



PROGRAMMATIC CLICK FRAUD BENCHMARKS: JANUARY - APRIL 2017



POWERED BY PIXALATE MEDIA RATING TERMINAL

EXECUTIVE SUMMARY

Click fraud in programmatic advertising is a growing problem across devices and channels. Picalate has compiled the latest trends to update the marketplace and inform everyone of the threat.

Key Takeaways:

- Connected TV/OTT click fraud rose 161% from January-April 2017
- Smartphone click fraud increased 102%
- Tablet click fraud jumped 111%
- Desktop click fraud rose 21%
- Smartphone and tablet video click fraud rose nearly 3x
- Tablet display click fraud jumped 50%
- Connected TV/OTT click fraud within apps rose 70%
- Over 75% of desktop clicks on 300x600 ad units are fraudulent.





EXECUTIVE SUMMARY: PROGRAMMATIC CLICK FRAUD

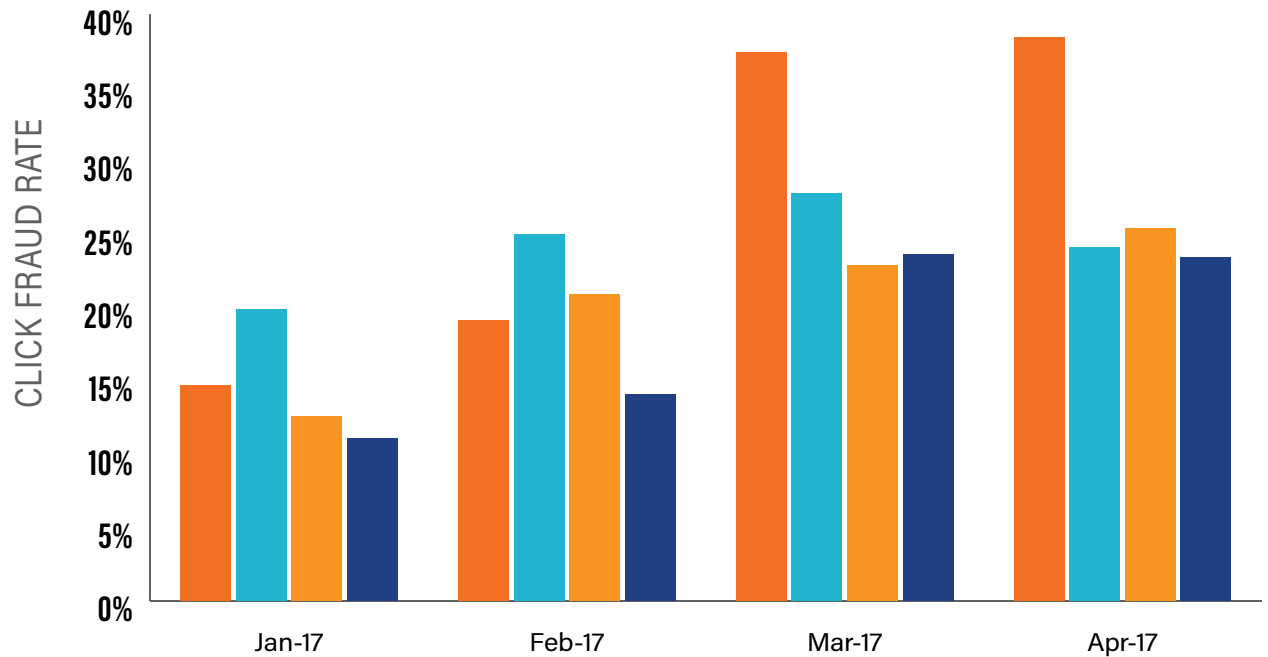
The proliferation of programmatic and the widespread use of real-time trading in the digital ad ecosystem has left room for fraudsters to slip in through the cracks. Our recent [Q1 2017 Impression Fraud Benchmarks Report](#) highlighted the extent of this challenge.

That report found that 36% of smartphone inventory, 31% of desktop inventory, 13% of tablet inventory, and 51% of connected TV/OTT inventory available for programmatic purchase was fraudulent.

But Pixalate takes ad fraud detection and prevention a step (or two) further. We monitor and weed out all types of ad fraud in programmatic, including click fraud. That's what this report focuses on.

Programmatic tablet impression fraud was only at about 13% — well below the other devices. This might give marketers a false sense of security when buying tablet ads. As our new study shows, tablet video click fraud increased 181% over the

CLICK FRAUD BY DEVICE



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate's proprietary measurement technologies, 2017.

first several months of 2017, while tablet display click fraud increased 50%.

The bad guys are utilizing multiple avenues to defraud marketers. Pixalate is capable of meeting them each step of the way.

This report aims to give additional context while diving deeper into the world of ad fraud in programmatic to educate the marketplace on the current state of ad fraud and the multiple ways in which fraudsters are attacking our industry.



The Quality Ratings Standard
For Programmatic Advertising

Mobile video click fraud
increased nearly **3X** over the first
four months of 2017.





SMARTPHONE CLICK FRAUD

“Fraudsters are constantly changing their click fraud tactics.”

