**An Phríomh-Oifig Staidrimh**
Central Statistics Office

**Central Statistics Office**

**Review of the quality of crime statistics 2016**

September 2016

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## Executive Summary

The CSO (Central Statistics Office) has carried out a second review of the accuracy of Garda PULSE (Police Using Leading Systems Effectively) data based on 2015 data. The first review, based on 2011 data, was published in June 2015.

Recorded crime statistics play a key role in informing society of the level and type of crime in Ireland. In November 2014, the Garda Inspectorate published a report called "Crime Investigation" which raised serious concerns about the recording of crimes on the Garda PULSE system. Since PULSE is used to produce CSO recorded crime statistics, the CSO suspended publication and began a comprehensive review of the accuracy of Garda Síochana crime data. In particular, the CSO wished to examine the extent to which the issues highlighted by the Inspectorate are present in Garda crime data.

After the first review, the CSO resumed publication of recorded crime statistics and determined that it was necessary to repeat the analysis at regular intervals. The main CSO findings on the issues examined in the latest report are as follows:

- An estimated 17% of crime reported to An Garda Síochana in 2015 via their CAD equipped divisions does not appear to be captured on PULSE. These CAD divisions accounted for approximately 63% of all recorded crime in Ireland. The comparable non-recording figure for PULSE crime incidents created from Garda paper records in non-CAD equipped stations was 16%.
- It also appeared that an estimated one in five non-CAD equipped stations did not keep paper records which could be used to estimate the non-recording of reported crime on PULSE.
- 6.4% of all offences created on PULSE in 2015 were created more than a week after they were first reported.
- Based on a study of 1,000 randomly sampled PULSE incidents there were only four cases of a narrative being changed without apparent justification.
- Across seven major crime categories[1] (*Assault, Burglary, Criminal Damage, Public Order, Robbery, Theft* and *Unauthorised taking* or *interfering with a vehicle*), an estimated 3% of incidents were incorrectly classified to the wrong crime category while a further 2% of cases had insufficient information to determine the correct classification.
- Some 3% of incidents classified to *Attention and Complaints* (a non-crime category on PULSE) should have been classified as a crime. The equivalent figures for *Property Lost* and non-crime *Domestic Disputes* were 1% and 2% respectively.

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[1] In this report "crime category" will be used to refer to the Garda crime categories on PULSE while "ICCS crime category" will be used to refer to the CSO crime classification nomenclature.

- An analysis of all reclassified incidents in seven different offence categories from 2015 which had been downgraded in seriousness showed that one third (33%) lacked justification in the narrative.
- Some 63% of crimes marked as detected had corresponding charges or summons, while 37% did not have charges or summons attached. The status of detected was incorrectly applied to 18% of those crimes marked as detected but without a charge or summons sheet attached. Removing these detections would reduce the overall number of detected crimes by 10%.
- 21% of invalidated crimes lacked sufficient explanation as to why they were classified as such.

As with the previous CSO publication, the effects of some of these issues on recorded crime statistics is illustrated in Section 5. These findings indicate that the estimated impact of the issues on recorded crime is substantially less than was the case for the 2011 data. However the issues raised in the previous CSO review of Garda crime recording published last year continue to exist, albeit to a lesser degree, and we therefore continue to advise users to consider these issues when interpreting crime statistics.

The CSO is continuing to work with An Garda Síochana to improve the reliability of the data and will continue this analysis at regular intervals to monitor data quality. In addition to this, the CSO is currently producing the results from a Crime and Victimisation survey which will provide more data on the level of crime in Ireland. This survey will be published later in 2016.

## *1. Introduction*

Beginning in 2012, the Garda Inspectorate conducted a major review of how crime was investigated in Ireland. This led to the publication of an extensive report in November 2014[2] which examined training, resource management, the treatment of those in custody and many other areas which are not relevant to the quality of crime statistics. The report contains several findings in relation to the accuracy of recorded crime administrative data in Ireland. Table 1 below summarises these findings.

In response, the CSO carried out a study on the quality of crime data recorded on the Garda Síochana PULSE database system during 2011, the same period examined by the Inspectorate. This current study carries out a similar analysis of Garda Siochana data from 2015 to see if the issues raised in the 2011 data analysis continue to be present.

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[2] "Investigating Crime", Garda Inspectorate, November 2014

***Table 1: Summary of Garda Inspectorate findings***

| Issue | Inspectorate Analysis | Inspectorate findings |
|---|---|---|
| *Non-recording of crimes on PULSE* | The Inspectorate looked at 158 cases from the CAD system. They sampled 4 calls from 7 divisions for 5 categories (assault, burglary, domestic violence, robbery and vehicle crime). | 28% of the CAD records never made it to PULSE, including 45% of domestic violence and 47% of assaults. In UK study in 2000, 24% of reports not recorded |
| *Timeliness issues with recording crimes on PULSE* | Inspectorate analysed 56,800 PULSE records created between 05/10/2012 and 25/10/2012. Analysis was based on comparison of creation and reporting dates on PULSE | The Inspectorate stated that 9.7% were created on PULSE more than one week after being reported (to the Guards), which they consider unacceptable. |
| *Misclassification of incidents at initial stages* | The Inspectorate then looked at 500 PULSE records (across 5 main categories such as assault, burglary, domestic violence, robbery and vehicle crime plus non-crime areas) where the crime classification remained unchanged from those which were created in June 2012 | 18% of those classified to assault minor, 28% to criminal damage, 67% to interfering with a vehicle and 28% theft from person were incorrectly classified. A further 42% of assault minor, 18% of criminal damage and 15% of theft from person had insufficient information to decide. |
| *Misclassification of incidents at initial stages (ctd)* | The Inspectorate also highlighted the apparent misclassification of genuine criminal offences into non-crime incident types such as Attention and Complaints and Property Lost. The Inspectorate examined 500 PULSE records for non-crime incidents in 2011 and 2012 | The Inspectorate found 6% of property lost and 16% of attention and complaints should have been classified as a crime. |
| *Incorrect reclassification of incidents* | In 2011 there were nearly 1,000,000 PULSE records created. This included 300,000 crimes. The Inspectorate requested information on these reclassifications | According to the Inspectorate, 8.5% of these records had been reclassified to other incident types. They say the current international average is approximately 4%. |
| *Incorrect application of detection and invalidation status to certain crimes in PULSE* | The inspectorate looked at 2,195 cases and found that 43% were marked as detected but 556 had no charge or summons attached. The Inspectorate then examined in detail 318 of the 556 records. | Of the 318 records examined in detail by the Inspectorate, 72% of them showed detections as incorrectly recorded. |

## 2. Background

### 2.1 The production of CSO crime statistics

The CSO is responsible for publishing official recorded crime statistics. These crime statistics are based on administrative data provided by the An Garda Síochana from their PULSE (Police Using Leading Systems Efficiently) database system.

