



PROGRAMMATIC: SEEING THROUGH THE FINANCIAL FOG

An In-Market Analysis of Programmatic Media at the Transaction Level

MAY 2017

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Executive Summary

This study was a joint initiative between the Association of National Advertisers (ANA), the Association of Canadian Advertisers (ACA), Ebiqurity, and AD/FIN.

- Our goal was to investigate the costs and economics of the programmatic advertising ecosystem. We wished to explore concerns around programmatic transparency as discussed in the K2 Intelligence report commissioned by the ANA, “[An Independent Study of Media Transparency in the U.S. Advertising Industry](#),” and the companion report from the ANA, Ebiqurity, and FirmDecisions, “[Media Transparency: Prescriptions, Principles, and Processes for Marketers](#).”
- Our primary source of intelligence was programmatic transaction data — specifically, winning bid log data and associated metadata from each demand-side platform (DSP) purchasing media on behalf of participating advertisers. This data was identified as the best available source for the actual costs and fees for each impression purchased.
- It was agreed from the outset that participants and their partners would remain anonymous, unless they chose otherwise.
- Ultimately, the project spanned almost 2 years, from May 2015 through April 2017.

The study analyzed 16.4 billion media impressions purchased on behalf of seven major advertisers across five programmatic DSPs.

- The seven participants span 30 major brands in auto, banking, beauty, CPG, fashion, and travel.
- The data included both real-time bidding (RTB) and private marketplace (PMP) transactions.
- All impressions were part of fully disclosed programmatic buys. “Non-disclosed” transactions (by definition)¹ were not available, as they prevent access to transactional cost and fee details.²
- The vast majority (over 95 percent) of analyzed data was not executed by an agency trading desk, but bought directly by the media agency and/or DSP as a managed service.³
- The study did not directly investigate supply-side programmatic costs and fees incurred between the publisher and trading partners, such as supply-side platforms (SSPs). Where needed, estimates were used.

¹Per the ANA/Forrester’s *The State of Programmatic Buying 2016*, a non-disclosed, also known as an undisclosed model, “typically refers to an arrangement where an agent and/or intermediary purchasing media on an advertiser’s behalf does not disclose the actual closing/winning bid prices of media purchased, instead providing only a final price which includes margin and fees. By not disclosing the actual prices paid, margin (and potential arbitrage) are unknown and undisclosed to the client.”

²Typically, when an agency offers a non-disclosed model, it allegedly buys media as a principal and then resells it to the advertiser for an undisclosed mark-up.

³In general, a managed service DSP will assume responsibility and have expert resources to execute media campaigns based on the needs and goals of each client. On the other hand, self-service DSPs typically leave all bidding and transactional decisions in the hands of users/clients, allowing them to manage campaigns on their own.

A subset of the 16.4 billion impressions — 6.6 billion — was analyzed in greater detail at the campaign level⁴ across 445 completed campaigns to showcase the underlying economics of disclosed programmatic transactions.

- **Across Full Supply Chain:** Advertiser → Agency → Trading Desk → DSP → Exchange → SSP → paid to Publisher
 - Across the full supply chain, the overall ratio of “working” to “non-working”⁵ spend was found to be 58/42 percent on average, when the costs of both demand-side and supply-side fees and services⁶ were included.
 - 58 percent was the mid-point, with the computed range of 54–61 percent.
 - In other words, 58 cents of each dollar ultimately purchased media inventory and audience exposure from a publisher, with 42 cents of programmatic investment consumed by supply chain data and transaction fees.
 - This calculation yielded a lower “programmatic tech tax” (42 percent) than reported in the [October 2014 analysis](#) by the World Federation of Advertisers (WFA)⁷, which estimated 60 percent. Specifically, the WFA estimated that 60 cents of each dollar covered programmatic transaction and data fees, with 40 cents remaining for the publisher. We believe a potential difference between the study’s findings and those of the WFA are explained by the fact that the current study contains only disclosed programmatic buys, and had limited inclusion of agency trading desk fees. (Less than 5 percent of analyzed data was transacted via an agency trading desk.)
- **Across Demand-Side Supply Chain:** Advertiser → Agency → Trading Desk → DSP → paid to Exchange
 - When demand-side costs were isolated, removing estimated supply-side fees — to focus more specifically on costs the advertiser has greater control over⁸ — the ratio of “working/inventory” spend⁹ to “non-working” spend was 72/28 percent.
 - In other words, 72 cents of each dollar purchased media inventory from a programmatic exchange, with 28 cents of programmatic investment consumed by demand-side data and transactional fees.
 - Additionally, across the 445 analyzed completed campaigns, we saw campaigns that had demand-side “working/inventory” to “non-working” ratios as high as 85/15 percent, and as low as 30/70 percent, revealing the importance of analyzing transaction costs and supply chain management at the campaign level versus the aggregate.
 - Overall, when CPMs were explored in greater detail at the campaign level, the demand-side “tech tax” added 45 percent to the advertiser’s average cost of display inventory and 35 percent to the advertiser’s average cost of video inventory.¹⁰

⁴Given that “campaigns” can be defined differently across various ecosystem partners, for the purposes of the study each campaign had a defined budget, had defined start and end dates, and was comprised of one or more insertion order IDs. Where available, priority objective(s) and KPIs were also included.

⁵Historically, fees and costs that do not directly purchase media or have direct customer impact have been referred to as “non-working” spend. In the programmatic era, this term can be difficult to apply given the value-added role that various service, tech, and data vendors can play in the process. As such, we refer to these “non-working” costs as execution spend (which can comprise fees for the agency, trading desk, DSPs, verification vendors, ad serving, and other ad tech), and targeting data spend (which is comprised of all identified sources of third-party data used in each impression buy). Not all services/fees/costs are applicable to each impression buy.

⁶For full supply-chain calculations, demand-side fees were directly computed based on impression logs and metadata; supply-side fees were estimated at 15–25 percent of demand-side working media based on industry averages and reported figures.

⁷According to the [WFA’s 2014 Programmatic Report](#), “after all the stakeholders in the programmatic ecosystem have taken their share of advertiser’s budgets, there remains just 40 percent received by the publisher,” putting the “tech tax” at 60 percent.

⁸Demand-side incorporates services, technology, and data costs, including but not limited to agency, trading desk, DSP(s), data provider(s), verification provider(s), ad serving, and other buy-side ad tech. No sell-side fees and services are included (e.g., exchange, SSP, and sell-side ad tech).

⁹Working/inventory spend is defined as the closing/winning bid price for media impressions purchased by a DSP on a programmatic exchange on behalf of an advertiser.

¹⁰The calculation of this premium includes only demand-side fees which the advertiser pays for directly. Sell-side fees are part of the cost of the inventory when purchased at the exchange, and are considered a direct cost to the publisher. If supply side fees were also included in the calculation, the premium would be higher.

We did not investigate fraud, viewability, brand safety, or arbitrage.

- The calculations in this study do not include any potential effects of ad fraud, non-human traffic, viewability, or brand safety, all of which can have a substantial impact on the final effective cost (and performance) to advertisers.
- In addition, the study did not attempt to uncover “arbitrage” by any party (an entity buying at one rate and selling at a higher one) nor attempt to explore non-disclosed programmatic transactions.

Based on our experience, the seven participating advertisers represent the exception rather than the rule when it comes to an advertiser’s ability to access, analyze, and learn from programmatic transactional data.

- The number of advertisers which were able to fully participate in the study were reduced by a series of legal, technical, and bureaucratic issues. The initial pool of advertisers consisted of 58 interested advertisers and was reduced to 28 signed advertisers. Ultimately only seven participated fully.
- In multiple cases, signed advertisers which were unable to participate found they did not have the data rights to conduct a financial analysis of their programmatic investments (or were uncertain if they possessed the rights) — a key learning about the state of contracts in digital media.
- While the number of advertisers participating in this study was lower than intended, the number of analyzed impressions (16.4 billion) and campaigns (445) is nonetheless able to paint a realistic picture of the programmatic market in a “disclosed” environment¹¹ (i.e., where transactional data availability is not restricted).

Beyond the analysis of programmatic transaction data, the purpose of the study was to provide practical solutions to help advertisers take greater control of their programmatic investments.