There are dedicated “centers” out there meant solely to fake clicks on mobile devices.

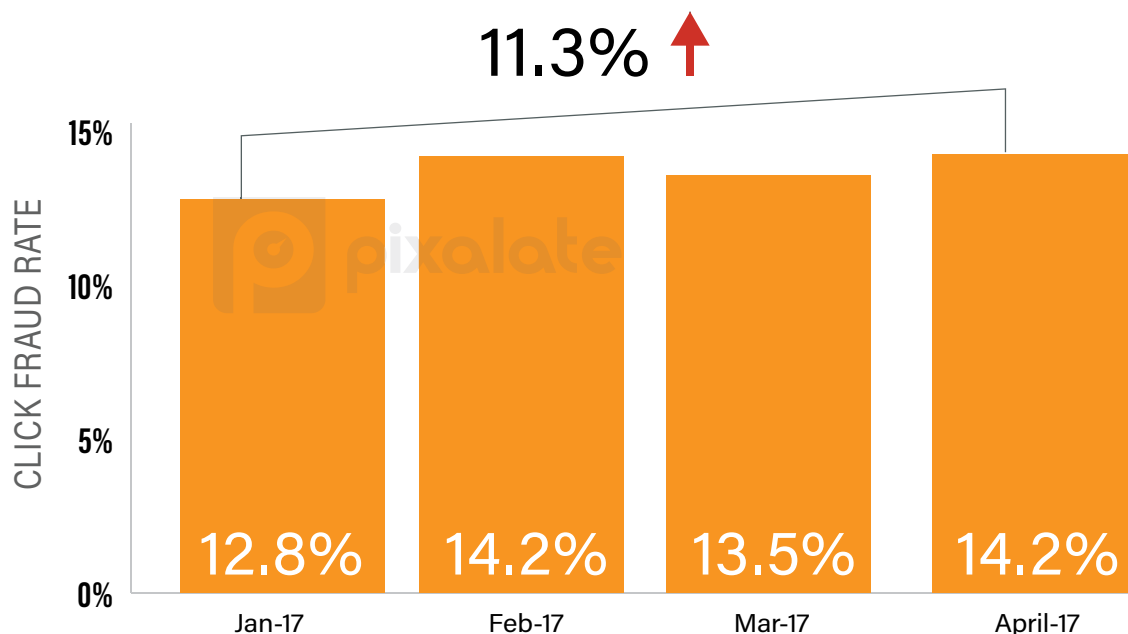
Smartphone display click fraud in programmatic increased 11.3% over the first several months of 2017. Our previous research revealed that over one-third (36%) of all smartphone ads available for programmatic purchase are fraudulent. These new click fraud insights reveal that marketers need to account for fraudulent activity beyond the impression level.

- Smartphone display click fraud was at 12.8% in January 2017
- Smartphone display click fraud rose to just over 14% by February and remained around the 14% mark through April
- Overall, smartphone display click fraud was 11.3% higher in April compared to January (14.2% versus 12.8%)

Smartphone display click fraud — across web and apps — increased slightly during the first four months of 2017. Marketers who focus campaigns on PPC and CPC opportunities in mobile need to structure campaigns to avoid click fraud, because our data indicates that the risk associated with these campaigns is both volatile and growing.



SMARTPHONE DISPLAY CLICK FRAUD INCREASE IN 2017



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate’s proprietary measurement technologies, 2017.



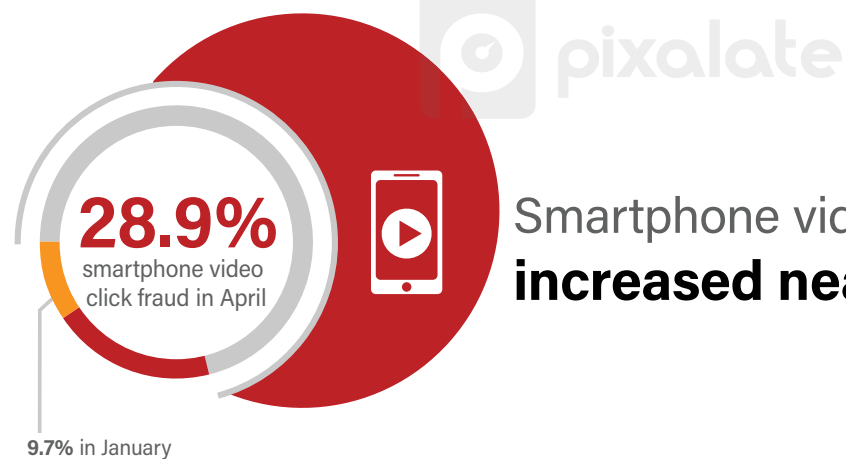
The Quality Ratings Standard For Programmatic Advertising



SMARTPHONE CLICK FRAUD

Smartphone video fraud jumped almost 3x across web and apps. The rise in smartphone video click fraud comes at a time when over half (56%) of all smartphone web video ad impressions available via programmatic are fraudulent, and over one-third (37%) of app video impressions are fake.

