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**FRAMEWORK FOR JUSTICE STATISTICS AND ANALYSIS**

Submitted by Statistics Canada \*

**I. INTRODUCTION**

1. A framework for justice statistics and analysis provides the scope and focus for making improvements in the national capacity to address information requirements and to promote evidence-based policy development. Understanding outcomes, such as crime, victimisation and re-offending requires an information system that takes into account both justice and partner system interventions, including those of the education, social-welfare and health sectors, as well as contextual factors specific to individual, family and community influences.
2. A structured framework approach contributes to a better understanding of how policies and programs are operating by encouraging research and analysis that exploit the broadest range of

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\* Paper prepared by Roy Jones, Canadian Centre for Justice Statistics.

information from official state agencies as well as population-based surveys. Further, a framework perspective creates a data culture grounded in standards and methods that promote data sharing and integration.

## **II. BACKGROUND**

3. A 2002 report of the Office of the Auditor General of Canada (OAG) referred to gaps in the information on the justice system and the difficulty such gaps present for assessing the effectiveness of the justice system. In response, Canada's National Justice Statistics Initiative partnership (federal/provincial/territorial departments responsible for the administration of justice along with Statistics Canada) and other stakeholders identified priority areas for development. The prerequisites to achieving progress were considered to be improving coverage and revitalizing content of administrative surveys in the policing, courts, and corrections sectors; harmonizing data standards across the justice system; and, developing an analytical program to maximize the potential of existing administrative and population-based data sources to inform emerging policy issues.

4. The importance of a more evidence-based approach to understanding how the justice system is working is broadly recognized. The development of a structured framework for justice statistics and analysis is intended to stimulate policy-relevant analysis focused on the factors and contexts that contribute to successful interventions and outcomes while making appropriate linkages with other systems such as health, education, and family services. The framework concept has been endorsed by Statistics Canada's National Statistics Council as a useful tool for understanding the complexity of factors and interactions that affect behaviours, and the impacts of system interventions and their outcomes.

## **III. OBJECTIVES**

5. The framework for justice statistics and analysis has three principle objectives:

to provide a mechanism for engaging justice and partners in collaborative research and data collection activities in an effort to improve information for program development and evaluation;

to focus discussion across partner systems on data development standards to better facilitate information development and analysis; and

to provide a starting point for dialogue on key justice and partner system outcomes in the context of influencing factors that include individual, family, community and justice and partner-system components.

5. The framework will be used as a key component in undertaking strategic and operational planning exercises with stakeholders and partner agencies. To remain relevant, the framework must be responsive to changes in information needs over time.

#### **IV. COMPONENTS OF THE FRAMEWORK**

##### Outcomes

6. To move beyond an information system focused on providing information on inputs and outputs of the justice system, such as counts and costs, to an information system that can build on and enhance existing information to address “what works”, “for whom” and “why” requires measurement of outcomes. Key outcomes for the justice system include delinquency and offending, recidivism, victimization, offender reintegration and rehabilitation, individual and community safety, access to justice, public trust and confidence in the justice system and national security.

7. Key outcomes for the justice system, including outcomes following justice and partner system interventions, may contribute to or detract from broader societal outcomes including, birth outcomes and health, life transitions, skill development and employment, parenting skills, social capital, neighbourhood and community cohesion and insurance costs as well as Canada’s overall economic growth and quality of life.

##### Individual, Family and Community/ Societal Factors

8. The framework takes into account broader situational or ‘environmental’ contexts that may result in crime, victimization or civil conflict as well as a range of factors in individuals’ backgrounds and life experience that may influence these events.

9. The contexts and factors are grouped among three broad categories:

*Individual,  
Family, and  
Community and Society.*

10. The contexts are grouped according to the stage of the life course during which the factors are most relevant. Understanding the effect of events and circumstances over the life course will help to direct policy and program interventions to where they would be most effective. The framework includes examples of potentially influential factors within these categories with a view to raising awareness of the depth and breadth of information needed, rather than providing an exhaustive list of factors.

