Australian Government

Office of the Australian Information Commissioner

# Notifiable Data Breaches Quarterly Statistics Report

1 April to 30 June 2019

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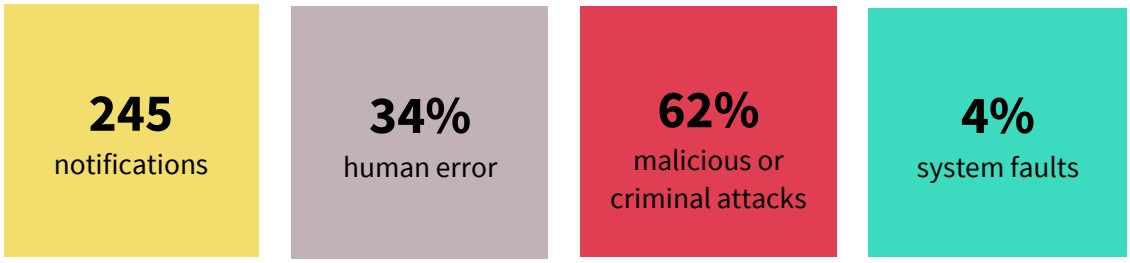
OAIC

Final report issued: 27/08/19

# Contents

# Key statistics




# About this report

This report captures notifications received by the Office of the Australian Information Commissioner (OAIC) under the Notifiable Data Breaches (NDB) scheme between 1 April 2019 and 30 June 2019 (referred to as 'data breaches').

The OAIC publishes statistical information about notifications received under the NDB scheme to assist entities and the public to understand the operation of the NDB scheme and the causes of data breaches.

Where data breaches affect multiple entities, the OAIC may receive multiple notifications relating to the same data breach. Notifications to the OAIC relating to the same data breach incident are counted as a single notification in this report.

The source of any given data breach is based on information provided by the reporting entity. Where more than one source has been identified or is possible, the dominant or most likely source has been selected for statistical purposes. Source of data breach categories are defined in the glossary at the end of this report.

The OAIC will now report every six months on notifications received under the NDB scheme.

# Notifications received from all sectors

## Number of data breaches reported — All sectors

**Chart 1.1 — Number of data breaches reported under the NDB scheme by month — All sectors**

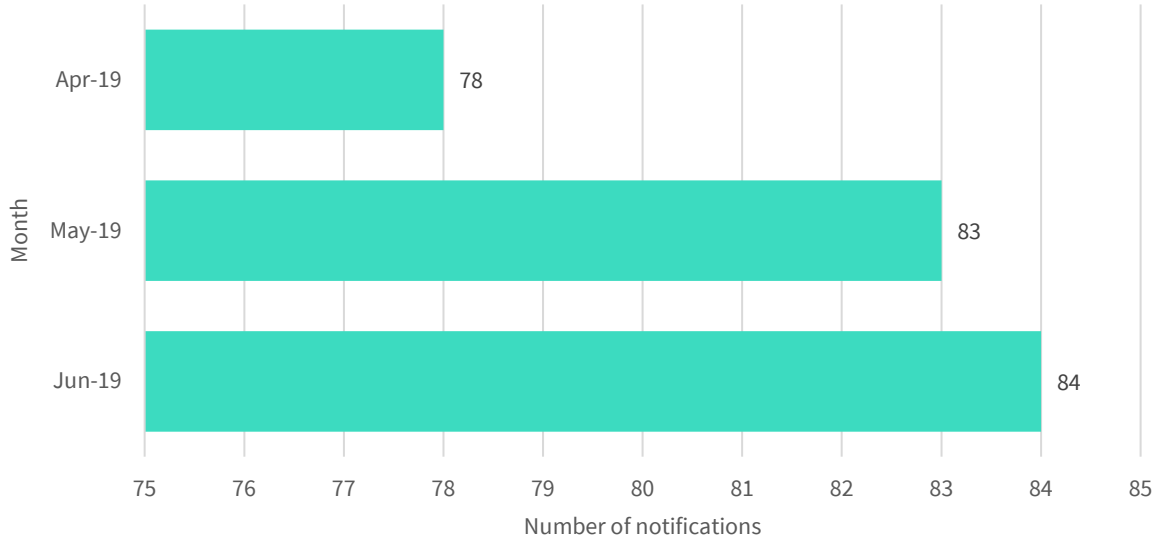
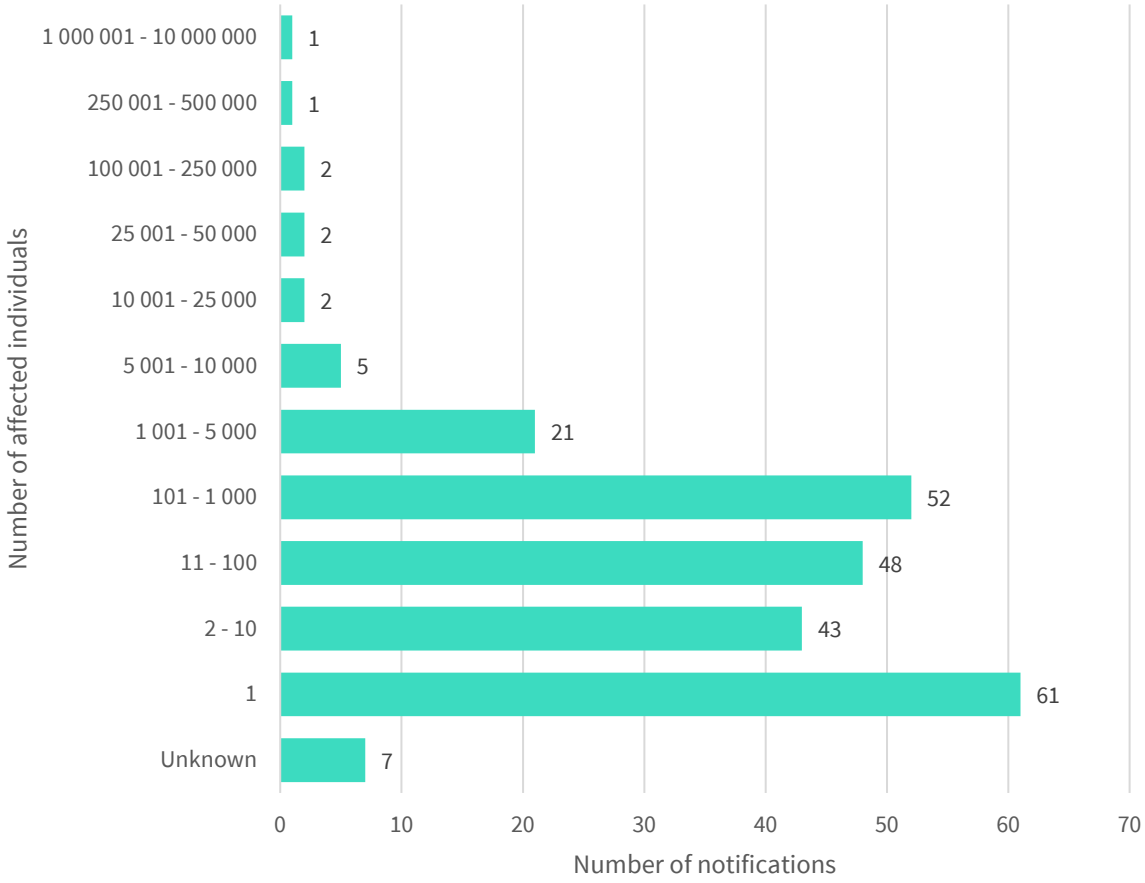



