Data Breaches Over Time: Trends and Impact

Cianna Grama

What are the trends in data breaches over time, and how have these breaches impacted organizations and individuals?

What is a Data Breach?

- Violation of security, unauthorized party gets access to sensitive data

(Kosinski, 2024)

- Data such as: SSN, healthcare data, banking information, customer records, intellectual property, financial information (Kosinski, 2024)

- Average global cost: 4.88 million USD

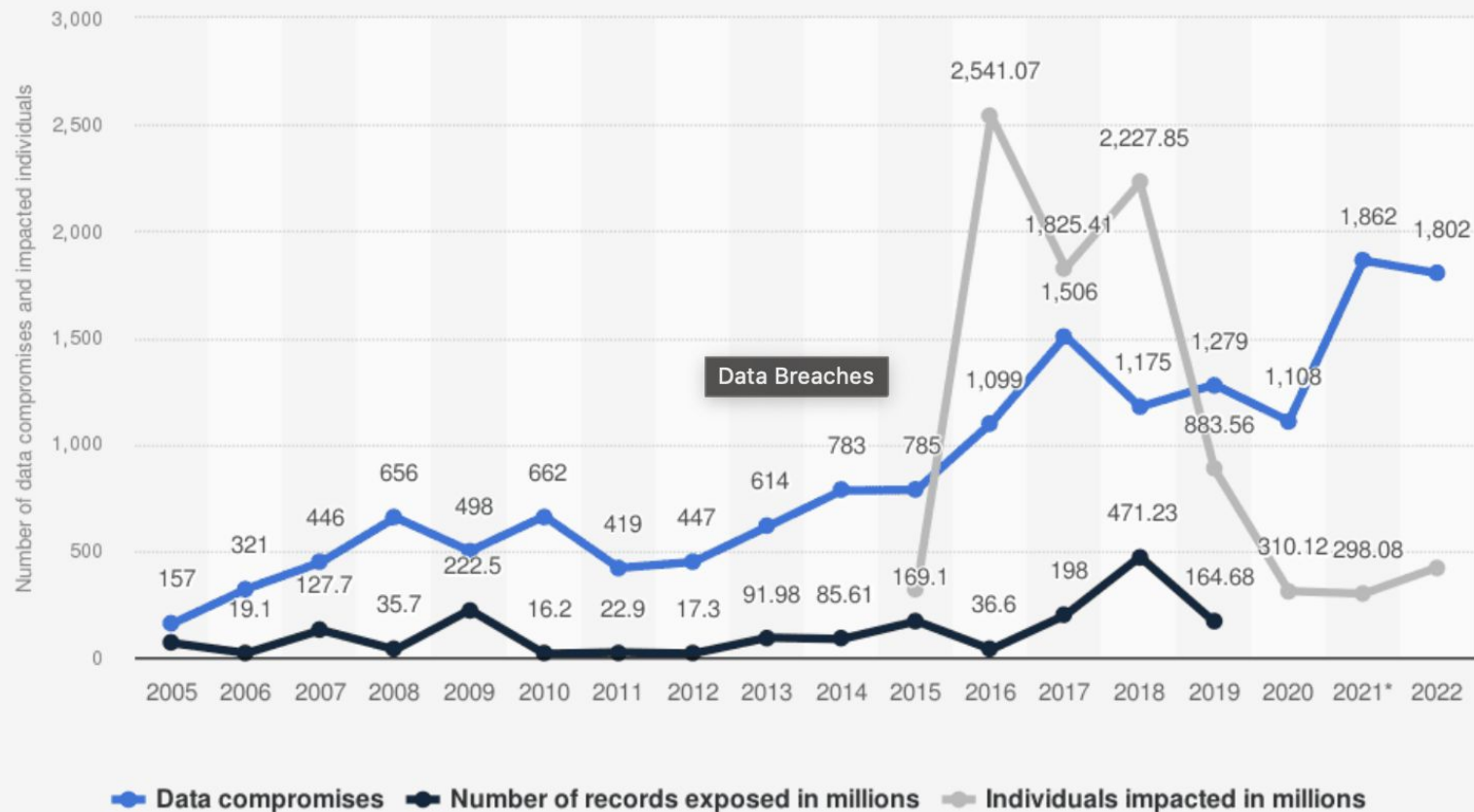(Constantin & Swain, 2025)

