Q4, 2019

DIGITAL MEDIA & ADVERTISING PAYMENTS REPORT

PREPARED BY

OAREX CAPITAL MARKETS, INC.

INTRODUCTION & BASIS

In line with the industry-wide push for transparency, we began releasing quarterly payment data in May, 2018. Our quarterly report includes data on payments OAREX has received from companies across the digital media & advertising eco-system, including: ad networks and exchanges, Supply Side Platforms (SSPs), Demand Side Platforms (DSPs), media buyers and ad agencies (all what we refer to as "debtors" in this report). See the full list on page 14 for Q4 debtor data.

Factors Analyzed in this Report: Timing & Amount

Across the entire eco-system, pain points from payments are felt for two main reasons: late payments or under-payments. That is what we focus on for this quarterly report.

Timing of Payment. This inquiry asks, "How early or late does a debtor pay, relative to their stated net-terms under which the invoice should be paid?". We call this factor the "Net Terms Differential".

Amount of Payment. This inquiry asks, "How much did the collected amount vary from the amount billed 30, 60 or 90 days ago?" . This inquiry takes into consideration any type of advertiser offsets (i.e. robotic traffic, fake installs) or disputes (brand awareness, sequential liability, etc.). Given that a missed payment could crush a digital media firm (especially if they have debt), we focus on this metric as the 2nd core pillar to be analyzed and refer to it as the "Paid Differential".

Data from 6100+ invoices, 211 Debtors

For this report covering October through December, 2019, we analyzed 6,136 invoices, for which we received payment from 211 different debtors. The debtor data included on Page 14 is only that data for which we collected 6+ invoices.

How we obtain the data: first hand

We get this information first hand because we collect payments from debtors. Debtors are liable to pay OAREX directly because we take ownership in the invoice under a Purchase & Sale Agreement with our clients. *All of the data contained in this report is obtained first hand.*

Author Word of Caution on Individual Debtor Data

On page 14, we report historical payment performance for each debtor in Q4 for which we received 6+ receipts. Some of the payment data performance we report on may not represent that there is a true underlying credit concern. Rather, a debtor may consistently pay us late for any number of non-credit reasons. Or a debtor may pay us early, but have underlying credit issues. That said, please take the data with a grain of salt and read our full disclaimer at the end of this report. Also, we further note that *if you see a debtor listed on those pages, that means they are approved or once were approved for credit internally,* despite what their pay history performance is in this or other reports.

February, 2020

KEY HIGHLIGHTS OF Q4, 2019 DATA

Some key highlights of the Q4 report worth noting:

The Good

- The amount of late payments more than 15 days late plummeted in December to the lowest levels since February (see page 8).
- The amount of debtors by percentage paying us late half the time or less increased, which could signal firms are becoming more efficient or diligent amount payments (see page 9).
- Overall payments are stabilizing. In the last 12 months ended 12/31/2019, 72% of all payments were within 1% Paid Differential. In Q4, that was 78%. This means payment amounts are more in line with billed amounts (see page 12).

The Bad

- Late payments have been on the rise since May, 2019, peaking at 58% of all payments received in November, falling to almost half of all payments received in December being late (48% - see page 4).
- November was a bad month. The number of on-time payments (i.e. zero Time Differential) fell to an all time low (3%).
- Payments more than 30 days late out-number payments less than 30 days late by 2-7X (page 6).
- The percentage of payments more than 30 days late jumped 17% between Q3 and Q4 (see page 7)
- Overall payments are stabilizing but late payments remain extremely volatile - the percentage of payments a received more than 15 days late sky-rocketed to 31%, only to plummet in December (see page 8).

February, 2020

KEY DEBTOR HIGHLIGHTS

These Debtors paid early 90% of the time or more in Q4, 2019: Apple, Conversant, Google (App Store), Ogury, Pubmatic, Teads and Underdog Media.

Timing of Payments
LATE PAYMENTS %, BY MONTH

Payment delays - receipts of invoices beyond the stated net terms - are endemic across the industry, so our analysis focuses heavily on this metric. We compare this timing data across time and debtors, identifying trends in digital media payments including late / early debtors (see the full list of Q4 debtors on pages 14).