- Insights:
 - Based on the range of transparency roadblocks encountered, advertisers may find it difficult to manage, measure, and audit their programmatic media investments with the same rigor as they manage traditional media investments.
 - If left unchecked, this could lead to substantial economic consequences for advertisers, given the continued growth of programmatic investments.
 - At the core is the widespread use of non-disclosed programmatic buying arrangements (or in some cases a lack of knowledge about the nature of the buying arrangement¹²), together with knowledge gaps around how the programmatic ecosystem works.
 - Compounding this is a lack of industry standards and protocols to ensure that advertisers have the necessary information from independent sources to analyze the costs and effectiveness of their programmatic investments against market history, norms and benchmarks.

¹¹In disclosed buys, the agency and/or intermediary purchasing media on an advertiser’s behalf is buying as an agent and has the obligation (both contractually and legally) to disclose the actual closing/winning bid prices of media purchased. As discussed in footnote 2, in non-disclosed models, an agency is often buying as a principal.

¹²Our experiences support findings from the ANA/Forrester study that indicated 34 percent of advertisers had opted in to a non-disclosed arrangement, and an additional 40 percent did not know if they had (ANA/Forrester 2016 Programmatic Media Buying Survey).

- Overall recommendations:
 - Programmatic buying should have a rigorous level of financial reporting and clear audit and analysis protocols on par with any other media.
 - Advertisers should craft and enforce a media buying agreement that meets their needs and expectations for transparency, accountability, and results.
 - ▶ For many, this will be a fully disclosed media buying agreement that defines and allows for cost and performance transparency, embracing key principles from the [ANA Master Media Planning and Buying Services Template](#), or ACA Marketing Communications Services Agreement and additional recommendations discussed therein.
 - ▶ For others, this may be a non-disclosed media buying agreement that guarantees KPI achievement but may put limits on transparency (e.g., lack of disclosure of the underlying media costs). Advertisers who desire to enter into a non-disclosed model should receive assurances from the agency about the buying methods for non-disclosed models to ensure that the agency is truly buying the media as a principal without reliance on advertiser funds.
 - As part of any agreement, advertisers must have a practical and scalable way to verify delivery, verify costs and supply chain fees, verify contract compliance, and evaluate programmatic media buys. Without such a means, contracts are impossible to enforce. These rights should encompass access to the demand side supply chain, including all subsidiaries, divisions, and affiliates of the advertiser’s agency and the chain of suppliers that are part of each transaction.
 - It is therefore recommended that advertisers demand and secure a source of independent transactional information for their buys. One recommended approach is to access and control your programmatic transaction level data — winning bid log data and metadata — to serve as the advertiser’s record of transaction (e.g., “programmatic invoices”).

In the end, this study was an important first step in the journey to greater accountability and transparency in programmatic media. If we learned nothing else, we learned that programmatic media can be significantly demystified for any advertiser which demands it and takes control of their programmatic transaction level data. Each advertiser that participated — and even a few that attempted to participate — is well positioned for better programmatic governance and digital supply chain management.

Following are detailed recommended steps to help all advertisers take greater control of their programmatic investments. The ANA, the ACA, Ebiquity, and AD/FIN are committed to bringing greater transparency to the digital media supply chain. We invite others to join us, contribute to the discussion, and make the effort to create a more measurable, accountable, and transparent digital media marketplace.

I. Background

Programmatic Media Is Our New Reality

Programmatic media is the automation of media buying and selling processes and decisions, enhanced through data¹³. It is fast becoming the dominant approach to buying digital media, projected to “reach nearly \$33 billion in 2017, according to eMarketer’s latest forecast, which estimates that nearly four of every five U.S. display ad dollars will transact through programmatic pipes this year...expected to increase to 84 percent by 2019.”¹⁴

Why is programmatic media buying growing so quickly? Largely because programmatically transacted media offers many alluring benefits to advertisers: targeting precision, scalability, cost efficiency, real-time optimization, and unprecedented leverage of big data. And as programmatic buying becomes more mainstream, higher-quality inventory is becoming more available. Programmatic buying is our new reality.

Why the Study?

Ever since reports from the [World Federation of Advertisers \(WFA\)](#) and others estimated that the programmatic “technology tax” could exceed 60 percent of an advertiser’s media budget¹⁵, questions have been growing around the “hidden costs” of the programmatic ecosystem and the inherent lack of transactional transparency. These concerns have been exacerbated by non-disclosed buying agreements for programmatic media, which do not allow for the close inspection, analysis, and auditing of a buy’s transactional details, costs, and fees.

Many advertisers find themselves in the dark around the economics of programmatic buying, an issue highlighted in the ANA and Ebiquity/FirmDecisions report, “[Media Transparency: Prescriptions, Principles, and Processes for Marketers](#),” which noted: “The programmatic media market is one where non-transparent business practices make it hard for advertisers to see where their investments are going...the flow of data within programmatic buying is also complex, and advertisers should take the appropriate actions to understand the role and use of data throughout the programmatic trading chain, especially as programmatic buying becomes an established targeting and trading mechanism across the media landscape.”

Both reports added weight to fundamental questions facing advertisers:

- Do advertisers have adequate transparency around their programmatic media investments to make the most informed business decisions?
- Do advertisers properly understand the economics of programmatic media to manage (and minimize) the complex supply chain that underlies each transaction?
- Do advertisers have the necessary knowledge of programmatic media costs, fees (agency, trading desk, etc.), and performance details to meet the standards of a financial audit or scrutiny of shareholders?
- Do advertisers have the necessary tools and guidance to manage and optimize their programmatic supply chain?
- Do advertisers have contracts that provide adequate accountability and audit rights?

¹³As defined in the ANA/Forrester 2016 Programmatic Media Buying Survey

¹⁴eMarketer April 2017; Mediapost 4/18/17

¹⁵According to the WFA’s *2014 Guide to Programmatic Media*, “after all the stakeholders in the programmatic ecosystem have taken their share of advertisers’ budgets, there remains just 40 percent received by the publisher...” putting the “tech tax” at 60 percent.

Objectives of the Study

This study — a joint effort between the Association of National Advertisers (ANA), the Association of Canadian Advertisers (ACA), Ebiquity, and AD/FIN — set out to dissect this growing speculation. Our objective was simple, yet ambitious — to create a data-driven fact base around the economics of programmatic media trading to understand:

- Flow of spend from Advertiser → Agency → Trading Desk → DSP → paid to Exchange
- Actual costs of media inventory (“demand-side working media”)
- Actual costs/fees of data and execution (“demand-side non-working media”)
- Actual baseline ratios, ranges, and norms based on this data
- Assess spend activity across an anonymized, aggregated participant pool

The foundation for the study’s analysis was winning bid transaction logs generated by each DSP for every impression purchased on an advertiser’s behalf. This data was seen by the team as the best available source of the true “demand-side” cost for each media impression. Log data, together with its associated metadata, records not only the transactional cost details (CPM) and characteristics for each impression (ad size, channel, geolocation, domain, etc.), but also many of the ad-tech services deployed programmatically (targeting data, ad serving, fraud, viewability, etc.).

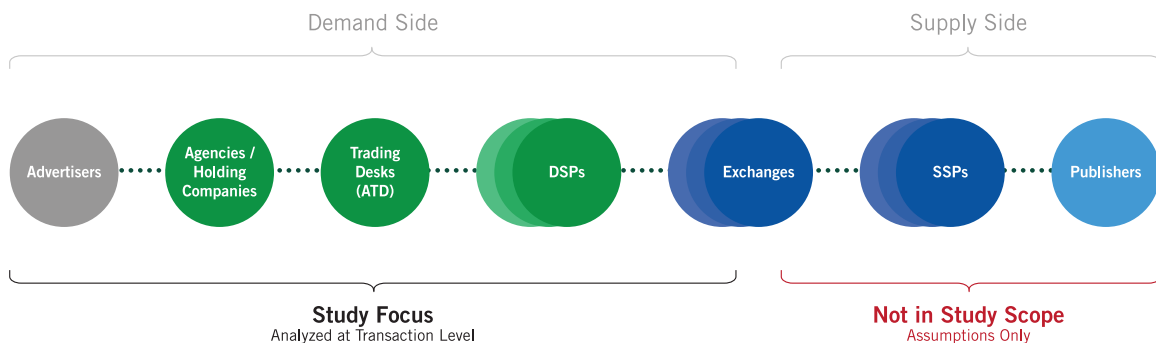
Focus and Requirements of the Study

Starting in May 2015, the team initiated recruitment of advertisers in the U.S. and Canada to participate, with the following qualifying characteristics:

- Advertisers which wanted an independent view of programmatic media costs and fees
- Advertisers with plans to run programmatic campaigns of at least \$1 million in Q1–Q3 2016
- Advertisers which had not opted in to a non-disclosed programmatic model
- Advertisers which did not rely exclusively on an “in house” trading desk

Additional important scope requirements and caveats:

- The study analyzed disclosed programmatic media buys only, which may not be representative of non-disclosed transactions where fewer controls exist to manage the supply chain.
- The study analyzed costs and associated fees for the demand side of each impression buy, specifically from Advertiser → Agency → Trading Desk → DSP → paid to Exchange, inclusive of the service, data, and ad-tech fees incurred.



