OXFORD BIOCHRONOMETRICS

Paid Media | Affiliates

H2 2023

Benchmark Report
(free version)

Introduction

If you use affiliate marketing channels or use other traffic sources to generate leads, there are a few questions you need to ask yourself:

- What does a successful campaign mean for you?
- What conversion rate do you expect to see?
- Do different affiliates have similar performance?
- How does affiliate marketing perform at scale?
- Which pricing model is the most cost effective?

At Oxford BioChronometrics, we understand the need to have clear knowledge regarding the performance of each marketing channel. That's why we created this report – so you can answer these questions for yourself based on actual data, not guesswork.

In order to provide you with a tool to drive decisions that will grow your business, we have analyzed tens of millions of clicks and the subsequent generated leads for fraudulent behavior. We use that data to provide you with hard data based on each affiliate, media type and device type.

Real data, actionable results for a better ROI – that's the pledge we make to you.

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Executive Summary

To determine your business' exposure to risks, Oxford BioChronometrics has analyzed tens of millions of clicks and leads generated by our North American clients in the financial services and insurance industries.

Key findings

- No affiliate is free of fraudulent traffic, regardless of size or reputation
- Mobile traffic makes up 81% of the total volume of clicks
- Fraud on mobile decreased from 12.5% in H1 to 10.8% in H2
- Fraud on desktop slightly increased from 34.8% in H1 to 38.9% in H2
- Desktop fraud remains high as this type of fraud scales more easily
- In the smaller tier, click fraud increased from 19.6% in H1 to 21.8% in H2
- In the bigger tier, click fraud increased from 14.1% in H1 to 18.5% in H2
- In the smaller tier, lead generation fraud decreased from 12.8% in H1 to 1.6% in H2
- In the bigger tier, click fraud decreased from 2.0% in H1 to 0.4% in H2

Methods

This report provides a detailed overview of our clients' affiliates ranked by the quality of the clicks and leads provided by them. To create a fair comparison, the affiliates are split in two tiers based on the number of clicks or leads they were able to generate.

The findings of this analysis are published on a biannual basis.

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Fraud Trend by Tier Size

The fraud trend since 2021 Q1 shows volatility in both fraudulent clicks and lead generation. Lead generation in both tiers improved over the past 18 months.
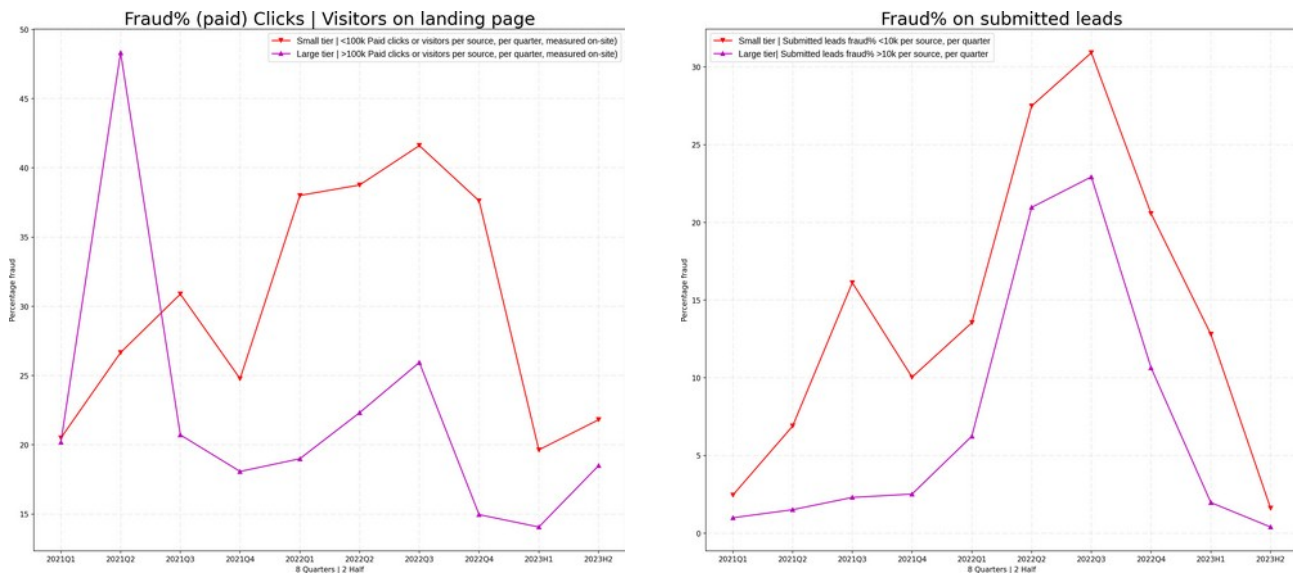
However, in both tiers the number of fraudulent clicks slightly increased in 2023 H2. In lead generation the fraud in the small tier decreased from its peak in 2022 Q3 to 1.6% in 2023 H2. The large tier decreased from its peak in 2022 Q3 to 0.4% in 2023 H2. The decrease was the result of removing traffic sources affected by botnets emulating desktop traffic, which were able to scale at low cost.

