0.3** | **0.5** | **0.7** | **1.0** | **1.4** | 2.0 | 2.8 | 3.8 | 5.1 |
| 18 | **0.0** | **0.0** | **0.1** | **0.1** | **0.2** | **0.2** | **0.3** | **0.4** | **0.6** | **0.9** | **1.3** | **1.8** | 2.4 | 3.2 |
| 19 | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.1** | **0.1** | **0.2** | **0.3** | **0.4** | **0.6** | **0.8** | **1.1** | **1.5** |
| 20 | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |

*Note.* Recidivism rate projections based on 5-year logistic regression estimates. Bolded values are below the baseline, ambient risk of out-of-the-blue sexual offending among adult males (lifetime risk < 2.0).

## Number of Registrants Who Are Very Low Risk for Sexual Recidivism

73. Using the time-free adjustments described in Thornton et al. (2021) and the distribution of Static-99R scores, it is possible to estimate the proportion of individuals with a sexual offending history whose risk will should be classified (or reclassified) as very low risk should they remain sexual offence free. The distribution of Static-99R scores has been demonstrated to be reasonably stable across settings and jurisdictions[72,73]. As discussed in Paragraphs 19-25 above, there are two plausible comparison groups for considering individuals very low risk for sexual recidivism: a) individuals with a nonsexual conviction and no history of sexual crime (2% after 5 years; 3.8% lifetime), and b) adult males in the general population (1% after 5 years; 2% lifetime). The proportion of individuals with a sexual offending history whose current risk is below these thresholds are presented in the following table.

[72] Hanson, RK, Lloyd, CD, 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

[73] Lee et al. (2016) *supra* note 48.

*Proportion of Routine/Complete Samples of Individuals with a History of Sexual Offending Whose Current Risk Is Very Low Based on the Numbers of Years Sexual Offence Free in the Community.*

| Number of years sexual offence free | Threshold Used to Define Very Low Risk | |
|---|---|---|
| | Community Males (2% lifetime) | Individuals with a nonsexual criminal conviction (3.8% lifetime) |
| 0 – at time of release | 2.7 | 13.6 |
| 5 years | 13.6 | 39.6 |
| 10 years | 57.1 | 74.3 |
| 15 years | 85.0 | 96.0 |
| 20 years | 100.0 | 100.0 |

Initial risk estimates from Lee & Hanson (2021). Distribution of risk levels based on Static-99R scores (Hanson, Lloyd et al., 2012). Twenty-year (lifetime) sexual recidivism estimate based on methods described by Thornton et al. (2021).

74. As can be seen in the above table, almost all individuals who have committed sex offences present a risk for sexual recidivism at time of release that is higher than the ambient, baseline risk presented by males in the general population (2% lifetime). The proportion of individuals that should be classified as low risk grows steadily over time, however, such that most (57.1%) individuals with a sexual offence history will present no more risk than the general male population after 10 years. Using the more liberal criteria of the sexual offending rate of individuals with a nonsexual criminal conviction (3.8% lifetime), 13.6% would be very low risk at time of release, and this proportion would increase to 74.3% after 10 years. After 15 years, only a small proportion (4 out of 100) of individuals released from a sexual

offence would present more risk of sexual offending than any of the other individuals with past criminal justice system involvement.

75. According to the National Center for Missing and Exploited Children, there were 42,998 individuals on Michigan's sexual offender registry in 2016/2017[74]. This number has steadily increased between 1997 and 2010, and has varied around the value of 40,000 individuals annually since then[75]. Although the length of time that individuals have been on the registry has not been provided to me, it is evident that a large proportion have been on the registry for at least 10 years, and many would have been on the registry for 20 years or more. The initial risk distribution of registrants is also not known to me, but is likely to be similar to that observed in other jurisdictions. Consequently, it is reasonable to expect that there are tens of thousands of individuals on Michigan's SOR who are now no more likely to commit a sexual offence than the general population of adult males in Michigan. Including these very low risk individuals on the SOR serves no public protection function.

**Undetected Recidivism and Desistance**

76. Any observed recidivism rate underestimates the actual rate because not all crimes are reported, detected, and recorded in the data bases available to researchers. The extent of underestimation is unknown, and remains a topic of

[74] National Center (2017) *supra* at 28.
[75] Michigan State Police. (no date). *Total number on SOR by Year, Page 2*.

debate in the professional and scientific communities[76,77,78]. Researchers in criminology agree, however, that it possible to identify individuals who have desisted from crime without needing a precise estimate of the amount of undetected recidivism. Instead, desistence can be empirically identified based on very low rates of recidivism that are comparable to the risk of criminal behavior among individuals in the general population. As previously stated, very low rates of sexual offending can be defined in terms of the rates of sexual offending among individuals with nonsexual criminal convictions, or for males in the general population. There are many individuals with a sexual offending history whose current risk is below both of these thresholds. Although the observed rates (1% to 2% after 5 years) would also be an underestimate of the actual sexual offending rate of individuals without sexual criminal histories, there is no reason to believe that the amount of underestimation is substantially different between individuals with or without a prior conviction for a sexual offence. The major factors contributing to detection are a) victims reporting to police, b) police investigating, c) police/prosecution charging, and d) courts convicting. The fact that an alleged perpetrator is already known to have a conviction for a sexual offence should, if it had any effect at all, increase the likelihood of the case proceeding at each stage of this process. Consequently, the rate of underestimation is probably greater among individuals with no history of sexual offence convictions compared to detection rate of individuals previously

[76] Scurich, N & John, RS. (2019). The dark figure of sexual recidivism. *Behavioral Sciences and the Law*, *37*(2), 158-175. doi:10.1002/bsl.2400.

[77] Abbott, BR. (2020). Illuminating the dark figure of sexual recidivism. *Behavioral Sciences and the Law*, *38*, 543-558. https://doi.org/10.1002/bsl.2494.

[78] Lave, TR, Prescott, JJ, & Bridges, G. (2021). The problem with assumptions: Revisiting "The dark figure of sexual recidivism". *Behavioral Sciences & the Law, 39*(3), 279-306. https://doi.org/10.1002/bsl.2508.

convicted for a sexual offence. If a history of sexual convictions increases the detection rate, our very low risk threshold of 1% to 2% after 5 years would be conservative, meaning that individuals with a history of sexual crime who remains sexual offence free would resemble the general population even sooner.

77. Supporters of registration and notification laws may argue that we cannot be too safe when it comes to the risk of sexual offences. Even if the actual risk is one in a hundred, or even one in 10,000, we should do all we can to prevent individuals with a known history of sexual offending from doing it again. I, too, want no more sexual victimization. There are, however, finite resources that can be accorded to the problem of sexual victimization. From a public protection perspective, it is hard to justify targeting these resources on individuals whose objective risk is not perceptibly different from that of a very large segment of the general male population that has a non-sex offence conviction (8% of all adults in the US have a felony conviction[79]), and, indeed, is not perceptibly different from the adult male population as a whole. Furthermore, available research has not found that long term or lifelong registration and public notification[80], and the imposition of concomitant

[79] Shannon, SK, Uggen, C, Schnittker, J, Thompson, M, Wakefield, S, & Massoglia, M. (2017). The growth, scope, and spatial distribution of people with felony records in the United States, 1948–2010. *Demography*, *54*(5), 1795-1818.

[80] Zgoba, KM, & Mitchell, MM. (2021). The effectiveness of Sex Offender Registration and Notification: A meta-analysis of 25 years of findings. *Journal of Experimental Criminology*. Advance online publication. https://doi.org/10.1007/s11292-021-09480-z.

restrictions on residence, education, and employment are having the intended effects[81,82,83,84].

## What Works to Reduce the Risk of Sexual Recidivism

78. Policies that promote the social re-integration of individuals with a history of sexual crime are more likely to reduce their recidivism risk than policies that focus on identifying ex-offenders to the general public. It is well established that major contributors to desisting from crime are having a place to stay, a job, and stable relationships with prosocial peers[85]. These same factors apply to whether the criminal history involved sexual or nonsexual crimes. Individuals who have a residence, employment, and prosocial peers are less likely to reoffend than those who are homeless, transient, and unemployed[86]. In contrast, policies and practices that systematically block the attainment of normal, prosocial goals are likely to increase the recidivism risk of individuals who sexually offended in their past.

---

[81] Levenson, JS, & Hern, AL. (2007). Sex offender residence restrictions: Unintended consequences and community re-entry. *Justice Research and Policy, 9*, 59-74. doi:10.3818/JRP.9.1.2007.59.

[82] Meloy, ML, Miller, SL, & Curtis, KM. (2008). Making sense out of nonsense: The deconstruction of state-level sex offender residence restrictions. *American Journal of Criminal Justice, 33*, 209-222. doi:10.1007/s12103-008-9042-2.

[83] Mustaine, EE. (2014). Sex offender residency restrictions: Successful integration or exclusion? *Criminology & Public Policy, 13*, 169-177. doi:10.1111/1745-9133.12076.

[84] Simon, J, & Leon, C. (2008). The third wave: American sex offender policies since the 1990s. In S. G. Shoham, O. Beck, & M. Kett (Eds.), *International Handbook of Penology and Criminal Justice* (pp. 733-754). Boca Raton, FL: CRC Press.

[85] Laub, JH, & Sampson, RJ. (2001). Understanding desistance from crime. *Crime and Justice, 28*, 1-69.

[86] Scoones, CD, Willis, GM, & Grace, RC. (2012). Beyond static and dynamic risk factors: The incremental validity of release planning for predicting sex offender recidivism. *Journal of Interpersonal Violence, 27*(2), 222-238.

## Conclusion

79. Long-term sexual offender registration and notification laws are often justified on the basis that individuals with a sexual offence conviction present an elevated risk to public safety that endures for decades, potentially for life. This belief is inconsistent with what we now know based on research conducted during the past few decades. All studies of sexual offender recidivism have found that the risk declines when individuals remain sexual offence free in the community. Within 10 years, most individuals present no more risk than the baseline ambient risk presented by males in the general population. No individuals who have remained 20 years sexual offence free in the community have a risk level that is perceptibly different from that of individuals who have been convicted of nonsexual offences, or of males in general. Public policy interventions directed at this very low risk group serve no public protection function. I can think of no practical reason for imposing restrictions on this very low risk group when similar restrictions are not imposed on individuals convicted of nonsexual crimes, or, for that matter, all males in Michigan.

Table 1

*Established risk factors for sexual recidivism.*

**Age** (young)

**Sexual Criminality**

Sexual criminal history

- Prior sexual offences
- Early onset of sexual offending
- Diverse sexual crimes
- Non-contact sexual offences
- Victim characteristics (unrelated, strangers, males)

Deviant sexual interests

- Any deviant sexual preference
    - Sexual preference for children
    - Sexualized violence
    - Multiple paraphilias
- Sexual preoccupations

Attitudes tolerant of sexual assault

**General Criminality**

Lifestyle instability/criminality

- Childhood behaviour problems (e.g., running away, grade failure)
- Juvenile delinquency
- Any prior offences
- Lifestyle instability (reckless behaviour, employment instability)
- Personality disorder (antisocial, psychopathy)
- Grievance/hostility

Social problems/Intimacy deficits

- Single (never married)
- Conflicts with intimate partners
- Hostility toward women
- Negative social influences

Response to treatment/supervision

- Treatment drop-out
- Non-compliance with supervision
- Violation of conditional release

Poor cognitive problem-solving

**Risk factors specific to sexual offenders against children**

- Emotional congruence with children (source)
- Child molester attitudes

## Sources for Table 1


1. Hanson & Bussière (1998) at 24.

2. Helmus, L, Hanson, RK, Babchishin, KM, & Mann, RE. (2013). Attitudes supportive of sex offending predict recidivism: A meta-analysis. *Trauma, Violence, & Abuse*. *14,* 34-53. doi:10.1177/1524838012462244

3. Mann, RE, Hanson, RK, & Thornton, D. (2010). Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. *Sexual Abuse: A Journal of Research and Treatment, 22*(2), 191-217. doi:10.1177/1079063210366039

4. McPhail, I. V., Hermann, C. A., & Nunes, K. L. (2013). Emotional congruence with children and sexual offending against children: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *81*, 737–749. doi: 10.1037/a0033248

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

_____

R. Karl Hanson, Ph.D., C.Psych.

Dated: October 29, 2021

TABLE OF EXHIBITS

1. Curriculum vitae of Dr. R. Karl Hanson
2. Dr. Hanson's contributions as an expert witness for the court, 2016-2021
3. Static-99R coding form.
4. Hanson, RK, Harris, AJR, Helmus, L, & Thornton, D. (2014). High risk sex offenders may not be high risk forever. *Journal of Interpersonal Violence, 29*(15), 2792-2813. doi:10.1177/0886260514526062
5. Hanson, RK, Harris, AJR, Letourneau, E, Helmus, LM, & Thornton, D. (2018). Reductions in risk based on time offence free in the community: Once a sexual offender, not always a sexual offender. *Psychology, Public Policy and Law, 24*(1), 48-63. doi:10.1037/law0000135
6. Thornton, D, Hanson, RK, Kelley, SM, & Mundt, JC. (2021). Estimating lifetime and residual risk for individuals who remain sexual offence free in the community: Practical applications. *Sexual Abuse, 33*(1), 3-33. doi:10.1177/1079063219871573

# Attachment 1:

C.V. of R. Karl Hanson

Curriculum Vitae **R. Karl Hanson, Ph.D., C.Psych**

Version: September, 2021

Work Address Department of Psychology
Carleton University
1125 Colonel By Drive
Ottawa, Ontario K1S 5B6
Canada

Phone (613) 619-0817; rkarlhanson@gmail.com Karl.Hanson@saarna.org

Education

1986 - Ph.D. in Clinical Psychology, University of Waterloo
1981 - B.A. (Hons), Psychology, Simon Fraser University

Professional Awards and Distinctions

2019 – Criminal Justice Psychology Section of the Canadian Psychological Association: Don Andrews Career Contribution Award
2018 – International Association for the Treatment of Sexual Offenders: Lifetime Achievement Award
2017 – Public Safety Canada: Outstanding Career Award
2015 – Public Safety Canada: Instant Prize
2010 – Public Safety Canada: Student Recognition Award
2007 – Public Safety Canada: Departmental Achievement Award
2007 – Public Safety Canada: Student Recognition Award
2006 – Public Service Merit Award for Exceptional Performance
2006 – Nominated for the Stockholm Prize in Criminology
2003 – Canadian Psychological Association: Fellow
2002 – Association for the Treatment of Sexual Abusers: Lifetime Significant Achievement Award
1998 – Public Service Merit Award for Exceptional Performance

Academic Awards

As a student (1978 – 1986), I received SSHRC doctoral and M.A. fellowships as well as awards and scholarships from Simon Fraser University, Capilano College, and the University of Manitoba (where I completed my internship in clinical psychology).

Current Employment

| Start Dates | Location | Duties |
|---|---|---|
| 6/2004 - | Carleton University | Adjunct Research Professor, Psychology Department |
| 1/2019- | Correctional Service of Canada | Senior trainer on sexual recidivism risk tools (part-time) |



1

Professional Work Experience

| Dates | | Location | Duties |
|---|---|---|---|
| 2/2015 - | 02/2020 | Ryerson University | Adjunct Faculty, Yeates School of Graduate Studies |
| 2/2015 – | 6/2017 | Public Safety Canada | Manager, Corrections Research. Supervise and conduct research on corrections. Manage staff/ budget |
| 2/2009 - | 2/2015 | Public Safety Canada | Senior Research Scientist. Conduct and supervise research on corrections, with a particular focus on sexual offenders and family violence |
| 4/1991 - | 2/2009 | Solicitor General Canada/Public Safety Canada | Senior Research Officer |
| 9/1986 – | 4/1991 | York University | Course Director (Personality, Abnormal, Research). Supervision of student research (part-time) |
| 9/1987- | 1/1991 | Ontario Ministry of Correctional Services | Assessment, short-term treatment of individuals on probation and parole, staff consultation (part-time) |

Between 1987 and 1990, I was a research consultant for several organizations including the Solicitor General Canada (sexual offending, impact of sexual victimization) and Thistletown Regional Centre (intrafamilial sexual abuse). I taught psychopathology at Trent University and the Adlerian Institute. As well, I was engaged in the assessment and treatment of forensic clients, including individuals with a history of sexual offending, at the Clarke Institute of Psychiatry (now Centre for Addiction and Mental Health, Toronto, Ontario, Canada).

Clinical Training

I completed a one-year post-doctoral APA/CPA approved internship at the Health Sciences Centre, University of Manitoba in 1985-86, and had prior internship experience with adults and children at the University of Waterloo, and Sunnybrook Medical Centre (Toronto). I have been registered as a psychologist in Ontario since 1987. My clinical expertise concerns the assessment and treatment of adults with a history of crime and violence.

Journal Publications (refereed)

Blais, J, Babchishin, KM, & Hanson, RK. (in press). Improving our Risk Communication: Standardized Risk Levels for the BARR-2002R. *Sexual Abuse.*

Helmus, LM, Hanson, RK, Murrie, DC, & Zabarauckas, CL. (2021). Field validity of Static-99R and STABLE-2007 with 4,433 men serving sentences for sexual offences in British Columbia: New findings and meta-analysis. *Psychological Assessment.* Advance online publication. doi:10.1037/pas0001010

Thornton, D, Hanson, RK, Kelley, SM, & Mundt, JC. (2021). Estimating lifetime and residual risk for individuals who remain sexual offense free in the community: Practical applications. *Sexual Abuse. 33*(1), 3-33. doi:10.1177/1079063219871573

Brankley, AE, Babchishin, KM, & Hanson, RK. (2021). STABLE-2007 Demonstrates predictive and incremental validity in assessing risk-relevant propensities for sexual offending: A meta-analysis. *Sexual Abuse. 33*(1), 34-62. doi:10.1177/1079063219871572

Lee, SC, & Hanson, RK. (2021). Updated 5-year and new 10-year sexual recidivism rate norms for Static-99R with routine/complete samples. *Law and Human Behavior. 45*(1), 24-38. https://doi.org/10.1037/lhb0000436

Hanson, RK, Newstrom, N, Brouillette-Alarie, S, Thornton, D, Robinson, BE, & Miner, MH. (2020). Does Reassessment Improve Prediction? A Prospective Study of the Sexual Offender Treatment Intervention and Progress Scale (SOTIPS). *International Journal of Offender Therapy and Comparative Criminology.* Advance online publication. doi:10.1177/0306624X20978204

Babchishin, KM, & Hanson, RK. (2020). Monitoring changes in risk of reoffending: A prospective study of 632 men on community supervision. *Journal of Consulting and Clinical Psychology, 88*(10), 886-898. doi:10.1037/ccp0000601

Hanson, RK. (2020). Altruistic (Costly) Punishment as Motivation for Vindictive Rape. *Sexual Offending: Theory, Research, and Prevention, 15*(1). Article e3067. https://doi.org/10.5964/sotrap.3067

Lee, SC, Hanson, RK, & Blais, J. (2020). Predictive accuracy of the Static-99R and Static-2002R risk tools for identifying Indigenous and White individuals at high risk for sexual recidivism in Canada. *Canadian Psychology/Psychologie canadienne, 61*(1), 42-57. doi:10.1037/cap0000182

Lloyd, CD, Hanson, RK, Richards, DK, & Serin, RC. (2020). Reassessment improves prediction of criminal recidivism: A prospective study of 3,421 individuals in New Zealand. *Psychological Assessment, 32*(6), 568-581. http://dx.doi.org//10.1037/pas0000813

Lee, SC, Hanson, RK, Calkins, C, & Jeglic, E. (2019). Paraphilia and antisociality: Motivations for sexual offending may differ for American Whites and Blacks. *Sexual Abuse. 32*(3), 335-365. doi:10.1177/1079063219828779

Newstrom, NP, Miner, M, Hoefer, C, Hanson, RK, & Robinson, BE. (2019) Sex offender supervision: Communication, training, and mutual respect are necessary for effective collaboration between probation officers and therapists. *Sexual Abuse, 31*(6), 607-631. doi:10.1177/1079063218775970

Brouillette-Alarie, S, Proulx, J, & Hanson, RK. (2018). Three central dimensions of sexual recidivism risk: Understanding the latent constructs of Static-99R and Static-2002R. *Sexual Abuse, 30*(6), 676-704. doi:10.1177/1079063217691965

Mattek, R, & Hanson, RK. (2018). Committed as a violent sexual predator in his 10th decade: A case study. *Archives of Sexual Behavior, 47*, 543-550. doi:10.1007/s10508-017-1041-2

Bourgon, G, Mugford, R, Hanson, RK, & Coligado, M. (2018). Offender risk assessment practices vary across Canada. *Canadian Journal of Criminology and Criminal Justice,* 60(2), 167-205. doi:10.3138/cjccj.2016-0024

Hanson, RK, Harris, AJR, Letourneau, E, Helmus, LM, & Thornton, D. (2018). Reductions in risk based on time offense free in the community: Once a sexual offender, not always a sexual offender. *Psychology, Public Policy and Law, 24*(1), 48-63. doi:10.1037/law0000135

Lee, SC, Hanson, RK, & Zabarauckas, CL. (2018). Sex offenders of East Asian Heritage resemble other Canadian sex offenders. *Asian Journal of Criminology, 13*(1), 1-15. doi:10.1007/s11417-017-9252-y

Lee, SC, & Hanson, RK. (2017). Similar predictive accuracy of the Static-99R risk tool for White, Black, and Hispanic sex offenders in California. *Criminal Justice and Behavior, 44*(9), 1125-1140. doi:10.1177/0093854817711477

Hermann, C, McPhail, I, Helmus, L-M, & Hanson, RK. (2017). Emotional congruence with children is associated with sexual deviancy in sexual offenders against children. *International Journal of Offender Therapy and Comparative Criminology, 61*(12), 1311-1334. doi:10.1177/0306624X1560830

Kahn, RE, Ambroziak, G, Hanson, RK, & Thornton, D. (2017). Release from the sex offender label. *Archives of Sexual Behavior, 46*(4), 861-864. doi:10.1007/x10508-017-0972-y

Hanson, RK. (2017). Assessing the calibration of actuarial risk scales: A primer on the E/O index. *Criminal Justice and Behavior, 44*(1), 26-39. doi:10.1177/0093854816683956

Hanson, RK, Babchishin, KM, Helmus, LM, Thornton, D, & Phenix, A. (2017). Communicating the results of criterion referenced prediction measures: Risk categories for the Static-99R and Static-2002R sexual offender risk assessment tools. *Psychological Assessment, 29*(5), 582-597. doi:10.1037/pas0000371

Lehmann, RJB, Thornton, D, Helmus, LM, & Hanson, RK. (2016). Developing non-arbitrary metrics for risk communication: Norms for the Risk Matrix 2000. *Criminal Justice and Behavior, 43*(12), 1661-1687. doi:10.1177/0093854816651656

Lehmann, RJB, Goodwill, AM, Hanson, RK, & Dahle, K-P. (2016). Acquaintance Rape: Applying crime scene analysis to the prediction of sexual recidivism. *Sexual Abuse: A Journal of Research and Treatment, 28,* 679-702. doi:10.1177/1079063215569542

Lee, SC, & Hanson, RK. (2016). Recidivism risk factors are correlated with a history of psychiatric hospitalization among sex offenders. *Psychological Services, 13,* 261-271. doi:10.1037/ser0000081

Brouillette-Alarie, S, Babchishin, KM, Hanson, RK, & Helmus, L. (2016). Latent constructs of static risk scales for the prediction of sexual aggression: A 3-factor solution. *Assessment, 23*(1), 96-111. doi:10.1177/1073191114568114

Hanson, RK, Thornton, D, Helmus, L-M, & Babchishin, KM. (2016). What sexual recidivism rates should be associated with Static-99R and Static-2002R scores? *Sexual Abuse: A Journal of Research and Treatment, 28*(3), 218-252. doi:10.1177/107906321557410

Babshishin, KM, Hanson, RK, & Blais, J. (2016). Less is more: Using Static-2002R Subscales to Predict Violent and General Recidivism among Sexual Offenders. *Sexual Abuse: A Journal of Research and Treatment, 28*(3), 187-217. doi:10.1177/1079063215569544

Hanson, RK, Helmus, L, & Harris, AJR. (2015). Assessing the risk and needs of supervised sexual offenders: A prospective study using STABLE-2007, Static-99R and Static-2002R. *Criminal Justice and Behavior, 42*(12), 1205-1224. doi:10.1177/0093854815602094

Brouillette-Alarie, S, & Hanson, RK. (2015). Comparaison de deux mesures d'évaluation du risque de récidive des délinquants sexuels [Comparison of two recidivism risk measures for sexual offenders]. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement. 47*(4), 292-304. doi :10.1037/cbs0000019

Helmus, L, Hanson, RK, Babchishin, KM, & Thornton, D. (2015). Sex offender risk assessment with the Risk Matrix 2000: Validation and guidelines for combining with the STABLE-2007. *Journal of Sexual Aggression, 21*(2), 136-157. doi:10.1080/13552600.2013.870241

Babchishin, KM, Hanson, RK, & VanZuylen, H. (2015). Online child pornography offenders are different: A meta-analysis oft he characteristics of online and offline sex offenders against children. *Archives of Sexual Behavior, 44*(1), 45-66. doi:10.1007/s10508-014-0270-x

Hanson, RK, Harris, AJR, Helmus, L, & Thornton, D. (2014). High risk sex offenders may not be high risk forever. *Journal of Interpersonal Violence, 29*(15), 2792-2813. doi: 10.1177/0886260514526062

Lehmann, RJB, Goodwill, AM, Hanson, RK, & Dahle, K-P. (2014). Crime scene behaviors indicate risk relevant propensities of child molesters. *Criminal Justice and Behavior, 41*(8), 1008-1028. doi: 10.1177/0093854814521807

Hanson, RK, Lunetta, A, Phenix, A, Neeley, J, & Epperson, D. (2014). The field validity of Static-99/R sex offender risk assessment tool in California. *Journal of Threat Assessment and Management, 1*(2), 102-117. doi: 10.1037/tam0000014.

Brouillette-Alarie, S, Hanson, RK, Babchishin, K, & Benbouriche, M. (2014). De la prédiction à la compréhension: Recension des dimensions psychologiques de la Statique-99. *Pratiques Psychologiques, 20*(1), 1-19. doi:10.1016/j.prps.2013.12.001

Helmus, L, Babchishin, KM, & Hanson, RK. (2013). The predictive accuracy of the Risk Matrix 2000: A meta-analysis. *Sexual Offender Treatment, 8*(2), 1-20.

Lehmann, RJB, Hanson, RK, Babchishin, K, 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

Hanson, RK, Babchishin, KM, 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

Långström, N, Enebrink, P, Laurén, E-M, Lindblom, J, Werkö, S, & Hanson, RK. (2013). Preventing sexual violence against children: Systematic review of medical and psychological interventions. *BMJ, 347*:f4630. doi:10.1136/bmj.f4630.

Hanson, RK, Sheahan, CL, & VanZuylen, H. (2013). Static-99 and RRASOR predict recidivism among developmentally delayed sexual offenders: A cumulative meta-analysis. *Sexual Offender Treatment, 8,* 1-14.

Price, SA, Hanson, RK, & Tagliani, L. (2013). Screening procedures in the United Kingdom for positions of trust with children. *Journal of Sexual Aggression, 19*(1), 17-31. doi:10.1080/13552600.2012.744856

Helmus, L, Hanson, RK, Babchishin, KM, & Mann, RE. (2013). Attitudes supportive of sex offending predict recidivism: A meta-analysis. *Trauma, Violence, & Abuse*. *14*(1), 34-53. doi:10.1177/1524838012462244

Babchishin, KM, Hanson, RK, & Helmus, L. (2012). Communicating risk for sex offenders: Risk ratios for Static-2002R. *Sexual Offender Treatment, 12*(2), 1-12.

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

Hanson, RK, Letourneau, EJ, Olver, ME, Wilson, RJ, & Miner, MH. (2012). Incentives for offender research participation are both ethical and practical. *Criminal Justice and Behavior, 39*(11), 1389 - 1402. doi:10.1177/0093854812449217

Helmus, L, Hanson, RK, Thornton, D, Babchishin, KM, & Harris, AJR. (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

Hanson, RK, Lloyd, CD, 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

Helmus, L, Thornton, D, Hanson, RK, & Babchishin, KM. (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

Babchishin, KM, Hanson, RK, & Hermann, CA. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment, 23*(1), 92-123.

Seto, MC, Hanson, RK, & Babchishin, KM. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse: A Journal of Research and Treatment, 23*(1), 124-145. doi:10.1177/1079063210369013

Cortoni, F, Hanson, RK, & Coache, M. (2010). The recidivism rates of female sexual offenders are low: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment, 22*(4), 387-401.

Hanson, RK, & Howard, PD. (2010). Individual confidence intervals do not inform decision-makers about the accuracy of risk assessment evaluations. *Law and Human Behavior, 4,* 275 – 281. doi: 10.1007/s10979-010-9227-3.

Mann, RE, Hanson, RK, & Thornton, D. (2010). Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. *Sexual Abuse: A Journal of Research and Treatment, 22*(2), 191-217. doi:10.1177/1079063210366039

Hanson, RK, Helmus, L, & Thornton, D. (2010). Predicting recidivism among sexual offenders: a multi-site study of Static-2002. *Law and Human Behavior, 34*, 198-211. doi: 10.1007/s10979-009-9180-1

Cortoni, F, Hanson, RK, & Coache, M. (2009). Les déliquantes sexuelles: prevalence et récidive [Female sexual offenders: Prevalence and recidivism]. *Revue Internationale de Criminologie et de Police Technique et Scientifique, 62,* 319-337.

Hanson, RK. (2009). The psychological assessment of risk for crime and violence. *Canadian Psychology/Psychologie canadienne, 20*(3), 172-182. doi: 10.1037/a0015726.

Hanson, RK, Bourgon, G, Helmus, L, & Hodgson, S. (2009). The principles of effective correctional treatment also apply to sexual offenders: A meta-analysis. *Criminal Justice and Behavior, 36*(6), 865-891. doi:10.1177/0093854809338545

Hanson, RK, & Morton-Bourgon, KE. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment, 21,* 1-21. doi:10.1037/a0014421

Whitaker, DJ, Le, B, Hanson, RK, Baker, CK, McMahon, P, Ryan, G, Klein, A, & Rice, DD. (2008). Risk factors for the perpetration of child sexual abuse: A review and meta-analysis. *Child Abuse & Neglect, 32*(5), 529-548. https://doi.org/10.1016/j.chiabu.2007.08.005

Price, S, & Hanson, RK. (2007). A modified stroop task with sexual offenders: replication of a study. *Journal of Sexual Aggression, 13*(3), 203-216.

Helmus, LMD, & Hanson, RK. (2007). Predictive validity of the Static-99 and Static-2002 for sex offenders on community supervision. *Sexual Offender Treatment, 2*(2), 1-14.

Nunes, KL, Hanson, RK, Firestone, P, Moulden, HM, Greenberg, DM, & Bradford, JM. (2007). Denial predicts recidivism for some sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 19*(2), 91-105.

Hanson, RK. (2006). Does Static-99 predict recidivism among older sexual offenders? *Sexual Abuse: A Journal of Research and Treatment, 18*(4), 343-355. https://doi.org/10.1007/s11194-006-9027-y

Långström, N, & Hanson, RK. (2006). High rates of sexual behavior in the general population: Correlates and predictors. *Archives of Sexual Behavior, 35*, 37-52.

Hanson, RK, & Broom, I. (2005). The utility of cumulative meta-analysis: Application to programs for reducing sexual violence. *Sexual Abuse: A Journal of Research and Treatment, 17*(4), 357-373.

Hanson, RK, & Morton-Bourgon, KE. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*(6), 1154-1163. doi:10.1037/0022-006X.73.6.1154

Abstracted in *Clinician's Research Digest: Briefings in Behavioral Science, 24*(5), 2006.

Hanson, RK, & Wallace-Capretta, S. (2004). Predictors of criminal recidivism among male batterers. *Psychology, Crime, & Law, 10*(4), 413-427.

Hanson, RK, Broom, I, & Stephenson, M. (2004). Evaluating community sex offender treatment programs: A 12-year follow-up of 724 offenders. *Canadian Journal of Behavioural Science, 36,* 87-96.

Hanson, RK. (2003). Empathy deficits of sexual offenders: A conceptual model. *Journal of Sexual Aggression, 9*(1), 13-23. https://doi.org/10.1080/1355260031000137931

Hanson, RK. (2002). Recidivism and age: Follow-up data on 4,673 sexual offenders. *Journal of Interpersonal Violence, 17,* 1046-1062.

Hanson, RK, Gordon, A, Harris, AJR, Marques, JK, Murphy, W, Quinsey, VL, & Seto, MC. (2002). First report of the Collaborative Outcome Data Project on the effectiveness of psychological treatment for sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 14*(2), 169-194.

Beech, A, Friendship, C, Erikson, M, & Hanson, RK. (2002). The relationship between static and dynamic risk factors and reconviction in a sample of U.K. child abusers. *Sexual Abuse: A Journal of Research and Treatment, 14*(2), 155-167.

Rooney, J, & Hanson, RK. (2001). Predicting attrition from treatment programs for abusive men. *Journal of Family Violence, 16*(2), 131-149.

Hanson, RK, & Harris, AJR. (2001). A structured approach to evaluating change among sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 13*(2), 105-122.

Laws, DR, Hanson, RK, Osborn, CA, Greenbaum, PE, & Murrin, MR. (2000). Classification of child molesters by plethysmographic assessment of sexual arousal and a self-report measure of sexual preference. *Journal of Interpersonal Violence, 15*(12), 1297-1312.

Hanson, RK, & Nicholaichuk, T. (2000). A cautionary note regarding Nicholaichuk et al. (2000). *Sexual Abuse: A Journal of Research and Treatment, 12*(4), 289-293.

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

Hanson, RK, & Harris, AJR. (2000). Where should we intervene? Dynamic predictors of sex offense recidivism. *Criminal Justice and Behavior, 27*(1)*,* 6-35. doi:10.1177/0093854800027001002

Hanson, RK. (1999). Working with sex offenders: A personal view. *Journal of Sexual Aggression, 4*(2), 81-93.

Parker, KCH, Hunsley, J, & Hanson, RK. (1999). Old wine from old skins sometimes tastes like vinegar: A response to Garb, Floria & Grove. *Psychological Science, 10,* 291-292.

Hanson, RK, Pronovost, I, Proulx, J, Scott, H, & Raza, H. (1998). Pédophile et distortions cognitive: Étude des propriétés psychométriques d'une version française de l'Échelle cognitive d'Abel et Becker. *Revue sexologique/Sexology Review, 6,* 127-141.

Hanson, RK. (1998). What do we know about sexual offender risk assessment? *Psychology, Public Policy and Law, 4,* 50-72. doi:10.1037/1076-8971.4.1-2.50

- Reprinted in A. Schlank and F. Cohen, (1999). *The Sexual Predator: Law, Policy, Evaluation and Treatment* (pp. 8:1- 8:24). Kingston, NJ: Civic Research Institute.

Hanson, RK, & Bussière, MT. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*(2), 348-362. doi:10.1037/0022-006X.66.2.348

- Abstracted in *Scientific American, 278*(6), 28, 1998.
- Abstracted in *Clinician's Research Digest: Briefings in Behavioral Science, 16*(7), 1998.
- Abstracted in *Year Book of Psychiatry and Applied Mental Health* (1999).

Bonta, J, Law, M, & Hanson, RK. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin, 123*(2), 123-142.

- Reprinted in D. Canter (Ed.) (2014). *Criminal Psychology.* Sage.

Hanson, RK, Cadsky, O, Harris, A, & Lalonde, C. (1997). Correlates of battering among 997 men: Family history, adjustment and attitudinal differences. *Violence and Victims, 12*(3), 191-208.

Hanson, RK. (1997). How to know what works with sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 9*(2), 129-145.

Cadsky, O, Hanson, RK, Crawford, M, & Lalonde, C. (1996). Attrition from a male batterer treatment program: Client-treatment congruence and lifestyle instability. *Violence and Victims, 11,* 51-64.

Hanson, RK, & Scott, H. (1996). Social networks of sexual offenders. *Psychology, Crime, & Law, 2,* 249-258.

Hanson, RK. (1996). Evaluating the contribution of relapse prevention theory to the treatment of sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 8*(3), 201-208.

Hanson, RK, & Scott, H. (1995). Assessing perspective taking among sexual offenders, non-sexual criminals and non-offenders. *Sexual Abuse: A Journal of Research and Treatment, 7,* 259-277.

Hanson, RK, Scott, H, & Steffy, RA. (1995). A Comparison of Child Molesters and Non-Sexual Criminals: Risk Predictors and Long-term Recidivism. *Journal of Research in Crime and Delinquency, 32*(3), 325-337. doi:10.1177/0022427895032003004

Hanson, RK, & Whitman, R. (1995). A rural, community action model for treating abusive men. *Canadian Journal of Community Mental Health, 14,* 49-59.

Hanson, RK, Gizzarelli, R, & Scott, H. (1994). The attitudes of incest offenders: Sexual entitlement and acceptance of sex with children. *Criminal Justice and Behavior, 21,* 187-202.

Hanson, RK, & Slater, S. (1993). Reactions to motivational accounts of child molesters. *Journal of Child Sexual Abuse, 2*(4), 43-59.

Hanson, RK, Steffy, RA, & Gauthier, R. (1993). Long-term recidivism of child molesters. *Journal of Consulting and Clinical Psychology, 61,* 646-652.

- Abstracted in *Clinician's Research Digest: Briefings in Behavioral Science, 11*(12), 1, 1993.

Hanson, RK. (1992). Thematic analysis of daily events as a method of personality assessment. *Journal of Personality Assessment, 58*(3), 606-620.

Wormith, JS, & Hanson, RK. (1992). The treatment of sexual offenders in Canada: An update. *Canadian Psychology/Psychologie canadienne, 33*(2), 180-198.

Hanson, RK, Cox, B, & Woszczyna, C. (1991). Assessing treatment outcome for sexual offenders. *Annals of Sex Research, 4,* 177-208.

Hanson, RK. (1990). The psychological impact of sexual victimization on women and children. *Annals of Sex Research, 3,* 187-232.

Wheeler, CJ, Hanson, RK, & Berry, RE. (1989). Strategic utilization of incest offender cognitions. *Journal of Strategic and Systemic Therapy, 8,* 42-57.

Hanson, RK, & Slater, S. (1988). Sexual victimization in the history of child molesters: A review. *Annals of Sex Research, 1,* 485-499.

Hanson, RK, Hunsley, J., & Parker, KCH. (1988). The relationship between WAIS subtest reliability, "g" loadings and meta-analytically derived validity estimates. *Journal of Clinical Psychology, 44,* 557-563.

Hunsley, J, Hanson, RK, & Parker, KCH. (1988). A summary of the reliability and stability of MMPI scales. *Journal of Clinical Psychology, 44,* 44-46.

Parker, KCH, Hanson, RK, & Hunsley, J. (1988). MMPI, Rorschach, and WAIS: A meta-analytic comparison of reliability, stability, and validity. *Psychological Bulletin, 103,* 367-373.

- Reprinted in A. E. Kazdin, (Ed.). (1992). *Methodological issues and strategies in clinical research.* Washington, DC: American Psychological Association.

Invited publications, commentaries, and book reviews

Hanson, RK. (2018). Long term recidivism studies show that desistance is the norm. *Criminal Justice and Behavior, 45*(9), 1340-1436. doi:10.1177/0093854818793382

Hanson, RK. (2018). The Ewert v. Canada case on risk/need assessment of Indigenous peoples: Deciding how much evidence is enough. *Psynopsis, 12*(1), 12-13.

Babchishin, KM, Kroner, DG, & Hanson, RK. (2017). Standardized risk/need levels for corrections. *Crime Scene, 24*(1), 9-13.

Gutierrez, L, Helmus, LM, & Hanson, RK. (2016). What we know and don't know about risk assessment with offenders of Indigenous heritage. *Journal of Threat Assessment and Management, 3*(2), 97-106. doi:10.1037/tam0000064

Jeglic, EL, Hanson, RK, & Calkins, C. (2016). Sex offender treatment: The need for cognitive behavioral therapists. *The Behavior Therapist, 39*(5), 162-167.

Lee, S, & Hanson, RK. (2015, August 30). There is evidence to support the use of Western developed violent risk assessment in China: Responding to Zhou et al. (2015). Weblog post; Nextgenforensic. Retrieved from http://wp.me/p2RS15-bc.

Hanson, RK. (2014). Toward a common language for risk communication. *Crime Scene, 21* (1), 9-10.

Harris, AJR, & Hanson, RK. (2014). I don't do sex offenders. *Psynopsis, 36*(1), 20.

Hanson, RK. (2014). Treating sexual offenders: How did we get here and where are we headed? *Journal of Sexual Aggression. 20*(1), 3-8. doi: 10.1080/13552600.2013.861524.

Hanson, RK. (2013). Commentary on Dennis et al., 2012. *Evidence-Based Mental Health, 16*, 68. doi:10.1136/eb-2013-101236

Hanson, RK, & Yates, PM. (2013). Psychological treatment of sex offenders. *Current Psychiatry Reports, 15,* 348-356. doi: 10.1007/s11920-012-0348-x

Helmus, L, & Hanson, RK. (2011). More fun with statistics! How to use logistic regression to predict criminal recidivism risk. *Crime Scene, 18*(2), 7-12.

Hanson, RK. (2011). What should we do with sexual offenders? Review of C.P. Ewing's "Justice Perverted: Sex Offense Law, Psychology, and Public Policy". *PsycCRITIQUES- Contemporary Psychology: APA Review of Books, 56*(39). doi: 10.1037/a0024991

Seto, MC, & Hanson, RK. (2011). Introduction to special issue on internet-facilitated sexual offending. *Sexual Abuse: A Journal of Research and Treatment, 23*(1), 3-6.

Harris, AJR, & Hanson, RK. (2010). Clinical, actuarial, and dynamic risk assessment of sexual offenders: Why do things keep changing? *Journal of Sexual Aggression, 16*(3), 296-310. doi:10.1080/13552600.2010.494772

Thornton, D, Hanson, RK, & Helmus, L. (2010). Moving beyond the Standard Model for Actuarial Assessment for Sexual Offenders. *California Coalition on Sexual Offending, CCOSO Quarterly Newsletter, Perspectives,* Issue: Spring 2010. Available at http://ccoso.org/newsletter.php.