PULSE is a relational database system used to record crime details. The GISC (Garda Information Services Centre) central facility in Castlebar, County Mayo oversees most data entry on PULSE.

An Garda Síochana are responsible for the PULSE system and for the Fixed Charge Penalty System (FCPS). FCPS is another relational database system used for recording penalty points for minor road and traffic offences. This data is supplied to the CSO for inclusion in annual recorded crime statistics.

While An Garda Síochana was responsible for crime statistics prior to 2003, between 2003 and 2007 the responsibility for the publication of recorded crime statistics was transferred to the CSO under Section 47 of the 2005 Garda Síochana Act. While the data used by the CSO is obtained from the Garda Síochana, the CSO is an independent office and does not report to the Minister of Justice. Under Section 13 of the Statistics Act 1993 the Director General of the CSO has sole responsibility for the statistical methodology used by the Office and the contents of any statistical release or publication.

The CSO applies crime counting rules and the Irish Crime Classification System (ICCS) to this data as recorded in PULSE. It also performs additional quality assurance checks to produce recorded crime statistics on an annual and quarterly basis.

The basic counting unit in recorded crime statistics is the offence. Offences reported or which become known to members of An Garda Síochána are recorded as crimes when, on the balance of probability, a Garda determines that a criminal offence defined by law has taken place and there is no credible evidence to the contrary. The main rules are as follows:

- **Primary Offence Rule**: Where two or more criminal offences are disclosed in a single episode, it is the primary criminal offence that is counted.
- **One Offence Counts Per Victim**: One offence counts per victim involved with the exceptions of cheque/credit card fraud and burglary.
- **A continuous series of offences** against the same victim involving the same offender counts as one offence.

By applying these rules to the PULSE data, it is possible to produce recorded crime statistics.

## 2.2 How crime is reported to the Gardaí

Crimes in Ireland are either reported to An Garda Síochana by individuals or are reported by members of An Garda Síochana who witness an incident themselves. The majority of incidents are reported by members of the public.

The public can report the incident in a number of ways, including the following:

1. A phone call (including '999' calls) to a CAD (Command and Dispatch) equipped division. CAD is a Garda command and control system used to control the dispatch of Gardaí to incidents. It has the ability to store information on incidents (which may be criminal offences or non-criminal reports of accidents etc.) that are reported via phone to Garda dispatchers. The CAD system is used by national dispatchers but is not directly linked to PULSE. Since 2012, CAD coverage has been expanded from the DMR area to the other (mainly urban) areas of Cork, Limerick, Waterford and Galway.  It should be noted that a significant proportion of calls to CAD are non-criminal incidents.

2. A phone call (including '999' calls) to non-CAD equipped divisions or stations. They are recorded directly on an official incident report form such as the RC1 form and then subsequently entered on PULSE (ideally as soon as possible).

3. A visit to a station by an individual to report an incident. For most stations, these crimes or incidents are stored on paper forms such as RC1s, the notebooks of individual Gardaí or on station ledgers. These incidents are then usually entered on PULSE via GISC. However, in the case of certain stations (three out of fifteen non-CAD-equipped stations surveyed by the CSO) there are no paper records being kept. Incidents are either directly recorded on PULSE, or not recorded at all.

4. By direct observation of an incident by a member of An Garda Síochana. Details of incidents may be recorded by members of An Garda Síochana in notebooks for subsequent entry on PULSE or else recorded directly on PULSE by the Garda member via a telephone call to GISC.

In 2015 approximately 63% of offences on PULSE appearing in CSO crime statistics originated from CAD-equipped divisions while 37% came from non-CAD equipped divisions.

Regardless of how incidents are initially reported, after Gardaí have attended the scene of an incident a report is usually made. Among the possible outcomes for the incident:

- The caller or person who reported the incident is gone on arrival and it is impossible to determine whether an offence has taken place or not.

- The investigating Gardaí are satisfied that there is no evidence of an offence having occurred.
- The call was cancelled.
- The call was bogus or mistaken.
- The call was a civil rather than a legal matter.
- A member of the public was required to be moved on or assisted, but no offence has taken place.
- An offence has taken place.
- A prisoner was returned to the station.

Once the incident is recorded on PULSE and the investigation proceeds, ongoing updates will be entered.

### 2.3 How crime is recorded on PULSE

If the Garda Síochana are satisfied that a criminal offence has taken place, then they are obliged to record it on the PULSE system as soon as possible. This is usually carried out by the Gardaí contacting GISC. Individual Gardaí (in particular those in specialised units) may enter incidents on PULSE directly.

While the PULSE system has several hundred available fields for collecting information on incidents and offences, generally only a small number are applicable to a particular incident. The most common variables include:

- Date and time of incident occurrence.
- Date of incident report.
- Incident type. This is a system used by the Gardaí to classify crime. There are approximately 300 incident types on PULSE such as murder and drunkenness and including non-crime categories such as *Attention and Complaints* etc.
- Detection status, i.e. is the perpetrator of the crime detected?
- Date of birth of victims and suspected offenders (where applicable).
- Narrative of incidents.
- Location of incident (four address lines).
- Modus Operandi (MO) information associated with the particular incident. This could include motive, method of entry if a burglary etc.

After the incident has been reported, the Gardaí will investigate, record and classify it. They will only record an incident as an offence if they are satisfied that a criminal offence has occurred. The recorded criminal offences, once classified, will provide the data that will be used in the production of CSO recorded crime statistics.

It is important to note that many reported incidents are not classified as offences for various reasons. Many incidents which the Gardaí do not consider to be offences are recorded in a miscellaneous incident type called *Attention and Complaints*. As this is

not a crime category these incidents are not counted by the CSO as recorded crime. Another example is where property is lost, but there is no evidence of an associated theft. These are recorded in the *Property Lost* category.

In 2015, PULSE records available to the CSO included:

- Approximately 32,600 non-crime incidents recorded under *Attention and Complaints*.
- Approximately 5,800 *Property Lost* incidents. By using this category, the Gardaí state that there is no criminal element to these incidents.
- Some 11,750 *Domestic Dispute* incidents. These are domestic incidents where there is no evidence of an offence having taken place.
- Approximately 245,000 crime incidents.

During the same period there were approximately 550,000 records on the FCPS system, mainly related to speeding and other minor road traffic offences. This FCPS data is not used in the quarterly recorded crime series but is used in the annual report. The analysis in this paper concentrates on the data used for the quarterly series.

## 3. The CSO process for assessing data quality

### 3.1 The CSO response to the Inspectorate report

In November 2014, upon publication of the Inspectorate report, the CSO decided to temporarily suspend the publication of crime statistics until it had fully examined the findings. The CSO decided on this course of action because the scale of the issues highlighted in the report relating to the quality of PULSE data.

The CSO began a comprehensive and independent review of PULSE data to assess the extent to which the findings of the Inspectorate are reflected in the data used by the CSO for the compilation of its recorded crime statistics. This review formed the basis of the original CSO study and included a detailed statistical analysis to quantify the extent to which data quality issues were present. This study was published in June 2015 and was based on 2011 PULSE data.

