

Modifications to the UCR Incident-Based Survey

UCR2.1

**Policing Services Program
Canadian Centre for Justice Statistics
Statistics Canada**

**January 1997
Revised: April 2003**

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1. Introduction

The UCR incident-based survey (UCR2) was originally designed in the mid-1980's and has remained in its present format since that time. Over the years it has become clear that there are some problems with the survey associated with respondent burden, data availability (response rates), and data quality.

The changes presented here are a result of comments received from respondents over the years, recommendations from the UCR2 Data Managers Workshop held in March 1995, as well as a detailed analysis of all survey data elements and categories by UCR staff and STC methodologists. The changes have been grouped into four categories:

1. Data elements eliminated from the survey
2. New violation codes and data elements
3. Data elements modified
4. Changes to scoring rules and system issues

Some of these changes may be "invisible" to the respondent, while others may require major modifications to the existing interface between the police information system and the UCR2 processing system.

The CCJS refers to the modified survey as the UCR2.1 survey. The original UCR2 survey will remain intact and operational until all UCR2 respondents have upgraded to the UCR2.1 survey.

2. Data Elements Eliminated

The following five data elements are not included in the UCR2.1 survey because of poor data quality and low response rates which render the data meaningless. By removing these data elements, the survey reduces respondent burden.

2.1 Alcohol/Drug Consumption

Issue: The comments stemming from the Data Managers Workshop related the fact that many police officers will not indicate whether or not drugs or alcohol were involved due to its potential use as a defence in criminal court. As a result, this field is frequently left blank.

This data element is also redundant in terms of impaired driving incidents.

Solution: Elimination from UCR2 survey

2.2 Dollar Value of Illicit Drugs

Issue: Participants in the Data Managers Workshop were unanimous that all three dollar value data elements were "completely meaningless." This information is often unknown or unreliable as it is very difficult for officers to determine appropriate cost estimates.

Solution: Elimination from UCR2 survey

2.3 Dollar Value of Property Damaged

Issue: Participants in the Data Managers Workshop were unanimous that all three dollar value data elements were "completely meaningless." This information is often unknown or unreliable as it is very difficult for officers to determine appropriate cost estimates.

Solution: Elimination from UCR2 survey

2.4 Dollar Value of Property Stolen or Committed by Fraud

Issue: Participants in the Data Managers Workshop were unanimous that all three dollar value data elements were "completely meaningless." This information is often unknown or unreliable as it is very difficult for officers to determine appropriate cost estimates.

Solution: Elimination from UCR2 survey

2.5 Modus Operandi of Selected Violations

Issue: This data element is defined as the "method" by which specific types of violations (shoplifting, purse-snatching, pick-pocketing, forced or unforced entry) are committed or initiated.

- (i) Participants in Workshop felt that this data element was "operationally difficult to obtain", as the variable does not usually exist on police information systems and must be derived from other fields.
- (ii) Limited utility: Purse-snatching, pick-pocketing, and forced/unforced entry are felt to be very soft as there are operational difficulties in defining and coding these type of activities.

Solution: Eliminate this data element from the UCR2 survey, keeping only "shoplifting" as a separate data element.

3. New Violation Codes and Data Elements

We have applied a strict rule about not creating any violation codes unless there is a direct corresponding *Criminal Code* offence or an offence listed in another federal statute.

3.1 Uttering Threats

Issue: Uttering threats is presently in the “3000” series of UCR2 coding which means that it is not considered an offence against the person and no victim record is provided. Respondents and data users have called for the reclassification of “Uttering threats” to the “1000” violation coding series especially in light of the recent criminal harassment legislation. Such a change would allow certain issues such as family violence and violence against women to be more fully addressed.

Solution: The offence “uttering threats” now has a violation code of “1627” which corresponds to *Criminal Code 264.1(1a-c) and 264.1(2a-b)*. This change reflects that this offence is a crime against the person (UCR 1000 series) and allows for a victim record.

3.2 Mischief Under and Over \$5,000

Issue: With the elimination of “Dollar Value of Property Damaged,” the survey’s ability to produce aggregate statistics on mischief is also eliminated. This would break the historical continuity of the data.