Chart: The percentage of all payments we received that were paid late.
Timeframe: Month-by-Month
Metric: Net Terms Differential
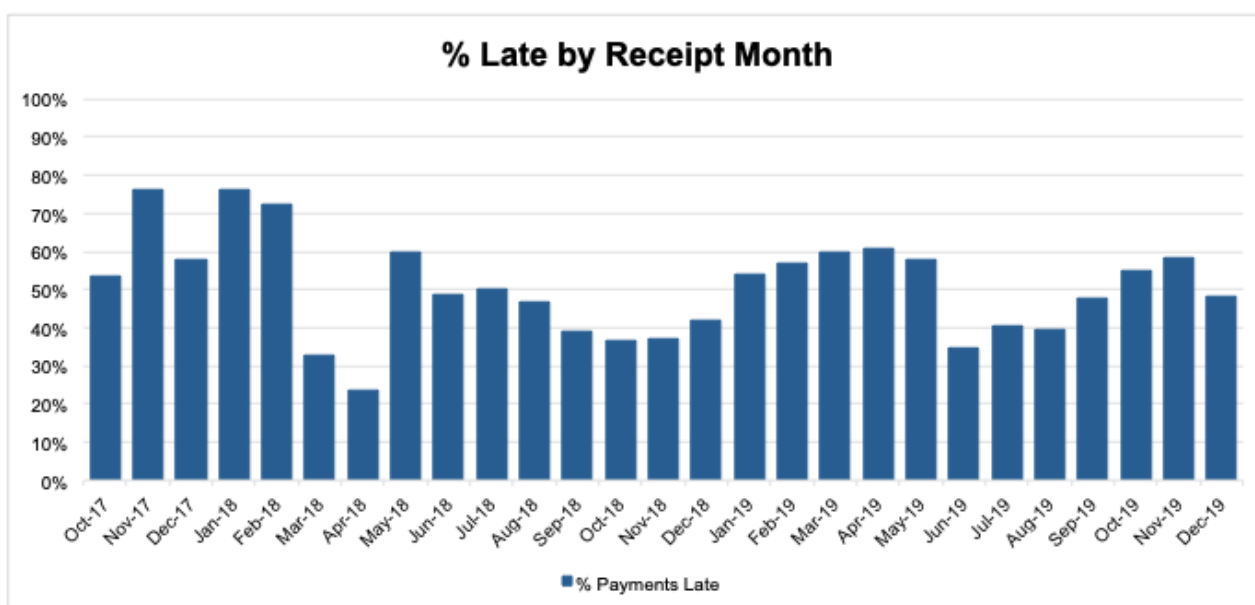
Quick Analysis & Commentary

- In December, 48% of all payors paid us late beyond stated terms. Down from the peak of 58% in November. Late payments have been on the rise since May.

- Compare November's 58% late with August's 40%. A dramatic increase.

- As firms prepare for Q4 busy season, it's not uncommon to see delays uptick.

Timing of Payments

EARLY VS. LATE VS. ON-TIME PAYMENTS, BY MONTH

Below is the same chart as above, but in direct comparison with the percentage of payments that we received on-time or prior to stated terms, i.e. stated terms are net 60, we collected net 59.

Chart: The percentage of all payments we received that were late, early or on-time.
Timeframe: Month-by-Month
Metric: Net Terms Differential

Early/Late by Receipt Month
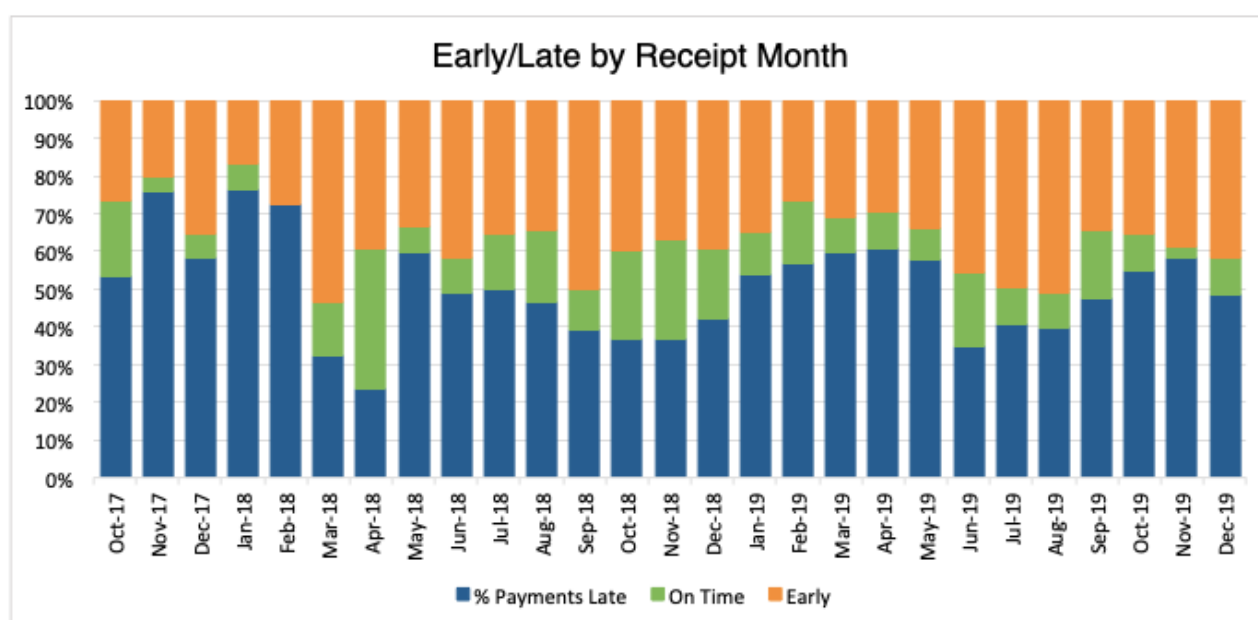
Quick Analysis & Commentary

- Rule of thumb: the more green and orange you see on this chart, the better.

- On-Time payments shrunk in Q4, hitting a low of 3% in November!