The CSO also decided that it would continue to produce this study on a regular basis, until the issues highlighted are no longer present in PULSE to a significant extent.

For this iteration, the CSO have retained the overall methodology from the previous study, while making some adjustments to the sample sizes used. In addition, the CSO carried out a more detailed analysis of reclassification in Section 4.5.

### 3.2 The CSO access to Garda data

The CSO receives data pertaining to crime incidents regularly in order to produce quarterly and annual crime statistics.

Traditionally, the CSO did not have access to data on CAD or the paper forms. In late 2014 the CSO obtained access to the CAD dataset and Garda permission to access paper data to carry out a study in an attempt to quantify the proportion of reported criminal offence incidents (in paper or CAD) that have corresponding entries in the PULSE system.

The aim was to establish the extent to which legitimate reported offences are not being entered onto the PULSE system. The analysis is based on random samples of CAD and paper records which are checked on the PULSE system for corresponding entries. For other elements of the study the CSO was able to access the audit trail of some records.

Finally, while the CSO is not usually issued with "non-crime" PULSE data, it now has access to this data and includes a complete analysis of these incident types as part of this report. In particular, the CSO received complete *Attention and Complaints*, *Property Lost* and *Domestic Dispute* data, since these were identified by the Inspectorate as possible locations for misclassified offences.

In summary therefore the CSO used the following types of data to carry out this study:

- CAD – Garda Command and Dispatch telephone call records.
- RC1s/Occurrence books/ledgers – Garda paper record forms for incidents.
- Audit trails for incident narratives – to determine if narratives were being changed inappropriately to justify decisions on incident classification.
- Reclassified incidents – to both quantify the extent to which reclassification has taken place and to determine if these reclassifications were appropriate.

## *4. CSO findings*

Following the methodology of the previous report, the CSO analysis focussed specifically on the following six areas:

- *Non-recording of crimes on PULSE*
- *Timeliness concerns with recording reported crimes on PULSE*
- *Alteration of narratives in PULSE*
- *Misclassification of incidents at initial stages*
- *Incorrect reclassification of incidents*
- *Incorrect/unjustified application of detection/ invalidation status to certain crimes in PULSE*

These areas had been identified by the Garda Inspectorate report as areas of concern and the main objective was to estimate the extent of these issues using analysis of samples from Garda administrative data.

### *4.1 Non-recording of crimes on PULSE*

To see if CAD records of reported crimes were being captured correctly on PULSE, the CSO sampled:

- 1,000 CAD records from the Dublin region in 2015. This covered seven crime categories and the non-crime category of *Domestic Dispute/DVSA*. Sampling was in proportion to the size of the Garda division and the number of each incident type, with a minimum of 80 sampled records per incident type.

- 300 CAD records from the non-Dublin regions of Cork, Galway, Limerick and Waterford in 2015. These covered the same incident types as for the Dublin region, and a similar sampling scheme was used, albeit with a minimum of 30 sampled records per incident type.

- 1,000 paper records from 2015 (a combination of RC1 forms, station occurrence books and ledgers). These were randomly selected from 5 Garda regions with 3 stations, of specified activity levels, per region and 67 records per station sampled.

  The Garda Síochana Professional Standards Unit (PSU) collected copies of the actual original records. Records were selected by systematic random sampling based on a designated record date selected at random for each station.

### 4.1.1 Non-recording of crimes on PULSE from CAD

The CSO attempted to match these CAD incidents to PULSE records. Given that there is no common identifier between the two datasets, matching was done using the time and location of the incident, descriptions entered on CAD and PULSE etc. Table 2a below summarises the results of the matching process. Separate matching processes were performed for Dublin and non-Dublin CAD data, due to the different data sources.

**Table 2a: Dublin CAD-PULSE matching**

| Incident category | Incidents selected on CAD | No evidence of offence | Valid | Found on PULSE | Not found on PULSE | Percentage records not found on PULSE |
|---|---|---|---|---|---|---|
| Assault (including armed/serious crimes) | 160 | 65 | 95 | 67 | 28 | **29%** |
| Burglary/Intruder | 160 | 46 | 114 | 103 | 11 | **10%** |
| Criminal Damage | 80 | 17 | 63 | 44 | 19 | **30%** |
| Public Order/Serious public Order | 172 | 142 | 30 | 17 | 13 | **43%** |
| Robbery | 80 | 2 | 78 | 78 | 0 | **0%** |
| Theft | 188 | 29 | 159 | 135 | 24 | **15%** |
| Unauthorised taking/ interfering with MPV | 80 | 10 | 70 | 65 | 5 | **7%** |
| Domestic dispute/DVSA | 80 | 41 | 39 | 29 | 10 | **26%** |
| **Total** | **1000** | **352** | **648** | **538** | **110** | **17%** |

**Table 2b: Non-Dublin CAD-PULSE matching**

| Incident category | Incidents selected on CAD | No evidence of offence | Valid | Found on PULSE | Not found on PULSE | Percentage records not found on PULSE |
|---|---|---|---|---|---|---|
| Assault (including armed/serious crimes) | 60 | 31 | 29 | 23 | 6 | **21%** |
| Burglary/Intruder | 60 | 28 | 32 | 29 | 3 | **9%** |
| Criminal Damage | 30 | 6 | 24 | 18 | 6 | **25%** |
| Public Order/Serious public Order | 30 | 25 | 5 | 3 | 2 | **40%** |
| Robbery | 30 | 4 | 26 | 25 | 1 | **4%** |
| Theft | 30 | 1 | 29 | 22 | 7 | **24%** |
| Unauthorised taking/ interfering with MPV | 30 | 8 | 22 | 17 | 5 | **23%** |
| Domestic dispute/DVSA | 30 | 23 | 7 | 6 | 1 | **14%** |
| **Total** | **300** | **126** | **174** | **143** | **31** | **18%** |

After analysing narrative and outcome codes of 1,000 valid incidents on Dublin CAD, some 352 or 35% were deemed as not criminal offences and therefore there was no requirement to enter them on PULSE. This is particularly pronounced for *Public Order* offences where 82% of CAD *Public Order* entries were not criminal offences. This left 648 incidents which should appear on PULSE.

For non-Dublin CAD stations (in the areas of Cork, Limerick, Waterford and Galway), 300 valid incidents were examined. 126 were determined not to be criminal offences. These were, as in previous cases, excluded from the analysis.

Table 2b summarises the results of this matching process. The overall rate of valid Dublin CAD records which should have had matches on PULSE but were unmatched was 17%. When considering incident types, the rate of unmatched valid criminal offences not found on PULSE ranged from 0% for *Robbery* to 43% for *Public Order* offences. For non-Dublin stations, 18% of records were unmatched, with rates varying from 4% for *Robbery* to 40% for *Public Order* incidents.

