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INTRODUCTION

Does it ever feel as if there's a new data breach every day?

This might be because statistically, there is.

Between January of 2005 and October of 2019, Privacy Rights Clearinghouse recorded 9,705 data breaches.¹ That's an average of 1.8 a day.

Obviously, the press can't cover every instance of private data being stolen or exposed. But the examples that do make headlines seem to affect ever-increasing millions of users and reach into every corner of consumers' financial lives.

The breach that woke many consumers up to the dangers that come from the digitization of our lives involved Equifax, one of the largest credit-reporting agencies in the world. In 2017, about half the population of the United States—approximately 150 million Americans—found out their private data had been compromised, resulting in a settlement with regulators that could cost the company \$700 million.²

The next year, hotelier Marriott revealed a breach that affected almost 400 million customers, potentially revealing payment information, names, mailing

addresses, phone numbers, email addresses and passport numbers.³

Before the first month of 2019 ended, news of one of the biggest data breaches ever spread around the world. Cyber security expert Troy Hunt uploaded 773 million combinations of emails and passwords to his Have I Been Pwned website.⁴

In the last twelve months alone, a hacker gained access to 100 million Capital One credit card applications and accounts,⁵ Facebook suffered several breaches,⁶ and 2.5 million disaster victims had private information leaked by the U.S.'s Federal Emergency Management Agency.⁷

As 2020 began, Microsoft was cleaning up an "enormous security loophole" that left customer service and support records from about 250 million customers accessible to anyone with web access.⁸

What do criminals get access to when they take control of our data?

Anything they can—from stealing our passwords to accessing our critical accounts to taking over our identities.

1 Privacy Rights Clearinghouse: Data Breaches <https://privacyrights.org/data-breaches>

2 Equifax Breach Affected 147 Million, but Most Sit Out Settlement <https://www.nytimes.com/2020/01/22/business/equifax-breach-settlement.html>

3 Marriott CEO Reveals New Details About Mega Breach <https://www.forbes.com/sites/kateoflahertyuk/2019/03/11/marriott-ceo-reveals-new-details-about-mega-breach/>

4 ':-have i been pwned? <https://haveibeenpwned.com>

5 A hacker gained access to 100 million Capital One credit card applications and accounts <https://www.cnn.com/2019/07/29/business/capital-one-data-breach/index.html>

6 Unsecured Facebook Databases Leak Data Of 419 Million Users <https://www.forbes.com/sites/daveywinder/2019/09/05/facebook-security-snafu-exposes-419-million-user-phone-numbers>

7 Hack Brief: FEMA Leaked the Data of 2.3 Million Disaster Survivors <https://www.wired.com/story/fema-leaked-the-data-2-million-disaster-survivors/>

8 Microsoft accidentally exposed 250 million customer service records <https://finance.yahoo.com/news/2020-01-22-microsoft-database-exposure.html>

THE RISKS

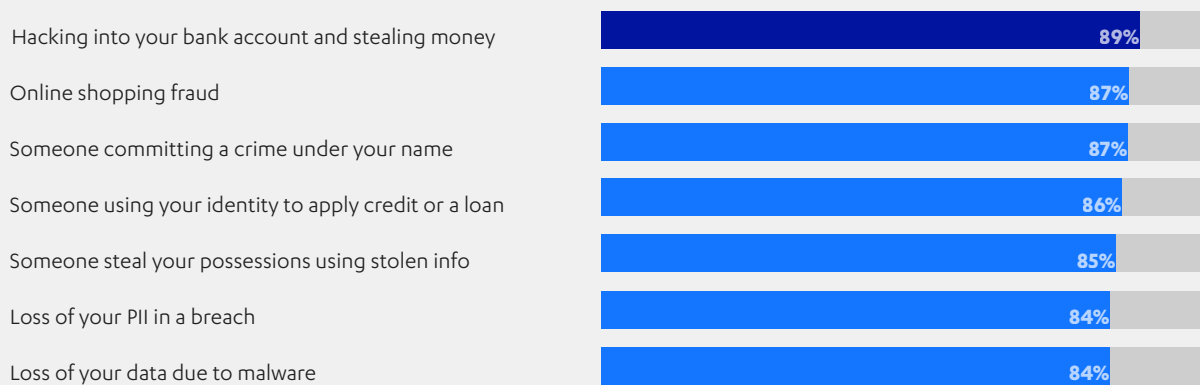
The average internet user has dozens of passwords for online accounts and even more accounts with personally identifiable information tied to credit cards and other services. A shocking eight in ten consumers reuse passwords on multiple services, a behavior that increases the risks of account compromises significantly.⁹

The sense that our digital data could be used to undermine our identities abounds—possibly because

consumers understand that it isn't possible to secure our data everywhere it is stored.

An F-Secure survey conducted in nine countries found that nearly nine in ten consumers are at least somewhat worried about the multiple online risks that occur when our devices, accounts, and data are not properly secured.

HOW WORRIED ARE YOU ABOUT THE FOLLOWING ONLINE THREATS?



Even if the victims of breaches secured all their data using every possible method, they would still be vulnerable to various techniques crooks use to monetize their data. These include using private data to receive medical care, to avoid law enforcement and to create fraudulent accounts to make purchases, apply for loans or seek credit.