**Table 1.A — Number of data breaches reported under the NDB scheme by quarter — All sectors**

| Quarter | Total number of notifications |
|---|---|
| July to September 2018 | 245 |
| October to December 2018 | 262 |
| January to March 2019 | 215 |
| April to June 2019 | 245 |

# Number of individuals affected by data breaches — All sectors

**Chart 1.2 — Number of individuals affected by data breaches during the quarter — All sectors**




**Note:** Where bands are not shown (for example, 500,001 – 1,000,000) there were nil reports in the period. 'Unknown' includes notifications by entities whose investigations were ongoing at the time of this report.

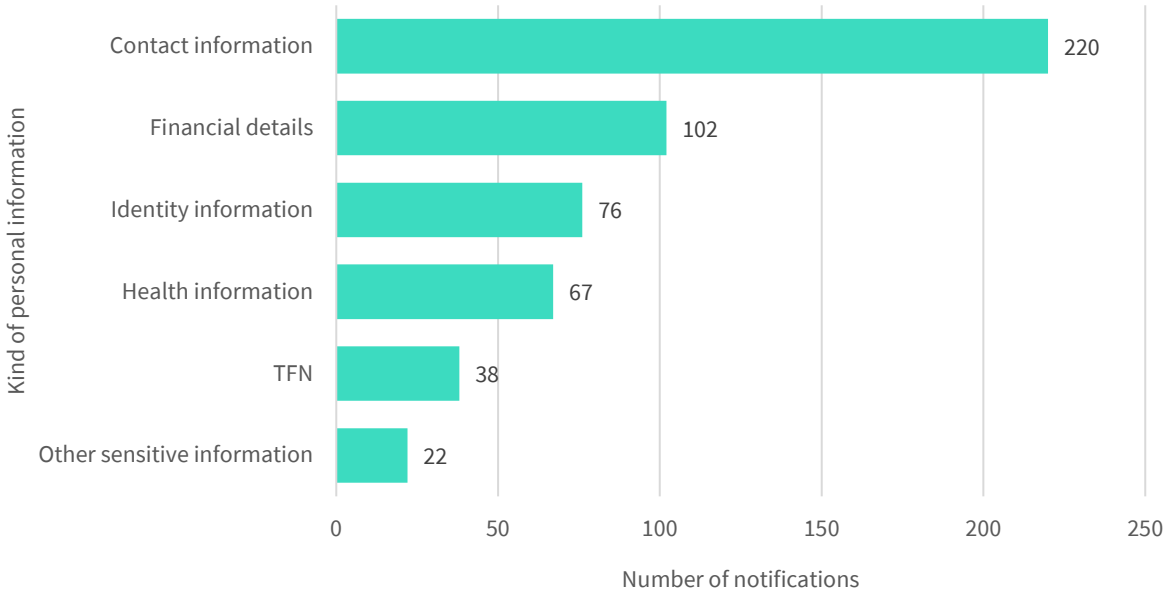
For the band 10,000,001 or more, this figure reflects the number of individuals worldwide whose personal information was compromised in this data breach, not only individuals in Australia, as estimated by the notifying entity.

The majority of data breaches in the period involved the personal information of 100 individuals or fewer (62 per cent of data breaches).

Data breaches impacting between one and 10 individuals comprised 42 per cent of the notifications.

# Kinds of personal information involved in data breaches — All sectors

### Chart 1.3 — Kinds of personal information involved in data breaches by number of notifications — All sectors




**Note:** Data breaches may involve one or more kinds of personal information.

### Table 1.B — Kinds of personal information involved in data breaches by percentage of notifications – All sectors

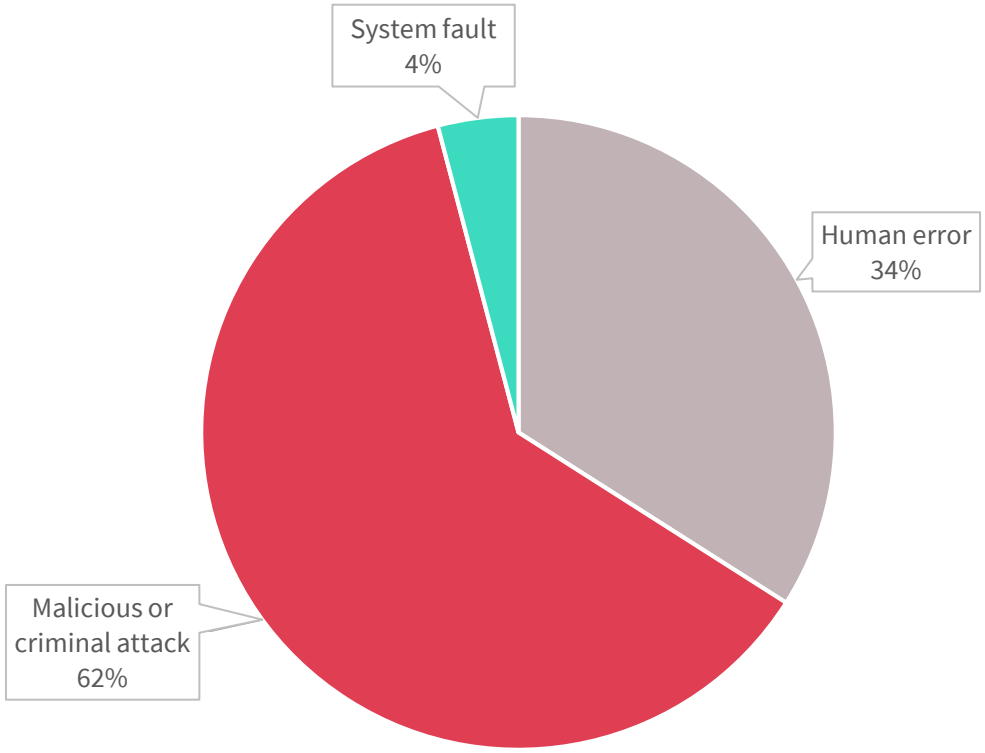
| Kind of personal information | NDBs received (%) |
|---|---|
| Contact information | 90 |
| Financial details | 42 |
| Identity information | 31 |
| Health information | 27 |
| TFN | 16 |
| Other sensitive information | 9 |

The definitions for the above kinds of personal information are contained in the Glossary.

