REPORT OF A BREACH OF THE CODE OF PRACTICE FOR STATISTICS



1. Core Information

This breach affected a number of Northern Ireland Producers of official statistics – information has been presented for all affected outputs:

Economic and Labour Market Statistics (ELMS), Department of Finance (DoF)

| Title and link to statistical output | Business Register and Employment Survey 2018 |
|--|--|
| | https://www.nisra.gov.uk/statistics/annual- employee-jobs-surveys/business-register-and- employment-survey |
| | Annual Business Inquiry Local Unit Results 2017 |
| | https://www.nisra.gov.uk/publications/annual- business-inquiry-local-unit-results-2017 |
| Name of producer organisation | NISRA, Economic and Labour Market Statistics Branch |
| Name and contact details of person dealing with report | Arlene Connolly |
| | Arlene.Connolly@nisra.gov.uk |
| | 028 90 529606 |
| Link to published statement about the breach (if relevant) | BRES: https://www.nisra.gov.uk/statistics/annual- employee-jobs-surveys/business-register-and- employment-survey |
| | ABI: https://www.nisra.gov.uk/statistics/business-statistics/annual-business-inquiry |
| Date of breach report | 27 June 2019 |

Department for the Economy (DfE)

| Title and link to statistical output | Higher Education Statistical Fact Sheets |
|--|--|
| Name of producer organisation | Department for the Economy |
| Name and contact details of person dealing with report | Michael MacNeill |
| | Michael.MacNeill@economy-ni.gov.uk |
| | 028 90 257897 |
| Link to published statement about | https://www.economy-ni.gov.uk/articles/higher- |
| the breach (if relevant) | education-statistical-fact-sheets |
| Date of breach report | 27 June 2019 |

Department for Infrastructure (Dfl)

| Title and link to statistical output | Clinically serious injured (MAIS 3+) road casualties in Northern Ireland, 1999-2017 https://www.infrastructure-ni.gov.uk/publications/clinically-serious-injured-mais-3-road-casualties-northern-ireland-1999-2017 |
|--|---|
| Name of producer organisation | Department for Infrastructure |
| Name and contact details of person dealing with report | Michael Thompson michael.thompson@infrastructure-ni.gov.uk 028 9054 0878 |
| Link to published statement about the breach (if relevant) | Link will be placed on this page: https://www.infrastructure- ni.gov.uk/publications/clinically-serious-injured- mais-3-road-casualties-northern-ireland-1999- 2017 |
| Date of breach report | 27 June 2019 |

Department of Health (DoH)

| Title and link to statistical output | Northern Ireland Waiting Time Statistics: Cancer Waiting Times (January – March 2019) https://www.health-ni.gov.uk/publications/northern-ireland-waiting-time-statistics-cancer-waiting-times-january-march-2019 |
|--|---|
| Name of producer organisation | Department of Health |
| Name and contact details of person dealing with report | Siobhán Morgan Siobhan.morgan@health-ni.gov.uk Tel: (028) 90522442 |
| Link to published statement about the breach (if relevant) | https://www.health-ni.gov.uk/articles/cancer- waiting-times |
| Date of breach report | 27/06/2019 |

Overall contact: Ruth Fulton, NISRA Statistical Support Branch (SSB)

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Tel: 028 90 388466

2. Circumstances of breach

Although the underlying problem was the same for all producers, the impact on the individual branches differed. This has been outlined below:

| Relevant principle(s) and practice(s) | Code of Practice: Trustworthiness T3.6 Statistics should be released to all users at 9.30am on a weekday. |
|---------------------------------------|--|
| Date of occurrence of breach | 27 June 2019 |

What caused the issue?

The Drupal content management system which supports the Northern Ireland Civil Service (NICS) websites failed on the morning of 27 June 2019. This was caused by a crash on one of the Drupal servers, causing it to go down around 4:00am. The IT support team noticed this at 8:00am when they arrived in and started working on it.

Each Departmental website (DfI, DfE & DoH) and the NISRA website (ELMS) was affected for a different period of time. This is because, even when the issue was rectified, it took some time for all the websites to become live again.

Each NISRA branch took steps to get their publications out by alternative means, including via social media, email and other websites (NINIS, GOV.UK). The DfI website was back up at 9.54am; the NISRA website at 10.30am; and the DfE website at 12.11pm. DoH got the publication up at 9.40am, but weren't able to get the tables fully up until 2pm.