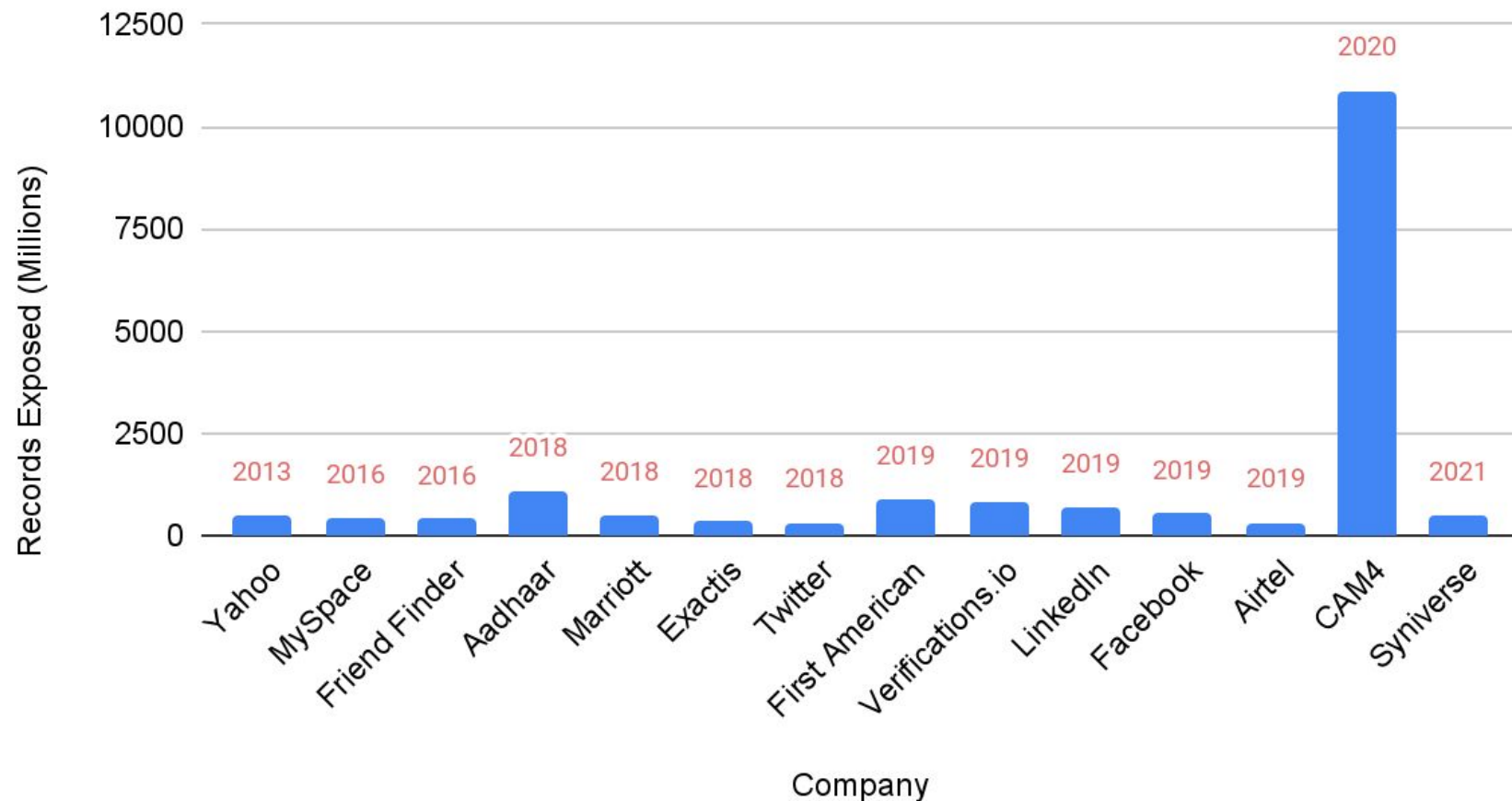In 2022 alone, there were **1,802** instances of data breaches in the United