- But notice how volatile late payments are. In an ideal world, the blue histogram should be trending downward to the right, over time. Here it's trending up.
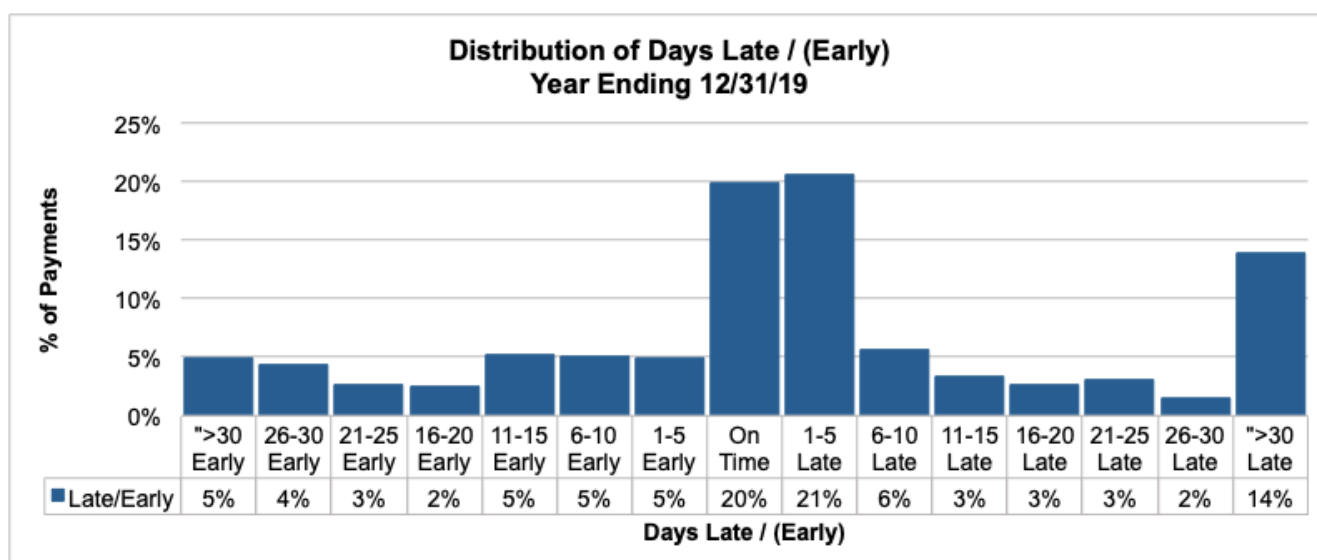
Timing of Payments

DISTRIBUTION OF LATE DAYS BY MONTH, IN 5-DAY LATE BUCKETS

Chart: This shows the distribution of late payments, in 5-day buckets (i.e. 6-10 days late).
Timeframe: Last 12 months ending 12/31/2019.
Metric: Net Terms Differential
Example: Here you can see the breakdown of the % of all payments that were late or early, in the last 12 months

Distribution of Days Late / (Early)
Year Ending 12/31/19

Days Late / (Early)	">30 Early	26-30 Early	21-25 Early	16-20 Early	11-15 Early	6-10 Early	1-5 Early	On Time	1-5 Late	6-10 Late	11-15 Late	16-20 Late	21-25 Late	26-30 Late	">30 Late
Late/Early	5%	4%	3%	2%	5%	5%	5%	20%	21%	6%	3%	3%	3%	2%	14%

(Y-axis: % of Payments, ranging 0% to 25%)

Quick Analysis & Commentary

- Over the prior 12 months, 27% of all late payments were paid to us more than 30 days late beyond stated terms, up from 25% at the 12 mo. ending 9/30/19.

- If payments are late, they're late by a lot. Payments that are more than 30 days late outnumber those that aren't by 2-7x, depending on which "late bucket" the payment falls into (except those late payments received within 5 days late).
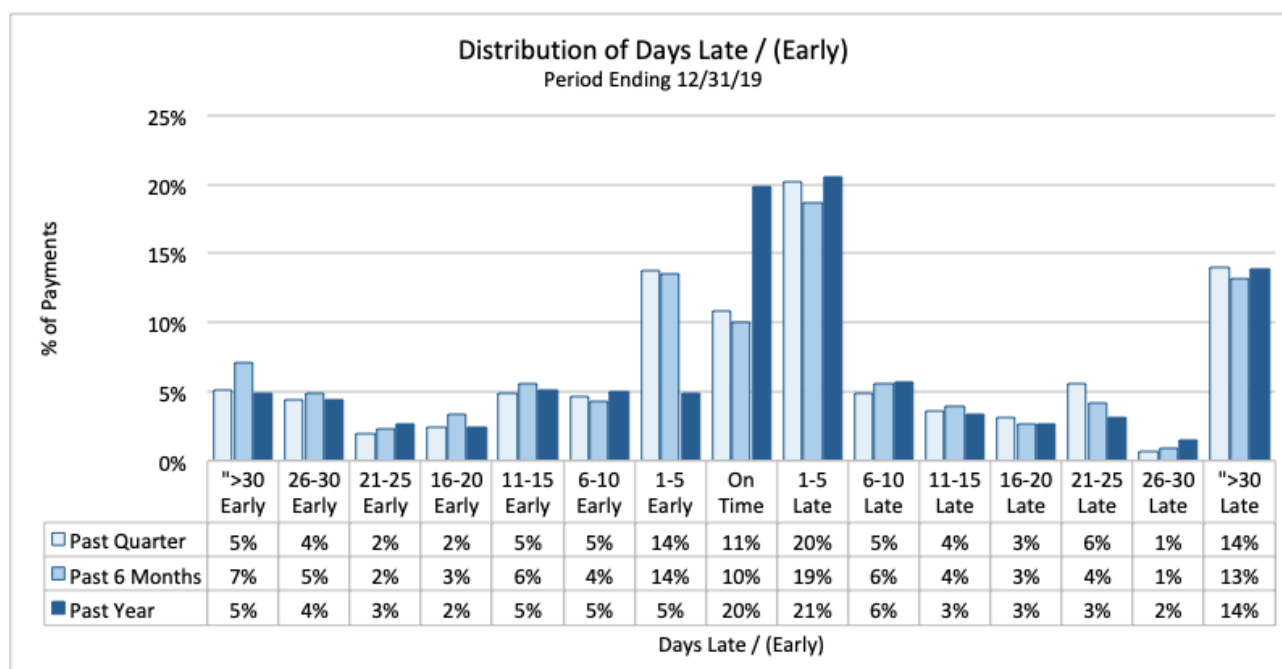
Timing of Payments