# Source of data breaches — All sectors

This chart breaks down the sources of data breaches as identified by notifying entities.

**Chart 1.4 — Source of data breaches by percentage — All sectors**



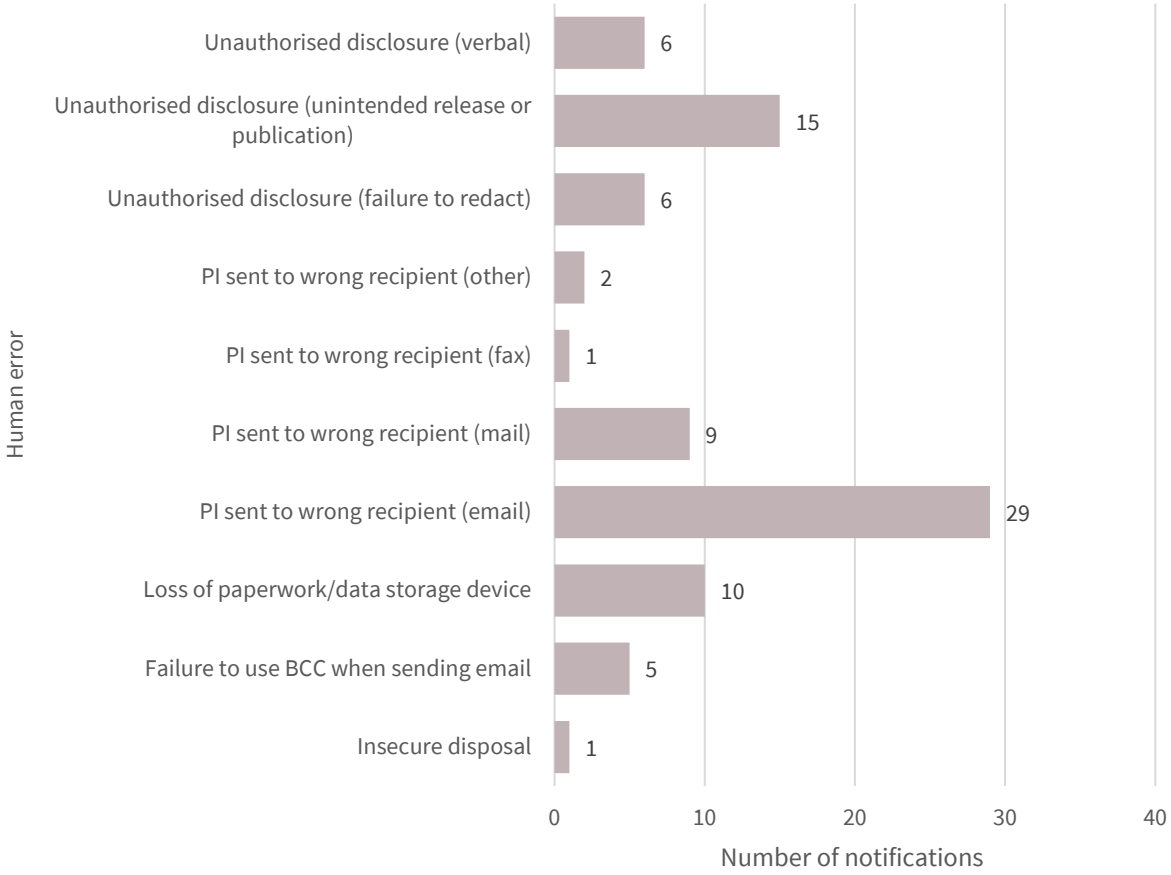

Malicious or criminal attacks accounted for 151 data breaches this quarter, while human error accounted for 84 data breaches. System faults accounted for 10 data breaches.

Malicious or criminal attacks differ from human error breaches in that they are deliberately crafted to exploit known vulnerabilities for financial or other gain. Many incidents in this quarter exploited vulnerabilities involving a human factor. This included individuals clicking on a phishing email or use of credentials that had been compromised or stolen by other means (such as in another data breach) to obtain unauthorised access to personal information.

# Human error data breaches — All sectors

This chart shows the types of data breaches identified as 'human error' during the quarter.

**Chart 1.5 — Human error breakdown — All sectors**




The second largest source of data breaches was human error, such as sending personal information to the wrong recipient via email (35 per cent), unauthorised disclosure through the unintended release or publication of personal information (18 per cent), as well as the loss of paperwork or data storage device (12 per cent).

Certain kinds of data breaches can affect larger numbers of people. For example, in this quarter the unintended release or publication of personal information impacted the largest number of people (an average of 9,479 affected individuals per data breach). This is consistent with the previous quarterly trend. Failure to use BCC when sending emails impacted an average of 601 individuals per data breach.

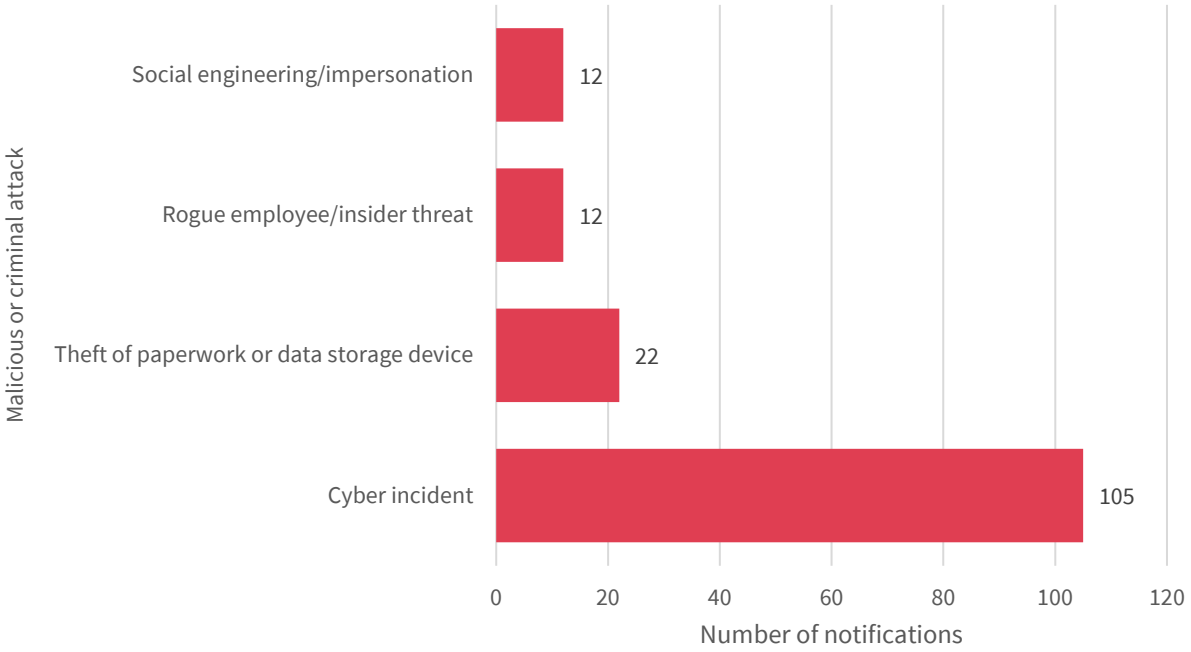
### Table 1.C — Human error breakdown by average number of affected individuals — All sectors