States, impacting over **422 million** individuals
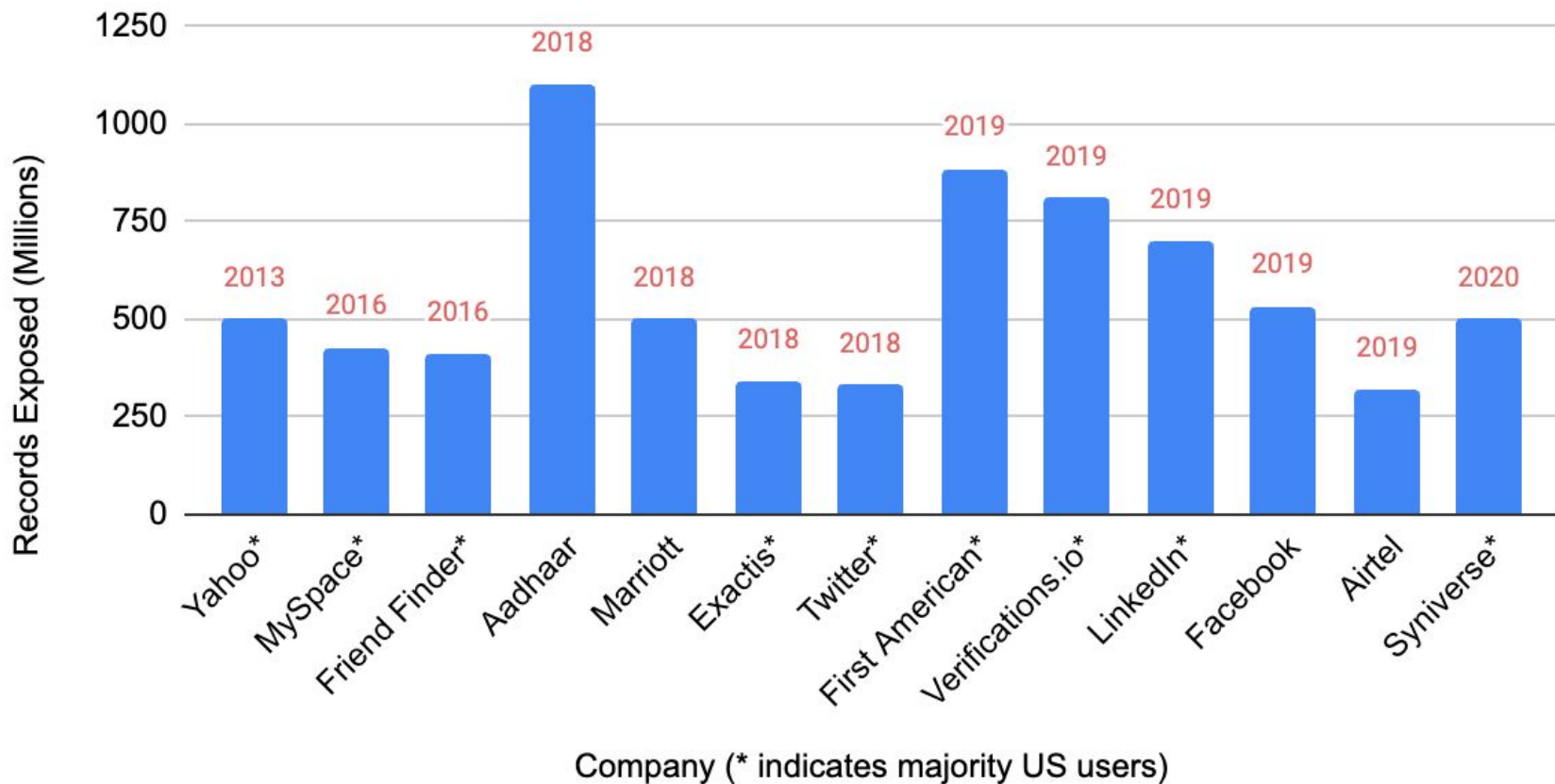
(Baig & Hassan, 2025)