The CAD incident category of *Domestic Dispute/DVSA*[3] was also studied in both areas. Most of these reports do not relate to criminal incidents, but in certain cases such calls could be eligible for recording on PULSE either as crimes or non-crime incident types.

It is important to note that a CAD incident that does not appear to be on the PULSE system may actually be on PULSE but it was impossible to match the relevant records. Indeed some CAD records proved very difficult to match to a PULSE record, necessitating extensive searching.

When comparing these results to the results from the previous study caution is recommended, due to different sampling methods being used. In 2011, sampling was strictly proportional to size, while in 2015 the sampling while proportional to size also featured minimum sample sizes for each incident type. In the case of non-Dublin CAD stations, this led, de facto, to equal size samples for each incident type.

Since CAD was deployed to the other areas in 2012, non-Dublin CAD records did not exist at this point. The gap between reporting and recording has reduced from 20% to 17% for Dublin CAD, while the corresponding gap for non-Dublin CAD in 2015 is 18%.

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[3] Domestic Violence and Sexual Assault (DVSA).

### 4.1.2 Non-recording of crimes on PULSE from paper records

The CSO study of CAD data from 2011 only included the Dublin region since CAD was not deployed elsewhere at that time. However in 2012 there was a roll-out of CAD to Limerick, Cork, Waterford and Galway and therefore non-CAD equipped stations account for approximately 37% of all offences recorded in 2015.

To see if paper records of reported crimes were being captured correctly on PULSE, the CSO sampled 1,000 records from 2015 (a combination of RC1 forms, station occurrence books and ledgers). These were randomly selected from 5 Garda regions with 3 stations per region and 67 records per station sampled. The Garda Síochana Professional Standards Unit (PSU) collected copies of the actual original records. Records were selected by systematic random sampling based on a designated record date selected at random for each station.

After the process began however it was discovered that some of the sampled stations were not keeping any usable paper records and therefore substitute stations were used. It was later estimated that around 20% of non-CAD equipped stations were not keeping paper records. These stations represent approximately 7% of all recorded offences in 2015.

Table 2c below shows the result of this analysis. Of the 1,000 records sampled there was no evidence of any offence in 818 cases. These included reports of non-criminal road traffic incidents, mistaken 999 calls, false alarms and visits to stations to discuss non-criminal matters. Of note is the fact that 71 of these 818 records were illegible, thus making attempted matching impossible. These were then treated as de-facto non-responses and excluded from the analysis.

Of the valid incidents that should be recorded on PULSE, 30 or 16% were not recorded on PULSE (the corresponding figure for 2011 data was 16%). This indicates that the extent of the problem of non-recording of valid incidents has not improved since 2011. However, it should be noted that the 2011 figure was based on a smaller sample of 536 records.

### Table 2c: Analysis of paper records

| Type of record | Incidents selected on CAD | Not a crime, insufficient evidence of offence or invalid | Valid | Found on PULSE | Not found on PULSE | Percentage records not found on PULSE |
|---|---|---|---|---|---|---|
| Total Paper records analysed | 1,000 | 818 | 182 | 152 | 30 | 16% |

## 4.2 Timeliness issues with recording crimes on PULSE

Each record on PULSE has a 'Date Created' (the date on which it was created on PULSE) and a 'Date Reported' (the date on which it is recorded as first being brought to the attention of An Garda Síochana). A difference between the two dates would show the delay between an offence being reported by a member of the public or Gardaí and the entering of incident data on PULSE. It was the Inspectorate's opinion that incidents should be recorded on PULSE as soon as reported so that all relevant details are accurately captured.

To measure this delay CSO analysed all criminal offences on PULSE whose Date Reported was during 2015. This was then compared with the creation date for the incident. Table 3 shows the time delay for these incident types.

There were 228,542 crime offences reported in 2015. Around 94% of those offences were created on PULSE 7 days or less after the recorded Date Reported while the remaining 6.4% were created more than one week later.

This figure of 6.4% compares with 6.7% of offences created more than one week after the reported date in the previous study, which was based on offence data reported in 2011.

### Table 3: Analysis of delay in creating records on PULSE

| ICCS crime category | Incidents created within 7 days of report | Incidents created more than 7 days after report | Percent created more than 7 days after report |
|---|---|---|---|
| 01 Homicide Offences | 47 | 14 | 23% |
| 02 Sexual Offences | 1,739 | 614 | 26% |
| 03 Attempts/Threats to Murder, Assaults, Harassments and Related offences | 14,987 | 1,981 | 12% |
| 04 Dangerous or Negligent Acts | 7,032 | 186 | 3% |
| 05 Kidnapping and Related Offences | 134 | 19 | 12% |
| 06 Robbery, Extortion and Hijacking Offences | 2,553 | 22 | 1% |
| 07 Burglary and Related Offences | 26,010 | 243 | 1% |
| 08 Theft and Related Offences | 73,109 | 2,802 | 4% |
| 09 Fraud, Deception and Related Offences | 4,610 | 987 | 18% |
| 10 Controlled Drug Offences | 14,662 | 457 | 3% |
| 11 Weapons and Explosives Offences | 2,300 | 71 | 3% |
| 12 Damage to Property and to the Environment | 25,224 | 846 | 3% |
| 13 Public Order and other Social Code Offences | 32,334 | 947 | 3% |
| 15 Offences against Government , Justice Procedures and Organisation of Crime | 6,068 | 5,212 | 46% |
| **Total** | **210,809** | **14,401** | **6%** |

Looking at the incidents in detail, most of the ICCS groups have less than 5% of incidents created more than seven days after the offence being initially reported. Certain groups have a higher percentage but there seems to be clear reasons for at least some of these longer delays.

- If Group 01 *Homicides* incidents are considered, these refer to incidents that were originally classified as Road Traffic collisions and were upgraded to *Dangerous Driving causing Death.* The apparent delay in recording these incidents may be explained by PULSE recording policy. When such a collision takes place, it would be recorded immediately on PULSE. However if it is established at a later date that an offence of *Dangerous Driving causing Death* had occurred, a new record would have to be created in PULSE for this offence. This is due to the requirement that the initial collision incident record be retained. As a result, there would now be a new *Dangerous Driving causing Death* offence with an apparent delay in reporting.

- It is very common for Group 02 *Sexual offences* to be initially reported to other agencies such as the HSE as incidents for investigation. These incidents would then be referred to the Gardai who would investigate if an offence took place. If an offence was established, a record on PULSE would be created. However, the much earlier initial reporting date to the other agency is the date that would be used for date reported.

- Many Group 15 *Offences against Government, Justice Procedures and Organisation of Crime* refer to breach of court orders. In the case of an individual failing to appear in court, the offence would only be created on the date when a judge has ruled the individual to be in breach. However, the date reported captured on PULSE would the earlier date when the individual was first established as having failed to appear in court.

