

Crime Severity Index: Frequently Asked Questions

July 2023

What is the Crime Severity Index?

The Crime Severity Index is a measure of police-reported crime that reflects the relative seriousness of individual offences and tracks changes in crime severity. It was first introduced in 2009 and was developed at the request of the policing community to address limitations to the traditional Crime Rate. It is available back to 1998.

It complements two other measures of crime: the police-reported Crime Rate, which measures the volume of crime, and victimization survey data, which measure Canadians' experiences of crime.

In fact, three Crime Severity Indexes exist: one for overall crime, one for violent crime and one for non-violent crime. Other measures available include Indexes for police-reported youth accused and weighted clearance rates.

What are the benefits of having another measure of crime?

The problem of crime in Canada can be viewed through multiple lenses. There is no one measure that can adequately summarize all of the information desired on the extent and characteristics of crime. Different approaches serve different purposes, yet together, they provide a more comprehensive picture of crime than any one approach alone.

The police-reported Crime Rate tells us about the volume of crime coming to the attention of the justice system. It is not a measure of all crime occurring in Canada. But, it adds to our understanding of police workload and demands on the justice system.

The victimization data, for the offence types included, tell us about Canadians' experiences of crime, whether or not they are reported to the police.

The Crime Severity Index provides a different way of looking at crime in Canada. It adds to our understanding of crime because it takes into account the relative seriousness of individual offences.

The Crime Severity Index was introduced to address many of the limitations associated with the traditional police-reported Crime Rate so it provides a clearer picture of trends in crime.

For example, the offences making up the majority of the traditional police-reported Crime Rate are high-volume, less serious offences, such as mischief, minor thefts and disturbing the peace. Due to their high volume, trends in these less serious offences actually drive the trend in the overall police-reported Crime Rate, whereas trends in more serious crimes have less impact on the rate simply because they are less numerous. For example, one incident of homicide is equal to one incident of mischief in terms of the impact on the overall Crime Rate.

For the Crime Severity Index, each crime is assigned a weight depending on its seriousness and as such, serious crimes have more impact on fluctuations in the Index. For instance, weights used in the Crime Severity Index range from 6 for gaming and betting to over 7,000 for murder.

Victimization surveys have shown us that less serious crimes are less likely to come to the attention of police. Variation in reporting for less serious crimes impacts the comparability of police-reported statistics for jurisdictions. Because less serious crimes have less impact on the Crime Severity Index, its trends are more comparable.

With the Crime Severity Index, we see that serious offences have more impact than they did with the traditional Crime Rate.

For example, in 2016 for the overall Crime Severity Index, break-ins accounted for about one-quarter (23%) of the Index, compared with about 7% in the Crime Rate.¹ On the other hand, mischief accounted for about 5% of the Index, instead of 10% in the rate.

In terms of the Violent Crime Severity Index in 2016, robberies accounted for about 22%, rather than just 6% in the Violent Crime Rate. However, common assault accounted for only 9%, instead of 41% in the violent crime rate. Homicide, a very serious and relatively low-volume offence, accounted for 10% of the Violent Crime Severity Index as opposed to 0.2% of the Violent Crime Rate.

How is the Crime Severity Index calculated and are the weights updated regularly?

The seriousness of each offence is determined by using objective sentencing data from the nation's courts.

Each individual offence is "weighted" according to the severity of the sentences handed down by judges. Sentencing data come from both the adult and youth components of Statistics Canada's Integrated Criminal Court Survey (ICCS). Weights for the Index are based on the average of five years of courts sentencing data and they are updated every five years, using the most recent data available from the courts. It should be noted that outliers (atypically very long and unique sentences for a given offence) are not included in the average.

Weights are updated every five years to reflect recent sentencing practices and to account for any new *Criminal Code* offences. The CSI weights have been updated for the third time with the release of the 2022 data, and are applied back to the 2021 revised data and they will be applied to subsequent data releases moving forward until the next update to the weights. Updated weights are not used to revise historical crime statistics.