Annual number of data compromises and individuals impacted in the United States from 2005 to 2022

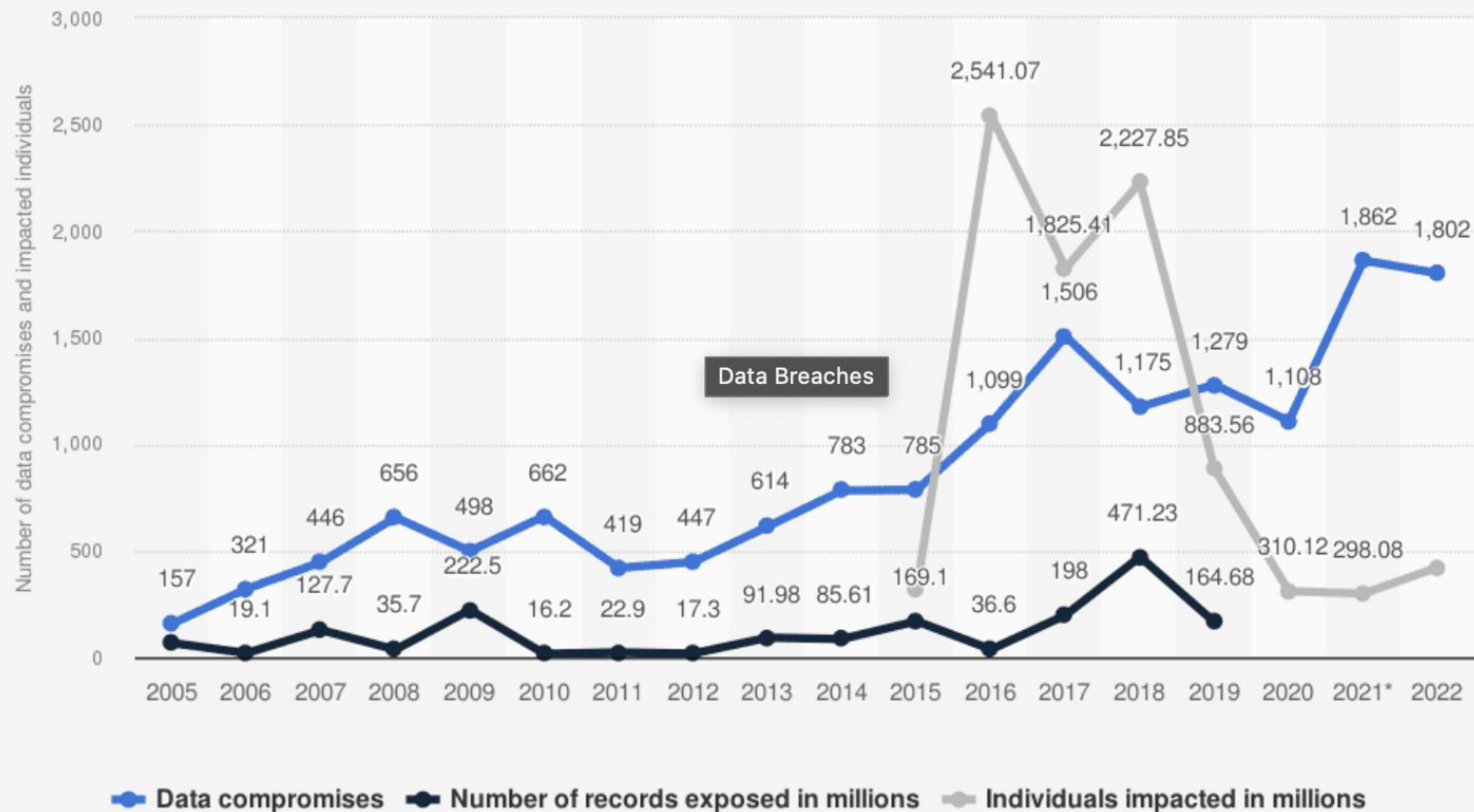(Identity Theft Resource Center, 2024)