Over time our clients prune poor performing affiliates not just on their fraud levels, but also on the conversion to sales ratio. We cannot guarantee that these numbers will reflect your ratios.

Methodology

This report combines research and frontline experience to identify threats and trends that are meaningful to organizations to make long-term growth strategies.

The data for this report has been collected at landing pages and lead generation forms of Oxford BioChronometrics' clients. The results are comprised of tens of millions of genuine and fraudulent clicks, and millions of form submissions as seen during the second half of 2023.

The Oxford BioChronometrics team of experts consists of dedicated security consultants, data scientists and researchers conducting research on our clients' traffic. This report shares their findings and insight to provide a ranking of affiliates.

The H2 2023 Affiliate Benchmark Report is representative of Oxford BioChronometrics clients in North America. We make no claims that our benchmark results can be extrapolated to get the performance of an affiliate at large.

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Fraud Landscape

Digital lead generation is supposed to make it easier and more efficient to grow your business. Whether you do this in-house or by outsourcing lead generation to affiliates, monitoring the quality of clicks and generated leads is critical to keeping your data clean. Clean data ensures continuous business growth in changing market conditions.

Proper monitoring means third-party verification of those clicks and leads so that only verified leads are sent to your customer data platform. Filtering out fraudulent leads means your customer data is actionable. It also allows you to immediately return a fraudulent lead to your affiliate so you will not be charged for it.

Our analysis of the clicks and leads reveals the quality of:

- Clicks per source (which can be an affiliate)
- Leads per source (which can be an affiliate), and
- Traffic per device type (desktop vs mobile)
- Conversion ratio (clicks to leads)

Fraud Landscape

What is click fraud?

Click fraud occurs when bots click on your advertisements in order to get attribution. It can also be the result of a competitor clicking on your advertisements to waste your marketing budget.

What is lead generation fraud?

Lead generation fraud occurs when bots or low paid workers fill out lead generation forms with fake or stolen user information bought on the dark web. Since this is real information that is unauthorized to use, these people did not actually provide their consent to be contacted. If it goes undetected, you are at risk of litigation due to violating the TCPA.

What is the cost of fraud?

Fraud costs you real money:

- You paid for fraud because you thought the traffic was genuine
- You polluted your data, which affects your retargeting efforts
- You cannot calculate your actual ROI
- In ecommerce the number of chargebacks will increase due to fraudulent payments
- An increase of chargebacks lowers your reputation at your payment processors, resulting in higher transaction fees to cover these risks
- Both short and long-term strategic planning will be based on faulty insights

Fraud Landscape

Classification of different levels of fraudulent traffic.

1st level	2nd level	3rd level	4th level
Script bots	Headless browsers without interaction	Headful browsers with interaction	Low paid workers using proxies/ VPNs
Only use a few IP addresses to execute thousands of visits	Headless browsers are able to maintain cookies and execute JavaScript. Leveraging this enables fraudsters to build profiles and targeted click on ads	User interaction is emulated by moving the mouse, scrolling and clicking links to navigate	Rotate through large number of device fingerprints with matching user agents, each generating only a few hits to avoid detection
Easy to detect due to the repetitive nature		Are not able to solve interaction based challenges such as checking a box to continue or completing a CAPTCHA	Randomized curvy mouse movements and mimic other humanlike characteristics such as using 'paste as human' functions to copy/ paste data as if it were typed
		Are able to fill out forms by replaying pre-recorded human behavioral interaction and does have some level of randomization	Bot traffic is blended in with low paid workers traffic. The workers fill out the lead generation forms, the bots replay recorded human behavior such as swipes, mouse movements, zooming, etc. at the landing pages

Level 1 bots
These bots are built for basic web scraping and are generally unable to execute JavaScript. These bots use a small number of IP addresses and user agents. Their purpose is to scrape text information from web pages and present no threat in the lead generation industry.

Level 2 bots
These bots are based on headless browsers such as PhantomJS, or Chrome and/or Firefox browsers controlled by Selenium or Puppeteer. These bots can be identified through the specific browser and device characteristics. When found, these bots are mostly used to run click fraud schemes.

Level 3 bots
These bots are based on full-fledged headful browsers, controlled by Puppeteer, Playwright, etc. These browsers are run with additional plugins to try avoid being detected as bot. They are able to simulate basic interactions, such as simple mouse movements, scrolls and keystrokes. Newer variants are able to use pre-recorded human behavior and stolen data to fill out your forms at scale.

Level 4 hybrid
The fourth level is a hybrid form and consists of interactions between bots and a human workforce. Bots will do the repetitive work like finding specific advertisements to click on in order to get the attribution. Subsequently, the 'state' of the browser is saved and continued by a human using the exact same device profile and state (cookies). This enables the human to continue the session and fill out the lead generation form.