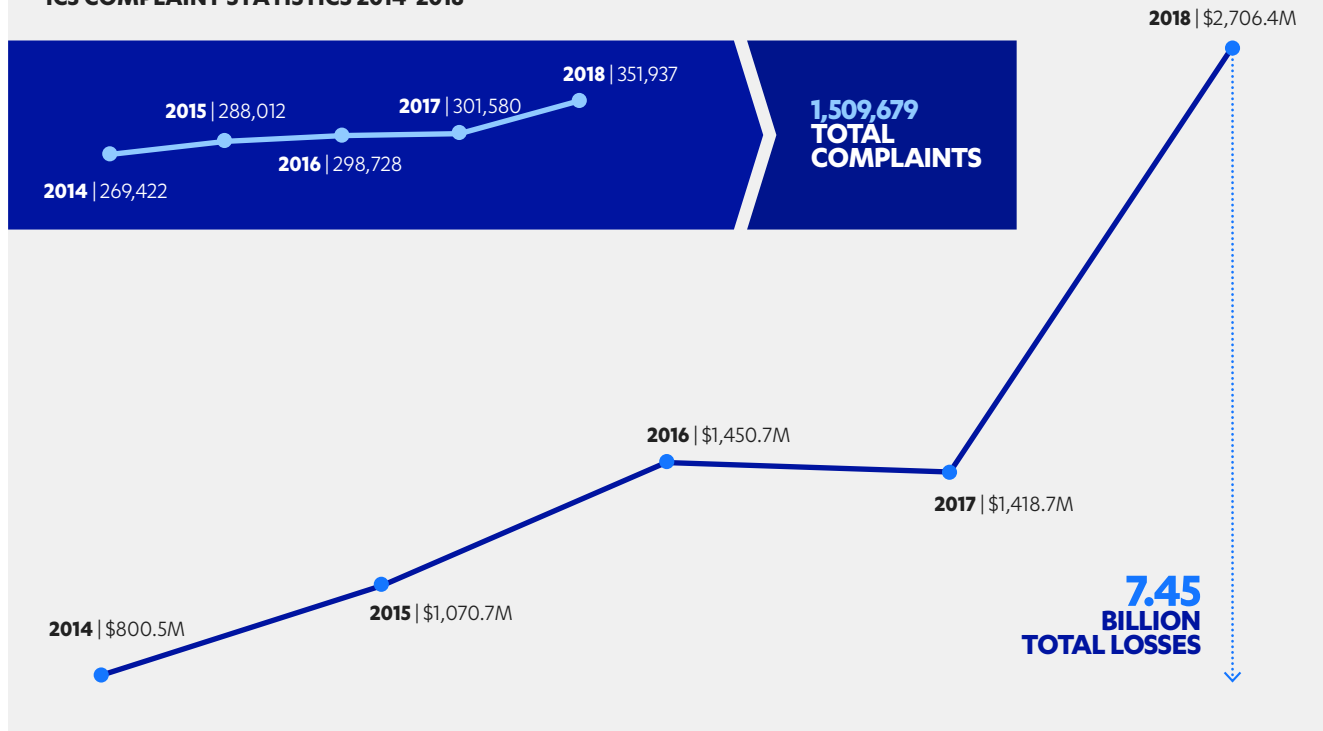
The data suggests consumers understand that the risk they endure by opening the dozens, if not hundreds, of accounts that come with using not only the internet but basic government services and credit cards.

Every year, the number of cyber crimes reported to the Internet Crime Complaint Center (IC3) grows in both in number and in financial impact.¹⁰

⁹ Poll: Americans leave their personal info open to thieves <https://www.creditcards.com/credit-card-news/data-security-poll.php>

¹⁰ Internet Crime Complaint Center (IC3) 2018 Internet Crime Report https://pdf.ic3.gov/2018_IC3Report.pdf

IC3 COMPLAINT STATISTICS 2014-2018



The most costly crimes reported almost all involve fraud, scams, or exploitation of personal data.

While “Identity Theft” itself ranks as the fifth most costly crime with losses of over \$100 million, many of the crimes

that lead to the biggest losses—from Business Email Compromise (BEC) or Email Account Compromise (EAC) to Personal and Corporate Data Breach to Credit Card Fraud—involve aspects of what many people would commonly label identity theft or compromise.

IDENTITY THEFT LOSSES

Crime Type	Loss
BEC/EAC	\$1,297,803,489
Confidence Fraud/Romance	\$362,500,761
Investment	\$252,955,320
Non-Payment/Non-Delivery	\$183,826,809
Real Estate/Rental	\$149,458,114
Personal Data Breach	\$148,892,403
Corporate Data Breach	\$117,711,989
Identity Theft	\$100,429,691
Advanced Fee	\$92,271,682
Credit Card Fraud	\$88,991,436
Extortion	\$83,357,901
Spoofing	\$70,000,248
Government Impersonation	\$64,211,765

Is identity theft the cyber crime consumers fear most?

IDENTITY THEFT MAKES CYBER CRIME REAL

Identity theft is generally defined as acquiring someone's personal information in order to impersonate an individual or gain access to her personal records or services, possibly for financial benefit. Identity theft can result in both online and offline crimes. These crimes involve all sorts of fraud and confidence scams.

The Consumer Sentinel Network database run by the U.S. Federal Trade Commission took in 444,602 reports of identity theft in 2018, including more than 167,000 reports from "people who said their information was misused on an existing account or to open a new credit card account."¹¹

IDENTITY THEFT TYPES



1 Credit Card Fraud
157,688 reports



2 Other Identity Theft
122,499



3 Employment or
Tax-Related Fraud 67,374



4 Phone or Utilities
Fraud 63,563



5 Bank Fraud
52,529



6 Loan or Lease
Fraud 51,856



7 Government Documents
or Benefits Fraud 24,854

Looking at the online threats that consumers worry about most—hacking into your bank account, online shopping fraud, someone committing a crime under your name, someone applying for a loan in your name and someone stealing your possessions using stolen info—they all involve some form of crime that might be labeled identity theft.