The release of 2012 data in 2013 marked the first year of UCR data requiring updated weights. The CSI weights were most recently adjusted in 2022 and applied retroactively to UCR data back to 2021 revised and are applicable to all subsequent data releases moving forward until the next update to the weights. The 2022 version of the weights are based on court data from 2015/2016 to 2019/2020.

To calculate the actual weight for an offence, the incarceration rate for that offence – that is, the percentage of all convictions receiving a jail sentence – is multiplied by the average length of the prison sentence in days.

Incarceration rates and average prison sentences are calculated at the national level using five years of courts data.

¹ Note that these percentages are based on 2016 unrevised crime statistics as this document was originally distributed prior to the release of revised 2016 and 2017 crime statistics.

For example, using the 2022 CSI update figures:

	% of those convicted who are sentenced to prison		Average number of days sentenced		WEIGHT
Robbery	72.9%	x	640	=	466
Disturb the peace	42.9%	x	28	=	12

Those weights are then multiplied against the volume of each offence to determine what their impact will be in the Crime Severity Index.

For example:

	Weight		Number of incidents		WEIGHTED TOTAL (Contribution to the Index)
Robbery	466	x	21,826	=	10,170,916
Disturb the peace	12	x	104,733	=	1,256,796

The results are then totaled, and divided by the population. The index is standardized to 100 nationally to facilitate comparisons. The base year is 2006.

In addition, three linkage factors are applied to data that use the updated weights (i.e. 2016 revised data and onwards) to ensure comparability of CSI values using the old and new weights (similar to the way factors are applied to spending amounts over time to ensure constant, comparable dollars that control for inflation).

What is the impact of the updated weights?

The Crime Severity Index is designed as a measure of the severity of police reported crime. If a change is made to the seriousness of a particular crime, by the introduction of a mandatory minimum sentence or other legislative change, it will and should be reflected in the Crime Index at the next regular revision of weights.

However, the degree to which the Crime Severity Index is affected by new legislation alone is not significant. In order to see a significant impact on the Index, a large change in both the volume of an offence and the weight of an offence would have to occur at the same time.

Due to their volume and severity, the top five contributors to the national Crime Severity Index are breaking and entering, fraud, robbery, sexual assault level 1 and mischief. With the updated 2022 weights, robbery and sexual assault level 1 are contributing more to the overall Crime Severity Index than with the previous weights, and breaking and entering, fraud and mischief are contributing less.

For the Violent Crime Severity Index, the top five contributors are robbery, sexual assault level 1, , assault level 2, assault level 1, and uttering threats to a person. With the new 2022 weights, robbery and sexual assault level 1 have a greater contribution to the Violent Crime Severity Index than with the previous weights. Assault level 2, assault level 1 and utter threats have a lesser contribution than with the previous weights.

For more information on how to calculate which violations are contributing to your Crime Severity Index, please contact the Canadian Centre for Justice and Community Safety Statistics at statcan.ccjcss-ccsjsc.statcan@statcan.gc.ca.

What can the Crime Severity Index be used for?

The index gives us a different view of crime and allows us to answer questions that were not easily answerable previously, such as: Is police reported crime in Canada more serious than it was last year? Is police reported crime in my jurisdiction more or less serious than in another jurisdiction? Has police reported crime become more serious over time?

What does the Crime Severity Index tell us?

The Crime Severity Index tells us if police reported crime was relatively more or less serious than in previous years. For ease of interpretation, the index is converted to 100 for the base year, which is 2006.

For jurisdictions, the Crime Severity Index is particularly useful in determining if police reported crime has become more or less serious over time, or if police reported crime is more or less serious in one area than another.

An example of how a jurisdiction can compare itself to Canada:

In 2006, Canada's Index is 100.
If Province X has an Index of 113,
Then, compared to Canada overall, Province X's police reported crime is more serious by 13%.