- Smartphone video ads saw click fraud at 9.7% in January 2017
- By April, that number had risen to 28.9% — an increase of 198% (nearly 3x)
- Smartphone video ads saw click fraud peak at 45.1% in February before decreasing back down to 28.9% in April



Smartphone video click fraud has **increased nearly 3x** in 2017.

Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate’s proprietary measurement technologies, 2017.

Fraudsters have their sights set on smartphone video ads. In addition to the 3x rise in smartphone video click fraud to begin 2017, our impression fraud research found that 37% of smartphone app video

and 56% of smartphone web video impressions were fraudulent in Q1 2017. Marketers need to have comprehensive ad fraud prevention plans in place when buying video on smartphones.

Tablet click fraud
jumped **over 50%** in 4 months.





TABLET CLICK FRAUD

“For display advertising, click fraud does seem to be ramping up at a faster pace on tablets compared to smartphones.”

Tablet display click fraud increased by over 50% during the first four months of 2017. The rise in smartphone video click fraud comes at a time when over half (56%) of all smartphone web video ad impressions available via programmatic are fraudulent, and over one-third (37%) of app video impressions are fake.

- Tablet display click fraud was at 11.4% in January 2017
- Overall, tablet display click fraud was 53.2% higher in April compared to January (17.5% versus 11.4%)
- Tablet video click fraud was 8.7% in January 2017
- Overall, tablet video click fraud increased 180.6% from January through April — nearly 3x (from 8.7% to 24.3%)
- Tablet app and web impression fraud was only at about 12% in Q1 2017, much lower than smartphone rates. So while tablet inventory may seem “safe” by comparison, our click fraud data reveals that fraudsters are ramping up efforts elsewhere.

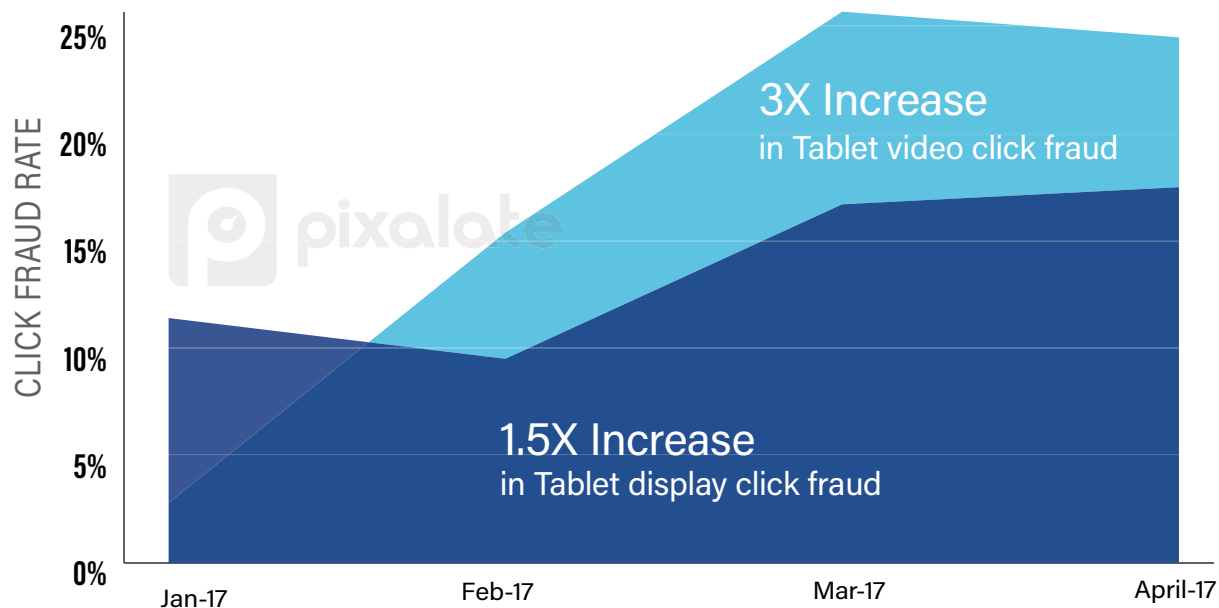
TABLET CLICK FRAUD IN 2017



TABLET DISPLAY



TABLET VIDEO



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate’s proprietary measurement technologies, 2017.



The Quality Ratings Standard
For Programmatic Advertising

Click fraud in OTT?
It's real (and growing).