Hanson, RK. (2010). Dimensional assessment of sexual deviance. *Archives of Sexual Behavior, 39* (2), 401-404. DOI 10.1007/s10508-009-9575-6

Babchishin, KM, & Hanson, RK. (2009). Improving our talk: Moving beyond the "low", "moderate", and "high" typology of risk communication. *Crime Scene, 16*(1), 11-14. Available at http://www.cpa.ca/cpasite/userfiles/Documents/Criminal%20Justice/Crime%20Scene%202009-05(1).pdf

Helmus, L, Hanson, RK, & Thornton, D. (2009). Reporting Static-99 in Light of New Research on Recidivism Norms. *The Forum* (ATSA Newsletter), *19*(4). Available at https://ccoso.org/featured-articles

Hanson, RK. (2008). What statistics should we use to report predictive accuracy? *Crime Scene, 14*(1), 15-17. Available at http://www.cpa.ca/sections/criminaljustice/publications/

Harris, A JR, & Hanson, RK. (2007, November 8). Stable-2007/Acute-2007. *The Forum* (ATSA Newsletter), *19*(4). Available at http://newsmanager.commpartners.com/atsa/issues/2007-11-08/2.html.

Långström, N, & Hanson, RK. (2006). Population correlates are relevant to understanding hypersexuality: A response to Giles. *Archives of Sexual Behavior, 35,* 643-644.

Cortoni, F, & Hanson, RK. (2006). Adult female sexual offenders: prevalence and recidivism. *NOTA News, 52,* 6-8.

Hanson, RK. (2006). Long-term follow-up studies are difficult: Comment on Langevin et al. (2004). *Canadian Journal of Criminology and Criminal Justice, 48* (1), 103-105.

Hanson, RK. (2005). Twenty years of progress in violence risk assessment. *Journal of Interpersonal Violence, 20*(2), 212-217. doi:10.1177/0886260504267740

Hanson, RK. (2005). Age and sexual recidivism: Early identification of persistent offenders and burn-out. *CrimeScene, 12*(1), 8-9. Available at http://www.cpa.ca/sections/criminaljustice/publications/

Harris, AJR, & Hanson, RK. (2003). The Dynamic Supervision Project: Improving the community supervision of sex offenders. *Corrections Today, 65,* pp 60-62,64.

Harris, AJR, & Hanson, RK. (2003). Supervising community sex offenders: The Dynamic Supervision Project. *The Forum* (ATSA Newsletter), *14*(2).

Hanson, RK. (2002). Introduction to the special section on dynamic risk assessment with sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 14*(2), 99-101.

Hanson, RK. (2000). Will they do it again? Predicting sex offence recidivism. *Current Directions in Psychological Science, 9*(3), 106-109.

- Reprinted in T.F. Oltmanns & R.E. Emery (eds). (2004). *Current directions in abnormal psychology* (pp. 116-121). Upper Saddle River, NJ: Pearson/Prentice-Hall.

Hanson, RK. (1999). The uncertain future of correctional psychology. *Crime Scene, 6*(1), 9-11.

Hanson, RK. (1999). Commentary on Buchanan (1998). *Evidence-Based Mental Health, 2*(1), 21.

Hanson, RK, & Bussière, M. (1996). Sexual offender risk predictors: A summary of research results. *Forum on Corrections Research, 8*(2), 10-12.

Books

Hanson, RK. (in press). *Prediction statistics for psychological assessment*. American Psychological Association.

Edited Books

Hanson, RK, Pfäfflin, F, & Lütz, M. (Eds.). (2004). *Sexual Abuse in the Catholic Church: Scientific and Legal Perspectives*. Vatican: Libreria Editrice Vaticana.

Contributions to Edited Books

Brouillette-Alarie, S, & Hanson, RK. (2017). Évaluation du risque de récidive. Dans F Cortoni & T Pham (Réd.), *Traité de l'agression sexuelle* (pp. 97-127). Bruxelles, Belique: Mardaga.

Hanson, RK, & Bourgon, G. (2017). Advancing sexual offender risk assessment: Standardized risk levels based on psychologically meaningful offender characteristics. In FS Taxman (Ed.), *Handbook on risk and need assessment: Theory and Practice* (pp. 244-268). New York: Routledge.

Helmus, L, Hanson, RK, & Babchishin, KM. (2015). Sex offender base rates of sexual recidivism after controlling for Static-99. In A Phenix and HM Hoberman (Eds.), *Sexual offenders: Diagnosis, risk assessment and management*. New York: Springer.

Hanson, RK. (2014). Risk assessment. In MS Carich & SE Mussack (Eds.), *The Safer Society handbook of sexual abuser assessment and treatment* (pp. 45-62). Brandon, VT: Safer Society.

Hanson, RK, & Harris, AJR. (2013). Criminogenic needs of sexual offenders on community supervision. In L. Craig, L. Dixon, & T. Gannon, (Eds.). *What works in offender rehabilitation: An evidence based approach to assessment and treatment* (pp. 421-435). Chichester, UK: Wiley-Blackwell.

Helmus, L, Hanson, RK, & Morton-Bourgon, K. (2011). International comparisons of the validity of actuarial risk tools for sexual offenders, with a focus on Static-99. In D.P. Boer, R. Eher, L.A. Craig, M.H. Miner & F. Pfafflin (Eds.), *International perspectives on the assessment and treatment of sexual offenders: Theory, practice, and research,* (pp. 57-83). Chichester, UK: Wiley-Blackwell.

Hanson, RK. (2010). Évaluation de la dangerosité statistique chez les agresseurs sexuels. Dans R. Coutanceau et J. Smith (Réd.), *La violence sexuelle: Approche psycho-criminologique (*pp. 170 – 181). Paris: Dunod.

Anderson, D, & Hanson, RK. (2010). Static-99: An actuarial tool to assess risk of sexual and violent recidivism among sexual offenders. In R.K. Otto & K. Douglas, (Eds.). *Handbook of violence risk assessment* (pp.251-267). Milton Park, UK: Routledge.

Hanson, RK. (2007). Assessing sex offenders. In C. Webster & S. Hucker (Eds.), *Clinical Risk Assessment and Management (*pp. 113-121*)*. Chichester: Wiley.

Hanson, RK. (2006). Stability and change: Dynamic risk factors for sexual offenders. In W. L. Marshall, Y.M. Forandez, L.E. Marshall, & G. A. Serran (Eds.), *Sexual offender treatment: Issues and controversies* (pp. 17-31). West Sussex, UK: John Wiley.

Hanson, RK, & Yates, PM. (2004). Sexual violence: Risk factors and treatment. In M. Eliasson (Ed.), *Anthology on interventions against violent men* (pp. 151-166). Acta Universitatis Upsaliensis, Uppsalla Women's Studies B: Women in the Humanities: 3. Uppsala, Sweden: Uppsala Universitet.

Hanson, RK, & Price, S. (2004). Sexual abuse screening procedures for positions of trust with children. In R.K. Hanson, F. Pfäfflin & M. Lütz, (Eds). *Sexual Abuse in the Catholic Church: Scientific and Legal Perspectives* (pp. 77-93). Vatican: Libreria Editrice Vaticana.

Hanson, RK. (2004). Prognosis – How Can Relapse Be Avoided. In R.K. Hanson, F. Pfäfflin & M. Lütz, (Eds). *Sexual Abuse in the Catholic Church: Scientific and Legal Perspectives* (pp. 133-143). Vatican: Libreria Editrice Vaticana.

Hanson, RK. (2004). Sex offender risk assessment. In C. R. Hollin (Ed.), *The essential handbook of offender assessment and treatment*. Chichester, UK: John Wiley & Sons. [an updated version of Hollin, 2001]

Hanson, RK, Morton, KE, & Harris, AJR (2003). Sexual Offender Recidivism Risk: What We Know and What We Need to Know. In R. Prentky, E. Janus, & M. Seto (Eds.), *Understanding and managing sexually coercive behavior* (pp. 154-166). Annals of the New York Academy of Sciences, Vol 989. New York: New York Academy of Sciences.

Hanson, RK. (2003). Sex offenders. In C. Webster & S. Hucker (Eds.), *Release decision making: Assessing violence risk in mental health, forensic, and correctional settings* (pp. 141-151). Hamilton, Ontario: St. Joseph's Healthcare.

Hanson, RK. (2003). Who is dangerous and when are they safe? Risk assessment with sexual offenders. In B. J. Winick & J. Q. Lafond, (Eds.). *Protecting society from sexually dangerous offenders: Law, justice and therapy* (pp. 63-74). Washington: American Psychological Association.

Hanson, RK. (2001). Facteurs de risque de récidive sexuelle : caractéristiques des délinquants et réponse au traitement. Dans La Fédération Française de Psychiatrie (réd.), *Psychopathologie et traitements actuels des auteurs d'agression sexuelle* (pp. 207-217). Montrouge, France: John Libbey Eurotext.

Hanson, RK. (2001). Sex offender risk assessment. In C. R. Hollin (Ed.), *The handbook of offender assessment and treatment* (pp. 85-96). Chichester, UK: John Wiley & Sons.

Hanson, RK. (2000). Treatment outcome and evaluation problems. In D. R. Laws, S. M. Hudson, & T. Ward (Eds.). *Remaking relapse prevention with sex offenders: A sourcebook* (pp. 485-499). Thousand Oaks, CA: Sage.

Hanson, RK. (2000). What is so special about relapse prevention? In D. R. Laws, S. M. Hudson, & T. Ward (Eds.). *Remaking relapse prevention with sex offenders: A sourcebook* (pp. 27-38). Thousand Oaks, CA: Sage.

Harris, AJR, & Hanson, RK. (1999). Dynamic predictors of sex offense recidivism: New data from community supervision officers. In B. K. Schwartz (Ed.), *The sex offender: Theoretical advances, treatment special populations and legal developments (Vol. 3)* (pp. 9-1:9-12). Kingston, NJ: Civic Research Institute.

Hanson, RK, & Harris, A. (1997). Voyeurism: Assessment and treatment. In D. R. Laws & W. O'Donohue (Eds.), *Sexual deviance: Theory, assessment, and treatment* (pp. 311-331). New York: Guilford Press.

Hanson, RK. (1997). Invoking sympathy: The assessment and treatment of empathy deficits among sexual offenders. In B. K. Schwartz & H. R. Cellini (Eds.), *The sex offender: New Insights, treatment innovations and legal developments (Vol. 2)* (pp. 1-12). Kingston, NJ: Civic Research Institute.
Reprinted, updated and revised in B.K. Schwartz (Eds.). *Handbook of Sex Offender Treatment* (2011), (pp. 3-1 to 3-12), Kingston, NJ: Civic Research Institute.

Hanson, RK. (1991). Characteristics of sex offenders who were sexually abused as children. In R. Langevin (Ed.), *Sex offenders and their victims* (pp. 77-85). Oakville, Ontario: Juniper Press.

Paranjpe, AC, & Hanson, RK. (1988). On dealing with the stream of consciousness: A comparison of Husserl and Yoga. In AC Paranjpe, D Ho, & R Reiber (Eds.), *Asian contributions to psychology* (pp. 215-231). Westport, CT: Praeger.

Psychological Tests

Hanson, RK, & Harris, AJR. (2007). Stable-2007/Acute-2007: Scoring manuals for the Dynamic Supervision Project. Unpublished scoring manuals. Corrections Research, Public Safety Canada, 340 Laurier Ave., West, Ottawa, Ontario, Canada, K1A 0P8.

Hanson, RK, & Harris, AJR. (2004). Stable-2000/Acute-2000: Scoring manuals for the Dynamic Supervision Project. Unpublished scoring manuals. Corrections Research, Public Safety Canada, 340 Laurier Ave., West, Ottawa, Ontario, Canada, K1A 0P8.

Hanson, RK, & Tangney, JP. (1996). *Test of Self-Conscious Affect – Social Deviance version*. Unpublished questionnaire. Available from RK Hanson, Corrections Research, Public Safety Canada, 340 Laurier Ave., West, Ottawa, Ontario, Canada, K1A 0P8.

Hanson Sex Attitude Questionnaires. (from Hanson, Gizzarelli & Scott, 1994). Reprinted in

Calder, MC, with Hampson, A, & Skinner, J. (1999). *Assessing risk in adult males who sexually abuse children.* Dorset: Russell House Publishing.

Calder, MC. (Ed.). (1999). *Risk assessment of juveniles and children who sexually abuse.* Dorset: Russell House Publishing.

Prentky, R, & Edmunds, SB. (1997). *Assessing sexual abuse: A resource guide for practitioners.* Brandon, VT: Safer Society Press.

Carich, MS, & Adkerson, DL. (Eds.). (1995). *Adult sexual offender assessment packet* (pp. 75-76). Brandon, VT: Safer Society Press.

Videotapes

Hanson, RK. (2000). *Predicting sex offender recidivism*. [Videotape training and manual]. Thousand Oaks, CA: Sage.

Government Documents

Miner, MH, Robinson, BE, Newstrom, N, Strobel-Ayres, C, & Hanson, RK. (2018). *Evaluation of the Implementation of the Sex Offender Treatment Intervention and Progress Scale (SOTIPS*). Final Report for National Institute of Justice Award No. 2012-AW-BX-0153. Washington, DC: National Institute of Justice.

Lee, SC, Hanson, RK, Fullmer, N, Neeley, J, & Ramos, K. (2018). *The predictive validity of Static-99R over 10 years for sexual offenders in California: 2018 update.* Sacremento, CA: SARATSO (State Authorized Risk Assessment Tool for Sex Offenders) Review Committee. Available from www.saratso.org

Phenix, A, Fernandez, Y, Harris, AJR, Helmus, M, Hanson, RK, & Thornton, D. (2017). *Static-99R Coding Rules Revised-2016* (Research Report: 2017-R012). Ottawa: Public Safety Canada. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/sttc-2016/index-en.aspx

Hanson, RK, Bourgon, G, McGrath, R, Kroner, D, D'Amora, DA, Thomas, SS, Tavarez, LP. (2017). *A five-level risk and needs system: Maximizing assessment results in corrections through the development of a common language.* New York: The Council of State Governments Justice Center.

Gutierrez, L, Helmus, LM, & Hanson, RK. (2017). What we know and don't know about risk assessment with offenders of Indigenous heritage. Research Report 2017-R009. Ottawa: Public Safety Canada.

Lee, SC, Restrepo, A, Satariano, A, & Hanson, RK. (2016). *The predictive validity of Static-99R for sexual offenders in California: 2016 update.* Sacremento, CA: SARATSO (State Authorized Risk Assessment Tool for Sex Offenders) Review Committee. Available from www.saratso.org

Fernandez, Y, Gotch, K, Hanson, RK, & Harris, AJR. (2015). *Coding manual for ACUTE-2007: Revised 2015.* Ottawa: Public Safety Canada.

Fernandez, Y, Harris, AJR, Hanson, RK, & Sparks, J. (2014). *STABLE-2007 coding manual: Revised 2014.* Ottawa: Public Safety Canada. (translated into French, German, Dutch and Estonian).
Note that the first edition of this manual was in 2012.

Babchishin, KM, Hanson, RK, & Blais, J. (2013). *User Guide for the Brief Assessment for Recidivism Risk – 2002R (BARR-2002R)*. Available from www.static99.org.

Swedish Council on Health Technology Assessment (RK Hanson, Adjunct Expert Adviser). (2011). *Medical and psychological methods for preventing sexual offences against children: A systematic review*. (Report No. 207). Stockholm: Author.

Babchishin, KM, Hanson, RK, & Helmus, L. (2011). *The RRASOR, Static-99R and Static-2002R all add incrementally to the prediction of recidivism among sex offenders.* Corrections User Report 2011-02. Ottawa: Public Safety Canada.

Helmus, L, Thornton, D, Hanson, RK, & Babchishin, KM. (2011). *Assessing the risk of older sex offenders: Developing the Static-99R and Static-2002R.* Corrections User Report 2011-01. Ottawa: Public Safety Canada.

Hanson, RK, Bourgon, G, Helmus, L, & Hodgson, S. (2009). *A meta-analysis of the effectiveness of treatment for sexual offenders: Risk, need and responsivity.* Corrections User Report 2009-01. Ottawa: Public Safety Canada.

Phenix, A, Doren, D, Helmus, L, Hanson, RK, & Thornton, D. (2009) *Coding rules for Static-2002.* Ottawa: Public Safety Canada.

Bourgon, G, Hanson, RK, Pozzulo, JD, Morton-Bourgon, KE, & Tanasichuk, CL. (2008) *The Proceedings of the 2007 North American Correctional & Criminal Justice Psychology Conference (User Report 2008-02).* Ottawa: Public Safety Canada.

Bourgon, G, Hanson, RK, & Bonta, J. (2008). Risk, need, and responsivity: A heuristic for evaluating the «quality » of offender interventions. In G. Bourgon, RK Hanson, JD Pozzulo, KE Morton Bourgon, & CL Tanasichuk, (Eds.) *The Proceedings of the 2007 North American Correctional & Criminal Justice Psychology Conference* (pp. 45-49). Corrections User Report 2008-02. Ottawa: Public Safety Canada.

Hanson, RK, & Bourgon, G. (2008). A psychologically informed meta-analysis of sex offender treatment outcome studies. In G. Bourgon, RK Hanson, JD Pozzulo, KE Morton Bourgon, & CL Tanasichuk, (Eds.) *The Proceedings of the 2007 North American Correctional & Criminal Justice Psychology Conference* (pp. 55-57). Corrections User Report 2008-02. Ottawa: Public Safety Canada.

Hanson, RK, Helmus, L, & Bourgon, G. (2007). *The validity of risk assessments for intimate partner violence: A meta-analysis*. Corrections User Report No. 2007-07. Ottawa: Public Safety Canada.

Collaborative Data Outcome Committee. (2007). Sex offender treatment outcome research: Guidelines for Evaluation (CODC Guidelines). Part 1: Introduction and overview. Corrections User Report No 2007-02. Ottawa: Public Safety Canada.

Collaborative Data Outcome Committee. (2007). The Collaborative Outcome Data Committee's Guidelines for the evaluation of sexual offender treatment outcome research. Part 2: CODC Guidelines. Corrections User Report No 2007-03. Ottawa: Public Safety Canada.

Hanson, RK, Harris, AJR, 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: Public Safety Canada.

Hanson, RK, & Morton-Bourgon, KE. (2007). *The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis.* Corrections User Report No 2007-01. Ottawa: Public Safety and Emergency Preparedness Canada.
Abstracted in Tardif, M, (Éd.). *L'agression sexuelle: Cooperer au-delà des frontières. Cifas, 2005.* Montréal : Cifas- Institut Philippe-Pinel de Montréal. http://www.cifas.ca.

Cortoni, F, & Hanson, RK. (2005). *A review of the recidivism rates of adult female sexual offenders.* Report No R-169. Ottawa: Correctional Service of Canada.

Hanson, RK. (2005). *The validity of Static-99 with older sexual offenders*. Corrections User Report No 2005-01: Public Safety and Emergency Preparedness Canada.

Harris, AJR & Hanson, RK. (2004). Sex offender recidivism: A simple question. Corrections Users Report No. 2004-03: Public Safety and Emergency Preparedness Canada.

Hanson, RK, & Morton-Bourgon, K. (2004). Predictors of sexual recidivism: An updated meta-analysis. Corrections User Report No. 2004-02: Public Safety and Emergency Preparedness Canada.
- reprinted (in Polish): Hanson, RK, & Morton-Bourgon, K. (2004). Predykytory recydywy przestępstw seksualnych: uaktualniona metaanaliza. *Dziecko krzywdzone: Teoria, badania praktyka, 7,* 68-107.

Harris, A, Phenix, A, Hanson, RK, & Thornton, D. (2003). Static-99 coding rules: Revised 2003. Ottawa: Department of the Solicitor General of Canada. (Translated into Chinese, Dutch, German, French, Estonian, Latvian, Polish)

Hanson, RK, & Thornton, D. (2003). Notes on the development of Static-2002. User Report 2003-01. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK. (2001). Age and sexual recidivism: A comparison of rapists and child molesters. User Report 2001-01. Ottawa: Department of the Solicitor General of Canada.

Phenix, A, Hanson, RK, & Thornton, D. (2000). Coding rules for the Static-99. Corrections Research: Manuals and Forms. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK, & Wallace-Capretta, S. (2000). Predicting recidivism among male batterers. User Report 2000-06. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK, & Wallace-Capretta, S. (2000). A multi-site study of treatment for abusive men. User Report 2000-05. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK, & Harris, AJR. (2000). The Sex Offender Need Assessment Rating (SONAR): A method for measuring change in risk levels. User Report 2000-01. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK, & Thornton, D. (1999). Static-99: Improving actuarial risk assessments for sex offenders. User Report 99-02. Ottawa: Department of the Solicitor General of Canada.

Hanson, RK, & Harris, AJR. (1998). Dynamic predictors of sexual recidivism. (User Report 1998-01). Ottawa: Department of the Solicitor General of Canada.

Hanson, RK. (1997). The development of a brief actuarial risk scale for sexual offense recidivism. (User Report 97-04). Ottawa: Department of the Solicitor General of Canada.

Hanson, RK. (1996). Measuring empathy in sexual offenders. In *The treatment of imprisoned sex offenders* (pp. 21-24). London, UK: HM Prison Service.

Hanson, RK, & Bussière, MT. (1996). Predictors of sexual offender recidivism: A meta-analysis. (User Report 96-04). Ottawa: Department of the Solicitor General of Canada.

Bonta, J, & Hanson, RK. (1994). Gauging the risk for violence: Measurement, impact and strategies for change. Ottawa: Ministry Secretariat, Solicitor General Canada.

Hanson, RK, & Hart, L. (Eds.). (1993). *The evaluation of treatment programs for male batterers: Conference proceedings.* Ottawa: Ministry Secretariat, Solicitor General Canada.

Hanson, RK, Steffy, RA, & Gauthier, R. (1992). Long-term follow-up of child molesters: Risk prediction and treatment outcome. (User Report No. 1992-02.) Ottawa: Corrections Branch, Ministry of the Solicitor General of Canada.

Hanson, RK, Cox, B, & Woszczyna, C. (1991). Sexuality, personality and attitude questionnaires for sexual offenders: A Review. (User Report No. 1991-13.) Ottawa: Corrections Branch, Ministry of the Solicitor General of Canada.

Hanson, RK. (1990). The psychological impact of crime: A review. (User Report No. 1990-01.) Ottawa: Corrections Branch, Ministry of the Solicitor General of Canada.

Canada. (1990). The management and treatment of sex offenders. Ottawa: Solicitor General Canada. (Members of the working group were R Cormier, C Gainer, RK Hanson, F Porporino, and S Wormith.)

Special Reports

Brankley, AE, Babchishin, KM, Chankin, L, Barsetti, I, & Hanson, RK. (2019). *ACUTE-2007 evaluator workbook: Revised 2019.*

Brankley, AE, Helmus, LM, & Hanson, RK. (2017). *STABLE-2007 evaluator workbook: Revised 2017.* Ottawa: Public Safety Canada.

Gotch, K, & Hanson, RK. (2016). *Risk assessment for males who have engaged in harmful or illegal sexual behavior.* Association for the Treatment of Sexual Abusers.

Singh, JP, Yang, S, Bjorkly, S, Boccacini, MT, Borum, R, Buchanan, A., Cooke, D, de Ruiter, C, Desmarais, SL, Douglas, KS, Doyle, M, Edens, JF, Elbogen, EB, Endrass, J, Fazel, S, Grann, M, Guy, LS, Hanson, RK, Hare, RD, Harris, GT, Hart, SD, Heilbrun, K, Larsen, MA, Monahan, J, Montaldi, DF, Mossman, D, Nicholls, TL, Ogloff, JRP, Otto, RK, Petrila, J, Pham, TH, Rettenberger, M, Rice, ME, Rossegger, A, Scurich, N, Skeem, JL., Trestman, RL, Urbaniok, F, Viljoen, JL, & Mulvey, E. (2013). *Reporting standards for risk assessment predictive validity studies: The Risk Assessment Guidelines for the Evaluation of Efficacy (RAGEE) Statement.* Tampa, FL: University of South Florida.

Phenix, A, Helmus, L, & Hanson, RK. (2016). *Static-99R & Static-2002R evaluators' workbook*. Available at www.static99.org (Previous version in 2012, 2015).

Hanson, RK. (2001). *Note on the reliability of Static-99 as used by California DMH evaluators*. Unpublished report. California Department of Mental Health, Sacramento, CA.

Hanson, RK. (2000). *Risk assessment.* Association for the Treatment of Sexual Abusers.

Doctoral Dissertation

Hanson, RK. (1986). The assessment of cognitive structures: Emotions and the meaning of daily events (Doctoral dissertation, U. of Waterloo, 1986) *Dissertation Abstracts International, 47*, 2214B-2215B.

Selected Conference Presentations (since 2000)

Hanson, RK. (2020, October). Prediction statistics for sexual recidivism risk assessment. Workshop at the 39th Annual Conference of the Association for the Treatment of Sexual Abusers. Beaverton, Oregon (virtual presentation).

Lee, SC, & Hanson, RK. (2020, October). The updated 5-year norms and new 10-norms for Static-99R: Sexual recidivismrates for routine/complet samples. Poster presentation at the 39th Annual Conference of the Association for the Treatment of Sexual Abusers. Beaverton, Oregon (virtual presentation).

Hanson, RK. (2019, June). Criteria for assessing cultural bias in recidivism risk tools. Presentation at the 4th North American Correctional and Criminal Justice Psychology Conference, Halifax, Nova Scotia.

Hanson, RK. (2018, October). Using survival analysis to estimate lifetime and residual risk. Presentation at the 37th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Vancouver, B.C.

Brankley, AE, & Hanson, RK. (2018, October). Pedophilic individuals on community supervision represent a distinct category. Presentation at the 37th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Vancouver, B.C.

Brankley, A, Knight, RA, & Hanson, RK. (2018, August). Pedophilic individuals represent a distinct group: A taxometric analysis of adult males evaluated for sexual dangerousness in Massachusetts. Presentation at the 15th Conference of the Interational Association for the Treatment of Sexual Offenders, Vilnius, Lithuania. Abstracted in *Forensische Psychiatrie und Psychotherapie*, 2018, Supplement 1.

Hanson, RK. (2017, October). Revising risk assessments: Dynamic risk factors and years offence free. Preconference workshop at the 36th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Kansas City, Missouri.

Hanson, RK. (2017, October). Once a sexual offender, not always a sexual offender. Presentation at the 36th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Kansas City, Missouri.

Hanson, RK. (2017, June). A history of sex offending is a valid, but time dependent, indicator of risk for future sexual crime. Presentation at the Annual Convention of the Canadian Psychological Association, Toronto.

Babchishin, K, & Hanson, RK. (2017, June). The relationship between offenders' change and recidivism: A longitudinal study of ACUTE-2007. Presentation at the Annual Convention of the Canadian Psychological Association, Toronto.

Hanson, RK, & Babchishin, K. (2017, June). Putting it all together: Current sexual recidivism risk based on static, stable and acute variables. Presentation at the Annual Convention of the Canadian Psychological Association, Toronto.

Hanson, RK. (Chair) (2016, November). STABLE-2007: New Findings, New Risk Categories. Symposium at the 35th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers (ATSA) November, 2016, Orlando, FL

Brankley, AE, Lee, SC, Helmus, LM, Zabarauckas, C, & Hanson, RK. (2016, September). Cross-cultural validity of the Static-99R and STABLE-2007 risk tools: Results from a prospective Canadian field study. Poster presentation at the 14th conference of the International Association for the Treatment of Sexual Offenders, Copenhagen, Denmark.

Hanson, RK. (Chair) (2016, September). STABLE-2007: New field study findings, new risk categories. Symposium at the 14th conference of the International Association for the Treatment of Sexual Offenders, Copenhagen, Denmark.

Kahn, RE, Thornton, D, Hanson, RK, & Ambroziak, G. (2016, November). Out of the blue sexual offenses: Information redemption thresholds for sexual offenders. Presentation at the 72nd Annual Meeting of the American Society of Criminology, New Orleans, Louisiana.

Hanson, RK. (Chair) (2016, June). Current developments in risk assessment for offenders of Indigenous heritage in Canada. Symposium at the Canadian Psychological Association Convention, Victoria, B.C.

Hanson, RK. (Chair) (2016, June). Field validity of the Static-99/R and STABLE-2000/2007 sexual offender risk assessment tools in the Province of British Columbia. Symposium at the Canadian Psychological Association Convention, Victoria, B.C.

Hanson, RK. (2015, June). Towards a common language for risk assessment. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Coligado, M, & Hanson, RK. (2015, June). Measuring recidivism risk: A survey of practices in Canadian corrections. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Hanson, RK. (2015, June). Raising the BARR-2002R: A psychological approach to STATIC risk assessment for sexual offenders. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Babchishin, KM, Hanson, RK, & Blais, J. (2015, June). Less is more: Using Static-2002R subscales to predict violent and general recidivism among sexual offenders. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Lee, SC, Hanson, RK, & Gress, C. (2015, June). The utility of Static-99R for sex offenders of East Asian heritage. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Hanson, RK. (2015, June). Grant T. Harris: Leading the modern era of violence risk assessment. Presentation at the Third North American Correctional and Criminal Justice Psychology Conference, Ottawa, Ontario.

Lloyd, CD, Hanson, RK, & Serin, RC. (2015, March). "Dynamic" stipulates that re-assessment matters: Examining the hypothesis that repeated measurement enhances the prediction of recidivism. Presentation at the Annual Conference of the American Psychology-Law Society, San Diego, CA.

Brouillette-Alarie, S & Hanson, RK. (2014, juin). De la prédiction à la compréhension : validité convergente des construits latents de la Statique-99R et de la Statique-2002R. Présentation au 7me Congrès du Regroupement des intervenants en matière d'agression sexuelle, Orford, Québec.

Hanson, RK. (2014, June). A conviction for a sexual offence is a time dependent risk indicator. Presentation at the 75th Annual Convention of the Canadian Psychological Association, Vancouver, B.C.

Helmus, L & Hanson, RK. (2014, June). Dynamic risk assessment using STABLE-2007: Updated follow-up and new findings. Presentation at the 75th Annual Convention of the Canadian Psychological Association, Vancouver, B.C.

Hanson, RK & Helmus, L. (2014, June). Developing non-arbitrary categories for offender risk communication. Presentation at the 75th Annual Convention of the Canadian Psychological Association, Vancouver, B.C.

Khalifa, S & Hanson, RK. (2014, April). Low self-control, substance abuse, and criminal history in predicting intimate partner violence. Presentation at the Forensic Middle East Congress, Dubai.

Hanson, RK. (2013, October). The psychological constructs assessed by static risk factors. Presentation at the 32nd convention of the Association fort he Treatment of Sexual Abusers, Chicago, IL.

Babchishin, KM & Hanson, RK. (2013, October). The characteristics of internet sex offenders: An updated meta-analysis. Presentation at the 32nd convention of the Association for the Treatment of Sexual Abusers, Chicago, IL.

Helmus, L & Hanson, RK. (2013, October). Risk/needs assessments using STABLE-2007 and Risk-Matrix-2000. Presentation at the 32nd convention of the Association for the Treatment of Sexual Abusers, Chicago, IL.

Lehmann, RJB, Goodwill, AM, Hanson, RK, & Dahle, K-P. (2013, September). Using crime scene information to detect psychologically meaningful risk factors in cases of child molestation. Presentation at the European Association of Psychology and Law Conference, Coventry, UK.

VanZuylen, H, Sheahan, C, & Hanson, RK. (2013, June). Static-99 and RRASOR predict recidivism among developmentally delayed sexual offenders: A cumulative meta-analysis. Presentation at the Annual Convention of the Canadian Psychological Association, Quebec.

Helmus, L., & Hanson, RK (2013, June). How should we talk about the accuracy of risk scales? Presentation at the Annual Convention of the Canadian Psychological Association, Quebec.

Hanson, RK (2013, May). Étude de la validité de construit des échelles actuarielles statiques: les facteurs de risque statiques sont des indicateurs de dimensions psychologiques associées à la récidive. Intervention au 7me Congrès internationale francophone sur l'agression sexuelle, Québec, PQ, Canada.

Hanson, RK, & Harris, AJR (2012, October). The reliability and validity of STABLE-2007: A review of the research. Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.

Helmus, L. & Hanson, RK (2012, October). Dynamic risk assessment using STABLE-2007: Updated follow-up and new findings from the Dynamic Supervision Project. Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.

Harris, AJR, & Hanson, RK (2012, October). When is a sex offender no longer a sex offender? Presentation at the 31st Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Denver, CO.

Hanson, RK, & 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, RK (2012, June). The assessment and treatment of sexual offenders. Presentation at Expertisecentrum Forensische Psychiatrie Conference on the Future of Forensic Care: Solutions Worth Sharing, Utrecht, Holland.

Hanson, RK (2011, November). Percentile ranks for Static-99/R and Static-2002/R. Presentation at the 30th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Toronto, Ontario.

Hanson, RK. (2011, June). Calculating and presenting percentile ranks for the risk of crime and violence. Second North American Correctional and Criminal Justice Psychology Conference, Toronto.

Seto, MC, Hanson, RK, & Babchishin, KM. (2011, March). Child pornography offenders: Contact offending history and risk of recidivism. Paper presented at the 4th International Congress of Psychology and the Law, Miami, FL.

Babchishin, KM, & Hanson, RK. (2010, October). Even Highly Correlated Measures Can Add Incrementally to Risk Prediction: Comparing Static-99R and Static-2002R. Presentation at the 29th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Phoenix, Arizona.

Harris, AJR, & Hanson, RK. (2010, October). Adjusting Recidivism Estimates on the Basis of Time Free. Presentation at the 29th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Phoenix, Arizona.

Hanson, RK (2010, June). How should we report the accuracy of risk assessments for crime and violence? Presentation at the Annual Convention of Canadian Psychological Association, Winnipeg.

Cortoni, F, Hanson, RK, & Coache, M. (2009, November). Recidivism rates of female sexual offenders: A meta-analytic review. Presentation at the American Society of Criminology, Philadephia, PA.

Helmus, L., Thornton, D., & Hanson, RK (2009, October). Should Static-99 recidivism estimates be adjusted based on age at release? A multi-sample exploration. Presentation at the 28th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Dallas.

Thornton, D., Helmus, L., & Hanson, RK (2009, October). Does Static-2002 fully allow for the effects of age on release? Presentation at the 28th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Dallas.

Hanson, RK, & Helmus, L. (2009, October). Methods for combining historical and psychological risk factors: An example using Static-2002 and STABLE-2007. Presentation at the 28th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Dallas.

Hanson, RK (2009, June). The Growing Pains of Actuarial Risk Assessment for Sexual Offenders. Presentation at the Annual Convention of Canadian Psychological Association, Montreal.

Cortoni, F, & Hanson, RK (2009, May). Les principes d'évaluation du risque de récidive. Atelier au 5me Congrès internationale francophone sur l'agression sexuelle, Montréal, Quebec.

Cortoni, F, Hanson, RK, & Coache, M. (2009, May). Les délinquantes sexuelles : prévalence et récidive. Communication scientifique au 5me Congrès internationale francophone sur l'agression sexuelle, Montréal, Quebec.

Hanson, RK, & Barsetti, I. (2009, May). L'utilité et la valeur de l'évaluation des facteurs dynamiques dans l'évaluation du risque de récidive sexuelle. Atelier au 5me Congrès internationale francophone sur l'agression sexuelle, Montréal, Quebec.

Helmus, L, Hanson, RK, & Thornton, D. (2008, October). The stability of recidivism for Static-2002 risk categories. Presentation at the 27th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Atlanta, Georgia.

Harris, AJR, Helmus, L, Hanson, RK, & Thornton, D. (2008, October). Are new norms needed for Static-99? Presentation at the 27th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Atlanta, Georgia.

Mann, RE, Hanson, RK, & Thornton, D. (2008, October). What should be assessed in sexual offender risk assessments? Presentation at the 27th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Atlanta, Georgia.

Bourgon, G., & Hanson, RK (2008, September). Meta-analysis of sex offender treatment efficacy: The importance of methodological quality and treatment quality. Presentation at the European Society of Criminology, Edinburgh, UK.

Nunes, KL., Hanson, RK, Firestone, P., Moulden, H., Greenberg, D. M., & Bradford, J. M. (2007, November). Denial predicts recidivism for some sexual offenders. In K. L. Nunes (Chair), A closer look at the relationship between denial and recidivism. Symposium at the 26th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, San Diego, California.

Harris, AJR, & Hanson, RK. (2007, November). Dynamic Supervision Project Outcomes: Risk Assessment Partnerships with Multiple Provinces and States Presentation at the 26th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, San Diego, California.

Helmus, L, & Hanson, RK. (2007, November). A Multi-Site Comparison of the Validity and Utility of Static-99 and Static-2002 for Risk Assessment. Presentation at the 26th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, San Diego, California.

Hanson, RK, & Bourgon, G. (June, 2007). Meta-analysis of sexual offender treatment outcome studies: Distinguishing quality studies from quality treatment. Presentation at the North American Correctional and Criminal Justice Psychology Conference, Ottawa.

Bourgon, G, Hanson, RK, & Bonta, J. (June, 2007). Risk, Need, and Responsivity: A heuristic for evaluating the "quality" of offender interventions. Presentation at the North American Correctional and Criminal Justice Psychology Conference, Ottawa.

Helmus, L., & Hanson, RK (June, 2007). The Accuracy of Risk Assessment for Intimate Partner Violence Offenders: A Meta-Analysis. Presentation at the International Association of Forensic Mental Health Services, Montreal, Canada.

Harris, A.J.R., & Hanson, R.K (2006, September). The dynamic supervision of sexual offenders: Updated data 2006. Presentation at the Annual Treatment and Research Conference of the Association for the Treatment of Sexual Abusers, Chicago, IL.

Harris, A.J.R., & Hanson, R.K (2005, November). Dynamic assessment beyond static: Value added? Presentation at the Annual Treatment and Research Conference of the Association for the Treatment of Sexual Abusers, Salt Lake City, Utah.

Price, S., Hanson, R.K., & Andrews, D.A. (2005, November). Automatic processing of sexual information: A Stroop replication study. Presentation at the Annual Treatment and Research Conference of the Association for the Treatment of Sexual Abusers, Salt Lake City, Utah.

Hanson, RK (October, 2005). L'évaluation de risque de récidive chez les délinquants sexuels dans la communauté : Facteurs statiques, stables et aigus. Presentation at the Troisième congrès international francophone sur l'agression sexuelle, Hull-Gatineau, Canada.

Price, S., Hanson, RK, & Andrews, D.A. (June, 2005). Measuring the deviant schema of sexual offenders: A Stroop replication study. Presentation at the Annual Convention of Canadian Psychological Association, Montreal.

Hanson, RK. (June, 2005). The assessment of criminogenic needs of sexual offenders by community supervision officers: Reliability and validity. Presentation at the Annual Convention of Canadian Psychological Association, Montreal.

Cortoni, F., & Hanson, RK. (October, 2004). A review of the sexual recidivism rates of female offenders. Presentation at the 23rd Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Albuquerque.

Hanson, RK (October, 2004). The future of sexual offender treatment outcome research: Introduction. Presentation at the 23rd Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Albuquerque, New Mexico.

Långström, N., & Hanson, R.K. (June, 2004). Hypersexual behavior in the general population: Risk factors and correlates. International Association of Sex Research, Helsinki, Finland.

Thomas, T., Harris, AJR, Forth, A. E., & Hanson, RK (June, 2004). Static and dynamic factors: Predicting recidivism in adult sexual offenders. Presentation at the Annual Convention of Canadian Psychological Association, St. John's.

Price, S., & Hanson, RK (June, 2004). Sexual abuse screening procedures for positions of trust with children. Presentation at the Annual Convention of Canadian Psychological Association, St. John's.

Hanson, RK, Thornton, D., & Price, S. (2003, October). How much do the observed recidivism rates underestimate the actual rates? Presentation at the 22th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, St. Louis.

Thornton, D., & Hanson, RK (2003, October). Models of real re-offence rates: Clinical implications. Presentation at the 22th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, St. Louis.

Hanson, RK, & Morton, K. E. (2003, June). Recidivism risk factors for sexual offenders: An updated meta-analysis. Presentation at the Canadian Psychological Association Annual Convention, Hamilton, Ontario.

Harris, A.J.R., & Hanson, R.K. (2003, June). Improving the standard of probation and parole supervision of community-based sexual offenders: The Dynamic Supervision Project. Presentation at the Canadian Psychological Association Annual Convention, Hamilton, Ontario.

Hanson, RK (2002, May). Static-99, RRASOR and SONAR. Presentation at the Canadian Psychological Association Annual Convention, Vancouver, B.C.

Hanson, RK. (2002, May). Constructing empirically based risk scales: Balancing breadth and efficiency. Presentation at the Canadian Psychological Association Annual Convention, Vancouver, B.C.

Hanson, RK. (2001, November). Do sexual offenders burn out? Data from 10 recidivism studies. Presentation at the 20th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, San Antonio, Texas.

Broom, I, Hanson, RK, & Stephenson, M. (2001, June). An evaluation of community sex offender treatment programs in the Pacific Region. Presentation at the Canadian Psychological Association's Annual Convention, Saint Foy, Quebec.

Hanson, RK, & Harris, AJR (2001, January). La prévision de risque chez les délinquants sexuels: Un programme de recherche. Présentation au Premier congrès international francophone sur l'agression sexuelle, Québec (Québec).

Hanson, RK, & Wallace-Capretta, S. (2000, June). A multi-site study of treatment for abusive men. Presentation at the Canadian Psychological Association, Ottawa.

Hanson, RK. (2000, May). Measuring change in sex offenders. Presentation at the 6th International Conference on the Treatment of Sexual Offenders, Toronto, Ontario.

Conference Presentations (1984 to 1999)

During this period, I gave 50 presentations at professional conferences, on topics including personality theory, social psychology, the reliability and validity of psychological tests, and the assessment and treatment of sexual offenders, mentally disordered offenders, and abusive men.

A selection of invited addresses, conference plenaries, and other noteworthy presentations.

Alberta Hospital Edmonton Grand Rounds (February 10, 2021). Via Zoom. Reassessment of recidivism risk in the community.