A jurisdiction can also use the Crime Severity Index to determine if its own police reported crime has become more or less serious over time:

Province X has an Index of 113.
Five years ago, its Index was at 122.
So, crime severity in Province X has decreased by 7% over the past 5 years.

The Crime Severity Index can also be used to compare the level of crime severity in one jurisdiction to the level of crime severity in another jurisdiction, in a given year:

Province X has an Index of 113.
In the same year, Province Y has an Index of 85.
So, crime severity in Province X is 33% higher than in Province Y.

What is the jurisdictional impact of the index?

The value of the index in a given jurisdiction is determined by its mix of crimes; the higher the proportion of serious crimes in a jurisdiction, the higher the index.

Let's say that two jurisdictions, Province A and Province B, have roughly the same populations and number of crimes. These areas will have the same crime rate. Their Index values will differ, however, depending on their mix of crimes. For example, if Province A experiences mostly less-serious, and hence lower-weighted, crimes such as disturbing the peace and mischief, their Index value will be quite low. If Province B experiences mostly serious, higher-weighted offences, such as homicides, break-ins and robberies, their Index value will be higher.

Further, less-serious crimes, such as disturbing the peace and mischief, tend to be subject to reporting differences both by the public and by the police in various jurisdictions. The Crime Severity Index decreases the impact that these less-serious crimes have on trends, thereby improving comparisons among provinces and municipalities.

Who was involved in the development of the Crime Severity Index?

The index was created by the Canadian Centre for Justice and Community Safety Statistics at Statistics Canada in collaboration with numerous engagement partners. Representatives from provincial and federal justice departments as well as the policing and academic communities sat on a Working Group to guide the development of the Index.

Specifically, the Working Group was made up of members from the following organisations:

- Statistics Canada: CCJCSS UCR Survey and Courts Survey staff, methodologists
- Police Services: RCMP, OPP, Sûreté du Québec, Royal Newfoundland Constabulary, Toronto, Ottawa, Winnipeg, Victoria and Saint John
- Federal/provincial Justice Liaison Officers: Justice Canada, New Brunswick, Quebec, Ontario and Alberta
- Academics: Universities of Ottawa, Waterloo and Manitoba

Do the weights take into consideration "time served" in remand?

The length of time served in remand is not available from the Courts Survey, and therefore cannot be accounted for in the Crime Index weights. However, it is known to be a factor in sentencing.

Where can I obtain more information?

For more information on the Crime Severity Index and other police-reported crime statistics, please contact the Canadian Centre for Justice and Community Safety Statistics at statcan.ccjcss-ccsjsc.statcan@statcan.gc.ca.

Data tables at various geographic levels are also available free of charge through the Statistics Canada website at www.statcan.gc.ca.

The following are methodological reports available either through the Statistics Canada website or from the Canadian Centre for Justice and Community Safety Statistics (internal reports):

- Cormak, Andrew and Tracy Tabuchi. 2020. *Updating the Police-Reported Crime Severity Index: Calculating 2018 Weights*. Statistics Canada. Working paper SSMD-2020-01E.
- Babyak, Colin, Aidan Campbell, Rose Evra and Sarah Franklin. 2013. *Updating the Police-Reported Crime Severity Index Weights: Refinements to the Methodology*. Statistics Canada. Working paper HSMD-2013-005E.
- Babyak, Colin, Asma Alavi, Krista Collins, Amanda Halladay and Dawn Tapper. 2009. *The Methodology of the Police-Reported Crime Severity Index*. Statistics Canada Catalogue no. HSMD-2009-006E/F.
- Wallace, Marnie, John Turner, Colin Babyak and Anthony Matarazzo. 2009. *Measuring Crime in Canada: Introducing the Crime Severity Index and Improvements to the Uniform Crime Reporting Survey*. Statistics Canada Catalogue no. 85-004-X.