

DATA TOO GOOD TO BE TRUE?

*Tech-forward solutions to fight
tech-enabled survey fraud*



"We couldn't quite put our finger on it, but **something about the data** was just off."



FRAUD, INATTENTION, & BAD DATA



FRAUD

Bots and bad actors misrepresent themselves in order to enter surveys they are not qualified to take



INATTENTION

Hard questions, low incentives, and unmotivated respondents lead to inattentive responses

**NOT ALL BAD DATA IS FRAUD,
BUT ALL FRAUD IS BAD DATA.**





HOW DO YOU COMBAT FRAUD?

- Data cleaning
- Reviewing open-ended responses
- Attention checks
- Digital fingerprinting



**TECH-ENABLED FRAUD
REQUIRES TECH-FORWARD
SOLUTIONS.**



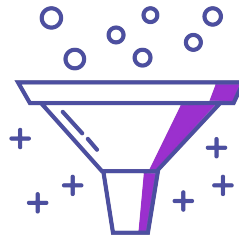
FRAUDSTERS USE CUTTING-EDGE TECH; DO YOU?

Advanced Digital Fingerprinting



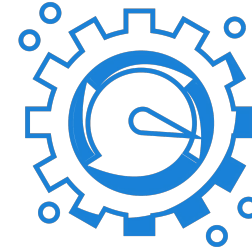
Advanced digital fingerprinting fights duplicate entries, known fraudsters, and tech-enabled bad actors

Hyper-Activity Detection



Research Defender's visibility into the survey ecosystem identifies respondents attempting many surveys in 24 hours

Open-Ended Response Scoring



Open-ended responses flagged for nonsensical, copy-pasted, profane responses, impossibly fast typing, and more



Total Entrants

160,451

Defender Terminations

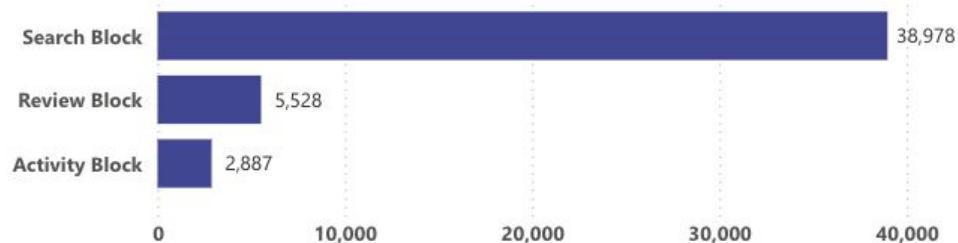
47,393

Pre-Survey Entrant Terminations

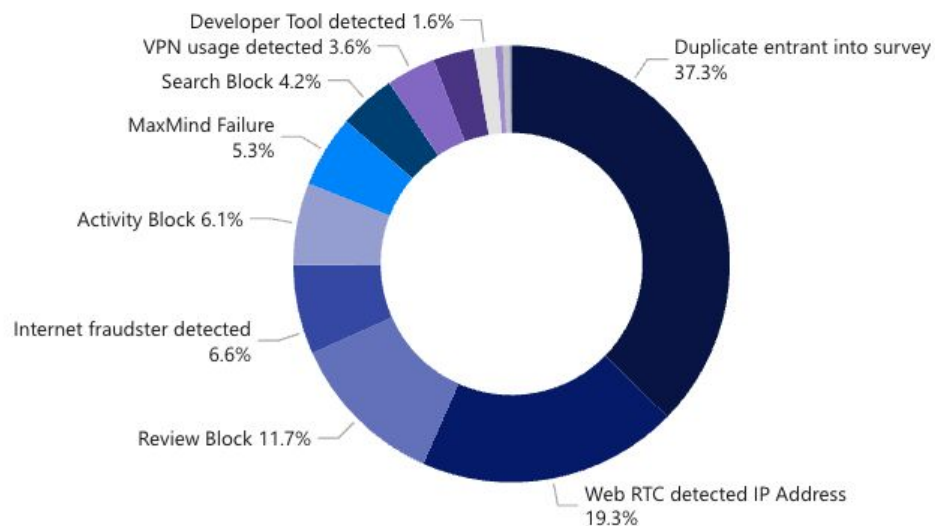


30%

Defender Terms by Module



Defender Term Reason Detail



Defender Term Reason Detail

Failure Category	Participants	Perc of Total
Search Block	38,978	82.24%
Duplicate entry	17,693	37.33%
Duplicate entrant into survey	17,693	37.33%
Suspicious Technology	13,359	28.19%
Web RTC detected IP Address	9,148	19.30%
VPN usage detected	1,723	3.64%
Subnet detected	1,446	3.05%
Developer Tool detected	741	1.56%
Emulator Usage	231	0.49%
Web proxy service used	44	0.09%
Web crawler usage detected	17	0.04%
Public proxy server detected	8	0.02%
TOR network detected	1	0.00%
Poor prior behavior	5,925	12.50%
Internet fraudster detected	3,135	6.61%
MaxMind Failure	2,519	5.32%
Retail and ad	266	0.56%
Recent Abuse detected	5	0.01%
Search Block	2,001	4.22%
Search Block	2,001	4.22%
Review Block	5,528	11.66%
Poor current behavior	5,528	11.66%
Review Block	5,528	11.66%
Activity Block	2,887	6.09%
Excessive Activity	2,887	6.09%
Activity Block	2,887	6.09%
Total	47,393	100.00%

STUDY DESIGN

Instead of blocking the fraud, we flagged it and let it in!