##### Individual factors

11. The unique characteristics of individuals may predispose them to or protect them from engagement in delinquent and offending behaviour, becoming a victim, or entering into conflict with family members and others. Some factors, such as fetal alcohol spectrum disorder, are present at birth. Other individual factors, such as literacy and skill development, are influenced by individuals’ cognitive abilities and external factors, such as family, peers and teachers. Substance abuse may develop as a result of mental or emotional health, family, peers or other factors.

### Family factors

12. Parents, siblings and extended family exert a powerful and important influence on the development of children and youth. Parent's values and beliefs, parenting styles and monitoring practices, conflict and violence in the home, parental substance use or abuse, family income and resources, and presence of extended family are among the family factors that may contribute to or protect individuals from offending behaviours.

13. There is a growing interest in the construct of school engagement among children and youth for its potential link to low achievement, disaffection, school dropout and delinquency. School engagement draws on the ideas of participation or involvement in academic or extracurricular activities, emotional reaction to teachers and classmates, and willingness to learn.

14. Social capital, or the benefits that individuals gain through their social relations may also play an important role in crime and victimization among individuals, families and communities. There is a need to better understand the mechanisms through which social capital may influence crime and victimization as well as a need to find out more about "what works" in stimulating social capital.

### Community and societal factors

15. The characteristics of our communities and our society as a whole also exert an important influence on crime, victimization and family stability. The extent to which communities are cohesive, inclusive and supportive of others can positively influence outcomes, even for those whose family and individual characteristics would otherwise place them at risk. Informal social control within communities can be important to the local management of crime, which may be accomplished through mechanisms that extend beyond formal policing and are rooted in community structures, extended family kinship patterns, neighbourliness and the legitimate authority accorded to community leaders.

16. Community and school programming policies and resources play a role, as do peer networks. The diversity of communities - ethnic, religious and cultural - can be influencing factors. Situational contexts, such as land use or the degree of social order are potentially contributing factors. For example, studies have indicated that perceived high levels of social disorder, or the presence of visible crime, vandalism and forms of decay in urban neighbourhoods, are linked to higher levels of fear and lower levels of community cohesiveness. The media, as well as the external influence of other countries, may also influence outcomes.