Major Data Breaches Globally from 2013-2021

Major Data Breaches Globally with Under 4 Billion Records Exposed from 2013-2021

Annual number of data compromises and individuals impacted in the United States from 2005 to 2022

(Identity Theft Resource Center, 2024)

2024 Verizon Data Breach Investigations Report

14% of breaches involved the exploitation of vulnerabilities as an initial access step, almost triple the amount from last year's report

(2024 Verizon Data Breach Investigations Report)
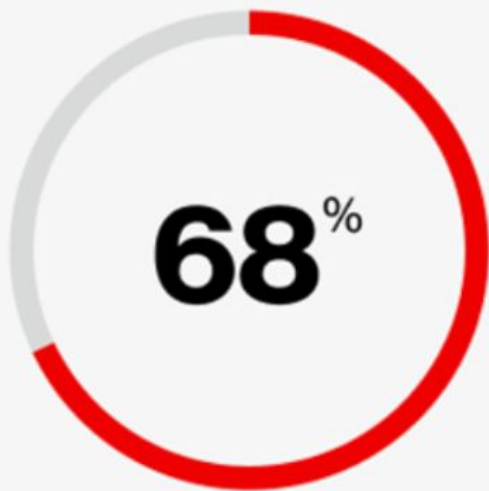
68% of breaches involved a non-malicious human element, like a person falling victim to a social engineering attack or making an error

(2024 Verizon Data Breach Investigations Report)
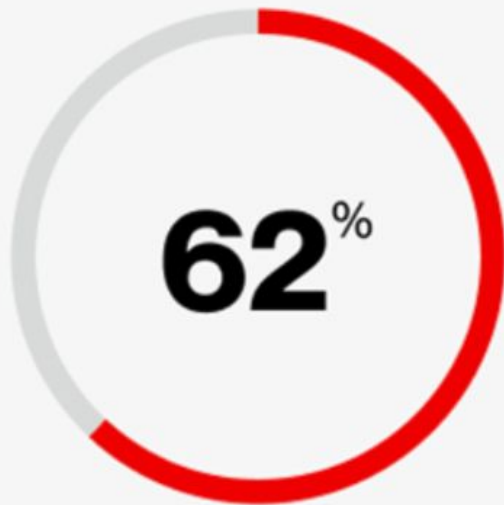
62% of financially motivated incidents involved ransomware or extortion, with a median loss of $46,000 per breach

15% of breaches involved a third party or supplier, such as software supply chains, hosting partner infrastructures or data custodians

(2024 Verizon Data Breach Investigations Report)

Key Takeaways: Trend and Impact

- Increasing upward trend in data breaches from 2005 - 2023 worldwide

- Majority of breaches involved exploitation of vulnerabilities or social engineering attacks

- Data breaches are costly to businesses and individuals, directly and indirectly

Questions to Think About

- Based on the trends shown, what do you think the future of data breaches looks like—will they become more or less frequent, severe, or will they take new forms?

- What do the trends in data breaches suggest about the effectiveness of current cybersecurity measures?

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Thank you!