LATE DAYS, SHOWN IN 5-DAY BUCKETS, ACROSS TIME

Chart: This shows the same data as the above chart, but also compares the data from the last 12 months against the last 6 months and quarter.
Timeframe: The past 12 months, 6 months and 3 months ending 12/31/2019.
Metric: Net Terms Differential

Distribution of Days Late / (Early)
Period Ending 12/31/19

|	">30 Early	26-30 Early	21-25 Early	16-20 Early	11-15 Early	6-10 Early	1-5 Early	On Time	1-5 Late	6-10 Late	11-15 Late	16-20 Late	21-25 Late	26-30 Late	">30 Late
Past Quarter	5%	4%	2%	2%	5%	5%	14%	11%	20%	5%	4%	3%	6%	1%	14%
Past 6 Months	7%	5%	2%	3%	6%	4%	14%	10%	19%	6%	4%	3%	4%	1%	13%
Past Year	5%	4%	3%	2%	5%	5%	5%	20%	21%	6%	3%	3%	3%	2%	14%

Days Late / (Early)

Quick Analysis & Commentary

- Relative to the prior 12 months ending 12/31/2019, the percentage of payments 1-5 days late fell from 21% to 20% for Q4.

- Q4 performance was worse than Q3. For the 3 months in Q3 12% of late payments were more than 30 days late. However in Q4, that increased to 14%, a 17% jump in one quarter (in line with our expectation that payment delays increase during Q4).

Timing of Payments

PAYMENTS 15+ DAYS LATE BY MONTH

This is an important metric we focus on. The reason why is that payment delays less than 2 weeks are common, and really not indicative of any potential credit concern. However payments consistently late beyond 15 days tell us two things. First, at the individual debtor level, there might be some cash flow issues. Second, when viewed collectively, it gives us a reading of industry as a whole.
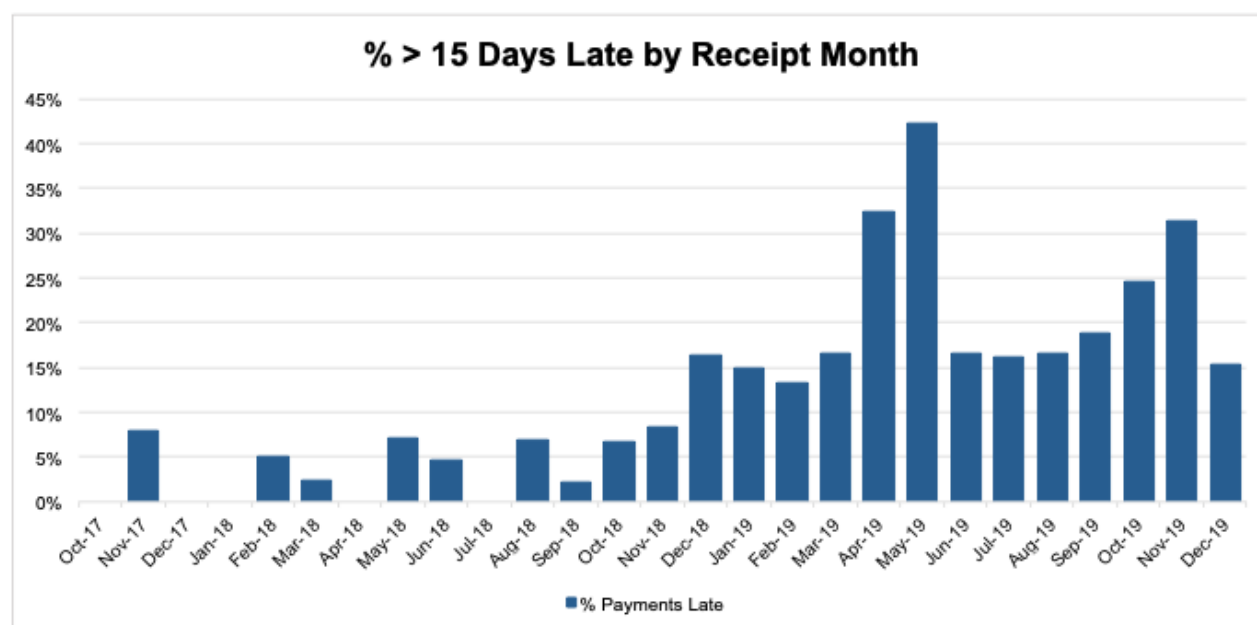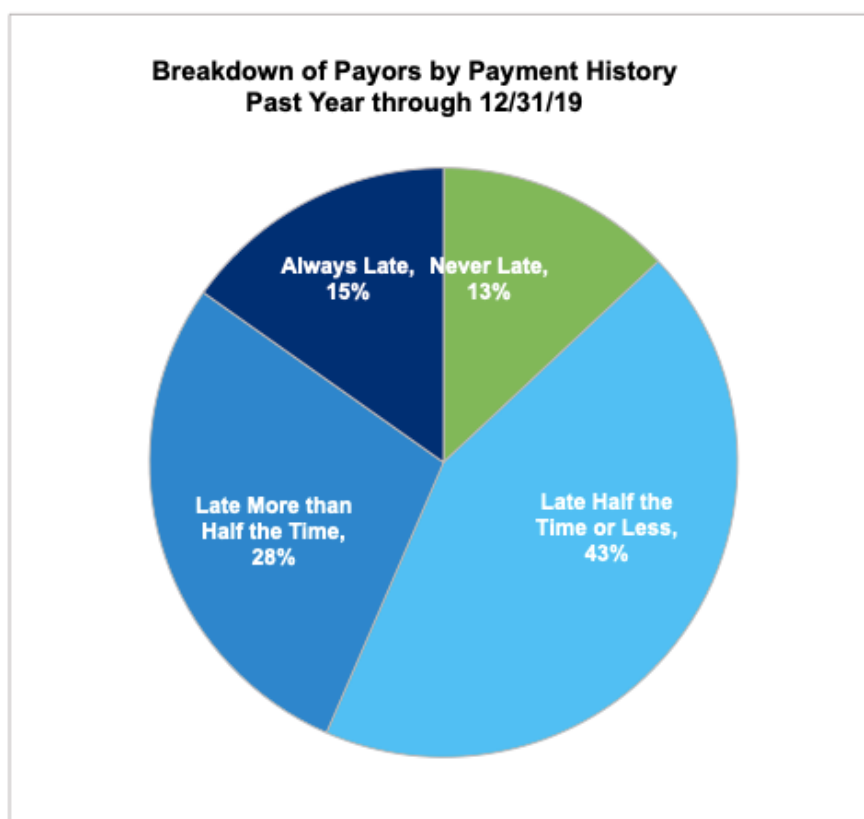