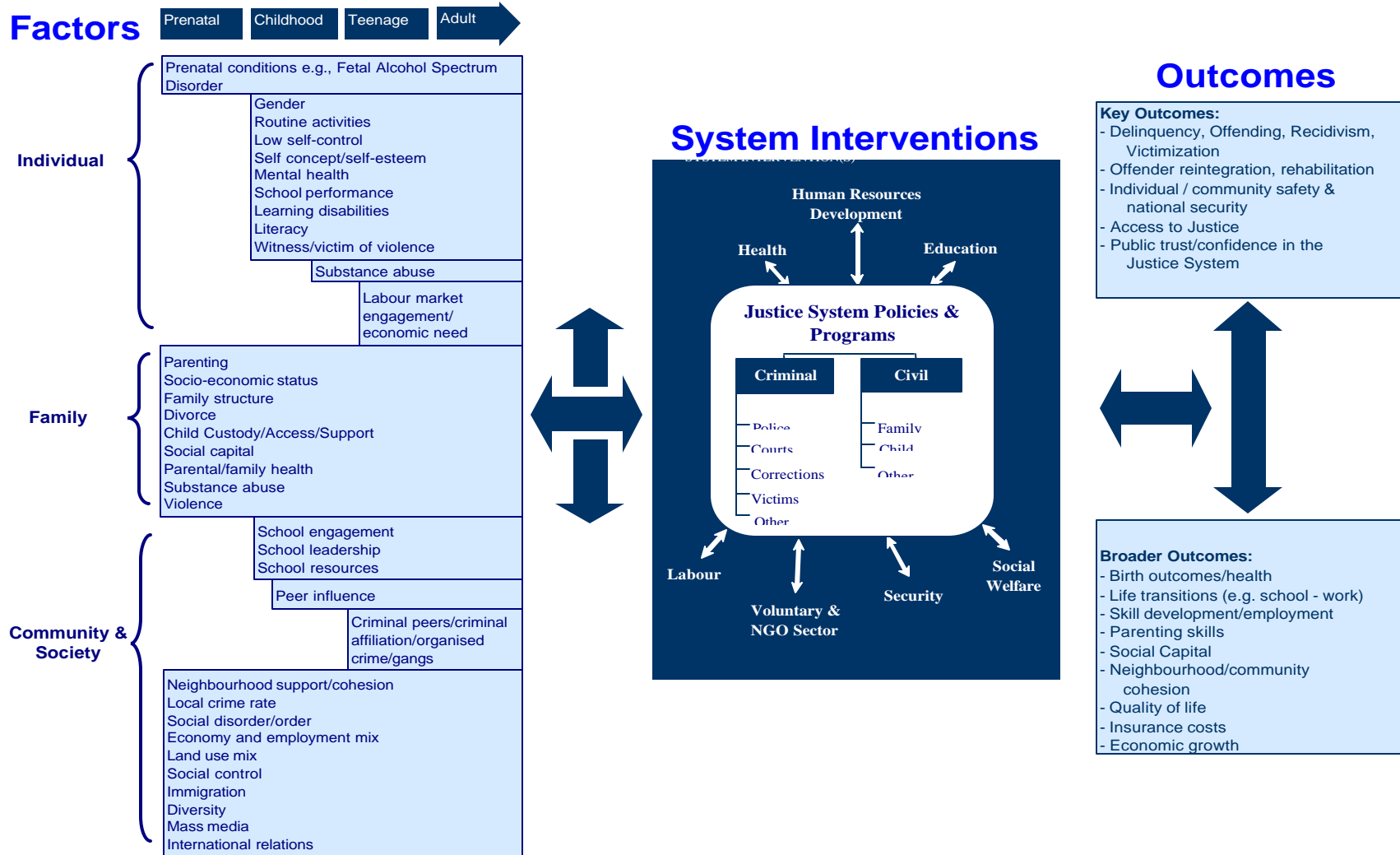
### Justice system policies, programs and interventions

17. Through policies, programs and legislation, the justice system - including policing services, criminal and civil courts, correctional services, legal aid, victim's services, and mediation and dispute resolution services - intervenes in criminal, civil, family and victims matters. These interventions, in conjunction with individual, family and community factors and contexts, may lead

to intended or unintended outcomes for the justice system and for the economy and society as a whole. Partner systems in education, health, child welfare and other domains are also developing policies, programs and legislation that work together with the justice system, or are implemented independently, which may have a desirable or undesirable effect on outcomes for the justice system.

18. If events leading to justice system interventions, such as criminal behaviour and becoming a victim of crime, are random then the only possible response is reactive – police presence, incarceration, private security measures, alarm systems, and gated communities. If these events are, however, influenced by individuals' backgrounds and life experiences, then policies, programs and practices to condition outcomes may be developed. To do this we need to understand the factors that affect outcomes that can be influenced by policy, the broad range of policy levers that could influence outcomes, and the extent to which integration of policy levers across sectors may maximize policy impact.

## Data Framework for Justice Statistics and Analysis



## V. ANALYSIS RESPONDING TO THE FRAMEWORK

19. Investments in the development of person-based microdata administrative surveys in policing, courts and corrections are beginning to pay-off in terms of their capacity to respond to current and emerging information needs. Through increased research and data integration, the potential of these data sources can be tapped to support evidence-based policy and program development.

20. Projects using administrative records are further enhanced by exploring population and community characteristics using 2001 Census of Population data, and the information on individuals and families available from sample survey sources such as the National Longitudinal Survey of Children and Youth and the General Social Survey.