| Type of data breach | NDBs received | Average number of affected individuals |
|---|---|---|
| Unauthorised disclosure (unintended release or publication) | 15 | 9,479 |
| Failure to use BCC when sending email | 5 | 601 |
| Loss of paperwork/data storage device | 10 | 70 |
| Insecure disposal | 1 | 20 |
| Personal information sent to wrong recipient (email) | 29 | 15 |
| Personal information sent to wrong recipient (mail) | 9 | 7 |
| Unauthorised disclosure (failure to redact) | 6 | 6 |
| Unauthorised disclosure (verbal) | 6 | 2 |
| Personal information sent to wrong recipient (other) | 2 | 2 |
| Personal information sent to wrong recipient (fax) | 1 | 1 |

# Malicious or criminal attack data breaches — All sectors

This chart shows the types of data breaches identified as 'malicious or criminal attack' during the quarter.

**Chart 1.6 — Malicious or criminal attacks breakdown — All sectors**



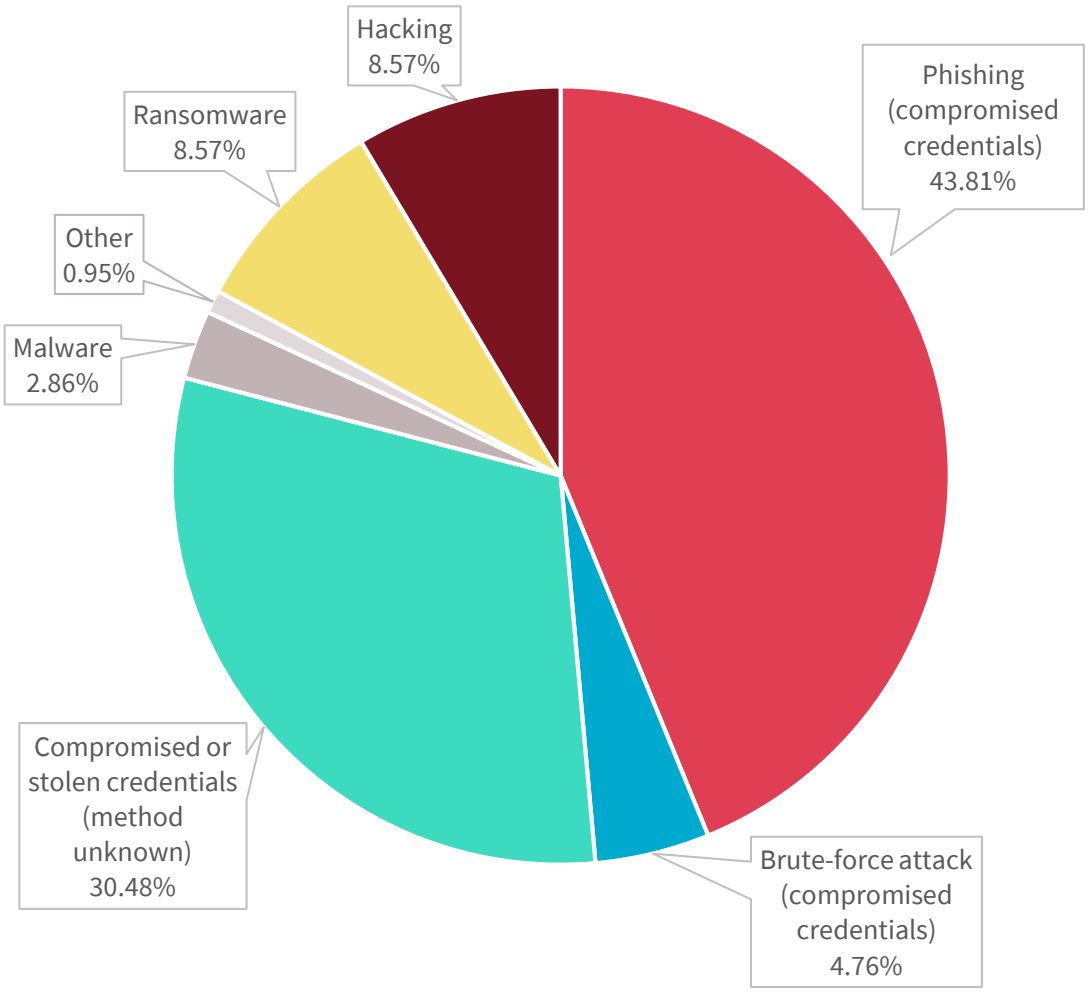

Malicious or criminal attacks were the largest source of data breaches this quarter, accounting for 62 per cent of all data breaches. Of these 151 data breaches, 69.5 per cent involved cyber incidents such as phishing, malware or ransomware, brute-force attacks, or compromised or stolen credentials.

Theft of paperwork or data storage devices was another source of malicious or criminal attacks (14.5 per cent). Other sources included actions taken by a rogue employee or insider threat (8 per cent), as well as social engineering or impersonation (8 per cent).

# Cyber incident breaches — All sectors

This chart breaks down the kinds of breaches identified as 'malicious or criminal attack - cyber incident' during the quarter.