Quick Analysis & Commentary

- The percentage of payments paid to us more than 15 days late skyrocketed into Q4, peaking in November at 31%!

- 19% of all payments in September, 2019 were more than 15 days late. Compare that with 31% in November.

- It could be that payments tend to lag as firms prepare for the busy Q4 season, however the amount of payments more than 30 days late plummted back to 15%, the lowest level since February, 2019.

Timing of Payments
TIMING OF PAYMENTS BY DEBTOR

With collection data on over 211 digital media & advertising debtors, we like to analyze what percentage of them pay late, versus on time. Here is a breakdown of the most recent 12 months ending December 31st, 2019.

Quick Analysis & Commentary

- In the past 12 months, the percentage of actual debtors (not invoices) that paid us late half the time or less was 43%.

- In the 12 months ended September 30th, 2019, that number was 40%.

- On a single debtor basis, the amount paying late *half the time or less* increased almost 8%.
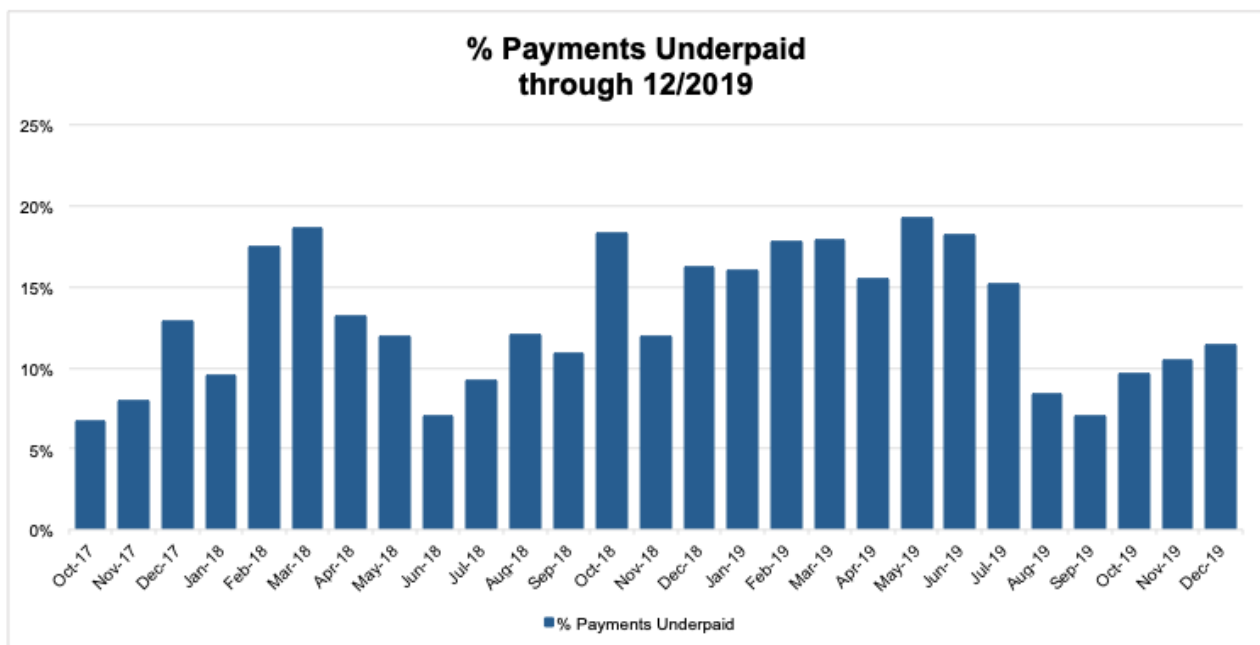
Amount of Payments
UNDERPAYMENT PERCENTAGES BY MONTH

Another major issue with payments is that the actual collected amount almost always varies from the stated invoice amount. Again, we call this the "Paid Differential".