- The study did not directly investigate the costs and associated fees for the supply side of each impression buy. Therefore, unless noted, figures quoted for “working media/inventory” are for the demand side and do not include costs incurred between the publisher and trading partners, such as supply-side platforms (SSPs) or sell-side fees from the ad exchange. Where it is noted, estimates for the supply side were used to provide estimated calculations for the full supply chain, from Advertiser → Agency → Trading Desk → DSP → Exchange → SSP → paid to Publisher.
- It is important to note that more than 95 percent of analyzed impressions did not utilize an agency trading desk, potentially reducing the demand-side execution costs associated with programmatic buys in our data set.
- For campaign-level analysis, only completed campaigns were analyzed, with partial or in-progress campaigns used only for select analyses.
- Where participants withheld proprietary fee data, market averages were used.
- The study did not attempt to evaluate the effect of invalid traffic and campaign exposure. Hence ad fraud, non-human traffic, viewability, and brand safety were not factored in to the calculations.
- The study did not attempt to uncover arbitrage by any participants.

Study Interest vs. Participation

After announcing the study in May 2015, the team approached over 100 major U.S. and Canadian advertisers to gauge interest in participating. Of this group, 58 advertisers expressed sincere interest. After vetting (for non-disclosed agreements) and further discussions, the team signed 28 major advertisers to the study, with a combined annual media spending of over \$16 billion in the U.S.¹⁶ However, participation was not guaranteed. In fact, only seven advertisers (12 percent of the 58 advertisers who expressed interest) were ultimately able to overcome the obstacles to access their transaction data and participate fully. The remaining 88 percent could not (or chose not to) move ahead, and in many cases, did not have the data ownership rights to conduct a financial analysis of their programmatic investments. For some which dropped out, this is suggestive of an accountability gap in the contracts and processes between the advertiser and their respective media buying partners.

Importance of Industry Protocols

As our experience confirmed, accessing advertisers’ transaction data was a persistent challenge, even for advertisers that had agency contracts that were broad enough to have granted rights to the data with full disclosure. While our experience may not translate to all advertisers, we believe many are less than fully prepared to manage their programmatic investments with the same rigor that they manage investments in other channels.

For decades, advertisers have had access to transactional details in TV, radio, print, and OOH, with clear protocols around proof of delivery via affidavits and dual invoicing from vendors. However, in programmatic media, equivalent protocols do not (yet) exist. Without clear protocols, the inability to audit and manage programmatic buys could prevent advertisers from fully understanding the true effectiveness of this channel. With the growth of digital, and more specifically programmatic media buying, this leaves advertisers with the potential for economic risk.

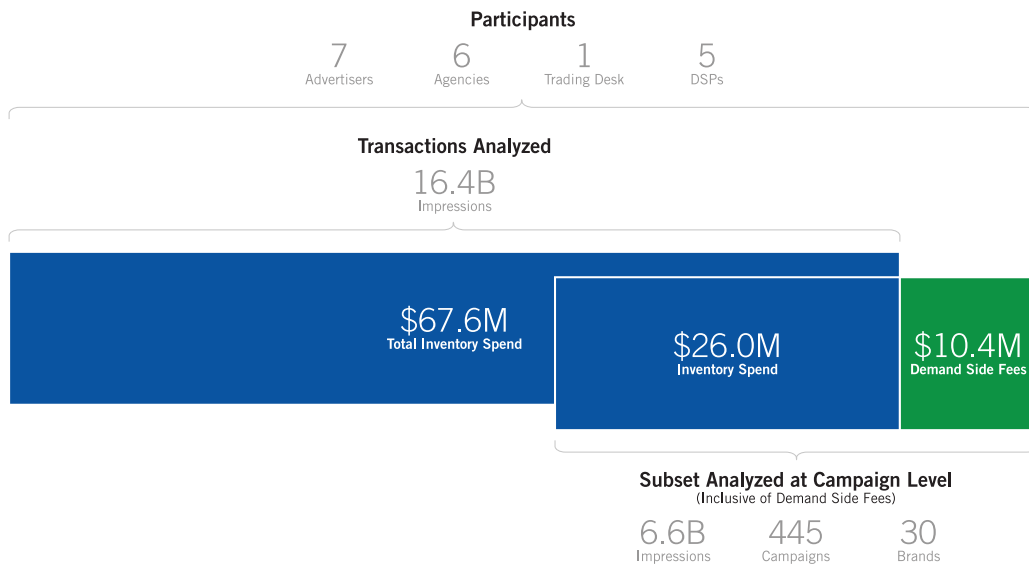
¹⁶Top 200 US Spenders of 2015, *Ad Age*, June 2016

II. What We Learned — From the Data

The study data set is comprised of programmatic display and video impressions purchased between 7/15/15 and 12/31/16 across seven major advertisers representing 30 brands in automotive, beauty, CPG, fashion, finance, and travel. It includes both real-time bidding (RTB) and private marketplace (PMP) transactions.

The overall data set was comprised of:

- 16.4 billion media impressions purchased across six agencies, one trading desk, and five DSPs
- \$67.6 million in working media/inventory spend¹⁷



A subset of the 16.4 billion impressions — 6.6 billion — was analyzed more closely at the campaign level (where transaction and data fees were also examined), comprising:

- 445 completed campaigns, with a variety of KPIs, including CPM, CPC, CPA, and awareness-driving goals
- \$36.4 million in “all-in” spend (inclusive of inventory, execution, and data fees)^{18, 19}
 - \$26.0 million in working media/inventory spend
 - \$10.4 million in execution and data fees

While the number of advertisers and the breadth of campaigns analyzed was fewer than originally envisioned, the number of impressions (16.4 billion) and campaigns (445) is nonetheless able to paint a realistic picture of the programmatic market in a disclosed environment. We understand that many will want to assess the data and charts below by KPI, by audience, by time of day, and other variables, all of which is feasible, and all of which is envisioned as we continue the journey of anonymized aggregation of cost and fee data to fuel industry intelligence.

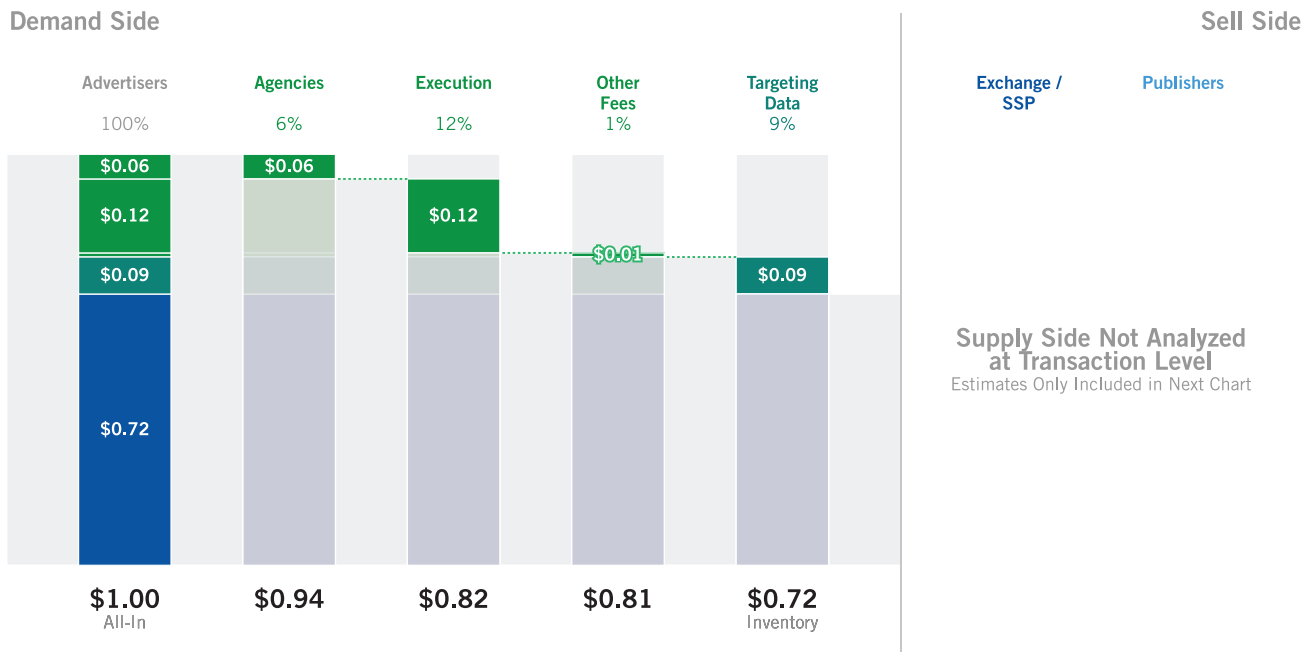
¹⁷Working media/inventory spend, also referred to as demand-side working media, is the aggregation of all winning bid clearing prices paid by all utilized DSPs to corresponding programmatic exchanges, representing the underlying cost of media inventory purchased.