**Chart 1.7 — Cyber incident breakdown — All sectors**

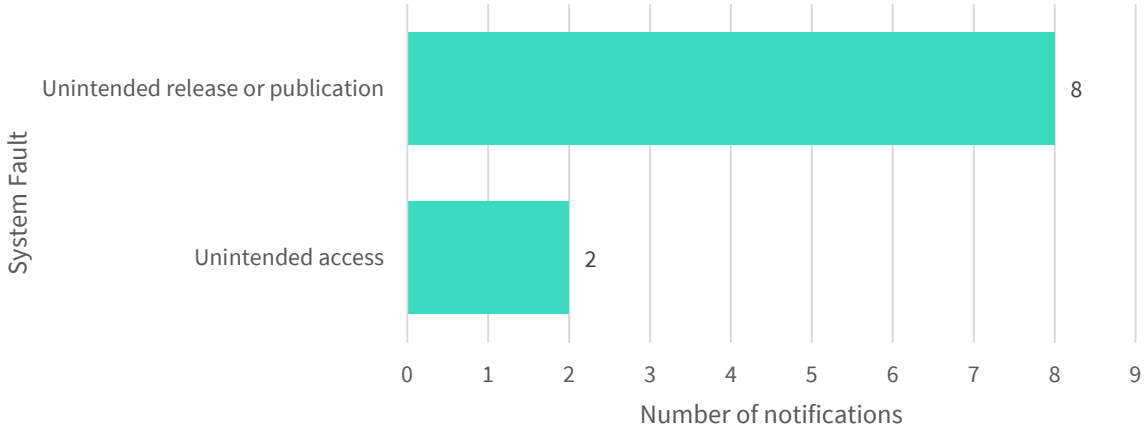



The vast majority of cyber incidents (79 per cent) were linked to compromised credentials, either through phishing (46 notifications), by unknown methods (32 notifications) or by brute-force attack (5 notifications).

# System fault data breaches — All sectors

This chart shows the types of breaches identified as 'system fault' during the quarter.

**Chart 1.8 — System fault breakdown — All sectors**




System faults accounted for four per cent of data breaches this quarter. The majority involved a system fault resulting in the unintended release or publication of personal information. This may include the disclosure of personal information on a website due to a bug in the web code, or a machine fault that results in a document containing personal information being sent to the wrong person.

# Comparison of top five sectors that reported data breaches in the quarter

This section compares notifications made under the NDB scheme by the five sectors that made the most notifications during the quarter (top five sectors).

## Top five sectors

**Table 2.A — Top five sectors by notifications in the quarter**

| Top five sectors | NDBs received |
|---|---|
| Health service providers[1] | 47 |
| Finance (including superannuation)[2] | 42 |
| Legal, accounting and management services | 24 |
| Education[3] | 23 |
| Retail | 15 |

The NDB scheme applies to agencies and organisations that the *Privacy Act 1988* (Privacy Act) requires to take reasonable steps to secure personal information. This includes Australian Government agencies, businesses and not-for-profit organisations with an annual turnover of $3 million or more, credit reporting bodies, health service providers, and tax file number (TFN) recipients, among others.

From April to June 2019, the top sector to report data breaches under the NDB scheme was the private health service provider sector (health sector) (19 per cent). The second largest source of data breaches was the finance sector (17 per cent). This was followed by the legal, accounting and management services sector (10 per cent), the private education sector (education) (9 per cent), and the retail sector (6 per cent).

Notifications made under the *My Health Records Act 2012* are not included in this report, as they are subject to specific notification requirements set out in that Act.

[1] A health service provider includes any entity that provides a health service within the meaning of s 6FB of the Privacy Act, regardless of annual turnover.

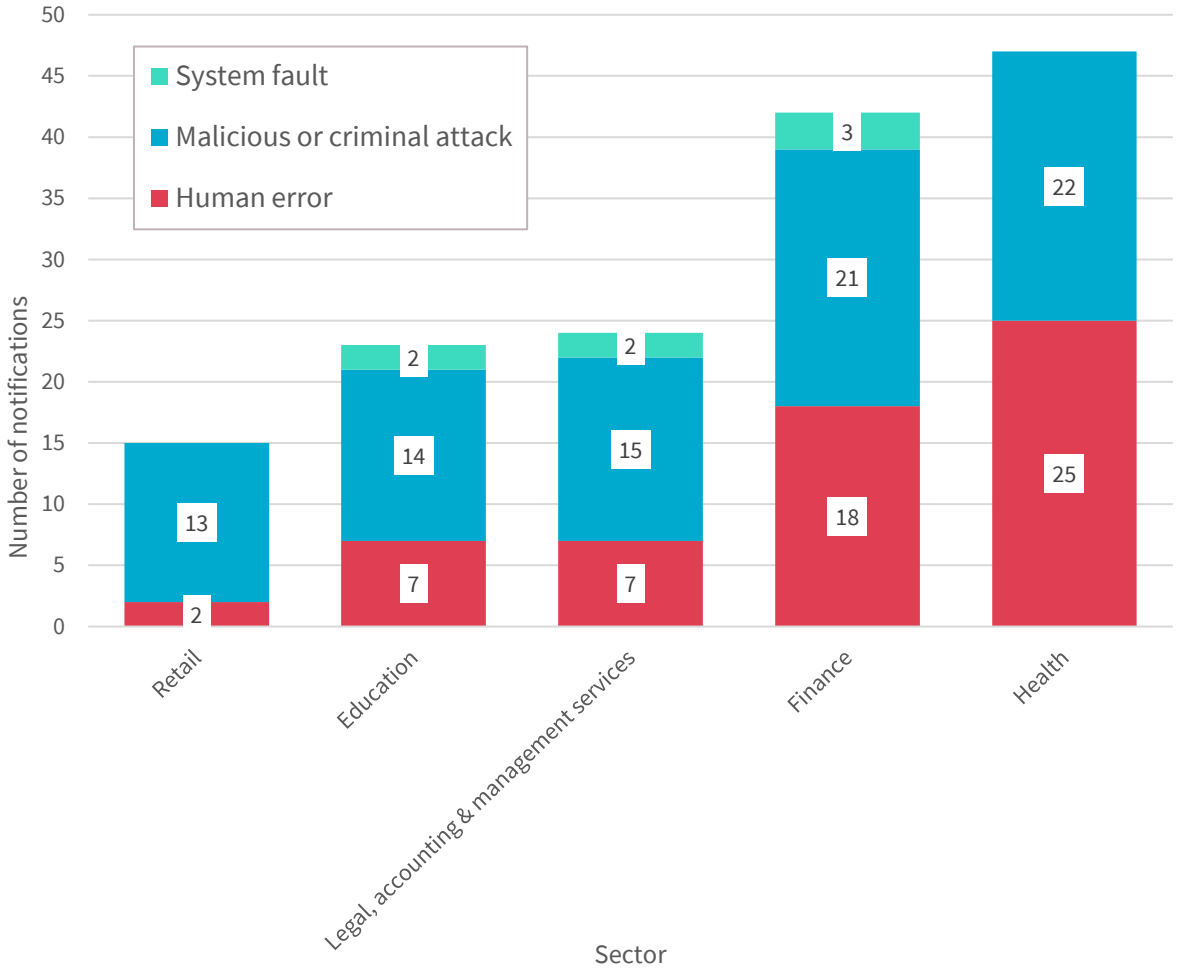
[2] This sector includes banks, wealth managers, financial advisors, superannuation funds and consumer credit providers (regardless of annual turnover).

[3] This sector includes private education providers only, as APP entities. Public sector education providers are bound by state and territory privacy laws, as applicable.