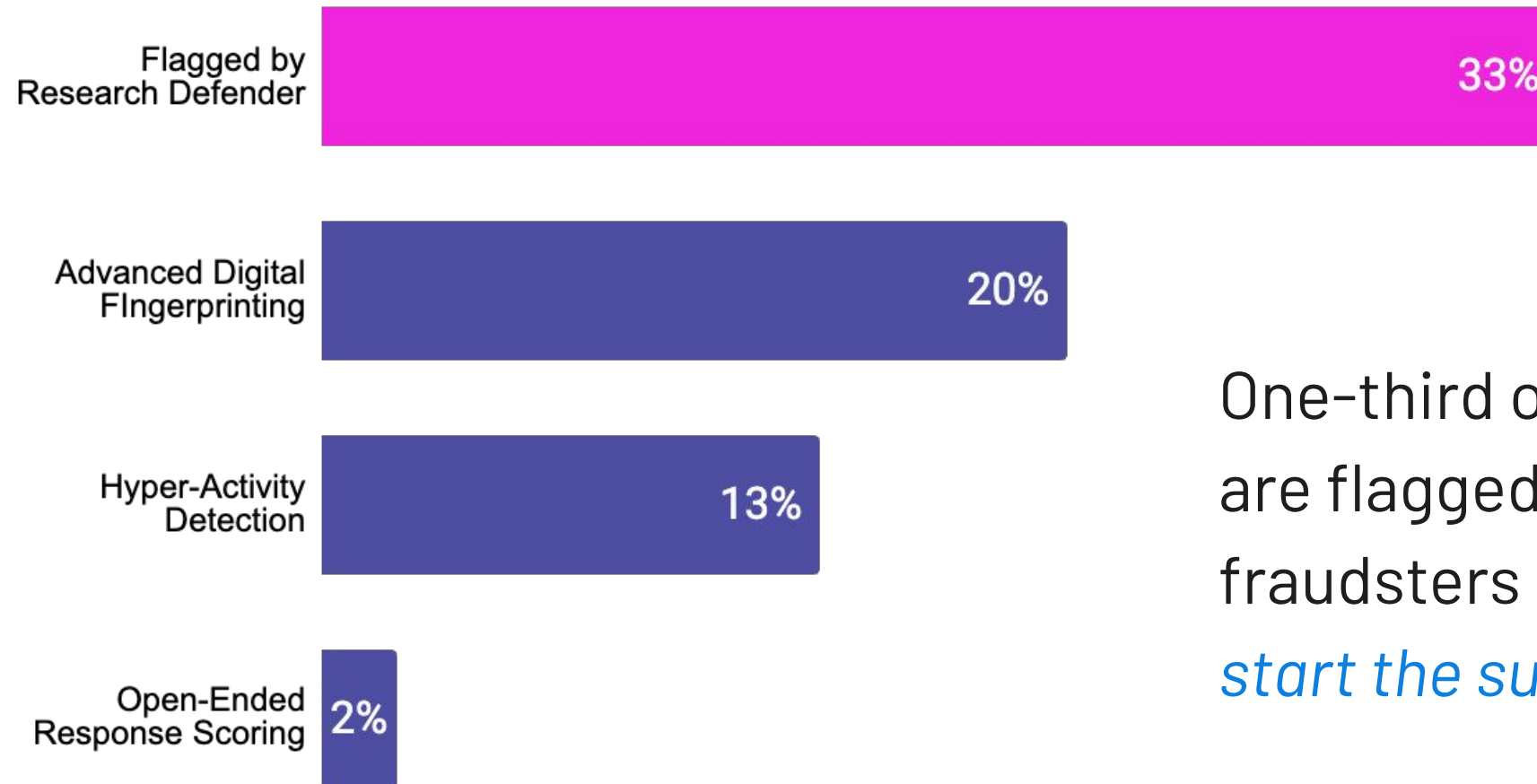
- We collected 2,059 online responses from standing market research panels
- We implemented Census-based demographic quotas
- Our survey had an LOI of ~12 minutes, covering political and market research topics as well as experience taking surveys