21. A number of analytical projects were initiated in 2004 to demonstrate how advances in the coverage and content of microdata justice surveys respond to the framework approach. Taken together, these projects illustrate how the adoption of common data standards and concepts facilitate data linkage and increase the information value of investments made in individual survey activities. Record linkage across administrative surveys, as well as, data integration between administrative and population-based survey estimates were among the techniques used in the analysis.

22. In June 2004, the *Family Violence Report* released the first record linkage results pertaining to the same individual in policing and court sentencing records from 1997-98 to 2001-02. The linkage identified cases of family violence within court records and enabled comparison of sentencing outcomes between family and non-family violence cases. The study found that 19% of convicted cases of spousal violence were sentenced to prison. In contrast, 29% of offenders convicted of other violent offences were sentenced to prison. Differences in incarceration rates between spouses and other offenders became smaller when looking at specific violent offences, however spouses were still less likely to receive prison terms for almost all types of violent crimes. The differences may be attributed to aggravating and mitigating factors taken into account at sentencing, such as past criminal history, the impact of the sentence on the family and the wishes of the victim. Future analysis will examine the impact of both criminal career progression and incident characteristics on sentencing outcomes by linking courts records over time to compile offence histories relating to prior domestic violence or other offences.

23. In September 2004, the first Statistics Canada analysis of crime at the neighbourhood level was released. The demonstration study, "Neighbourhood Characteristics and the Distribution of Crime in Winnipeg", used crime mapping based on GIS technology, demographic and socio-economic information from the Census, zoning data from the City of Winnipeg, and police-reported crime data for 2001 to investigate neighbourhood-level crime patterns. Findings indicate that about 30% of reported violent crime incidents occurred in 3% of neighbourhoods. Although there was a wider distribution of property crime incidents, about 30% of reported property crime occurred in 7% of neighbourhoods.

24. After taking into account the available factors, the study showed that the factor most strongly associated with the highest neighbourhood rates of both violent and property crime was the level of socio-economic disadvantage of the residents. Second in importance was the condition of housing in the neighbourhood, indicated by the proportion of dwellings in need of major repair. The third important factor was land use. With respect to violent crime, multiple

family zoning, and to a lesser extent, commercial zoning, such as hotels and restaurants were associated with higher neighbourhood rates. Commercial zoning contributed significantly to the explanation of higher rates of property crime. Police agencies are beginning to target prevention and enforcement activities based on similar analyses.

## **VI. NEW DATA THAT COULD BE DEVELOPED IN THE LONGER TERM TO RESPOND TO THE FRAMEWORK**

25. Longer-term data development projects could be undertaken to address the framework. These projects involve developing a better understanding of contextual factors influencing key justice outcomes through linking information across partner systems within and outside the justice sector and conducting household and victimization surveys. These projects also involve further developing microdata and exploring linkages between and across administrative microdata records.

Some examples of the areas that could be considered include the following:

### Understanding pathways in the justice system

26. The person-based (microdata) administrative surveys in policing, courts and corrections sectors can be linked to create longitudinal case histories for individuals interacting with the justice system. Through the development of longitudinal case histories it will be possible to improve the understanding of the pathway people take through it. Record linkage creates an opportunity to examine justice system interventions that have taken place and their outcome. Analysis could focus on repeat offending, re-conviction and re-integration outcomes. Further partnerships that bring together information from systems outside of the justice arena, such as the health, education or social welfare sectors, will permit additional possibilities for research into justice outcomes, including community safety and crime prevention.

### Exploring criminal career development and recidivism

27. Using data linkage to compile longitudinal criminal histories in the court systems, analysis could shed light on factors associated with the onset, patterns and seriousness of offending. This analysis could be complimented with analysis of longitudinal data available from the National Longitudinal Survey of Children and Youth to understand patterns of delinquency. This population-based survey enables exploration of a broader range of potential risk and protective factors in young persons' backgrounds and life experiences. These factors include substance abuse, family structure, parenting style, peer influences, engagement in school, employment history, and community characteristics.