# Source of data breaches — Top five sectors

This chart shows the sources of data breaches as identified by notifying entities in the top five sectors during the quarter.

**Chart 2.1 — Source of data breaches — Top five sectors**



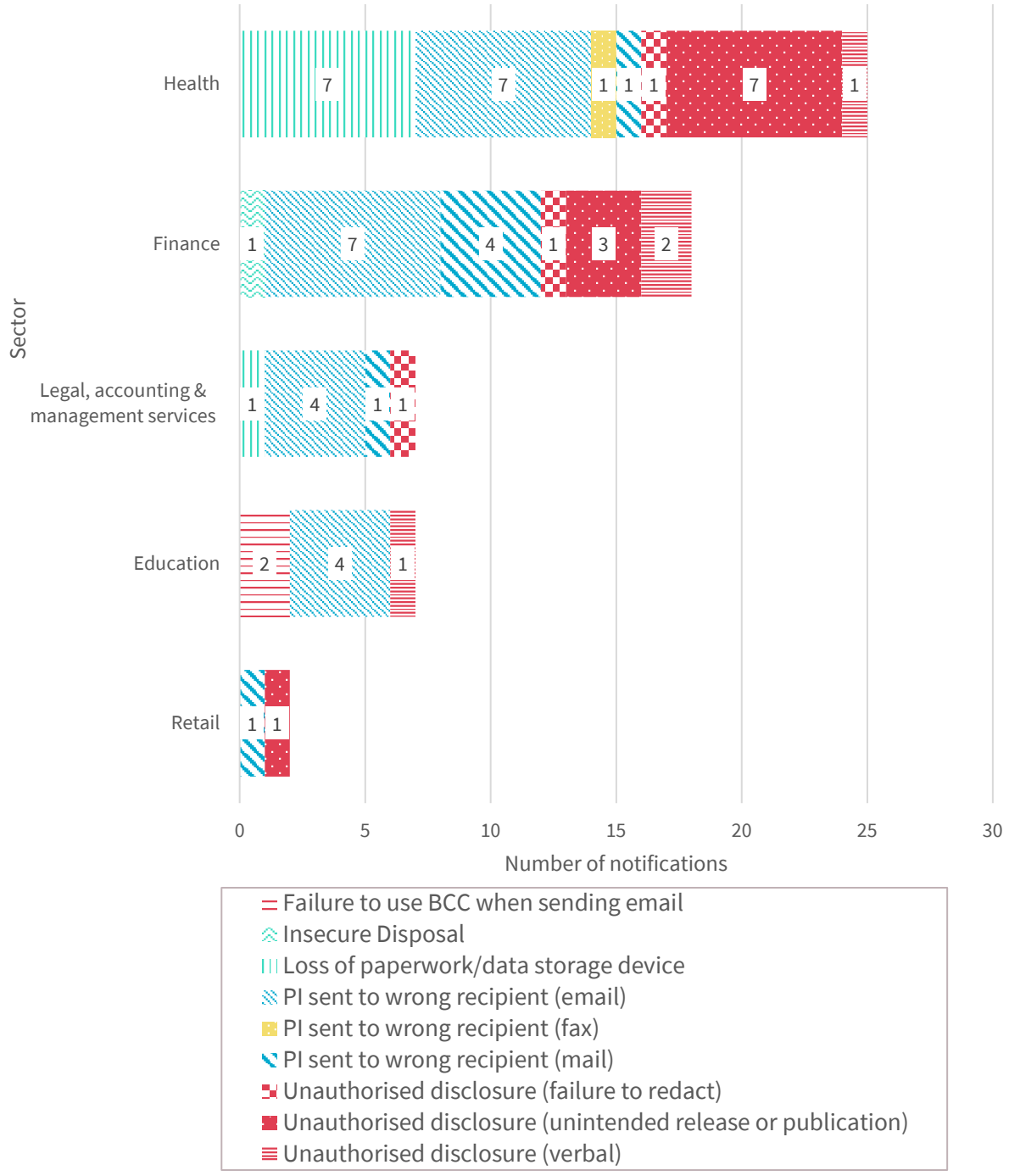

The highest reporting sector this quarter was the health sector (47 notifications). Of those notifications, 53 per cent of data breaches resulted from human error.Notifications from the second highest reporting sector, finance, indicated that 50 per cent of its data breaches resulted from malicious or criminal attacks.

The legal, accounting and management services sector, the education sector and the retail sector also reported the majority of data breaches resulted from malicious or criminal attacks.

# Human error data breaches — Top five sectors

This chart breaks down the kinds of breaches identified as 'human error' by the top five sectors during the quarter.

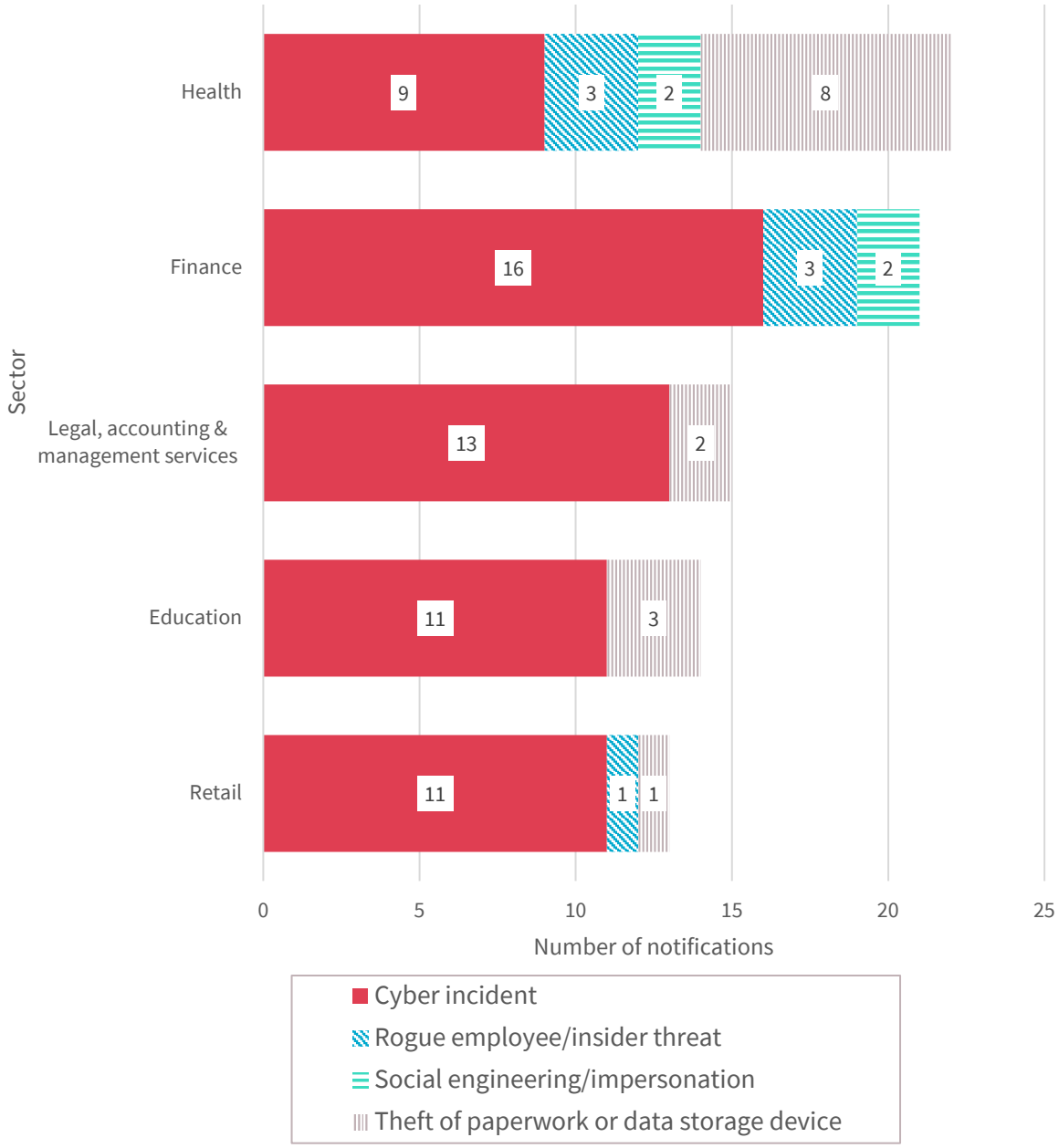
**Chart 2.2 — Human error breakdown — Top five sectors**



