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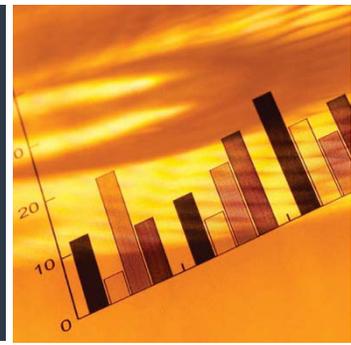
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# Collection and Analysis of Data on the Use of Force



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BUILDING A SAFE AND RESILIENT CANADA

**Use of force by the police is rare. Knowing when and why it happens is important to minimize injuries. Police and the public can benefit from data.**

## BACKGROUND

A defining characteristic of police work is the authority to use different levels of appropriate force to prevent crime, apprehend criminals, manage the risk mentally-ill persons might pose to themselves or others, and safeguard all members of the public from a range of criminal and non-criminal harms. Members of the public, in posing criminal or non-criminal threats to themselves or others, sometimes also use force on police officers.

It appears that the use of force is experienced rarely in Canadian policing contexts - in less than 2% of encounters with the public. Although rare, these incidents are of concern due to the risk of injury to members of the public and police officers. American research has shown that some type of physical injury is sustained by police in up to 10% of incidents involving the use of force and members of the public in up to 35% of such incidents

The primary objective of this report was to review literature on use of force in encounters between police and members of the public in order to identify the key research questions posed and the most appropriate information sources and variables to answer these questions. A secondary objective was to discuss analytic methods that allow for the reliable analysis of interactions between police and the public in use of force encounters in order to provide information useful to trainers and operational policy makers.

## METHOD

A review of the documents, articles, and other reports on police use of force, dated between 2000 and 2014, was conducted to identify key questions, methodologies, variables, and units of measurement

used. The document review included: peer-reviewed scholarly articles; “grey literature”; selected websites and blogs; and information identified by stakeholders. Approximately 80 sources were reviewed.

Various policing stakeholders were provided with the opportunity to contribute to this work on a voluntary basis by providing input to the literature review, helping to identify key questions related to the use of force, and providing advice on how to interpret relationships between variables in use of force analyses. Those invited to participate included government officials, police officers, or civilians working in the area of police use of force, as well as academics and private sector consultants who provide advice on research or expert testimony in judicial and quasi-judicial settings.

## FINDINGS

Research has shown a strong relationship, regardless of the level of subject resistance, between the level of officer force and the likelihood of increased officer injury as levels of officer force increase. Conversely, some research has found there is decreased likelihood of the use of lethal and other physical force, and presumably fewer deaths or injuries, when the officers responding to an incident have undergone substantial crisis intervention or de-escalation training. No research in Canada could be identified showing the interaction between subject levels of resistance and the application of force by the police.

Although all police services are required under provincial or territorial legislation to collect some use of force data, there are variations in what data are collected and how they are used across Canada. The information currently collected is mainly used to



provide an overview on the force used by the police such as the number of times a specific weapon (firearm, pepper spray, conducted energy weapon, etc.) was deployed. This information is presented either as a count or a percentage change from the previous years. Canadian use of force data is not currently being analysed for more complex relationships between independent and dependent variables when it comes to officer response and subject behaviour.

The authors discuss the merits of two quantitative analytic approaches that could support such analysis: the Maximum Use of Force Scale and the Force Factor Scale.

The Maximum Use of Force Scale first involves asking police officers to rank, in order, a variety of police behaviours from least to most severe on a scale from 1 to 100, as well as conducting rankings of various kinds of subject behaviour. This scale, which has been applied to six jurisdictions in the U.S.A., represents, to date, the largest collection of use of force data.

Force Factor analysis measures the levels of interaction between the degree of citizen noncompliance or resistance and the degree of officer use of force. The Force Factor approach involves measuring both the level of resistance displayed by the subject and the level of force used by the officer as determined on a formally defined police use of force continuum. In discussing the Force Factor approach, examples were provided of how this approach has been applied by particular police departments in the United States. This approach, while still exploratory in nature, holds promise in terms of bivariate or multivariate analysis using a variety of data sources.

## IMPLICATIONS

This report identifies the most frequently asked and significant research questions with regards to the use of force by, and against, the police. The information is collected in a form that illustrates the relationships between research questions, key variables, and information sources. This can assist police organizations, police boards, and other stakeholders to assess the value of various types of data-collection studies conducted, data-collection practices, or data-analysis strategies with regards to the use of force during policing incidents.

The information provided in this report provides an opportunity for policing stakeholders to consider different analytical methods when addressing issues pertaining to the use of force in police-citizen encounters, which could yield information to help reduce police and subject injuries, assist in developing policies and training curricula, and be useful in evaluating the extent to which their objectives are being met.

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## SOURCE

Kiedrowski, J., Melchers R-F., Petrunik, M., & Maxwell, C. (2014). *A Discussion of the Collection and Analysis of Data on the Use of Force in Encounters between the Police and Members of the Public*. Ottawa, Ontario: Public Safety Canada.

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Research Division, Public Safety Canada  
269 Laurier Avenue West  
Ottawa, Ontario  
K1A 0P8

PS.CSCCBResearch-RechercheSSCRC.SP@ps-sp.gc.ca

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