TECH-ENABLED FRAUD IS PERVASIVE



FRAUD IS PERVASIVE

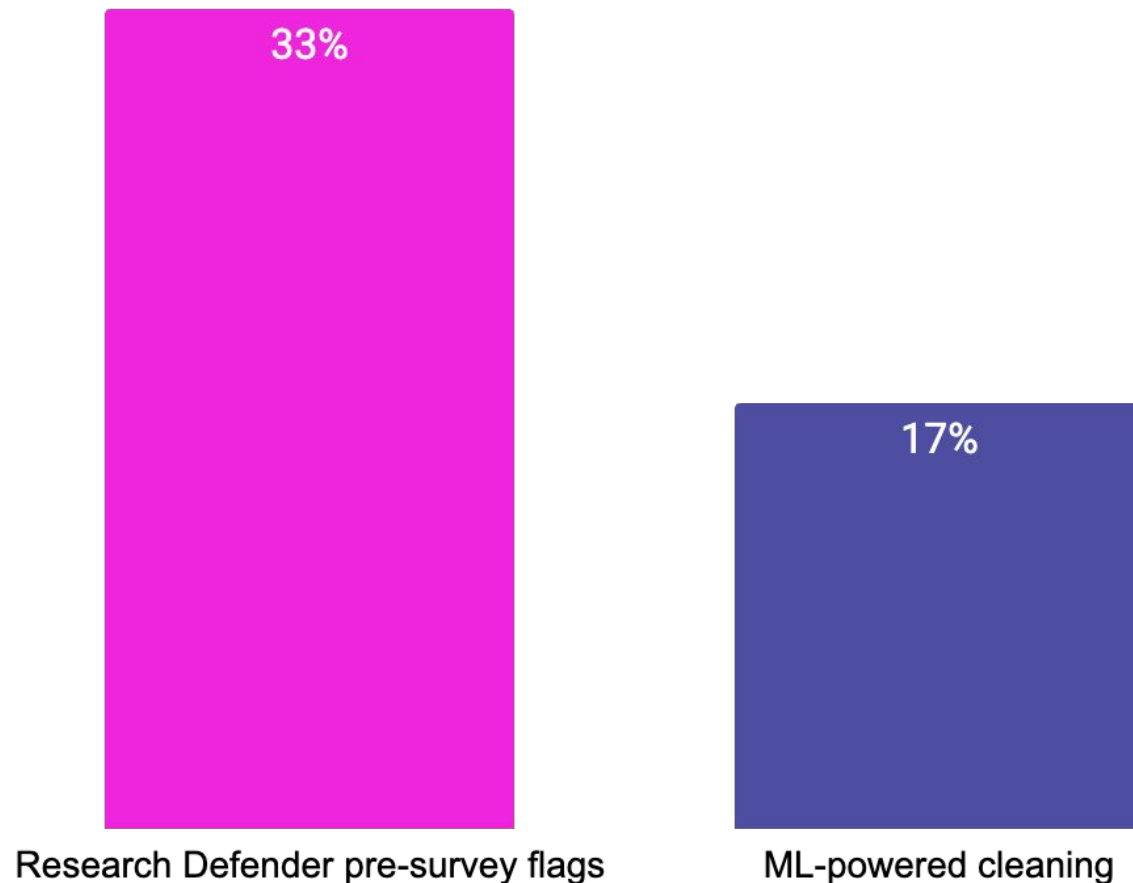


One-third of all respondents are flagged as suspected fraudsters *before they even start the survey*.