# Malicious or criminal attack breaches — Top five sectors

This chart shows the types of data breaches identified as 'malicious or criminal attack' by the top five sectors during the quarter.

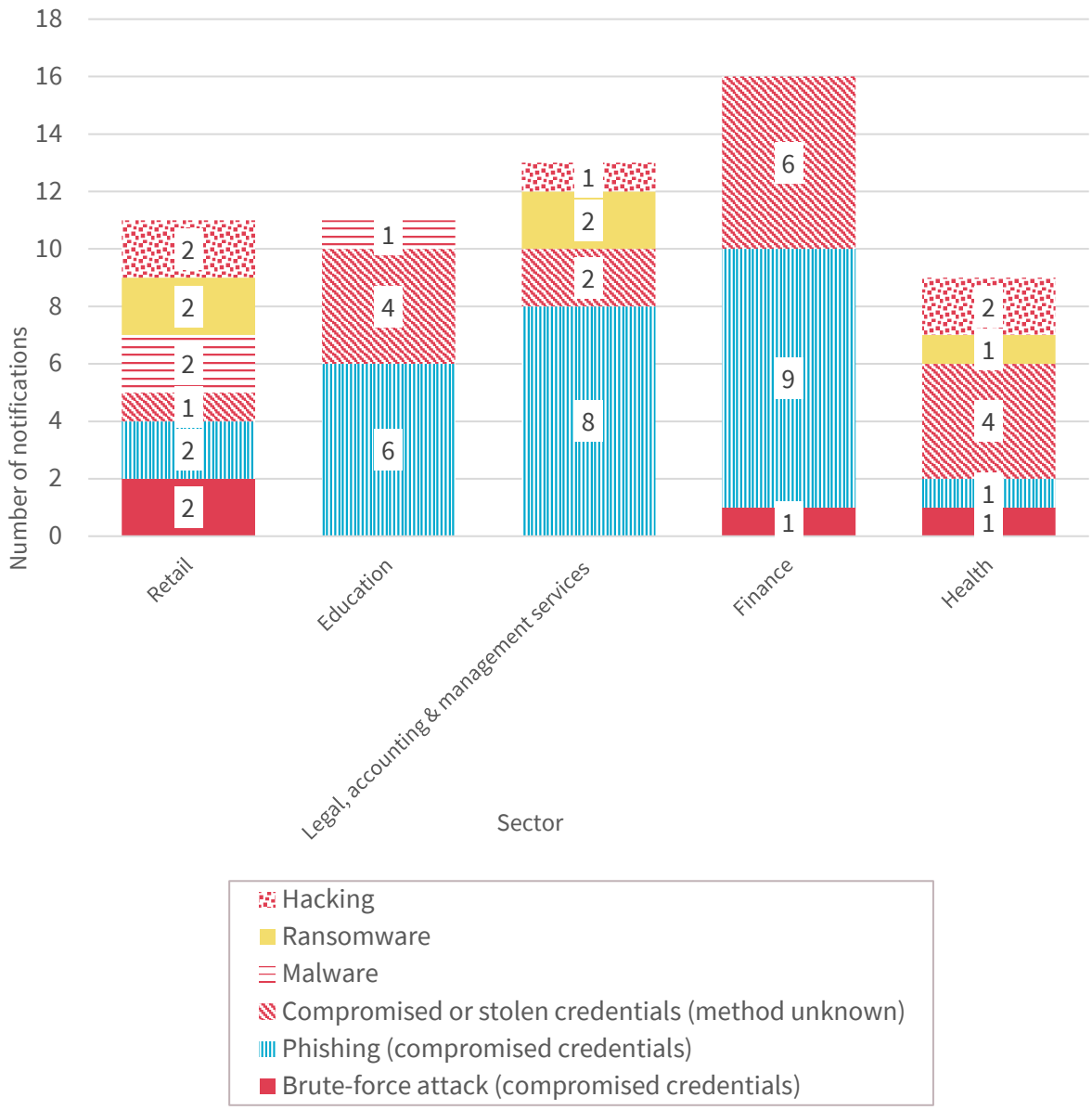
**Chart 2.3 — Malicious or criminal attacks breakdown — Top five sectors**



# Cyber incident data breaches — Top five sectors

This chart shows the types of breaches identified as 'malicious or criminal attack — cyber incident' by the top five sectors during the quarter.