Full details of what happened and why it happened are still under investigation. IT Support are preparing a Post Incident Root Cause Analysis (PIRCA) report, which will outline what happened, why it happened, what action was taken to fix it, when the issue was resolved and what steps have been put in place to prevent it happening again.

Timeline for ELMS

The ABI documents had been loaded onto a secure market sensitive statistics holding page on 26 June in preparation for loading at 09:30 on the morning of the 27 June. The statisticians responsible for the BRES report attempted to load the BRES documents at 08:30 on 27 June. The Drupal site was not accessible with an 'Under Maintenance' notification. Access to the site stopped and started and when active was very slow until about 8.55 when it stopped completely. Statisticians managed to load the BRES pdf onto the secure market sensitive statistics holding page during this period.

ELMSB statisticians sought advice from NISRA's Dissemination Branch and a call to ITAssist was logged at approximately 09:06 followed up with a telephone call to staff in ITAssist. As 09:30 approached it was clear that the website was not going to be available. To mitigate this the ELMSB statisticians got prepared to tweet the front pages containing the key points from both publications on the ELMSB and NISRA twitter accounts. These tweets issued at 09:30. The information was also made available via the NISRA facebook page. In addition, preparations were made for the publication pdfs to be published on the NISRA NINIS site (which is not supported by Drupal). This was done and the links to both publications were tweeted at 10:21. The BRES publication went live on the NISRA site at 10:00 and the ABI at 10:30. During this period, the site was working intermittently and it seemed as if full functionality had returned by 10.30. Attempts were also made to load both publications on the gov.uk site during this time but this was not successful.

Timeline for Dfl

Following normal release practices, the publication was uploaded to the Drupal internet platform on the Department for Infrastructure (DfI) website. The publication was scheduled to go live at the standard time of 9.30am.

Upon checking at 9.30am, it was immediately clear that the publication was not visible on the appropriate web location. Immediate action was taken by the DP Statistician responsible for the publication to check with the member of staff who arranged the scheduling of the publication. All was in order and there was no clear reason for the issue. At this point, the Assistant Statistician who deals with Branch uploading of publications attempted to log in to Drupal to upload the publication manually; however, they were met with an error message stating the site was down for maintenance. IT colleagues were then contacted to ascertain if they knew of any problems. They were unaware of any planned maintenance that was due to take place, but after attempting to log in to the system themselves, they confirmed that the Drupal platform was obviously experiencing problems – and this was the reason why the publication had failed to upload as scheduled.

The DP Statistician immediately informed the Principal Statistician who, at 9.50am, contacted NISRA colleagues. NISRA confirmed this was a wider issue with the Drupal platform and suggested an interim work around of publishing the document on gov.uk until the Drupal issues could be resolved.

The G7 Statistician advised staff of this suggested workaround; however, it was ultimately not necessary. The Drupal system came back on line and the publication was uploaded again manually, becoming viewable at the desired location at 9.54am.

Timeline for DfE

- DfE Press and Communications informed DfE Statisticians (9:15) that there was a
 technical problem with the Departments website, which was beyond their control. They
 had put in a request with IT assist to resolve the issue and indicated that everything was
 ready to be published once the problem was resolved. DfE Statisticians immediately
 contacted the DfE press office to inform them of the delay and kept them updated as
 morning progressed.
- DfE Press and Communications (9:50) indicated that IT assist were treating it as a top
 priority and that it appeared to be affecting all departmental websites. They kept the DfE
 Statisticians updated at regular intervals over the morning on progress with the website.
- NISRA Statistical Support Branch (SSB) indicated (10:05) that the problem was affecting
 all Departments (Drupal had gone down) and advised that publications could be
 uploaded to GOV.UK website, which they would do for us and let us know when it was
 live.
- DfE Statisticians prepared a notification to inform the press release team and users that
 the publication would be available via a link to the GOV.UK website. They put this on
 hold when SSB indicated (10:40) that GOV.UK was also having technical difficulties
 loading the publication. SSB had logged a helpdesk call with GOV.UK, followed by a
 phone call and GOV.UK were looking at the issue as a matter of urgency. As the
 publication was still unavailable on the DfE website, SSB would continue to attempt to
 get it loaded on GOV.UK.
- Published a social media release to explain the delay and indicate that the publication was available and provided contact details for obtaining it (11:25).