DATA CLEANING MISSES MOST TECH-ENABLED FRAUD

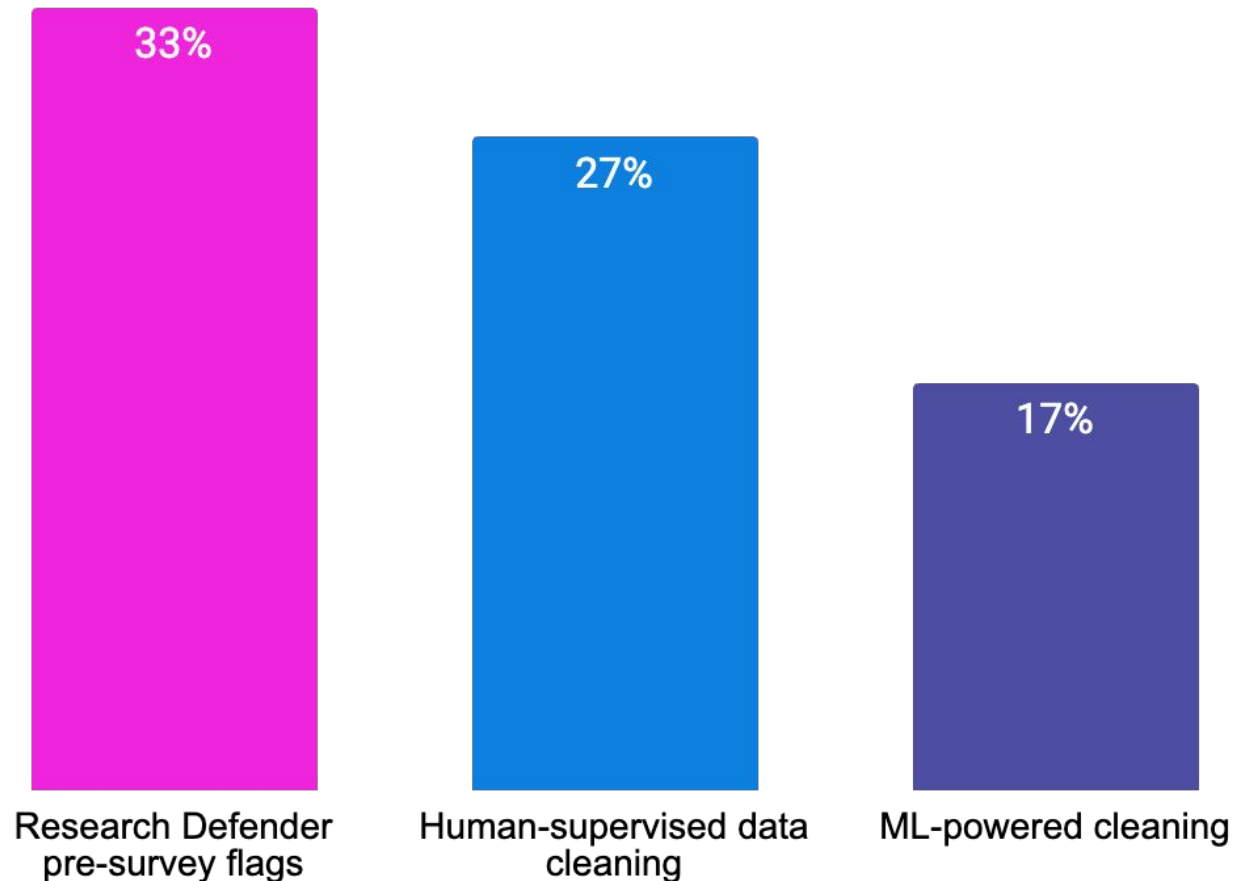


RESEARCH DEFENDER OUTPERFORMS CLEANING



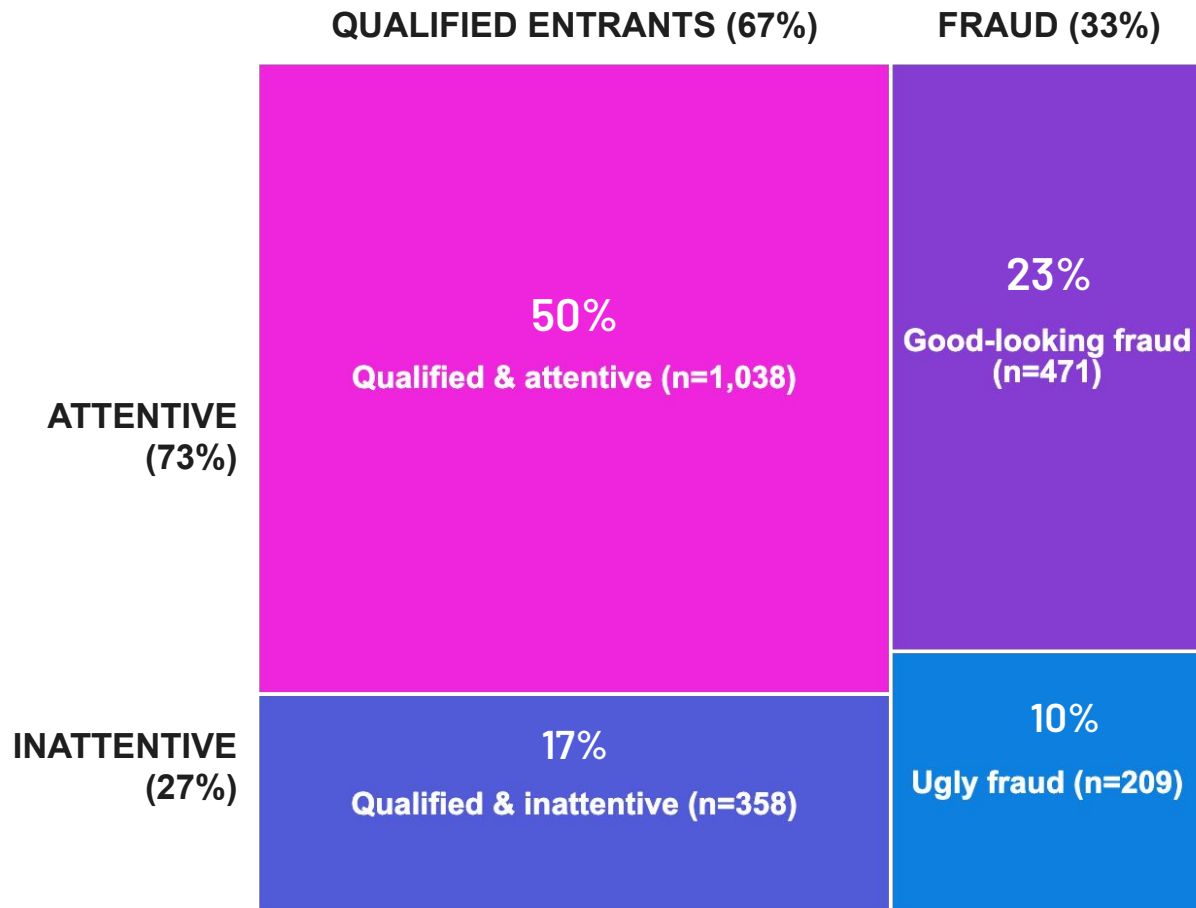
Compared to rigorous data cleaning (with the benefit of full survey responses),
Research Defender flagged 2x more data quality issues.