Solution: The new violation code for “Mischief Over \$5,000” is “2172” which corresponds to *Criminal Code 430.(1a-d), 430.(3a) and 430.(3b)*. The new violation code for “Mischief \$5,000 and under” is “2174”, which corresponds to *Criminal Code 430.(1a-d), 430.4(a) and 430.4(b)*. All other mischief offences unrelated to property damage remains coded to “2170.”

3.3 Proceeds of Crime

Issue: Proceeds of crime offences have become an important criminal justice issue but are currently lost because they are aggregated with “other *Criminal Code*” and “other federal statutes” violation codes.

Solution: There is now a new UCR violation code to represent “Proceeds of Crime”. Violation code “3825” represents sections 462.31(1ab), 462.31(2a), 462.31(2b) and 462.33(11) of the *Criminal Code*. Violation code “4825” (*Proceeds of Crime - Narcotics Control Act*) was repealed on February 1st, 2002.

3.4 Firearm Offences

Issue: Bill C-68 was passed by Parliament on December 5, 1995 which outlines certain changes to *Part III of the Criminal Code* and the new *Firearms Act*. Some of these changes became law as of January 1, 1996 but the majority of the new offences are expected to become law in the first quarter of 1998. The current UCR2 offensive weapon codes no longer relate to the new sections specified in Bill C-68.

Solution: In response to this new legislation, these new firearm violation codes have been devised to complement Bill C-68. The old offensive weapon codes (3320, 3330, 3340 and 3350), which expired on December 1st, 1998 are no longer valid. The new coding structure is as follows:

| Offensive Weapons Violation Groups | Violation Code |
|---|----------------|
| 1. Explosives | 3310 |
| 2. Using Firearms / Imitation in Commission of Crime | 3360 |
| 3. Weapons Trafficking, Possession of Weapons for the Purpose of Trafficking and Transfer w/o Authority | 3365 |
| 4. Weapons Possession Contrary to Order and Failure to Surrender Authorization, etc. | 3370 |
| 5. Possession of Weapons | 3375 |
| 6. Unauthorized Exporting and Importing of Weapons | 3380 |
| 7. Pointing a Firearm | 3385 |
| 8. Firearms Documentation and Administration | 3390 |
| 9. Unsafe Storage of Firearms | 3395 |
| 10. Firearms and other offensive weapons (Part III CC) | 3720 |
| 11. Firearms Act | 6550 |

3.5 Motor Vehicle Recovery

Issue: The aggregate Motor Vehicles Stolen and Recovered Survey was discontinued in 1994. As part of this decision, it was recommended that the UCR2 survey be modified to include a measure of recovered stolen motor vehicles. The proportion of stolen motor vehicles which are recovered will provide some insight into the motive behind the crime (e.g., joy-riding or chop-shop). The condition of the vehicle on recovery will have implications for car owners in terms of insurance rates.

Solution: By creating a new data element called "motor vehicle recovery," the survey is able to collect data on whether or not the motor vehicle was recovered and its condition upon its return. The coding options are as follows:

- 1 - Not recovered
- 2 - Recovered - No damage

- 3 - Recovered - Parts and/or accessories missing
- 4 - Recovered - Damaged
- 5 - Recovered - Destroyed - Not Burned
- 6 - Recovered - Destroyed - Burned
- 7 - Recovered - Condition unknown
- 9 - Not applicable

3.6 Special Survey Feature

Issue: Presently, UCR2 data can only be submitted in a fixed record length format based on explicit data requirements. This makes the survey extremely rigid as the addition of new data elements involved significant redesign of both respondent interfaces and the CCJS data processing system.

Solution: The UCR2 data processing system is capable of accepting variable length records. Therefore, extra data (i.e., beyond the core requirements) can be appended to any one of the victim, accused or incident records. These extra data would not be edited by the UCR data processing system, and therefore require no interface edits.

Respondent interfaces can be developed in such a way to facilitate the selecting of fields which currently exist on their records management systems and appending them to the extracted UCR records. Data submitted through the special survey feature could be used for answering special research questions, prototyping changes to the core requirements, or adding optional or secondary data elements.