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Benchmark: Generated Clicks

Now let's benchmark click results. This is a typical CPC model where you pay for a click on your ad that leads to your landing page. The fraudulent part of the traffic consists of level 2 and level 3 bots.

The affiliates have been split into two tiers, based on the volume of traffic they sent to the landing page:

- affiliates that generated between 1,000 to 100,000 clicks, and
- affiliates that generated more than 100,000 clicks.

Both tiers are ranked by the percentage of fraudulent visits with the lowest fraud percentage at the top.

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Benchmark: Clicks <100k

The table below contains only data from affiliates that generated between 1,000 and 100,000 clicks of CPC traffic. All results are measured on the landing pages the ads were directed to.

The type of fraudulent traffic consists of mostly level 2 and level 3 bots.

Affiliate	% genuine traffic	% fraudulent traffic
Affiliate 001	93.52%	6.48%
Affiliate 002	91.33%	8.67%
Affiliate 003	90.04%	9.96%
Affiliate 004	89.65%	10.35%
Affiliate 005	89.14%	10.86%
Affiliate 006	87.51%	12.49%
Affiliate 007	87.28%	12.72%
Affiliate 008	87.08%	12.92%
Affiliate 009	86.81%	13.19%
Affiliate 010	85.32%	14.68%
...	...	...
Affiliate 021	74.96%	25.04%
Affiliate 022	73.48%	26.52%
Affiliate 023	73.45%	26.55%
Affiliate 024	72.85%	27.15%
Affiliate 025	69.32%	30.68%
Affiliate 026	59.41%	40.59%
Affiliate 027	44.67%	55.33%
Affiliate 028	37.77%	62.23%
Affiliate 029	15.28%	84.72%
Affiliate 030	2.27%	97.73%

Benchmark: Clicks >100k

The table below contains only data from affiliates that generated more than 100,000 clicks of CPC traffic. All results are measured on the landing pages the ads were directed to.

The type of fraudulent traffic consists mostly of level 2 and level 3 bots.

Affiliate	% genuine traffic	% fraudulent traffic
Affiliate 001	94.43%	5.57%
Affiliate 002	90.57%	9.43%
Affiliate 003	90.55%	9.45%
Affiliate 004	89.90%	10.10%
Affiliate 005	89.51%	10.49%
Affiliate 006	89.14%	10.86%
Affiliate 007	88.84%	11.16%
Affiliate 008	88.79%	11.21%
Affiliate 009	88.56%	11.44%
Affiliate 010	88.32%	11.68%
...	...	...
Affiliate 026	82.73%	17.27%
Affiliate 027	82.59%	17.41%
Affiliate 028	82.46%	17.54%
Affiliate 029	81.12%	18.88%
Affiliate 030	75.05%	24.95%
Affiliate 031	74.36%	25.64%
Affiliate 032	69.29%	30.71%
Affiliate 033	60.40%	39.60%
Affiliate 034	54.57%	45.43%
Affiliate 035	52.04%	47.96%

Benchmark: Lead Generation

This benchmark ranks affiliates based on the quality of traffic converted to a lead using a CPL or CPA model. The fraudulent traffic consists of level 3 bots and level 4 hybrid bots.

Here again, affiliates have been split into two tiers, each having its own ranking:

- affiliates that generated between 1,000 and 10,000 leads, and
- affiliates that generated more than 10,000 leads.

Both tiers are ranked by the percentage of clicks converted to a lead with the lowest fraud percentage at the top.

Benchmark: Leads <10k

The table below contains only data of affiliates that generated between 1,000 and 10,000 leads. The conversion percentage shows how many clicks have been converted to a lead. These leads are split into two groups: genuine leads and fraudulent leads. If two affiliates have the same percentage, their volume is used as second ranking criterion.

Affiliate	clicks converted to lead %	% genuine leads	% fraudulent leads
Affiliate 001	3.32%	100%	0%
Affiliate 002	9.62%	100%	0%
Affiliate 003	5.03%	100%	0%
Affiliate 004	1.01%	99.96%	0.04%
Affiliate 005	4.35%	99.94%	0.06%
Affiliate 006	3.45%	99.85%	0.15%
Affiliate 007	1.38%	99.80%	0.20%
Affiliate 008	3.71%	99.78%	0.22%
Affiliate 009	0.10%	99.77%	0.23%
Affiliate 010	3.91%	99.76%	0.24%
...	...	...	...
Affiliate 018	2.37%	99.35%	0.65%
Affiliate 019	2.14%	99.25%	0.75%
Affiliate 020	0.81%	99.06%	0.94%
Affiliate 021	4.46%	98.94%	1.06%
Affiliate 022	0.31%	98.41%	1.59%
Affiliate 023	0.04%	98.35%	1.65%
Affiliate 024	0.78%	95.29%	4.71%
Affiliate 025	0.12%	94.22%	5.78%
Affiliate 026	5.06%	90.54%	9.46%
Affiliate 027	11.23%	68.84%	31.52%

Benchmark: Leads >10k

The table below contains only data of affiliates that generated more than 10,000 leads. The conversion percentage shows how many clicks have been converted to a lead. Subsequently, the leads are split into two groups: genuine leads and fraudulent leads. If two affiliates have the same percentage, their volume is used as second ranking criterion.