RESEARCH DEFENDER OUTPERFORMS CLEANING



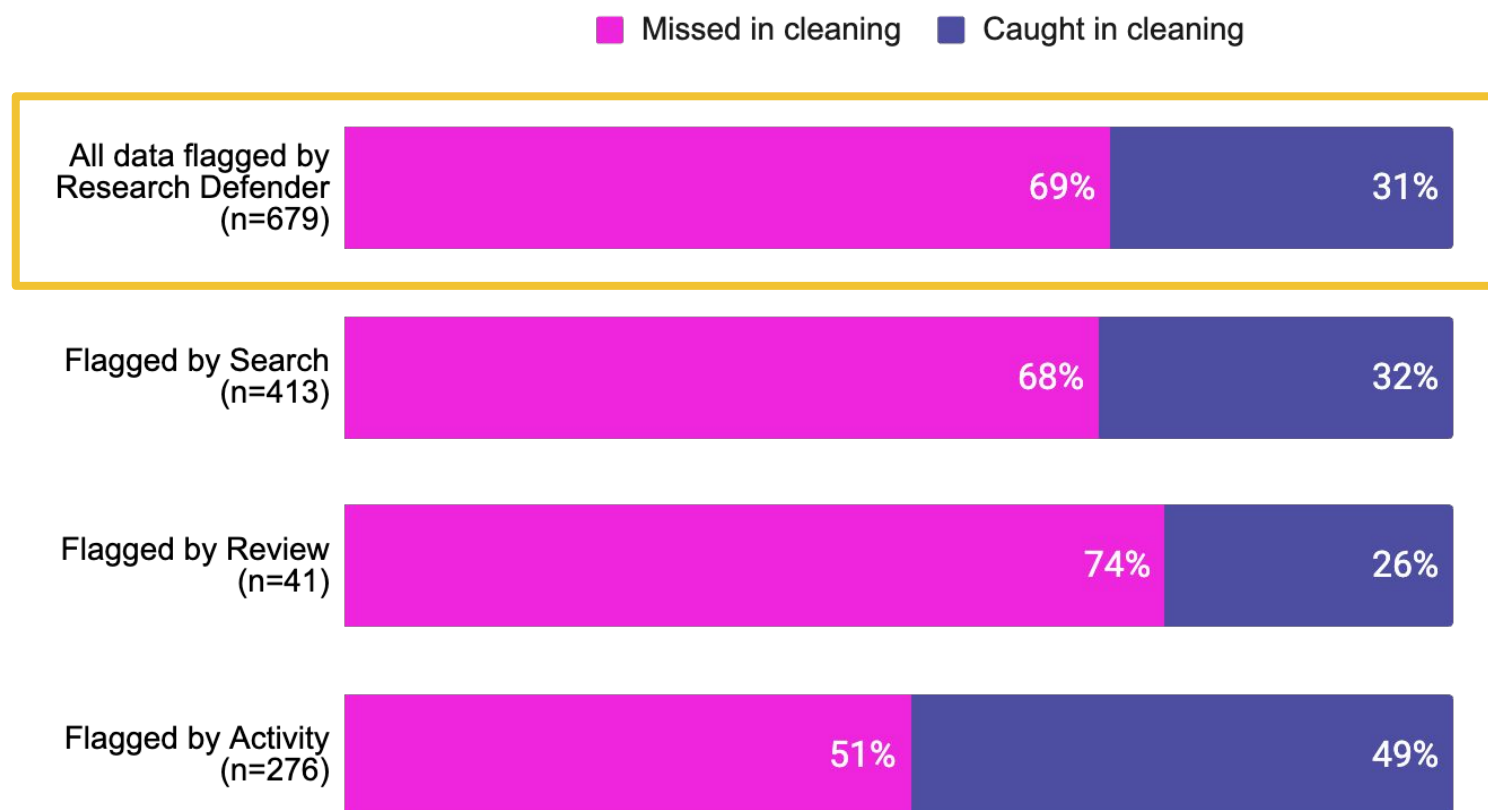
Even compared to human-supervised data cleaning, *Research Defender* flagged almost 20% more fraud than the most rigorous cleaning.