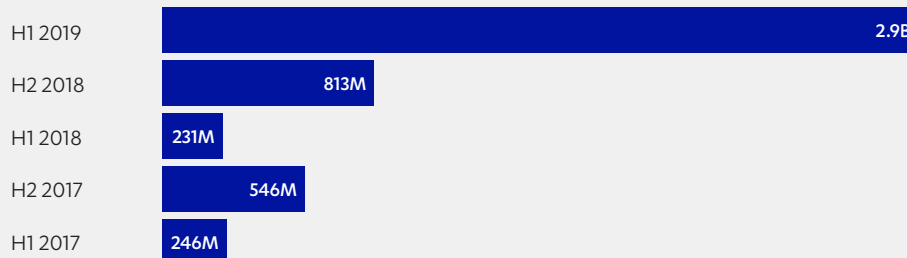
Data increasingly needs to be secured. If criminals get ahold of it, they can take control of our identities or accounts to commit crimes that may damage our abilities to get loans, secure contracts, or even gain employment.

¹¹ Consumer Sentinel Network: Data Book 2018 https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2018/consumer-sentinel-network-data-book-2018_0.pdf

CONSUMER EXPERIENCES AND WORRIES

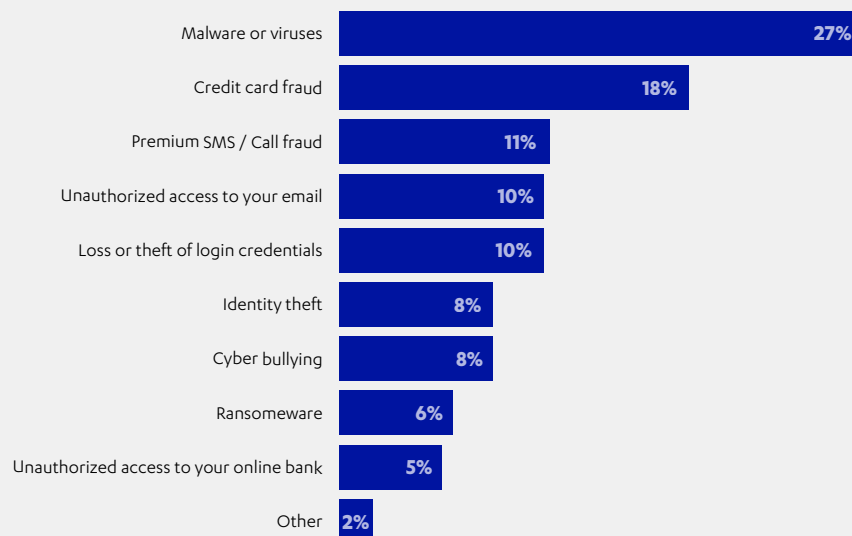
F-Secure's global network of honeypots measured billions of attack events in the first half of 2019.¹²

TOTAL GLOBAL HONEYPOT ATTACKS PER PERIOD



The threats consumers report facing on their devices and home networks still come from malware and viruses (27%). Credit card fraud (18%), SMS/call fraud (11%), and email or account hacking (10%).¹³

THE MOST COMMON SECURITY INCIDENTS



While internet security solutions prevent infection by most malware and viruses, many of the other most prevalent threats—credit card fraud, call fraud, unauthorized account takeovers and identity theft—require securing data both on consumers devices and in the multiple accounts most users have with a wide variety of services and providers.

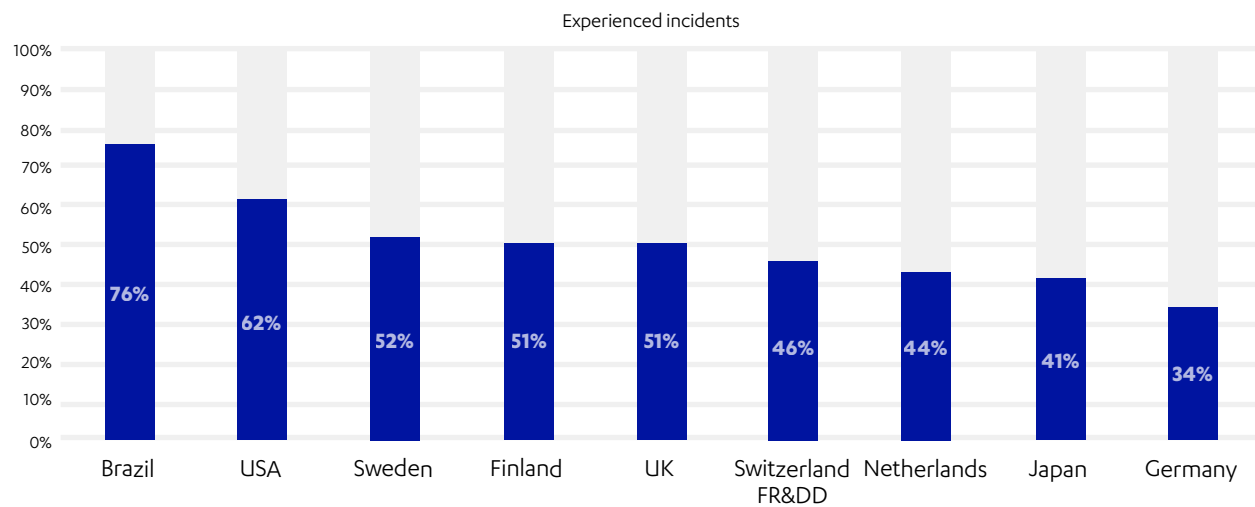
In the third decade of the twentieth-century, protecting yourself online doesn't just require securing your devices. It also requires the ability to control your identity and prevent theft and fraud should private data end up in the wrong hands.