Affiliate	clicks converted to lead %	% genuine leads	% fraudulent leads
Affiliate 001	5.73%	100%	0%
Affiliate 002	6.32%	100%	0%
Affiliate 003	1.02%	99.99%	0.01%
Affiliate 004	1.57%	99.98%	0.02%
Affiliate 005	11.09%	99.97%	0.03%
Affiliate 006	5.26%	99.89%	0.11%
Affiliate 007	12.49%	99.86%	0.14%
Affiliate 008	7.08%	99.78%	0.22%
Affiliate 009	9.50%	99.74%	0.26%
Affiliate 010	1.19%	99.74%	0.26%
Affiliate 011	3.03%	99.69%	0.31%
Affiliate 012	1.82%	99.60%	0.40%
Affiliate 013	0.29%	99.28%	0.72%
Affiliate 014	13.54%	99.25%	0.75%
Affiliate 015	0.50%	99.20%	0.80%
Affiliate 016	3.89%	99.15%	0.85%
Affiliate 017	3.59%	99.08%	0.92%
Affiliate 018	4.02%	94.99%	5.01%

Benchmark: Click Performance Trends

While any marketer would like to believe that the quality of traffic remains constant, the following pages show just how reliable and consistent affiliates are.

In these charts – which we will add on to every quarter – if an affiliate's line goes down, it means their quality of traffic did, too. If it goes up, it means they improved. And, of course, if it stayed flat, their performance did not change. The top of the list has the least amount of fraud. As you go down the list, the percentage of bots goes up.

What you'll see is why it's important to stay on top of your affiliates and keep tracking their performance.

To make it easy to compare, we have again split the group into two tiers:
• affiliates that generated between 1,000 and 100,000 clicks, and
• affiliates that generated more than 100,000 clicks.

Follow the lines to see who improved, who got worse and who didn't change at all.

Clicks <100k Performance Trends

Let's compare click performance between Q3 2022, Q4 2022, H1 2023 and H2 2023 for affiliates that delivered under 100,000 clicks. Follow the lines to see who improved, who got worse and who didn't change at all. Affiliates are listed from best to worst performance.


Top 25 affiliates driving <100k clicks per quarter. Ranked by performance
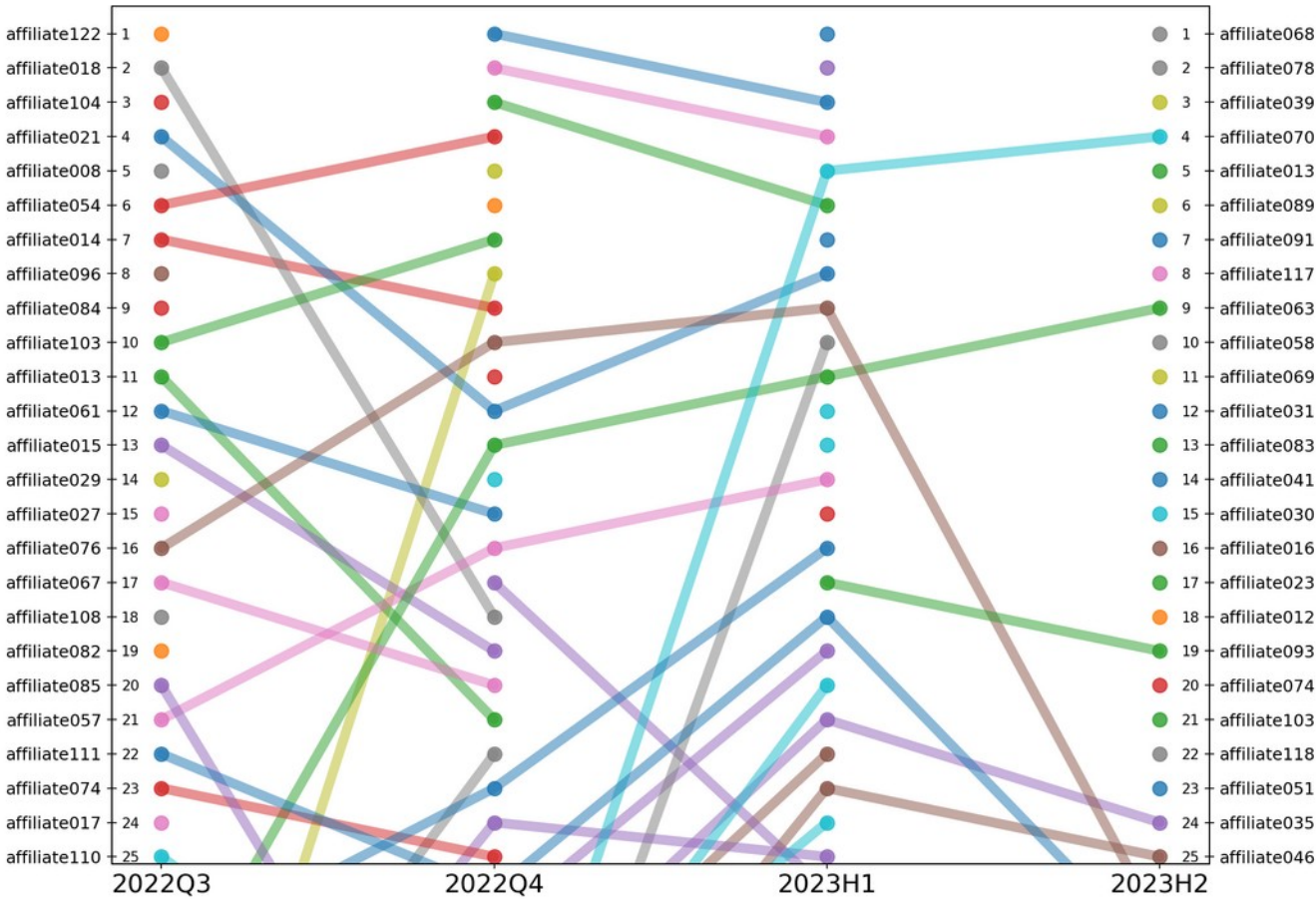
Clicks >100k Performance Trends