Example: Postal Codes

If the CCJS had the ability to disaggregate crime statistics to the Postal Code level or at least the Forward Sortation Area (the first three digits of the Postal Code) then the CCJS would have the ability to integrate data with a multitude of available data also geographically coded by postal code (e.g. Census or General Social Survey data). Making Postal Code a required data element would, however, increase respondent burden considerably for most respondents. Some police services do, however, routinely collect Postal Code. By having these respondents append the postal code to the incident record, the analytical utility of the UCR data is increased without significant impact to respondents.

4. Data Elements Modified

4.1 *Racial Origin*

Issue: This data element was originally designed to capture many categories of race/ethnicity but now only collects data on aboriginal peoples, other and unknown. This data element is often left blank because it is the police department's policy not to collect information on aboriginal origin.

Solution: This data element has been renamed to "Aboriginal Indicator" to reflect the changes in the coding options. The coding options are as follows:

- A - Aboriginal;
- N - Non-aboriginal;
- P - Police Refusal;
- R - Accused Refusal;
- U - Unknown; and
- Z - Not applicable (where the accused is a company).

4.2 *Incident/Clearance Status*

Issue: With the passing of Bill C-41, adults can now be officially diverted away from the court process into a community-based program similar to how youths are diverted to Alternative Measures. This information cannot be identified with the current incident/clearance status code set.

Solution: Diversionary Programs have been added to valid codes as to why an accused can be "cleared otherwise." The age of the accused can be used to determine whether or not a youth or adult diversionary program was used. This modification applies to both the UCR2 and UCR2.1 surveys. The letter "R" is the coding option for Diversionary Programs for both versions of the survey.

4.3 *Peace-Public Officer Status*

Issue: This data element has too many coding options which have very low counts (e.g., correctional officer, sheriff/bailiff, customs/excise, etc.).

Solution: This data element has been simplified to only three coding options: 1 - police officer, 2 - other peace/public officer and 9 - Not applicable. Respondent burden and errors in reporting will be reduced.

4.4 Soundex Code

Issue: There is no unique identifier on the Victim Record; this causes problems when multiple victims in an incident have identical characteristics (same sex, age, and violation against victim). When this happens, some victim records will be incorrectly deleted because they are interpreted as duplicates.

Solution: By adding a Soundex code field to the victim record, multiple victims in an incident will now be uniquely identified, thus substantially reducing the errors in deleting records. The data element "Accused Identifier" has been renamed to "Soundex Code" to reflect this change.

4.5 Property Stolen

Issue: In the last several years, computers and computer equipment have been a prime target for theft but the UCR2 does not have computers listed as a separate stolen property code. Further, computers are presently aggregated with office equipment which is misleading since many households have home computers for educational and entertainment purposes.

Solution: The code "CE" has been added to the coding options to represent computers and computer equipment.

4.6 Relationship of Accused to the Victim

Issue: There were four changes to the coding options suggested to improve data quality.

1. Ex-spouse: This coding option only applies to *legally* separated or divorced persons. This does cause problems analytically when persons have been separated for a period of time but just have not been declared "separated" by the courts.
2. Authority figures: There is a need for a coding option for persons that are in a "position of trust" such as priests, babysitter, child-care worker, teacher and the like which presently does not exist.
3. Close friends: An important criterion for understanding violence against women is the concept of "intimacy" and the frequency with which women are victimized by someone with whom they share or have shared an intimate relationship (outside of marriage). With the current coding structure, these types of intimate relationships are included under "close friends," which can be very misleading.
4. Criminal Relations: A significant proportion of crimes are committed by (and against) persons involved in illegal activities such as drugs, prostitution, gambling, etc. This type of criminal relationship is currently captured, somewhat misleadingly, under the "business relationship" category.

Solution:

1. "Ex-spouse" is renamed to "separated/divorced" and the legal requirement has been removed from the definition.
2. "Authority figure" is added as a coding option for those persons in a position of trust.
3. The "close friend" coding option is now broken into three codes: boyfriend/girlfriend, ex-boyfriend/ex-girlfriend, and friend.
4. "Criminal relationship" is added as a coding option for those illegal business relationships.