For other high proportion groups, there may be a time gap between the reporting date when an allegation is made and the creation date when an investigating member is able to form the opinion that an offence has taken place and creates a corresponding record on PULSE. For example, determining that an assault took place may require reviewing CCTV and frauds may require detailed analysis of documents.

### 4.3 Alteration of narratives on PULSE

Each record on PULSE has a narrative field where details on the crime are captured. This field is updated if more or extra details are later added such as a further description of suspects, results of interviews etc.

The narrative field is of particular importance to the CSO quality review since it is the main CSO method of verifying Garda decisions on PULSE offence classification. For example the CSO study the narrative of an incident in order to determine if the incident has been classified correctly. However, a narrative could be inappropriately edited to justify a dubious offence classification decision in PULSE and this would not be evident. The CSO conducted an analysis of narrative lengths over time to look at cases where there was editing of narratives to justify classification decisions. In particular, the CSO searched for reductions in the narrative length – in other words cases where deletion of text from the narrative took place. The audit trails for a random sample of 995 PULSE incident records were selected. These records included:

- 484 records which the CSO had examined for misclassification.
- 255 incidents which had been checked to see if they had been assigned the appropriate detection status.
- 256 incidents which the CSO had examined to determine if they had been invalidated correctly.

The audit trails record every change to the narrative in the PULSE system, the date and time of the change, all previous versions of the narrative and the user who made the change. This allowed examination of the changes to incident narratives to establish if any erroneous changes were made to justify classification/reclassification decisions.

Based on an analysis of audit trails, only four of the 1,000 records from 2015 displayed evidence of a narrative being altered to justify an incorrect decision on PULSE. This compares to a figure of one dubious narrative change out of 500 records in the previous year's study.

### 4.4 Misclassification of incidents at initial stages

Critical to the integrity of PULSE (and CSO crime statistics) is the assumption that crimes are classified correctly. Each case or incident on PULSE is assigned to one of 300 incident types, most of which are crimes, although there are also non-crime categories such as *Attention and Complaints.*


### 4.4.1 Misclassification of criminal incidents

In order to examine the misclassifications of incidents, the CSO carried out a random stratified sample of 1,002 criminal cases from 2015 in 6 high-volume serious criminal incident types. The sample was restricted to those incidents which hadn't changed classification a year later. 167 records were selected from each of *Assault Minor, Assault Causing Harm, Criminal Damages (Not Arson), Theft from Person, Burglary,* and *Robbery from the Person*. Each record was examined to see if it was correctly classified, based on a reading of the narrative. The results of the analysis are shown in table 4, as well as a comparison with 2011 (which used 864 records in a similar sampling scheme).

*Table 4: Analysis of misclassification of incidents classified as offences*

| Incident type (ICCS) | Number of offences examined | Percentage Misclassified | Percentage Insufficient information | Percentage Classified correctly 2015 | Percentage Classified correctly 2011 |
|---|---|---|---|---|---|
| | | % | % | % | % |
| Assault Minor | 167 | 5 | 3 | **92** | **87** |
| Assault Causing Harm | 167 | 1 | 4 | **95** | **92** |
| Criminal Damages (Not Arson) | 167 | 4 | 3 | **93** | **90** |
| Theft from Person | 167 | 3 | 1 | **96** | **90** |
| Burglary | 167 | 1 | 0 | **99** | **99** |
| Robbery from the Person | 167 | 5 | 2 | **93** | **98** |
| **Total** | **1002** | **3** | **2** | **95** | **93** |

The CSO found that overall 2% of sampled crime records were misclassified with a further 3% of cases deemed unclear if the classification was correct or not. Misclassification has decreased from 5% in 2011 to 3% in 2015. The misclassification rate varied from a high of 5% for *Robbery from Person* to a low of 1% for *Burglary*. It was unclear in 4% of *Assault causing harm* offences if the classification was correct or not. Overall 95% of the sampled offences were classified correctly, although this fell to 92% for *Assault Minor*, a rise of 2% from the previous year's study.

### 4.4.2 Misclassification of non-crime incidents

The non-crime categories on PULSE are used to hold data on incidents which are reported to An Garda Síochana but are not deemed to be crimes. To see whether non-crime categories contained incidents which should have been classified as criminal offences, the CSO sampled from 2015 PULSE data:

- 1,000 of the 32,645 *Attentions and Complaints* incidents.
- 500 of the 5,812 *Property Lost* incidents.
- 300 of the 11,756 (non-criminal) *Domestic Dispute* incidents.[4]

The narrative of each sampled record was studied to see if it should have actually been classified as a criminal offence. The result of this analysis is shown in Table 5.

**Table 5: CSO analysis of non-crime categories**

| Non-crime category on PULSE | Number of records on the system in 2015 | Sampled | Percentage Misclassified | Percentage Insufficient information | Percentage Classified correctly 2015 | Percentage Classified correctly 2011 |
|---|---|---|---|---|---|---|
| | | | % | % | % | % |
| Attention and complaints | 32,645 | 1,200 | 3 | 2 | **95** | **92** |
| Property lost | 5,812 | 500 | 1 | 1 | **98** | **94** |
| Domestic disputes | 11,756 | 300 | 2 | 1 | **97** | **91** |

Based on this analysis, 95% of *Attention and Complaints* incidents in 2015 were correctly classified compared with 91% in 2011. Comparing the same periods the CSO found that approximately 98% of *Property Lost* incidents were correctly classified compared to 94% in 2011. 97% of non-crime *Domestic Disputes* cases in 2015 were correctly classified compared to 91% of cases in 2011.

In a further analysis of what should have happened to the misclassified non-crime incidents in the sample, the CSO found that:

- Over two-thirds of the 35 misclassified *Attention and Complaints* incidents should have been recorded as *Assaults* or *Public Order* offences. One incident each of *Child pornography* and *Robbery from the Person* had also been incorrectly placed in *Attention and Complaints*.
- Two of the misclassified *Property Lost* incidents should have been classified as thefts, one incident as a robbery and one as fraud.
- Of the six misclassified *Domestic Disputes*, three incidents should have been classified as *Assaults* with two others classified as *Harassment*.

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[4] These are domestic incidents where there is no evidence of an offence having taken place.

### 4.5 Reclassification of crime incidents

Crime incidents, for various reasons, can be reclassified from one crime category to another. To analyse the extent to which this is done incorrectly the CSO needed to determine the number of reclassifications which had taken place for crime incidents on PULSE in 2015, and whether these reclassifications were justified. Due to the CSO being provided the additional reclassification audit trails, the analysis of reclassification in this publication has been significantly expanded from the study of 2011 data.

### 4.5.1 Determining the numbers of reclassifications

In the study of 2011 data, the CSO compared the crime classification of 259,533 incidents as recorded on PULSE between January 2012 and January 2013 and their corresponding crime classification on PULSE 12 months later. Overall rates[5] of reclassification for crime groups in the twelve-month period were very low with only 3 of the 15 groups exceeding 1%.