Texas Council on Sex Offender Treatment, 28th Annual Conference, San Marcos, Texas (March 8, 2020). What really needs to change: Understanding the risk relevant propensities for sexual recidivism.

British Psychological Society, Forensic Division Annual Conference, Liverpool, UK. (June, 2019). Assessing sexual recidivism risk many years after the index offence.

Association for the Treatment of Sexual Abusers.

*How much intervention is enough?* (with Robert McGrath). October, 2018, Vancouver, B.C.
*Standardized risk categories for individuals convicted of sexual offences.* November, 2016, Orlando, FL.
*What works: The principles of effective interventions with offenders*. September, 2006, Chicago, IL.
*Confronting clergy abuse: Consulting at the Vatican* (with WL Marshall & M Kafka). October, 2003, St. Louis, Missouri.
*The effectiveness of treatment for sexual offenders: Report of the ATSA Collaborative Data Research Committee*.November, 2000.

International Association for the Treatment of Sexual Offenders.

*Release from the 'Sex Offender" Label: Years Offence Free and Dynamic Reassessment*. September, 2018, Vilnius, Lithuania.
*Development of non-arbitrary risk categories for improving risk communication in sexual offenders*. September, 2016, Copenhagen, Denmark .
*The characteristics of online sex offenders*. September, 2012, Berlin, Germany.
*A meta-analysis of sexual offender treatment outcome studies.* September, 2010, Oslo, Norway.
*Dynamic risk assessment for sexual offenders on community supervision*. September, 2006, Hamburg, Germany
*Empirical evidence of sex offender treatment efficacy*. September, 2002, Vienna, Austria.

Canadian Academy of Psychiatry and Law, Winter Conference, Vancouver, B.C. (March, 2016). The assessment and treatment of sexual offenders: Recent research from the STATIC Development Team.

American Psychology-Law Society, Atlanta, Georgia. (March, 2016). Standardized offender risk levels in corrections and forensic mental health.

University of Toronto, Annual Forensic Research Day, Penetanguishene, Ontario. (April, 2015). Can the numbers tell us who is safe? Reflections on the development of forensic risk assessment.

New York State Association for the Treatment of Sexual Abusers, Albany, New York. (May, 2014). When is a sexual offender no longer a sex offender? Risk reduction based on time offence-free in the community.

New Zealand Psychological Association Convention, Aukland, New Zealand. (September, 2013). Developing non-arbitrary metrics for risk communication.

University of Canterbury, Christchurch, New Zealand (September, 2013). Primed to punish: Altruistic punishment as motivation for vindictive rape.

Winterschool Research in Forensic Psychology, Seeon, Bavaria, Germany. (February, 2013). Altruistic punishment as motivation for vindictive rape.

Trauma and Transformation: The Catholic Church and the Sexual Abuse Crisis, Montreal. (October, 2011). Sexual offenders inside and outside the Church.

Second North American Correctional and Criminal Justice Psychology Conference, Toronto. (June, 2011). The assessment and treatment of sexual offenders.

Centre international de criminology comparée, Université de Montréal, Montreal. (March, 2009). Improving psychological risk assessments for crime and violence.

International Summer Conference: Research in Forensic Psychiatry, Regensburg, Germany (June, 2008). Chronic propensities and current manifestations: Measuring change in the recidivism risk of sexual offenders.

Canadian Psychological Association – Criminal Justice Section. (June, 2006). A framework for violence risk assessment: Static, stable and acute factors.

Congrès international francophone sur l'agression sexuelle, Hull-Gatineau, Canada. (October, 2005). L'évaluation de risque et évolution des pratiques.

Scottish Prison Service, Edinburgh (September, 1995 and 2003) Sexual offender recidivism.

NOTA Annual Convention (UK): Keynote addresses in 1995 (Cambridge), 1998 (Glasgow), 2003 (Edinburgh) and 2019 (Belfast) . NOTA Scotland (Stirling, 2009).

Karolinska Institut, Stockholm (August, 2003). Assessing the recidivism risk of sexual offenders.

Conference on the Abuse of Children and Young People by Catholic Priests and Members of Religious Orders, Vatican (2003, April). Sexual abuse screening procedures for positions of trust with children; risk assessment for identified offenders.

International Conference for Judicial and Clinical Treatment of Sexual Offenders, Taipai, Taiwan (2002, November). Risk markers for recidivism of sex offenders.

Understanding and Managing Sexually Coercive Behavior: A New York Academy of Sciences Conference, Washington, DC. (2002, June). Sex offender recidivism risk: What we know and what we need to know.

Conférence de consensus Psychopathologie et traitements actuels des auteurs d'agression sexuelle, Paris, France. (2001, November). Facteurs de risque de récidive sexuelle : caractéristiques des délinquants et réponse au traitement.

Università Pontificia Salesiana, Rome, Italy. (2001, November). Evaluation and treatment of sexual offenders.

National Joint Committee of Senior Criminal Justice Officials, Sault Ste. Marie. (May, 2001). Sex offenders: Risk factors and treatment outcome.

American Academy of Psychiatry and Law, Vancouver, B.C. (October, 2000). Using research to improve risk assessments for sex offenders.

Annual Residentual Meeting UK College of Forsenic Psychiatry, Amsterdam (February, 99). Characteristics of Abusive Men.

Regroupement des intervenants en matière d'agression sexuels (RIMAS), Québec (September, 1998). Indicateurs de la récidive chez les agresseurs sexuels dans la communauté.

Home Office Sex Offender Treatment Conference, Coventry, U.K. (September, 1994). Assessing empathy in sexual offenders.

Therapeutic Intervention with Sex Offenders, Gander, Newfoundland. (1991, June). Keynote address: Recent research on the assessment and treatment of sexual offenders.

Sex Offenders and Their Victims Conference, Toronto. (1989, November). Characteristics of sex offenders who were sexually abused as children.

Graduate Student Supervision

Brankley, AE. (2019). A taxometric analysis of pedophilia in adult males convicted of sexual offences: Evidence for a taxon. (Ph.D., Psychology, Ryerson University, co-supervision with Alasdair Goodwill).

Lee, SC. (2018). Cross-cultural validity of actuarial risk assessment instruments for individuals in North America with a history of sexual offending: Static-99R and Static-2002R. (Ph.D., Psychology, Carleton University, co-supervision with Adelle Forth).

Brouillette-Alarie, S. (2016). Lévaluation du risque de récidive des agresseurs sexuels: vers une approache centrée sur les construits psychologiques. (Ph.D., Criminologie, Université de Montréal, co-direction avec Jean Proulx).

Babchishin, KM. (2014). Sex offenders do change on risk-relevant propensities: Evidence from a longitudinal study of the ACUTE-2007. (Ph.D., Psychology, Carleton University, co-supervision with Kevin Nunes).

Price. S. (2006). A modified Stroop task with sexual offenders: A replication of a study. (M.A. , Psychology, Carleton University).

Kerry, G. (2001). Understanding and predicting intimate femicide: An analysis of men who kill their intimate female partners. (Ph.D., Psychology, Carleton University).

Dickie, I. (1998). An information processing approach to understanding sympathy deficits in sexual offenders. (M.A., Psychology, Carleton University).

Rooney, J. (1998). Predicting attrition from treatment programs for male batterers. (M.A., Psychology, Carleton University).

External Examiner

Moore, L. (2019). Static risk assessment of sexual offenders in New Zealand: Predictive accuracy, classification of risk, and the moderating effect of time offence-free in the community. (Ph.D.). University of Canterbury, Christchurch, New Zealand.

Brassard, V. (2015). La réinsertion sociale, le réseau social et les trajectoires d'abandon de la carrière criminelle des délinquants sexual adults : Une étude prospective longitudinale. (Maitrise). Université de Laval., Québec.

Carpentier, J. (2009). Adolescents auteurs d'abus sexuels: carrière criminelle et facteurs associés. (Ph.D.). École de criminologie, Université de Montréal.

Eccleston, L. (2001). Violent offenders' failure on parole – personality and dynamic risk factors. (D. Psych.) University of Melbourne.

Cooper, H. (2000). Long-term follow-up of a community-based treatment program for adolescent sex offenders. (M.A.) Psychology Department, Lakehead University, Ontario.

Jordon, S. A. (1999). An exploration of risk factors for aggression in relationships. (Ph.D.) Psychology Department, University of Ottawa, Canada.

Palmer, W. (1996). Enhancing parole prediction using current, potentially dynamic predictors, a continuous longitudinal criterion, and event history analysis. (Ph.D.) Psychology Department, Queen's University, Kingston, Ontario.

Qualified as an expert witness

Superior Court of New Jersey, Somerset County. 2021. Sexual recidivism rates, risk assessment, residual risk when offence-free in the community. (Registrant M.H. Megan's Law).

Magistrates Court of Tel Aviv, Yafo, Israel. 2021. Scientific evidence concerning the evaluation of sexual recidivism risk (Criminal v Dor).

Cour de Québec. 2020. Validation of violence risk assessment tools for individuals of Inuit Heritage. (R. v. Kritik [Salowatseak]).

U.S. District Court, Southern District of Florida. 2020. Sexual recidivism rates, risk assessment, residual risk when offence-free in the community (Does v. Swearigan, 18-cv-24145-KMW)

Supreme Court of the State of Oregon. 2020. Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (Culbertson; CA A168062; SC S066714).

Supreme Court of the State of California, 2020. Amici Curiae brief concerning sexual offender recidivism risk and online sexual offending (Gadlin).

U.S. District Court of New Jersey, 2019. Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (C.K.)
Supreme Court of the United States, 2019. Amici Curiae brief concerning sexual offender recidivism risk and online sexual offending (USA v. Haymond).
Massachusetts Sex Offender Registry Board, 2018, 2019. Risk assessment for individual's registration level.
Supreme Court of the United States, 2018. Amici Curiae brief concerning sexual offender recidivism risk and residency restrictions (Vasquez v. Foxx).
U.S. District Court of New Jersey, 2018. Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (Kolton)
U.S. Court of Appeals for the Tenth Circuit, Colorado, 2018. Amici Curiae brief concerning sexual offender recidivism risk (Millard, Knight & Vega v. Rankin)
Court of Common Pleas, Pennsylvia, 2018. Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (Torsilieri, CP-15-CR-0001570-2015)
Supreme Court of the United States, 2018. Amici Curiae brief concerning sexual offender recidivism risk (Gundy v. United States)
Court of Queen's Bench, Province of Alberta, 2017. Sexual offender recidivism, risk assessment (Ndhlovu; sexual offender registry)
Federal Court of Canada (Ontario), 2016. Sexual offender risk assessment (G; sexual offender registry)
Federal Court of Canada (British Columbia), 2016. Construction and evaluation of criminal recidivism risk assessment tools (Ewert)
U.S. District Court, Middle District of Alabama, 2016/2018 (challenge to Alabama's registry restrictions)
State of Wisconsin, 2015, 2016. Sexual offender risk assessment (Static-99/R norms)
U.S. District Court District of New Hampshire, 2015. Sexual offender risk assessment (time free effects)
Massachusetts Sex Offender Registry Board, 2014, 2016. Internet sexual offenders.
Superior Court of the State of Washington for Yakima County, 2013. Sexual offender risk assessment (civil commitment)
U.S. District Court for the Northern District of California, 2012. Sexual offender risk assessment (time free effects; internet free speech)
Washington State, 2007. Evaluation of sexual offenders
Provincial Court of Manitoba, 2004. Community supervision of sexual offenders (Long term offender)
Commonwealth of Massachusetts, 2002, 2004. Sex offender risk assessment
Provincial Court, New Brunswick, 2002, Sex offender risk assessment (Dangerous Offender Hearing)
Superior Court of the State of Arizona, 2000. Sex offender risk assessment
State of California, 1998. Sex offender risk assessment

<u>Testimony for Legislative Review Committees</u>

Government of Canada, Senate Committee on National Security and Defence, June, 2021. A federal framework to reduce recidivism (Bill-228).
Government of Canada, Senate Committee on Legal and Constitutional Affairs, February, 2012. Assessment and treatment of sex offenders.
Government of Canada, House of Commons, Standing Committee on Justice and Human Rights, Febraury, 2011. Recidivism risk of sex offenders.



33

Government of Canada, House of Commons, Standing Committee on Justice, Human Rights, Public Safety, and Emergency Preparedness, May, 2005. Assessment and treatment of sex offenders.

Dissemination through popular media

I have been regularly consulted by reporters and my research findings has been presented in a wide range of popular media outlets, including the *Economist, Scientific American, Scientific American: Mind, New York Times, Atlantic Monthly, Wall Street Journal, CBC Radio (national and regional), CBC Television, CTV, Fox News (*live interview*), Globe and Mail, Chatelaine,* and *the National Post.*

Associate Editor

*Sexual Abuse: A Journal of Research and Treatment,* 1999 – 2010

Editorial Board

*Criminal Justice and Behavior, 2006 -*
*Journal of Sexual Offender Civil Commitment: Science and the Law, 2005 - 2008*
*Sexual Abuse: A Journal of Research and Treatment, 2010 –*
*Sexual Offending: Theory, Research, and Prevention, 2020 -*

Reviewer

I have been an an ad hoc reviewer for the following journals:

*American Psychologist; Archives of Sexual Behavior; Canadian Journal of Behavioural Science; Canadian Journal of Criminology and Criminal Justice; Cognitive Therapy and Research; Criminal Justice and Behavior; Criminologie; International Journal of Forensic Mental Health; Journal of Abnormal Psychology; Journal of Consulting and Clinical Psychology; Journal of Criminal Justice; Journal of Forensic Psychiatry and Psychology; Journal of Interpersonal Violence; Journal of the American Academy of Psychiatry and the Law; Journal of Quantitative Criminology; Journal of Threat Assessment and Management; Journal of Strategic and Systemic Therapy; Justice Quarterly; Law and Human Behavior; Legal and Criminological Psychology; Nature: Human Behaviour; Police Practice and Research: An International Journal; Psychological Assessment; Psychological Bulletin; Professional Psychology; Psychology, Crime, & Law; Sexual Abuse.*

Granting agencies:

Federal Ministry of Education and Research (Germany), Ontario Mental Health Foundation, Fonds pour la Formation de Chercheurs et l'Aide à la Recherche (Québec), Fonds de la recherche en santé (Québec), National Science Foundation (US), the Social Sciences and Humanities Research Council of Canada, and Volkswagen Foundation (Germany).

And book publishers:

American Psychological Association; Oxford University Press; Wiley.

Memberships in Professional Associations (current)

SAARNA: Society for the Advancement of Actuarial Risk Need Assessment
- President (2020 - present)
Association for the Treatment of Sexual Abusers
- Board of Directors, Chair of Research Committee (2009 – 2012)
Canadian Psychological Association
- Secretary/Treasurer for the Criminal Justice Section (1996 – 2018)
International Association for the Treatment of Sexual Offenders
- Scientific Advisor Committee (2000 - present)
Ontario College of Psychology (since 1987)

National/International Working Groups, Scientific Committees and Advisory Boards

Current:

Centre International de Criminologie Comparée (Montréal) – Collaborator-member (2010 to present).
Dutch Ministry of Justice, Expertise Center for Forensic Psychiatry. Scientific Council (2010 to present).
Forensic Psychology Research Centre, Carleton University (Ottawa). Research Associate (2013 to present).
Singapore National Council of Social Service, Research Consultant (2020 to present).
Hong Kong Correctional Services. Advisory Board/Accreditation (2018 to present).

Previous:

American Psychiatric Association. Advisor to the DSM-V Sexual Disorders Workgroup (2009-2013).
Correctional Service of Canada. Accreditation Panel (1998 – 2006).
Her Majesty's Prison Service (United Kingdom). Advisory Board/Accreditation Panel (1993 – 1999; 2000 – 2001).
Hong Kong Correctional Services – Honorary Advisor of the Construction of Risks and Needs Assessments Tools for Sex Offenders (2010 to 2016).
Safer Society Press (Vermont, USA). Advisory Board (1995 – 1997; 1999 – 2000; 2007 to 2017).
Singapore Ministry of Social and Family Development. International Research Advisor. (2014 – 2020).
Social Sciences and Humanities Research Council of Canada – Committee Member (2011 - 2013).
Società Internazionale di Psicologia Giuridica (Rome; International Society of Psychology and Law). Scientific Committee (2008 to 2014).
Solicitor General Canada. Sexual Offender Working Group Member (1988).
Swedish Council on Technology Assessments in Health Care (SBU). External advisor (2010 – 2011, 2013).

Selected National/International consultation and training

TBS Review Board, Utrecht, Holland – 2009, 2012
New York State Office of Mental Health – 2009
Vatican, Holy See - 2003



35

Commonwealth of Massachusetts, Public defenders - 2002
Commonwealth of Massachusetts, Sex Offender Registry Board – 2000
Sex Offender Commitment Defenders Association – 2000
Singapore, Ministry of Social and Family Development - 2018
Wisconsin Sex Offender Treatment Network, 1998/2000 (video training tapes)
State of California, Department of Mental Health - 1997 – 2011, 2014, 2017
Parole Board of Canada – 1996 - 2012

As well, I have provided periodic training workshops for various Canadian and US federal and state organisations (e.g., RCMP, State of Colorado, U.S. Department of Justice, State of Georgia).

Certified Master Trainer in the Static-99R, Static-2002R, STABLE-2007 and ACUTE-2007 risk tools.

Canadian government language competency in French E/C/B

# Attachment 2:

Dr. R.K. Hanson Expert Testimony 2016-2021

Dr. R. Karl Hanson: Qualified as an expert witness, and contributions to court proceedings, 2016 to September, 2021

| Date | Case | Court/Tribunal | Written | Oral | Comments |
|---|---|---|---|---|---|
| 2016 | Jeffrey Ewert v Government of Canada | Federal Court (Canada) | √ | √ | Risk assessment for offenders of Indigenous heritage. Scientific foundations of risk assessment (called by the Government of Canada) |
| 2016 | Various | Wisconsin | √ | | Affidavit prepared for the Wisconsin State Public Defenders Office concerning the appropriate use of the Static-99R risk assessment tools for individuals being considered for sexual offender civil commitment in Wisconsin. |
| 2016 | Various | Massachusetts Sex Offender Registry Board | √ | | Declaration on risk assessment of individuals convicted of possession of child abuse images (called by the defense bar). |
| 2016 | John Doe #1 v Luther Strange et al. Case No. 2:15-cv-606 WKW | United States District Court; Middle District of Alabama | √ | | Sexual offender recidivism, risk assessment, expected time to desistance, sexual offender registry (called by John Doe) |
| 2016 | G. v Government of Canada and Govt. Of Ontario | Federal Court (Canada) | √ | √ | G challenged the Ontario and Canadian sexual offender registries for individuals found not criminally responsible due to mental illness (called by the Government of Canada). |
| 2017 | Ndhlovu v. Govt of Canada | Court of Queen's Bench, Province of Alberta. | √ | √ | Sexual offender recidivism, risk assessment, sexual offender registry (called by the Government of Canada) |
| 2018 | Commonwealth Of Pennsylvania v. George J. Torsilieri (CP-15-CR-0001570-2015) | Court of Common Pleas, Chester County, Pennsylvania | √ | | Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (called by Mr. Torsilieri) |
| 2018 | Gundy v. United States (No. 17-6086) | Supreme Court of the United States | √ | | Brief of Amici Curiae in support of petitioners (with A. Agan, C. L. Carpenter, I. Ellman, E. Janus, R. A. Leo, C. Leon, J. Levenson, W. A. Logan, J.J. Prescott, M. Seto, J.Simon, C. Slobogin, R. Wollert, and F. Zimring) Sexual offender recidivism, risk assessment, residual risk when offence-free in the community |
| 2018 | DAVID MILLARD, EUGENE KNIGHT, ARTURO VEGA, Plaintiffs, v. MICHAEL RANKIN, in his official capacity as Director of | US 10th Circuit Court of Appeals | √ | | Brief of Amici Curiae in support of petitioners (with A. Agan, C. L. Carpenter, I. Ellman, E. Janus, R. A. Leo, C. Leon, J. Levenson, W. A. Logan, R. D. Lytle, M.H. Miner, J.J. Prescott, L. L. Sample, J.Simon, C. Slobogin, R. Wollert, and F. Zimring) Sexual offender recidivism, risk assessment, residual risk when offence-free in the community |

| | | | | | |
|---|---|---|---|---|---|
| | the Colorado Bureau of Investigation, Defendant. (Appeal No. 17-1333) (D.C. No. 13-cv-02406-RPM) | | | | |
| 2018 | B.K. v. Gurbir Grewal, Attorney General of the State of New Jersey, Docket No.: 3:19-cv-5587-FLW-LHG | US District Court, District of New Jersey | √ | | Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (called by B.K.) |
| 2018 | Vasquez v. Foxx (No. 17-1061) (7th Cir. 2018) | Supreme Court of the United States | √ | | Brief of Amici Curiae in support of petitioners (with A. Agan, C. L. Carpenter, I. Ellman, E. Janus, R. A. Leo, C. Leon, J. Levenson, W. A. Logan, J.J. Prescott, M. Seto, J.Simon, C. Slobogin, R. Wollert, and F. Zimring) Sexual offender recidivism, risk assessment, residual risk when offence-free in the community. Residency restrictions |
| 2018 | H.'s classification hearing | Massachusetts Sex Offender Registry Board | √ | √ | Individualize risk assessment of Mr. H's concerning his appropriate classification level for Massachusetts Sex Offender Registry |
| 2018 | State in the Interest of C.K., 233 N.J. 44 (2018) | United States District Court, District of New Jersey | √ | | Sexual offender recidivism, risk assessment, residual risk when offence-free in the community (called by C.K.) |
| 2019 | USA v Haymond | Supreme Court of the United States | √ | | Brief of Amici Curiae in support of petitioners (with A. Agan, C. L. Carpenter, I. Ellman, E. Janus, R. A. Leo, C. Leon, J. Levenson, W. A. Logan, J.J. Prescott, L. Sample, M. Seto, K. Socia, R. Wollert, and F. Zimring) Sexual offender recidivism, risk assessment, residual risk when offence-free in the community. Internet sexual abuse images. |
| 2019 | D.'s classification hearing | Massachusetts Sex Offender Registry Board | √ | | Individualize risk assessment of Mr. D. concerning his appropriate classification level for Massachusetts Sex Offender Registry |
| 2020 | various | Massachusetts Sex Offender Registry Board | √ | | Declaration concerning the criteria for repetitive and compulsive sexual crime behaviour in Massachusetts regulations (803 Code Mass. Regs. §§1.00, et seq.). (called by defense) |

| | | | | | |
|---|---|---|---|---|---|
| 2020 | In Re Gregory Gadlin | Supreme Court of the State of California | √ | | Brief of Amici Curiae in support of petitioners (with A. Agan, C. L. Carpenter, I. Ellman, E. Janus, R. A. Leo, C. Leon, J. Levenson, W. A. Logan, R. D. Lytle, M. Miner, J. Monahan, J.J. Prescott, M. J. Saks, L. Sample, J. Simon, K. Socia, R. Wollert, and F. Zimring) Sexual offender recidivism, risk assessment, residual risk when offence-free in the community. Parole eligibility. |
| 2020 | Does v Swearigan Case No. 18-cv-24145-KMW | United States District Court, Southern District of Florida | √ | √ | Sexual recidivism rates, risk assessment, residual risk when offence-free in the community (called by Does) |
| 2020 | Regina v. Monsieur Joe Kritik (Salowatseak) Court file No. 635-01-014601-166 (Dangerous Offender Sentencing Hearing) | Cour de Québec | √ | √ | Validation of criminal and violent recidivism risk assessment tools; validation of risk assessment tools for individuals of Inuit Heritage. (called by Kritik) |
| 2021 | Criminal v Dor (182-12-19) | Magistrates Court of Tel Aviv – Yafo, Israel | √ | √ | Scientific evidence concerning evaluation of sexual recidivism risk, with specific comments on risk assessment practice in Israel. (called by Dor) |
| 2021 | In the Matter of Registrant M.H. Megan's Law No.:95-18-0024 | Superior Court of New Jersey Law Division – Somerset County | √ | √ | Sexual recidivism rates, risk assessment, residual risk when offence-free in the community (called by M.H.) |
| 2021 | Commonwealth v. Torsilieri | Court of Common Pleas – Chester County, Pennsylvania | √ | √ | Sexual recidivism rates, risk assessment, residual risk when offence-free in the community (called by Torsilieri) |

# Attachment 3:

## Dr. R.K. Hanson Static-99R Tally Sheet

# Static-99R – TALLY SHEET

**Assessment date: _____ Date of release from index sexual offence: _____**

| Item # | Risk Factor | Codes | | Score |
|---|---|---|---|---|
| **1** | Age at release | Aged 18 to 34.9<br>Aged 35 to 39.9<br>Aged 40 to 59.9<br>Aged 60 or older | | 1<br>0<br>-1<br>-3 |
| **2** | Ever Lived With | Ever lived with lover for at least two years?<br>Yes<br>No | | <br>0<br>1 |
| **3** | Index non-sexual violence -<br>Any Convictions | No<br>Yes | | 0<br>1 |
| **4** | Prior non-sexual violence -<br>Any Convictions | No<br>Yes | | 0<br>1 |
| **5** | Prior Sex Offences | Charges<br>0<br>1,2<br>3-5<br>6+ | Convictions<br>0<br>1<br>2,3<br>4+ | <br>0<br>1<br>2<br>3 |
| **6** | Prior sentencing dates<br>(excluding index) | 3 or less<br>4 or more | | 0<br>1 |
| **7** | Any convictions for non-contact sex offences | No<br>Yes | | 0<br>1 |
| **8** | Any Unrelated Victims | No<br>Yes | | 0<br>1 |
| **9** | Any Stranger Victims | No<br>Yes | | 0<br>1 |
| **10** | Any Male Victims | No<br>Yes | | 0<br>1 |
| | **Total Score** | **Add up scores from individual risk factors** | | |

| **Nominal Risk Categories (2016 version)** | Total | **Risk Category** |
|---|---|---|
| | **-3, -2,** | **I - Very Low Risk** |
| | **-1, 0,** | **II - Below Average Risk** |
| | **1, 2, 3** | **III - Average Risk** |
| | **4, 5** | **IVa - Above Average Risk** |
| | **6 and higher** | **IVb -Well Above Average Risk** |

***There [ was, was not] sufficient information available to complete the Static-99R score following the coding manual (2016 version). I believe that this score [ fairly represents, does not fairly represent] the risk presented by Mr. _____ at this time. Comments/Explanation: _____***

_____ _____ _____

**(Evaluator name)** **(Evaluator signature)** **(Date)**

# Attachment 4:

Dr. R.K. Hanson, et al. *Not High Risk Forever*, *Journal of Interpersonal Violence* (2014)

# High-Risk Sex Offenders May Not Be High Risk Forever

R. Karl Hanson, Andrew J. R. Harris, Leslie Helmus and David Thornton

*J Interpers Violence* 2014 29: 2792 originally published online 24 March 2014
DOI: 10.1177/0886260514526062

*Article*

# High-Risk Sex Offenders May Not Be High Risk Forever

Journal of Interpersonal Violence
2014, Vol. 29(15) 2792–2813

DOI: 10.1177/0886260514526062
jiv.sagepub.com
SAGE

**R. Karl Hanson,[1] Andrew J. R. Harris,[2] Leslie Helmus,[3] and David Thornton[4]**

## Abstract

This study examined the extent to which sexual offenders present an enduring risk for sexual recidivism over a 20-year follow-up period. Using an aggregated sample of 7,740 sexual offenders from 21 samples, the yearly recidivism rates were calculated using survival analysis. Overall, the risk of sexual recidivism was highest during the first few years after release, and decreased substantially the longer individuals remained sex offense–free in the community. This pattern was particularly strong for the high-risk sexual offenders (defined by Static-99R scores). Whereas the 5-year sexual recidivism rate for high-risk sex offenders was 22% from the time of release, this rate decreased to 4.2% for the offenders in the same static risk category who remained offense-free in the community for 10 years. The recidivism rates of the low-risk offenders were consistently low (1%-5%) for all time periods. The results suggest that offense history is a valid, but time-dependent, indicator of the propensity to sexually reoffend. Further research is needed to explain the substantial rate of desistance by high-risk sexual offenders.

## Keywords

sex offenders, risk assessment, desistance, recidivism

[1]Public Safety Canada, Ottawa, Ontario, Canada
[2]Forensic Assessment Group, Ottawa, Ontario, Canada
[3]Carleton University, Ottawa, Ontario, Canada
[4]Sand Ridge Secure Treatment Center, Mauston, WI, USA

**Corresponding Author:**
R. Karl Hanson, Community Safety and Countering Crime Branch, Public Safety Canada, 10th floor, 340 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0P8.
Email: karl.hanson@ps-sp.gc.ca.

Of all people who commit serious transgressions, sexual offenders are perceived as the least likely to change. The widespread implementation of long-term social controls that uniquely apply to sexual offenders (e.g., lifetime community supervision, registration) indicates that policy makers, and the public that they represent, expect the risk posed by this population to persist almost indefinitely. The reasons that sexual offenders are treated differently from other offenders are not fully known. Contributing factors could include the particularly serious harm caused by sexual victimization (Browne & Finkelhor, 1986; Resick, 1993), and the belief that there is "no cure" for deviant sexual interests (e.g., Colorado Sex Offender Management Board, 2011). In certain public discussions, the special status of sexual offenders is sometimes justified by reference to a perceived high recidivism rate (see Ewing, 2011, p. 78).

Our belief that sexual offenders are intractable is in contrast to our openness to accept change among other offenders. Although certain restrictions and prejudices apply to all persons with a criminal record, the criminal justice systems of most Western democracies are predicated on the assumption that virtually all offenders could and should be reintegrated into society as law-abiding citizens. As articulated by Maruna and Roy (2007), the notion of personal reinvention by "knifing off" an old self is deeply rooted in the American psyche, and, quite likely, many other societies. It is an option, however, that is elusive to sexual offenders.

Sexual offenders vary in their risk for sexual recidivism. Previous meta-analyses have found that the average sexual recidivism rates of identified sexual offenders are in the 7% to 15% range after 5 to 6 years follow-up (Hanson & Morton-Bourgon, 2005; Helmus, Hanson, Thornton, Babchishin, & Harris, 2012). In contrast, sex offenders defined as high risk by the Violence Risk Scale–Sexual Offender Version (VRS-SO) have 10-year sexual recidivism rates between 56% and 70% (Beggs & Grace, 2010; Olver, Wong, Nicholaichuk, & Gordon, 2007).

Even if certain subgroups of sexual offenders can be identified as high risk, they need not be high risk forever. Risk-relevant propensities could change based on fortunate life circumstances, life choices, aging, or deliberate interventions (such as attending treatment). It is not necessary, however, to prove that an offender has changed to revise a risk assessment. New information could also be used to downgrade (or upgrade) an individual's risk, even when the reasons for the change are uncertain. Some of this information could be potentially available at the time of the index sex offense (e.g., psychopathy scores), whereas other information is only available later. In this article, we focus on one objective indicator of post-index behavior that could be used to revise risk assessments: the length of time that individuals do not reoffend when given the opportunity to do so.

General offenders are at greatest risk for new criminal behavior immediately after release (Blumstein & Nakamura, 2009; Bushway, Nieubeerta, & Blokland, 2011; Howard, 2011). The longer they remain offense-free in the community, the lower their likelihood of ever again coming in contact with the criminal justice system. Blumstein and Nakamura (2009) introduced the concept of a redemption period, defined as the time at which an offender's risk has declined sufficiently that it is indistinguishable from the risk posed by men with no prior criminal record. Similarly, G. T. Harris and Rice (2007) found that for most forensic psychiatric patients, the risk for violent recidivism declined the longer they remained offense-free in the community. The reduction in risk, however, was relatively modest, and did not apply to the highest risk offenders (defined by Violence Risk Appraisal Guide [VRAG] bins of 7, 8, or 9).

Preliminary studies suggest that the overall time offense-free also applies to the risk of sexual recidivism among sexual offenders. A. J. R. Harris and Hanson (2004) compared the recidivism rates of a large sample of sexual offenders from the United States, United Kingdom, and Canada ($n$ = 4,724) beginning at 4 start dates: time of release, and after 5, 10, and 15 years offense-free in the community. In their study, offense-free was defined as no new sexual or violent offenses. They found that the 5-year recidivism rates were 14.0% from time of release, compared with 7.0% after 5 years, 5.4% after 10 years, and 3.7% after 15 years offense-free. Similarly, Howard (2011) observed that the risk of sexual recidivism declined over the 4-year follow-up period in his study. Neither Howard nor A. J. R. Harris and Hanson (2004) examined whether the time-free effect applied equally to sexual offenders at different initial risk levels.

Time-free adjustments for different risk levels (Static-99 risk categories) were presented by A. J. R. Harris, Phenix, Hanson, and Thornton (2003; Appendix I). For each category of risk, the longer they remained offense-free in the community (2-10 years), the lower their recidivism rates. For example, the 5-year sexual recidivism for the Static-99 high-risk group (scores of 6+) was 38.8% from time of release but only 13.1% after 4 years offense-free. The decline, however, was not completely consistent. For certain groups, the risk after 10 years offense-free was greater than the risk after 6 years. Given the modest sample size ($n$ < 30 for some cells), it was difficult to know whether the observed variation was meaningful. Apart from A. J. R. Harris et al.'s (2003) preliminary analyses by risk level, none of the previous studies have examined potential moderators of the time-free effect, such as age and victim type (rapist/child molester).

The purpose of the current study was to examine the effects of time offense-free in the community on the recidivism risk of sexual offenders. The study used an aggregate sample of 7,740 sexual offenders drawn from

21 different samples. Sexual recidivism rates were estimated from time of release, and then after 5 years and 10 years sexual offense–free in the community. Based on Static-99R scores (Helmus, Thornton, Hanson, & Babchishin, 2012), the sample was divided into three risk categories: low, moderate (or typical), and high. As well, we examined a number of other potential moderators of the time-free effect, including age at release, country of origin, victim type (rapist/child molester), and exposure to treatment.

## Method

### Measures

*Static-99R.* Static-99R is a 10-item actuarial scale that assesses the recidivism risk of adult male sex offenders. The items and scoring rules are identical to Static-99 (Hanson & Thornton, 2000; see also www.static99.org) with the exception of updated age weights (Helmus, Thornton, et al., 2012). The 10 items cover demographics, sexual criminal history (e.g., prior sex offense), and general criminal history (e.g., prior nonsexual violence).

Static-99/R are the most widely used sexual offender risk tools in mental health and corrections (Archer, Buffington-Vollum, Stredny, & Handel, 2006; Interstate Commission for Adult Offender Supervision, 2007; McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010). Static-99R has high rater reliability (interclass correlation coefficient [*ICC*] = .89; McGrath, Lasher, & Cumming, 2012) and a moderate ability to discriminate between sexual recidivists and non-recidivists (area under the receiver operating characteristic curve [*AUC*] = .69, 95% CI [.66, .72], $k = 22$, $n = 8{,}033$; Helmus, Hanson, et al., 2012).

Rather than use the standard four risk categories (see A. J. R. Harris et al., 2003), only three risk categories were used to maximize the sample size in each group (and increase the stability of the results). The three risk categories were created based on percentile ranks (Hanson, Lloyd, Helmus, & Thornton, 2012): Specifically, scores one standard deviation below the population mean were considered "low" (−3, −2, −1), scores one standard deviation above the mean were considered "high" (5 and higher), and the remaining scores were considered "moderate" (0, 1, 2, 3, 4).

### Samples

Twenty-one samples were selected from those used by Helmus and colleagues to re-norm the Static-99/R (Helmus, 2009; Helmus, Hanson, et al.,

2012; Helmus, Thornton, et al., 2012); of the 23 samples with Static-99R data available, one was excluded because it did not have the information needed to compute survival analyses, and one was excluded because it was identified as a statistical outlier in previous research (Helmus, Hanson, et al., 2012). The data retained for analysis contained 7,740 offenders from 21 samples. A brief description of the included studies can be found in Table 1.

### Overview of Analyses

The recidivism rates were estimated using life table survival analysis (Singer & Willet, 2003; Soothill & Gibbens, 1978). In this approach, the follow-up time is divided into discrete time intervals (12 months), and the proportion failing (reoffending) in each time interval is calculated. This quantity is referred to as a hazard rate, or the probability of reoffending in a specific time interval given that the individual has survived (not reoffended) up to that time.

The only type of recidivism examined in the current study was sexual recidivism. Consequently, statements concerning the length of time that individuals were "offense-free" should be interpreted as meaning that no new sexual offenses were detected during that time period.

The 95% confidence interval for the observed proportions were calculated using Wald's method: CI ± 1.96 $(p(1 - p)/n)^{1/2}$ (Agresti & Coull, 1998). Proportions were interpreted as different when their 95% confidence intervals did not overlap, which corresponds to a difference test of approximately $p < .01$ (Cumming & Finch, 2005).

## Results

Without controlling for time at risk, the observed sexual recidivism rate for all cases was 11.9% ($n = 7{,}740$), 2.9% for the low-risk cases ($n = 890$), 8.5% for the moderate cases ($n = 4{,}858$), and 24.2% for the high-risk cases ($n = 1{,}992$). The average follow-up period was 8.2 years ($SD = 5.2$, range of 0.01 to 31.5).

Figure 1 plots the cumulative survival rates over time for the three risk categories. The survival curves were truncated when there were fewer than 50 offenders at the end of the at-risk period (between 20 & 25 years). As can be seen from Figure 1, the risk of reoffending was highest in the first few years following release, and declined thereafter. This pattern was particularly strong for the high-risk offenders. During the first year after release, 7% reoffended, and during the first five years after release, a total of 22% reoffended. In contrast, during the next 5 years (between 5 & 10 years), the survival curve

**Table 1.** Descriptive Information.

| Study | *n* | Age *M* (*SD*) | Country | 5-Year Recidivism (%) | Recidivism Criteria | Type of Sample | Mostly Treated | Release Period | Median Year of Release |
|---|---|---|---|---|---|---|---|---|---|
| Allan, Grace, Rutherford, and Hudson (2007) | 492 | 42 (12) | New Zealand | 9.8 | Charges | Prison treatment | Yes | 1990-2000 | 1994 |
| Bartosh, Garby, Lewis, and Gray (2003) | 186 | 38 (12) | United States | 11.8 | Charges | Routine correctional | — | 1996 | 1996 |
| Bengtson (2008) | 311 | 33 (10) | Denmark | 19.6 | Charges | Forensic psychiatric | — | 1978-1995 | 1986 |
| Bigras (2007) | 483 | 43 (12) | Canada | 7.4 | Charges | Correctional Service of Canada | Mixed | 1995-2004 | 1999 |
| Boer (2003) | 299 | 41 (12) | Canada | 3.7 | Conviction | Correctional Service of Canada | — | 1976-1994 | 1990 |
| Bonta and Yessine (2005) | 133 | 40 (10) | Canada | 17.3 | Conviction | Preselected high risk | Mixed | 1992-2004 | 1999 |
| Brouillette-Alarie and Proulx (2008) | 228 | 36 (10) | Canada | 14.2 | Conviction | Prison and community treatment | — | 1979-2006 | 1996 |
| Cortoni and Nunes (2007) | 73 | 42 (12) | Canada | 0.0 | Charges | Prison treatment | Yes | 2001-2004 | 2003 |
| Craissati, Bierer, and South (2008) | 209 | 38 (12) | United Kingdom | 6.7 | Conviction | Community supervision | Mixed | 1992-2005 | 1998 |
| Eher, Rettenberger, Schilling, and Pfafflin (2009) | 706 | 41 (12) | Austria | 4.9 | Conviction | European prison | — | 2000-2005 | 2003 |
| Epperson (2003) | 177 | 37 (13) | United States | 11.3 | Charges | Routine correctional | — | 1989-1998 | 1995 |
| Haag (2005) | 198 | 37 (10) | Canada | 19.7 | Conviction | Preselected high risk | Mixed | 1995 | 1995 |

*(continued)*

**Table 1. (continued)**

| Study | *n* | Age *M* (*SD*) | Country | 5-Year Recidivism (%) | Recidivism Criteria | Type of Sample | Mostly Treated | Release Period | Median Year of Release |
|---|---|---|---|---|---|---|---|---|---|
| Hanson, Harris, Scott, and Helmus (2007) | 702 | 42 (13) | Canada | 8.7 | Charges | Community supervision | — | 2001-2005 | 2002 |
| Hill, Habermann, Klusmann, Berner, and Briken (2008) | 86 | 39 (11) | Germany | 9.6 | Conviction | Sexual homicide perpetrators | — | 1971-2002 | 1989 |
| Johansen (2007) | 273 | 38 (11) | United States | 5.5 | Charges | Prison treatment | Yes | 1994-2000 | 1996 |
| Knight and Thornton (2007) | 466 | 36 (11) | United States | 23.3 | Charges | Civil commitment evaluation | — | 1957-1986 | 1970 |
| Långström (2004) | 1,278 | 41 (12) | Sweden | 5.4 | Conviction | Routine European prison | No | 1993-1997 | 1995 |
| Nicholaichuk (2001) | 281 | 35 (9) | Canada | 26.3 | Conviction | High-intensity treatment | Yes | 1983-1998 | 1992 |
| Swinburne Romine, Dwyer, Mathiowetz, and Thomas (2008) | 680 | 38 (12) | United States | 8.8 | Conviction | Community treatment | Mixed | 1977-2007 | 1988 |
| Ternowski (2004) | 247 | 44 (13) | Canada | 6.5 | Charges | Prison treatment | Yes | 1994-1998 | 1996 |
| Wilson, Cortoni, and Vermani (2007) and Wilson, Picheca, and Prinzo (2007) | 232 | 42 (11) | Canada | 12.4 | Charges | Preselected high risk | — | 1994-2007 | 2002 |
| Total | 7,740 | 40 (12) | | 10.1 | | | | 1957-2007 | 1996 |

*Note*. Five-year sexual recidivism rates were obtained from survival analysis. All samples had >50 cases at the beginning of the 5-year interval.