Chart: This shows the percentage amount of all payments that were underpaid according to the billed or invoiced amount.
Timeframe: Month-by-Month
Metric: Paid Differential

Quick Analysis & Commentary

- In December 2019, 11% of all payments received were underpaid relative to the stated amount at the time the invoice was issued. See the next chart for a breakdown of how big of an offset occurred with each payment.

- Compare with September of 2019, when 7% of all payments were underpaid.

- Payment fluctuations between billed amount and collected amounts steadily rose into Q4. This could be due to demand side partners passing on offsets from the advertisers, though we can't know for sure. All we know is it's rising.
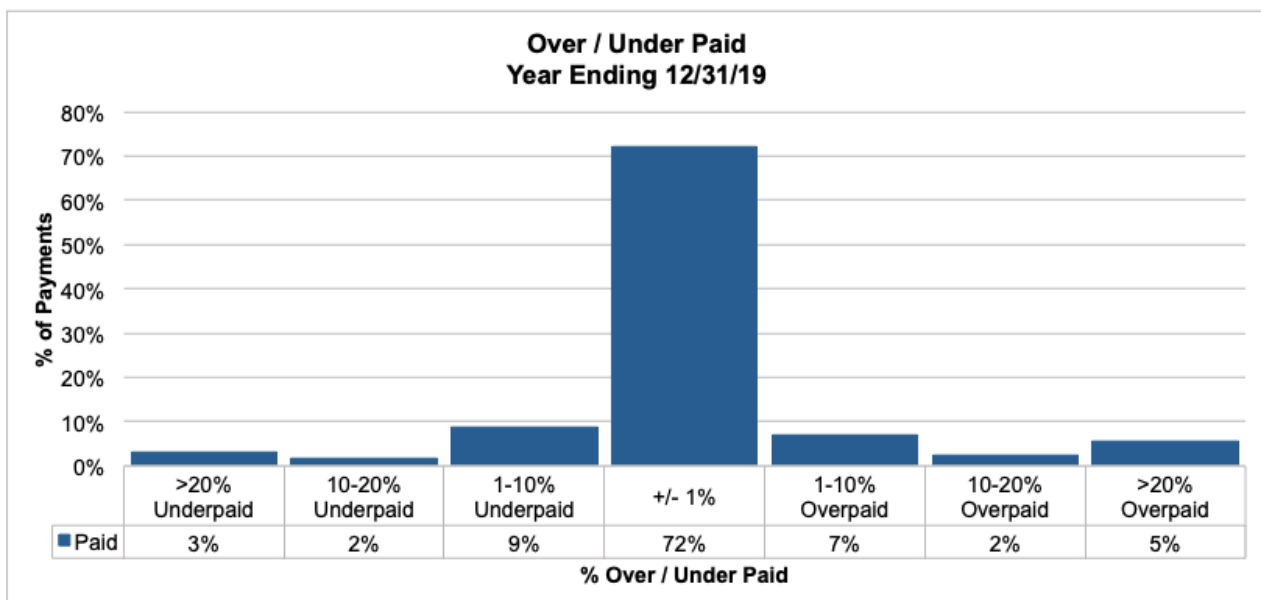
Amount of Payments

DISTRIBUTION OF PAYMENT AMOUNT BY VARIANCE

Chart: This shows the percentage amount of all payments that were underpaid according to the billed or invoiced amount, and the distribution by the amount of the negative offset.
 Timeframe: The past 12 months ending 12/31/2019.
Metric: Paid Differential

Quick Analysis & Commentary

- As of 9/30/2019, 70% of all payments from the prior 12 months were paid plus or minus 1% of the invoiced amount. That number increased slightly to 72%.