¹⁸“All-in” spend is representative of the cost an advertiser would incur on an invoice, combining all costs and fees aggregated across the supply chain inclusive of the cost of media inventory, targeting data, and demand-side transaction costs. Sell-side transaction costs are also included, as they are inherently part of the inventory cost when purchased at the exchange.

¹⁹Calculations are based on measured spend, which excludes any fees that were unknown at the time of analysis. Unknown may be due to missing (log) data, incorrect campaign setup/inputs, incorrect invoicing, changes in spend/budget during campaign, incorrect or missing third-party fees, or potential markups. Across the campaign-level data set, there was a total of \$1.46 million in unknown/unclassified spend and \$401,000 in overspend (spend that exceeded media plan or invoices).

1. Programmatic “Tech Tax” and Waterfall — Demand-Side

How did each programmatic dollar (\$) move through the demand-side of the supply chain?



Findings: 72 cents of each dollar purchased media inventory from a programmatic exchange, with 28 cents of programmatic investment consumed by demand-side data and transactional fees, putting the ratio on average at 72/28. Across the 445 campaigns analyzed, we identified select campaigns with ratios as high as 85/15 percent and as low as 30/70 percent, some with significant unknown spend that would need additional evaluation to be identified and properly classified.

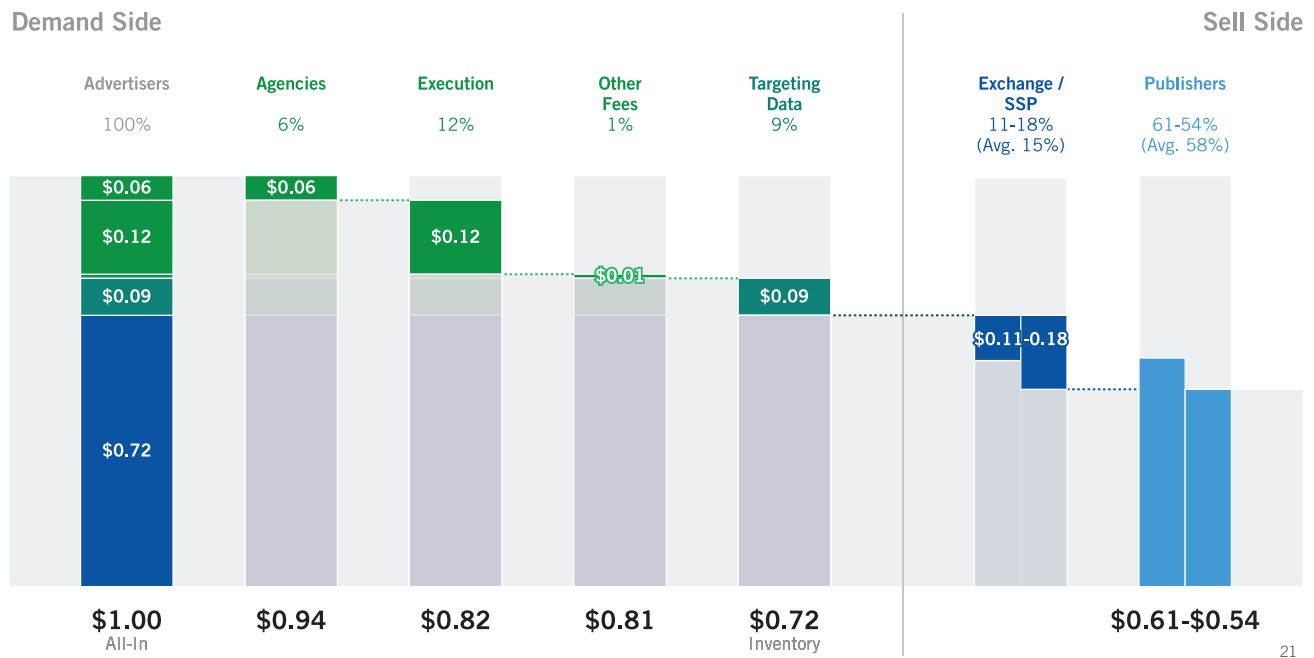
Explanation: At the aggregate level, 72 percent of campaign spend for disclosed campaigns purchased media impressions at an exchange, 6 percent went to agency fees, 12 percent went to execution costs (including DSP, verification, and ad-serving fees), 9 percent was allocated to third-party targeting data, and 1 percent was for other fees.

Note, this does not mean that 72 percent of spend was received by publishers, as sell-side fees must be added to estimate that figure. It’s also important to highlight that these figures are calculated before critical adjustments for fraudulent and non-viewable impressions, which will reduce the percentage of media that is ultimately viewable to a human customer or prospect.

2. Programmatic “Tech Tax” and Waterfall — Full Supply Chain

How did each programmatic dollar (\$) move through the full supply chain?

Findings: When fees for supply-side technology and services are also included — estimated at 15 to 25 percent of demand-side working media²⁰ — a typical \$1 of advertiser spend yielded \$0.58 to publishers for our sample of disclosed programmatic transactions, with a range of 54–61 percent.



Explanation: While others such as the WFA estimated that only \$0.40 of each \$1 investment²² was received by a publisher, our estimate indicates a figure between 54–61 percent. It’s expected that our figure would yield a higher percentage of working media and lower transaction costs, given our data set:

- Includes disclosed transactions only. Non-disclosed transactions may incur additional costs.
- Excludes trading desk fees for 95 percent of impressions in the study.
 - As a reminder, the WFA estimated agency trading desks at 15 percent of spend in its analysis. If this fee were included, the resulting calculation would be between 39 and 46 percent, in line with their estimate.

²⁰Supply-side fee estimates include costs for SSP, exchange, and sell-side ad-tech. Available industry figures for supply side fees vary widely, from 5% to 50%+. For purposes of analysis, we used a range of 15–25 percent. Sources include Labmatik and Study team analysis.

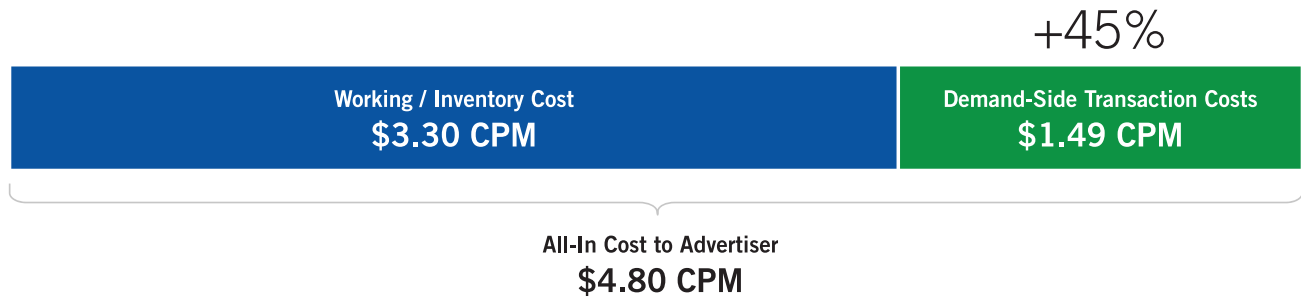
²¹Percentages at the top of the supply chain chart represent the amount each component represents of an original \$1 investment. Specifically, the sell-side percentages are based on an estimated range of 15 to 25 percent of demand side working media, which equates to \$.11-\$.18 of the \$.72 that remains of the original \$1 after demand side fees are accounted for. The final calculation of \$.54 to \$.61 is the amount of each \$1 investment remaining after both demand and supply side fees are accounted for (with the midpoint being \$.575, which rounds to \$.58).