- SSB informed DfE statisticians (11:44) that the publication was now available on GOV.UK (uploaded 11.38am).
- DfE Statisticians were about to send out information that the publication was available on GOV.UK when DfE Press and Communications informed them (12:12) the publication was available on the DfE website at 12:11. They immediately sent out emails to inform users that it was available on the DfE website and to update social media.

Timeline for DoH

- Hospital Information Branch (HIB) within Information and Analysis Directorate (IAD) of Department of Health NI (DoH) is responsible for publishing documents online and was due to release the statistical bulletin "Northern Ireland Waiting Time Statistics: Cancer Waiting Times (January – March 2019)" at 9:30am on 27th June 2019.
- Following normal practices, the relevant DoH statistician sent an e-mail to IAD administrative support team at 16.45 on 26th June 2019, with instructions to publish the above bulletin and related material at 9:30am on 27th June.
- At 7:50am on 27th June, the administrative support officer started to load the publication onto Drupal. Upon logging on, the team member was asked to change her password and it took several attempts for this to be accepted. The system was running very slowly and froze whenever she tried to upload the publication. This was tried several times before it was decided to attempt to upload the publication using a different computer.
- At approximately 8:15am the problems with Drupal were explained to the assistant statistician and the senior statistician.
- Eventually the publication and pre-release document were uploaded at approximately 8:35am. Whenever the publication page was saved the administrative support officer got an error message that the website was under maintenance. Normally when this occurs it takes approximately 30 minutes to be resolved.
- At 9:15am the administrative support officer again attempted to log into Drupal and it was still under maintenance. A help call was logged with IT Assist. Whilst on the phone with IT Assist she received notification from the service desk stating that Drupal was down.
- At approximately 9:40am the administrative support officer was able to briefly log into Drupal and publish the publication page. However, access to this was intermittent and the accompanying csy files were unable to be uploaded until after 2pm.
- Whilst the publication went live at 9:40am, the intermittent issues with Drupal meant that
 the public couldn't always access it. In the notification email to HSC Trusts and the
 Health and Social Care Board it was decided that the PDF version of the publication
 along with the csv files should be attached.

3. Impact of the breach

DfI - As the publication was not available at the proposed time of release, there may have been customers expecting access who could not have obtained the report. The impact is thought to be minimal as the release is policy specific and tends not to get wide interest. No complaints are expected and none have been made to date.

DfE - Delay in provision of access to the publication and associated press release. No complaints were expected or received.

ELMS - A number of key users picked up the release through twitter which offset slightly the issue. Having access to the publications on the NINIS website also helped as well. Press coverage indicates that the BRES 2018 results were picked up by the Northern Ireland media and reported on the BBC Northern Ireland website: https://www.bbc.co.uk/news/uk-northern-ireland-48783426

DoH - Whilst the publication went live at 9:40am, the intermittent issues with Drupal meant that the public couldn't always access it. In the notification email to HSC Trusts and the Health and Social Care Board it was decided that the PDF version of the publication along with the csv files should be attached.

4. Corrective actions (taken or planned) to prevent re-occurrence[guidance]

A range of short-term actions were employed to get the publication, key findings and/or accompanying data out by alternative means. These different approaches are detailed above and included using social media, email and other websites (NINIS, GOV.UK).

Prompt action was also taken to notify IT Assist of the issue, with many calls logged well in advance of the 9.30am deadline.

NISRA Statistical Support Branch (SSB) also proactively contacted all branches with publications due to be released that on 27th June 2019 checking whether they were affected, providing advice and sharing solutions. They also assisted with uploading publications on to GOV.UK. NISRA Dissemination branch assisted with uploading the ELMS publications on to NINIS.

The Post Incident Root Cause Analysis (PIRCA) report, prepared by IT Support, will look at what happened and why and what can be done to prevent a reoccurrence of the IT issue and mitigate against a similar release time breach in the future. NISRA will receive a copy of this and can highlight any issues with the proposed solutions.

As a result of this incident, NISRA branches came up with different (and innovative) ways of getting the key findings, publications and/or accompanying data out to users. These approaches and solutions will be shared across NISRA, meaning that other branches and staff will be prepared should a similar incident re-occur. The technical issue with GOV.UK which prevented NISRA loading publications directly onto this platform has also been resolved meaning that this option will be available in the future.