CONNECTED TV/OTT CLICK FRAUD

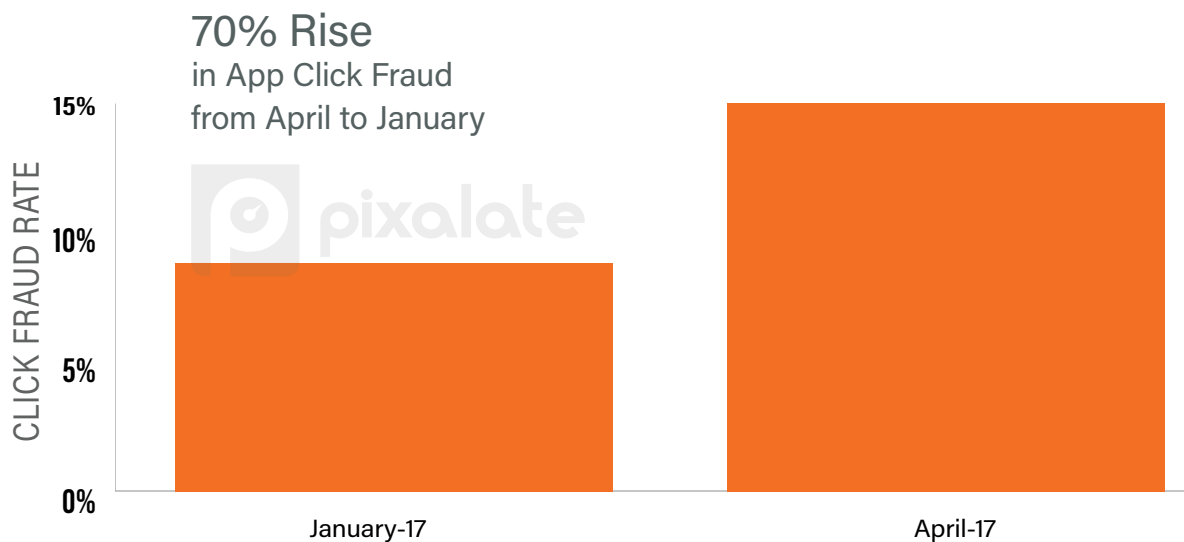
“Connected TV/OTT web click fraud rose 2.6x from January to April and was even more volatile within apps.”

Connected TV/OTT web ad click fraud rose in every month from January to April in 2017. Marketers should have a plan in place to account for the turbulent, growing problem of click fraud when using programmatic to buy or sell ads in the Connected TV/OTT space.

Connected TV/OTT app advertising via programmatic saw click fraud rates increase 70% during the first four months of 2017. But there was plenty of volatility in that span.

- Connected TV and OTT app click fraud was 10.2% in January 2017
- Click fraud in apps rose to a high of 21.7% in February
- It went back to 10.2% in March before rising to 17.3% in April
- Overall, Connected TV/OTT app click fraud was 70% higher in April compared to January (17.3% vs. 10.2%)

CONNECTED TV/OTT APP CLICK FRAUD



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate’s proprietary measurement technologies, 2017.



The Quality Ratings Standard
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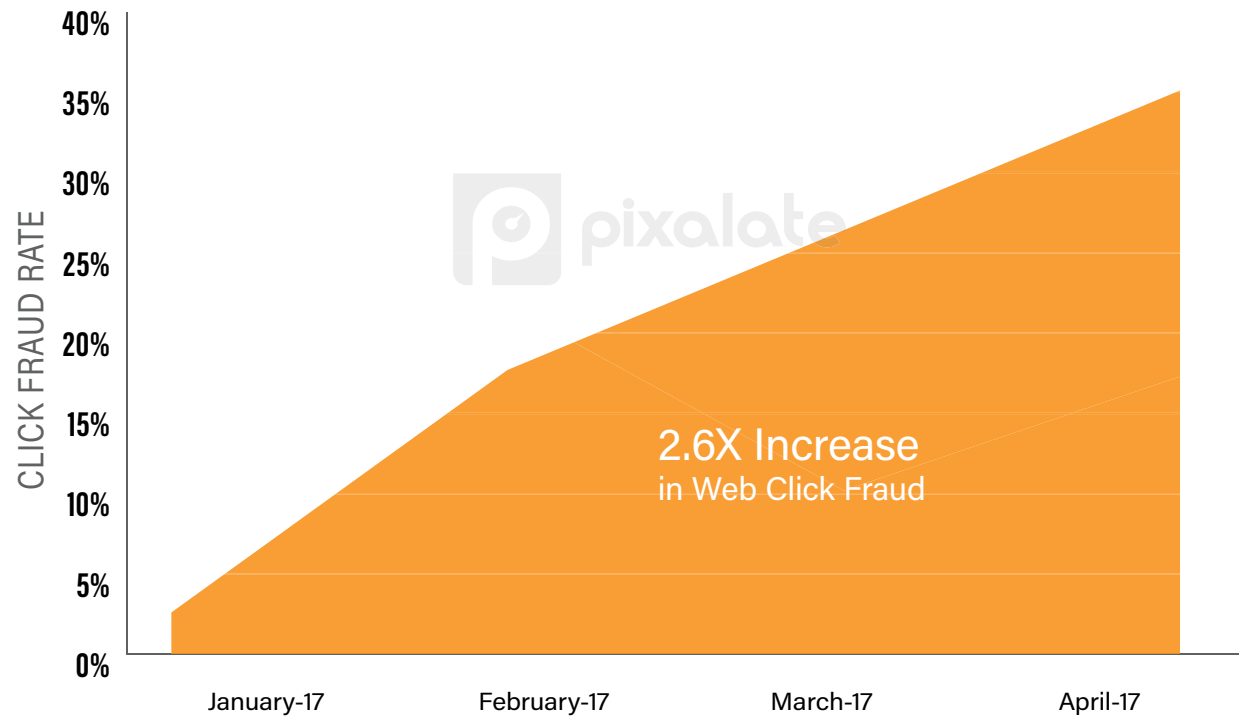


CONNECTED TV/OTT CLICK FRAUD

While click fraud within Connected TV and OTT apps saw volatile growth, click fraud within web environments saw progressive growth each and every month to begin 2017.