²²Guide to Programmatic Media, World Federation of Advertisers, 2014. The WFA estimated, “in an Agency Trading Desk model, typically more than half of the advertiser spend goes to middleman fees...after all the stakeholders present in the programmatic ecosystem have taken their share of advertisers’ budgets, there remains just 40 percent received by the publisher.”

3. Cost and Breakdown of Programmatic Media — Display

What was the cost of display media purchased by participating advertisers?

Findings: The average cost of programmatic display ads in the study was \$4.80 CPM, across all campaign KPIs and audience targets in the study data.



Explanation: Of the 3.9 billion display ads purchased, the volume-weighted average cost of programmatic display was \$3.30 CPM (working/inventory cost). When demand-side fees are included (\$1.49 CPM), the resulting all-in CPM is \$4.80. In effect, demand-side fees added 45 percent to the advertiser’s average cost of display inventory.²³

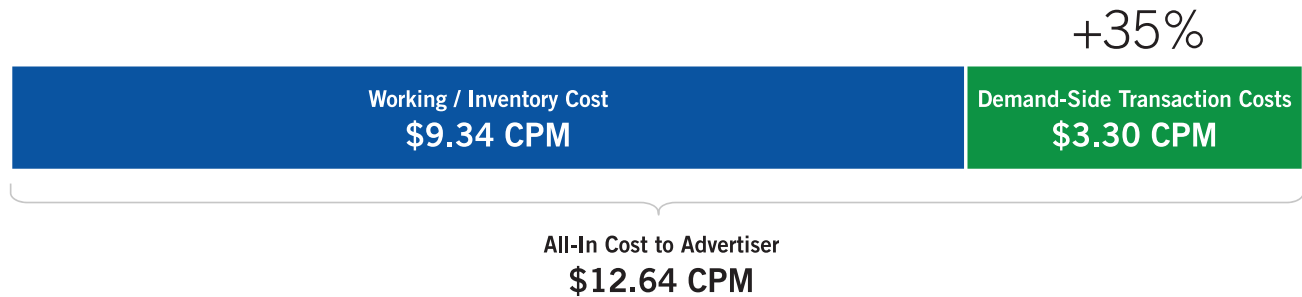
While the cost of programmatically purchased media, as with all media, varies due to numerous variables — purchase method (open market, direct deal, private exchange), campaign objective(s), KPI(s), day/time, audience target, geo-target, etc. — these figures (and the expected range of costs discussed below) can provide an initial means to assess and calibrate campaign costs. More in-depth calculations can be done at the KPI and audience levels in future iterations of this analysis.

²³This calculation only includes demand-side fees which an advertiser directly incurs, and not sell-side fees which are a cost to the publisher passed along to the advertiser when they purchase media inventory.

4. Cost and Breakdown of Programmatic Media — Video

What was the cost of video media purchased by participating advertisers?

Findings: The average cost of programmatic video ads in the study was \$12.64 CPM, across all campaign KPIs and audience targets in the study data.



Explanation: Of the 859 million video impressions analyzed, the volume-weighted average cost of video was \$9.34 CPM (working/inventory cost). When demand-side fees are added for these impressions (\$3.30 CPM), the resulting all-in cost is \$12.64 CPM. In effect, the demand-side fees added 35 percent to the advertiser’s cost of video inventory.²⁴

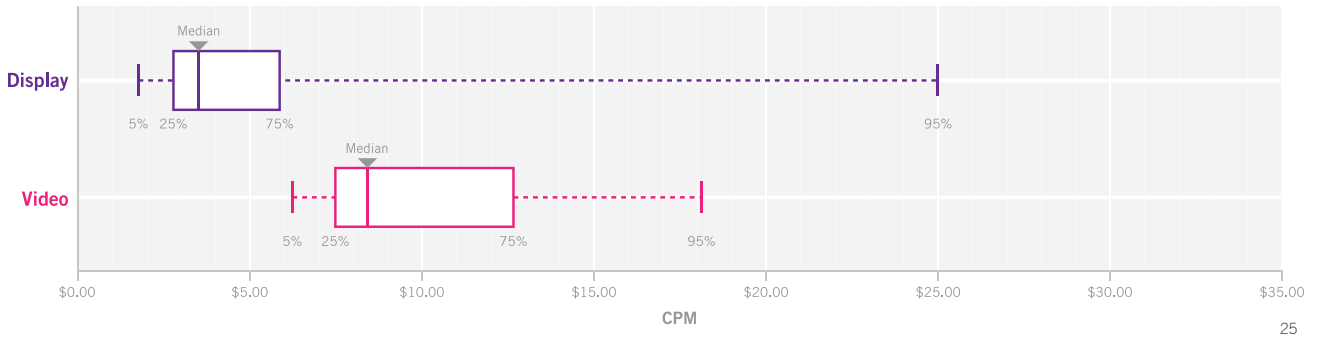
While the cost of programmatically purchased media, as with all media, varies due to numerous variables — purchase method (open market, direct deal, private exchange), campaign objective(s), KPI(s), day/time, audience target, geo-target, etc. — these figures (and the expected range of costs discussed below) can provide an initial means to assess and calibrate campaign costs. More in-depth calculations can be done at the KPI and audience levels in future iterations of this analysis.

²⁴This calculation only includes demand-side fees which an advertiser directly incurs, and not sell-side fees which are a cost to the publisher passed along to the advertiser when they purchase media inventory.

5. Working/Inventory Costs — By Channel

What was the range of working media/inventory costs for display and video media purchased?

Findings: Given the variety of campaign objectives, timing, and audiences targeted, there was a skewed distribution around the median, as shown below:



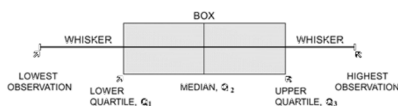
Campaign Percentiles	Working/Inventory CPM (\$)	
	Display	Video
5 th	\$1.83	\$6.23
25 th	\$2.77	\$7.48
50 th (Median)	\$3.50	\$8.41
75 th	\$5.86	\$12.66
95 th	\$25.00	\$18.13
Average	\$3.30	\$9.34

Explanation: The table represents the percent of campaigns that paid the value shown or less. For example, 5 percent of the 445 study campaigns had a working media/inventory cost of \$1.83 CPM or less for display inventory and \$6.23 CPM or less for video inventory.

In general, the costs between the 25th and 75th percentiles provide a reasonable range for a campaign's working/inventory CPM. More specifically, display has a tight range (\$2.77 to \$5.86) and video a bit wider range (\$7.48 to \$12.66). The 50th percentile (median) represents the mid-point of all campaigns analyzed. Looking at the 5th and 95th percentiles, we can see that the display campaigns studied saw greater variability in prices than did the video campaigns.

The average CPMs are also provided as a reference point and connection to the analyses discussed above in #3 and #4.

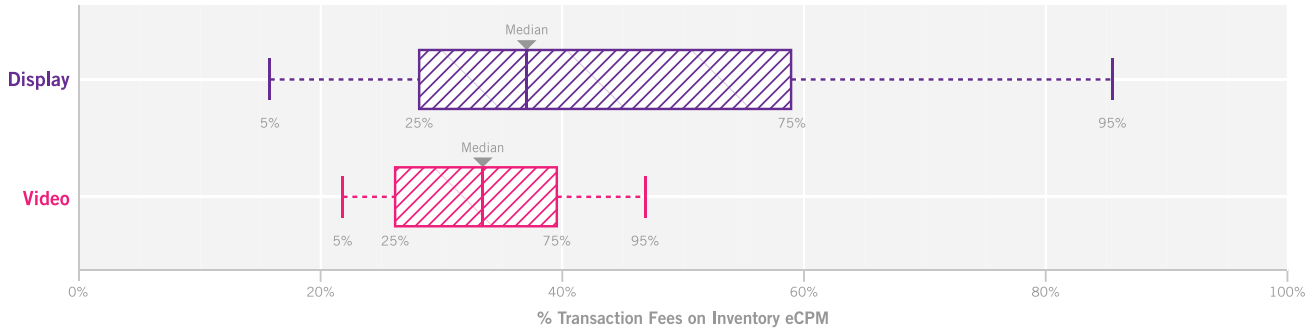
²⁵In a box and whisker plot: the ends of the box are the upper and lower quartiles, so the box spans the interquartile range. The median is marked by a vertical line inside the box. The whiskers are the two lines outside the box that extend to the 95th and 5th percentiles.