¹² Attack Landscape H1 2019: IoT, SMB traffic abound <https://blog.f-secure.com/attack-landscape-h1-2019-iot-smb-traffic-abound/>

¹³ Source: F-Secure Identity Protection Consumer (B2C) Survey, May 2019, conducted in cooperation with survey partner Toluna, 9 countries (USA, UK, Germany, Switzerland, The Netherlands, Brazil, Finland, Sweden, and Japan), 400 respondents per country = 3600 respondents (+25years)

Who has been affected?

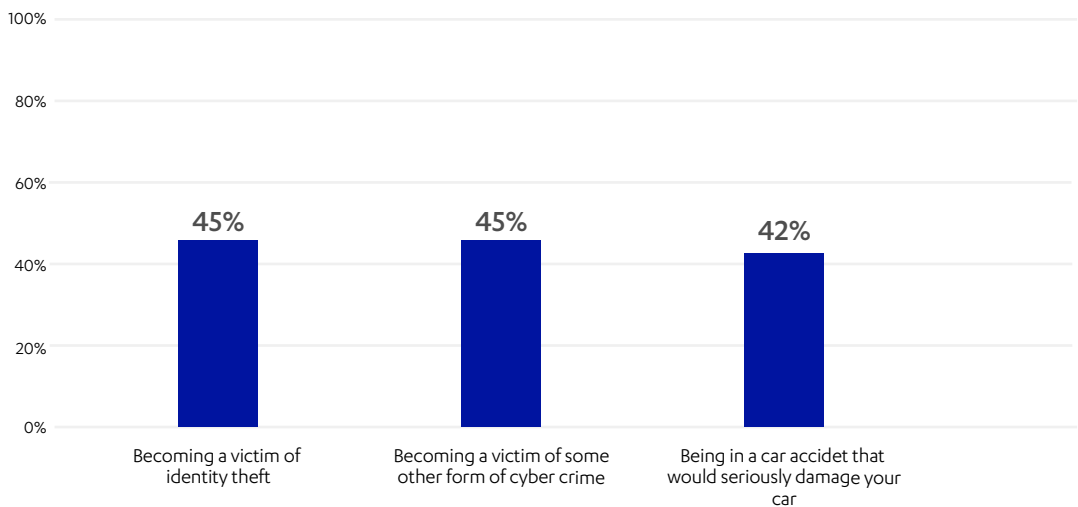
HAVE YOU OR SOMEONE IN YOUR FAMILY BEEN AFFECTED BY CYBER CRIME?



Brazil is the country where you're most likely to have been affected by cyber crime, with a whopping three out of four people (76%) reporting an incident experienced in their family. A majority of families in the US (62%), Sweden (52%), Finland (51%) and the UK (51%) have all suffered from cyber crime.

Globally most people (51%) have been affected by cyber crime, with one in four (26%) reporting dealing with several incidents. Germans, however, are doing something right, with only about one in four (34%) reporting an incident in the family.

HOW WORRIED ARE YOU ABOUT EACH OF THE FOLLOWING STATEMENTS?

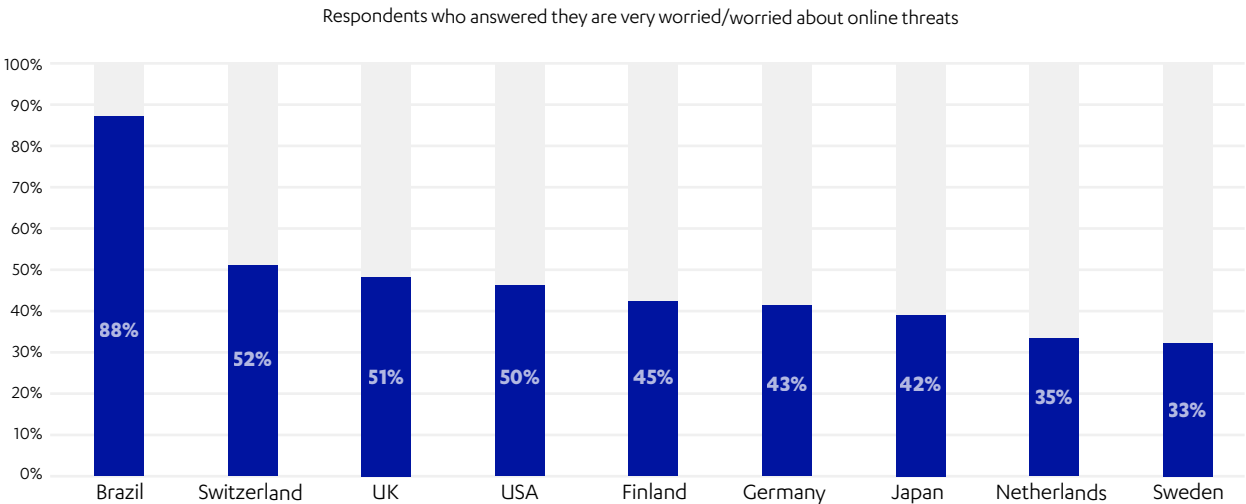


Is identity theft the cyber crime consumers fear most?

Around the world, fears of identity theft (45%) and cyber crime (45%) rise just above the fear of a being in a car accident that would seriously damage the vehicle (42%). Yes, consumers sense that a damaged identity is likely to cause more problems than a damaged car.

It's easy to find a mechanic to fix a car. Repairing a compromised identity is rarely simple.