- Connected TV and OTT web click fraud was 15.5% in January 2017
- The number rose steadily to 19.1% in February before doubling to 39.3% in March
- Connected TV/OTT web click fraud peaked in April, at 40.9%
- Overall, Connected TV/OTT web click fraud increased by 2.6x from January to April (15.5% to 40.9%)
- With over half (51%) of Connected TV/OTT inventory proving fraudulent in the space, and a 2.6x increase in click fraud on Connected TV/OTT ads, it's clear that fraudsters are ramping up their efforts across all facets of advertising in this emerging space.

CONNECTED TV/OTT WEB CLICK FRAUD



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate's proprietary measurement technologies, 2017.

1-in-4

desktop clicks are fraudulent.
And it's rising.

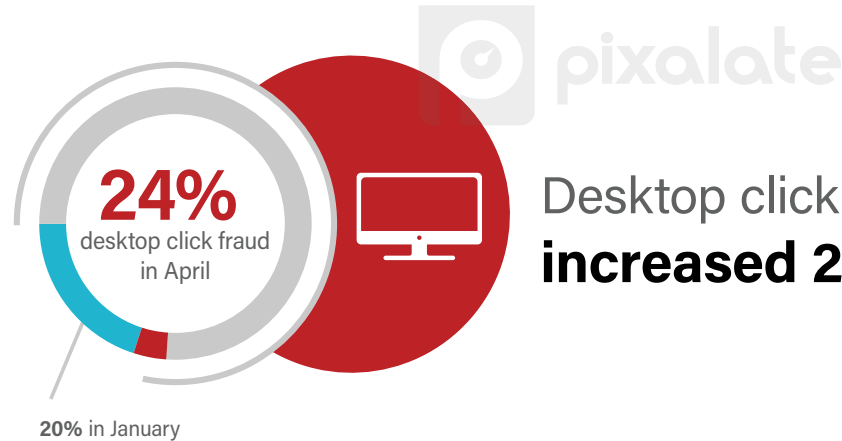




“Desktop Click Fraud Has Risen From 20% to 24% in 2017”

In January, about 1-in-5 (19.9%) of programmatic desktop clicks were fraudulent. That number rose to nearly 1-in-4 (24%) by April. If desktop click fraud continues to grow at this pace, then over one-third of desktop clicks will be fraudulent by the end of 2017. That would be in line with desktop’s impression fraud rate of 31%.

- About one-in-five (19.9%) desktop clicks were fraudulent in January 2017
- That number rose every month in Q1 2017, peaking at 27.8% in March
- There was a slight decrease in desktop click fraud from March to April (24.1%)
- From January-April 2017, click fraud rates increased 20.8% (from 19.9% to 24.1%)



Desktop click fraud has **increased 20.8%** in 2017.

- One-in-five (19.5%) of display web clicks were fraudulent in January 2017
- That number peaked in March at 28.3%
- In April 2017, Pixalate measured a 26.2% fraudulent click rate on display web ads
- From January-April 2017, desktop display web click fraud rates increased 34.6% (from about 19.5% to 26.2%)



Desktop display web click fraud **increased 34.6%** since the start of 2017.

Display click fraud
increased 17%.

Video click fraud
jumped 26%.



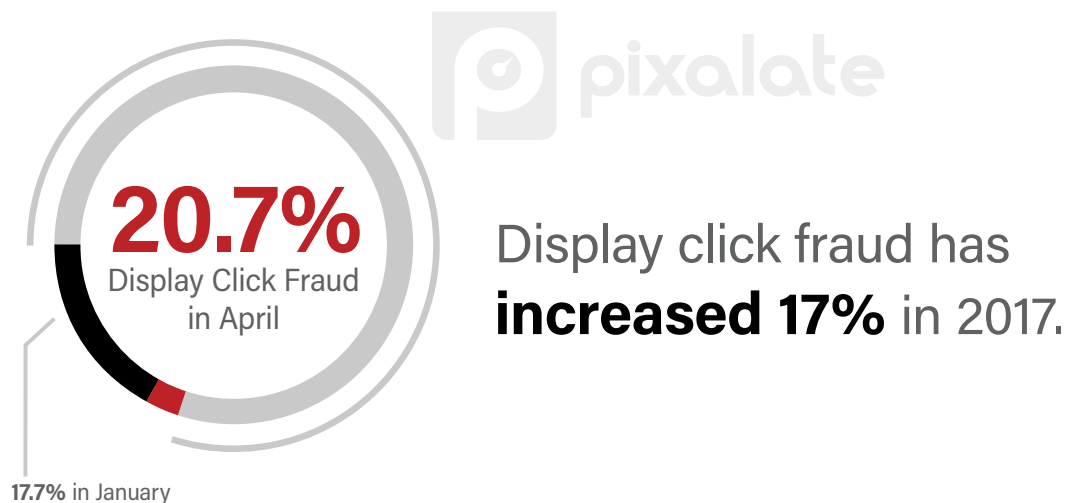


DISPLAY VS. VIDEO CLICK FRAUD

“Click fraud is a growing problem across devices and channels, including display and video ads.”