- 14% of payments were more than 1% below the invoiced amount, and 14% were more than 1% above the invoiced amount. We believe this has to do with advertisers simply accepting a certain level of fraud they do not dispute.
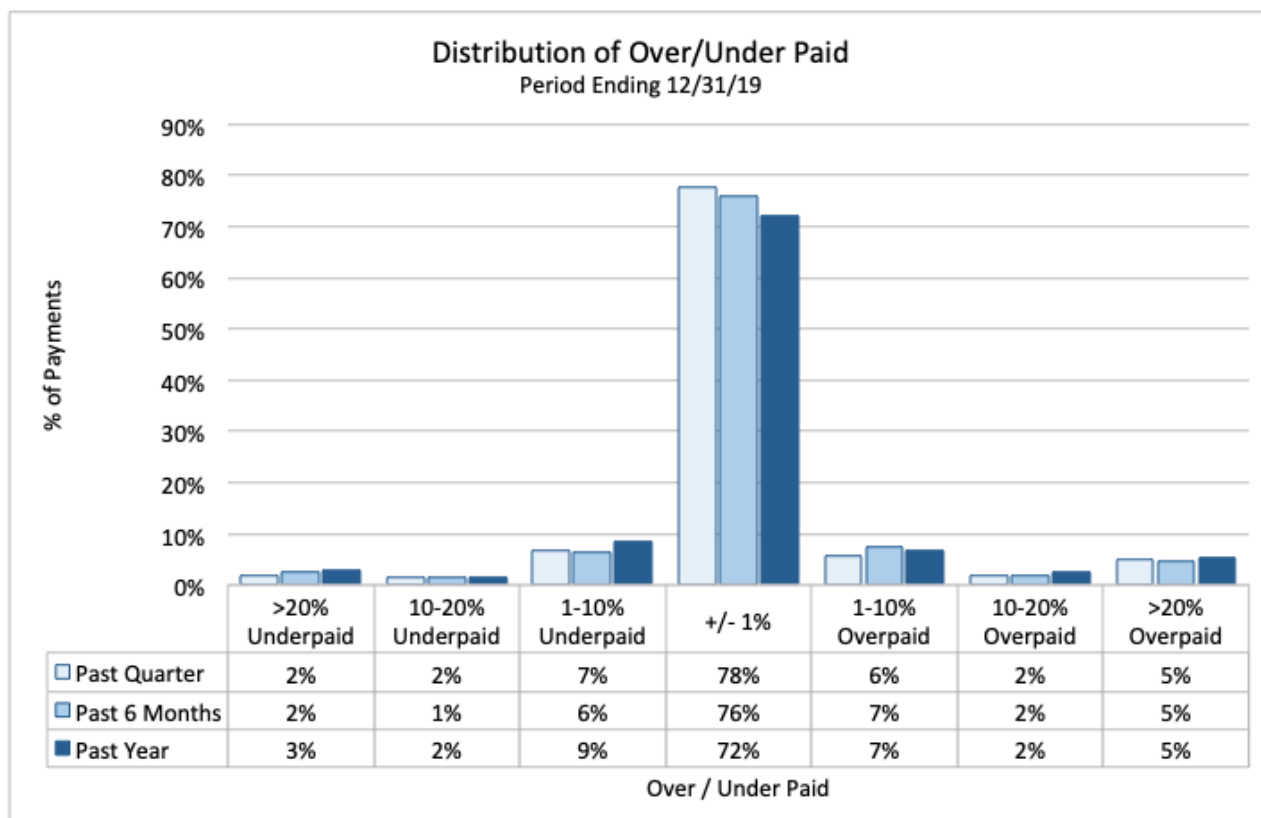
Amount of Payments

VARIATIONS OF AMOUNTS PAID VS. PRIOR PERIODS

Chart: This chart shows the same data as the above chart, but also compares the last 12 months of data across three timeframes.
Timeframe: The past 12, 6 and 3 months ending 12/31/2019.
Metric: Paid Differential

Distribution of Over/Under Paid
Period Ending 12/31/19

	>20% Underpaid	10-20% Underpaid	1-10% Underpaid	+/- 1%	1-10% Overpaid	10-20% Overpaid	>20% Overpaid
Past Quarter	2%	2%	7%	78%	6%	2%	5%
Past 6 Months	2%	1%	6%	76%	7%	2%	5%
Past Year	3%	2%	9%	72%	7%	2%	5%

Over / Under Paid

Quick Analysis & Commentary

- In the last 12 months, 72% of payments came in +/- 1%. In the last 6 months, 76% and in Q3, 78%, up significantly from the 12 months ended 9/30/2019.

- Payments are stabilizing; the variance, high or low, between the invoiced amount and the collected amount is getting smaller and smaller, currently at all time highs based on the data we have.
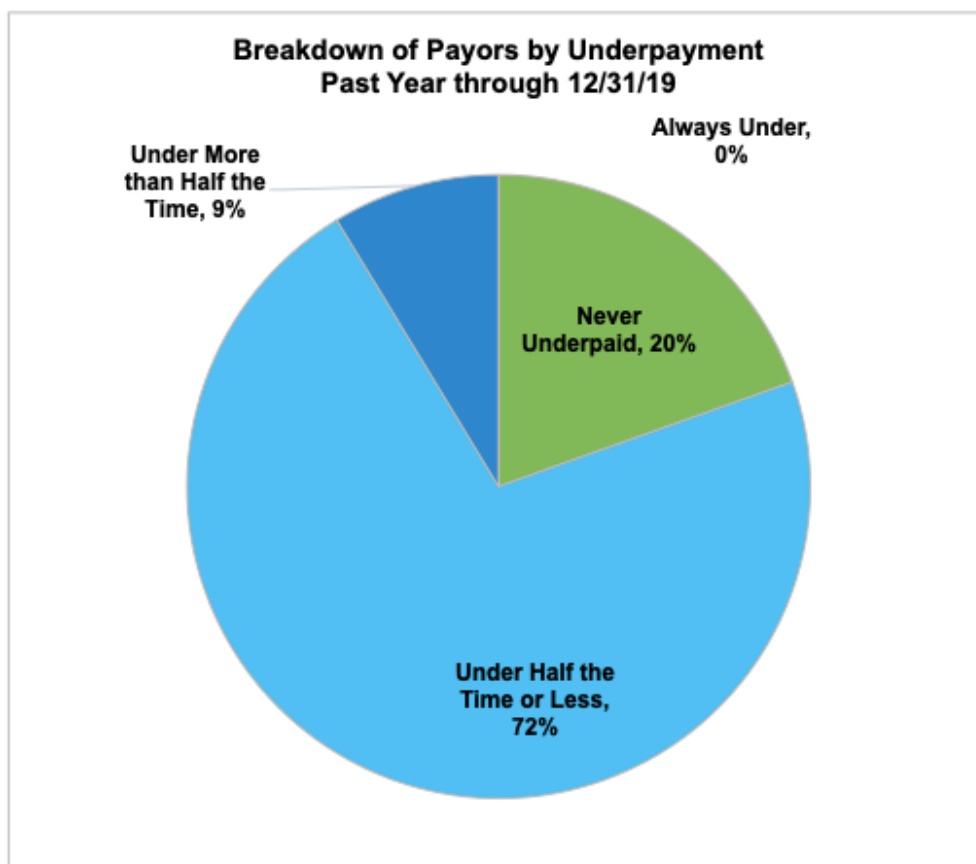
Amount of Payments
BREAKDOWN BY DEBTOR