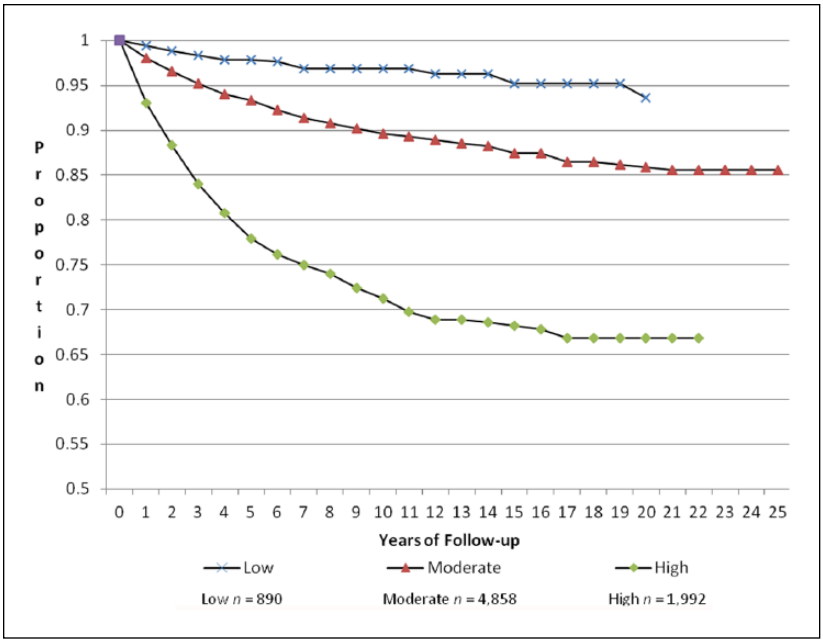



**Figure 1.** Time to sexual recidivism by risk level.

descended only 7% (from 78% to 71%) representing yearly rates in the 1% to 2% range. No high-risk sexual offender in this sample reoffended after 16 years offense-free (126 high-risk cases started year 17, of which 61 were followed for 5 years or more). The cumulative survival function indicated that the long-term recidivism rate for the high-risk offenders was approximately 32% starting from time of release.

Figures 2 and 3 plot the cumulative survival rates for offenders who remained sexual offense–free for 5 or 10 years, respectively. Summaries of the data from Figures 1 through 3 are presented in Table 2. The high-risk offenders still reoffended more quickly than the other groups, but the recidivism rates for all groups were substantially lower than for offenders at time of release. Whereas the 10-year sexual recidivism rate of the high-risk offenders from time of release was 28.8%, the rate declined to 12.5% for those who remained offense-free for 5 years, then 6.2% for those who remained offense-free for 10 years (see Table 2). A 10-year sexual recidivism rate of 6.2% for the high-risk group (10 years offense-free) was less than the expected rate of moderate risk offenders from time-at-release (10.4%).

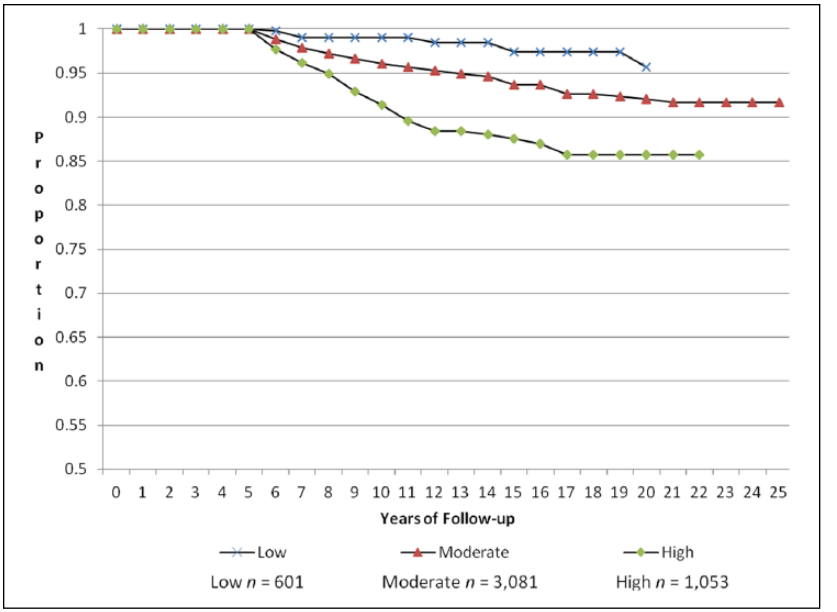



**Figure 2.** Time to sexual recidivism after 5 years sex offense–free in the community by risk level.

Inspection of Table 2 indicates that the expected recidivism rates were approximately cut in half for each 5 years that the offender was sexual offense–free in the community. For example, the 5-year sexual recidivism rate of the high-risk groups was 22.0% at release, 8.6% after 5 years, and 4.2% after 10 years offense-free. The same pattern applied to the moderate-risk offenders (and the full sample). In contrast, the recidivism rates for the low-risk offenders were consistently low (1%-5%), and did not change meaningfully based on years offense-free. For example, the 10-year sexual recidivism rate for the low-risk offenders was 3.1% from time of release and 3.4% for those who remained offense-free in the community for 10 years.

Table 3 compares the observed recidivism rate for the first five years with the recidivism rates for years 6 to 10 and years 11 to 15. These comparisons are reported as risk ratios, with the rates for subsequent 5-year periods divided by the rate for the first five years after release. For example, a risk ratio of 0.50 would indicate that the recidivism rate was cut in half, and a rate of 0.25 would indicate that the recidivism rate was ¼ the initial rate. All rate estimates were created from life table survival analysis.

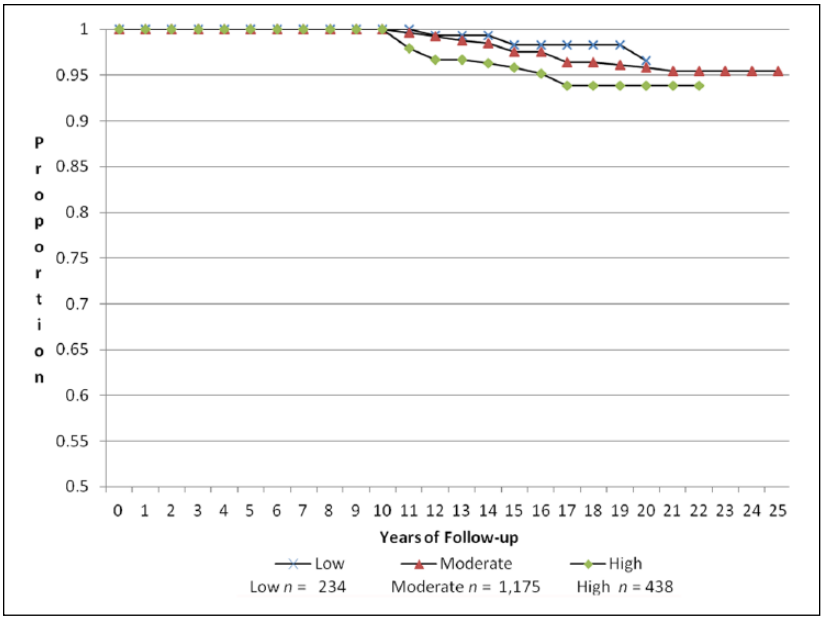



**Figure 3.** Time to sexual recidivism after 10 years sex offense–free in the community by risk level.

As can be seen in Table 3, the time-free effect was similar across the various subgroups examined, including those defined by age at release, treatment involvement, preselected high risk/high need, country, year of release, and victim type (adults, children, related children). As expected, there were meaningful differences in the initial recidivism rates; however, the relative risk reductions were similar across all subgroups. The risk ratios comparing the rates for years 6 to 10 with years 1 to 5 were tightly clustered between 0.33 and 0.59 (median of 0.46). The risk ratios comparing years 11 to 15 with years 1to 5 varied between 0.07 and 0.36, with the exception of the low-risk group, which had a risk ratio of 0.78 (median of 0.28).

## Discussion

The purpose of this study was to examine the extent to which high-risk sexual offenders remain high risk over time. As has been found for general offenders and violent offenders, the risk of sexual recidivism was highest in the first few years after release, and then decreased the longer they remained

**Table 2.** Sexual Recidivism Rates From Survival Analyses (Including Confidence Intervals).

| | *n* at Start of Follow-up | 5-Years Follow-up | | | 10-Years Follow-up | | | 15-Years Follow-up | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | % | 95% CI | (*n*) | % | 95% CI | (*n*) | % | 95% CI | (*n*) |
| Complete sample | | | | | | | | | | |
| From release | 7,740 | **10.1** | [9.4, 10.8] | (4,735) | **14.2** | [13.3, 15.2] | (1,847) | **16.6** | [15.4, 17.9] | (755) |
| 5 Years offense-free | 4,735 | **4.6** | [3.9, 5.4] | (1,847) | **7.3** | [6.1, 8.5] | (755) | **9.0** | [7.5, 10.5] | (420) |
| 10 Years offense-free | 1,847 | **2.8** | [1.8, 3.8] | (755) | **4.6** | [3.1, 6.0] | (420) | **4.8** | [3.3, 6.3] | (102) |
| Low (scores of −3 to −1) | | | | | | | | | | |
| From release | 890 | **2.2** | [1.2, 3.2] | (601) | **3.1** | [1.8, 4.4] | (234) | **4.7** | [2.1, 7.4] | (88) |
| 5 Years offense-free | 601 | **0.95** | [0.12, 1.8] | (234) | **2.6** | [0.12, 5.1] | (88) | **4.3** | [0.23, 8.4] | (53) |
| 10 Years offense-free | 234 | **1.7** | [0.0, 4.1] | (88) | **3.4** | [0.0, 7.4] | (53) | — | — | — |
| Moderate (scores of 0 to 4) | | | | | | | | | | |
| From release | 4,858 | **6.7** | [5.9, 7.4] | (3,081) | **10.4** | [9.3, 11.4] | (1,175) | **12.6** | [11.1, 14.0] | (496) |
| 5 Years offense-free | 3,081 | **4.0** | [3.1, 4.8] | (1,175) | **6.3** | [4.9, 7.7] | (496) | **8.0** | [6.1, 9.8] | (280) |
| 10 Years offense-free | 1,175 | **2.4** | [1.2, 3.6] | (496) | **4.2** | [2.4, 5.9] | (280) | **4.5** | [2.7, 6.4] | (69) |
| High (scores of 5+) | | | | | | | | | | |
| From release | 1,992 | **22.0** | [20.1, 24.0] | (1,053) | **28.8** | [26.4, 31.1] | (438) | **31.8** | [29.0, 34.5] | (171) |
| 5 Years offense-free | 1,053 | **8.6** | [6.6, 10.6] | (438) | **12.5** | [9.6, 15.3] | (171) | **14.3** | [10.8, 17.7] | (87) |
| 10 Years offense-free | 438 | **4.2** | [2.0, 6.4] | (171) | **6.2** | [3.1, 9.3] | (87) | — | — | — |

*Note*. "—" Indicates insufficient numbers to make useful estimates (< 50 cases per cell). Each column presents information for a specified follow-up period (i.e., 5, 10, or 15 years). The rows denote when the follow-up period starts. For example, the second row of data is for offenders in the overall sample who did not commit a sex offense in the first five years. The 5-year follow-up data for these offenders starts after their 5 years of offense-free survival in the community (i.e., it reflects recidivism rates 10 years from their initial release date).

**Table 3.** Relative Reductions in Sexual Recidivism Based on Comparing the Rate During the First Five Years in the Community With the 5-Year Rates Starting After 5 and 10 Offense-Free Years in the Community.

| | Sample Size at Start of Follow-up | Initial 5-Year Recidivism Rate (Years 1-5) | | Relative Rate After 5 Years Offense-Free (Years 6-10) | | Relative Rate After 10 Years Offense-Free (Years 11-15) | |
|---|---|---|---|---|---|---|---|
| | | % | (*n*) | Risk Ratio | (*n*) | Risk Ratio | (*n*) |
| Complete sample | 7,740 | 10.1 | (4,735) | 0.46 | (1,847) | 0.28 | (755) |
| Risk level (Static-99R scores) | | | | | | | |
| Low (scores of −3 to −1) | 890 | 2.2 | (601) | 0.44 | (234) | 0.78 | (88) |
| Moderate (scores of 0 to 4) | 4,858 | 6.7 | (3,081) | 0.59 | (1,175) | 0.36 | (496) |
| High (scores of 5+) | 1,992 | 22.0 | (1,053) | 0.39 | (438) | 0.19 | (171) |
| Age at release | | | | | | | |
| Immature (18 to 30 years) | 1,818 | 13.74 | (1,130) | 0.46 | (524) | 0.31 | (260) |
| Young (30 to 50 years) | 4,434 | 10.07 | (2,719) | 0.44 | (1,051) | 0.21 | (411) |
| Prime of life (50+ years) | 1,488 | 5.44 | (866) | 0.52 | (272) | 0.31 | (84) |
| Sample type | | | | | | | |
| Routine correctional | 4,040 | 6.73 | (2,248) | 0.55 | (671) | — | |
| Preselected treatment | 1,920 | 8.85 | (1,442) | 0.46 | (642) | 0.32 | (420) |
| Preselected high risk/needs | 1,621 | 20.42 | (963) | 0.37 | (491) | 0.16 | (294) |
| Country | | | | | | | |
| United States | 1,782 | 12.70 | (1,318) | 0.33 | (810) | 0.15 | (552) |
| Canada | 2,875 | 11.10 | (1,298) | 0.48 | (379) | 0.16 | (55) |
| Other | 3,082 | 7.63 | (2,118) | 0.60 | (658) | — | |

*(continued)*

**Table 3. (continued)**

| | Sample Size at Start of Follow-up | Initial 5-Year Recidivism Rate (Years 1-5) | | Relative Rate After 5 Years Offense-Free (Years 6-10) | | Relative Rate After 10 Years Offense-Free (Years 11-15) | |
|---|---|---|---|---|---|---|---|
| | | % | (*n*) | Risk Ratio | (*n*) | Risk Ratio | (*n*) |
| Year of release (sample median) | | | | | | | |
| 1970-1995 | 4,268 | 11.38 | (3,278) | 0.42 | (1,628) | 0.24 | (734) |
| 1996-2003 | 3,472 | 8.40 | (1,457) | 0.47 | (219) | — | |
| Victim type | | | | | | | |
| Adults (rape) | 2,182 | 9.95 | (1,262) | 0.45 | (443) | 0.24 | (102) |
| Children (all child molesters) | 3,188 | 8.59 | (1,887) | 0.42 | (807) | 0.19 | (351) |
| Related children (incest) | 1,539 | 4.17 | (985) | 0.50 | (418) | 0.07 | (179) |

*Note*. In the two right-hand columns, the "rate" represents the 5-year recidivism percentage observed in either the "after 5 years" or "after 10 years" offense-free in the community(as seen in Table 2) divided by the observed recidivism rate in the first five years in the community. Using the "Moderate" Static-99R row as an example, the expected 5-year recidivism rate for the initial sample ($n$ = 4,858) is 6.68%. For those who did not reoffend in the first five years ($n$ = 3,081), between the 6th and 10th year of follow-up the recidivism rate for this group is 3.96%. The 5-year recidivism rate for those who survived the first five years (3.96%) is then divided by the initial 5-year recidivism rate (6.68%; 3.96/6.68 = 0.59) which is the risk ratio included in the table. This finding indicates that the recidivism rate for men with "Moderate" Static-99R scores during the period between years 6 and 10 of follow-up has reduced to about 60% of what it was during the first five years of release. This method of calculation is used throughout Table 3.

offense-free in the community. The decline in hazard rates was greatest for sexual offenders who had been identified as high risk at time of release. For low-risk offenders, time free had little influence: their risk was consistently low (1%-5%). The same relative risk reductions were observed for subgroups categorized by age at release, treatment involvement, country, and victim type.

The current findings indicate static risk factors (e.g., prior offenses, victim characteristics) are valid, but time-dependent, markers for risk-relevant propensities. If high-risk sexual offenders do not reoffend when given the opportunity to do so, then there is clear evidence that they are not as high risk as initially perceived. The current study found that, on average, their recidivism risk was cut in half for each 5 years that they remained offense-free in the community.

Risk predictions describe lives that have yet to be fully lived; consequently, the more we know of an offender's life, the easier it is to predict the remainder. At the time of release, the best estimate of the likelihood of recidivism is the base rate for the group that the offender most closely resembles (i.e., offenders with the same risk score). Once given the opportunity to reoffend, the individuals who reoffend should be sorted into higher risk groups, and those who do not reoffend should be sorted into lower risk groups. This sorting process can result in drastic changes from the initial risk estimates. Based on the current results, for example, 22 out of 100 high-risk offenders would be expected to be charged or convicted of a new sexual offense during the 10 years following release. In contrast, the rate would be 4 out of 100 for those who survive sexual offense–free for 10 years. This low recidivism rate among the survivors suggests that their initial designation as "high-risk" sexual offenders was either incorrect, or that something has changed.

The current study did not address the reasons for the strong empirical association between years crime-free and desistance. There are several different mechanisms that could lead to this effect. The study did not directly address whether the offenders remaining offense-free were different individuals from the recidivists. Consequently, any apparent "effect" of time offense-free could be attributed to pre-existing differences between offenders. Given that criminal history variables (including Static-99R scores) are fallible indicators of risk-relevant propensities, some individuals who have a conviction for a sexual offense (or even a high Static-99R score) may never have had an enduring propensity toward sexual crime in the first place.

It is also possible that certain high-risk offenders genuinely changed. All the offenders in the current study had been convicted of at least one sexual offense, which would indicate a non-negligible risk at one time. Furthermore, it would be difficult to get a high score (5+) on Static-99R without an extended

period of engaging in sexual and general crime. Nevertheless, a substantial portion of the high-risk offenders survived throughout the complete follow-up period without any new crimes being detected. Given that it is likely that at least some of the offenders changed in a prosocial direction, further research is needed to increase our capacity to distinguish between desisters and future recidivists.

The only type of recidivism examined in the current study was sexual recidivism (as measured by charges and convictions). Consequently, it is quite likely that evaluators would have increased capacity to discriminate recidivists from non-recidivists by monitoring ongoing involvement in non-sexual crime, and by measuring indicators of commitment to prosocial goals. In particular, structured methods for evaluating sexual offenders' criminogenic needs have been demonstrated to be incremental to Static-99/R in the prediction of sexual recidivism for prison samples (Beggs & Grace, 2010; Knight & Thornton, 2007; Olver et al., 2007) and community samples (McGrath et al., 2012).

Even if the reasons for the reduced risk over time are not fully known, the current results have clear implications for the community supervision of sexual offenders. Following Andrews and Bonta's (2010) risk principle, high-risk sexual offenders should receive the most intensive service and monitoring during the early part of their community sentence. Subsequently, the intensity of interventions could decline to the level normally applied to moderate-risk individuals when offenders who were initially high risk remain offense-free for several years.

The current findings also suggest that certain long-term supervision and monitoring policies (e.g., lifetime registration) may be being applied to a substantial number of individuals with a low risk for sexual offending. Although the moral consequences of sexual offending may last forever, the current results suggest that sexual offenders who remain offense-free could eventually cross a "redemption" threshold in terms of recidivism risk, such that their current risk for a sexual crime becomes indistinguishable from the risk presented by nonsexual offenders.

Previous large sample studies have found that the likelihood of an "out of the blue" sexual offense committed by offenders with no history of sexual crime is 1% to 3%: 1.1% after 4 years (Duwe, 2012); 1.3% after 3 years (Langan, Schmitt, & Durose, 2003); 3.2% after 4.5 years (Wormith, Hogg, & Guzzo, 2012). In comparison, only 2 of 100 moderate-risk sexual offenders in the current study committed a new sexual offense during a 5-year follow-up period if they were able to remain 10 years offense-free in the community. The high-risk offenders in the current sample, however, never fully resembled nonsexual offenders. Although their recidivism rates declined

substantially when they were 10 years offense-free, the 5-year recidivism rate of the initially high-risk offenders (4.2%) was still higher than the expected rate for nonsexual offenders (1%-3%).

### Limitations

The current results were predicated on the assumption that release to the community provided opportunities for offending. However, it is possible that certain forms of conditional release are sufficiently confining as to meaningfully limit opportunities (e.g., house arrest). The nature of the supervision conditions of the offenders in the current study were not fully known; however, given the typical practices in the jurisdictions for these time periods, it would be likely that the offenders had real opportunities to reoffend once released to the community.

Some evidence that supervision practices may moderate the time-free effect is provided in a recent study by Zgoba et al. (2012). This follow-up study of 1,789 adult sex offenders from four states (Minnesota, New Jersey, Florida, and South Carolina), did not find that risk declined with time in the community. Overall, there was a constant hazard rate of 1% per year for first ten years (e.g., 5% after 5 years; 10% after 10 years). The reasons for the constant hazard rate is not known, but could be related to strict supervision practices and high rates of technical breaches observed in these samples.

Another limitation is that recidivism was measured by officially recorded charges or convictions. It is well known that official records as an indicator of recidivism have high specificity (those identified are most likely guilty) but low sensitivity (many offenses are undetected). Even if the detection rate per offense is low, however, the detection rate per offender could be high if offenders commit multiple offenses. As well, the most serious offenses are those most likely to be reported to the police (Fisher, Daigle, Cullen, & Turner, 2003).

## Conclusions

This study found that sexual offenders' risk of serious and persistent sexual crime decreased the longer they had been sex offense–free in the community. This pattern was particularly evident for high-risk sexual offenders, whose yearly recidivism rates declined from approximately 7% during the first calendar year, to less than 1% per year when they have been offense-free for 10 years or more. Consequently, intervention and monitoring resources should be concentrated in the first few years after release, with diminishing attention

and concern for individuals who remain offense-free for substantial periods of time.

## Acknowledgment

We would like to thank the following researchers for granting us permission to use their data: Alfred Allan, Susanne Bengtson, Jacques Bigras, Sasha Boer, Jim Bonta, Sébastien Brouillette-Alarie, Franca Cortoni, Jackie Craissati, Margretta Dwyer, Reinhard Eher, Doug Epperson, Tina Garby, Randolph Grace, Steve Gray, Andy Haag, Andreas Hill, Steve Johansen, Ray Knight, Niklas Långström, Terry Nicholaichuk, Kevin Nunes, Jean Proulx, Martin Rettenberger, Rebecca Swinburne Romine, Daryl Ternowski, Robin Wilson, and Annie Yessine.

## Authors' Note

The views expressed are those of the authors and not necessarily those of Public Safety Canada or the Wisconsin Department of Health Services.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## References

References marked with an asterisk indicate studies included in the analyses. Wilson, Cortoni, and Vermani (2007) and Wilson, Picheca, and Prinzo (2007) both have an asterisk, although they were combined into one sample for the current study.

Agresti, A., & Coull, B. A. (1998). Approximate is better than "exact" for interval estimation of binomial proportions. *The American Statistician*, *52*, 119-126. doi: 10.1080/00031305.1998.10480550

*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. doi:10.1007/s11194-007-9052-5

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). Newark, NJ: LexisNexus.

Archer, R. P., Buffington-Vollum, J. K., Stredny, R. V., & Handel, R. W. (2006). A survey of psychological test use patterns among forensic psychologists. *Journal of Personality Assessment*, *87*, 84-94. doi:10.1207/s15327752jpa8701_07

*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 and Comparative Criminology*, *47*, 422-438. doi:10.1177/0306624X03253850

Beggs, S. M., & Grace, R. C. (2010). Assessment of dynamic risk factors: An independent validation study of the Violence Risk Scale: Sexual Offender version. *Sexual Abuse: A Journal of Research and Treatment*, *22*, 234-251. doi:10.1177/1079063210369014

*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. doi:10.1080/10683160701483104

*Bigras, J. (2007). La prédiction de la récidive chez les délinquants sexuels [Prediction of recidivism among sex offenders]. (UMI No. NR30941, Université de Sherbrooke (Canada)). ProQuest Dissertations and Theses, 102. Retrieved from http://search.proquest.com/docview/304759709?accountid=9894 (304759709).

Blumstein, A., & Nakamura, K. (2009). Redemption in the presence of widespread criminal background checks. *Criminology*, *47*, 327-359. doi:10.1111/j.1745-9125.2009.00155.x

*Boer, A. (2003). *Evaluating the Static-99 and Static-2002 risk scales using Canadian sexual offenders* (Unpublished master's thesis). University of Leicester, UK.

*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)]. Unpublished raw data, Public Safety and Emergency Preparedness Canada, Ottawa, Ontario.

*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*.

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*, 66-77. doi:10.1037/0033-2909.99.1.66

Bushway, S. D., Nieubeerta, P., & Blokland, A. (2011). The predictive value of criminal background checks: Do age and criminal history affect time to redemption? *Criminology*, *49*, 27-60. doi:10.1111/j.1745-9125.2010.00217.x

Colorado Sex Offender Management Board. (2011). *Standards and guidelines for the evaluation, assessment, treatment, and supervision of juveniles who have committed sexual offenses*. Colorado Department of Public Safety, Division of Criminal Justice. Retrieved from http://dcj.state.co.us/odvsom/sex_offender/SO_Pdfs/2012%20ADULT%20STANDARDS%20FINAL%20C.pdf

*Cortoni, F., & Nunes, K. L. (2007). *Assessing the effectiveness of the National Sexual Offender Program* (Research Report No. R-183) (Unpublished Report). Ottawa, Ontario: 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

Cumming, G., & Finch, S. (2005). Inference by eye: Confidence intervals and how to read pictures of data. *American Psychologist*, *60*, 170-180. doi:10.1037/0003-066X.60.2.170

Duwe, G. (2012). Predicting first-time sexual offending among prisoners without a prior sex offense history: The Minnesota Sexual Criminal Offending Risk Estimate (MnSCORE). *Criminal Justice and Behavior*, *39*, 1436-1456. doi:10.1177/0093854812453911

*Eher, R., Rettenberger, M., Schilling, F., & Pfafflin, F. (2009). [Data from sex offenders released from prison in Austria]. Unpublished raw data.

*Epperson, D. L. (2003). *Validation of the MnSOST-R, Static-99, and RRASOR with North Dakota prison and probation samples* (Unpublished Technical Assistance Report). Bismarck, ND: North Dakota Department of Parole and Probation.

Ewing, C. P. (2011). *Justice perverted: Sex offense law, psychology, and public policy*. New York, NY: Oxford University Press.

Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior*, *30*, 6-38. doi:10.1177/0093854802239161

*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. *Dissertation 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, Ontario: Public Safety Canada.

Hanson, R. K., Lloyd, C., 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*, 9-23. doi:10.1080/14999013.2012.667511

Hanson, R. K., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology*, *73*, 1154-1163. doi:10.1037/0022-006X.73.6.1154

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

Harris, A. J. R., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question* (User Report 2004-03). Ottawa, Ontario: Public Safety and Emergency Preparedness Canada.

Harris, A. J. R., Phenix, A., Hanson, R. K., & Thornton, D. (2003). *Static-99 coding rules: Revised 2003*. Ottawa, Ontario: Solicitor General Canada.

Harris, G. T., & Rice, M. E. (2007). Adjusting actuarial violence risk assessments based on aging or the passage of time. *Criminal Justice and Behavior*, *34*, 297-313. doi:10.1177/0093854806293486

Helmus, L. (2009). *Re-norming Static-99 recidivism estimates: Exploring base rate variability across sex offender samples* (Master's thesis). Available from ProQuest Dissertations and Theses database. (UMI No. MR58443).

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*, 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: A Journal of Research and Treatment*, *24*, 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. doi:10.1177/0306624X07307450

Howard, P. (2011). *Hazards of different types of reoffending* (Ministry of Justice Research Series 3/11). London, England: UK Ministry of Justice.

Interstate Commission for Adult Offender Supervision. (2007). *Sex offender assessment information survey* (ICAOS Documents No. 4-2007). Lexington, KY: Author.

*Johansen, S. H. (2007). Accuracy of predictions of sexual offense recidivism: A comparison of actuarial and clinical methods. *Dissertation 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). Washington, DC: U.S. Department of Justice.

Langan, P. A., Schmitt, E. L., & Durose, M. R. (2003). *Recidivism of sex offenders released from prison in 1994*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

*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. doi:10.1177/107906320401600202

Maruna, S., & Roy, K. (2007). Amputation or reconstruction? Notes on the concept of "knifing off" and desistance from crime. *Journal of Contemporary Criminal Justice*, *23*, 104-124. doi:10.1177/1043986206298951

McGrath, R. J., Cumming, G. F., Burchard, B. L., Zeoli, S., & Ellerby, L. (2010). *Current practices and emerging trends in sexual abuser management: The Safer Society 2009 North American survey*. Brandon, VT: Safer Society Foundation.

McGrath, R. J., Lasher, M. P., & Cumming, G. F. (2012). The sex Offender Treatment Intervention and Progress Scale (SOTIPS): Psychometric properties and incremental predictive validity with Static-99R. *Sexual Abuse: A Journal of Research and Treatment*, *24*, 431-458. doi:10.1177/1079063211432475

*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. P., 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*, 318-329. doi:10.1037/1040-3590.19.3.318

Resick, P. A. (1993). The psychological impact of rape. *Journal of Interpersonal Violence*, *8*, 223-255. doi:10.1177/088626093008002005

Singer, J. D., & Willet, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford, UK: Oxford University Press.

Soothill, K. L., & Gibbens, T. C. N. (1978). Recidivism of sexual offenders: A re-appraisal. *British Journal of Criminology*, *18*, 267-276.

*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. *Dissertation Abstracts International*, *66*(06), 3428B. (UMI No. NR03201)

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

*Wilson, R. J., Picheca, J. E., & Prinzo, M. (2007). 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. doi:10.1111/j.146

Wormith, J. S., Hogg, S., & Guzzo, L. (2012). The predictive validity of a general risk/needs assessment inventory on sexual offender recidivism and an exploration of the professional override. *Criminal Justice and Behavior*, *39*, 1511-1538. doi:10.1177/0093854812455741

Zgoba, K. M., Miner, M., Knight, R., Letourneau, E., Levenson, J., & Thornton, D. (2012). *A multi-site recidivism study using Static-99R and Static-2002 risk scores and tier guidelines from the Adam Walsh Act*. Washington, DC: U.S. National Institute of Justice. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/240099.pdf

## Author Biographies

**R. Karl Hanson,** PhD, C Psych, is a senior research scientist with Public Safety Canada, and adjunct research professor at Carleton University, Ottawa, Canada. Originally trained as a clinical psychologist, he spent the past 25 years conducting research on the assessment and treatment of sexual offenders and male perpetrators of intimate partner violence. His major contributions have included widely used risk assessment tools (Static-99R, Static-2002R, STABLE-2007, ACUTE-2007) and influential meta-analyses on risk assessment and treatment outcome for sexual offenders. He is a fellow of the Canadian Psychological Association and the 2002 recipient of the Lifetime Significant Achievement Award from the Association for the Treatment of Sexual Abusers.

**Andrew J. R. Harris**, PhD, C Psych, is the director of the Forensic Assessment Group, Ottawa, Ontario, Canada (www.offenderrisk.com). He did his doctoral research on the intersection of Hare's conception of criminal psychopathy and high levels of sexual deviance as assessed in a probation and parole sample. Previous employment included both research and clinical capacities at the Oak Ridge (Maximum Security) Penetanguishene Mental Health Centre, the Department of the Solicitor General Canada (Public Safety Canada), and the Correctional Service of Canada (Warkworth Penitentiary). He speaks and teaches extensively on the history of prison architecture, static and dynamic risk assessment, psychopathy, and the risk to reoffend among developmentally delayed offenders and high-risk violent offenders.

**Leslie Helmus** is a PhD student in forensic psychology at Carleton University in Ottawa, Ontario, Canada. Her research interests are focused on the assessment and treatment of sexual offenders. She has been involved in recent advances in structured risk assessment tools, including the development of STABLE-2007/ACUTE-2007, and developing and norming Static-99R and Static-2002R (as well as co-author of the coding rules for the latter). She has received numerous grants and academic awards including the Association for the Treatment of Sexual Abusers Pre-doctoral Research Grant. She has also served on the executive boards of the Canadian Psychological Association's Criminal Justice Section and the Association for the Treatment of Sexual Abusers.

**David Thornton** obtained his PhD in psychology in the United Kingdom. About a third of his career has been in research designed to inform clinical practice, about a third of it in clinical practice (which he has tried to base on research), and about a third of it has been as an administrator trying to make systems support both research and clinical practice. Between 1990 and 2001 he led the team in Her Majesty's Prison Service responsible for developing and implementing national treatment programs for offenders. From 2001 until 2013, he was the treatment director for Wisconsin's SVP treatment program. He is currently the research director for this program and also a professor in the department of clinical psychology at the University of Bergen in Norway. He has been involved in the creation of widely used static risk assessment tools (Static-99, Risk Matrix 2000, etc.) and in the development of frameworks for evaluating psychological risk factors (the Structured Risk Assessment framework). Recent work has included research into the effects of eating salmon on executive functioning, an fMRI study of sexual sadists, and a review of the role of protective factors in sexual recidivism.

# Attachment 5:

Dr. R.K. Hanson, et al. *Not Always a Sexual Offender* (2018)

Psychology, Public Policy, and Law
2018, Vol. 24, No. 1, 48–63


http://dx.doi.org/10.1037/law0000135

# Reductions in Risk Based on Time Offense-Free in the Community: Once a Sexual Offender, Not Always a Sexual Offender

R. Karl Hanson
Public Safety Canada

Andrew J. R. Harris
offenderrisk.com

Elizabeth Letourneau
Johns Hopkins University

L. Maaike Helmus
Victoria University of Wellington

David Thornton
Madison, Wisconsin

Whereas there is a common assumption that most individuals with a criminal record can be eventually reintegrated into the community, the public has different expectations for sexual offenders. In many countries, individuals with a history of sexual offenses are subject to a wide range of long-term restrictions on housing and employment, as well as public notification measures intended to prevent them from merging unnoticed into the population of law-abiding citizens. This article examines the testable assumption that individuals with a history of sexual crime present an enduring risk for sexual recidivism. We modeled the long-term (25-year) risk of sexual recidivism in a large, combined sample ($N > 7{,}000$). We found that the likelihood of new sexual offenses declined the longer individuals with a history of sexual offending remain sexual offense-free in the community. This effect was found for all age groups and all initial risk levels. Nonsexual offending during the follow-up period increased the risk of subsequent sexual recidivism independent of the time free effect. After 10 to 15 years, most individuals with a history of sexual offenses were no more likely to commit a new sexual offense than individuals with a criminal history that did not include sexual offenses. Consequently, policies designed to manage the risk of sexual recidivism need to include mechanisms to adjust initial risk classifications and determine time periods where individuals with a history of sexual crime should be released from the conditions and restrictions associated with the "sexual offender" label.

*Keywords:* sex offenders, desistance, public protection, recidivism



Sexual violence is a serious public health problem (Pereda, Guilera, Forns, & Gómez-Benito, 2009; Stoltenborgh, van Ijzendoorn, Euser, & Bakermans-Kranenburg, 2011; World Health Organization, 2013) that increases the likelihood of mental, physical, and behavioral health problems across the life course (Campbell & Wasco, 2005; Chen et al., 2010; Hillberg, Hamilton-Giachritsis, & Dixon, 2011; Kendler et al., 2000; Maniglio, 2009; Nelson et al., 2002; Paras et al., 2009; World Health Organization, 2013). Not surprisingly, there is strong public support for severe, lengthy criminal sanctions (Lynch, 2002) and long-term social control policies for individuals convicted of sexual offenses (Levenson, Brannon, Fortney, & Baker, 2007; Lieb, 2003; Mears, Mancini, Gertz, & Bratton, 2008). Policymakers' concerns about the lifelong, enduring risk presented by individuals with a history of sexual crime has resulted in diverse social control mechanisms that apply uniquely to sexual offenders, such as sexual offender registries, community notification, and residency restrictions (Laws, 2016; Letourneau & Levenson, 2010; Logan, 2009).

This article was published Online First October 19, 2017.

R. Karl Hanson, Public Safety Canada; Andrew J. R. Harris, offenderrisk.com; Elizabeth Letourneau, Bloomberg School of Public Health, Johns Hopkins University; L. Maaike Helmus, Department of Psychology, Victoria University of Wellington; David Thornton, Madison, Wisconsin.

We thank Alfred Allan, Tony Beech, Susanne Bengtson, Jacques Bigras, Sasha Boer, Jim Bonta, Sébastien Brouillette-Alarie, Franca Cortoni, Jackie Craissati, Margretta Dwyer, Reinhard Eher, Doug Epperson, Tina Garby, Randy Grace, Steve Gray, Andy Haag, Leigh Harkins, Steve Johansen, Ray Knight, Kevin Nunes, Niklas Långström, Terry Nicholaichuk, Jean Proulx, Martin Rettenberger, Rebecca Swinburne Romine, Daryl Ternowski, Robin Wilson, and Annie Yessine for permission to use their data, and Seung C. Lee and Andrew E. Brankley for help with the analyses.

An earlier version of this study was presented by Andrew J. R. Harris and R. Karl Hanson at the 29th Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers (October 2010, Phoenix, AZ) and included in a declaration by R. Karl Hanson for the U.S. District Court for the Northern District of California (*Doe v. Harris*, 2012 [Internet free speech]).

R. K. Hanson, A. J. R. Harris, L. M. Helmus and D. Thornton are authors and certified trainers of the Static-99R risk tool. The copyright for Static-99R is held by the Government of Canada.

The views expressed are those of the authors and not necessarily those of Public Safety Canada.

Correspondence concerning this article should be addressed to R. Karl Hanson, Psychology Department, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario, K1S 5B6, Canada. E-mail: rkarlhanson@gmail.com

This article examines the testable assumption that adult males who have been convicted of a sexual offense actually present an enduring risk for sexual recidivism (for information on individuals who have committed sexual offenses as youths, see Caldwell, 2016). Currently, there is consensus that the recidivism risk of individuals convicted of nonsexual offenses declines the longer they remain offense-free in the community (Blumstein & Nakamura, 2009; Bushway, Nieuwbeerta, & Blokland, 2011; Kurlychek, Bushway, & Brame, 2012). As Kurlychek et al. (2012) wrote:

> The general tendency for recidivism risk to decline over time is among the best replicated results in empirical criminology. It is probably not an exaggeration to say that any recidivism study with more than a 2- or 3-year follow-up period that did not find a downward-sloping marginal hazard would be immediately suspect. (p. 75)

These "time offense-free" effects are congruent with the criminal justice systems of most Western democracies, in which there is an expectation and public acceptance that most individuals who have been convicted of a crime can be successfully reintegrated into society. The same expectation and acceptance does not hold for sexual offenders.

The modern wave of sex crime policy can be dated to the 1980s and early 1990s, typically introduced in direct response to sexually motived murders of children by recidivistic offenders (e.g., Joseph Fredericks [Petrunik & Weisman, 2005] in Canada; the kidnapping and murders of Megan Kanka and Jacob Wetterling in the United States). These and other rare but horrific offenses were highly publicized, contributing to what some have called a "panic" about sexually violent predators (Logan, 2009, p. 86) and cementing views about individuals with a history of sexual crime as uniformly high risk for recidivism and resistant to rehabilitation (Harris & Socia, 2016). America in the 1980s and early 1990s was also faced with seemingly unstoppable increases in violent crime rates, accompanied by a shift in US sentiment toward punitiveness (Lynch, 2002). Also contributing to the rapid, widespread propagation of these sex crime policies was increased U.S. federal involvement in state criminal law, and increasingly effective citizen demands on politicians to do something to address sexual offending, often by the parents of child victims (Logan, 2009; Zimring, 2009). The net result was public protection policies that uniquely targeted individuals convicted of sexual offenses: post-release civil commitment, registration, public notification, and residence, employment, and education restrictions (Laws, 2016; Letourneau & Levenson, 2010; Logan, 2009; Zimring, 2009).

## Rates of Sexual Recidivism

Follow-up studies of adult males with a history of sexual crime typically find sexual recidivism rates of between 5% and 15% after 5 years, and between 10% and 25% after 10 years (see reviews by Hanson & Bussière, 1998; Harris & Hanson, 2004; Helmus, Hanson, Thornton, Babchishin, & Harris, 2012). These observed rates underestimate the real recidivism rates because not all sexual offenses are reported and available in the databases used by researchers. Nevertheless, these rates do not support the popular belief that sexual offenders inevitably reoffend.

Furthermore, long-term (10+ years) studies of sexual recidivism consistently observe the highest rates during the first few years after release, with gradually declining rates of recidivism thereafter (Blokland & van der Geest, 2015; Cann, Falshaw, & Friendship, 2004; Hanson, Harris, Helmus, & Thornton, 2014; Hanson, Steffy, & Gauthier, 1993; Harris & Hanson, 2004; Prentky, Lee, Knight, & Cerce, 1997; Soothill & Gibbens, 1978). Rather than focusing on the reduction of risk based on time offense-free, early studies emphasized the enduring nature of the risk of sexual offenders (Hanson et al., 1993; Soothill & Gibbens, 1978), particularly for sexual offenders against children (Hanson, 2002). The notion that sexual offenders present an enduring risk is now well entrenched among the public (Harris & Socia, 2016; Levenson et al., 2007), policymakers (Sample & Kadleck, 2008), and those working in the criminal justice system (Bumby & Maddox, 1999; Lawson & Savell, 2003; Zevitz & Farkas, 2000).

## Desistance From Sexual Offending

There is no single accepted definition of desistance for a sexual offender. Even if the risk of sexual recidivism declines with time offense-free, even small residual risk could be worrisome given the serious consequences of sexual victimization. For general offenders, desistance is often defined as a marked reduction in the propensity to commit crime, and is typically operationalized in research studies by an absence of self-reported or officially recorded crime for a specified number of years (e.g., 3 to 10; see review by Kazemian, 2007). Desistance for general offenders has also been defined as a reduction of risk (individual propensity to commit crime) that is equal to or less than the rate of spontaneous new offenses among individuals who have never been apprehended for a criminal offense (Bushway et al., 2011; Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001; Göbbels, Ward, & Willis, 2012; Kazemian, 2007).

For sexual offenders, a plausible threshold for desistance is when their risk for a new sexual offense is no different than the risk of a spontaneous sexual offense among individuals who have no prior sexual offense history but who have a history of nonsexual crime. If we are going to manage the risk of an individual with a history of sexual crime differently from an individual with a history of nonsexual crime, then their risk of sexual offending should be perceptibly different. A recent review of 11 studies from diverse jurisdictions ($n$ = 543,024) found a rate of spontaneous sexual offenses among nonsexual offenders to be in the 1% to 2% range after 5 years (Kahn, Ambroziak, Hanson, & Thornton, 2017). This is meaningfully lower than the sexual recidivism rate of adults who have already been convicted of a sexual offense. However, it is not zero. A sexual recidivism rate of less than 2% after 5 years is also a defensible threshold below which individuals with a history of sexual crime should be released from conditions associated with the sexual offender label. From a risk management perspective, resources that may be spent on these very low risk sexual offenders would be better spent on higher risk offenders, prevention of sexual crime, and victim services.