6. Demand-Side Transaction Costs — By Channel

How much did demand-side fees add to the CPM of display and video media?

Findings: On average, demand-side fees to purchase inventory programmatically added 45 percent to the cost of display inventory and 35 percent to video inventory. The overall variability in the amount added was higher for display than for video, as shown below.



Campaign Percentiles	Transaction Fees (%)	
	Display	Video
5 th	16%	22%
25 th	28%	26%
50 th (Median)	37%	33%
75 th	59%	40%
95 th	86%	47%
Average	45%	35%

Explanation: The table represents the percent of analyzed campaigns that incurred a demand-side fee premium of the value shown or less. For example, 25 percent of the study campaigns incurred demand side fees that added 28 percent (or less) to the “all-in” cost of display media and 26 percent (or less) to the “all-in” costs of video media over the the working media/inventory CPM paid at the exchange. The 25th and 75th percentiles provide a reasonable range of expectations for the demand-side fee percent. For display, this range is wide: 28 percent to 59 percent. For video, the interquartile range was tighter: 26 percent to 40 percent. The 50th percentile (median) represents the mid-point of all campaigns analyzed. Looking at the 5th and 95th percentiles, display campaigns saw much greater variability in fees — with non-outlier campaigns going all the way to 86 percent — than the video campaigns did.

The average demand-side fee premium is also provided as a reference point and connection to the analyses discussed above in #3 and #4.

7. Additional Data-Driven Insights

7 to 26 Percent of Analyzed Inventory was Identified as Blind or Malformed

All but one participant had a significant percentage of their inventory labeled as ‘Blind’ or ‘Malformed’ in their transaction logs, ranging from 7 to 26 percent of total impressions purchased.

- Blind inventory may be due to the publisher or SSP purposefully hiding domain details for competitive reasons.
- Malformed inventory may be due to log files that have not followed industry domain specifications, preventing advertisers from knowing price, geolocation, time of day, size, and position.
- However, having Malformed and/or Blinded inventory may prevent the advertiser from knowing exactly where the media ran, hindering audits of compliance to the advertiser’s inclusion or exclusion list and potential optimizations, and potentially creating brand safety issues.
- It is important to monitor and work with agency and trading desk partners to minimize the percentage of Blind or Malformed inventory.

84 Percent of Analyzed Campaigns Used Third-Party Targeting Data²⁶

Eighty-four percent of campaigns leveraged third-party targeting data to increase audience reach and performance.

- There was a very wide range in the percentage of each campaign’s budget allocated to third-party targeting data:
 - 16 percent of campaigns used no targeting data (0 percent)
 - 29 percent of campaigns spent 1–5 percent
 - 31 percent of campaigns spent 5–15 percent
 - 23 percent of campaigns spent 20–35 percent
- Additionally, after a 5 percent investment level there was a clear point of diminishing returns on a normalized KPI.²⁷ This may not be representative of each advertiser’s experience, but it does signal that an optimal level can be identified based on specific campaign KPIs.
- For many campaigns, the above percentages represent sizable investments that should be monitored for performance and impact, identifying the optimal mix for each advertiser.

²⁶Data segments purchased or licensed from third-party data providers to enhance/improve targeting of media purchased programmatically.

²⁷Given the range of KPIs in play across 445 analyzed campaigns, for purposes of comparison and normalization, CTR (Click-Through Rate) was used as a proxy KPI, as it was captured and available for all campaigns. Going forward, specific campaign KPIs should be used to gauge optimal investment levels for any advertiser(s).

III. What We Learned — From the Process

There were important learnings which can guide each advertiser’s “programmatic governance” going forward:

- **Programmatic media may be complicated, but it can be demystified.** Transactional transparency can be a reality when advertisers take active control of the raw transactional data at the heart of every programmatic purchase (winning bid log data and metadata). If you choose a disclosed approach, insist on access to, portability of, and control over your transaction data as one feasible method to verify compliance and accountability.
- **Disclosure and transparency should be approached from a legal, process, and technical perspective.** The challenge of programmatic transparency is not just technical — thousands of sites, millions of impressions, 24/7 buying — but also a legal and procedural challenge, where clarity in roles and responsibilities of all parties at the outset is vital.
- **Ensure incentives and objectives are aligned.** The growth of programmatic media has paralleled the growth of the agency trading desk (ATD) and independent trading desk (ITD). Like all parts of the digital supply chain, ATDs and ITDs can play a valuable role, but it’s important that advertisers clearly understand the relationship between the agency of record and its affiliates and partners/vendors to determine whether there might be a conflict of interest, and ensure all incentives and objectives are aligned across all players.
- **Use of an agency trading desk almost always led to non-participation and disclosure challenges.** There was a high correlation between advertisers which used an agency trading desk and those which could not participate in the study due to non-cooperation or non-access to transaction level data. If you choose to utilize a trading desk, be sure you understand what impact this may or may not have on your ability to assess, audit, and analyze your transaction data as a means of financial verification and control.
- **Fee models varied far and wide and were not always understood.** Across study participants (and early exploration of partial participants), it’s clear there is no “one-size-fits-all” model for programmatic media and the fees associated with its execution. We saw numerous models in practice deploying all combinations and permutations of agency, trading desk, DSPs, managed service, self-service, and various ad tech. Variation extended to payment models, where a range of formulas were deployed. The important point is that you should explore all options when developing your programmatic approach, craft the model that is best for you, and ensure there is a verification and audit method in place from the start.
- **Advertisers with clear programmatic KPIs are in better control of their programmatic investments.** Given the inherent complexities and costs of the programmatic supply chain, the precise role and KPIs to be achieved need to be clear to all involved. In a variety of instances, KPIs were hard to identify or prioritize, making proper assessment difficult. KPIs will always differ based on campaign objective and location in the marketing funnel, so alignment on this point is crucial. Those advertisers that set and then monitor against appropriately-set KPIs are in far better position to take advantage of the benefits of programmatic media and to ensure campaigns leveraging it are appropriate for this form of media buying.
- **Disclosure and transparency will put you in greater control, but performance still drives the bottom line.** While proper disclosure puts the advertiser in a superior position with respect to governance and supply chain management, it does not guarantee that your media partners will deliver adequate results, or better results than in a non-disclosed arrangement. Therefore, having in place a clear methodology for financial transparency tied to KPI performance is recommended.

IV. Obstacles to Transparency

As discussed, the majority of those interested in the study were unable (or unwilling) to move forward to participate. Here are some of the issues and roadblocks encountered:

- **“Disclosed” vs. “non-disclosed” media buying.** This was the fundamental issue that drove (or hindered) much of the study process. Advertisers which did not explicitly plan for and address programmatic disclosure issues were much more likely to find themselves faced with a myriad of challenges to transparency. In a few instances, advertisers participated as an opportunity to re-address this issue.
- **Discouragement from agency partners.** Several advertisers declined to participate after their agency and/or trading desk discouraged them from participating. The rationale was often that the study would be a resource drain and/or that the study would provide no tangible value.
- **Unclear escalation path.** The request to access and analyze transaction data on behalf of advertisers was new to many of the parties involved, and the request was often passed around with no concrete response or with delays.
- **Inconsistent, non-standardized practices.** Unlike ad server logs, with which the industry has a long history and greater clarity on access rights and privileges, there are currently few industry standards around ownership, provisioning, and delivery of log-level programmatic bid data to advertisers, which created delays and/or offered excuses for not proceeding.
- **Variability in technical ability across DSPs and trading desks.** While many DSPs contacted were highly cooperative when proper requests were made for data delivery and transfer, in a few cases, DSPs claimed they did not have the technical ability to generate logs and/or transfer the client’s data in a timely manner.
- **Downstream disclosure discrepancies.** In a few instances, a properly executed disclosure agreement between the advertiser and agency was not carried through with one or more DSPs that had been contracted by the agency or trading desk. As such, the disclosure agreement was not possible to enforce.
- **Omission/discrepancies on required campaign details and third-party fees.** To analyze each campaign, parameters were required, including budget, KPIs, flight dates, and invoiced spend. In addition, fees incurred that were not part of DSP log data were required as well. In multiple instances, the data received was either incomplete or differed based on who communicated the inputs.
- **Complexity mapping DSP data to ad-server data.** Notwithstanding the fact that the industry leverages ad-server logs as the de facto “truth” for campaign activity and spend, there is limited ability or consistent processes for mapping DSP insertion order to ad-server data. Such a process — which we recommend needs more attention — would clarify budgets being spent on programmatic media and each DSP, and how those relate to the budget and actions being communicated by the ad server.