INATTENTION AND FRAUD ARE NOT THE SAME



Between fraudulent entrants flagged by Research Defender and inattentive respondents caught in cleaning, *just 50% of all responses are high-quality.*

DATA CLEANING MISSES MOST FRAUD



Among respondents flagged by Research Defender, only 31% are discovered in data cleaning; *the majority of fraudulent data (69%) is missed by cleaning.*

FRAUDSTERS GIVE PASSABLE OPEN-ENDED RESPONSES



CAN YOU SPOT FRAUDSTERS FROM OPEN-ENDS?

I think the most important problem today is education.
Racism people still getting discriminated against because the color of their skin
the economy
War, financial crisis
The encomy
Anniversary gift
Immigration
Climate change is one of the major challenges of our time. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale.
the only only only
The most important issue is the issues surrounding women's rights.

We asked respondents, "What do you think is the most important problem facing this country today?"

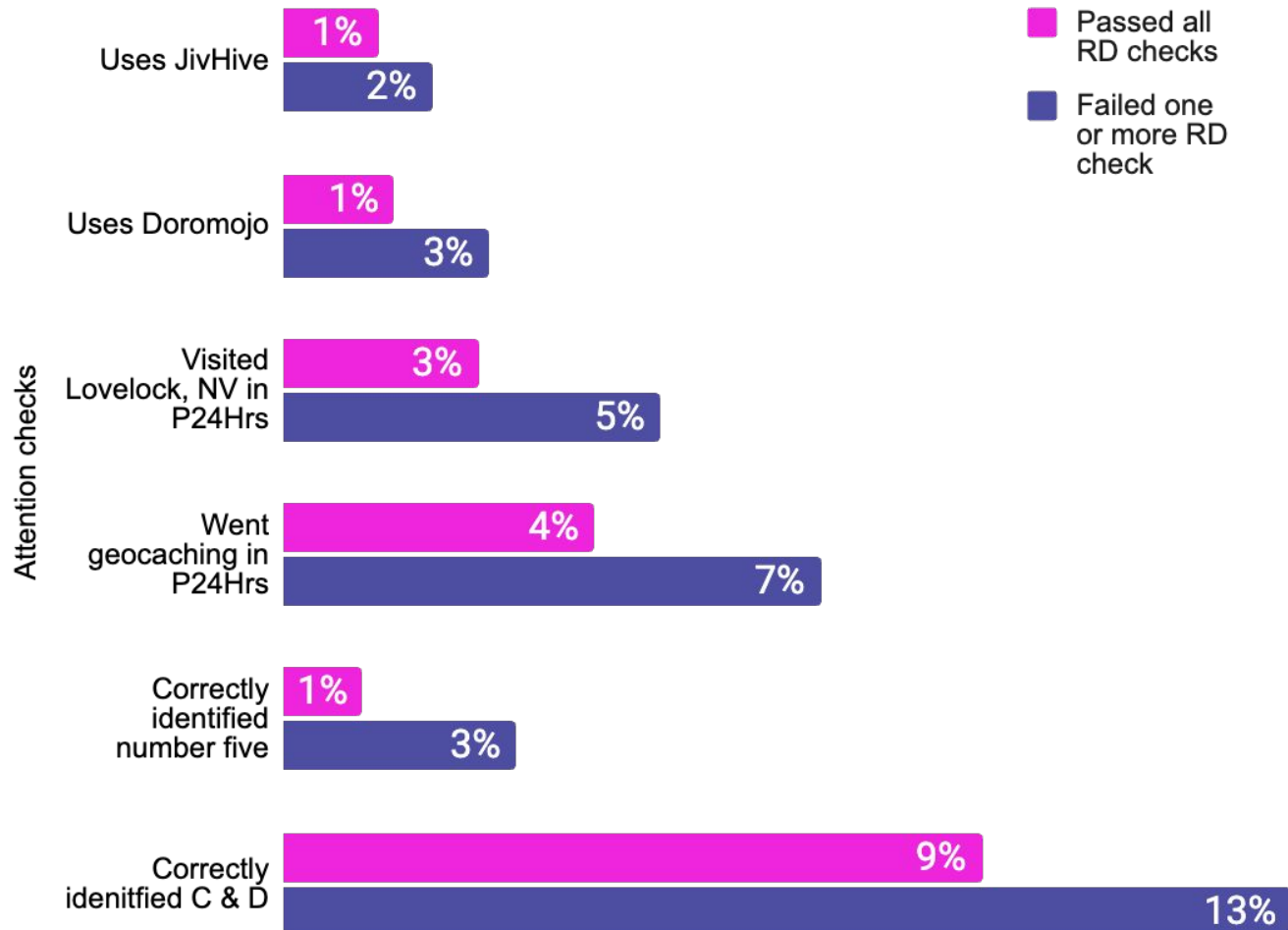
CAN YOU SPOT FRAUDSTERS FROM OPEN-ENDS?