## Statistical Models of Desistance

The current study uses long-term criminal history records to estimate declining recidivism risk and, ultimately, desistance

among sexual offenders. Criminal history records are informative but incomplete indicators of criminal behavior. Consequently, we cannot conclude from an observed recidivism rate of 10% that the remaining 90% have committed no crimes. Some simply haven't got caught. It is also important to distinguish between reductions in an individuals' propensity to commit sexual crime (e.g., deviant sexual interests, low self-control, sexual preoccupations, intentions to offend) and actually committing sexual crime (detected or not). Given that the new wave of sexual offender policies are intended to prevent reoffending in individuals with enduring propensities for sexual crime, propensities are the central constructs guiding current public protection policy for sexual offenders.

Following the standard distinction between observed variables and latent constructs (Cronbach & Meehl, 1955), the propensity to commit crime is a latent construct, which is not directly observable, and would be vigorously denied by all but the most dysfunctional individuals in the criminal justice system. Consequently, these propensities must be inferred from indicators, such as past behavior, attitudes, peer associations, and lifestyle. These propensities can also be inferred by statistical studies of cohorts over time (Blumstein & Nakamura, 2009; Bushway et al., 2011; Hargreaves & Francis, 2014; Soothill & Francis, 2009). Observed variation in crime rates for particular time periods (i.e., empirical hazard rates) should be proportional to the latent propensity to commit crime. Variation in hazard rates, however, is determined by both the composition of the group and changes in individuals' risk. Given that the highest risk offenders will be removed first from the overall sample, the remaining study participants contain an increasing proportion of individuals who were low risk at the onset (*frailty* in survival analysis; Aalen, Borgan, & Gjessing, 2008, pp. 231–268). Consequently, declining hazard rates cannot be directly interpreted as improvements (declining propensities) at the individual level. Such declines, however, can be interpreted as reductions in the overall risk presented by individuals who remain offense-free.

Although reliable evaluation of individual change is important for those assessing and treating individual sexual offenders, public protection policies need not be concerned about teasing apart the relative contribution of individual change versus change in group composition. Global, statistical estimates of risk can and should inform policies concerning the objectively defined groups that should be subject to exceptional public protection measures. In general, the most efficient interventions are proportional to the risk presented, with greater resources directed toward the highest risk individuals (i.e., the risk principle in the risk/need/responsivity model; Andrews, Bonta, & Hoge, 1990). As well, principles of fundamental justice dictate that exceptional restrictions and administrative burdens intended to protect the public should be equitably applied to individuals of equivalent risk. In the same way that we respond differently to individuals at different risk levels, so too should we reduce restrictions on individuals for whom there is strong evidence that their propensity to engage in sexual crime is lower than previously believed. Although the moral consequences of a sexual offense may endure indefinitely, the risk of recidivism may not.

## Current Study

The purpose of the current study was to extend previous research on the declining risk of sexual recidivism over time (Hanson et al., 2014) by statistically modeling the effects of time sexual offense-free in the community, initial risk level, age, and subsequent nonsexual offending. Discrete time survival analysis was used to estimate hazard rates for a large, aggregated sample of sexual offenders ($N > 7{,}000$) followed for up to 25 years. The sample included sexual offenders from diverse settings and from the full range of risk levels, as measured by the Static-99R sexual offender risk assessment tool (Helmus, Thornton, Hanson, & Babchishin, 2012). These analyses also allowed us to estimate the length of time at which desistance can be presumed, specifically, when the risk of a new sexual crime is no different than the spontaneous rate of first-time sexual offenses among felons with no history of sexual crime.

## Method

### Participants

The individuals in the current study were selected from previous studies used to develop and norm the Static-99R sexual offender risk tool (Hanson et al., 2014; Helmus, Thornton, et al., 2012). All participants were adult males (18+) with an officially recorded history of sexual crime, a valid Static-99R score, and at least 6 months of follow-up time. Of the data sets used in previous studies, Knight and Thornton's (2007) sample was excluded because of their anomalous coding of the 10-year survival time for nonrecidivists (all nonrecidivists with more than 10 years follow-up time were censored at exactly 10 years).

The data were drawn from 20 different samples (see Table 1). Following Hanson, Thornton, Helmus, and Babchishin (2016), the samples were grouped into three broad categories: (1) relatively unbiased samples of a routine, complete, or randomly selected set of cases drawn from a particular jurisdiction (routine/complete samples; $k = 8$, $n = 4{,}026$); (2) individuals referred to specialized sexual offender treatment (treatment samples; $k = 5$, $n = 1{,}899$); and (3) individuals preselected to be high risk/high need ($k = 5$, $n = 1{,}141$). The study included two additional, small samples that did not fit the main categories, namely a German sample of sexual murders ($n = 86$; Hill, Habermann, Klusmann, Berner, & Briken, 2008) and a sample of individuals screened to be low risk ($n = 73$; Cortoni & Nunes, 2008). These samples were classified as "other." Previous research with these samples indicated that classification into these four sample types (routine, treatment, high risk, other) can done with high reliability ($\kappa = .92$; Hanson, Thornton, et al., 2016).

The follow-up period ranged from 6 months to 31.5 years ($Mdn = 7.2$ years, $M = 8.2$, $SD = 5.3$ years). Nine of the samples used charges for a new sexual offense as the recidivism criteria, whereas 11 used convictions (see Table 2). Previous analyses with this dataset found relatively little difference in the overall results whether charges and convictions were considered separately or were combined (Helmus, 2009). On average, the mean follow-up time for offenders in the routine samples ($M = 6.7$ years, $SD = 3.4$, range: 6 months to 26.5 years) was shorter than the mean follow-up time for the treatment samples ($M = 11.0$ years, $SD =$

Table 1
*Descriptive Information for Samples*

| Study | *n* | Age | | Country | Static-99R | | Type of sample | Release period |
|---|---|---|---|---|---|---|---|---|
| | | *M* | *SD* | | *M* | *SD* | | |
| Routine/complete | | | | | | | | |
| Bartosh et al. (2003) | 186 | 38 | 12 | U.S. | 3.3 | 2.9 | Corrections | 1996 |
| Bigras (2007) | 473 | 43 | 12 | Canada | 2.1 | 2.4 | CSC Reception Centre | 1995–2003 |
| Boer (2003) | 299 | 41 | 12 | Canada | 2.8 | 2.8 | CSC release cohort | 1976–1994 |
| Craissati et al. (2011) | 209 | 38 | 12 | U.K. | 2.2 | 2.3 | Community supervision | 1992–2005 |
| Eher et al. (2009) | 706 | 41 | 13 | Austria | 2.3 | 2.3 | Prison | 2000–2005 |
| Epperson (2003) | 177 | 37 | 13 | U.S. | 2.5 | 2.6 | Prison and probation | 1989–1998 |
| Hanson et al. (2007) | 698 | 42 | 13 | Canada | 2.4 | 2.4 | Community supervision | 2001–2005 |
| Långström (2004) | 1,278 | 41 | 12 | Sweden | 2.0 | 2.4 | National prison release cohort | 1993–1997 |
| Preselected treatment | | | | | | | | |
| Allan et al. (2007) | 476 | 42 | 12 | New Zealand | 1.8 | 2.3 | Prison treatment | 1990–2000 |
| Brouillette-Alarie & Proulx (2008) | 223 | 36 | 10 | Canada | 3.9 | 2.4 | Prison & community treatment | 1979–2005 |
| Johansen (2007) | 273 | 38 | 11 | U.S. | 2.9 | 2.3 | Prison treatment | 1994–2000 |
| Romine Swinburne et al. (2008) | 680 | 38 | 12 | U.S. | 1.7 | 2.2 | Community treatment | 1977–2007 |
| Ternowski (2004) | 247 | 44 | 13 | Canada | 1.6 | 2.5 | Prison treatment | 1994–1998 |
| High risk/high need | | | | | | | | |
| Bengtson (2008) | 311 | 33 | 10 | Denmark | 3.8 | 2.4 | Forensic psychiatric evaluations | 1978–1995 |
| Bonta & Yessine (2005) | 132 | 40 | 10 | Canada | 5.0 | 2.2 | Preselected high risk | 1992–2004 |
| Haag (2005) | 198 | 37 | 10 | Canada | 3.9 | 2.3 | Detained until end of sentence | 1995 |
| Nicholaichuk (2001) | 272 | 35 | 9 | Canada | 4.8 | 2.4 | High intensity treatment | 1983–1998 |
| Wilson et al. (2007a, 2007b) | 228 | 42 | 11 | Canada | 5.1 | 2.3 | Preselected high risk | 1994–2006 |
| Other | | | | | | | | |
| Cortoni & Nunes (2008) | 73 | 42 | 12 | Canada | 2.2 | 2.1 | CSC low intensity treatment | 2001–2004 |
| Hill et al. (2008) | 86 | 39 | 11 | Germany | 4.7 | 2.0 | Sexual homicide perpetrators | 1971–2002 |
| Total | 7,225 | 40 | 12 | | 2.6 | 2.6 | | 1971–2007 |

*Note*. CSC = Correctional Service Canada (administers all sentences of at least 2 years).

6.8, range: 6 months to 31.1 years) and high risk/high need samples ($M = 8.9$ years, $SD = 5.6$, range: 6 months to 24.6 years). As can be seen in Table 3, the distributions of individuals from the different sample types varied based on follow-up period. Of the 4,940 individuals followed for 5 years or more, 48.7% were from routine samples. In contrast, only 5.9% of those followed for 15 years or more were from routine samples (64.6% treatment; 25.4% high risk/high need; 4.1% other; total $n = 740$). Overall, 394 individuals were followed for more than 20 years, and 79 for more than 25 years.

## Measures

**Static-99R.** Static-99R (Helmus, Thornton, et al., 2012) was used as a measure of risk for sexual recidivism. Static-99R contains 10 items based on commonly available demographic (age, relationship history) and criminal history information (e.g., prior sexual offenses, any unrelated victims, total number of prior sentencing occasions for anything). Static-99R (and its previous version, Static-99) are the sexual offender risk assessment tools most commonly used in corrections and forensic mental health (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010; Neal & Grisso, 2014). It can be scored with high rater reliability (Phenix & Epperson, 2016) and has moderate ability to discriminate recidivists from nonrecidivists (Helmus, Hanson, et al., 2012).

Static-99R total scores range from −3 to 12 and correspond to the following risk levels: I = very low risk (scores of −3 and −2), II = below average risk (scores of −1 and 0), III = average risk (scores of 1, 2, and 3), IVa = above average risk (scores of 4 and 5), and IVb = well above average risk (scores of 6 and higher; Hanson, Babchishin, Helmus, Thornton, & Phenix, 2017). The Static-99R risk levels parallel the standardized risk levels developed for general correctional populations by the Justice Centre of the Council of State Governments (Hanson et al., 2017). These standardized risk levels address the crime relevant characteristics of individuals in the criminal justice system, the intensity of correctional supervision and rehabilitation programming needed to reduce their risk, their personal strengths, and their expected prognosis.

For Static-99R, Level I (very low risk) identifies individuals who have no obvious risk-relevant propensities and whose 5-year risk for a new sexual crime is no different from that of individuals with a history of nonsexual crime. Typically, these are older (60+) men who have sexually offended against family members in previous decades. Level II (below average) are individuals whose expected rate of sexual recidivism is lower than average but is still perceptibly higher than the rate among nonsexual offenders. Level II individuals may benefit from some support and supervision, but they are also likely to spontaneously transition to Level I without structured correctional programming. Level III individuals (average risk) are in the middle of the risk distribution. They have crime relevant problems in several areas (e.g., negative attitudes toward authority, sexual preoccupation) and would be expected to require problem-solving supervision and structured correctional programming in order to reduce their risk to Level II. Level IV individuals

Table 2
*Recidivism Information*

| Study | Recidivism criteria | Years follow-up | | Recidivism rate | | | |
|---|---|---|---|---|---|---|---|
| | | | | Sexual | | Nonsexual (prior to sexual) | |
| | | *M* | *SD* | *n* | % | *n* | % |
| Routine/complete | | | | | | | |
| Bartosh et al. (2003) | Charges | 5.0 | .20 | 186 | 11.8 | 185 | 44.9 |
| Bigras (2007) | Charges | 4.7 | 1.8 | 473 | 6.3 | 454 | 17.0 |
| Boer (2003) | Conviction | 13.3 | 2.1 | 299 | 8.7 | 282 | 41.8 |
| Craissati et al. (2011) | Conviction | 9.1 | 2.7 | 209 | 11.5 | 201 | 25.4 |
| Eher et al. (2009) | Conviction | 3.9 | 1.1 | 706 | 4.0 | 701 | 25.7 |
| Epperson (2003) | Charges | 7.9 | 2.5 | 177 | 14.1 | | |
| Hanson et al. (2007) | Charges | 3.5 | 1.0 | 698 | 8.2 | 694 | 18.7 |
| Långström (2004) | Conviction | 8.9 | 1.4 | 1,278 | 7.5 | | |
| Preselected treatment | | | | | | | |
| Allan et al. (2007) | Charges | 5.9 | 2.8 | 476 | 9.7 | 465 | 18.5 |
| Brouillette-Alarie & Proulx (2008) | Conviction | 10.1 | 4.3 | 223 | 20.6 | | |
| Johansen (2007) | Charges | 9.1 | 1.1 | 273 | 7.7 | 263 | 49.8 |
| Romine Swinburne et al. (2008) | Conviction | 16.8 | 7.8 | 680 | 13.8 | | |
| Ternowski (2004) | Charges | 7.5 | 1.0 | 247 | 8.1 | 240 | 14.2 |
| High risk/high need | | | | | | | |
| Bengtson (2008) | Charges | 16.2 | 4.2 | 311 | 33.8 | 310 | 41.6 |
| Bonta & Yessine (2005) | Conviction | 5.6 | 2.4 | 132 | 15.9 | 127 | 38.6 |
| Haag (2005) | Conviction | 7.0 | .00 | 198 | 25.3 | | |
| Nicholaichuk (2001) | Conviction | 6.6 | 3.9 | 272 | 19.1 | | |
| Wilson et al. (2007a, 2007b) | Charges | 5.3 | 2.9 | 228 | 10.5 | | |
| Other | | | | | | | |
| Cortoni & Nunes (2008) | Charges | 4.6 | .60 | 73 | .0 | 72 | 11.1 |
| Hill et al. (2008) | Conviction | 12.6 | 6.6 | 86 | 15.1 | 84 | 53.6 |
| Total | | 8.2 | 5.3 | 7,225 | 11.1 | 4,078 | 27.5 |

(IVa = above average, IVb = well above average) have potentially severe, chronic problems in several areas related to the propensity to commit sexual crime. Level IV individuals are expected to require extensive correctional interventions (over years) to reduce their risk to Level III. Level IVb is perceptibly higher risk than Level IVa; however, Level IVb is still below the threshold for Level V, for whom the expected recidivism rate is 85% or higher (Hanson et al., 2017). Although Level V is conceptually meaningful, the highest risk individuals identified by Static-99R have observed sexual recidivism rates in the 50% to 60% range (Hanson, Thornton, et al., 2016).

## Plan of Analysis

Hazard rates for sexual recidivism were modeled using discrete time survival analysis (Singer & Willett, 1993, 2003; Willett & Singer, 1993). The follow-up period was divided into 6 month intervals, and the probability of sexual recidivism within these intervals was calculated as the number of individuals who were known to have reoffended in that interval divided by the total number of individuals who were at risk in that interval (i.e., had not sexually reoffended in that interval or any prior interval).

Discrete time survival analysis was used instead of continuous time survival analysis because of our substantive interest in the absolute recidivism rates during particular time periods. With continuous time survival analysis (e.g., Cox regression), the quantity being modeled is the instantaneous hazard (Aalen et al., 2008), which can only be turned into expected recidivism rates by averaging across regions of the cumulative hazard curve. In comparison, the discrete time survival analysis provides a more intuitive approach to estimating absolute recidivism rates.

Table 3
*Distribution of Cases at Different Follow-Up Periods According to Sample Type*

| Minimum follow-up time (years) | Sample type | | | | | | | | Total cases |
|---|---|---|---|---|---|---|---|---|---|
| | Routine/complete | | Treatment | | High risk/high need | | Other | | |
| | % | *n* | % | *n* | % | *n* | % | *n* | |
| .5 | 55.7 | 4,026 | 26.3 | 1,899 | 15.8 | 1,141 | 2.2 | 159 | 7,225 |
| 5 | 48.7 | 2,405 | 32.1 | 1,585 | 17.4 | 860 | 1.8 | 90 | 4,940 |
| 10 | 39.2 | 750 | 38.7 | 739 | 19.3 | 369 | 2.8 | 54 | 1,912 |
| 15 | 5.9 | 44 | 64.6 | 478 | 25.4 | 188 | 4.1 | 30 | 740 |
| 20 | 1.0 | 4 | 78.7 | 310 | 17.1 | 67 | 3.3 | 13 | 394 |
| 25 | 1.3 | 1 | 94.9 | 75 | 0 | 0 | 3.8 | 3 | 79 |

The data were organized in a person-period format, in which each row represented the values for one individual during one interval (see Singer & Willett, 2003, section 10.5). In our dataset, each individual provided one row of data for each 6-month period of follow-up (range of 1 to 50 rows, with time truncated at 25 years). Standard logistic regression software was used to model sexual recidivism rates based on time free (interval), time-invariant covariates (e.g., risk scores at release), and time varying covariates (nonsexual recidivism during the follow-up period). This approach provides equivalent results to conventional life-table survival analysis. Although there are some benefits in using a complementary log-log (clog-log) link function (parameters can be interpreted as hazards), the logistic function is widely understood, can be estimated with standard software, and the difference between the two link functions is not detectable when the probabilities are small (<.20; Singer & Willett, 2003, p. 420). In the current study, the largest probability of sexual recidivism for any single interval was 0.0156 (first 6 months following release, i.e., approximately 3% recidivism rate for the first year). When the clog-log link function was used rather than the logistic, the differences were only detectable in the third decimal point, with slightly larger standard errors for the logistic link function compared with clog-log link function.

Rather than considering each time period as a unique categorical variable, we fitted equations with hazard rates as a function of time. Our statistical models were based on the assumption that changes are gradual; we did not expect abrupt changes in the empirical hazards for adjacent time periods. The adequacy of the smoothed model compared with the full categorical model was tested using the Akaike Information Criterion (AIC; Burnham & Anderson, 2004) and the Bayesian Information Criterion (BIC; Raftery, 1995). Model fit criteria were used because the categorical and continuous models were not nested. In other words, it was impossible to derive the continuous model from the categorical model (each year has its own parameter) by setting parameters to zero.

Although derived from different statistical models (Burnham & Anderson, 2004; Raftery, 1995), both the AIC and the BIC are computed on the basis of the deviance (−2 loglikelihood; −2LL) plus a penalty proportional to the number of parameters ($K$) used in the model. Note that the number of parameters includes the intercept, such that $K = 2$ for a model with one predictor variable. For the AIC, the penalty is twice the number of parameters (AIC = $-2LL + 2K$), and for the BIC, the penalty is the number of parameters times the natural log of the sample size (BIC = $-2LL + \ln(n)K$). There are three options, however, as to how sample size should be defined in person-period data sets (Raftery, 1995; Singer & Willett, 2003): the number of individuals (7,225), the number of person-period observations (105,347), or the number of events (791). Following Volinsky and Raftery (2000), we used the number of events for estimating the BIC.

The absolute values of AIC or BIC are not interpretable. The difference between models, however, identifies the model that best fits the data. Given two models, the model with the lowest AIC/BIC value is the one that best fits the data. For example, if adding a variable (e.g., risk scores) to a recidivism prediction model decreased the AIC/BIC values, this decrease is statistical justification that the risk score predicts recidivism. If the AIC/BIC values stayed the same (or increased) when a variable is added, then the variable is not needed. Although there are no absolute standards for evaluating differences in BIC indices, Raftery (1995) suggests that absolute differences of 0 to 2 are weak, 2 to 6 are positive (i.e., likely to be real), 6 to 10 are strong, and greater than 10 are very strong. In other words, if two models have BIC values with +/–2 units of each other, then both equally fit the data and model selection should be based on other considerations (e.g., parsimony). If the BIC for one model is 10 units smaller than another model, then there is very strong statistical support to prefer the model with the lowest BIC value. Similarly, Burnham and Anderson (2004) interpret the difference between the minimum AIC observed for all the models considered and the AIC for any specific model as an indicator of the degree of support for the specific model. If the AIC value for the model is the lowest, then it is the best. Values close to the lowest indicate equivalent models, and models with larger AIC values are unlikely to be true. They suggest that absolute differences of less than 2 indicate substantial support (good agreement), differences of 4 to 7 as indicating a model has considerably less support than another, and models that are more than 10 AIC units higher than the minimum model as having "essentially no support."

The adequacy of the logistic models was also examined using the Hosmer-Lemeshow goodness-of-fit test (Hosmer, Lemeshow, & Sturdivant, 2013). This test is the classic Pearson chi-square goodness-of-fit test with the responses grouped into 8 to 10 equally sized bins (with $df$ = bins −2). Small (nonsignificant) values indicate acceptable fit to the logistic model. The area under the receiver operating characteristic curve (AUC) was used as an effect size measure of the overall model (i.e., the AUC using the estimated probabilities as predictors; see Hosmer et al., 2013, section 5.2.4). In general, the AUC values can be interpreted as the probability that a recidivist would have a higher predicted probability of recidivism than a nonrecidivist.

All numbers in the article were verified by an independent data analyst (social science doctoral-level student) on the basis of the source data sets. All analyses were conducted using SPSS Version 17.

## Results

The person-period dataset contained 105,347 observations (6 month intervals) for 7,225 individuals, of whom 791 were identified as sexual recidivists. The follow-up period ended at 25 years, with 79 individuals entering the 25th year. Using life-table survival analysis, the overall sexual recidivism rate was 9.1% at 5 years, 13.3% at 10 years, 16.2% at 15 years, 18.2% at 20 years, and 18.5% at 25 years. Although the cumulative recidivism rate increased, the 5-year hazard decreased: 9.1% up to 5 years, 4.1% from 5 to 10 years, 2.9% from 10 to 15 years, 2.0% from 15 to 20 years, and 0.3% from 20 to 25 years. There was only one sexual recidivist after 20 years.

The first step in the data analysis was to evaluate the credibility of the statistical model. As would be expected, a logistic model that included time as a continuous variable was more plausible ($k = 2$; AIC = 9,143.17, BIC = 9,152.52) than the model that considered each time period as independent, categorical variables ($k = 50$; AIC = 9,189.68; BIC = 9,423.34). For both the AIC and BIC, the differences were large (−46.51 and −270.82, respectively) indicating clear superiority of the continuous model to the (unordered) categorical model. For the continuous model, the Hosmer-Lemeshow test was nonsignificant ($\chi^2 = 15.24$, $df = 8$, $p = .055$). The Hosmer-Lemeshow test for the unordered categor-

ical model indicated serious overfitting: $\chi^2 < .00001$ (actually it was $2.95 \times 10^{-13}$; $df = 8$, $p = 1$).

Visually, a logistic model appeared to reasonably represent continuous time and the discrete time hazard (see Figure 1). The ordinate values on the graph (vertical axis) are the proportion of individuals who reoffended sexually each year, given that they have not sexually reoffended in any of the previous years. The error bars ($\pm 1.96$ [$\{p\ (1-p)\}/n$]$^{0.5}$) were larger for the later time periods because the absolute number of recidivists was small (for certain cells, only a single individual). When there are no recidivists, there is no variance and the confidence interval was zero. Overall, the logistic model appears to be an adequate basis on which to build subsequent models.

A summary of the analyses is presented in Table 4. On its own, each year offense-free was associated with a 12% decrease in the odds of recidivism ($e$[–.131] = .877). As expected, the recidivism rates were related to risk levels as measured by Static-99R (AIC and BIC decreases of greater than 400). No interaction between time free and Static-99R scores was observed ($\Delta$AIC = −1.59; $\Delta$BIC = +3.08), meaning that the relative risk reductions were constant across risk levels. Routine samples had lower recidivism rates than those preselected to be high risk or those preselected as needing treatment. There was no interaction between sample type and time free ($\Delta$AIC = +3.92; $\Delta$BIC = +18.0; not shown in Table 4). Age was not related to recidivism risk once Static-99R scores were entered, nor was there an interaction between age and time free, meaning that the time free effect applied to sexual offenders of all ages ($\Delta$AIC = +0.60; $\Delta$BIC = +5.27, after controlling for Static-99R and sample type; not shown in Table 4).

There was some evidence of an interaction between Static-99R and sample type, with higher predictive accuracy (discrimination) in routine samples compared with treatment samples or high risk/high need samples. This interaction was supported by the AIC (−9.9) but not the BIC (+4.14). However, given that this interaction was found in previous research with a related version of this dataset (Hanson, Thornton, et al., 2016), the interaction between Static-99R scores and sample type was retained in the model.

A visual representation of Model 5 (see Table 4) is presented in Figure 2. This figure presents the declines in estimated sexual recidivism risk for individuals at five different scores (collectively representing all five initial levels of risk, controlling for sample type and sample type by Static-99R interaction). These five levels correspond to Static-99R scores from −2 to 6, which cover the 2016 standardized Static-99R risk categories (Hanson, Babchishin, et al., 2017: Level I [−2] = very low risk; Level II [0] = below average risk; Level III [2] = average risk; Level IVa [4] = above average risk and Level IVb [6] = well above average risk). The desistance threshold in Figure 2 was set at a constant 6-month hazard of 0.0019, which is equivalent to observed 5-year sexual recidivism rates of less than 2%. The raw sexual recidivism rates (unadjusted for follow-up time or sample type) were 1.9% (5/260) for Level I, 3.6% (50/1,381) for Level II, 7.6% (226/2,968) for Level III, 14.7% (235/1603) for Level IVa, and 27.5% (279/1,013) for Level IVb. Note that these raw recidivism rates are somewhat

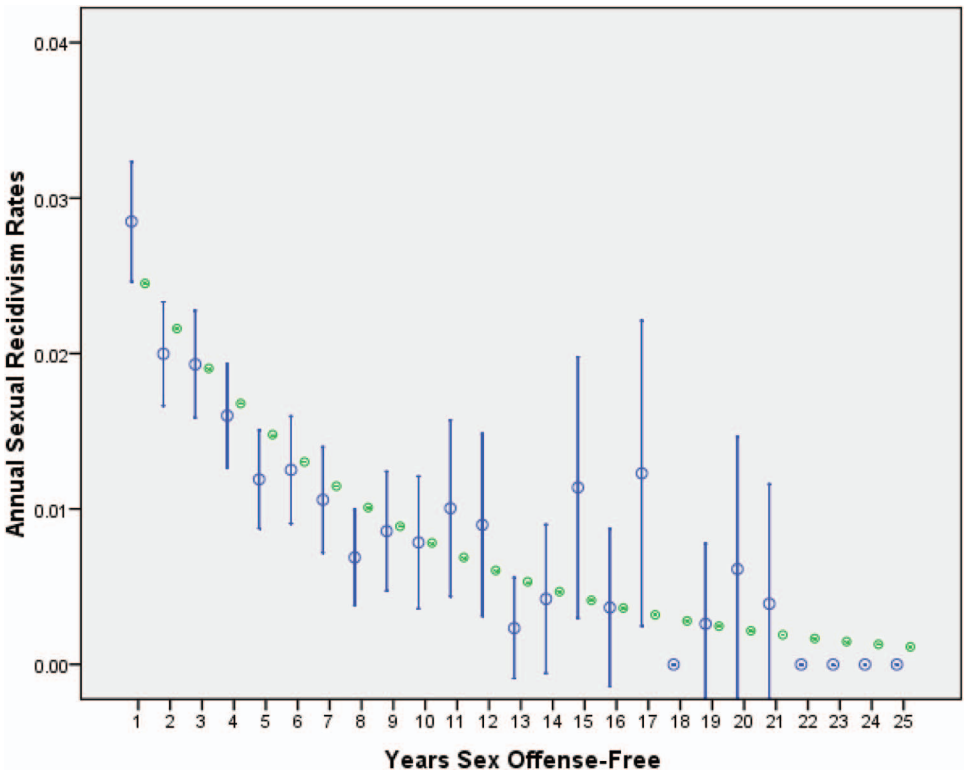



*Figure 1.* One-year hazard rates for sexual recidivism ($n$ = 7,225): Observed with 95% confidence intervals (lines) and estimates from logistic regression (dots; Model 1). See the online article for the color version of this figure.

Table 4
*Logistic Regression Estimates of 6 Month Hazard of Sexual Recidivism Based on Time Free, Static-99R, and Sample Type*

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| Intercept | −4.288 (.055) | −4.732 (.065) | −4.800 (.075) | −4.885 (.074) | −5.002 (.085) |
| Time free (in years years) | −.131 (.011) | −.123 (.011) | −.106 (.014) | −.128 (.011) | −.130 (.011) |
| Static-99R | | .289 (.014) | .319 (.021) | .270 (.015) | .329 (.022) |
| Static-99R × Time | | | −.0082 (.0043) | | |
| Sample type (reference category is routine/complete) | | | | | |
| Treatment | | | | .299 (.089) | .459 (.110) |
| High risk/high need | | | | .530 (.090) | .920 (.136) |
| Other | | | | −.397 (.285) | −.705 (.595) |
| Interaction: Static-99R × Sample type | | | | | |
| Treatment × STATIC | | | | | −.081 (.034) |
| High risk/high need × STATIC | | | | | −.137 (.036) |
| Other × STATIC | | | | | .070 (.146) |
| –2LL | 9,139.17 | 8697.12 | 8693.53 | 8654.92 | 8639.02 |
| *K* | 2 | 3 | 4 | 6 | 9 |
| AIC (–2LL + 2*K*) | 9,143.17 | 8703.12 | 8701.53 | 8666.92 | 8657.02 |
| Change (comparison model) | | −440.05 (Model1) | −1.59 (Model2) | −36.20 (Model2) | −9.90 (Model4) |
| BIC (–2LL + *K* × [6.673]) | 9,152.51 | 8717.14 | 8720.23 | 8694.94 | 8699.08 |
| Change (comparison model) | | −435.37 (Model1) | 3.08 (Model2) | −22.2 (Model2) | 4.14 (Model4) |
| Hosmer-Lemeshow $\chi^2(p)$ | 15.24 (.055) | 8.13 (.42) | 8.06 (.43) | 4.67 (.79) | 4.75 (.78) |
| AUC | .637 | .736 | .736 | .745 | .747 |

*Note.* *K* = 20, *n* = 7,225, with 791 sexual recidivists. Static-99R scores centered on the median value (2). AIC = Akaike Information Criterion; BIC = Bayesian information criterion; AUC = Area under the receiver operating characteristic Curve. Values in parentheses are the standard errors for the associated parameter estimates.

higher than would be expected in routine (unselected) samples because the aggregated sample included a disproportionate number of offenders preselected to be high risk.

Another representation of Model 5 is presented in Figure 3, which shows the risk levels for each combination of initial Static-99R score and the number of years sexual offense-free in the community. Given that Level I individuals are below the desistance threshold (Hanson, Babchishin, et al., 2017), Figure 3 can be used to estimate the number of years until desistance for each Static-99R score. It can also be used to estimate adjustments over time to lower risk levels. For example, for individuals with a Static-99R score of −1, they would transition from Level II at 2 years to Level I at 3 years, at which time they would fall below the desistance threshold.

Risk declined over time for individuals at all initial risk levels, and most individuals eventually resembled individuals with no

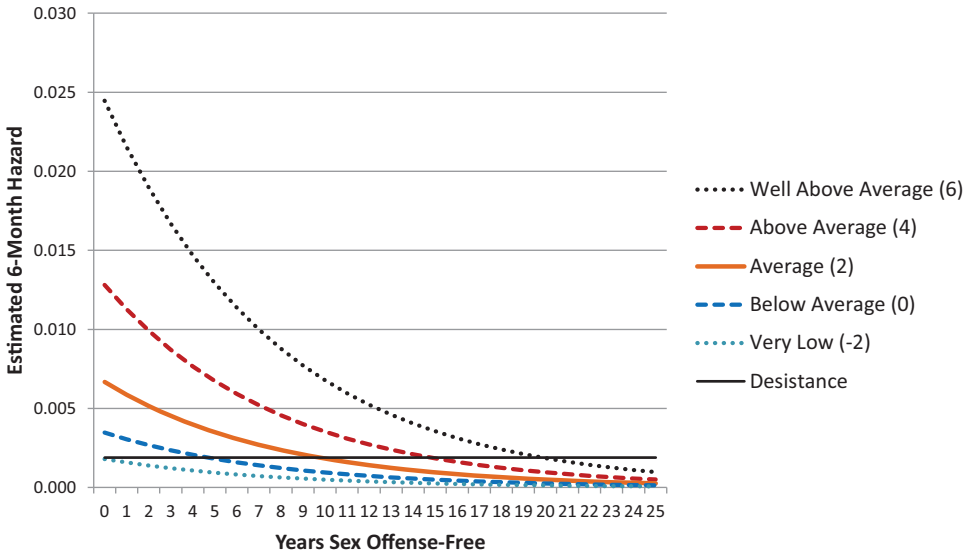



*Figure 2.* Years to desistance according to initial risk level based on selected Static-99R scores. Estimated hazard rates based on Model 5 (*n* = 7,225) for routine/complete samples. See the online article for the color version of this figure.

Years Sexual Offense-Free in the Community

| STATIC-99R Scores | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -3 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| -2 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| -1 | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 0 | II | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 1 | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 2 | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I | I | I |
| 3 | III | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I | I | I | I |
| 4 | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I | I | I |
| 5 | IVa | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | II | II | II | II | II | I | I | I | I |
| 6 | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II | II | II | II | II | I |
| 7 | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | II | II | II | II |
| 8 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III | III | III | II |
| 9 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III | III | III |
| 10 | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVb | IVa | IVa | IVa | IVa | IVa | III | III | III | III |

*Figure 3.* Decline in risk level based on initial Static-99R score and years sexual offense-free in the community. According to Model 5, each Static-99R point increases risk by .329 and each year sex offense-free decreases risk by .130. Individuals were deemed to have transitioned to a lower risk category when their time-adjusted risk for that year was below the yearly hazard at release for individuals at the top of the next lower category. The figure stops at Static-99R scores of 10 because higher scores were rare: 0.08% had a score of 11 or 12 (6 out of 7,225).

prior history of sexual crime. For individuals in the lowest risk category (Level I, very low risk), their risk was at the desistance threshold at time of release. Individuals in risk Level II crossed the desistance threshold between 3 years (Static-99R score of −1) and 6 years (Static-99R score of 0). Individuals assessed as Level III (average risk) crossed the desistance threshold (became a "1") after 8 to 13 years sexual offense-free in the community. For risk Level IVa (above average risk), they crossed the desistance threshold by year 16 to 18. Individuals at the low end of Level IVb (Static-99R score of 6) crossed the desistance threshold at year 21. In other words, only individuals with Static-99R scores of 7 or higher (<4% of the initial cohort) would have a risk of sexual recidivism perceptibly higher than the desistance threshold given that they have remained sexual offense-free for 21 years in the community. No individuals who remained sexual offense-free for 18 years would be considered to be above average risk.

Although it is possible to use Model 5 to estimate the time to desistance for individuals at the very highest risk levels (e.g., 34.5 years from high risk/high need samples with Static-99R scores of 12–the maximum possible), extending projections beyond 20 years has limited precision as well as limited utility. In our dataset, there was only one sexual recidivist out of the 394 individuals followed between 20 and 25 years, when our follow-up ended. This corresponds to a 5-year recidivism rate of 0.3% in life table survival analysis, well below the desistance threshold of 1.9%.

## The Effect of Nonsexual Recidivism on Sexual Recidivism Risk

Of the total 20 data sets, 13 data sets (six routine, three treatment, two high risk/high need, two other) identified whether individuals reoffended with a nonsexual offense prior to the date of sexual recidivism (or the end of follow-up for nonrecidivists). This reduced dataset included 49,743 observations (6 month intervals) for 4,078 individuals, of whom 1,121 were nonsexual recidivists and 318 were sexual recidivists (122 individuals were both sexual and nonsexual recidivists).

As can be seen in Table 5 (Model 5a), the model containing time free, Static-99R, sample type, and the Static-99R/sample type interaction was similar in the reduced sample ($k = 13$, AUC = .747) as in the full collection of samples in Table 4 ($k = 20$, AUC = .747). Nonsexual recidivism added incrementally to the model (Model 6), increasing the odds of sexual recidivism by a factor of 1.55 ($e$[.440] = 1.55) over the effects of time free, Static-99R, and sample type. This model was an adequate fit to the logistic distribution as indicated by a nonsignificant Hosmer-Lemeshow test ($\chi^2 = 13.25$, $df = 8$, $p = .103$). The interaction between nonsexual recidivism and time free did not meaningfully add to the model ($\Delta$AIC = −1.71; $\Delta$BIC = +2.02, not shown in Table 5), nor did the interaction between nonsexual recidivism and risk at release (as measured by Static-99R scores: $\Delta$AIC = −1.95; $\Delta$BIC = +1.81). In other words, new nonsexual offenses increased the risk of sexual recidivism, but did not erase the sexual offense time free effect. The effect of time free from a sexual offense was independent and incremental to the effect of continued nonsexual offending. In Model 6 (see Table 5) the effect of any nonsexual recidivism was $B = .440$ compared with $B = -.135$ for each year sexual offense-free. Whereas each year time free was associated with a 12% reduction in sexual recidivism risk, a new nonsexual offense was associated with a 55% increase. Another way of visualizing these effects is that nonsexual recidivism resets the

Table 5
*Incremental Effect of Nonsexual Recidivism on 6-Month Hazard of Sexual Recidivism in Reduced Sample*

| | Model 5a | Model 6 |
|---|---|---|
| Intercept | −5.353 (.134) | −5.407 (.136) |
| Time free (in years) | −.120 (.018) | −.135 (.019) |
| Static-99R | .344 (.034) | .322 (.035) |
| Sample type (reference category is routine/complete) | | |
| Treatment | .212 (.198) | .228 (.198) |
| High risk/high need | 1.425 (.193) | 1.459 (.193) |
| Other | −.399 (.621) | −.413 (.635) |
| Interaction: Static-99R × Sample type | | |
| Treatment × STATIC | −.087 (.062) | −.088 (.062) |
| High risk/high need × STATIC | −.194 (.053) | −.192 (.053) |
| Other × STATIC | .011 (.157) | .025 (.162) |
| Nonsexual recidivism | | .440 (.125) |
| –2LL | 3578.81 | 3566.67 |
| *K* | 9 | 10 |
| AIC (–2LL + 2*K*) | 3596.81 | 3586.67 |
| Change | | −10.14 |
| BIC (–2LL + $K^*$[5.762]) | 3630.67 | 3624.29 |
| Change | | −6.38 (from Model 5a) |
| Hosmer-Lemeshow $\chi^2(p)$ | 4.27 (.83) | 13.25 (.10) |
| AUC | .747 | .755 |

*Note.* $K = 13$, $n = 4{,}078$ with 318 sexual recidivists. Static-99R scores centered on the median value (2). AIC = Akaike information criterion; BIC = Bayesian Information Criterion; AUC = Area Under the receiver operating characteristic Curve. Values in parentheses are the standard errors for the associated parameter estimates.

individual's relative risk to what it would have been 3.3 years previously (.440/[.135] = 3.26).

## Discussion

Society has the right and responsibility to protect itself from the truly dangerous. If predators are prowling for victims, we should do what we can to restrict their access to the vulnerable. Determining who is actually dangerous, and for how long, turns out to be harder than we thought. As shown in the current study, it takes more than a conviction for a sexual crime to identify individuals who have an enduring risk for sexual crime. The risk for sexual recidivism varies substantially across individuals at the time of sentencing; importantly, the risk predictably declines the longer individuals remain sexual offense-free in the community.

Declines were observed for sexual offenders at all risk levels. In routine samples, the lowest risk individuals (Level I) were below the desistance threshold at time of release. Within 10 to 15 years, the vast majority of individuals with a history of sexual crime will be no more likely to commit a sexual crime than individuals who have been convicted of a nonsexual crime and who have never been previously convicted of a sexual crime (1% to 2% after 5 years; Kahn et al., 2017). For individuals classed as Level II (below average), they crossed the desistance threshold between 3 and 6 years after release. For Level III (average), they crossed it between 8 and 13 years, and for IVa (above average), it was between 16 and 18 years. For the highest risk offenders (well above average, IVb), their risk declines to desistance levels after 20 years, although precise estimates for this risk range are difficult to assert given the data available (there was only one sexual recidivist out of the 394 individuals followed between 20 and 25 years).

The observed decline in risk based on time offense-free is consistent with the broader criminological literature for general (nonsexual) offenders (Blumstein & Nakamura, 2009; Bushway et al., 2011; Bushway et al., 2001; Kurlychek, Brame, & Bushway, 2006, 2007; Kurlychek et al., 2012; Soothill & Francis, 2009). It is also consistent with previous studies of sexual offenders (Ackerley, Soothill, & Francis, 1998; Amirault & Lussier, 2011; Blokland & van der Geest, 2015; Hanson et al., 1993; Harris & Hanson, 2004; Nakamura & Blumstein, 2015; Prentky et al., 1997). The reasons for this strong, predictable decline in hazard rates are difficult to infer from the currently available data.

We expect that part of the effect is attributable to individuals with the greatest propensity for sexual crime reoffending shortly after release (and often), making them, consequently, most likely to be caught and removed from the follow-up sample (the effect of frailty in survival analysis [Aalen et al., 2008]). Notice, however, that the declines in risk based on time offense-free applied to individuals at all risk levels, and was only slightly reduced after controlling for the risk measure used in this study, Static-99R. Although Static-99R had moderate predictive accuracy, it does not measure all relevant risk factors (Babchishin, Hanson, & Helmus, 2012; Hanson, Helmus, & Harris, 2015). Consequently, we expect that the early recidivists were actually riskier than other individuals with identical Static-99R scores; however, frailty is unlikely to explain all of the statistical effect of time free on risk. At least part of the decline should be attributed to change within individuals.