V. Advertiser Playbook

Eleven-Step Plan to Enhanced Programmatic Accountability

For advertisers seeking greater transparency and accountability in programmatic media, we recommend the following playbook of action steps to set the proper governance foundation within your organization.

- 1. Clarify the advertiser/agency relationship between the agency and third parties and ensure disclosures of all conflicts of interest.** Given the level of debate in the marketplace around the fiduciary responsibilities of agency and buying partners, we recommend complete clarity on this topic with respect to programmatic media, specifically:
 - The primacy of relationship should be that of client (advertiser) and supplier/partner (agency).
 - The agency should have, at minimum, an express responsibility to act in client's best interest.
 - The agency should have an obligation to disclose all potential conflicts of interest relating to third-party media and technology providers.
 - Advertisers should consider insisting that their agency acts as an "agent of the principal," with the advertiser as the principal for media bought and the technologies (ad servers, DSPs, etc.) and data used. Even if an agency insists on acting as a principal in a transaction, that does not mean the transaction cannot be entirely transparent. Furthermore, it does not mean that the advertiser cannot own and control associated data. An advertiser can always demand transparency and data ownership/control when the agency is acting as a principal by stating so in the contract.
- 2. Make an informed programmatic disclosure and accountability decision.** Whether to engage and purchase programmatic media on a disclosed or non-disclosed basis is a critical decision for every advertiser. We recommend careful consideration of this decision. Advertisers which do not explicitly plan for and address programmatic disclosure will likely find themselves faced with considerable challenges to transparency.
 - As previously mentioned, in a disclosed model, you should be able to access your transaction data, fees, and costs across the supply chain.
 - In a non-disclosed model, you likely won't be allowed access to this information, instead agreeing to accept an aggregated report for all media and services provided. The benefits of a non-disclosed model are not discussed here, as they are outside the scope of this study, but for some advertisers, that may be an appropriate and preferable model based on your goals, budgets, and priorities. Even with a non-disclosed model, you should expect, at the very least, to receive proof your ad ran in compliance with the advertiser's inclusion or exclusion list, be able to ensure viewability, and control for fraudulent traffic. In addition, advertisers opting for non-disclosed models should put other protections in place to insure that the agency's media recommendations are in the advertiser's best interest and that the advertiser is purchasing media as a principal.

3. Clarify what programmatic disclosure and accountability means to your organization. Be explicit about what disclosure means to you. If we learned nothing else in this process, it is that terms such as “disclosure” and “transparency” can take on different meanings depending on the exact language used in the controlling contracts and SOWs.

- Be precise in what it means to your organization and in your expectations of cost, fee, and performance data that you expect to get from your buying partners.
- Conduct a comprehensive review of all existing agreements with your media vendors, agents, and service providers. This exercise will identify areas where disclosure restrictions may exist, are silent, or are not clear.
- In future RFPs, insist on transparency at the outset to head off contractual impasses once a contract is awarded.

4. Implement the “transparent” programmatic planning and buying model that’s right for your organization.

While each approach has pros and cons, advertisers do have choices on how to engage in programmatic media buying to get the level of accountability and transparency they need. Advertisers should explore and determine the most appropriate approach after careful examination with their agency and technology partners. Three primary options are:

i. In-House Programmatic Buying: While there is a continuum of “in-house” variations²⁸, in general, the advertiser sources programmatic personnel and technology inside the organization. This approach will put you in maximum control, but comes with its own set of challenges and is likely not practical for many.

Pros

- Maximum control over programmatic planning and execution
- Autonomy over tech stack and ad-tech partners
- Control over targeting and transaction data; do not have to share details with other parties or partners
- Hybrid models do exist to share some of the burden with an agency partner

Cons

- Significant investment building resources and capabilities that may not be core to the advertiser’s business
- Need to negotiate and manage ad-tech contracts and partners
- Potentially less spend leverage for inventory, data, and technology

²⁸In-house buying exists along a continuum, with a range of responsibilities divided up between marketer and agency. Via Labmatik, 2017, one way to see this continuum is as follows: a) full in-house activity; b) programmatic buying unit (PBU) brand-led, where the marketer oversees the bulk of related activity; c) PBU agency-led, which involves the marketer but is driven by the agency; and d) outsourced, which completely relies on the agency and may involve the use of principal-based trading units to procure and resell inventory.

ii. Disclosed Agreement with Agency; Advertiser Control of Tech Stack: The foundation of this approach is a fully disclosed agreement with the media agency, with the advertiser taking the lead and ownership of ad-tech contracts with service and technology providers, specifically the DSPs, but could be extended to verification services, ad server(s) and third-party data providers, and others.

Pros	Cons
<ul style="list-style-type: none"> • High degree of control over programmatic planning and execution • Autonomy over tech stack and partners; ability to choose partners based on advertiser requirements • No investment in internal capacity-building outside of tech partner management • Ability to directly control transaction data 	<ul style="list-style-type: none"> • Reliant on disclosed agreement terms, enforcement, and verification to ensure adequate transparency and accountability • Need to negotiate and manage ad-tech contracts and partners • Potentially less leverage for negotiating data and technology contracts

iii. Disclosed Agreement with Agency; Agency Control of Tech Stack: The foundation of this approach is also a fully disclosed agreement with the agency, but in this instance the agency also owns the contracts with service and technology providers. With the agreement enforced and verified via unfettered access to your log-level transaction data (or another source of verified proof of cost, fees, and delivery), this is a likely choice for many advertisers. Whether this is implemented with the agency as a dedicated trading desk/team, a managed service model, or a hybrid, we recommend the Master Service Agreement (MSA) be clear on all disclosure terms and verification.

Pros	Cons
<ul style="list-style-type: none"> • Relatively simple and fast to implement • Requires little to no internal investment in specialized programmatic skills • Allows you to leverage skills, scale, and experience of agency to select and manage tech and data partners 	<ul style="list-style-type: none"> • Reliant on disclosed agreement terms, enforcement, and verification to ensure adequate transparency and accountability • Outsourcing programmatic planning and execution, so need tools and processes to oversee, audit, and assess buys • No autonomy over tech stack and partners • Agency has copy of your data and can leverage and aggregate to enhance its capabilities

The above are provided as three primary options for consideration. There are of course other options, hybrid models, and non-disclosed approaches that advertisers may choose to explore and implement based on their specific needs and expectations.

5. Enhance your MSA/media buying agreement(s) to meet your accountability needs and expectations.

Desiring a properly disclosed agreement and crafting one are two different things. We recommend you update and/or renegotiate agreements where disclosure and/or data access is prohibited or limited.²⁹ A few areas to focus on include:

- **Supply Chain Disclosure:** Ensure your contract entitles you to full disclosure of all costs and fees incurred in the process of buying each media impression, and allows for review and approval of contracts with vendors, suppliers, and ad-tech partners used in the process.
- **Disclosure of Third-Party Fees:** Ensure your contract addresses whether third-party costs, such as ad-server fees, data fees, and verification fees, are to be passed through at cost or if there is an allowable markup.
- **Disclosure Requirement for All Partners:** Ensure your contract requires that any third-party contracts (DSP, ad server, etc.) adhere to the same level of disclosure as your master agreement.
- **Data Ownership/Control:** Contracts should specify that ownership/control of campaign data lies with the advertiser and should ensure transparency of, control of, access to, and portability of that data. If an advertiser wants to opt in to a non-disclosed model of media buying where it gives up some control of, access to, or portability of its data, it should do so only on a case-by-case basis. Any opt-in agreement should expressly state what rights the advertiser has to the data and what the agency and third parties may do with the advertiser's data, if different than what is stated in the MSA. Contracts should be clear whether the agency and third parties can aggregate the advertiser's data with other data it owns.
- **Audit Rights:** The advertiser's right to audit should extend to all entities covered by the master services agreement, including the Agency of Record (AOR), its holding company, and any other affiliated and related companies that are involved in the transactional chain on behalf of the advertiser, including Agency Trading Desks (ATDs), barter companies, and other trading affiliates. This should extend to third-party companies where such companies provide services for the advertiser and/or negotiate any deals with suppliers that include the advertiser's investment.³⁰ Without this reach, it may be impossible to get full transparency, and it is certainly impossible to *know* whether there is full transparency.
- **Data Security Requirements:** Ensure your contract requires the agency and its suppliers to have adequate data security protections in place, at minimum, consistent with your other corporate policies.