Pixalate broke down click fraud over the first several months of 2017 by two channels: display and video. We discovered that click fraud is rising across devices and channels alike. It’s a growing problem for every corner of the programmatic marketplace. The rising problem of click fraud is exacerbated when combined with our previous research on programmatic impression fraud, which found video impression fraud rates at 27% and desktop impression fraud rates at 35%.

- Programmatic display click fraud began the year at 17.7%
- It remained steady at 17.6% in February
- Display click fraud increased to 20.4% in March and reached a high of 20.7% in April
- Overall, programmatic display click fraud increased 17% to begin the year (from 17.7% to 20.7%)



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate’s proprietary measurement technologies, 2017.

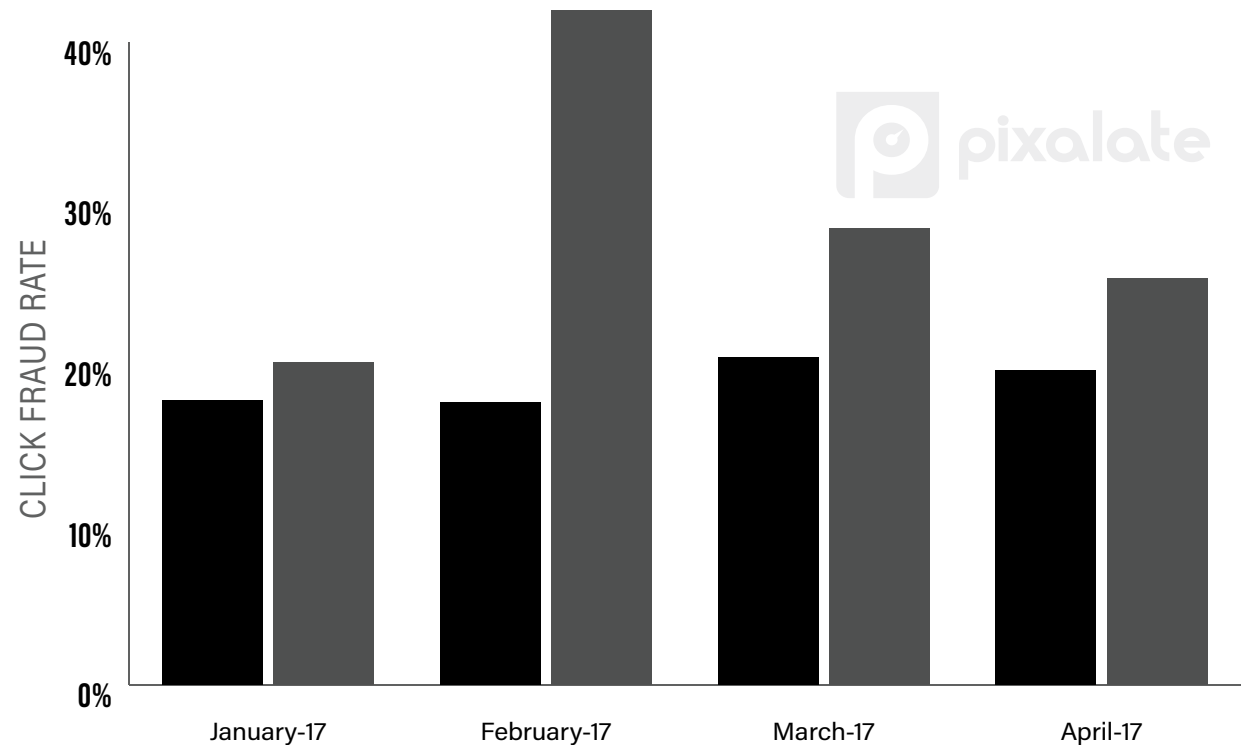


DISPLAY VS. VIDEO CLICK FRAUD

Click fraud in programmatic video grew from a 1-in-5 problem to a 1-in-4 problem over the first several months of the year. However, click fraud in video has been declining when compared to its high of 42% in February. Pixalate will continue to track this trend.

- Video ads sold via programmatic saw click fraud at a 20.1% rate in January 2017
- Click fraud more than doubled (up to 42%) in February 2017
- Overall, video click fraud was 26% higher in April 2017 than it was in January 2017 (25.3% vs. 20.1%)

DISPLAY VS. VIDEO CLICK FRAUD



Source: Pixalate data research, global. Data inclusive of ads available for programmatic purchase. Data depicts the percentage of all clicks that were deemed fraudulent by Pixalate's proprietary measurement technologies, 2017.

Over **75% of clicks**
on 300x600 ad units
are fraudulent.