Let's compare click performance between Q3 2022, Q4 2022, H1 2023 and H2 2023 for affiliates that delivered over 100,000 clicks. Follow the lines to see who improved, who got worse and who didn't change at all. Affiliates are listed from best to worst performance.

Top 25 affiliates driving >100k clicks per quarter. Ranked by performance
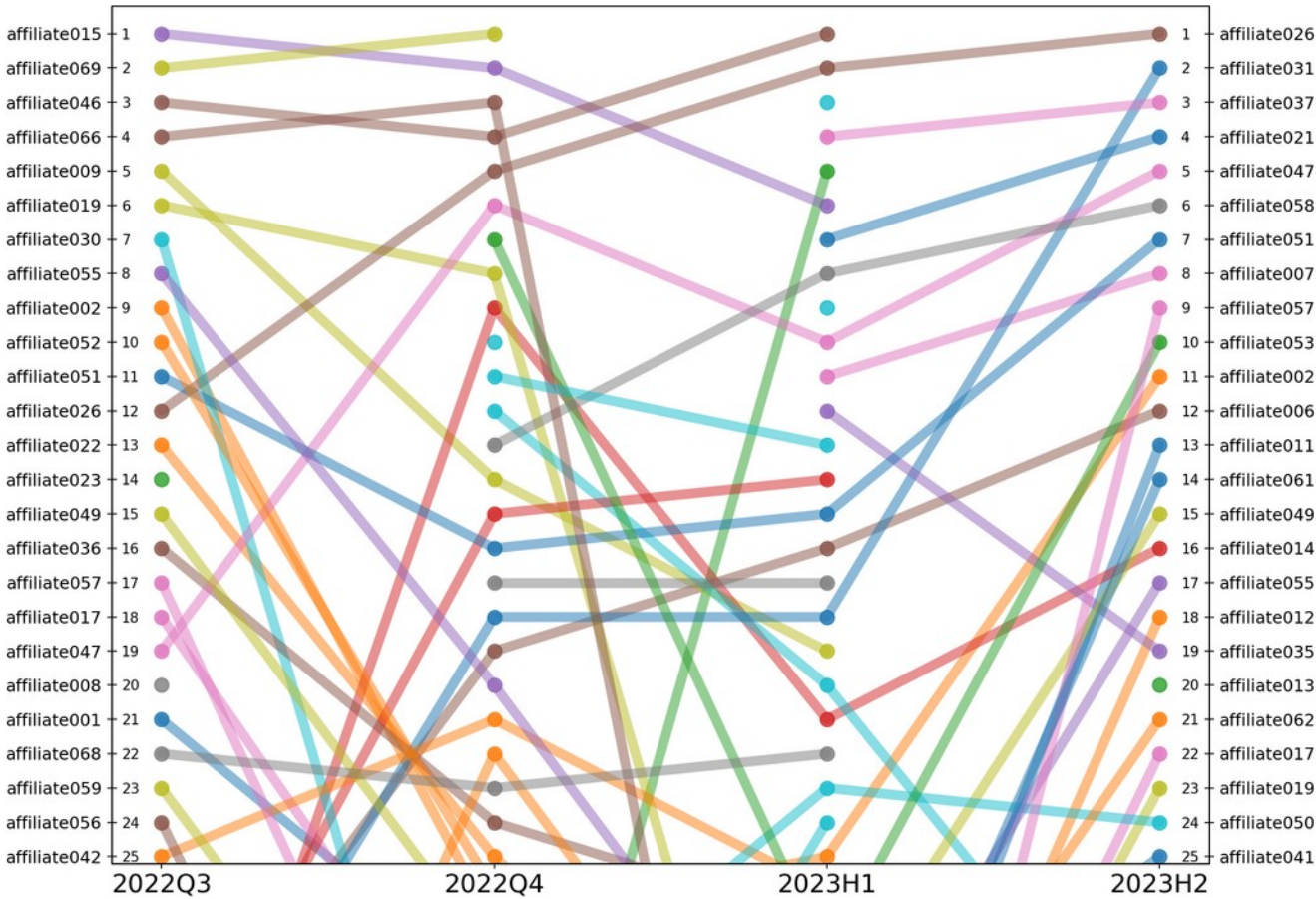
Benchmark: Lead Performance Trends