However this method, while having the advantage of looking at all recorded crime, suffers from a timing issue (similar to the bulk analysis of narrative changes). Most reclassification occurs during the initial reporting stages of the offence. Since the CSO only gets a copy of the PULSE data at the end of the reference month, any criminal event first recorded on PULSE and then subsequently changed before the data is given to the CSO will not show as a reclassification.

For example, if a crime is first recorded on PULSE on the 5th April but reclassified on the 20th April, the CSO will not be able to show this as a reclassified crime as the first time the CSO will receive data on the crime will be the 1st July.

To allow more detailed analysis of reclassification for 2015 data, the CSO requested and received an audit trail for all crime incidents in 2015 which had been reclassified by An Garda Siochana. This did not include reclassification between different non-criminal incident types (such as road traffic accidents). There were 3,500 such records across the 6 Garda regions in 2015, which is less than 1% of criminal incidents recorded in PULSE for 2015.

From these 3,500 records, the CSO analysed all incidents originally classified in the following incident types:

- *Assault causing harm* and *Assault minor* – 233 records
- *Criminal damage* – 224 records
- *Arson* – 52 records
- *Robbery from person or institution* – 28 records

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[5] Reclassification was taken as changing from one four digit ICCS crime group to another. For more information on the ICCS please see http://cso.ie/shorturl.aspx/446

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- *Burglary* – 272 records

The analysis contained two elements:

- Determine the rates at which crime incidents were being reclassified to categories of more seriousness, less seriousness or the same level of seriousness (Table 6).
- Downward reclassifications (downgrades[6]) were of particular interest since this would lead to an incident being counted in a less serious category. If a downgrade was incorrect, the resulting crime statistic would not accurately reflect the seriousness of the incident. This was an issue specifically highlighted by the Inspectorate report in 2014. For that reason, all downgraded incident narratives were examined to determine if the reclassification was justified (Table 7).

*Table 6: Analysis of reclassifications*

| ICCS crime category | Number of incidents reclassified | Percentage Upward reclassification | Percentage Downward reclassification | Percentage Reclassified to same level |
|---|---|---|---|---|
| | | % | % | % |
| Assault causing harm | 47 | 4% | 70% | 26% |
| Assault minor | 186 | 69% | 13% | 18% |
| Criminal damage | 224 | 27% | 13% | 59% |
| Arson | 52 | 2% | 87% | 11% |
| Robbery from person/ institution | 28 | 0% | 61% | 39% |
| Burglary | 272 | 1% | 90% | 8% |
| **Total** | **809** | **24%** | **48%** | **28%** |

Reclassification patterns varied with the crime types being analysed. For example, 90% of *Burglary* and 70% of *Assault causing harm* reclassifications were downgraded to less serious categories. However the rate fell to 13% for both *Assault minor* and *Criminal damage* offences were reclassified to less serious categories. Overall, 48% of reclassifications were downward with 24% upward to more serious incident types.

The next step was to determine if downward classifications were justified (Table 6). This involved a detailed analysis of the narrative audit trails and reclassification commentary. Upgrades and reclassifications to the same levels of seriousness were

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[6] The determination of the change to the seriousness of a crime - i.e. is it upgraded to a more serious category or downgraded to a less serious category, is done in accordance with the Garda Incident Book which discusses the relative seriousness of various crimes.

not examined since the issue raised by the Inspectorate was reclassification leading to underestimation of the seriousness of recorded crime.

*Table 7: Analysis of downgraded reclassifications*

| ICCS crime category | Number of downgrades | Justified downgrade | Unjustified downgrade | Percentage Unjustified |
|---|---|---|---|---|
| | | | | % |
| Assault causing harm | 33 | 30 | 3 | 9% |
| Assault minor | 24 | 22 | 2 | 8% |
| Criminal damage | 30 | 25 | 5 | 17% |
| Arson | 45 | 44 | 1 | 2% |
| Robbery from person/ institution | 17 | 10 | 7 | 41% |
| Burglary | 246 | 136 | 110 | 45% |
| **Total** | **395** | **267** | **128** | **32%** |

The CSO concluded that 32% of reclassified incidents in the study group of incidents in 2015 were downgraded without justification. For most groups the unjustified reclassification percentages varied between 2% for *Arson* and 17% for *Criminal damage*. However, for *Burglary* and *Robbery from person/institution*, 45% and 41% of downgrades were unjustified.

In particular for *Burglary* offences, a significant cause of unjustified downgrading involved the reclassification of attempted burglaries involving damage to property as *Trespassing* or *Criminal damage* incidents.

The CSO also looked at the reclassification of crime incidents into non-crime category of *Attention and Complaints*. Overall, 6% of reclassifications from the 2015 data were to *Attention and Complaints*. This is a reduction from the 17% estimate in 2011 (though the two samples may not be directly comparable since they are based on different selection methods). The large volume groups with the highest levels of reclassification are *Group 03 Attempts/Threats to Murder, Assaults, Harassments and Related offences, Group 10 Controlled Drug Offences* and *Group 12 Damage to Property and to the Environment.* For all three of these groups, 11% of offences had been reclassified as the non-crime category of *Attention and Complaints.*

### 4.6 Incorrect application of detection status in PULSE

According to the current Crime Counting Rules, the Gardaí can count an offence as detected where:

- Criminal proceedings have begun against at least one person for the offence.
- A child is being dealt with under diversion programmes.
- Where the crime has been detected but a decision has been made not to prosecute. These reasons include:
    - A victim or essential witness refuses or is unable to attend the court proceedings.
    - The offender dies.
    - The offender is ill or is unlikely to be well enough to face proceedings.
    - The crime was committed by a child under the age of responsibility.
    - The DPP or equivalent decides that the public interest would not be served by proceeding with a charge.
    - The statute of limitations has run out on the charge.

The CSO analysed the extent to which the 112,879 detected offences in 2015 had associated criminal proceedings. It established that 63% of detected incidents (up from 54% in 2011) had associated charges or summons while 37% did not. However, it is important to note that due to the time lapse in the study of the 2011 detection rates (and a resulting change in the proportions of incidents leading to proceedings), 2011 and 2015 may not be directly comparable.

The percentage of detected offences with charges or summons varied from 22% for *Sexual Offences* and 48% of *Homicide offences* to around 88% for both *Offences against Government, Justice Procedures and Organisation of Crime* (see table 8). The relatively low proportions for sexual and homicide offences in 2015 are likely due to the complex nature of these offences and proceedings are likely not to have been generated for many of these offences recorded in 2015 yet.