**Chart 2.4 — Cyber incident breakdown — Top five sectors**

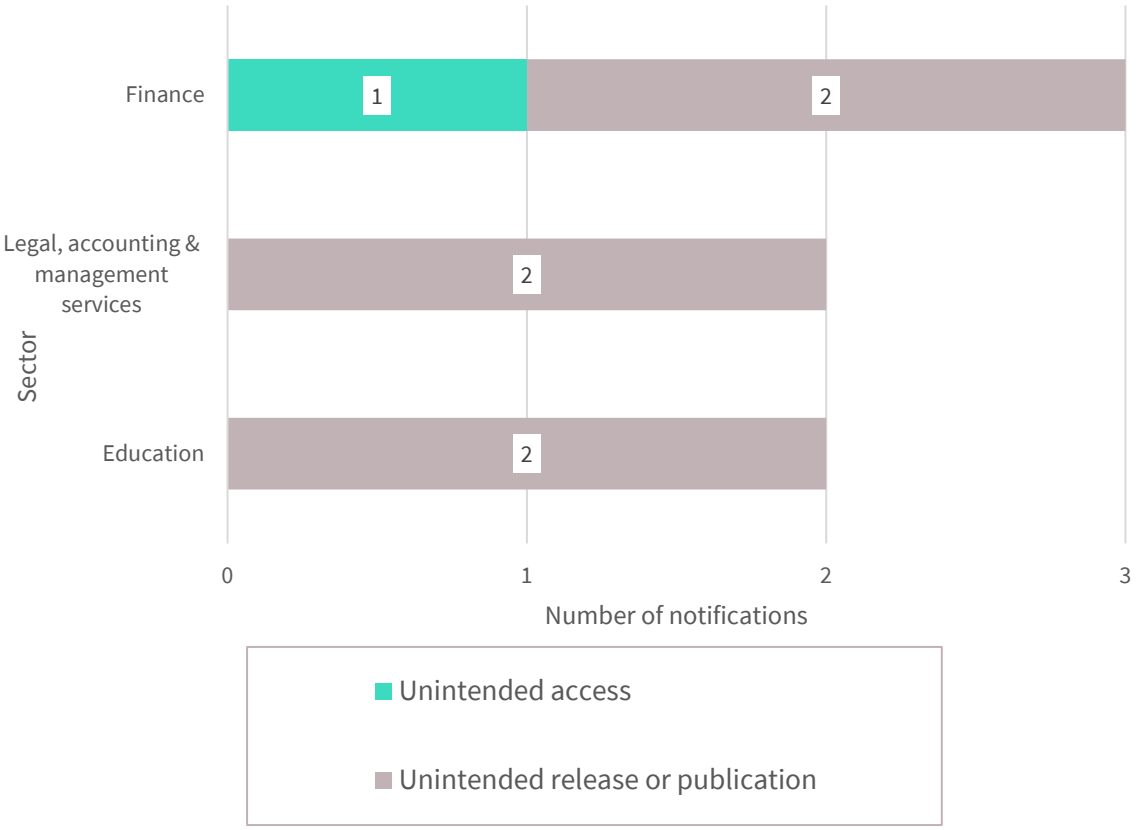



In line with the overall trend, the majority of cyber incidents reported by the top five sectors were linked to the compromise of credentials through phishing, brute-force attacks or by unknown methods (47 notifications overall).

# System fault data breaches — Top five sectors

This chart breaks down the types of data breaches identified as 'system fault' by the top five sectors during the quarter.

**Chart 2.5 — System fault breakdown — Top five sectors**




The health and retail sectors did not report any data breaches resulting from a system fault.

# Glossary

## Breach categories

| Term | Definition |
|---|---|
| **Human error** | An unintended action by an individual directly resulting in a data breach, for example, an inadvertent disclosure caused by sending a document containing personal information to the incorrect recipient. |
| PI sent to wrong recipient (email) | Personal information sent to the wrong recipient via email, for example, as a result of a misaddressed email or incorrect address on file. |
| PI sent to wrong recipient (fax) | Personal information sent to the wrong recipient via facsimile machine, for example, as a result of fax number incorrectly entered or wrong fax number on file. |
| PI sent to wrong recipient (mail) | Personal information sent to the wrong recipient via postal mail, for example, as a result of transcribing error or wrong address on files. |
| PI sent to wrong recipient (other) | Personal information sent to the wrong recipient via channels other than email, fax or mail, for example, delivery by hand or uploading to web portal. |
| Failure to use BCC when sending email | Sending an email to a group by including all recipient email addresses in the 'To' or 'CC' field, thereby disclosing all recipient email addresses to all recipients. |
| Insecure disposal | Disposing of personal information in a manner that could lead to its unauthorised disclosure, for example, using a public rubbish bin to dispose of customer records instead of a secure document disposal bin. |
| Loss of paperwork/data storage device | Loss of a physical asset(s) containing personal information, for example, leaving a folder or a laptop on a bus. |
| Unauthorised disclosure (failure to redact) | Failure to remove effectively or de-identify personal information from a record before disclosing it. |
| Unauthorised disclosure (verbal) | Disclosing personal information without authorisation, verbally, for example, calling it out in a waiting room. |
| Unauthorised disclosure (unintended release or publication) | Unauthorised disclosure of personal information in a written format, including paper documents or online. |

| Term | Definition |
|---|---|
| **Malicious or criminal attack** | A malicious or criminal attack deliberately crafted to exploit known vulnerabilities for financial or other gain. |
| Theft of paperwork or data storage device | Theft of paperwork or data storage device. |
| Social engineering/impersonation | An attack that relies heavily on human interaction to manipulate people into breaking normal security procedures and best practices in order to gain access to systems, networks or physical locations. |
| Rogue employee/insider threat | An attack by an employee or insider acting against the interests of their employer or other entity. |
| Cyber incident | A cyber incident targets computer information systems, infrastructures, computer networks, or personal computer devices. |
| Malware | Software which is specifically designed to disrupt, damage, or gain unauthorised access to a computer system. |
| Ransomware | A type of malicious software designed to block access to data or a computer system until a sum of money is paid or other conditions are met. |
| Phishing (compromised credentials) | An attack in which the target is contacted by email or text message by someone posing as a legitimate institution to lure individuals into providing personal information, sensitive information or passwords. |
| Brute-force attack (compromised credentials) | Automated software is used to generate a large number of consecutive guesses as to the value of the desired data, for example, passwords. |
| Compromised or stolen credentials (method unknown) | Credentials are compromised or stolen by methods unknown. |
| Hacking (other means) | Exploiting a software or security weakness to gain access to a system or network, other than by way of phishing, brute-force attack or malware. |
| **System fault** | A business or technology process error not caused by direct human error. |

## Other terminology used in this report and in the NDB Form[4]

| Term | Definition/ examples |
|---|---|
| Financial details | Information relating to an individual's finances, for example, bank account or credit card numbers. |
| Tax File Number (TFN) | An individual's personal reference number in the tax and superannuation systems, issued by the Australian Taxation Office. |
| Identity information | Information that is used to confirm an individual's identity, such as a passport number, driver's licence number or other government identifier. |
| Contact information | Information that is used to contact an individual, for example: home address, phone number or email address. |
| Health information | As defined in section 6FA of the Privacy Act. |
| Other sensitive information | Sensitive information, other than health information, as defined in section 6(1) of the Privacy Act. For example: sexual orientation, political or religious views. |

[4] OAIC's Notifiable Data Breach Form