Just like with clicks, you would like to believe that the quality of leads remains consistent from quarter to quarter. See for yourself how lead performance holds up over time. This benchmark compares the data from this quarter to the previous quarter.

In these charts – which we will add on to every quarter – if an affiliate's line goes down, it means their quality of leads did, too. If it goes up, it means they improved. And, of course, if it stayed flat, their performance did not change. The top of the list has the least amount of lead fraud. As you go down the list, the percentage of fake leads goes up.

What you'll see is why it's important to stay on top of your affiliates and keep tracking their lead performance.

To make it easy to compare, we have again split the group into two tiers:
- affiliates that generated between 1,000 and 10,000 leads, and
- affiliates that generated more than 10,000 leads.

Follow the lines to see who improved, who got worse and who didn't change at all.

Leads <10k Performance Trends

Now let's compare lead generation performance between Q3 2022, Q4 2022, H1 2023 and H2 2023 for affiliates that delivered under 10,000 leads. Follow the lines to see who improved, who got worse and who didn't change at all. Affiliates are listed from best to worst performance.


Top 25 affiliates driving <10k leads per quarter. Ranked by performance

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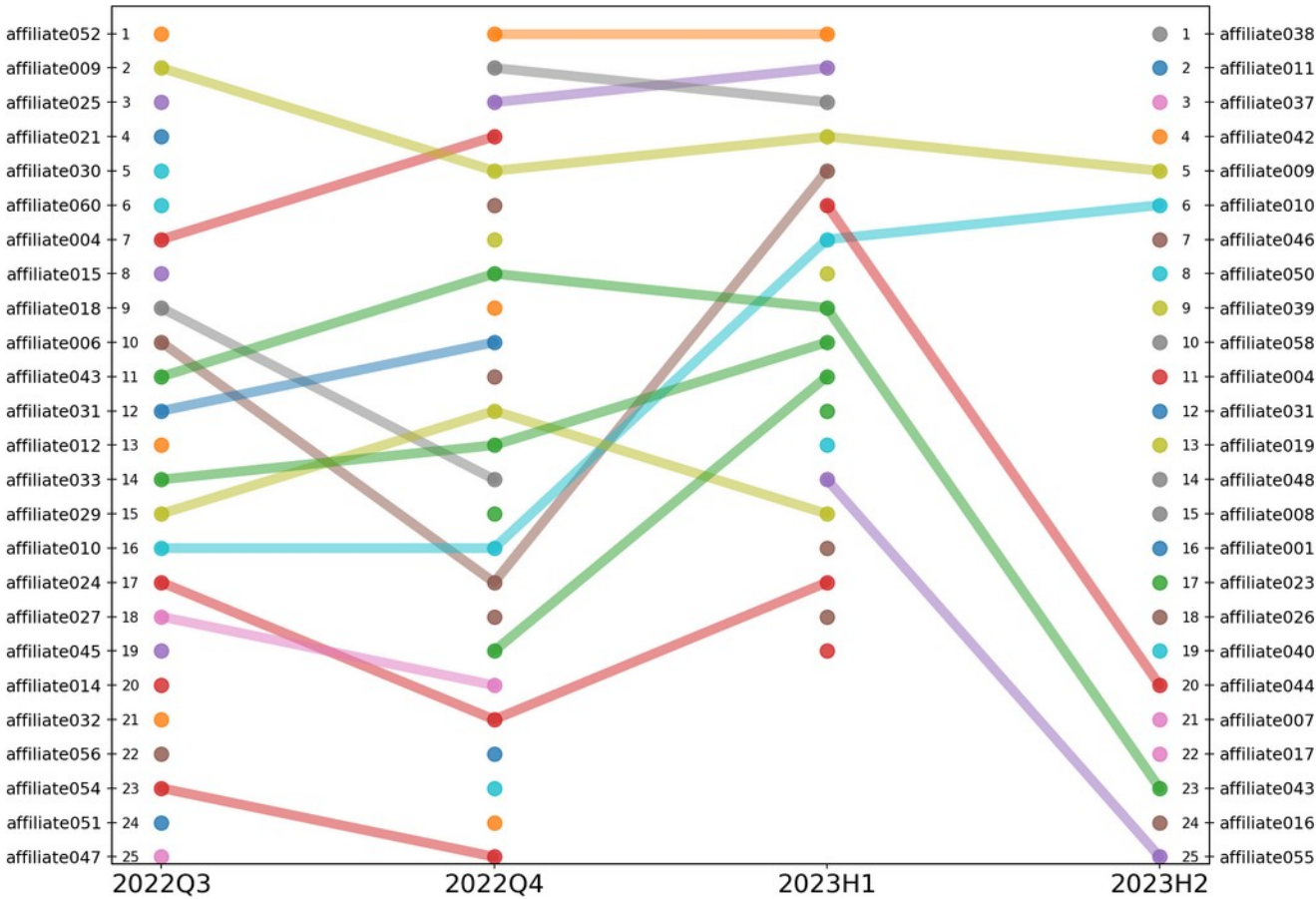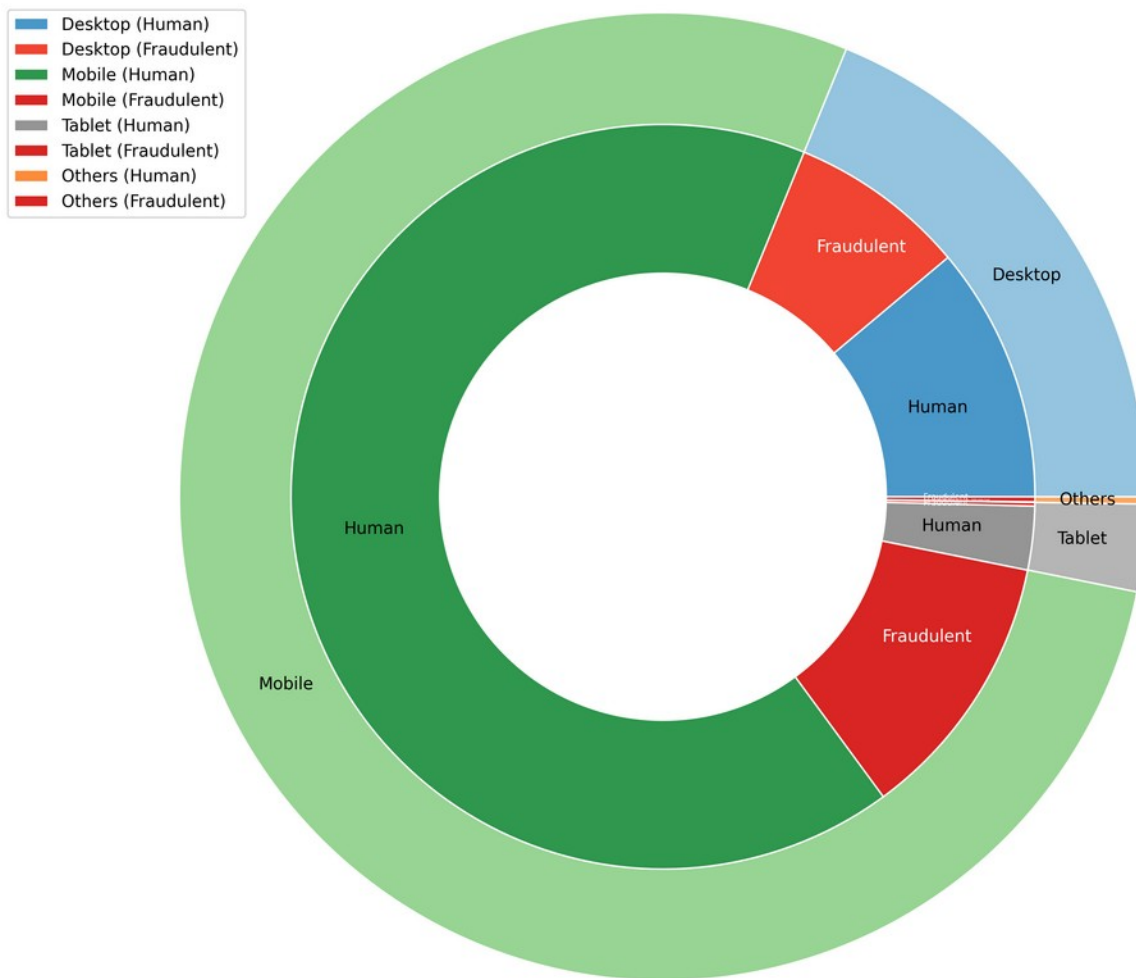
Leads >10k Performance Trends

Let's compare lead generation performance between between Q3 2022, Q4 2022, H1 2023 and H2 2023 for affiliates that delivered over 10,000 leads. Follow the lines to see who improved, who got worse and who didn't change at all. Affiliates are listed from best to worst performance.