**Table 8: Analysis of detections and proceedings commenced**

| ICCS crime category | Detected | Detections where charges or summons exist | Percentage Detections where charges or summons exist |
|---|---|---|---|
| 01 Homicide Offences | 44 | 21 | 48% |
| 02 Sexual Offences | 844 | 189 | 22% |
| 03 Attempts/Threats to Murder, Assaults, Harassments and Related offences | 8,474 | 3,528 | 42% |
| 04 Dangerous or Negligent Acts | 6,513 | 4,749 | 73% |
| 05 Kidnapping and Related Offences | 57 | 19 | 33% |
| 06 Robbery, Extortion and Hijacking Offences | 936 | 370 | 40% |
| 07 Burglary and Related Offences | 4,373 | 2,070 | 47% |
| 08 Theft and Related Offences | 24,833 | 13,699 | 55% |
| 09 Fraud, Deception and Related Offences | 2,421 | 1,243 | 51% |
| 10 Controlled Drug Offences | 15,049 | 11,712 | 78% |
| 11 Weapons and Explosives Offences | 2,104 | 1,416 | 67% |
| 12 Damage to Property and to the Environment | 5,661 | 2,527 | 45% |
| 13 Public Order and other Social Code Offences | 30,628 | 20,419 | 67% |
| 15 Offences against Government , Justice Procedures and Organisation of Crime | 10,942 | 9,582 | 88% |
| **Total for 2015** | **112,879** | **71,544** | **63%** |

The CSO then examined incidents which were marked as detected where no charges or summons existed. This was to determine if detection rules were applied correctly. Therefore, the CSO selected a sample of 1,000 recorded offences in 2015 where an incident was marked as detected, but where proceedings were not marked as commenced (i.e. no charges or summons attached). Sampled incidents were stratified by Garda Division. The narratives were then analysed for these offences to determine if the detection status was correctly applied (see Table 9).

The CSO study concluded that 18% of the offences without a charge or summons sheet attached were incorrectly designated as detected, based on current Garda detection rules (this compares to 35% in the 2015 report). This has the effect of reducing the overall number of detected crimes from 112,789 to approximately 100,000 cases in 2015 or a drop of 10%.

**Table 9: Analysis of detected incidents with no corresponding charges or summons**

|  | Number | Percentage |
|---|---|---|
| **Correctly detected according to counting rules** | *811* | **81%** |
| Admissions made | 110 | 11% |
| Caution used to resolve matter | 218 | 22% |
| Charges/summons issued | 127 | 13% |
| Clear offence - no complaint or withdrawal | 40 | 4% |
| JLO issued | 76 | 8% |
| On receipt of warrant | 0 | 0% |
| Suspect detained - property recovered or section 4 | 240 | 24% |
|  |  |  |
| **Not detected according to counting rules:** | *182* | **18%** |
| Decision made not to prosecute | 36 | 4% |
| No reference to further proceedings or explanation otherwise | 125 | 13% |
| Incorrect use of cautions | 21 | 2% |
|  |  |  |
| **Unclear whether detection status is correct** | **7** | **1%** |
|  |  |  |
| **Total** | **1000** | **100%** |

### 4.7 Unjustified application of invalidation status in PULSE

Crimes should only be invalidated in circumstances where it is clearly established that no offence has taken place or where the counting rules were incorrectly applied. The number of crime records invalidated every year is relatively low, around 1.2% of all crime records or 3,000 incidents a year, in all groups. The CSO examined whether detection rules, as currently defined, were applied correctly to a sample of 1,000 invalidated incidents from 2015.

To detect mistaken invalidation in the PULSE system, the CSO sampled across Garda divisions and different incident types, and analysed the narrative in each case to see if the invalidation decision was justified or not. The CSO concluded that 21% of invalidated incidents were invalidated without sufficient justification. This compares with a figure of 23% in the previous study.

However it is important to note that an unjustified invalidation does not necessarily mean that a crime has been incorrectly dealt with. For example there were three unjustified invalidations of *Homicide Offences* in 2015 but the CSO examined these cases in more detail and found that in each case a new PULSE incident was created for a particular homicide and a previous incident referring to the same case was then invalidated. A designation of incorrect invalidation might mean in that particular case

is that not enough information was included in relation to the incident to explain the invalidation.

# 5. Assessment of impact on Recorded Crime statistics

## 5.1 Impact of findings on 2015 Quarterly Recorded Crime statistics.

In this section, an attempt is made to extrapolate the impact of some of the issues highlighted in this analysis on recorded crime statistics for 2015. Table 10 shows the extrapolated estimates of 2015 recorded crime figures, taking into account the non-recording of reported offences (both CAD and paper) and the misclassification of crimes as non-crimes on recorded crime figures in 2015. A comparison shows the estimated impact from the previous report (which was based on 2011 PULSE data).

**Please note that all these extrapolated estimates are approximate, based on trends observed in the CSO analysis and should be taken as indicative only.**

This analysis does not account for changes due to misclassification between recorded offences (an example of which would be the classification of an *Assault Causing Harm* as an *Assault Minor* – in this case, the offence is counted in Group 03 regardless).

Furthermore the extent of the non-recording of crime in those non-CAD stations not maintaining paper records is ultimately impossible to measure. In 2015 these stations accounted for approximately 7.3% of all recorded crime in Ireland and we have made the assumption that their pattern of non-recording of crime follows that of the other non-CAD areas.

**Table 10: Extrapolated impact on 2015 recorded crime**

| ICCS crime category | 2015 Recorded Crime | Extrapolated Estimates for 2015 | Percentage Change 2011 | Percentage Change 2015 |
|---|---|---|---|---|
| 01 Homicide offences | 61 | 61 | **0%** | **0%** |
| 02 Sexual offences | 2,353 | 2,400 | **5%** | **2%** |
| 03 Attempts/threats to murder, assaults, harassments and related offences | 16,968 | 22,500 | **38%** | **33%** |
| 04 Dangerous or negligent acts | 7,218 | 7,218 | **1%** | **0%** |
| 05 Kidnapping and related offences | 153 | 153 | **0%** | **0%** |
| 06 Robbery, extortion and hijacking offences | 2,575 | 2,800 | **19%** | **9%** |
| 07 Burglary and related offences | 26,253 | 29,900 | **18%** | **14%** |
| 08 Theft and related offences | 75,911 | 86,600 | **27%** | **14%** |
| 09 Fraud, deception and related offences | 5,597 | 5,600 | **26%** | **0%** |
| 10 Controlled drug offences | 15,119 | 15,119 | **1%** | **0%** |
| 11 Weapons and Explosives Offences | 2,371 | 3,100 | **23%** | **31%** |
| 12 Damage to property and to the environment | 26,070 | 34,500 | **21%** | **32%** |
| 13 Public order and other social code offences | 33,281 | 49,900 | **25%** | **50%** |
| 15 Offences against government, justice procedures and organisation of crime | 11,280 | 11,500 | **3%** | **2%** |

Looking at the crime categories in more detail:

**Group 01 – Homicides**

As in the case of 2011 data, *Homicide Offences* do not appear to have been affected by any issues in this report.