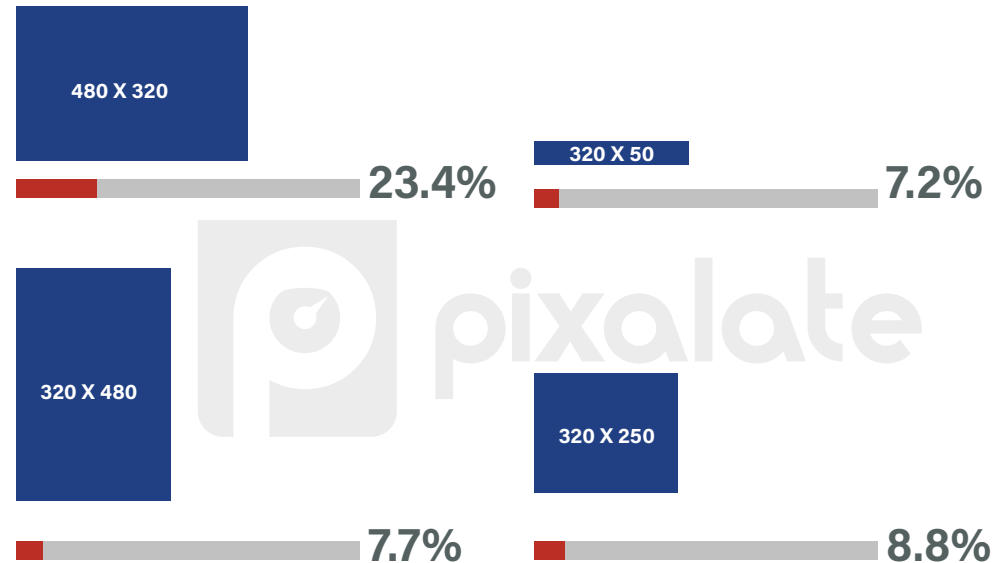
SMARTPHONE CLICK FRAUD BY AD UNIT SIZE

When it comes to some of the most popular ad unit sizes on smartphone devices, fraudsters are clearly drawn to one size in particular: the 480x320 unit.

- Nearly one-in-four (23.4%) of 480x320 smartphone ad units traded via programmatic were fraudulent in April 2017
- The 320x250 ad unit was the next most-popular among fraudsters, with a click fraud rate of 8.8%
- The 320x480 unit (7.7%) and 320x50 unit (7.2%) both had click fraud rates below 10%
- While the 480x320 is far and away the most popular smartphone ad size for click fraud, it's not one of the most commonly-targeted sizes for impression fraud (only 5% of smartphone web). Marketers need to look beyond just impression-level fraud activity to thoroughly protect their investments.



SMARTPHONE CLICK FRAUD RATES BY AD UNIT SIZE



Source: Pixalate data research, global. Data inclusive of ad impressions available for programmatic purchase, April 2017.



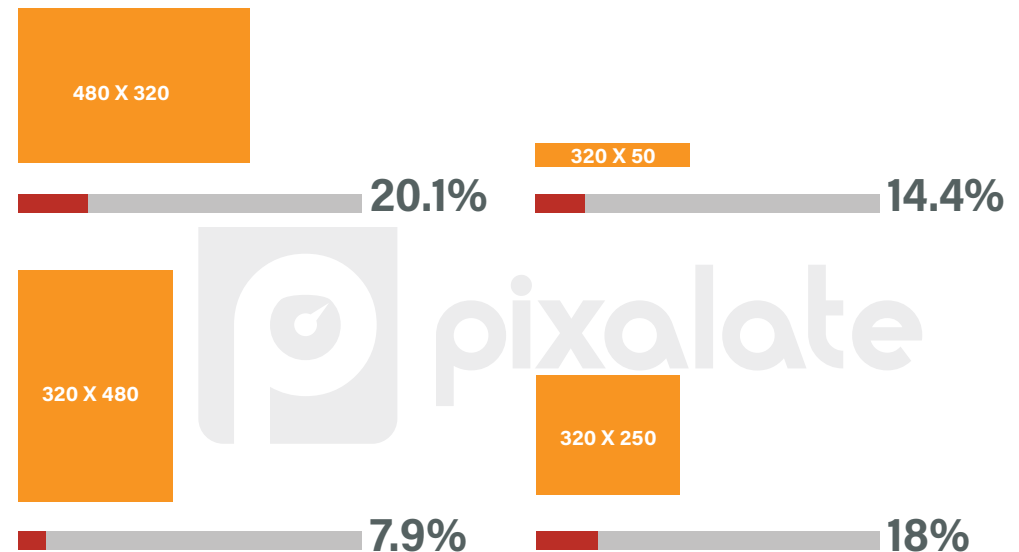
TABLET CLICK FRAUD BY AD UNIT SIZE

- One-in-four (20.1%) of clicks on the 480x320 ad unit on tablets were fraudulent in April 2017
- The 320x250 ad unit saw a click fraud rate of 18%, and the 320x50 ad unit had a 14.4% click fraud rate
- The 320x480 size had lower click fraud rates compared to some of the other most popular sizes, at 7.9%
- While the 320x480 unit doesn't have a high click fraud rate (7.9%), it does have the highest impression fraud rate (33%) of common tablet ad sizes. Fraudsters are finding multiple ways to attack the same target.