Offender change is often linked to deliberate intervention (e.g., rehabilitation programs) or the slow, natural process of aging. The effect of interventions depends on both the quality of the intervention

(Hanson, Bourgon, Helmus, & Hodgson, 2009) as well as an individual's response to that treatment (Olver et al., 2016). Some of the individuals in our samples would have participated in well-designed programs that helped them to regulate their risk-relevant propensities. Treatment effects, however, should have been most apparent early in the follow-up period. Treatment effects are not a natural explanation for the gradual decline in risk over decades. Similarly, although aging may explain some of the effects, the time free declines were much larger than would be expected from aging alone. The large cross-sectional study of the statistical effect of age at release by Helmus, Thornton, et al. (2012) found that the average statistical effect of a year of aging was a decline to 0.98 of the previous year's hazard ($B = -.02$) for sexual recidivism. In comparison, the average effect of a year spent offense-free in the community was six times larger (.88, $B = -.13$).

Something more than frailty, aging, and the effect of treatment is needed to explain the observed time free effects. One simple explanation is that many individuals eventually learned how to make a prosocial lifestyle rewarding (Andrews & Bonta, 2010; Thornton, 2016). Each time individuals expend energy seeking to make life better in prosocial ways, and they succeed, they accumulate skills, knowledge, and social resources that make it easier to do so again in the future. Each prosocial choice may be uncertain, depending on fluctuating motivation and opportunities; nevertheless, the cumulative effect of successful prosocial choices will make future choices of this kind easier, more self-congruent, and more attractive.

In support of this view, there is some evidence that individuals with a history of sexual crime are less likely to reoffend when they have workable, prosocial options available. In a series of studies, Willis and colleagues (Scoones, Willis, & Grace, 2012; Willis & Grace, 2008, 2009) have shown that reduced recidivism is associated with high-quality release plans that support accommodation, positive social connections, employment, and prosocial, personally meaningful goals. Furthermore, the effect of good release plans was found to be incremental to static and dynamic risk factors (Scoones et al., 2012). Relatedly, McGrath and colleagues (Lasher & McGrath, 2017; McGrath, Lasher, & Cumming, 2012) have found that those who avoided sexual recidivism while under community supervision showed improvements in employment, residence and social influences. Consequently, it is quite plausible that the gradual, multiyear declines in hazard rates documented in the current study are linked to individuals developing increasingly effective, prosocial ways of achieving a satisfying life.

Regardless of the theoretical explanations, the time free effect is striking, and has considerable practical importance. It would be difficult to accumulate the criminal history associated with high risk scores (e.g., large number of prior sexual and nonsexual offenses) without, at some point, having many of the attributes associated with the onset and persistence of sexual crime. The elevated recidivism rates of the higher risk offenders (Level IVa and IVb) in the first few years following release suggest that, for many, their risk-relevant propensities remain unabated. Nevertheless, most (80%) of the higher risk group (Level IV) are never reconvicted for another sexual offense. Among those who remained in the sample, the hazard rates for the vast majority eventually declined to rates equivalent to those presented by lower risk offenders (Level I, Level II) at time of release. Either the initial classification as higher risk was wrong, or the offender changed during the follow-up period. In either case, our findings indicate that the initial classification as "higher risk" should be revised downward based on extended periods of being in the community and not reoffending sexually.

## Implications for Policy

A distinctive feature of modern sex crime policies is the widespread use of social controls external to the criminal justice system, such as community notification, registration, and residency restrictions (Laws, 2016; Logan, 2009; Simon & Leon, 2008). These measures are not intended to be punishments for crimes (*Smith v. Doe*, 2003), even if the individuals targeted perceive them as such (Levenson, Grady, & Leibowitz, 2016). Instead, they are justified on the grounds of public protection. Individuals are targeted because policymakers believe they are likely to do it again. This is a testable assumption, and, as it turns out, not entirely true.

There is strong evidence that (a) there is wide variability in recidivism risk for individuals with a history of sexual crime; (b) risk predictably declines over time; and (c) risk can be very low—so low, in fact, that it becomes indistinguishable from the rate of spontaneous sexual offenses for individuals with no history of sexual crime but who have a history of nonsexual crime. These findings have clear implications for constructing effective public protection policies for sexual offenders.

First, the most efficient public protection policies will vary their responses according to the level of risk presented. Uniform policies that apply the same strategies to all individuals with a history of sexual crime are likely insufficient to manage the risk of the highest risk offenders, while over-managing and wasting resources on individuals whose risk is very low. The implementation of differential supervisory and management responses based on risk requires objective, evidence-based indicators for distinguishing between risk levels. As demonstrated in the current study, such indicators are available for adult offenders, and widely used in corrections and forensic mental health (i.e., the demographic and criminal history variables that comprise Static-99R scores; Hanson, Babchishin, et al., 2017).

The second implication is that efficient public policy responses need to include a process for reassessment. We cannot assume that our initial risk assessment is accurate and true for life. All systems that classify sexual offenders according to risk level also need a mechanism to reclassify individuals: the individuals who do well should be reassigned to lower risk levels, and individuals who do poorly should be reassigned to higher risk levels. The results of the current study, in particular, justify automatically lowering risk based on the number of years sexual offense-free in the community. The diminishing importance of sexual offense history over time is particularly relevant when considering whether civil, public protection measures should be applied retroactively. To paraphrase Kurlychek et al. (2012), any public protection policy that does not allow for diminished risk over time should be immediately suspect.

The third implication is that there should be an upper limit to the absolute duration of public protection measures. In the current study, there were few individuals who presented more than a negligible risk after 15 years, and none after 20 years. Although there was one sexual recidivist after 20 years in our dataset, we

could not reliably identify a class of individuals whose likelihood of a new sexual offense remained meaningfully greater than the desistance threshold after 20 years. Nor have other researchers (e.g., Blokland & van der Geest, 2015, Figure 12.2b; Hargreaves & Francis, 2014). Consequently, lifetime restrictions seem to be designed for a category of individuals that do not exist.

Critics may argue that we cannot be too safe when it comes to the risk of sexual offenses. Although the harm caused by sexual offenses is serious, there are, however, finite resources that can be accorded to the problem of sexual victimization. From a public protection perspective, it is hard to justify spending these resources on individuals whose objective risk is already very low prior to intervention. Furthermore, available research has not found that long-term or lifelong registration and public notification, and the imposition of concomitant restrictions on residence, education, and employment are having the intended effects (Letourneau, Levenson, Bandyopadhyay, Sinha, & Armstrong, 2010; Levenson & Hern, 2007; Meloy, Miller, & Curtis, 2008; Mustaine, 2014; Simon & Leon, 2008). Consequently, resources would be better spent on activities more likely to reduce the public health burden of sexual victimization, such as facilitating release planning and stable housing (Willis & Grace, 2008, 2009), community treatment for offenders (Schmucker & Lösel, 2015) and counseling services for victims (Taylor & Harvey, 2010).

## Implications for Research

The current study supports the need for further research on desistance among sexual offenders, that is, the characteristics of individuals with a history of sexual offending who no longer present a significant risk for sexual recidivism. Although the current research used relatively simple criminal history variables, it is likely that we could identify individuals who have desisted much sooner by considering the quality of their community adjustment (Lasher & McGrath, 2017). One challenge that has vexed desistance research for sexual offenders has been the definition of the index group, that is, individuals who have stopped sexual offending. Desistance inherently concerns a future that can never be fully known in advance. The observation that individuals have not been caught is an insensitive indicator of actual behavior. Furthermore, we have little reason to trust offenders' self-report, given that many individuals deny committing the offenses for which they have been convicted. The current study suggests that these problems are not insurmountable.

The ideal desistance research design would involve follow-up (until death) based on diverse sources of information; however, it would also be possible to use the current findings to inform plausible cross-sectional, case control designs. Individuals identified as below the desistance threshold (Level I) based on criminal history variables and time free could be compared with those at higher risk levels on psychological characteristics (e.g., self-control, attitudes tolerant of sexual offending), lifestyle, community adjustment, or other variables of theoretical interest. Such designs would be much less expensive than follow-up studies, and could be completed within the time frame of typical grant funding (i.e., 2 to 3 years). Furthermore, it is likely that much valuable data are already recorded in administrative databases. Although very long-term community supervision of low risk offenders is ineffective public policy, the fact that it commonly occurs provides a source of easily identifiable participants for desistance research.

## Limitations

Given the secretive nature of sexual offending, researchers must always be cognizant of the gap between officially recorded crime and actual behavior. Although the extent to which officially recorded sexual offending tracks offending behavior is unknown, our assumption is that it is proportional for sexual and nonsexual offenders at different risk levels. If there are systematic differences in the extent to which sexual and nonsexual offenders are caught for sexual crime, then the current estimates for desistance periods would be incorrect. Our expectation, however, is that the detection rate for sexual crime would be higher for individuals with a history of sexual crime than those without (police would consider them on a shortlist of suspects, and whatever factors lead to their previous convictions would likely still be present). If the detection rate for sexual crime is higher for those with a history of sexual crimes than those without, then the years to desistance estimated in the current study would be too long.

Another concern for long-term recidivism studies is the effects of broad societal changes. Estimating recidivism over a 25-year follow-up necessarily entails studying individuals released in the 1980s and 1990s. Although secondary analysis of the current dataset did not find meaningful patterns based on year of release (Helmus, 2009), other studies have found substantial declines in the recidivism rate of adolescents who sexually offended (Caldwell, 2016) and for adult sexual offenders (Minnesota Department of Corrections, 2007). The reasons for these declines are not fully understood, but they are consistent with the overall shift toward lower crime rates (Blumstein & Wallman, 2006) and greater risk aversion in the general population (Mishra & Lalumière, 2009).

The study only examined adult males and should not be generalized to youth or adult women. Given the predictable age-crime curve during adolescence, it is very likely that the time free effects are even greater for teenagers than for adults (Hargreaves & Francis, 2014). The highest risk period for being charged with a sexual offense is early adolescence (ages 13 and 14; Cotter & Beaupré, 2014, Chart 7); however, the sexual recidivism rate of adolescents is lower than for adults (Caldwell, 2016). Given the developmental instability of youth, it would be a mistake to consider young people who have committed sexual crime to be equivalent to adults who have committed similar criminal code offenses (Letourneau & Caldwell, 2013).

## Conclusions

The vast majority of individuals with a history of sexual crime desist from further sexual crime. Although sexual crime has serious consequences, and invokes considerable public concern, there is no evidence that individuals who have committed such offenses inevitably present a lifelong enduring risk of sexual recidivism. Critics may argue that the near zero recidivism rates observed in the current study should not be trusted because most sexual crimes remain undetected. This type of argument, however, distances policy decisions from evidence. If the goal is increased public protection (not retribution or punishment), then efficient policies would be proportional to the risk presented. Risk in most individuals with a history of sexual crime will eventually decline to levels that are difficult to distinguish from the risk presented by the general population. Instead of depleting resources on such low risk individuals, sexual victimization would be better addressed by

increased focus on truly high risk individuals, primary prevention, and victim services.

## References

References marked with an asterisk indicate studies included in the meta-analysis.


Aalen, O. O., Borgan, Ø., & Gjessing, H. (2008). *Survival and event history analysis: A process point of view*. New York, NY: Springer.

Ackerley, E., Soothill, K. L., & Francis, B. J. (1998). When do sex offenders stop offending? *Home Office Research Bulletin, 39,* 51–58.

*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. http://dx.doi.org/10.1007/s11194-007-9052-5

Amirault, J., & Lussier, P. (2011). Population heterogeneity, state dependence and sexual offender recidivism: The aging process and the lost predictive impact of prior criminal charges over time. *Journal of Criminal Justice, 39,* 344–354. http://dx.doi.org/10.1016/j.jcrimjus.2011.04.001

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). New Providence, NJ: LexisNexis.

Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19–52. http://dx.doi.org/10.1177/0093854890017001002

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. http://dx.doi.org/10.1177/1073191112458312

*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 and Comparative Criminology, 47,* 422–438. http://dx.doi.org/10.1177/0306624X03253850

*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. http://dx.doi.org/10.1080/10683160701483104

*Bigras, J. (2007). *La prédiction de la récidive chez les délinquants sexuels* [Prediction of recidivism among sexual offenders]. (Doctoral dissertation). Retrieved from *Dissertations Abstracts International* 68(09) (UMI No. NR30941).

Blokland, A., & van der Geest, V. (2015). Life-course transitions and desistance in sex offenders: An event history analysis. In A. Blokland & P. Lussier (Eds.), *Sex offenders: A criminal career approach* (pp. 257–288). Chichester, UK: Wiley.

Blumstein, A., & Nakamura, K. (2009). Redemption in the presence of widespread criminal background checks. *Criminology, 47,* 327–359. http://dx.doi.org/10.1111/j.1745-9125.2009.00155.x

Blumstein, A., & Wallman, J. (2006). *The crime drop in America* (rev. ed.). Cambridge, UK: Cambridge University Press.

*Boer, A. (2003). *Evaluating the Static-99 and Static-2002 Risk Scales using Canadian sexual offenders*. (Unpublished master's thesis). Leicester, UK: University of Leicester.

*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, Ontario, Canada: Public Safety and Emergency Preparedness Canada.

*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 of the Association for the Treatment of Sexual Abusers. Atlanta, GA.

Bumby, K. M., & Maddox, M. C. (1999). Judges' knowledge about sexual offenders, difficulties presiding over sexual offense cases, and opinions on sentencing, treatment, and legislation. *Sexual Abuse: A Journal of Research and Treatment, 11,* 305–315. http://dx.doi.org/10.1177/107906329901100406

Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference: Understanding AIC and BIC in model selection. *Sociological Methods & Research, 33,* 261–304. http://dx.doi.org/10.1177/0049124104268644

Bushway, S. D., Nieuwbeerta, P., & Blokland, A. (2011). The predictive value of criminal background checks: Do age and criminal history affect time to redemption? *Criminology, 49,* 27–60. http://dx.doi.org/10.1111/j.1745-9125.2010.00217.x

Bushway, S. D., Piquero, A. R., Broidy, L. M., Cauffman, E., & Mazerolle, P. (2001). An empirical framework for studying desistance as a process. *Criminology, 39,* 491–516. http://dx.doi.org/10.1111/j.1745-9125.2001.tb00931.x

Caldwell, M. F. (2016). Quantifying the decline in juvenile sexual recidivism rates. *Psychology, Public Policy, and Law, 22,* 414–426. http://dx.doi.org/10.1037/law0000094

Campbell, R., & Wasco, S. M. (2005). Understanding rape and sexual assault: 20 years of progress and future directions. *Journal of Interpersonal Violence, 20,* 127–131. http://dx.doi.org/10.1177/0886260504268604

Cann, J., Falshaw, L., & Friendship, C. (2004). Sexual offenders discharged from prison in England and Wales: A 21-year reconviction study. *Legal and Criminological Psychology, 9,* 1–10. http://dx.doi.org/10.1348/135532504322776816

Chen, L. P., Murad, M. H., Paras, M. L., Colbenson, K. M., Sattler, A. L., Goranson, E. N., . . . Zirakzadeh, A. (2010). Sexual abuse and lifetime diagnosis of psychiatric disorders: Systematic review and meta-analysis. *Mayo Clinic Proceedings, 85,* 618–629.

*Cortoni, F., & Nunes, K. L. (2008). *Assessing the effectiveness of the National Sexual Offender Program*. (Research Report No. R-183). Ottawa, Ontario, Canada: Correctional Service of Canada.

Cotter, A., & Beaupré, P. (2014). *Police-reported sexual offences against children and youth in Canada, 2012. Juristat 34*(1). Ottawa, Ontario, Canada: Statistics Canada. Retrieved from http://www.statcan.gc.ca/pub/85-002-x/2014001/article/14008-eng.htma8

*Craissati, J., Bierer, K., & South, R. (2011). Risk, reconviction and "sexually risky behaviour" in sex offenders. *Journal of Sexual Aggression, 17,* 153–165. http://dx.doi.org/10.1080/13552600.2010.490306

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52,* 281–302. http://dx.doi.org/10.1037/h0040957

*Eher, R., Rettenberger, M., Schilling, F., & Pfafflin, F. (2009). *Risk assessment and recidivism for 706 sexual offenders released from prison in Austria*. (Unpublished raw data).

*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.

Göbbels, S., Ward, T., & Willis, G. M. (2012). An integrative theory of desistance from sex offending. *Aggression and Violent Behavior, 17,* 453–462. http://dx.doi.org/10.1016/j.avb.2012.06.003

*Haag, A. M. (2005). *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*. (Doctoral dissertation) *Dissertations Abstracts International* 66 (08), 4531B. (UMI No. NR05662).

Hanson, R. K. (2002). Recidivism and age: Follow-up data from 4,673 sexual offenders. *Journal of Interpersonal Violence, 17,* 1046–1062.

Hanson, R. K., Babchishin, K. M., Helmus, L. M., Thornton, D., & Phenix, A. (2017). Communicating the results of criterion-referenced prediction measures: Risk categories for the Static-99R and Static-2002R sexual offender risk assessment tools. *Psychological Assessment, 29,* 582–597. http://dx.doi.org/10.1037/pas0000371

Hanson, R. K., Bourgon, G., Helmus, L., & Hodgson, S. (2009). The principles of effective correctional treatment also apply to sexual offenders: A meta-analysis. *Criminal Justice and Behavior, 36,* 865–891. http://dx.doi.org/10.1177/0093854809338545

Hanson, R. K., Bourgon, G., McGrath, R. K., Kroner, D., D'Amora, D. A., Thomas, S. S., & Tavarez, L. P. (2017). *A five-level risk and needs system: Maximizing assessment results in corrections through the development of a common language*. New York, NY: The Council of State Governments Justice Center.

Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66,* 348–362. http://dx.doi.org/10.1037/0022-006X.66.2.348

Hanson, R. K., Harris, A. J. R., Helmus, L., & Thornton, D. (2014). high risk sex offenders may not be high risk forever. *Journal of Interpersonal Violence, 29,* 2792–2813. http://dx.doi.org/10.1177/0886260514526062

*Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. M. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project*. (Corrections Research User Report No. 2007–05). Ottawa, Ontario, Canada: Public Safety Canada.

Hanson, R. K., Helmus, L., & Harris, A. J. R. (2015). Assessing the risk and needs of supervised sexual offenders: A prospective study using STABLE-2007, Static-99R, and Static-2002R. *Criminal Justice and Behavior, 42,* 1205–1224. http://dx.doi.org/10.1177/0093854815602094

Hanson, R. K., Steffy, R. A., & Gauthier, R. (1993). Long-term recidivism of child molesters. *Journal of Consulting and Clinical Psychology, 61,* 646–652. http://dx.doi.org/10.1037/0022-006X.61.4.646

Hanson, R. K., Thornton, D., Helmus, L. M., & Babchishin, K. M. (2016). What sexual recidivism rates are associated with Static-99R and Static-2002R scores? *Sexual Abuse: A Journal of Research and Treatment, 28,* 218–252. http://dx.doi.org/10.1177/1079063215574710

Hargreaves, C., & Francis, B. (2014). The long term recidivism risk of young sexual offenders in England and Wales: Enduring risk or redemption? *Journal of Criminal Justice, 42,* 164. http://dx.doi.org/10.1016/j.jcrimjus.2013.06.017

Harris, A. J. R., & Hanson, R. K. (2004). *Sexual offender recidivism: A simple question*. (Corrections User Report No 2004–01). Ottawa, Ontario, Canada: Public Safety and Emergency Preparedness Canada. Retrieved from http://www.publicsafety.gc.ca/res/cor/rep/2004-03-se-off-eng.aspx

Harris, A. J., & Socia, K. M. (2016). What's in a name? Evaluating the effects of the "sex offender" label on public opinions and beliefs. *Sexual Abuse: A Journal of Research and Treatment, 28,* 660–678. http://dx.doi.org/10.1177/1079063214564391

Helmus, L. M. (2009). *Re-norming Static-99 recidivism estimates: Exploring base rate variability across sex offender samples*. (Master's thesis). *ProQuest Dissertations and Theses database* (UMI No. MR58443).

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,* 1148–1171. http://dx.doi.org/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: A Journal of Research and Treatment, 24,* 64–101. http://dx.doi.org/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. http://dx.doi.org/10.1177/0306624X07307450

Hillberg, T., Hamilton-Giachritsis, C., & Dixon, L. (2011). Review of meta-analyses on the association between child sexual abuse and adult mental health difficulties: A systematic approach. *Trauma, Violence & Abuse, 12,* 38–49. http://dx.doi.org/10.1177/1524838010386812

Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). New York, NY: Wiley.

*Johansen, S. H. (2007). Accuracy of predictions of sexual offense recidivism: A comparison of actuarial and clinical methods. (Doctoral dissertation). *Dissertations Abstracts International* 68(03), B. (UMI No. 3255527).

Kahn, R. E., Ambroziak, G., Hanson, R. K., & Thornton, D. (2017). Release from the 'sex offender' label. Advance online publication. *Archives of Sexual Behavior*. http://dx.doi.org/10.1007/x10508-017-0972-y

Kazemian, L. (2007). Desistance from crime: Theoretical, empirical, methodological, and policy considerations. *Journal of Contemporary Criminal Justice, 23,* 5–27. http://dx.doi.org/10.1177/1043986206298940

Kendler, K. S., Bulik, C. M., Silberg, J., Hettema, J. M., Myers, J., & Prescott, C. A. (2000). Childhood sexual abuse and adult psychiatric and substance use disorders in women: An epidemiological and cotwin control analysis. *Archives of General Psychiatry, 57,* 953–959. http://dx.doi.org/10.1001/archpsyc.57.10.953

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). Washington, DC: U.S. Department of Justice.

Kurlychek, M. C., Brame, R., & Bushway, S. D. (2006). Scarlet letters and recidivism: Does an old criminal record predict future offending? *Criminology & Public Policy, 5,* 483–504. http://dx.doi.org/10.1111/j.1745-9133.2006.00397.x

Kurlychek, M. C., Brame, R., & Bushway, S. D. (2007). Enduring risk? Old criminal records and predictions of future criminal involvement. *Crime and Delinquency, 53,* 64–83. http://dx.doi.org/10.1177/0011128706294439

Kurlychek, M. C., Bushway, S. D., & Brame, R. (2012). Long-term crime desistance and recidivism patterns—Evidence from the Essex county convicted felon study. *Criminology, 50,* 71–103. http://dx.doi.org/10.1111/j.1745-9125.2011.00259.x

*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. http://dx.doi.org/10.1023/B:SEBU.0000023060.61402.07

Lasher, M. P., & McGrath, R. J. (2017). Desistance from sexual and other violent offending among child sexual abusers: Observations using the Sex Offender Treatment Intervention and Progress Scale. *Criminal Justice and Behavior, 44,* 416–431. http://dx.doi.org/10.1177/0093854816670194

Laws, R. D. (2016). *Social control of sex offenders: A cultural history*. New York, NY: Palgrave MacMillan.

Lawson, L., & Savell, S. (2003). Law enforcement perspective on sex offender registration and community notification. *APSAC Advisor, 15,* 9–12.

Letourneau, E. J., & Caldwell, M. F. (2013). Expensive, harmful policies that don't work or how juvenile sexual offending is addressed in the U.S. *International Journal of Behavioral and Consultation Therapy, 8,* 23–29. http://dx.doi.org/10.1037/h0100979

Letourneau, E. J., & Levenson, J. S. (2010). Preventing sexual abuse: Community protection policies and practice. In J. Meyers (Ed.), *The APSAC handbook on child maltreatment* (3rd ed., pp. 307–322). Thousand Oaks, CA: SAGE.

Letourneau, E. J., Levenson, J. S., Bandyopadhyay, D., Sinha, D., & Armstrong, K. S. (2010). Effects of South Carolina's sex offender registration and notification policy on adult recidivism. *Criminal Justice Policy Review, 21,* 435–458. http://dx.doi.org/10.1177/0887403409353148

Levenson, J. S., Brannon, Y. N., Fortney, T., & Baker, J. (2007). Public perceptions about sex offenders and community protection policies.

*Analyses of Social Issues and Public Policy (ASAP), 7,* 137–161. http://dx.doi.org/10.1111/j.1530-2415.2007.00119.x

Levenson, J. S., Grady, M. D., & Leibowitz, G. (2016). Grand challenges: Social justice and the need for evidence-based sex offender registry reform. *Journal of Sociology and Social Welfare, 43,* 3–38.

Levenson, J. S., & Hern, A. L. (2007). Sex offender residence restrictions: Unintended consequences and community re-entry. *Justice Research and Policy, 9,* 59–74. http://dx.doi.org/10.3818/JRP.9.1.2007.59

Lieb, R. (2003). State policy perspectives on sexual predator laws. In B. J. Winick & J. Q. La Fond (Eds.), *Protecting society from sexually dangerous offenders: Law, justice, and therapy* (pp. 41–59). Washington, DC: American Psychological Association.

Logan, W. A. (2009). *Knowledge as power: Criminal registration and community notification laws in America*. Redwood City, CA: Stanford University Press.

Lynch, M. (2002). Pedophiles and cyber-predators as contaminating forces: The language of disgust, pollution, and boundary invasions in federal debates on sex offender legislation. *Law & Social Inquiry, 27,* 529–566. http://dx.doi.org/10.1111/j.1747-4469.2002.tb00814.x

Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review, 29,* 647–657. http://dx.doi.org/10.1016/j.cpr.2009.08.003

McGrath, R. J., Cumming, G. F., Burchard, B. L., Zeoli, S., & Ellerby, L. (2010). *Current practices and emerging trends in sexual abuser management: The Safer Society 2009 North American Survey*. Brandon, VT: Safer Society Press.

McGrath, R. J., Lasher, M. P., & Cumming, G. F. (2012). The sex offender treatment intervention and progress scale (SOTIPS): Psychometric properties and incremental predictive validity with Static-99R. *Sexual Abuse: A Journal of Research and Treatment, 24,* 431–458. http://dx.doi.org/10.1177/1079063211432475

Mears, D. P., Mancini, C., Gertz, M., & Bratton, J. (2008). Sex crimes, children, and pornography: Public views and public policy. *Crime and Delinquency, 54,* 532–559. http://dx.doi.org/10.1177/0011128707308160

Meloy, M. L., Miller, S. L., & Curtis, K. M. (2008). Making sense out of nonsense: The deconstruction of state-level sex offender residence restrictions. *American Journal of Criminal Justice, 33,* 209–222. http://dx.doi.org/10.1007/s12103-008-9042-2

Minnesota Department of Corrections. (2007). *Sex offender recidivism in Minnesota: April, 2007*. St. Paul, MN: Author. Retrieved from http://www.doc.state.mn.us/PAGES/index.php/about/reports-and-publications/publications/sex-offender/

Mishra, S., & Lalumière, M. (2009). Is the crime drop of the 1990s in Canada and the USA associated with a general decline in risky and health-related behavior? *Social Science & Medicine, 68,* 39–48. http://dx.doi.org/10.1016/j.socscimed.2008.09.060

Mustaine, E. E. (2014). Sex offender residency restrictions: Successful integration or exclusion? *Criminology & Public Policy, 13,* 169–177. http://dx.doi.org/10.1111/1745-9133.12076

Nakamura, K., & Blumstein, A. (2015). Potential for redemption for sex offenders. In A. Blokland & P. Lussier (Eds.), *Sex offenders: A criminal career approach* (pp. 373–404). Chichester, UK: Wiley.

Neal, T. M. S., & Grisso, T. (2014). Assessment practices and expert judgment methods in forensic psychology and psychiatry: An international snapshot. *Criminal Justice and Behavior, 41,* 1406–1421. http://dx.doi.org/10.1177/0093854814548449

Nelson, E. C., Heath, A. C., Madden, P. A. F., Cooper, M. L., Dinwiddie, S. H., Bucholz, K. K., . . . Martin, N. G. (2002). Association between self-reported childhood sexual abuse and adverse psychosocial outcomes: Results from a twin study. *Archives of General Psychiatry, 59,* 139–145. http://dx.doi.org/10.1001/archpsyc.59.2.139

*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., Sowden, J. N., Kingston, D. A., Nicholaichuk, T. P., Gordon, A., Beggs Christofferson, S. M., & Wong, S. C. (2016). Predictive accuracy of Violence Risk Scale–Sexual Offender Version risk and change scores in treated Canadian Aboriginal and non-Aboriginal sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*. Advance online publication. http://dx.doi.org/10.1177/1079063216649594

Paras, M. L., Murad, M. H., Chen, L. P., Goranson, E. N., Sattler, A. L., Colbenson, K. M., . . . Zirakzadeh, A. (2009). Sexual abuse and lifetime diagnosis of somatic disorders: A systematic review and meta-analysis. *Journal of the American Medical Association, 302,* 550–561. http://dx.doi.org/10.1001/jama.2009.1091

Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review, 29,* 328–338. http://dx.doi.org/10.1016/j.cpr.2009.02.007

Petrunik, M., & Weisman, R. (2005). Constructing Joseph Fredericks: Competing narratives of a child sex murderer. *International Journal of Law and Psychiatry, 28,* 75–96. http://dx.doi.org/10.1016/j.ijlp.2004.12.005

Phenix, A., & Epperson, D. L. (2016). Overview of the development, reliability, validity, scoring, and uses of the Static-99, Static-99R, Static-2002, and Static-2002R. In A. Phenix & H. M. Hoberman (Eds.), *Sexual offending: Predisposing conditions, assessment and management* (pp. 437–455). New York, NY: Springer.

Prentky, R. A., Lee, A. F. S., Knight, R. A., & Cerce, D. (1997). Recidivism rates among child molesters and rapists: A methodological analysis. *Law and Human Behavior, 21,* 635–659. http://dx.doi.org/10.1023/A:1024860714738

Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology, 25,* 111–163.

*Romine Swinburne, R., Rebecca, S., Dwyer, 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.

Sample, L. L., & Kadleck, C. (2008). Sex offender laws: Legislators' accounts of the need for policy. *Criminal Justice Policy Review, 19,* 40–62. http://dx.doi.org/10.1177/0887403407308292

Schmucker, M., & Lösel, F. (2015). The effects of sexual offender treatment on recidivism: An international meta-analysis of sound quality evaluations. *Journal of Experimental Criminology, 11,* 597–630. http://dx.doi.org/10.1007/s11292-015-9241-z

Scoones, C. D., Willis, G. M., & Grace, R. C. (2012). Beyond static and dynamic risk factors: The incremental validity of release planning for predicting sex offender recidivism. *Journal of Interpersonal Violence, 27,* 222–238. http://dx.doi.org/10.1177/0886260511416472

Simon, J., & Leon, C. (2008). The third wave: American sex offender policies since the 1990s. In S. G. Shoham, O. Beck, & M. Kett (Eds.), *International handbook of penology and criminal justice* (pp. 733–754). Boca Raton, FL: CRC Press.

Singer, J. D., & Willett, J. B. (1993). It's about time: Using discrete-time survival analysis to study duration and the timing of events. *Journal of Educational Statistics, 18,* 155–195. http://dx.doi.org/10.3102/10769986018002155

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.

Smith v. Doe (2003). 538 U.S. 83.

Soothill, K., & Francis, B. (2009). When do ex-offenders become like non-offenders? *Howard Journal of Criminal Justice, 48,* 373–387. http://dx.doi.org/10.1111/j.1468-2311.2009.00576.x

Soothill, K. L., & Gibbens, T. C. N. (1978). Recidivism of sexual offenders: A re-appraisal. *British Journal of Criminology, 18,* 267–276. http://dx.doi.org/10.1093/oxfordjournals.bjc.a046912

Stoltenborgh, M., van Ijzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment, 16,* 79–101. http://dx.doi.org/10.1177/1077559511403920

Taylor, J. E., & Harvey, S. T. (2010). A meta-analysis of the effects of psychotherapy with adults sexually abused in childhood. *Clinical Psychology Review, 30,* 749–767. http://dx.doi.org/10.1016/j.cpr.2010.05.008

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

Thornton, D. (2016). Developing a theory of dynamic risk. *Psychology, Crime & Law, 22,* 138–150. http://dx.doi.org/10.1080/1068316X.2015.1109092

Volinsky, C. T., & Raftery, A. E. (2000). Bayesian information criterion for censored survival models. *Biometrics, 56,* 256–262. http://dx.doi.org/10.1111/j.0006-341X.2000.00256.x

Willett, J. B., & Singer, J. D. (1993). Investigating onset, cessation, relapse, and recovery: Why you should, and how you can, use discrete-time survival analysis to examine event occurrence. *Journal of Consulting and Clinical Psychology, 61,* 952–965. http://dx.doi.org/10.1037/0022-006X.61.6.952

Willis, G. M., & Grace, R. C. (2008). The quality of community reintegration planning for child molesters: Effects on sexual recidivism. *Sexual Abuse: A Journal of Research and Treatment, 20,* 218–240. http://dx.doi.org/10.1177/1079063208318005

Willis, G. M., & Grace, R. C. (2009). Assessment of community reintegration planning for sex offenders: Poor planning predicts recidivism. *Criminal Justice and Behavior, 36,* 494–512. http://dx.doi.org/10.1177/0093854809332874

*Wilson, R. J., Cortoni, F., & Vermani, M. (2007a). *Circles of support and accountability: A national replication of outcome findings* (Report No. R-185). Ottawa, Ontario, Canada: 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 of Criminal Justice, 46,* 327–337. http://dx.doi.org/10.1111/j.1468-2311.2007.00480.x

World Health Organization. (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. Geneva, Switzerland: Author.

Zevitz, R. G., & Farkas, M. A. (2000). Sex offender community notification: Examining the importance of neighborhood meetings. *Behavioral Sciences & the Law, 18,* 393–408. http://dx.doi.org/10.1002/1099-0798(200003/06)18:2/3<393::AID-BSL381>3.0.CO;2-O

Zimring, F. E. (2009). *An American travesty: Legal responses to adolescent sexual offending*. Chicago, IL: University of Chicago Press.

Received April 3, 2017
Revision received May 5, 2017
Accepted May 8, 2017 ■

# Attachment 6:

Thornton, et al. *Lifetime and Residual* (2021)

*Article*

Sexual Abuse
2021, Vol. 33(1) 3–33

DOI: 10.1177/1079063219871573
journals.sagepub.com/home/sax
SAGE

# Estimating Lifetime and Residual Risk for Individuals Who Remain Sexual Offense Free in the Community: Practical Applications

**David Thornton[1], R. Karl Hanson[2], Sharon M. Kelley[3], and James C. Mundt[3]**

**Abstract**

Although individuals with a history of sexual crime are often viewed as a lifelong risk, recent research has drawn attention to consistent declines in recidivism risk for those who remain offense free in the community. Because these declines are predictable, this article demonstrates how evaluators can use the amount of time individuals have remained offense free to (a) extrapolate to lifetime recidivism rates from rates observed for shorter time periods, (b) estimate the risk of sexual recidivism for individuals whose current offense is nonsexual but who have a history of sexual offending, and (c) calculate yearly reductions in risk for individuals who remain offense free in the community. In addition to their practical utility for case-specific decision making, these estimates also provide researchers an objective, empirical method of quantifying the extent to which individuals have desisted from sexual crime.

**Keywords**

sexual recidivism, residual risk, extrapolation, desistance

[1]Forensic Assessment, Training, & Research (FAsTR), Madison, WI, USA
[2]Carleton University, Ottawa, Ontario, Canada
[3]Sand Ridge Secure Treatment Center, Madison, WI, USA

**Corresponding Author:**
David Thornton, Forensic Assessment, Training, & Research (FAsTR), LLC, 1213 N. Sherman Ave., #334, Madison, WI 53704, USA.
Email: davidsmthornton@icloud.com

A history of sexual crime is a valid risk factor for committing new sexual crimes. For many jurisdictions, this has been sufficient justification for diverse public protection measures that restrict the freedoms of individuals with a history of sexual crime, such as registries, civil commitment, and residence restrictions. Although assessment tools have been developed that measure differences in risk levels *between* individuals, there has been much less research on assessing changes *within* individuals. A common interpretation of risk scores based on static (e.g., criminal history) variables is that they assign risk levels that are themselves static, that is, once an individual has been assigned a risk level, that label applies in perpetuity. This is not the case. As documented by the research on desistance, people change, and mostly for the better (Laub & Sampson, 2003; Laws & Ward, 2011; Maruna, 2001).

Although scholars debate the processes and mechanisms of desistance (see Harris, 2014, 2016; Lussier & McCuish, 2016), the more fundamental question of defining desistance remains unresolved. Bushway and colleagues made an important contribution to this debate when they suggested defining desistance statistically (Bushway, Brame, & Paternoster, 2004; Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001). Just as actuarial risk tools can be used to identify individuals at high risk to reoffend, they can also be used to identify individuals whose risk for recidivism is below a tolerable threshold (such as the rate of first-time convictions of males in the general population, see, e.g., Blumstein & Nakamura, 2009). Given that true Damascus moments are rare, we can expect, and can statistically model, gradual declines in recidivism risk. Whereas very low risk thresholds are of central concern for those interested in desistance, there are a number of other thresholds of interest for evaluations that inform case management decisions (e.g., bail release, civil commitment, need for sex crime–specific treatment). The lesson of the desistance literature is that the risk of criminal recidivism is not static, even if based on static risk factors—risk predictably declines over time (Hanson, 2018).

For some of these decision thresholds, the concern is with lifetime risk (e.g., desistance, civil commitment). Although an individual with a history of crime may be currently unproblematic, what is the likelihood that this individual will have the intent and the opportunity to offend in the future? Given that most recidivism studies have follow-up times of 10 years or less, decisions based on lifetime rates must rely on some method of extrapolation. Although certain heuristics have been proposed, the field has yet to achieve consensus. For example, Doren (2010) recommended that evaluators estimate the lifetime risk by doubling the 5-year sexual recidivism rate. Wollert and Cramer (2012) criticized the use of a constant multiplier because it poorly replicated the observed rates for different risk levels. Better statistical models are needed.

The purpose of this article is to demonstrate a method of estimating lifetime recidivism rates and for updating risk assessments based on information available after release from the index sexual offense. The method requires only three variables: (a) a numeric estimate of the likelihood of recidivism at time of release; (b) the number of years sex offense free in the community; and (c) whether the individual has a post-index conviction for a nonsexual offense. In this article, we used Static-99R scores to

estimate the initial hazard rates. This was partly to be of direct assistance to evaluators who use that instrument, but readers should note that lifetime rates and time free adjustments do not require Static-99R scores; instead, they are intended to apply regardless of the method used to determine the initial risk for recidivism. They can be used with the numeric estimates derived from other risk tools, or even with the overall sexual recidivism base rates observed for a jurisdiction.

The approach in this article uses discrete-time hazard models previously developed by Hanson, Harris, Letourneau, Helmus, and Thornton (2018). Their basic findings were a constant decline in sexual recidivism for each year sexual offense free in the community, and a separate and incremental effect of post-index nonsexual recidivism. Their equations can be used to answer the following three questions: (a) What are the lifetime recidivism rates implied by rates observed for 5- and 10-year follow-up? (b) How to estimate the risk of sexual recidivism for individuals whose current offense is nonsexual but who have a history of sexual offending? (c) How to update risk assessments for individuals who remain offense free in the community?

One criticism of Hanson et al.'s (2018) models is that they may not have sufficiently considered the effect of attaining advance age during follow-up. In the study that leads to a revised age weight for Static-99R (Helmus, Thornton, Hanson, & Babchishin, 2012), there was a strong decline in recidivism risk for individuals who were 60 or older at time of release compared with those who were in their 50s. Consequently, it is possible that there is also a dynamic aging effect associated with attaining certain advanced age thresholds (e.g., turning 60, turning 80). Such thresholds are common in human development, for example, the relationship between age and height is approximately linear only between childhood and late teenage years. Although the direct (linear) effects of aging were included in Hanson et al.'s (2018) models, interactions between time free and specific age thresholds were not examined. Confidence in the new statistical models would be strengthened by explicitly testing the potential effects of critical age thresholds, and if significant, incorporating them into the actuarial scheme.

Being able to generate statistical risk estimates relevant to the three contexts (long-term projections; risk given nonsexual offense subsequent to the index sex offense; time free from any offending) is important, but for such estimates to be used they must be presented in a way that is accessible to their intended audience. The purpose of this article is to develop applications of the new statistical models for these three contexts, translate them into user-friendly procedures that can be applied by evaluators and researchers, and to suggest intelligible ways of explaining the results.

The numbers and tables presented in this article are not fundamentally new. All the values in the tables and figures are implicit in the statistical models presented in Hanson et al. (2018): Specifically, they can be derived from values presented in Model 5 (see Table 4) and Model 6 (see Table 5) from that study. Hanson et al. presented user-friendly figures demonstrating changes in risk over time, but these figures only addressed changes between standardized risk levels. The expected recidivism rates for the various combinations were not presented. Although anyone with the requisite statistical training could use Models 5 and 6 to calculate the recidivism rates presented in

the Hanson et al. paper, our experience is that many evaluators would find such calculations daunting. Furthermore, as we worked through the calculations for this paper, we encountered analytic choices that required discussion and decision. Although the outcome of these choices had minimal influence on the overall results, the existence of such choices increased our appreciation of the need for explicit guidance on how these rates should be calculated.

Our general analytic strategy was based on discrete-time survival analysis (Singer & Willett, 2003, Chapter 10). The proportion of individuals with a history of sexual offenses who reoffended after a cumulative time period (e.g., sexual recidivism rates at 5 years) is a function of the proportion who reoffend in each previous time period (i.e., the proportion who reoffend during years 1, 2, 3, 4, and 5). The proportion of at-risk individuals who reoffend in any particular year is called the *hazard rate* for that year. Because Hanson et al. (2018) found that the change in yearly hazard rates for sexual recidivism was constant (in log odds units), it is possible to estimate from any known (observed) recidivism rate the expected recidivism rates for any other time period.

Readers should note that unless explicitly indicated otherwise we use "reoffending," "recidivism," and related terms to refer to observed (detected) offending following sanction for a prior detected offense.