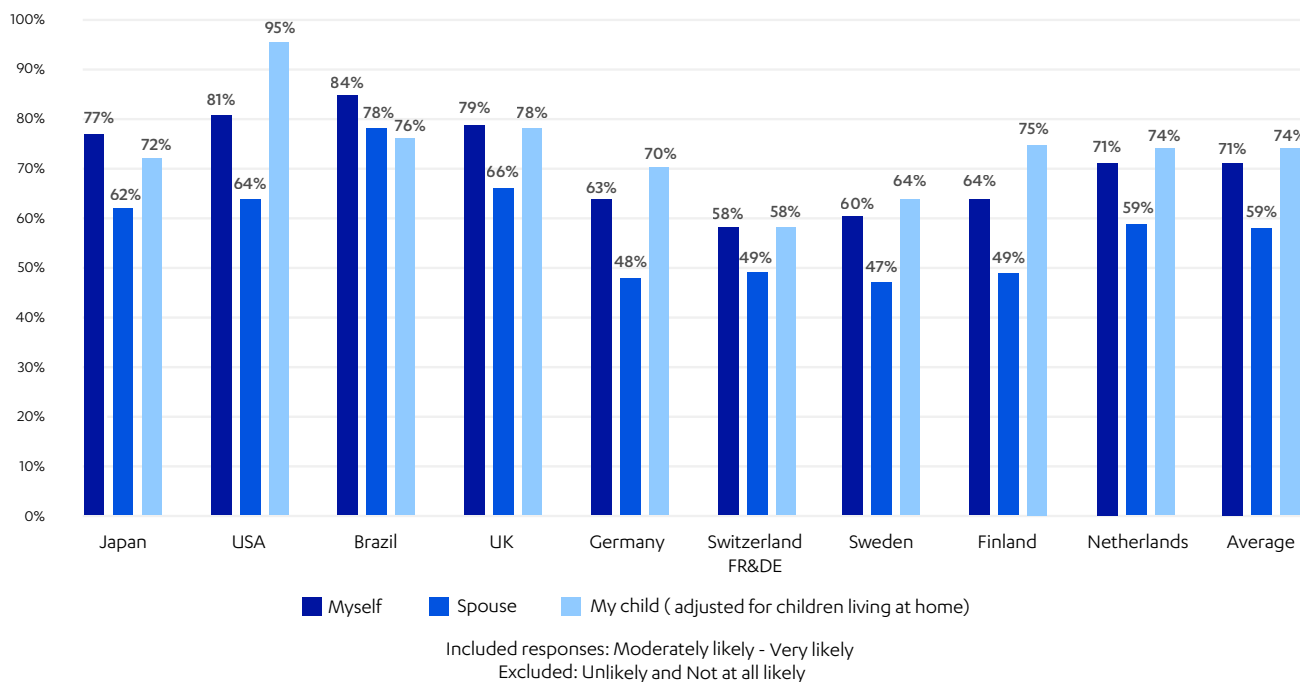
WHICH COUNTRIES ARE MOST WORRIED ABOUT ONLINE THREATS



Given that more than three in four Brazilians have had a personal experience with cyber crime, it makes sense that nearly nine in ten of them are worried about online threats.

About half the respondents in Switzerland, the United Kingdom and the United States expressed similar fears. Dutch and German internet users should share their cyber security secrets with the world. Only about one in three are worried about online threats.

LIKELIHOOD OF BECOMING A VICTIM OF A CYBER CRIME OR IDENTITY THEFT



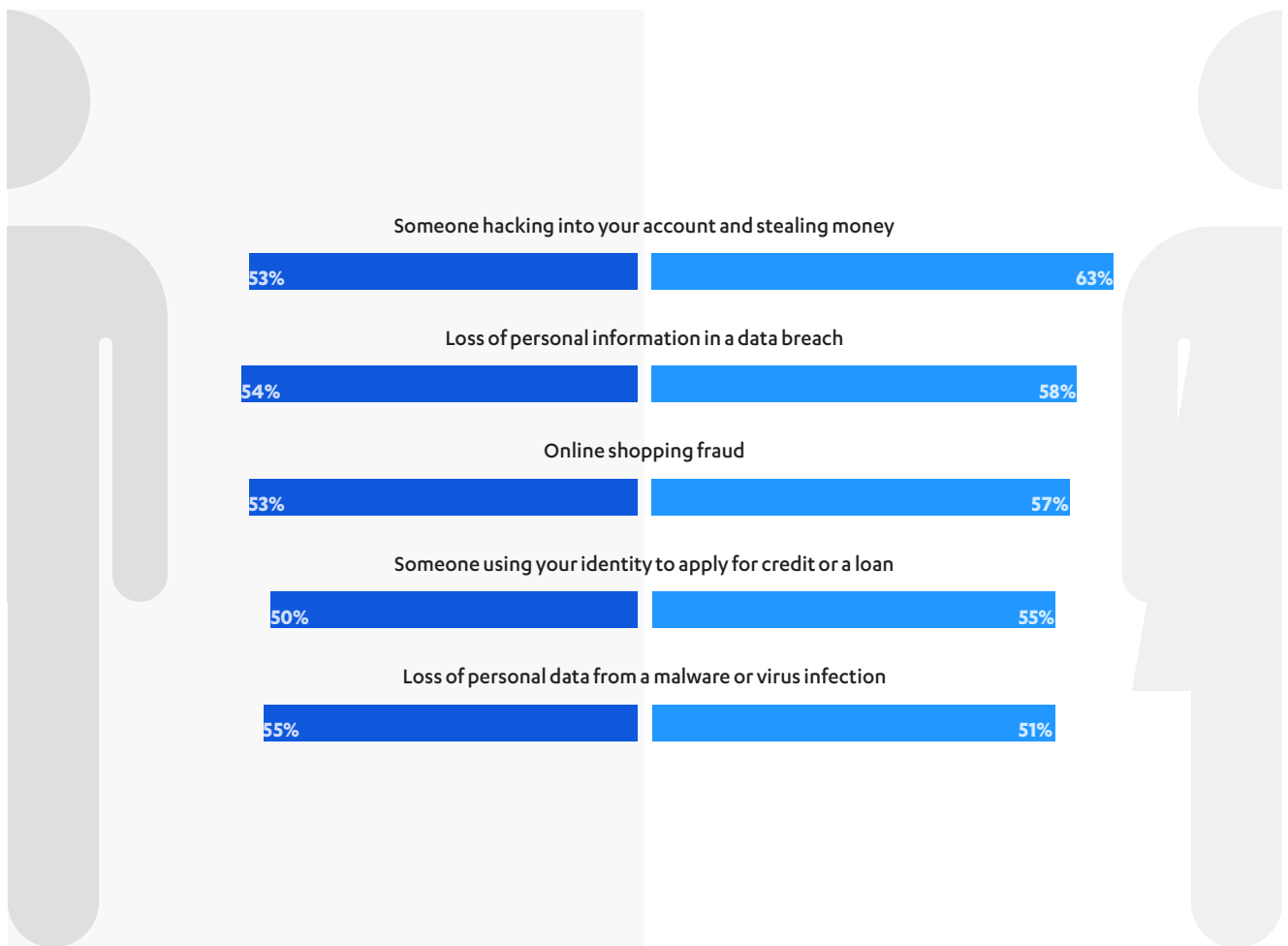
In every country surveyed, most respondents expressed at least a moderate fear that they would endure some sort of cyber crime or identity theft (71%).