I think the most important problem today is education.	Developer tools detected
Racism people still getting discriminated against because the color of their skin	WebRTC fraud detected
the economy	Attempted 393 surveys p24hrs
War, financial crisis	Duplicate entry
The encomy	Known fraudster
Anniversary gift	Pre-survey profanity flag
Immigration	Attempted 255 surveys p24hrs
Climate change is one of the major challenges of our time. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale.	Pre-survey copy/paste flag
the only only only	Attempted 300 surveys p24hrs
The most important issue is the issues surrounding women's rights.	known fraudster

FRAUDSTERS GET THROUGH ATTENTION CHECKS



FEW FRAUDSTERS FALL FOR ATTENTION CHECKS

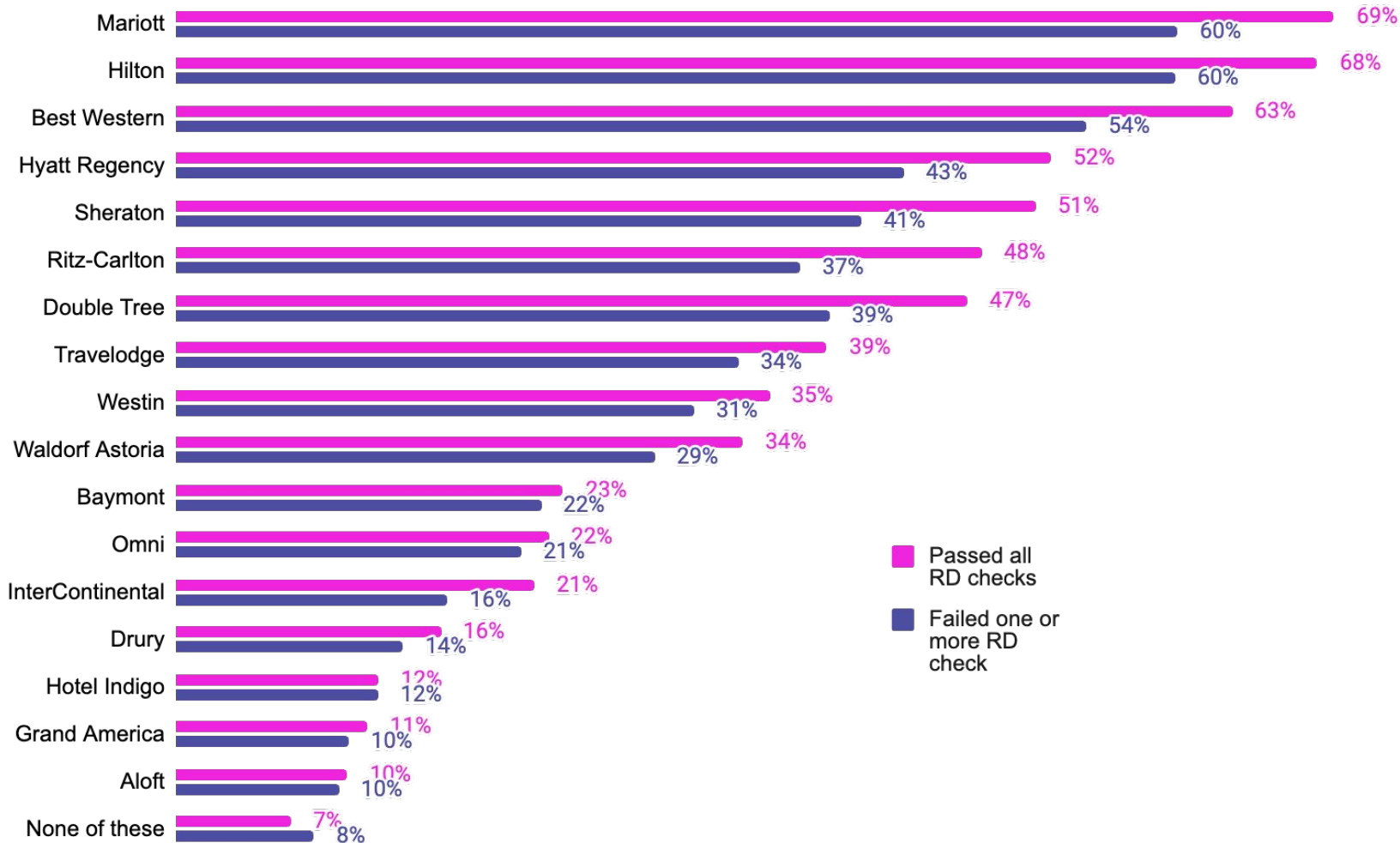


While fraudsters fail attention checks at slightly higher rates than qualified respondents; *most fraudsters easily pass attention checks.*