Interestingly, click fraud rates for the 320x250 and 320x50 ad units were roughly 2x higher on tablets compared to smartphones. However, the click fraud rates on the 320x480 and 480x320 units were roughly equal on both mobile devices.



TABLET CLICK FRAUD RATES BY AD UNIT SIZE



Source: Pixalate data research, global. Data inclusive of ad impressions available for programmatic purchase, April 2017.



DESKTOP CLICK FRAUD BY AD UNIT SIZE

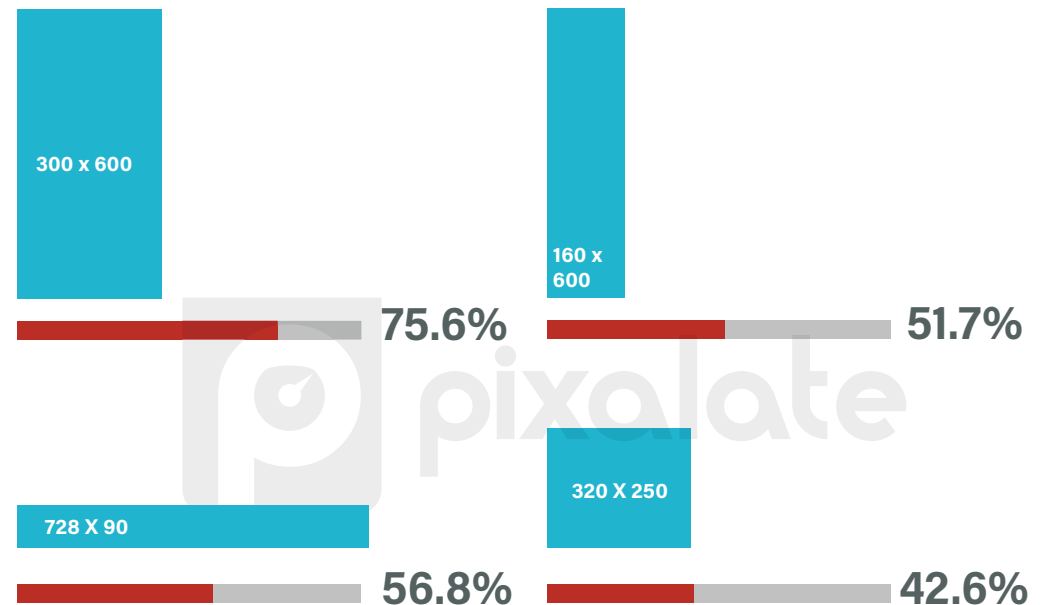
For three of the most popular desktop ad unit sizes traded via programmatic, over half of the clicks they receive are fraudulent.

- Over three-in-four (75.6%) of clicks on 300x600 ads were fraudulent in April 2017
- The 160x600 unit (51.7%) and 728x90 unit (56.8%) saw over half of their clicks prove fraudulent
- The 320x250 ad unit had a click fraud rate of 42.6%

Click fraud rates across the most popular desktop ad unit sizes were significantly higher than click fraud rates on the most popular smartphone and tablet ad units. Overall, click fraud is a little higher on desktops than it is on mobile devices.



DESKTOP CLICK FRAUD RATES BY AD UNIT SIZE



Source: Pixalate data research, global. Data inclusive of ad impressions available for programmatic purchase, April 2017.


ABOUT

The Picalate Programmatic Click Fraud Benchmarks Report seeks to inform and update buyers and sellers in the programmatic marketplace on the issue of click fraud.

Our previous report on ad fraud in programmatic highlighted the growing problem of impression fraud. Fraudsters are siphoning money from buyers and sellers by spoofing impressions in the real-time media marketplace.

But the fraudsters aren't just stopping at the impression level. They are faking clicks as well to steal even more money. Click fraud has been a thorn in digital media's side since the 90s, and with the advent of programmatic, the problems only grew in complexity and scale.

Ad fraud is more rampant deep in the funnel than ever imagined. The insights contained within this report can be used by marketers as they continue to push for more transparency and a high quality programmatic media marketplace.

 **picalate** is a leading global data intelligence platform and real-time fraud protection provider. Picalate is a Media Rating Council-certified vendor for display ad viewability.





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CLICK FRAUD

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METHODOLOGY Pixalate's team of data scientists analyzed billions of ad impressions utilizing proprietary analytics tools to compile this research. The data was aggregated based on unfiltered sold impressions throughout the programmatic ecosystem. Devices were detected based on user agent provided in the bid stream that were then categorized by using the wurfl device detection system.

DISCLAIMER The research and insights contained within this report represent Pixalate's data and opinions as it pertains to the information Pixalate believes will be most relevant to the digital advertising industry's battle against ad fraud. The data has not been audited or reviewed by a third party, but the research and insights are grounded in Pixalate's proprietary technology and analytics, which Pixalate is continuously evaluating and updating.