## Method

### *Participants*

The 7,225 participants in this study were identical to those used in Hanson et al. (2018). The sample description below is copied or paraphrased from that study. The sample was originally constructed to develop and norm the Static-99R sexual recidivism risk tool (Helmus et al., 2012). All subjects were adult males (18+) with an officially recorded history of sexual crime, a valid Static-99R score, and at least 6 months of follow-up time. The aggregated dataset was constructed from 20 different samples (see Supplemental Table 1), grouped into three broad categories: (a) relatively unbiased samples of routine, complete, or randomly selected sets of cases drawn from a particular jurisdiction (routine/complete samples; $k = 8$, $n = 4{,}026$), (b) individuals referred to specialized sex crime–specific treatment (treatment samples; $k = 5$, $n = 1{,}899$), and (c) individuals preselected to be high risk/high need ($k = 5$, $n = 1{,}141$). The high-risk/high-need samples were expected to be in the top 10% to 15% of the risk distribution and were selected for special measures for individuals deemed high risk to reoffend, such as civil commitment (United States) or detention until warrant expiry (Canada). Treatment samples were those who had been selected from a general population for sex crime–specific treatment. The study included two additional, small samples that did not fit the main categories, namely, a German sample of individuals convicted of sexual murder ($n = 86$; Hill, Habermann, Klusmann, Berner, & Briken, 2008) and a sample of individuals screened to be low risk ($n = 73$; Cortoni & Nunes, 2008). These samples were classified as "other." Individuals were classified according to the study from which they were drawn, and each individual was assigned only one sample type.

For the full sample, the follow-up period ranged from 6 months to 31.5 years (median of 7.2 years, $M = 8.2$, $SD = 5.3$ years). Nine samples used charges for a new sexual offense as the recidivism criteria, whereas 11 used convictions. Of the 7,225 individuals, 791 were identified as sexual recidivists. Life-table survival analysis found that the overall sexual recidivism rate was 9.1% at 5 years, 13.3% at 10 years, 16.2% at 15 years, 18.2% at 20 years, and 18.5% at 25 years.

The distributions of individuals from the different sample types varied based on follow-up period. Of the 4,940 individuals followed for 5 years or more, 48.7% were from routine samples. In contrast, only 5.9% of those followed for 15 years or more were from routine samples (64.6% treatment; 25.4% high risk/high need; 4.1% other; total $n = 740$). Among the 394 individuals followed for more than 20 years, there was only one sexual recidivist: a 63-year-old man who had been in the community for 20.5 years (originally released at age 43). Further description of the sample composition and attrition during follow-up is available in Hanson et al. (2018).

## Measures

*Static-99R.* Static-99R (Helmus, Thornton, et al., 2012) was used as a measure of risk for sexual recidivism at the time of release from the index sexual offense. Static-99R contains 10 items based on commonly available demographic (age, relationship history) and criminal history information (e.g., prior sexual offenses, any unrelated victims, total number of prior sentencing occasions for anything). Static-99R (and its previous version, Static-99) are the sexual recidivism risk assessment tools most commonly used in corrections and forensic mental health (Kelley, Ambroziak, Thornton, & Barahal, 2018; McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010; Neal & Grisso, 2014). It can be scored with high rater reliability (for a review, see Phenix & Epperson, 2016) and has moderate ability to discriminate recidivists from nonrecidivists (Helmus, Hanson, Thornton, Babchishin, & Harris, 2012).

Static-99R total scores range from −3 to 12 and correspond to the following risk levels: I—very low risk (scores of −3 and −2), II—below-average risk (scores of −1 and 0), III—average risk (scores of 1−3), IVa—above-average risk (scores of 4 and 5), and IVb—well above average risk (scores of 6 and higher; Hanson, Babchishin, Helmus, Thornton, & Phenix, 2017). Static-99R risk levels parallel the standardized risk levels developed for general correctional populations by the Justice Centre of the Council of State Governments (Hanson et al., 2017). These standardized risk levels address the crime-relevant characteristics of individuals in the criminal justice system, the intensity of correctional supervision and rehabilitation programming needed to manage their risk, and their personal strengths and expected prognosis.

In this study, the observed recidivism rates associated with Static-99R scores were used as a plausible range of values from which to estimate the initial annual hazard rates. Specifically, we used the observed 5-year sexual recidivism rates for routine/complete samples. We used both the 5- and 10-year rates for preselected high-risk samples (Hanson, Thornton, Helmus, & Babchishin, 2016; Phenix, Helmus, & Hanson, 2016).

**Table 1.** Logistic Regression Equations Used to Estimate Annual Hazard Rates With or Without Nonsexual Recidivism.

| | Models | |
|---|---|---|
| | No recidivism (Model 5) | Nonsexual recidivism (Model 6) |
| No. of individuals (events) | 7,225 (791) | 4,078 (318) |
| Parameters | | |
| Intercept | –5.002 (.085) | –5.407 (.136) |
| Time free (years) | −0.130 (.011) | −0.135 (.019) |
| Static-99R | 0.329 (.022) | 0.322 (.035) |
| Sample type (reference category is routine/complete) | | |
| Treatment | 0.459 (.110) | 0.228 (.198) |
| High risk/high need | 0.920 (.136) | 1.459 (.193) |
| Other | −0.705 (.595) | −0.413 (.635) |
| Interaction: Static-99R by sample type | | |
| Treatment × STATIC | −0.081 (.034) | −0.088 (.062) |
| High risk/high need × STATIC | −0.194 (.053) | −0.137 (.036) |
| Other × STATIC | 0.070 (.146) | 0.025 (.162) |
| Nonsexual recidivism | | 0.440 (.125) |
| Overall accuracy (AUC) | 0.747 | 0.755 |

*Note*. The models for no recidivism and for nonsexual recidivism are the discrete-time logistic regression Model 5 and Model 6, respectively, from Hanson, Harris, Letourneau, Helmus, and Thornton (2018). AUC = area under the curve.

## *Plan of Analysis*

*Review of Hanson et al.*'s statistical models. Because the estimation procedures used in this study were based on Hanson et al. (2018), an overview of that study is helpful to understanding our analytic approach. Hanson et al. (2018) fit logistic regression equations to discrete-time survival data (Singer & Willett, 1993, 2003; Willet & Singer, 1993). Specifically, follow-up periods were divided into 6-month intervals and the probability of sexual recidivism within these intervals was used as the dependent variable in logistic regression. The person-period dataset contained 105,347 observations (6-month intervals) across 7,225 individuals. Given that the sample size was very large, inclusion or exclusion of predictor variables was based on the Akaike Information Criteria (AIC; Burnham & Anderson, 2004) and the Bayesian Information Criteria (BIC; Raftery, 1995). These are statistical measures of model fit that penalize overfitting. The two models of best fit, used in this study, are presented in Table 1. For those with no convictions up to the time of assessment for post-index nonsexual offending, Hanson et al.'s Model 5 is used. For those with any convictions up to the time of assessment for post-index nonsexual offending Hanson et al.'s Model 6 is used. Although it would be possible to use Model 6 for both groups, we retained separate models because the sample size for Model 5 was substantially larger than the sample size used to derive Model 6 (7,225 vs. 4,078).

Hanson et al. (2018) found that the logistic distribution adequately fit Models 5 and 6 (nonsignificant Hosmer–Lemeshow goodness-of-fit test). Using Rice and Harris' (2005) guidelines, the overall predictive accuracy (discrimination) of these models was large, as indicated by area under the curve (AUC) values of .747 (Model 5) and .755 (Model 6). These AUC values can be interpreted as the probability that a recidivist would have a higher predicted probability of recidivism than a nonrecidivist.

In this study, the relevant parameters from Models 5 and 6 are the dynamic effects of (a) time free in the community without sexually reoffending and (b) nonsexual recidivism during follow-up. All the other variables are static, fixed variables that estimate the initial hazard of reoffending sexually at the time of release. In the approach used to estimate the initial hazards, the remaining parameters in Models 5 and 6 should be considered control variables, or covariates, intended to increase the precision of the primary parameter of interest (i.e., the time free effect). The other parameters are not needed for the estimates in this study. Specifically, the values in Table 1 of most direct interest are the time free effect given no new recidivism ($b = –.130$ [$SE = .011$]) and, for those with nonsexual recidivism, the combined effect of nonsexual recidivism ($b = .440$ [$SE = .125$]) and the independent and incremental effect of time free from sexual offending ($b = –.135$ [$SE = .019$]).

Confidence in the size of the time free effect is bolstered by Hanson et al.'s (2018) findings that the time free parameter remained relatively constant regardless of the control variables included: $b = –.131$ ($SE = .011$) with no control variables; $b = –.123$ ($SE = .011$) with only Static-99R scores; $b = –.128$ ($SE = .011$) for Static-99R and sample type (4 types) included; $b = –.130$ ($SE = .011$) with Static-99R, sample type, and the interactions between Static-99R and sample type (Model 5); and $b = –.135$ ($SE = .019$) for the model that also included nonsexual recidivism (Model 6). Importantly, Hanson et al. (2018) found that the time free effect did not vary based on initial risk levels, as defined by Static-99R scores, or sample type.

The values provided in Table 1 are in logits, or log odds units, of the yearly hazard rates: ln(hazard rate/[1 – hazard rate]). This means that when the time free effect is $b = –.130$, there is a reduction of .130 log odds units of sexually recidivating for each consecutive year in the community without reoffending, or a reduction of $e^{-.130} = .878095$ in the odds of recidivism per year. Nonsexual criminal recidivism increases the odds of recidivism in any particular year by 1.55 ($e^{.440} = 1.55$).

*Discrete-time survival analysis.* The discrete-time approach (see, e.g., Singer & Willett, 2003, Chapter 10) estimates recidivism rates based on the proportion of individuals who reoffend during a discrete time period divided by the number of individuals available to reoffend during that time period. This ratio is called a hazard ($h_t$) and can assume values from zero (no recidivists in that time period) to 1.0 (all available individuals reoffend). The subscript $t$ indicates that the hazard rate is a variable that can take different values for different years (i.e., $h_3$ refers to the hazard rate in year 3, and $h_t$ is the general form indicating the hazard rate for $t$ different years).

The proportion of individuals surviving any single time interval is one minus the hazard rate for that interval ($s_t = 1 – h_t$). Conversely, the recidivism rate is one minus the proportion surviving (i.e., the hazard rate). The cumulative proportion surviving

($\boldsymbol{S}_T$) is the product of the proportion who has not previously reoffended (i.e., the proportion still at risk [$p_{at\,risk}$]) and the proportion not reoffending during that specific time interval:

$$\boldsymbol{S}_T = p_{at\,risk} \times \left[1 - h_t\right] \text{ or } \boldsymbol{S}_T = p_{at\,risk} \times s_t.$$

With a consistent decline in hazard rates over time (known from previous research), yearly hazard rates can be estimated from any observed recidivism rate for any length of time (e.g., yearly rates can be estimated from 2-year, 5-year, 7.6-year, or any other fixed follow-up period).

Once the expected hazard rates are estimated for each year, the cumulative survival is estimated using the hazard rates projected into all future years. Given that the hazard of reoffending is negligible after 20 years, follow-up ended at that time, that is, the hazard rate after 20 years sexual offense free was set to zero.

As stated previously, the cumulative survival rate, $\boldsymbol{S}_T$, is the product of the survival rates ($1 - h_t$) of each year at risk:

$$S_T = \prod_{\text{year}=1}^{t} \left(1 - h_t\right). \tag{1}$$

Given the constant annual reduction in the logit of the hazard rate, it is useful to express the hazards in Formula 1 in logit units:

$$S_T = \prod_{\text{year}=1}^{t} \left(1 - \left(\frac{1}{1 + \mathrm{e}^{-\left(\text{logit}\left(h_t\right)\right)}}\right)\right). \tag{2}$$

Formula 2 is identical to Formula 1, except that the hazard rate is first transformed into logit units, $\ln(h/[1-h])$, then retransformed back into a proportion, $p = 1/(1 + \mathrm{e}^{-\text{logit(h)}})$. This transformation makes it easy to increment the logit of the yearly hazard rate by a constant (e.g., $b = -.130$):

$$S_T = \prod_{y=1}^{t} \left(1 - \left(\frac{1}{1 + e^{-\left(\text{logit}\left(h_1\right) + \left(y-1\right)b\right)}}\right)\right). \tag{3}$$

For example, if $b = -.130$ and the observed 3-year sexual recidivism rate is 10% (90% survival), Formula 3 would be written as follows:

$$.90 = \left(1 - \left(\frac{1}{1 + e^{-\left(\text{logit}\left(h_1\right)\right)}}\right)\right)\left(1 - \left(\frac{1}{1 + e^{-\left(\text{logit}\left(h_1\right) - .130\right)}}\right)\right)\left(1 - \left(\frac{1}{1 + e^{-\left(\text{logit}\left(h_1\right) - .260\right)}}\right)\right).$$

This equation has a single positive solution for $h_1$ (the hazard rate for the first year), although the algebra is complicated. Consequently, rather than solve each equation for $h_1$, the value of $h_1$ was estimated to four significant figures through iteration using an Excel spreadsheet. For example, the initial 1-year hazard rate for a Static-99R score of 3 was just more than 2% (.02073) for routine/complete samples (see Supplemental Table 2).

*Extrapolation from 5- or 10-year recidivism rates to 20-year rates.* Three sets of observed recidivism rates were used to estimate initial hazard rates (i.e., hazard rates at time of release) associated with Static-99R scores: the observed 5-year sexual recidivism rates for routine/complete samples, the 5-year rates for preselected high-risk samples, and the 10-year rates for the preselected high-risk samples (Hanson et al., 2016; Phenix et al., 2016). The resulting estimates for $h_1$ are presented in Supplemental Table 2.

Once the hazard rates at time of release were estimated, the hazard rates for subsequent years were calculated by subtracting .130 from the logit of the hazard rate for the previous year: $\text{logit}(h_{t+1}) = \text{logit}(h_t) - .130$. The logit was then transformed back into proportions, and Formula 1 was used to calculate the cumulative survival rates for follow-up times up to 20 years offense free.

*Assessing the risk for sexual recidivism following a nonsexual offense.* The same initial hazard rates (see Supplemental Table 2) were used when estimating risk for individuals with a history of sexual crime but who reoffend nonsexually after release from their index sex offense. Here "nonsexual" reoffenses refer to convictions for new offenses, not to technical violations. For each full year that they were sexual offense free, .135 was subtracted from the logit of the hazard of the previous year. This applied to each year in the community, except the year in which the individual received his first nonsexual conviction. During the year of nonsexual recidivism, .440 was added to the logit of the hazard for the previous year. This was added only once and remained for the rest of the follow-up period. No credit was given for being sexual offense free during the year of first nonsexual conviction. In all subsequent follow-up years, however, the time free reduction was applied.

*Revising initial risk assessment years based on time offense free in the community.* At time of release, individuals face risk of sexually recidivating presented in 20 intervals: the cumulative hazards for year 1 to year 20. The hazard rate after 20 years was set to zero. When an individual has remained offense free for $x$ years, his residual risk was calculated using the hazard rates for his subsequent years at risk (i.e., $\text{year}_{x+1}$ to $\text{year}_{20}$). The initial start values (hazard rates at release) were those provided in Supplemental Table 2. The time free effect for individuals who did not have any post-release nonsexual convictions was set at –.130 of the logit of the hazard of the previous year. The logits of the hazard values were then transformed back into proportions and used to estimate residual risk using Formula 1.

*Estimating errors of recidivism estimates.* Three approaches were used to examine the margin of error of calculated estimates. The first approach compared the initial hazard values inferred from the observed recidivism rates for the preselected high-risk groups at 5 years and for the same group at 10 years. If the relative decline is as constant as we propose, then similar estimates should be produced regardless of the follow-up period used to infer the initial estimates.

The second approach examined how much the results changed when the calculations used the full range of values included in the 95% confidence intervals of the time free parameter ($\pm 1.96 \times SE$). Specifically, estimates were computed based on the values of −0.15156 and −0.10844 (calculated as $-0.130 \pm [1.96 \times 0.011]$). A limitation of this approach is that the size of the standard error is primarily influenced by the total sample size, which was very large (105,347 observations).

The third approach examined how much the results changed based on the different values of the time free parameter in the different logistic models (see Tables 4 and 5 from Hanson et al., 2018). In the plausible models, these values ranged from –.123 ($SE = .011$) to –.135 ($SE = .019$).

## Results

As a preliminary step, we examined whether there was any evidence of incremental effects of turning 60, 70, or 80 in the community. None were found. In the full dataset of 7,225 individuals, the average age at release was 39.9 years ($SD = 12.2$) with a range from 18 to 84. The average age at the end of the follow-up (survival end date, i.e., the earlier of recidivism date or end of follow-up) was 47.2 ($SD = 12.9$), with a range of 19 to 103 years. There were 1,174 individuals who were 60 or older, 399 who were 70 or older, and 84 who were 80 or older at some point during the follow-up period. There were no recidivists in the dynamic 80+ age group. The oldest recidivist was 76 years old and had been in the community for 3.5 years.

In the logistic model that included time free, Static-99R total scores, sample type, and the interaction of sample type and Static-99R as covariates (Hanson et al., 2018, Model 5; 105,347 observations, 791 sexual recidivists), neither turning 60, turning 70, or turning 80 improved the prediction of sexual recidivism. Nor did any of these age thresholds statistically interact with time free (all AIC and BIC changes were positive, i.e., in the direction of worsening model fit). The incremental effects of turning 60, turning 70, and turning 80 were also tested in a simpler model that only included time free and Static-99R scores (not sample type) as covariates, and again they did not improve model fit (all AIC and BIC changes were positive). In other words, although individuals in these older dynamic age groups demonstrated low sexual recidivism rates, these low levels of risk were expected given their Static-99R scores at time of release (including age at release) and their years offense free in the community.

### *Extrapolations to 20-year recidivism rates*

Extrapolation to 20-year sexual recidivism rates involved estimating the annual hazard at time of release based on observed recidivism rates and then using these initial hazards

**Table 2.** Estimated Sexual Recidivism Rates (Percentages) for Follow-Up Periods Ranging From 6 to 20 Years for Routine/Complete Samples Based on Observed 5-Year Recidivism Rates.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| year | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5 | **0.9** | **1.3** | **1.9** | **2.8** | **3.9** | **5.6** | **7.9** | **11.0** | **15.2** | **20.5** | **27.2** | **35.1** | **43.8** | **53.0** |
| 6 | 1.0 | 1.5 | 2.2 | 3.2 | 4.4 | 6.3 | 8.9 | 12.4 | 17.1 | 22.9 | 30.2 | 38.8 | 48.0 | 57.6 |
| 7 | 1.1 | 1.6 | 2.4 | 3.5 | 4.9 | 7.0 | 9.8 | 13.6 | 18.6 | 25.0 | 32.8 | 41.9 | 51.5 | 61.3 |
| 8 | 1.2 | 1.8 | 2.6 | 3.8 | 5.2 | 7.5 | 10.5 | 14.6 | 20.0 | 26.7 | 35.0 | 44.4 | 54.4 | 64.3 |
| 9 | 1.3 | 1.9 | 2.7 | 4.0 | 5.6 | 8.0 | 11.2 | 15.5 | 21.2 | 28.3 | 36.9 | 46.6 | 56.8 | 66.7 |
| 10 | 1.4 | 2.0 | 2.9 | 4.2 | 5.9 | 8.4 | 11.8 | 16.3 | 22.2 | 29.6 | 38.5 | 48.5 | 58.8 | 68.8 |
| 11 | 1.4 | 2.1 | 3.0 | 4.4 | 6.1 | 8.8 | 12.3 | 17.0 | 23.1 | 30.7 | 39.9 | 50.0 | 60.4 | 70.4 |
| 12 | 1.5 | 2.1 | 3.1 | 4.6 | 6.4 | 9.1 | 12.7 | 17.6 | 23.9 | 31.7 | 41.0 | 51.4 | 61.9 | 71.9 |
| 13 | 1.5 | 2.2 | 3.2 | 4.7 | 6.6 | 9.4 | 13.1 | 18.1 | 24.6 | 32.5 | 42.1 | 52.5 | 63.1 | 73.0 |
| 14 | 1.6 | 2.3 | 3.3 | 4.9 | 6.7 | 9.6 | 13.5 | 18.5 | 25.2 | 33.3 | 42.9 | 53.5 | 64.1 | 74.0 |
| 15 | 1.6 | 2.3 | 3.4 | 5.0 | 6.9 | 9.8 | 13.8 | 18.9 | 25.7 | 33.9 | 43.7 | 54.4 | 65.0 | 74.9 |
| 16 | 1.6 | 2.4 | 3.5 | 5.1 | 7.0 | 10.0 | 14.0 | 19.3 | 26.2 | 34.5 | 44.4 | 55.1 | 65.8 | 75.6 |
| 17 | 1.7 | 2.4 | 3.5 | 5.2 | 7.1 | 10.2 | 14.2 | 19.6 | 26.5 | 35.0 | 44.9 | 55.7 | 66.4 | 76.2 |
| 18 | 1.7 | 2.4 | 3.6 | 5.2 | 7.2 | 10.3 | 14.4 | 19.8 | 26.9 | 35.4 | 45.4 | 56.3 | 67.0 | 76.8 |
| 19 | 1.7 | 2.5 | 3.6 | 5.3 | 7.3 | 10.5 | 14.6 | 20.1 | 27.2 | 35.7 | 45.9 | 56.8 | 67.5 | 77.2 |
| 20 | 1.7 | 2.5 | 3.7 | 5.4 | 7.4 | 10.6 | 14.8 | 20.3 | 27.5 | 36.1 | 46.3 | 57.2 | 67.9 | 77.6 |

*Note.* Bolded values are the 5-year logistic regression estimates for routine/complete samples from Hanson, Thornton, Helmus, and Babchishin (2016). $N = 4{,}325$ (358 recidivists).

(see Supplemental Table 2) to project forward based on the consistent decline over the observed 20-year follow-up period. The results of these projections are shown for routine/complete samples based on 5-year observed rates (see Table 2) and for preselected high-risk/high-need samples based on 5-year observed rates (see Table 3) and on 10-year observed rates (see Table 4). These risk estimates are relevant to evaluators who are assessing long-term risk subsequent to release from the index sex offense. The assessment is normally made prior to this release and relates to risk at the point of release.

To use these tables, evaluators need to know the individual's Static-99R score and whether the individual has sufficient density of external risk factors (i.e., risk factors not measured by the Static-99R risk tool) to justify placement in the high-risk/high-need reference group (i.e., whether or not to use Table 2 for routine/complete samples; for a discussion on selecting reference groups for Static-99R norms, see Hanson et al., 2016). Of the two tables for the high-risk/high-need samples (see Tables 3 and 4), our preference is Table 4 because it requires less extrapolation than Table 3. On the contrary, some evaluators may prefer Table 3 to Table 4 because the 5-year sexual recidivism norms are based on more samples with a larger total *N* than the 10-year norms. Consistency between estimates in Table 3 and those in Table 4 provides one check on the potential error associated with the extrapolation method.

**Table 3.** Estimated Sexual Recidivism Rates (Percentages) for Follow-Up Periods Ranging From 6 to 20 Years for High-Risk/High-Need Samples Based on Observed 5-Year Recidivism Rates.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| year | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5 | | | **5.6** | **7.2** | **9.0** | **11.3** | **14.0** | **17.3** | **21.2** | **25.7** | **30.7** | **36.3** | **42.2** | **48.4** |
| 6 | | | 6.3 | 8.1 | 10.1 | 12.7 | 15.7 | 19.4 | 23.7 | 28.6 | 34.0 | 40.1 | 46.3 | 52.9 |
| 7 | | | 7.0 | 8.9 | 11.1 | 13.9 | 17.2 | 21.2 | 25.8 | 31.1 | 36.9 | 43.2 | 49.8 | 56.5 |
| 8 | | | 7.5 | 9.6 | 12.0 | 15.0 | 18.5 | 22.7 | 27.6 | 33.2 | 39.2 | 45.8 | 52.6 | 59.4 |
| 9 | | | 8.0 | 10.2 | 12.7 | 15.9 | 19.6 | 24.0 | 29.2 | 35.0 | 41.3 | 48.1 | 54.9 | 61.9 |
| 10 | | | 8.4 | 10.8 | 13.4 | 16.7 | 20.6 | 25.2 | 30.5 | 36.5 | 43.0 | 49.9 | 56.9 | 63.9 |
| 11 | | | 8.8 | 11.2 | 14.0 | 17.4 | 21.4 | 26.2 | 31.7 | 37.8 | 44.4 | 51.5 | 58.6 | 65.6 |
| 12 | | | 9.1 | 11.6 | 14.5 | 18.0 | 22.1 | 27.0 | 32.7 | 39.0 | 45.7 | 52.9 | 60.0 | 67.0 |
| 13 | | | 9.4 | 12.0 | 14.9 | 18.5 | 22.8 | 27.8 | 33.6 | 40.0 | 46.8 | 54.0 | 61.2 | 68.2 |
| 14 | | | 9.6 | 12.3 | 15.3 | 19.0 | 23.3 | 28.4 | 34.3 | 40.8 | 47.7 | 55.0 | 62.2 | 69.2 |
| 15 | | | 9.8 | 12.6 | 15.6 | 19.4 | 23.8 | 29.0 | 35.0 | 41.6 | 48.5 | 55.9 | 63.1 | 70.1 |
| 16 | | | 10.0 | 12.8 | 15.9 | 19.8 | 24.2 | 29.5 | 35.5 | 42.2 | 49.2 | 56.6 | 63.9 | 70.9 |
| 17 | | | 10.2 | 13.0 | 16.2 | 20.1 | 24.6 | 29.9 | 36.0 | 42.8 | 49.8 | 57.3 | 64.5 | 71.5 |
| 18 | | | 10.3 | 13.2 | 16.4 | 20.3 | 24.9 | 30.3 | 36.5 | 43.2 | 50.4 | 57.8 | 65.1 | 72.1 |
| 19 | | | 10.5 | 13.4 | 16.6 | 20.6 | 25.2 | 30.6 | 36.8 | 43.7 | 50.8 | 58.3 | 65.6 | 72.5 |
| 20 | | | 10.6 | 13.5 | 16.7 | 20.8 | 25.4 | 30.9 | 37.2 | 44.0 | 51.2 | 58.8 | 66.0 | 73.0 |

*Note.* Bolded values are the 5-year logistic regression estimates for high-risk/high-need groups from Phenix, Helmus, and Hanson (2016). $N = 860$ (164 recidivists).

As shown in Table 2, for the average risk group (Level III), the 10-year rates were approximately 1.5 times the 5-year rates, and the 20-year rates were approximately double the 5-year rates. For a Static-99R score of 2 (the median value), the observed 5-year sexual recidivism rate was 5.6%, the cumulative 10-year rate was 8.4%, and the cumulative 20-year rate was 10.6%. The same pattern was observed for the very low risk group (Level I) and the below-average risk group (Level II). As the initial risk levels increased, however, the 20-year rates were less than double the 5-year rates. For example, for a Static-99R score of 8, the observed 5-year rate was 35.1% and the cumulative 20-year rate was 57.2% (not 70.2%).

The maximum lifetime recidivism risk for individuals classified as Level I (very low risk) was 2.5% (Static-99R scores of −3 and −2), which would translate to an applied decision threshold of less than three out of 100 individuals. Rates this low were only observed in routine/complete samples; no individuals from the high-risk samples met this threshold at time of release. Conversely, if decisions involve a high risk threshold of lifetime recidivism rates of 35% or more, then this would correspond to Static-99R scores of 6+ (well above average) in routine/complete samples, or 5+ in preselected high-risk/high-need samples.

**Table 4.** Estimated Sexual Recidivism Rates (Percentages) for Follow-Up Periods of 5 and 11 to 20 Years for High-Risk/High-Need Samples Based on Observed 10-Year Recidivism Rates.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up year | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | |
| | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 5 | | | 7.1 | 8.7 | 10.7 | 13.0 | 15.7 | 18.8 | 22.4 | 26.3 | 30.6 | 35.1 |
| 10 | | | **10.6** | **13.0** | **15.8** | **19.1** | **22.9** | **27.3** | **32.1** | **37.3** | **42.8** | **48.5** |
| 11 | | | 11.1 | 13.6 | 16.5 | 19.9 | 23.8 | 28.4 | 33.3 | 38.6 | 44.3 | 50.1 |
| 12 | | | 11.5 | 14.0 | 17.0 | 20.6 | 24.6 | 29.3 | 34.3 | 39.8 | 45.5 | 51.4 |
| 13 | | | 11.8 | 14.5 | 17.5 | 21.2 | 25.3 | 30.1 | 35.2 | 40.8 | 46.6 | 52.6 |
| 14 | | | 12.1 | 14.8 | 18.0 | 21.7 | 25.9 | 30.8 | 36.0 | 41.7 | 47.5 | 53.6 |
| 15 | | | 12.4 | 15.2 | 18.4 | 22.1 | 26.4 | 31.4 | 36.7 | 42.4 | 48.4 | 54.4 |
| 16 | | | 12.6 | 15.4 | 18.7 | 22.5 | 26.9 | 31.9 | 37.3 | 43.1 | 49.1 | 55.1 |
| 17 | | | 12.8 | 15.7 | 19.0 | 22.9 | 27.3 | 32.4 | 37.8 | 43.6 | 49.7 | 55.8 |
| 18 | | | 13.0 | 15.9 | 19.3 | 23.2 | 27.7 | 32.8 | 38.3 | 44.1 | 50.2 | 56.3 |
| 19 | | | 13.2 | 16.1 | 19.5 | 23.4 | 28.0 | 33.1 | 38.7 | 44.6 | 50.6 | 56.8 |
| 20 | | | 13.3 | 16.3 | 19.7 | 23.7 | 28.2 | 33.4 | 39.0 | 44.9 | 51.0 | 57.2 |

*Note.* Bolded values are the 10-year logistic regression estimates for high-risk/high-need groups from Phenix, Helmus, and Hanson (2016). $N = 350$ (98 recidivists).

## *Risk Assessment Given a Post-Index Nonsexual Offense*

Tables 5 and 6 present the 20-year sexual recidivism rates for individuals with a history of sexual crime, but who were convicted of a nonsexual offense subsequent to their release from their index sex offense. For this analysis, the risk for sexual recidivism was again assumed to be zero after 20 years sexual offense free in the community. For the high-risk/high-need samples, the projections were based on the estimated initial hazard rates estimated from the observed 10-year rates. These are the recidivism estimates relevant to evaluators wishing to assess the risk presented by individuals with a history of sexual offending who have come to attention because they have committed a nonsexual offense after release from their index sex offense. However, it can also be used for any individual who has had a new nonsexual conviction following release from an index sexual offense, for example, individuals with a sexual offending history who have been several years on community supervision for a nonsexual offense. In this case, the follow-up year would be years at liberty in the community since the index sexual offense, subtracting time served from calendar time.

To use these tables, evaluators need to know the individual's Static-99R score, the number of years offense free in the community prior to the first nonsexual offense conviction, and whether the individual has sufficient density of external risk factors to justify placement in the high-risk/high-need reference group (i.e., whether to use Table 5 or 6). The numbers in the tables are the percentage of individuals expected to commit

**Table 5.** Projected Residual Risk (Sexual Recidivism Rates as Percentages) From Time of Release Up to 20 Years Sex Offense Free in the Community for Routine/Complete Samples by Time of First Nonsexual Recidivism.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up year | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <1 | 2.6 | 3.8 | 5.5 | 8.0 | 11.0 | 15.5 | 21.4 | 28.9 | 38.2 | 48.8 | 60.4 | 71.6 | 81.3 | 88.9 |
| 1 | 2.3 | 3.3 | 4.7 | 6.9 | 9.6 | 13.6 | 18.8 | 25.5 | 34.1 | 44.1 | 55.3 | 66.6 | 76.8 | 85.3 |
| 2 | 2.0 | 2.8 | 4.1 | 6.0 | 8.3 | 11.8 | 16.5 | 22.5 | 30.3 | 39.5 | 50.2 | 61.3 | 71.9 | 81.2 |
| 3 | 1.7 | 2.4 | 3.5 | 5.2 | 7.2 | 10.3 | 14.4 | 19.7 | 26.8 | 35.2 | 45.2 | 56.1 | 66.7 | 76.5 |
| 4 | 1.5 | 2.1 | 3.1 | 4.5 | 6.2 | 8.9 | 12.5 | 17.2 | 23.5 | 31.2 | 40.5 | 50.8 | 61.3 | 71.4 |
| 5 | 1.2 | 1.8 | 2.6 | 3.9 | 5.4 | 7.7 | 10.8 | 15.0 | 20.6 | 27.5 | 36.0 | 45.7 | 55.9 | 66.0 |
| 6 | 1.1 | 1.5 | 2.2 | 3.3 | 4.6 | 6.6 | 9.3 | 13.0 | 17.9 | 24.0 | 31.7 | 40.7 | 50.4 | 60.4 |
| 7 | 0.9 | 1.3 | 1.9 | 2.8 | 3.9 | 5.7 | 8.0 | 11.1 | 15.4 | 20.9 | 27.8 | 36.0 | 45.1 | 54.8 |
| 8 | 0.8 | 1.1 | 1.6 | 2.4 | 3.3 | 4.8 | 6.8 | 9.5 | 13.3 | 18.0 | 24.1 | 31.5 | 39.9 | 49.1 |
| 9 | 0.6 | 0.9 | 1.4 | 2.0 | 2.8 | 4.1 | 5.8 | 8.1 | 11.3 | 15.4 | 20.8 | 27.4 | 35.0 | 43.5 |
| 10 | 0.5 | 0.8 | 1.2 | 1.7 | 2.4 | 3.4 | 4.9 | 6.8 | 9.6 | 13.1 | 17.7 | 23.5 | 30.3 | 38.0 |
| 11 | 0.5 | 0.7 | 1.0 | 1.4 | 2.0 | 2.8 | 4.1 | 5.7 | 8.0 | 11.0 | 15.0 | 20.0 | 25.9 | 32.8 |
| 12 | 0.4 | 0.5 | 0.8 | 1.2 | 1.6 | 2.3 | 3.3 | 4.7 | 6.6 | 9.1 | 12.5 | 16.7 | 21.9 | 27.9 |
| 13 | 0.3 | 0.4 | 0.6 | 0.9 | 1.3 | 1.9 | 2.7 | 3.8 | 5.4 | 7.4 | 10.2 | 13.8 | 18.1 | 23.3 |
| 14 | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 1.5 | 2.2 | 3.0 | 4.3 | 6.0 | 8.2 | 11.1 | 14.7 | 19.0 |
| 15 | 0.2 | 0.3 | 0.4 | 0.6 | 0.8 | 1.2 | 1.7 | 2.4 | 3.3 | 4.6 | 6.4 | 8.7 | 11.6 | 15.1 |
| 16 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.2 | 1.8 | 2.5 | 3.5 | 4.8 | 6.5 | 8.7 | 11.4 |
| 17 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.2 | 1.7 | 2.4 | 3.4 | 4.6 | 6.2 | 8.1 |
| 18 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.8 | 1.1 | 1.5 | 2.1 | 2.9 | 3.9 | 5.1 |
| 19 | <0.1 | <0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.0 | 1.4 | 1.8 | 2.4 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

*Note.* Recidivism rate projections based on 5-year logistic regression estimates from Hanson, Thornton, Helmus, and Babchishin (2016). Underlined values mark the transition out of Level IVb (above 35%) and into Level I (less than 3%).

another sexual offense were they to be followed up to 20 years. For example, the expected 20-year sexual recidivism rates for those in the middle of the risk distribution (Static-99R score of 2) is 15.5% should they be convicted of a nonsexual offense during the first year at liberty. This rate declines to 7.7% if their first nonsexual conviction was in year 5.

It is interesting to note that, even with nonsexual offending, all individuals with a history of sexual offenses will still drop below a low risk threshold of 3% should they remain sexual offense free in the community long enough. As shown in Table 5, for the very low risk group (Level I), individuals in routine/complete samples are below this threshold after 1 year. For the below-average group (Level II), it is between 5 and 7 years; for the average risk group (Level III), it is between 9 and 13 years; and for the

**Table 6.** Projected Residual Risk (Sexual Recidivism Rates as Percentages) From Time of Release Up to 20 Years Sex Offense Free in the Community for High-Risk/High-Need Samples by Time of First Nonsexual Recidivism.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| year | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <1 | | | 19.3 | 23.4 | 28.1 | 33.4 | 39.2 | 45.6 | 52.3 | 59.0 | 65.5 | 71.7 | | |
| 1 | | | 17.0 | 20.6 | 24.8 | 29.6 | 35.0 | 41.0 | 47.3 | 53.8 | 60.3 | 66.6 | | |
| 2 | | | 14.8 | 18.1 | 21.9 | 26.2 | 31.1 | 36.7 | 42.6 | 48.8 | 55.1 | 61.4 | | |
| 3 | | | 12.9 | 15.8 | 19.2 | 23.1 | 27.5 | 32.6 | 38.1 | 43.9 | 50.0 | 56.1 | | |
| 4 | | | 11.2 | 13.8 | 16.7 | 20.2 | 24.2 | 28.8 | 33.8 | 39.3 | 45.0 | 50.8 | | |
| 5 | | | 9.7 | 11.9 | 14.5 | 17.6 | 21.2 | 25.3 | 29.9 | 34.8 | 40.2 | 45.7 | | |
| 6 | | | 8.4 | 10.3 | 12.6 | 15.3 | 18.4 | 22.1 | 26.2 | 30.7 | 35.6 | 40.8 | | |
| 7 | | | 7.2 | 8.8 | 10.8 | 13.2 | 15.9 | 19.2 | 22.8 | 26.9 | 31.3 | 36.0 | | |
| 8 | | | 6.1 | 7.5 | 9.2 | 11.3 | 13.7 | 16.5 | 19.7 | 23.3 | 27.3 | 31.6 | | |
| 9 | | | 5.2 | 6.4 | 7.9 | 9.6 | 11.7 | 14.1 | 16.9 | 20.1 | 23.6 | 27.4 | | |
| 10 | | | 4.4 | 5.4 | 6.6 | 8.1 | 9.9 | 12.0 | 14.4 | 17.1 | 20.2 | 23.5 | | |
| 11 | | | 3.6 | 4.5 | 5.5 | 6.8 | 8.3 | 10.0 | 12.1 | 14.4 | 17.1 | 20.0 | | |
| 12 | | | 3.0 | 3.7 | 4.6 | 5.6 | 6.8 | 8.3 | 10.0 | 12.0 | 14.2 | 16.7 | | |
| 13 | | | 2.4 | 3.0 | 3.7 | 4.5 | 5.6 | 6.8 | 8.2 | 9.8 | 11.7 | 13.8 | | |
| 14 | | | 1.9 | 2.4 | 2.9 | 3.6 | 4.4 | 5.4 | 6.6 | 7.9 | 9.4 | 11.1 | | |
| 15 | | | 1.5 | 1.9 | 2.3 | 2.8 | 3.4 | 4.2 | 5.1 | 6.2 | 7.4 | 8.7 | | |
| 16 | | | 1.1 | 1.4 | 1.7 | 2.1 | 2.6 | 3.2 | 3.8 | 4.6 | 5.5 | 6.5 | | |
| 17 | | | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.2 | 2.7 | 3.2 | 3.9 | 4.6 | | |
| 18 | | | 0.5 | 0.6 | 0.7 | 0.9 | 1.1 | 1.4 | 1.7 | 2.0 | 2.4 | 2.9 | | |
| 19 | | | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.8 | 1.0 | 1.1 | 1.4 | | |
| 20 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

*Note.* Recidivism rate projections based on 10-year logistic regression estimates from Hanson, Thornton, Helmus, and Babchishin (2016). Underlined values mark the transition out of Level IVb (above 35%) and into Level I (less than 3%).

above-average groups in routine/complete samples (Level IVa and Level IVb), it is between 14 and 19 years.

Conversely, for high-risk/high-need samples, 20-year sexual recidivism rates of 35% or higher would be expected for individuals with Static-99R scores as low as 3 if they were convicted for a new nonsexual offense soon after release. A score of 3 is typically considered average, with projected lifetime recidivism rates of 14.8% (routine/complete samples; see Table 2); however, if the individuals had a score of 3, were classified as high risk/high need, and reoffend with a nonsexual offense within the first year at liberty, their expected 20-year sexual recidivism rate would now be 39.2% (39 out of 100). Individuals placed in Risk Level IVb (well above average; Static-99R scores of 6+) would still have lifetime sexual recidivism rates above the 35%

**Table 7.** Projected Residual Risk (Sexual Recidivism Rates as Percentages) From Time of Release Up to 20 Years Offense Free in the Community for Routine/Complete Samples.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | | | |
| year | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| At release | 1.7 | 2.5 | 3.7 | 5.4 | 7.4 | 10.6 | 14.8 | 20.3 | 27.5 | 36.1 | 46.3 | 57.2 | 67.9 | 77.6 |
| 1 | 1.5 | 2.2 | 3.2 | 4.7 | 6.5 | 9.3 | 13.0 | 17.9 | 24.3 | 32.2 | 41.8 | 52.3 | 62.9 | 72.9 |
| 2 | 1.3 | 1.9 | 2.8 | 4.1 | 5.6 | 8.1 | 11.3 | 15.7 | 21.5 | 28.7 | 37.5 | 47.4 | 57.8 | 68.0 |
| 3 | 1.1 | 1.6 | 2.4 | 3.5 | 4.9 | 7.0 | 9.9 | 13.7 | 18.9 | 25.4 | 33.4 | 42.7 | 52.7 | 62.8 |
| 4 | 1.0 | 1.4 | 2.1 | 3.0 | 4.2 | 6.1 | 8.6 | 12.0 | 16.6 | 22.3 | 29.7 | 38.3 | 47.7 | 57.6 |
| 5 | 0.8 | 1.2 | 1.8 | 2.6 | 3.7 | 5.3 | 7.5 | 10.4 | 14.4 | 19.6 | 26.2 | 34.0 | 42.9 | 52.3 |
| 6 | 0.7 | 1.0 | 1.5 | 2.3 | 3.2 | 4.5 | 6.6 | 9.0 | 12.5 | 17.1 | 22.9 | 30.1 | 38.2 | 47.2 |
| 7 | 0.6 | 0.9 | 1.3 | 1.9 | 2.7 | 3.9 | 5.5 | 7.8 | 10.8 | 14.8 | 20.0 | 26.4 | 33.8 | 42.1 |
| 8 | 0.5 | 0.8 | 1.1 | 1.6 | 2.3 | 3.3 | 4.8 | 6.6 | 9.3 | 12.7 | 17.3 | 23.0 | 29.6 | 37.3 |
| 9 | 0.4 | 0.6 | 0.9 | 1.4 | 2.0 | 2.8 | 4.0 | 5.6 | 7.9 | 10.9 | 14.8 | 19.8 | 25.7 | 32.6 |
| 10 | 0.4 | 0.5 | 0.8 | 1.2 | 1.6 | 2.4 | 3.4 | 4.8 | 6.7 | 9.2 | 12.6 | 16.9 | 22.1 | 28.3 |
| 11 | 0.3 | 0.5 | 0.7 | 1.0 | 1.4 | 2.0 | 2.8 | 4.0 | 5.6 | 7.8 | 10.6 | 14.3 | 18.8 | 24.2 |
| 12 | 0.3 | 0.4 | 0.5 | 0.8 | 1.1 | 1.6 | 2.3 | 3.3 | 4.6 | 6.4 | 8.9 | 12.0 | 15.8 | 20.4 |
| 13 | 0.2 | 0.3 | 0.4 | 0.7 | 0.9 | 1.3 | 1.9 | 2.7 | 3.8 | 5.3 | 7.2 | 9.8 | 13.0 | 17.0 |
| 14 | 0.2 | 0.2 | 0.4 | 0.5 | 0.7 | 1.1 | 1.5 | 2.1 | 3.0 | 4.2 | 5.8 | 7.9 | 10.5 | 13.8 |
| 15 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.8 | 1.2 | 1.7 | 2.4 | 3.3 | 4.5 | 6.2 | 8.3 | 10.9 |
| 16 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.2 | 1.8 | 2.5 | 3.4 | 4.7 | 6.2 | 8.2 |
| 17 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.2 | 1.7 | 2.4 | 3.3 | 4.4 | 5.8 |
| 18 | <0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 0.5 | 0.8 | 1.1 | 1.5 | 2.1 | 2.8 | 3.7 |
| 19 | <0.1 | <0.1 | <0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.0 | 1.3 | 1.7 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

*Note.* Recidivism rate projections based on 5-year logistic regression estimates from Hanson, Thornton, Helmus, and Babchishin (2016). Underlined values mark the transition out of Level IVb (above 35%) and into Level I (less than 3%).

threshold if they refrained from sexual offending but reoffend nonsexually within the first 5 years in the community.