The coding options are as follows:

- 00 - Unknown
- 01 - Spouse
- 02 - Separated/Divorced
- 03 - Parent
- 04 - Child
- 05 - Other immediate family
- 06 - Extended family
- 07 - Authority figure
- 08 - Boyfriend/Girlfriend
- 09 - Ex-boyfriend/Ex-girlfriend
- 10 - Friend
- 11 - Business relationship
- 12 - Criminal relationship (e.g., drugs, prostitution, gambling)
- 13 - Casual acquaintance (e.g., neighbours)
- 14 - Stranger

4.7 Shoplifting

Issue: With the elimination of "Modus Operandi," there is no way of converting incident-based theft data to the aggregate for shoplifting. Thus, the UCR will lose historical continuity of the data.

Solution: A new data element called "Shoplifting" has been created to act as a single code flag.

4.8 Target of Violation and Location of Incident

Issue: "Target of Violation" applies to specific targets which have been victimized in robbery, extortion and property violations, and includes such values as person(s), residences, motor vehicles, banks, convenience stores, gas stations, etc.

"Location of Incident" applies to type of location where incident (all types) took place

and includes such values as residences, commercial/corporate places, parking lots, schools, public transportation, etc.

These two data elements have been historically troublesome to the respondents, which causes errors in reporting and increases respondent burden. The comments from the Data Managers Workshop were as follows:

- (i) There is much overlap between these two data elements which results in confusion by respondents.
- (ii) There is no need to identify the "person" field in the "target", as it can be generated automatically by either the interface or by the UCR2 processing system.
- (iii) The "target" data element was developed primarily for "motor vehicles", in order to identify a vehicle as being the object of a crime as well as identifying the specific location where the vehicle was located when the incident took place. The other categories of "target" could easily be incorporated into "location."
- (iv) School violence and drugs at schools are prevalent issues and the UCR2 survey is unable to measure these types of activities. The current scoring rules do not include school property (parking lots, playgrounds, etc.) in the definition of school where much school violence and drug trafficking occurs. Another concern is whether or not these offences are taking place during regular school hours or after school when no supervision is provided.

Further, UCR staff identified the coding option "public transportation" as troublesome because all forms of public transportation are grouped into one code thus eliminating any possibilities of analyzing forms of "mass urban" public transportation.

Solution: The survey has kept only motor vehicle as a target and renamed "Target of Violation" to "Target-Vehicle" to reflect the changes made. "Target-Vehicle" serves as a flag to indicate the involvement of a motor vehicle.

The "target" codes have been combined with the "location" codes to create an enhanced "Location of Violation." The "person" coding option has been eliminated.

The "schools" coding option has been revised into incidents that occur within school hours or just outside of regular school hours. As well, the scoring rules have been changed to include any part of school property for the incident. "Colleges/universities" is now a separate coding option.

The "public transportation" coding option has been revised into three coding options: transit buses, subways, and other public transportation.

The new coding options for "Location of Violation" are as follows:

- 00 - Unknown
- 01 - Single home, house
- 02 - Private property structure
- 03 - Dwelling unit
- 04 - Commercial dwelling unit

- 05 - Car dealership
- 06 - Bank and other financial institutions
- 07 - Convenience stores
- 08 - Gas station
- 09 - Schools during supervised activity - including school property
- 10 - Schools not during supervised activity - including school property
- 11 - Universities/Colleges
- 12 - Other commercial/corporate places
- 13 - Other non-commercial/corporate places
- 14 - Parking lots
- 15 - Transit bus/Bus shelter
- 16 - Subway/Subway station
- 17 - Other public transportation and connected facilities
- 18 - Streets, roads, highways
- 19 - Open areas

4.9 Type of Fraud

Issue: The survey currently captures a narrow range of fraud types: cheques, credit cards, and other fraud. The Data Managers Workshop participants suggested that additional codes be added to this data element to reflect the changing nature of this offence.

Solution: This data element now has a broader range of coding options:

- 10 - Cheque;
- 20 - Transaction card;
- 30 - Telemarketing;
- 40 - Securities/Financial Instruments;
- 50 - False claims - Insurance;
- 51 - False claims - Government;
- 60 - Computer;
- 90 - Other fraud; and
- 99 - Not applicable.

4.10 Vehicle Type

Issue: This information is currently requested for every traffic violation, resulting in needless respondent burden. The data element has little analytic value other than for impaired driving incidents and for converting incident-based data to aggregate.