However, parents' fear that their children would have to deal with these scourges rose above concern about their individual online safety in eight of the countries surveyed

– the exceptions were Japan (77% Myself v. 72% My child) and Brazil (84% Myself v. 76% My child).

In the United States, 19 out of 20 parents (95%) expressed significant fears that their kids would have suffering inflicted upon them through criminals using the internet.

CONTRASTING MEN AND WOMEN



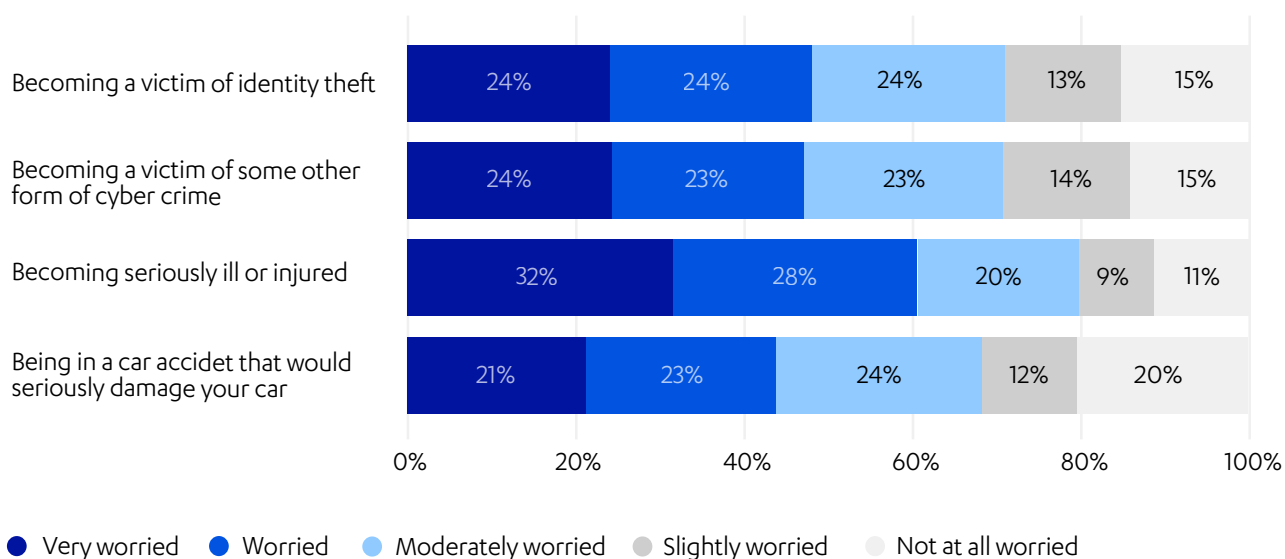
The data in this chart represents only the respondents who expressed they were worried and very worried, excluding those who said they were somewhat worried.

While at least 50% of both women and men are worried or very worried about many of the biggest risks associated with identity thefts, women are more worried about all of these risks, with the biggest gulf being that 10% more women (63%) worry about someone hacking into their bank account to rob them than men (53%).

The percentage of women who are worried or very worried about identity theft and cyber crime is 47-48%, higher than 44% who expressed similar concerns about a car accident that damages the vehicle.