Top 25 affiliates driving >10k leads per quarter. Ranked by performance

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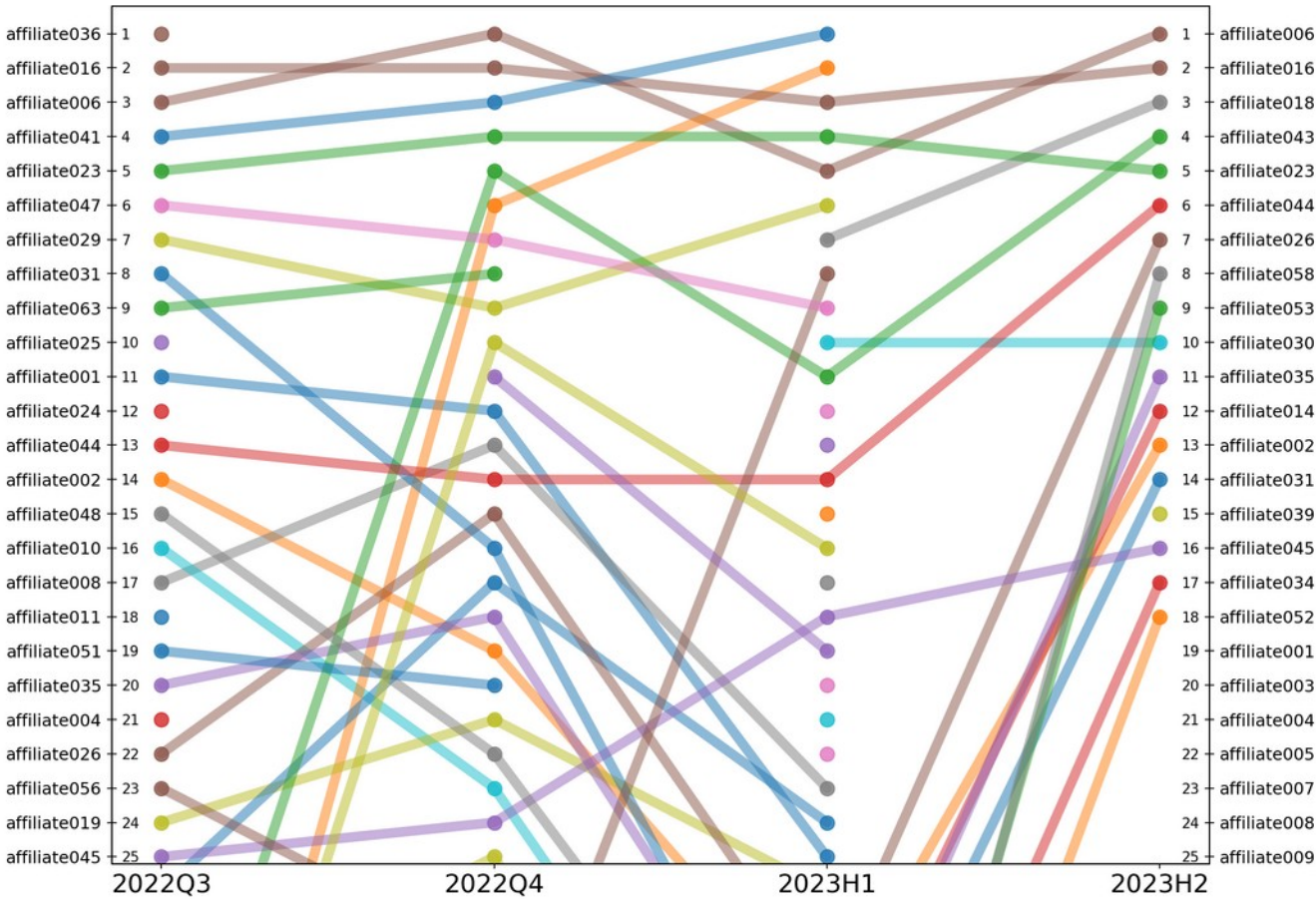
Traffic Distribution per Device

This quarter, 81% of the traffic came from mobile devices, and 19% from desktop. The fraudulent traffic from mobile in 2023 H2 was 14.7% compared to 11.8% in 2023 H1. The fraudulent traffic on desktop went up to 40.9% in 2023 H2 compared to 34.2% in 2023 H1.

Legend:
- Desktop (Human)
- Desktop (Fraudulent)
- Mobile (Human)
- Mobile (Fraudulent)
- Tablet (Human)
- Tablet (Fraudulent)
- Others (Human)
- Others (Fraudulent)

The distribution of invalid traffic broken down by device type.

About

Oxford BioChronometrics' award-winning solutions secure your marketing budget by providing a real-time feedback on each generated click or lead. Each month tens of millions of clicks and millions of generated leads are validated and protected by our technology.

Our clients use our fraud detection to see the real customers behind the generated clicks and leads, increase revenue, and take action to improve their marketing ROI.

If you have questions about the content or the numbers in this report you can contact us at: info@oxford-biochron.com.

For more information, please visit www.oxford-biochron.com.

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