**Group 02 – Sexual Offences**

An estimated 3% of misclassified *Attention and Complaints* should have been recorded as *Sexual Offences*, compared with 5% for the 2011 data. If applied to the overall *Sexual Offences* group, this would mean that the group total would increase by about 50 offences (2%) from 2,353 to approximately 2,800. This group does not appear to be affected by the reporting-recording gap, since *Sexual Offence* recording practices were improved by An Garda Síochana in 2011.

**Group 03 – Attempts, Threats to Murder, Assaults, Harassments and Related Offences**

*Group 03 Attempts, Threats to Murder, Assaults, Harassments and Related Offences* would rise by 33% if both the reporting-recording gap and the misclassification of Group 03 offences in PULSE as the non-crime incident types of *Domestic Dispute* and *Attention and Complaints* were taken into account. This is a slight drop from the 38% figure for the 2011 data.

**Group 04 – Dangerous and Negligent Acts**

*Dangerous or Negligent Act* offences do not appear to have been affected by the issues raised in this report.

**Group 05 – Kidnapping and Related Offences**

This group does not appear to have been affected by any of the issues raised.

**Group 06 – Robbery, Extortion and Hijacking Offences**

According to the CSO analysis of CAD and paper records, around 7% of reported *Robbery, Extortion and Hijacking Offences* are not being captured on PULSE. In addition to incidents not being recorded, about 3% of misclassified *Attention and Complaints* are robberies. This would lead to an increase from 2,575 to approximately 2,800 recorded Group 06 offences, or an increase of 9%, compared with 19% for the 2011 data.

**Group 07 – Burglaries and Related Offences**

Based on the CAD and paper analysis, around 1 in 8 reported *Burglaries* are not recorded. Group 07 offences should therefore increase by 14% overall to approximately 29,900 recorded offences. The comparable figure for 2011 was an increase of 18%.

**Group 08 - Thefts and Related Offences**

Overall, Group 08 offences could be expected to rise from 75,911 to around 86,600 or an increase of 14%. This is due to a combination of non-recording of reported incidents (around 10% for CAD). A small additional contribution is made by misclassified *Property Lost* incidents (the CSO estimates that around 30 such incidents a year should be classified as thefts). In 2011, by way of contrast, Group 08 offences were estimated to rise by approximately 27% to around 98,000 offences.

**Group 09 - Fraud, Deception and Related Offences**

*Fraud offences* would increase very slightly. This is due to an estimated additional 15 offences being added to the group from misclassified *Property Lost* offences. In 2011 however *Fraud Offences* would have been expected to rise by 26%.

**Group 10 - Controlled Drug Offences**

This group does not appear to have been affected by any of the issues raised in 2015.

**Group 11 - Weapons and Explosives Offences**

The main impact on this group is that around one in four reported Group 11 incidents are not recorded in PULSE. If corrected, in addition to 26 additional offences in this category being misclassified as *Attention and Complaints*, this would lead to an approximate increase of 31% in the number of recorded Group 11 offences to approximately 3,100. This is an increase from the 23% rate in the 2011 data.

**Group 12 - Damage to Property and to the Environment**

Analysis indicates that one in four reported *Criminal Damage* offences are not recorded. This would lead to an increase in this category from 26,070 to around 34,500 or an increase of around 32%.

**Group 13 - Public Order and other Social Code Offences**

Misclassification to this group is unlikely to be a major factor. However, since around 33% of reported *Public Order* offences are not being recorded in PULSE, this would lead to an increase of 49% in the annual Group 13 figure from 33,281 to approximately 49,900 cases. The comparable figure for 2011 was 25% so there has been a substantial increase in the impact of under-recording and misclassification. However, this rise may be due to insufficient narrative details for *Public Order* incidents being included in CAD to allow verification that these are not crimes.

**Group 15 - Offences against government, justice procedures and organisation of crime**

While not affected by the reporting/recording gap, incidents that belong in Group 15 have been misclassified as *Attention and Complaints* and *Property Lost*. Adjusting for these, Group 15 offences would increase by 2% to approximately 11,500 recorded offences in 2015.

## *6.* Recommendations for improving the quality of PULSE data

### *6.1 Conclusions*

The analysis carried out by the CSO shows some issues with the quality of crime statistics in 2015.

- Based on the samples selected there was a reporting-recording gap of approximately 16% in the selected sample between CAD/paper and PULSE. Furthermore, an estimated 1 in 5 non-CAD equipped Garda stations do not appear to keep paper records of reported incidents.
- Across seven major crime categories an estimated 3% of incidents were incorrectly classified to the wrong crime category while a further 2% of cases had insufficient information to determine the correct classification.
- Some 3% of incidents classified to *Attention and Complaints*, 1% of *Property Lost* and 2% of non-crime *Domestic Disputes* should have been classified as a crime.
- An analysis of some reclassified *Burglary* offences showed that nearly half were either not justified or it was unclear from the narrative what the justification was for the reclassification.
- Detected status was incorrectly applied to 10% of all those crimes marked as detected.
- Some 21% of invalidated crimes were incorrectly classified as such.

Therefore while the extent of non-recording of crimes on PULSE, the misclassification of incidents on PULSE and the incorrect application of detection status have all fallen since the previous iteration of the quality review last year, there are still issues which need to be resolved so that users can have full confidence in recorded crime statistics. Accordingly the CSO still advises users that the findings of the quality review should be taken into account when interpreting the recorded crime statistics.

### *6.2 Recommendations for An Garda Síochana*

The CSO had some recommendations following the previous quality report to improve the quality of crime data and the Gardaí have taken steps towards improving data quality. They extended CAD in 2011 to include other Garda divisions and are piloting an electronic RC1 form for several stations outside current CAD divisions. Finally they have also started using the PULSE id on CAD and paper records in certain areas, making the tracking of incidents between systems much easier.

Based on our experience compiling this quality report, the following recommendations are made:

- CAD narrative fields should include all necessary information on the incidents before being closed. This would include both the PULSE id where appropriate and/or the reasons for the non-recording of the incident in PULSE. Ensuring that this is implemented in the CAD system is a matter of urgency.

- The Garda electronic RC1 form needs to be rolled out to all non-CAD divisions as soon as possible. This will better capture PULSE linkages as well as reasons for non-reporting in PULSE. This would also ensure that the extent of the non-recording of crime on PULSE can be more accurately and easily measured in the future.

- It is very important that all Garda stations maintain adequate paper records in the absence of an electronic recording system. These records should include all relevant incident data, including PULSE numbers where appropriate. In this context it was worrying to see that some Garda stations were not maintaining proper paper RC1 (or equivalent) records at all and this issue needs to be addressed, if the reporting-recording gap is to be fully measured and reduced.

- In relation to PULSE, there also needs to be more detailed narratives so that it fully supports the classification of incidents and invalidation/detection decisions that have been made.

- Enhanced structures should be created by An Garda Síochana in order to address the quality issues highlighted in this report. These structures should ensure that crime-related data is properly monitored and controlled, in line with good data management practices.