Women

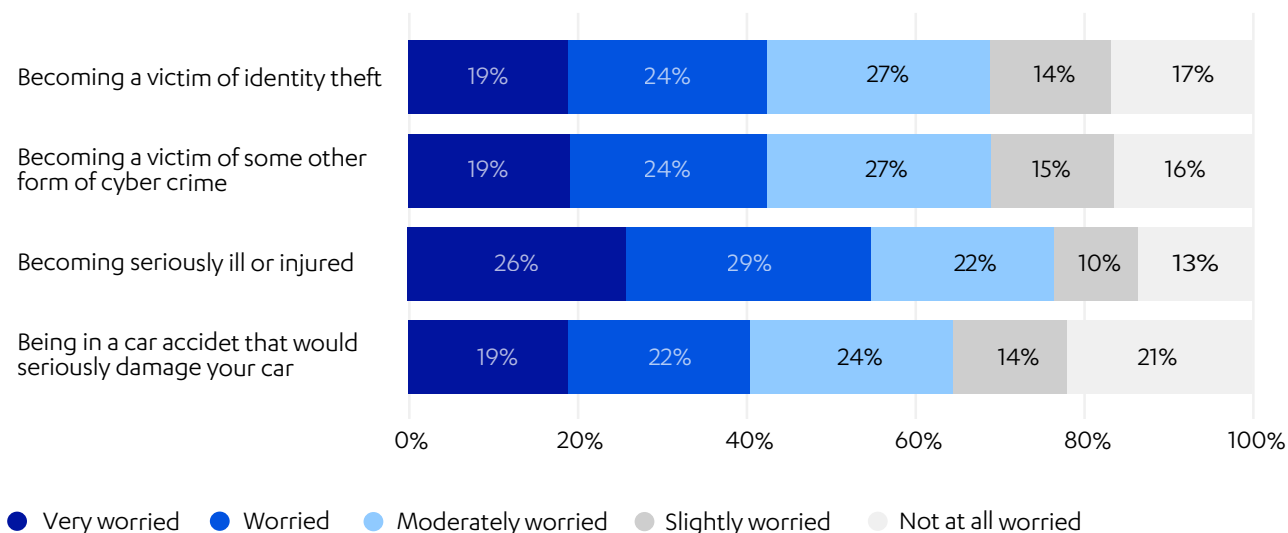
WORRIED ARE YOU ABOUT EACH OF THE FOLLOWING STATEMENTS? 1,855 Responses



Men, again, are less worried in general with 43% reporting they are worried or very worried about identity theft and cyber crime.

Men

WORRIED ARE YOU ABOUT EACH OF THE FOLLOWING STATEMENTS? 1,745 Responses

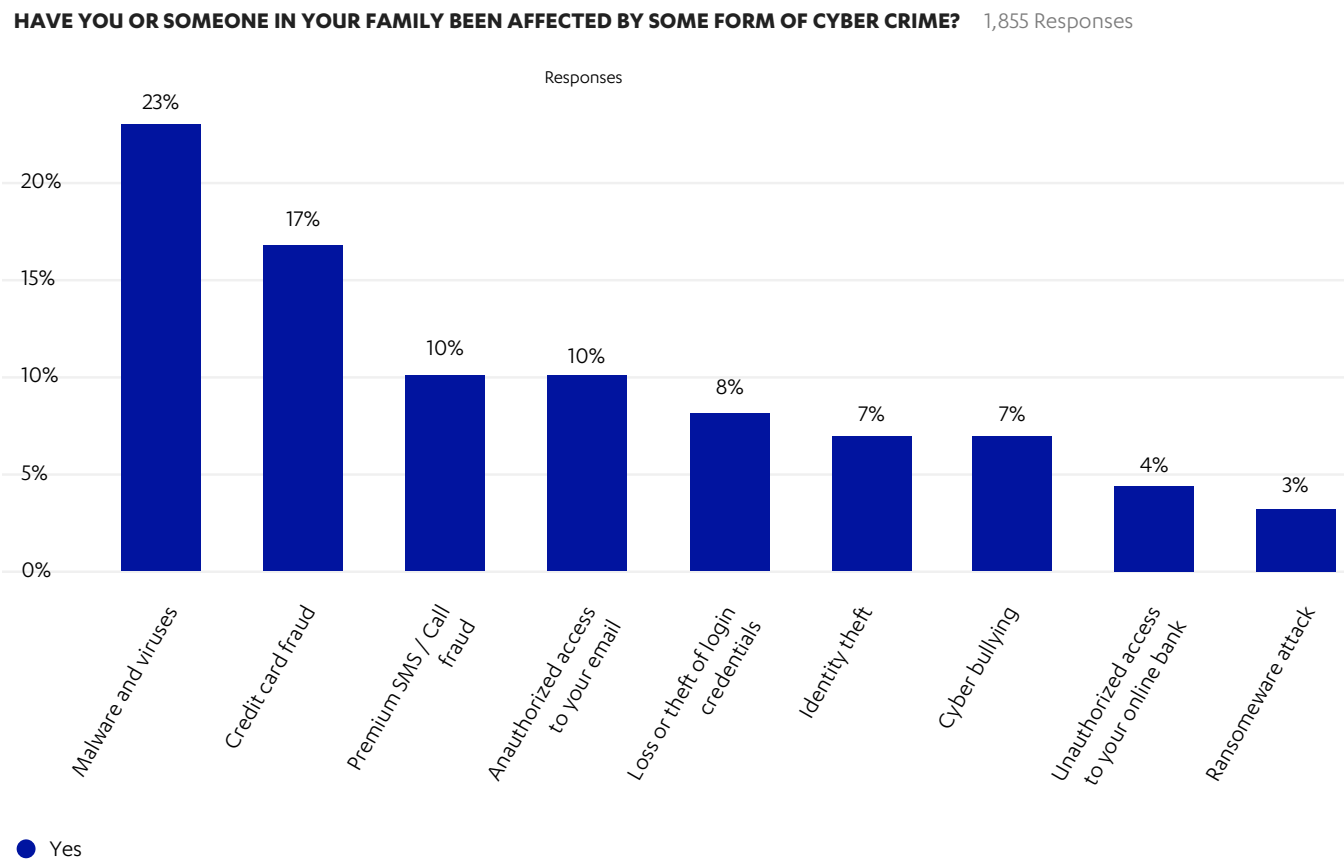


Is identity theft the cyber crime consumers fear most?

Women

Here’s the fascinating thing.

While they may express more concern, women were less likely to report having been a victim of some form of cyber crime.