FRAUDSTERS ADD BIAS TO YOUR BRAND KPIs

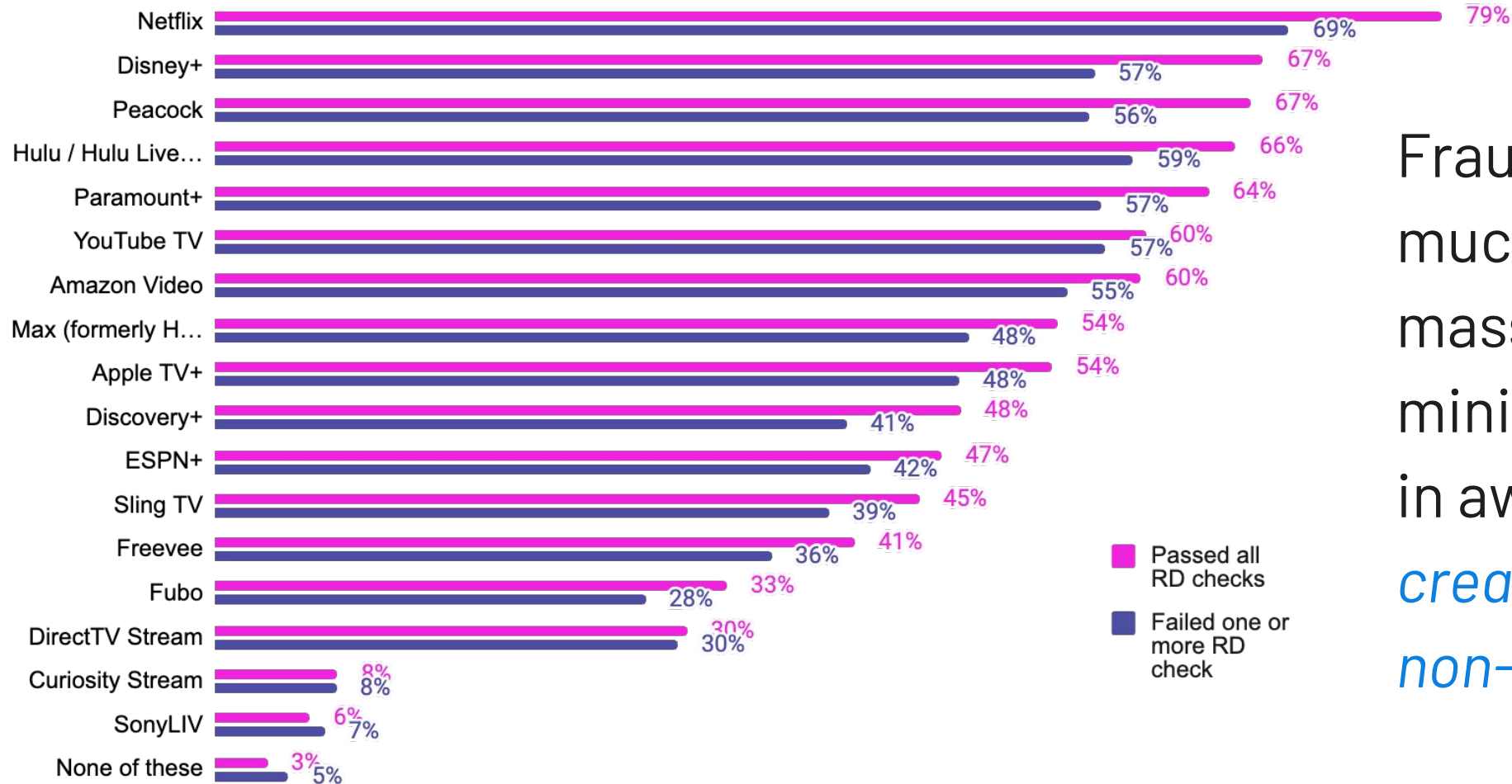


FRAUDSTERS ATTENUATE HOTEL AWARENESS



Fraudsters say they are much less aware of mass-aware brands, minimizing differences in awareness and *creating an illusion of non-differentiation.*

FRAUDSTERS ATTENUATE STREAMING AWARENESS



Fraudsters say they are much less aware of mass-aware brands, minimizing differences in awareness and *creating an illusion of non-differentiation.*

WHAT DO WE KNOW ABOUT TECH-ENABLED SURVEY FRAUD?

- It's pervasive!
- Evades data cleaning
- Not easily detected in open-ends
- Not detected by attention checks
- It attenuates findings and limits the usability of survey data



The background is a solid purple color. At the top and bottom, there are decorative elements consisting of multiple thin, white, wavy lines that overlap and create a sense of motion or data flow.

 **REPDATA**