28. With the cooperation of education, health and social and family services agencies, it would be possible to further enrich our understanding of factors in individuals' backgrounds and life experiences that may influence offending and re-offending behaviour, and to gain a better understanding of the impacts and interactions of the interventions of a wide variety of partner systems. The purpose of work in this area would be to demonstrate how this information could contribute to the planning and evaluation of programs designed to diminish offending and re-offending, and to improve offender rehabilitation and re-integration.



Developing information on youth delinquency, victimization and partner system interventions by enhancing existing population surveys or developing new surveys

29. A study of at-risk youth would complement existing police and other official data sources by providing an estimate of unreported incidents as well as improving the understanding the risk and protective factors associated with criminal behaviour, the context surrounding criminal events, and the interventions of partner systems. This information is needed by partner systems in the development of interventions related to social development for youth and their families and communities. This type of information could be developed through an enhancement to an existing longitudinal survey of youth, such as the Canadian Longitudinal Youth in Transition Survey, which provides information currently on relevant risk and protective factors but excludes measurement of self-reported delinquency or victimisation; through participation in an international study, such as the International Self-Reported Delinquency Study; or through development of a new survey.

Improving community-level data capacity to analyze influences on crime and victimization

30. Police forces, particularly in urban areas, are increasingly mapping incidences of crime and residences of victims and accused to coordinates that can then be mapped to small geographic areas, such as city neighbourhoods, school catchment areas or health regions. Incorporating this information into national crime statistics data collection would make it possible to analyze the nature and distribution of crime in urban environments and how it changes over time in the context of relevant community socio-demographic and economic characteristics.

31. With linkage to community characteristics, these data would enable comparison of community risk factors and experience of crime to better understand what works and for whom. Building capacity to capture and analyse data at this level would enable understanding the movement of crime patterns over time and would permit the assessment of changing crime patterns in response to policy and program interventions at the neighbourhood, school catchment and health region levels for communities where geo-coded crime data are available.

## **VII. CANADIAN PUBLIC SAFETY INFORMATION NETWORK DATA STANDARDS**

32. In recognition of the necessity for making improvements to the effectiveness of the justice system by enabling data sharing across the justice system in Canada, an Integrated Justice Initiative has been launched. One of the key components of this Initiative is the Canadian Public Safety Information Network (CPSIN) Data Standards. The CPSIN Data Standards have been proposed to promote and improve long-term interoperability of information systems. These operational data formats provide a useful standard on which to base efficient information exchanges between agencies. Data concepts defined in national microdata surveys operated by Statistics Canada are generally accepted as part of the CPSIN Data Standards.

33. A national Common Offence Library has been pilot tested which may eventually eliminate the need for each Canadian province and territory to maintain independent electronic libraries of federal criminal offence statutes. The adoption of this centrally-maintained database and the CPSIN data standards could greatly enhance electronic information sharing across the justice system, as well as improve the timeliness and quality of statistical data reported to Statistics Canada through automated system interfaces. This harmonized approach to the

definition of concepts and criminal legislation within the justice system is expected to enhance the overall coherence and comparability of data at the national, provincial and regional levels in Canada.

### **The coherence of statistical information is key**

The coherence of statistical information reflects the degree to which it can be successfully brought together with other statistical information within a broad analytic framework and over time. *Coherence* does not necessarily imply full numerical consistency. Beyond the obvious benefits of enhancing the comparability of statistical measures, improving the data coherence of victimization surveys, as well as administrative data collection activities, at the local, regional, national and international level, also increases the utility and efficiency of data investments. Ultimately, the relevance of statistical information reflects the degree to which it meets the real needs of users and sheds light on the issues of greatest importance.

Policy-relevant research and the demands for more extensive and comparable data indicators will increasingly rely upon data linkage and integration across complementary sources further demonstrating the necessity of adopting long-term approaches to improving data coherence. A framework for statistics and analysis promotes a data culture grounded in standards and methods that promote data sharing and integration.

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