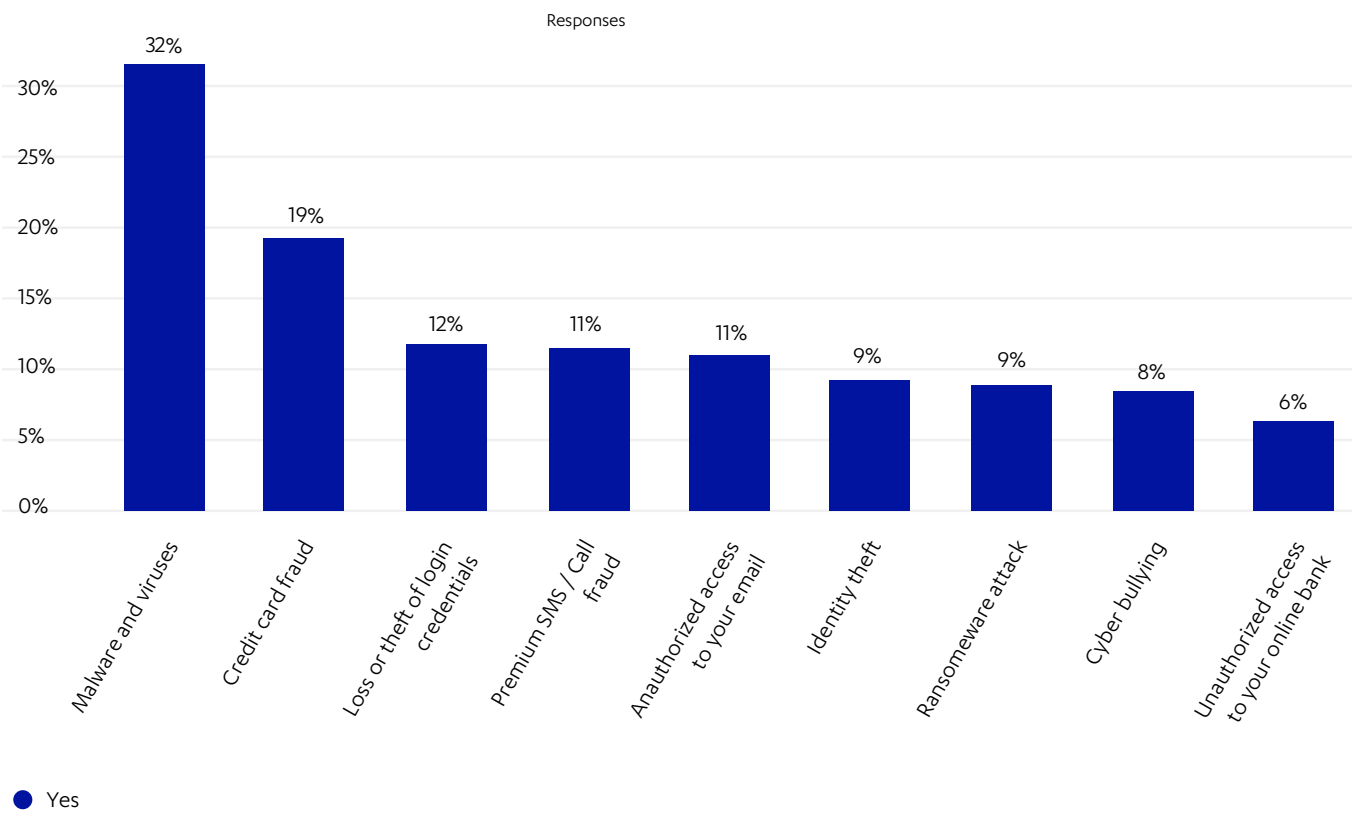


Is identity theft the cyber crime consumers fear most?

Men

68% of men offer similar worries about identity theft or cyber crime with only 42% of men with children saying they have these fears for their kids.

HAVE YOU OR SOMEONE IN YOUR FAMILY BEEN AFFECTED BY SOME FORM OF CYBER CRIME? 1,745 Responses



CONCLUSION

The era where securing your PC was enough to prevent most of the harm that comes from being online is long over. Today, it's equally necessary to protect our online identities by securing our dozens of accounts, including credentials for our credit cards, bank accounts, social media accounts, loyalty programs and more.

While malware and viruses still threaten our computers and our files, the risks that come from an attack spilling over into our "real lives" continue to mount as our digital footprints continue to grow.

Cyber-crime continues to be a real concern of course, but the fraud and long-term damage that come from stolen identities seems to be what's keeping consumers up at night. The damages that come from identity theft can be expensive and long lasting. Expert help to both prevent these crimes and deal with the consequences promptly could reduce that anxiety.

What can service providers do about it?

Service providers can now protect their customers' identities with F-Secure's breach monitoring and alerts service. F-Secure ID PROTECTION monitors and detects leaked and exposed personal information online, responds quickly to identity theft threats, and doubles as a password manager to prevent account takeovers.

Attractive, engaging and easy to use, the ID PROTECTION app gives users awareness and control of their online data privacy. Features such as password management, instant in-app breach alerts, and breach response guidance put your customers in the driver's seat when it comes to guarding their digital identities.

Over 200 operators have already chosen F-Secure as their trusted partner to deliver security software bundles to individuals and families all over the world. Now, designed to protect against today's many forms of identity theft, F-Secure's app-based solution offers operator partners the ability to target a new and growing category within security.

ABOUT F-SECURE

Nobody knows cyber security like F-Secure. For three decades, F-Secure has driven innovations in cyber security, defending tens of thousands of office, homes, and millions of people.

F-Secure shields enterprises and consumers against everything from advanced cyber attacks and data breaches to widespread ransomware infections. F-Secure's AI-driven solutions also help to protect the connected devices and homes of your customers

The unique combination of technology and world-class Business Services supporting the entire customer lifecycle is what makes

F-Secure an excellent fit for the service provider channel.

F-Secure's products are sold globally by more than 200 service providers and thousands of resellers.

www.f-secure.com/identity-protection