## *Residual Risk for Individuals With No New Offending*

Tables 7 and 8 present the residual risk for individuals who have remained free of both sexual and nonsexual convictions while in the community. Table 7 presents the rates for routine/complete samples; Table 8 presents the rates for preselected high-risk/high-need samples using the observed 10-year rates. The first rows of Tables 7 and 8 are the same as the last rows of Tables 2 and 4, respectively. In other words, the first rows of Tables 7 and 8 are the 20-year projected recidivism risk from the time of release. The

**Table 8.** Projected Residual Risk (Recidivism Rates as Percentages) From Time of Release Up to 20 Years Offense Free in the Community for High-Risk/High-Need Samples.

| | Initial risk (based on Static-99R scores) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follow-up year | Level I | | Level II | | Level III | | | Level IVa | | Level IVb | | |
| | −3 | −2 | −1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| At release | | | 13.3 | 16.3 | 19.7 | 23.7 | 28.2 | 33.4 | 39.0 | 44.9 | 51.0 | 57.2 |
| 1 | | | 11.7 | 14.3 | 17.3 | 20.9 | 25.1 | 29.8 | 35.0 | 40.5 | 46.3 | 52.3 |
| 2 | | | 10.2 | 12.5 | 15.2 | 18.4 | 22.1 | 26.5 | 31.2 | 36.3 | 41.8 | 47.5 |
| 3 | | | 8.9 | 10.9 | 13.3 | 16.2 | 19.5 | 23.4 | 27.6 | 32.4 | 37.4 | 42.8 |
| 4 | | | 7.7 | 9.5 | 11.6 | 14.1 | 17.1 | 20.5 | 24.4 | 28.7 | 33.3 | 38.3 |
| 5 | | | 6.7 | 8.2 | 10.1 | 12.3 | 14.9 | 18.0 | 21.4 | 25.3 | 29.5 | 34.1 |
| 6 | | | 5.8 | 7.1 | 8.7 | 10.7 | 12.9 | 15.6 | 18.7 | 22.1 | 25.9 | 30.1 |
| 7 | | | 5.0 | 6.1 | 7.5 | 9.2 | 11.2 | 13.5 | 16.2 | 19.3 | 22.7 | 26.4 |
| 8 | | | 4.2 | 5.2 | 6.4 | 7.9 | 9.6 | 11.6 | 14.0 | 16.7 | 19.7 | 23.0 |
| 9 | | | 3.6 | 4.4 | 5.5 | 6.7 | 8.2 | 9.9 | 12.0 | 14.3 | 16.9 | 19.8 |
| 10 | | | 3.0 | 3.7 | 4.6 | 5.7 | 6.9 | 8.4 | 10.2 | 12.2 | 14.4 | 17.0 |
| 11 | | | 2.5 | 3.1 | 3.9 | 4.7 | 5.8 | 7.1 | 8.5 | 10.2 | 12.2 | 14.3 |
| 12 | | | 2.1 | 2.6 | 3.2 | 3.9 | 4.8 | 5.9 | 7.1 | 8.5 | 10.1 | 12.0 |
| 13 | | | 1.7 | 2.1 | 2.6 | 3.2 | 3.9 | 4.8 | 5.8 | 7.0 | 8.3 | 9.8 |
| 14 | | | 1.3 | 1.7 | 2.1 | 2.5 | 3.1 | 3.8 | 4.6 | 5.6 | 6.7 | 7.9 |
| 15 | | | 1.0 | 1.3 | 1.6 | 2.0 | 2.4 | 3.0 | 3.6 | 4.4 | 5.2 | 6.2 |
| 16 | | | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.2 | 2.7 | 3.3 | 3.9 | 4.7 |
| 17 | | | 0.5 | 0.7 | 0.8 | 1.0 | 1.3 | 1.6 | 1.9 | 2.3 | 2.8 | 3.3 |
| 18 | | | 0.3 | 0.4 | 0.5 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.7 | 2.1 |
| 19 | | | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1.0 |
| 20 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

*Note.* Recidivism rate projections based on 10-year logistic regression estimates from Phenix, Helmus, and Hanson (2016; see Table 3). $N = 350$ (98 recidivists). Underlined values mark the transition out of Level IVb (above 35%) and into Level I (less than 3%).

longer the individuals remain offense free, the lower their risk of subsequently committing a new sexual offense. These are the recidivism estimates that are relevant to evaluators who wish to assess the risk now presented by someone who has been in the community for some time without reoffending after release from their index sex offense.

For individuals whose initial risk was above a high risk threshold of 35% or more, the vast majority (Static-99R scores of 8 or lower) drop below this threshold if they remain in the community offense free for 5 years, and all individuals drop below this high risk threshold by 9 years. If they stay offense free long enough, all individuals will eventually drop below the very low risk threshold (<3%), regardless of their initial risk score.

### Error estimates

Comparison of Tables 3 and 4 provides an indication of the degree of error. Table 3 projects forward to 10 years based on the observed 5-year rates; Table 4 projects backward to 5-year rates using the observed 10-year rates. Although the samples are not identical (not all individuals followed for 5 years were also followed for 10 years), both are from the same population (high risk/high need). As readers can see, the differences between the observed rates and the projections were typically within 2 percentage points. The 10-year forward projections from the observed 5-year rates were slightly lower than the observed 10-year rates, although the differences were small (median difference of −1.5% [range of −1.2 to +1.7]). Similarly, the backward projections to 5 years from the observed 10-year rates were slightly higher than the observed 5-year rates (median difference of 2.2% [range of −2.4 to 1.4]). There was also high concordance between the 20-year projections based on the observed 5-year rates and the 20-year projections based on the 10-year rates (median difference of 2.6%, range of −1.5% to 2.9%).

The second approach to estimating error examined the range of values included in the 95% confidence intervals of the time free parameter ($b \pm 1.96 \times SE$). Specifically, estimates were computed based on the $b$ values of –.15156 and –.10844 (–.130 ± [1.96 × 0.011]). These values are presented in Figure 1 for the Static-99R scores of 0, 2, 4, and 6. These Static-99R scores were selected because they are the most populated values for Risk Levels II, III, IVa, and IVb. The results for Risk Level I were not presented because they were very similar to those for Risk Level II.

As depicted in Figure 1, the confidence intervals were within a couple of percentage points when the absolute recidivism rates were small (<15%) and the follow-up time was less than 10 years. The widest confidence intervals (approximately ± 5 percentage points) were observed when the follow-up was greater than 15 years and the absolute values were more than 30%. For example, the estimated 20-year cumulative sexual recidivism rate for the group defined by Static-99R scores of 6 in high-risk/high-need samples was 44.9% (see Table 4), and the 95% confidence interval ranged from 41.2% to 49.2%.

The third approach to estimating error examined how much results change based on the range of values for the time free parameter in the different logistic models from –.123 to –.135 (see Tables 4 and 5 from Hanson et al., 2018). These values are well within the range defined by the 95% confidence interval for the time free parameters (−0.15156, −0.10844); consequently, using the observed variation in the parameters across models results in a smaller range of error estimates than using the range defined by the 95% confidence intervals for the main analysis. For example, given a score of 6 in routine/complete samples (estimated 20-year rate of 36.1%), the confidence interval approach indicates a range 7 percentage points wide (32.9%, 39.8%) and the variation in the parameters approach suggests a range 2 percentage points wide (35.3%, 37.2%).

In summary, given known initial hazard rates, the 20-year projections would be expected to have error rates of between ±1 percentage points and ±5 percentage points, with larger error rates associated with larger estimated recidivism rates.

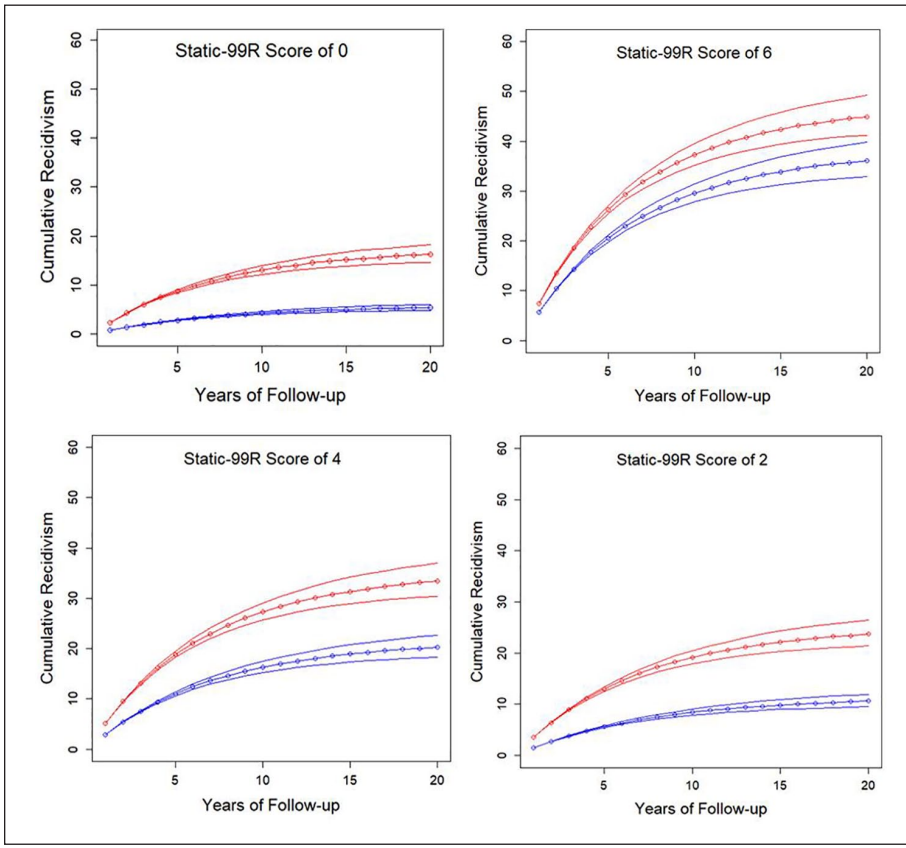



**Figure 1.** Cumulative recidivism rates over 20 years of follow-up with 95% confidence intervals for selected Static-99R risk levels.
*Note.* Lower (blue) curves represent routine/complete samples; upper (red) curves represent preselected high-risk/high-need samples.

## Discussion

The aim of this article was to demonstrate how the constant time free effect observed in Hanson et al. (2018) provides solutions to three challenges currently faced by evaluators interested in empirical estimates of sexual recidivism risk: (a) lifetime recidivism rates, (b) risk when the index offense is not a sexual offense, and (c) declines in risk for individuals who remain offense free in the community. The approaches used in this article should also be of interest to desistance researchers interested in an objective approach to quantifying the likelihood that individuals have permanently desisted from sexual offending.

The statistical model included only three variables: (a) years sexual offense free while in the community, (b) whether the individual was convicted of a post-index

nonsexual offense, and (c) a numeric estimate of the likelihood of recidivism during the first year after release from the index sexual offense. In this study, we used Static-99R scores to estimate the initial likelihood; however, similar patterns would be expected regardless of the method used to estimate the initial hazards. Declining marginal hazards is one of the most robust findings in all of criminology (Kurlychek, Bushway, & Brame, 2012).

Although the Static-99R has moderate accuracy (discrimination; Helmus, Hanson, et al., 2012), it does not measure all relevant risk factors. Some of these external factors could be available to evaluators at time of release, such as response to institutional treatment (Olver et al., 2018), or the density of psychologically meaningful risk factors (e.g., Thornton & Knight, 2015). Other variables can only be known after release, such as the quality of their psychological and community adjustment (McGrath, Lasher, & Cumming, 2012) and the receipt of effective community supervision (Duwe & Freske, 2012; Seto, Sandler, & Freeman, 2017). Consequently, evaluators need to consider the empirical risk estimates presented in this article as part of an overall evaluation of risk.

As demonstrated in Figure 1, the choice of the initial hazard values has much greater consequences for the final estimates than the estimated error in the time free effects. Previous research has observed a wide range of recidivism rates associated with specific Static-99R scores (Helmus, Hanson et al., 2012); the test developers responded to this (unwanted) variation by providing two sets of recidivism rate tables: one for routine/complete samples and another for samples preselected as high risk (Phenix et al., 2016). For all but the highest Static-99R scores, the differences between these reference groups can be substantial. For example, given a Static-99R of 4, the routine/complete samples had estimated 20-year rates of 20% (see Table 2), whereas the rate for the high-risk/high-need groups was 33% (see Table 4). In other words, the choice of the initial hazard rate could result in a 13 percentage point difference, whereas using the extremes of the confidence intervals for the time free estimates would only result in a 4% to 6% difference.

This study provided partial support for Doren's (2010) assertion that lifetime sexual recidivism rates are approximately twice the rates observed after 5 years. Doren's heuristic reasonably represented the results for lower and average risk groups. For higher risk groups, however, this heuristic overestimates risk compared with the discrete-time survival method used in this study. Furthermore, using a simple risk ratio or multiplier could potentially result in impossible values (e.g., risk estimates greater than 100%). In contrast, the discrete-time method provides more precise estimates than Doren's (2010) approach and can be used across the full range of risk levels and follow-up times.

## Applied Uses

*Estimation of long-term sexual recidivism rates.* Most definitions of desistance are concerned with cessation of offending, not just temporary pauses in a life otherwise full of crime. Consequently, the concept of (very low) lifetime rates is central to desistance theory and research. The tables in this study could provide useful guidance to

researchers interested in estimating the likelihood that individuals who claim to have stopped sexual offending will never reappear in the criminal justice system for this type of offense. For example, in Harris' (2016) desistance study, she included as "desisting" individuals who made no cognitive changes, and were described as lonely, pessimistic, and defeatist. Given that most of these individuals had been released for less than 4 years (and some as recently as a few months), critics could argue that these individuals remain at significant risk for sexual recidivism. A much stronger test of the patterns of desistance would begin by sorting the participants based on estimates of their lifetime recidivism rates.

Lifetime recidivism rates are also important in certain legal contexts. For most cases, these long-term risk estimates are made before the individual has been released (e.g., Sexually Violent Persons (SVP) cases in the United States). It is important to note that these long-term risk estimates are generated at the time the individual is being evaluated and do not include the time free effect because the individuals have not yet been released into the community. The exception to this is when an individual's SVP commitment occurred following reincarceration for a nonsexual offense conviction, or because his community supervision was revoked. In those cases, any time free effect, increased risk due to nonsexual offending, and custody time should be incorporated into the risk estimates. Given that we can only assess risk with the information we have at the time of assessment, risk should be considered dynamic. An individual's recidivism risk should be expected to change over time in response to life circumstances. Repeated assessments after individuals have been released to the community would provide information about decreasing sexual recidivism risk (or, conversely, their continued risk due to nonsexual offending).

*When the governing offense is not the index sex offense*. Evaluators may struggle when completing sexual risk assessments for individuals with a history of sex offending but whose most recent offense was not a sex offense. How does one incorporate factors that may have occurred since the individual was released from the index sex offense? Previously, evaluators would use their professional judgment to combine time free effects with actuarial risk scores, which could lead to diverse decisions of unknown validity. With this study, evaluators have a fully actuarial method to account for nonsexual offending and periods of custody post-release.

*Risk assessments for those in the community who have not reoffended.* Individuals with a history of sex offenses often undergo risk assessments in the community to determine their treatment and risk management needs. The current statistical model provides important information to aid recommendations in such evaluations. This information provides explicit guidance relevant to risk management and decisions regarding when interventions should increase treatment and/or supervision resources due to nonsexual offending, or reduce interventions due to successful survival in the community without reoffending. It can also provide information for how resources might best be allocated over the next 5 to 10 years. By considering time free effects, community-based agencies responsible for helping individuals transition into the community from jail or

prison can project individuals' sexual recidivism risks more precisely to determine how long clients need to be on their caseload.

In the United States and elsewhere, individuals may be evaluated to determine the need for inclusion on a registry. The purported purpose of such registries is to contribute to public safety through educating local authority personnel and/or the public about individuals in their community (e.g., https://www.justice.gov/criminal-ceos/sex-offender-registration-and-notification-act-sorna). Those included on a registry will then normally be subject to more intensive monitoring. Inclusion on such registries, however, has far-reaching consequences for the identified individuals (e.g., residence and work restrictions; Laws, 2016; Levenson, Grady, & Leibowitz, 2016). The degree to which registries are able to achieve their stated purpose will depend, in part, on the extent to which those registered actually pose a risk for sexual offending. As a class, adults convicted of sex offenses do pose a risk for future sex offending that is several times the risk posed by adults released following sentences for nonsexual offenses (e.g., Alper & Durose, 2019). Not all members of this class, however, pose the same risk, and the potential effectiveness of registries will be diluted by the inclusion of individuals who have desisted from sexual offending. In some U.S. states with lifetime supervision, individuals with remote histories of sex offenses remain on state registries for more than 20 years, despite living offense free in the community. The current statistical model of long-term risk highlights the importance of considering the time free effect for individuals residing in the community. After 10 to 15 years, most individuals will have desisted from sex offending, and virtually all will have desisted by 20 years. For example, even very high risk offenders (e.g., Static-99R score of 9) can be expected to have less than a 2% risk for sexual recidivism after 18 years if they are able to remain in the community without reoffending. This rate is comparable to the rate of spontaneous out-of-the-blue sexual offenses by individuals with a criminal conviction but no prior history of sexual offending (Kahn, Ambroziak, Hanson, & Thornton, 2017). Maintaining individuals on a registry who no longer present a risk for sexual offending wastes resources, risks harming the individuals on the registry (and their family and friends), and provides no public protection benefits.

One question that inevitably arises is whether evaluators can utilize the current statistical model for individuals who are, or have been, under community supervision. Most individuals in our samples would have been subject to routine levels of community supervision during the first few years after release; consequently, we expect the time free effects to apply in such conditions. Few individuals, however, would have been subject to intensive supervision that strongly limited their opportunities to offend. Although the effectiveness of community supervision remains an active research topic, there is some evidence to suggest that intensive community supervision can be an external protective factor that suppresses risk for the time the individual is being intensely supervised (Cram & Ambroziak, 2015). We doubt that individuals will benefit from the time free effect during times when they lack realistic opportunities to reoffend. Our expectation is that the time free effect applies when individuals have a level of personal freedom that is similar to that of busy, working adults (e.g., a stable full-time or part-time schedule with the ability to use their free time as they wish in the

community without being monitored in real time). Such levels of freedom are typical for individuals on most forms of probation and parole. Conversely, we do not recommend applying this model to individuals who have been conditionally released from a secure facility and whose freedoms are greatly restricted and closely monitored (e.g., house arrest; Global Positioning System (GPS) with scheduled destinations/geographical boundaries; monitors when they are in the community; covert observations from a specialized monitoring agency). Further research would be needed to validate or modify our models for unusual populations of this kind.

## *Other Considerations*

The current analyses suggest that although advanced age at the time of release is associated with reduced sexual recidivism risk (Helmus, Thornton, et al., 2012), the effect of aging in the community is already fully captured by the statistically modeled time free effect. This may initially appear strange to evaluators accustomed to considering age as a protective effect prior to the period of release from secure custody. However, during the time individuals are in secure custody, they cannot benefit from a time free effect. The main protective effect, evident from research, is advanced age at the time of release. Our results indicate that evaluators should not make adjustments for aging following the individual's release into the community; the effect of age is fully accounted for by the combination of age at time of release and the effect of time free in the community.

When using the statistical model to extrapolate over time, evaluators will need to consider factors that may affect life expectancy (e.g., current age, medical conditions). When it is not realistic to extrapolate out to 20 years, evaluators will need to reduce the amount of time they are extrapolating to, should they wish to extrapolate beyond 10 years. In determining life expectancy, evaluators can utilize actuarial life tables that may be available for the jurisdiction and/or health condition (e.g., https://www.ssa.gov/oact/STATS/table4c6.html).

Evaluators will need to identify the first nonsexual offense conviction following the individual's release from the index sex offense. The nonsexual offense must be a criminal offense (not a violation of conditions) that is sufficiently serious that the individual could potentially receive jail time or community supervision as a result. Offenses that result in citations and would not result in possible jail time are not counted here (see the 2016 Static-99R Coding Manual for definitions of conviction; Phenix et al., 2017).

*Limitations and future directions.* The current statistical model considers only one nonsexual offense because this was the information available in the datasets. It is possible that evaluators will need to assess individuals who have engaged in multiple nonsexual offenses since their release from the index sex offense. These individuals might have different sexual risk profiles due to the density of their nonsexual offenses. Although this will certainly be explored in future studies, nonsexual recidivism reduces time free effects by subtracting time in custody (for any reason) from calendar

time. It is also likely that nonsexual violent offending is a stronger predictor of sexual recidivism than nonsexual, nonviolent offending. This will also need further exploration. In the meantime, the frequency and severity of nonsexual recidivism are factors external to the actuarial recidivism estimates that evaluators can consider in their overall evaluation of risk.

Both the risk estimates associated with the current Static-99R norms and the extrapolation model are specific to the range of prevailing release environments of the studies used to compile the norms (e.g., unconditional discharge, probation, and parole). Extrapolations provided by the present statistical models should be thought of as informing us about what the recidivism estimates would have been in the normative samples if the follow-up period for those samples had been extended to 20 years. If an evaluator is assessing someone whose expected release environment is very different from those that prevailed in the normative samples (e.g., highly secure settings; intensive community supervision), then they would need to take such considerations into account.

It is possible that some of the time free effect may be due to custody time, level of community supervision, and benefits gained from treatment. However, community supervision in the included datasets would likely be limited to the first few years following release and is unlikely to extend to 20 years. Furthermore, sexual risk continued to decline in an orderly way, suggesting that the time free effect was independent and incremental to other protective factors.

The current statistical model also does not account for sexual offenses for which the individual was never caught (undetected offenses). As such, evaluators need to account for possible undetected offending separately. The existence of undetected sexual recidivism has been supported by previous findings (e.g., Abel et al., 1987; DeLisi et al., 2016; Falshaw, Bates, Patel, Corbett, & Friendship, 2003). Attempts have been made to provide guidance in accounting for undetected sexual offending in risk assessments. For example, Hanson, Thornton, and Price (2003) presented a statistical model of accounting for undetected offending based on victim reporting rates and criminal detection rates. There remains debate on how to formally account for undetected offending and possible factors that increase or decrease the ratio between undetected and detected offenses (Kelley, 2018). This is an area in need of further research.

An important limitation is that the statistical models in this article do not consider changes in sexual risk estimates as a result of dynamic risk factors and treatment change. For individuals who demonstrate large treatment change at the time of the risk assessment, the tables likely overestimate long-term sexual risk. An important objective of future research is to develop statistical prediction models that consider the time free effect along with dynamic risk and treatment change. Currently, studies of change in dynamic risk have only considered changes occurring over time periods that are sufficiently short that incremental time free effects would not be expected (e.g., less than 3 years; Babchishin, 2013; McGrath et al., 2012). Although very long-term (10-year) reassessments are impractical in prospective research studies, such information can be extracted from the administrative records collected in jurisdictions with long-term community supervision. As well, it is now possible in many countries to evaluate

long-term psychological and community adjustment by linking individuals with a history of sexual crime to decades of government records concerning their mental health, income, social assistance, housing, and mortality (particularly death by drug overdose and suicide).

Our aim was to present the current statistical models for estimating long-term risk in a user-friendly format that could be used in applied assessments. The tables included in this article provide results for extrapolating out to 20 years for individuals for which sample type and Static-99R score have been determined. We also provided tables applicable to individuals with a history of sexual offending who were subsequently convicted of a nonsexual offense. We believe that these tables are relatively straightforward to use; however, we also recognize that automation would further simplify the process. Consequently, we developed an Excel-based calculator that computes case-specific long-term sexual recidivism estimates based on the dates of index sexual offense, release date, date of first nonsexual reoffense, times removed from community without opportunities to reoffend, and a specified short-term sexual recidivism risk entered by an evaluator. This calculator is available to evaluators on the static99.org website, accompanied by a written user guide.

Although the models described here used Static-99R recidivism norms to estimate the initial hazard rates, we believe that these models should apply when the initial hazard rates were estimated using other measures of long-term sexual recidivism risk potential. Previous research has found that the relative risk associated with Static-99R scores is constant over many years (Hanson, Babchishin, Helmus, & Thornton, 2013); however, this consistency in discrimination over time may not apply to other measures, particularly those that focused on transient, acute risk factors. This issue requires further investigation.

Hanson et al.'s (2018) statistical models are also specific to sexual recidivism risk and should not be applied to other types of recidivism outcomes. For general (any) recidivism among routine correctional samples, the yearly decline in hazard rates is more rapid than that observed for sexual recidivism risk (Durose, Cooper, & Snyder, 2014). As well, it is not uncommon for the hazard rates for general recidivism to increase during the first few months in the community before starting their inevitable decline (Kurlychek et al., 2012; Lloyd, 2015).

A final limitation is that this study did not examine the reasons for the consistent declines in sexual recidivism risk while offense free in the community. Readers interested in potential explanations are referred to the original Hanson et al. (2018) study, as well as the major references from the desistance literature (e.g., Laub & Sampson, 2003; Laws & Ward, 2011; Maruna, 2001).

## *Conclusion*

When researchers and evaluators think about change in individuals' risk, they typically conceptualize these changes as a function of malleable dynamic risk factors (also called criminogenic needs or psychologically meaningful risk factors). A distinctive feature of this study is that changes in recidivism risk were modeled as a function of

static risk factors (initial 1-year hazards, time free, post-index nonsexual recidivism). The initial hazards were themselves estimated based on static risk factors (i.e., Static-99R scores, which consider only age, relationship history, and criminal history at the time of release from the index sexual offense). Although the current models are obvious simplifications of reality, they are, nonetheless, substantial improvement over statistical models that ignore all information after the index sexual offense. What happens next matters.

## Acknowledgments

The authors would like to thank Maaike Helmus, Amy Phenix, Erik Fox, Lakshmi Subramanian, and Dawn Pflugradt for their thoughtful comments and suggestions on an earlier draft of this manuscript. The authors would also like to acknowledge the contribution of the editor and anonymous reviewers in encouraging us to broaden the theoretical scope of the manuscript.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Two of the authors (Sharon M. Kelley and James C. Mundt) made their contribution to the research while employed by the Wisconsin Department of Health Services (DHS). Apart from authorizing this use of their time, DHS had no other role in the research or preparation of the manuscript.

## Statistical Significance Statement

The authors take responsibility for the integrity of the data and the accuracy of the data analyses, and have made every effort to avoid inflating statistically significant results.

## Ethics Review

Ethics review was not sought because the study used only previously published data.

## ORCID iDs

David Thornton https://orcid.org/0000-0003-0127-1104
James C. Mundt https://orcid.org/0000-0001-7606-1342

## Supplemental Material

Supplemental material for this article is available online.

## References

* indicates studies included in the analysis.

Abel, G. G., Becker, J. V., Mittleman, M., Cunningham-Rathner, J., Rouleau, J. L., & Murphy, W. D. (1987). Self-reported sex crimes of nonincarcerated paraphiliacs. *Journal of Interpersonal Violence*, *2*, 3-25. doi:10.1177/088626087002001001

*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. doi:10.1007/s11194-007-9052-5

Alper, M. & Durose, M.R. (2019). *Recidivism of sex offenders released from state prison: A 9-year follow-up (2005-14)*. U.S. Department of Justice. Retrieved from http://www.bjs.gov/index.cfm?ty=pbdetail&iid=6566 on 08/25/2019

Babchishin, K. M. (2013). *Sex offenders do change on risk-relevant propensities: Evidence from a longitudinal study of the Acute-2007* (Unpublished doctoral thesis, Carleton University). Retrieved from https://curve.carleton.ca/system/files/theses/27626.pdf

*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 and Comparative Criminology*, *47*, 422-438. doi:10.1177/0306624X03253850

*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. doi:10.1080/10683160701483104

*Bigras, J. (2007). La prédiction de la récidive chez les délinquants sexuels [Prediction of recidivism among sexual offenders] (Doctoral dissertation). *Dissertations Abstracts International*, *68*(9). (UMI No. NR30941)

Blumstein, A., & Nakamura, K. (2009). Redemption in the presence of widespread criminal background checks. *Criminology*, *47*, 327-359. doi:10.1111/j.1745-9125.2009.00155.x

*Boer, A. (2003). *Evaluating the Static-99 and Static-2002 risk scales using Canadian sexual offenders* (Master's thesis). Leicester, UK: University of Leicester.

*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). Unpublished raw data, Public Safety and Emergency Preparedness Canada, Ottawa, Ontario.

*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 of the Association for the Treatment of Sexual Abusers, *Atlanta, GA*.

Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference: Understanding AIC and BIC in model selection. *Sociological Methods & Research*, *33*, 261-304. doi:10.1177/0049124104268644

Bushway, S. D., Brame, R., & Paternoster, R. (2004). Connecting desistance and recidivism: Measuring changes in criminality over the lifespan. In S. Maruna & R. Immarigeon (Eds.), *After crime and punishment: Pathways to offender reintegration* (pp. 85-101). Portland, OR: Willan.

Bushway, S. D., Piquero, A. R., Broidy, L. M., Cauffman, E., & Mazerolle, P. (2001). An empirical framework for studying desistance as a process. *Criminology*, *39*, 491-516. doi:10.1111/j.1745-9125.2001.tb00931.x

*Cortoni, F., & Nunes, K. L. (2008). *Assessing the effectiveness of the National Sexual Offender Program* (Research Report No. R-183). Ottawa, Ontario: 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

Cram, J., & Ambroziak, G. (2015, October). *Outcomes on supervised release: Wisconsin Sex offender civil commitment program*. Paper presented at the Annual Sex Offender Civil Commitment Providers Network, Montreal, *Québec, Canada*.

DeLisi, M., Caropreso, D. E., Drury, A. J., Elbert, M. J., Evans, J. L., Heinrichs, T., & Tahja, K. M. (2016). The dark figure of sexual offending: New evidence from federal sex offenders. *Journal of Criminal Psychology*, *6*, 3-15. doi:10.1108/JCP-12-2015-0030

Doren, D. M. (2010). Empirically based risk assessment estimate extrapolations across time and outcome measure. In A. Schlank (Ed.), *The sexual predator: Legal issues, assessment, treatment* (*Vol. IV*, pp. 18-118). New York, NY: Civic Research Institute.

Durose, M. R., Cooper, A. D., & Snyder, H. N. (2014). *Recidivism of prisoners released in 20 states in 2005: Patterns from 2005 to 2010* (Bureau of Justice Statistics NCJ 244205). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

Duwe, G., & Freske, P. J. (2012). Using logistic regression modeling to predict sexual recidivism: The Minnesota Sex Offender Screening Tool-3 (MnSOST-3). *Sexual Abuse: A Journal of Research and Treatment*, *24*, 350-377. doi:10.1177/1079063211429470

*Eher, R., Rettenberger, M., Schilling, F., & Pfafflin, F. (2009). *Risk assessment and recidivism for 706 sexual offenders released from prison in Austria*. Unpublished raw data.

*Epperson, D. L. (2003). *Validation of the MnSOST-R, Static-99, and RRASOR with North Dakota prison and probation samples* [Unpublished technical assistance report]. Bismarck: North Dakota Division of Parole and Probation.

Falshaw, L., Bates, A., Patel, V., Corbett, C., & Friendship, C. (2003). Assessing reconviction, reoffending and recidivism in a sample of UK sexual offenders. *Legal and Criminological Psychology*, *8*, 207-215. doi:10.1348/135532503322362979

*Haag, A. M. (2005). *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* [Doctoral dissertation]. *Dissertations Abstracts International*, *66*(8), 4531B. (UMI No. NR05662)

Hanson, R. K. (2018). Long term recidivism studies show that desistance is the norm. *Criminal Justice and Behavior*, *45*, 1340-1436. doi:10.1177/0093854818793382

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., Babchishin, K. M., Helmus, L. M., Thornton, D., & Phenix, A. (2017). Communicating the results of criterion referenced prediction measures: Risk categories for the Static-99R and Static-2002R sexual offender risk assessment tools. *Psychological Assessment*, *29*, 582-597. doi:10.1037/pas0000371

Hanson, R. K., Harris, A. J. R., Letourneau, E., Helmus, L. M., & Thornton, D. (2018). Reductions in risk based on time offense free in the community: Once a sexual offender, not always a sexual offender. *Psychology, Public Policy, and Law*, *24*, 48-63. doi:10.1037/law0000135

*Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. M. (2007). *Assessing the risk of sexual offenders on community supervision: The dynamic supervision project* [Corrections Research User Report No. 2007-05]. Ottawa, Ontario: Public Safety Canada.

Hanson, R. K., Thornton, D., Helmus, L., & Babchishin, K. M. (2016). What sexual recidivism rates are associated with Static-99R and Static-2002R scores? *Sexual Abuse: A Journal of Research and Treatment*, *28*, 218-252. doi:10.1177/1079063215574710

Hanson, R. K., Thornton, D., & Price, S. (2003, October). *Estimating sexual recidivism rates: Observed and undetected*. Symposium conducted at the 22nd Annual ATSA Research and Treatment Conference, *St. Louis, MO*.

Harris, D. A. (2014). Desistance from sexual offending: Findings from 21 life history narratives. *Journal of Interpersonal Violence*, *29*, 1554-1578. doi:10.1177/0886260513511532

Harris, D. A. (2016). A descriptive model of desistance from sexual offending: Examining the narratives of men released from custody. *International Journal of Offender Therapy and Comparative Criminology*, *60*, 1717-1737. doi:10.1177/0306624X16668176

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*, 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: A Journal of Research and Treatment*, *24*, 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. doi:10.1177/0306624X07307450

*Johansen, S. H. (2007). Accuracy of predictions of sexual offense recidivism: A comparison of actuarial and clinical methods [Doctoral dissertation]. *Dissertations Abstracts International*, *68*(3-B), 1929. (UMI No. 3255527)

Kahn, R. E., Ambroziak, G., Hanson, R. K., & Thornton, D. (2017). Release from the "sex offender" label. *Archives of Sexual Behavior*, *46*, 861-864. doi:10.1007/x10508-017-0972-y

Kelley, S. M. (2018, October). The undetected. In D. Thornton (Ed.), *Estimating real lifetime rates of sexual recidivism—Symposium conducted at the 37th Annual ATSA Research and Treatment Conference*. Vancouver, British Columbia, Canada. Retrieved from http://www.atsa.com/Public/Conference/2018/2018_ATSA_Conference_Brochure.pdf

Kelley, S. M., Ambroziak, G., Thornton, D., & Barahal, R. M. (2018). How do professionals assess sexual recidivism risk? An updated survey of practices. *Sexual Abuse*, *32*(1), 3-29. doi:10.1177/1079063218800474

Kurlychek, M. C., Bushway, S. D., & Brame, R. (2012). Long-term crime desistance and recidivism patterns—Evidence from the Essex county convicted felon study. *Criminology*, *50*, 71-103. doi:10.1111/j.1745-9125.2011.00259.x

*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. doi:10.1023/B:SEBU.0000023060.61402.07

Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to age 70*. Cambridge, MA: Harvard University Press.

Laws, D. R. (2016). *Social control of sex offenders: A cultural history*. London, England: Palgrave MacMillan.

Laws, D. R., & Ward, T. (2011). *Desistance from sex offending: Alternatives to throwing away the keys*. New York, NY: Guilford.

Levenson, J. S., Grady, M. D., & Leibowitz, G. (2016). Grand challenges: Social justice and the need for evidence-based sex offender registry reform. *Journal of Sociology and Social Welfare*, *43*, 3-38. Retrieved from https://scholarworks.wmich.edu/jssw/vol43/iss2/2

Lloyd, C. D. (2015). *Can a dynamic risk instrument make short term prediction in "real time"? Developing a framework for testing proximal assessment of offender recidivism risk during re-entry* (Doctoral dissertation). Carleton University, Ottawa, Ontario, Canada.

Lussier, P., & McCuish, E. (2016). Desistance from crime without reintegration: A longitudinal study of the social context and life course path to desistance in a sample of adults convicted of a sex crime. *International Journal of Offender Therapy and Comparative Criminology*, *60*, 1791-1812. doi:10.1177/0306624X16668179

Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. Washington, DC: American Psychological Association.

McGrath, R. J., Cumming, G. F., Burchard, B. L., Zeoli, S., & Ellerby, L. (2010). *Current practices and emerging trends in sexual abuser management: The Safer Society 2009 North American Survey*. Brandon, VT: Safer Society Press.

McGrath, R. J., Lasher, M. P., & Cumming, G. F. (2012). The Sex Offender Treatment Intervention and Progress Scale (SOTIPS): Psychometric properties and incremental predictive validity with Static-99R. *Sexual Abuse: A Journal of Research and Treatment*, *24*, 431-458. doi:10.1177/1079063211432475

Neal, T. M. S., & Grisso, T. (2014). Assessment practices and expert judgment methods in forensic psychology and psychiatry: An international snapshot. *Criminal Justice and Behavior*, *41*, 1406-1421. doi:10.1177/0093854814548449

*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., Sowden, J. N., Kingston, D. A., Nicholaichuk, T. P., Gordon, A., Beggs Christofferson, S. M., & Wong, S. C. (2018). Predictive accuracy of Violence Risk Scale-sexual offender version risk and change scores in treated Canadian Aboriginal and non-Aboriginal sexual offenders. *Sexual Abuse*, *30*, 254-275. doi:10.1177/1079063216649594

Phenix, A., & Epperson, D. L. (2016). Overview of the development, reliability, validity, scoring, and uses of the Static-99, Static-99R, Static-2002, and Static-2002R. In A. Phenix & H. M. Hoberman (Eds.), *Sexual offending: Predisposing conditions, assessment and management* (pp. 437-455). New York, NY: Springer.

Phenix, A., Fernandez, Y., Harris, A. J. R., Helmus, M., Hanson, R. K., & Thornton, D. (2017). *Static-99R coding rules revised—2016*. Retrieved from http://static99.org/pdfdocs/Coding_manual_2016_v2.pdf

Phenix, A., Helmus, L. M., & Hanson, R. K. (2016). *Static-99R & Static-2002R evaluators' workbook*. Available from www.static99.org

Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology*, *25*, 111-163. doi: 10.2307/271063

Rice, M. E., & Harris, G. T. (2005). Comparing effect sizes in follow-up studies: ROC Area, *Cohen's d*, and *r*. *Law and Human Behavior*, *29*, 615-620. doi:10.1007/s10979-005-6832-7

*Romine, S., Rebecca, S., Dwyer, 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*.

Seto, M. C., Sandler, J. C., & Freeman, N. J. (2017). The Revised Screening Scale for Pedophilic Interests: Predictive and concurrent validity. *Sexual Abuse*, *29*, 636-657. doi:10.1177/1079063215618375

Singer, J. D., & Willett, J. B. (1993). It's about time: Using discrete-time survival analysis to study duration and the timing of events. *Journal of Educational Statistics*, *18*, 155-195. doi:10.3102/10769986018002155

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford, UK: Oxford University Press.

*Ternowski, D. R. (2004). Sex offender treatment: An evaluation of the Stave Lake Correctional Centre Program [Doctoral Dissertation]. *Dissertations Abstracts International*, *66*(6), 3428B. (UMI No. NR03201)

Thornton, D., & Knight, R. A. (2015). Construction and validation of SRA-FV Need Assessment. *Sexual Abuse*, *27*, 360-375. doi:10.1177/1079063213511120

Willett, J. B., & Singer, J. D. (1993). Investigating onset, cessation, relapse, and recovery: Why you should, and how you can, use discrete-time survival analysis to examine event occurrence. *Journal of Consulting and Clinical Psychology*, *61*, 952-965. doi:10.1037/0022-006X.61.6.952

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

*Wilson, R. J., Picheca, J. E., & Prinzo, M. (2007). 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 of Criminal Justice*, *46*, 327-337. doi:10.1111/j.1468-2311.2007.00480.x

Wollert, R., & Cramer, E. (2012). The constant multiplier assumption misestimates long-term sex offender recidivism rates. *Law and Human Behavior*, *36*, 390-393. doi:10.1037/h0093924