Solution: This data element now has four coding options: 0 - Unknown, 1 - motor vehicles, 2 - Boat/Vessel/Aircraft, are only used for impaired driving or dangerous driving violations

(Violations between 9110 and 9250), and 9 - Not applicable (if Violation not between 9110 and 9250) .

5. Changes to Scoring Rules and System Issues

5.1 *Non-response, not applicable and unknown*

Issue: Presently the survey allows a “blank” field as acceptable data for many data elements to represent either a “non-response,” a “not applicable,” or an “unknown.” As discussed at the Workshop, not being able to distinguish between these three possibilities is a significant limitation in terms of analyzing the UCR2 data.

Solution: “Blank” fields are no longer acceptable as data and will be considered as a “non-response.” Data elements that are not related to the incident are to be filled with “9’s” or “Z’s” to represent “not applicable.” Unknowns are filled with “0’s.”

5.2 *Apparent Age*

Issue: The Centre is unable to distinguish between an infant and a one year old baby because the coding option is the same -- “001.”

Solution: “000” will now represent an infant (less than one year old).

5.3 *Attempted/Completed Violation*

Issue: This data element describes whether the criminal act was carried out or whether there was only the intent to carry out the act. Some "attempted" violations (e.g., attempted murder) are formally written out in the Criminal Code due to their seriousness. Therefore, it makes sense to score an "attempted murder" as a "completed" violation. However, this scoring rule also applies to "break and enters" (B&Es) which causes operational difficulties. This scoring rule forces respondents to code attempted B&Es and actual B&Es as completed. Further, the UCR2 violation code for B&E combines attempted B&Es with actual B&Es. As a result, respondents and users of the data cannot differentiate between attempted and actual “break and enters.”

Solution: The scoring rule is changed so that attempted break and enters will be classified as “A” for attempted instead of “C” for completed.

5.4 *Charges Laid or Recommended*

Issue: The "charges laid or recommended" element includes four levels of detail on the charge for each accused. This data element is operationally difficult for the following reasons:

- (i) many respondents cannot provide information at this level of detail; and

- (ii) even when the data are provided, it passes unedited and is difficult to categorize as the fields must be "parsed" due to different lengths and ways of inputting the various Code sections.

Solution: The UCR2 Data Element Review proposal sent out to the LOC in December 1995 recommended that this data element collects violation codes instead of charges. The assumption was that data quality would be improved because it is easier to code a violation code than to give all of the detail for charges. In recent months, however, it has become apparent that the ability to select specific charges is highly valued. Further, some major respondents have updated their systems and can now provide this level of detailed information. Therefore, this data element will remain unchanged for the fields that it collects. The CCJS will instead seek ways to improve data quality.

5.5 Counter - Frauds and Motor Vehicles

Issue: The counter applies to frauds and incidents involving vehicles located at car dealerships. A couple of problems have been identified with this data element.

- (i) Presently, the survey requires the creation of a separate incident for each vehicle in all occurrences where a vehicle is the target of a crime. For example, one "incident" involving 50 cars being scratched in a parking lot or street would require 50 separate incidents being created. This practice was universally derided at the Data Managers Workshop as the *single, most problematic survey issue*.
- (ii) This is one area where the aggregate and incident-based surveys used slightly different definitions which causes confusion especially when collapsing to the aggregate survey.

Solution: The counter will be applied to all incidents where a series of vehicles are damaged or stolen from. All vehicles will be included in the same incident. In incidents of motor vehicle theft, however, a separate incident will still be counted for each vehicle unless the incident occurs at a dealership. The incident based survey and aggregate survey would then use similar scoring rules for counting.

5.6 Incident Date/Time

Issue: The UCR2 survey uses a "from-incident time" field to identify the beginning of a range and a "to-incident time" field to identify the end of a range if the exact time of an incident is unknown. This field is subject to a high level of unknown responses.

Solution: The scoring rules have been made more explicit on how to handle vague times of the day as in the following examples.

- 0600 to 1159 - morning
- 1200 to 1759 - afternoon
- 1800 to 2359 - evening
- 0000 to 0559 - night