Chart: This provides a breakdown of debtor offsets for the prior 12 month period.
Timeframe Prior 12 months ending 12/31/2019.
Metric: Paid Differential
Number of Debtors: 211

Breakdown of Payors by Underpayment
Past Year through 12/31/19

- Always Under, 0%
- Under More than Half the Time, 9%
- Never Underpaid, 20%
- Under Half the Time or Less, 72%

Quick Analysis & Commentary

- The metric we'd like to highlight here is the light green portion, showing debtors that *never underpaid* (i.e. negatively offset the invoice when they paid it).

- In the 12 months ending September 30th, 2019, the percentage of debtors that never underpaid us (historically) was 24%.

- Since September 30, covering new debtors in Q4, the number of debtors that never underpaid us fell to 20%, a 17% decrease quarter-over-quarter.

Appendix A - Payment Performance
BREAKDOWN BY DEBTOR

Below is a breakdown of individual debtor performance on debtors we received payments from in Q4. We no longer include debtor performance in this quarterly study unless we actually received 6+ payments from such debtor in the quarter being reported.

12 months ending 12/31/2(	% of Payments			Avg. Days vs. Terms		
Payor	Early	On Time	Late	Late/(Early)	Days Early	Days Late
33Across, Inc.	40%	0%	60%	10.50	-7.00	22.17
Adcolony, Inc.	10%	0%	90%	5.19	-20.04	7.99
Amazon, Inc.	55%	9%	36%	3.40	-4.46	16.04
Apple, Inc.	100%	0%	0%	-27.59	-27.59	
Appnexus, Inc.	3%	0%	97%	6.60	-23.47	7.46
Audioboom Ltd	57%	21%	21%	-2.54	-5.13	1.83
Beachfront Media, LLC	27%	7%	67%	8.87	-17.00	20.10
Bonnier Corporation	36%	0%	64%	5.82	-44.75	34.71
Chartboost, Inc.	0%	14%	86%	6.57		7.67
Connatix Native Exchange, Inc.	10%	0%	90%	9.76	-26.00	13.53
Conversant, LLC	100%	0%	0%	-8.29	-8.29	
Criteo, Inc.	29%	29%	43%	10.00	-23.00	38.67
District M, Inc.	31%	0%	69%	-2.95	-18.05	3.68
Freewheel Media, Inc.	83%	0%	17%	-22.17	-31.40	24.00
Google Play	93%	7%	0%	-26.21	-28.23	
Google, Inc.	71%	10%	19%	-0.79	-1.43	1.17
GumGum, Inc.	43%	16%	41%	5.59	-1.67	15.43
Havas Media Group USA, LLC	67%	0%	33%	-15.56	-29.75	12.83
Index Exchange USA, LLC	26%	14%	61%	13.18	-6.18	24.38
Kargo Global, Inc.	0%	0%	100%	16.33		16.33
Katz Media Group, Inc.	9%	73%	18%	0.00	-5.00	2.50
Lijit Networks, Inc.	0%	0%	100%	2.53		2.53
M&C Saatchi Mobile Ltd.	0%	0%	100%	30.36		30.36
MediaMath, Inc.	0%	0%	100%	38.20		38.20
Mopub, Inc.	42%	50%	8%	-1.22	-3.12	1.00
Nativo, Inc.	50%	42%	8%	2.33	-2.17	41.00
Oath Inc. (Verizon / AOL)	78%	0%	22%	1.03	-10.19	40.94
Ogury Ltd.	80%	10%	10%	0.09	-3.47	28.63
OpenX Technologies, Inc.	40%	53%	7%	-0.42	-1.22	1.00
Pubmatic, Inc.	87%	0%	13%	2.73	-9.78	84.00
Pulsepoint, Inc.	13%	47%	39%	0.84	-15.40	7.26
RhythmOne, LLC	63%	0%	37%	-7.79	-25.36	21.94
RTK.io, Inc.	44%	0%	56%	-2.40	-16.63	8.67
Rubicon Project, Inc.	69%	24%	8%	-5.59	-9.60	12.75
Sharethrough, Inc.	0%	0%	100%	19.59		19.59
Snapsort, Inc. d/b/a Sortable	65%	35%	0%	-16.40	-25.14	
Taboola, Inc.	4%	25%	71%	12.91	-29.57	19.96
Tapjoy, Inc.	73%	7%	20%	6.67	-2.91	44.00
Tapresearch, Inc.	0%	13%	88%	4.50		5.14
Teads, Inc.	83%	0%	17%	-16.63	-21.86	9.50
Triplelift, Inc.	0%	0%	100%	13.03		13.03
Underdog Media, LLC	89%	11%	0%	-4.33	-4.88	
Unity Technologies, Inc.	0%	100%	0%	0.00		
Verve Wireless, Inc.	14%	0%	86%	34.50	-1.00	40.42
Vungle, Inc.	71%	0%	29%	-1.06	-2.32	2.10

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