²⁹The ANA Master Media Planning and Buying Services Template ("ANA Template") or ACA Marketing Communications Services Agreement provides language which can be useful in addressing some of these points. Alternatively, proposed language and terms can be obtained by contacting the ANA/ACA for assistance.

³⁰As stated in the ANA, Ebiquity, and FirmDecisions "Media Transparency: Prescriptions, Principles, and Processes for Marketers" report.

6. Ensure your MSA/media buying agreement(s) address(es) critical programmatic media specifics. Given the complex nature of programmatic media buying, advertisers need a practical and scalable way to verify compliance of contractual terms, and evaluate and optimize media investments. As one viable approach, we recommend that advertisers demand and secure control of their programmatic transaction-level data — winning bid log data and metadata — to serve as each advertiser’s record of transaction (e.g., “programmatic invoices”). To this end, we strongly recommend that the following points be clearly addressed in your MSA or buying agreements³¹:

- **Log and Metadata Access:** Ensure your contract entitles you to unfettered access to log-level transaction data (event logs and associated metadata) as a key verification source of fees and costs from all buying/inventory sources, including each DSP used to execute the advertiser’s media buys.
- **Log Data Hygiene:** Ensure your contract requires that each source of log-level transaction data and metadata (e.g., DSPs) attest that the data they are providing is accurate to the best of their knowledge and has not been manipulated in any manner.
- **Log Data Partitioned:** Ensure your contract requires your log-level transaction data and metadata to be properly partitioned and siloed from that of other, potentially competitive advertisers and media buyers.
- **Log Data Delivery:** Ensure your contract requires each DSP (or buying technology/team/tool) being used by the agency and/or trading desk on your behalf to make available the requested transaction data on a timely basis.
- **Log Data Retention:** Ensure your contract requires each DSP (or buy-side technology/team/tool) used by the agency and/or trading desk on your behalf to retain this transaction data for a minimum timeframe (e.g., 12 months).
- **Log and Metadata Definition Clarity:** Ensure your contract requires all vendors and DSPs to clearly define all data fields and attributes in their transaction logs and metadata (and any other data provided), especially any fields related to costs and fees.

7. Put disclosure to work for you — access, monitor, and evaluate all your programmatic buying.

Programmatic media buying can and should have rigorous financial reporting and audit protocols. Winning bid logs (and associated metadata) are practical and scalable proxies that can serve as your “programmatic invoices” and financial receipts for media purchased on your behalf. Put disclosure to work for you, and at a minimum:

- Access and securely store your transaction data (e.g., for rolling 12 months).
- Analyze and review your transaction data (e.g., quarterly).
- Leverage your transaction data for audit purposes (e.g., as necessary).

³¹Sections 15.1 and 15.2 of the ANA Template are drafted in a manner to allow the advertiser to get more granular with specifics about programmatic buying and other data.

Once you are in receipt of your transaction data, you can better verify contract compliance and analyze, track, and optimize your investments across your digital supply chain, knowing much more about:

- Costs and Fees
 - Media/inventory — cost of each impression purchased (clearing price)
 - Targeting data — cost and vendor of each third-party data segment
 - Verification services — cost and vendor for each service deployed
 - Other ad tech (implemented via DSP) — cost and vendor for each service deployed
- Ratios and Benchmarks
 - Working/non-working spend ratio
 - Inventory/execution spend ratio
 - Data/inventory spend ratio
 - Other custom ratios
- Media Inventory Delivery and CPM details
 - Domain/URL
 - Geolocation
 - Time/date
 - Size/position
 - DSP/SSP
 - Video/mobile details
 - Action per impression (view, click, purchase, etc.)³²
- Optimization Opportunities (a few examples)
 - Identify most efficient paths to purchase inventory (DSPs, SSPs, publishers)
 - Identify targeting data performers and investment thresholds
 - Identify and minimize blinded and malformed inventory
 - Identify optimal budget mix and supply chain
 - Other custom analysis

8. Build and manage a site/publisher inclusion list. An inclusion list³³ is a powerful way for advertisers to maintain control of the sites, pages, and apps their ads appear on or in. Whether digital media buying is done directly or programmatically, your ad still appears on or in an app, page, video, or podcast. Who that publisher is has a lot to do with how well your ad will perform or what happens if it doesn't. If you are a major advertiser, publishers have a big incentive to be on your inclusion list and stay there.

³²Note: this can/should be augmented with ad server data and/or data from attribution services.

³³An inclusion list is a list of all approved websites, pages, and/or apps that an advertiser is allowing their ads to appear on or in.

9. Assess and audit for compliance and to identify opportunities to improve. There are many types of audits, and they can be tailored to the advertiser’s specific requirements and objectives. Audits track and measure performance achievements against agreed-upon KPIs (financial and/or process). Digital media audits differ from traditional media audits due to the collection methods of advertiser’s data.

- A financial audit requires the technology to process the volume of data of what was purchased, at what price, and the access to that transaction data.
 - The advertiser may believe that the agency’s trading desk stores all the transaction data, while the agency may believe that the transaction data lies within the billing management system. This can get even more complex if the agency uses a service provider to buy search or social media.
 - The agency may even suggest that the only data to be audited is delivery data from the ad server; however, this does not contain any financial transaction data, nor does it provide a guarantee that the media ran on the specific site it was supposed to. It is essential that the advertiser and the agency agree on what the definition of transaction data is, where it is located, and what access to that data is available to the advertiser and auditor.
- A process audit checks the planning, buying, trafficking, and reporting processes, and the technology that underpins them, to ensure the MSA is being implemented.
- Some of the technology used in campaign management may have undergone an audit from the Media Rating Council. This should not be confused with an agency audit. However, the use of MRC-audited and MRC-accredited technology could be defined within the MSA.
- Be aware of all potential conflicts of interest while also ensuring that all data and technology can be validated independent from your media partners.

10. Support the creation and nurturing of cost and fee benchmarks and norms in programmatic media.

For decades, advertisers and agencies have contributed to benchmarking pools on an anonymized basis to establish norms and comparison points for media costs and performance. This valuable process could justifiably be expanded to include programmatic media.

- By contributing anonymized data, advertisers will be in a stronger position to understand the true costs of media as well as the costs and benefits associated with each part of the digital supply chain.
- Access to market benchmarks and norms should lead to the setting of more robust KPIs.
- Members of the ANA and the ACA should take the lead in contributing to pooling and benchmarking.

11. Stay vigilant — “trust but verify.” Given the changing landscape of digital media, and the potential for new service providers, DSPs, tech providers, data providers, and so on to be added (or dropped) from your media stack, we recommend a data and disclosure review on a recurring basis.

About the Study Partners

About The ANA

The ANA (Association of National Advertisers) makes a difference for individuals, brands, and the industry by advancing the interests of marketers and promoting and protecting the well-being of the marketing community. Founded in 1910, the ANA provides leadership that advances marketing excellence and shapes the future of the industry. The ANA's membership includes more than 1,000 companies with 15,000 brands that collectively spend or support more than \$250 billion in marketing and advertising annually. The membership is comprised of more than 700 client-side marketers and nearly 300 associate members, which include leading agencies, law firms, suppliers, consultants, and vendors. Further enriching the ecosystem is the work of the nonprofit Advertising Educational Foundation (AEF), an ANA subsidiary, which has the mission of enhancing the understanding of advertising and marketing within the academic and marketing communities.

About The ACA

The Association of Canadian Advertisers (ACA) is a national, not-for-profit association exclusively dedicated to representing the interests of client companies that market and advertise their products and services in Canada. Its members, over 200 companies and divisions, represent a wide range of industry sectors, including manufacturing, retailing, packaged goods, financial services, and communications. They are the top marketers in Canada with collective annual sales of more than \$300 billion.

About Ebiquity

Ebiquity (www.ebiquity.com) is a world-leading, technology-enabled, independent consultancy, specializing in marketing and media analytics. We employ over 900 people across 19 offices in 14 countries worldwide. Ebiquity partners with 80 of the top 100 advertisers in utilizing data, tools, and insights to optimize their media and marketing investments. Ebiquity was founded in 1997 and is listed on the AIM Market of the London Stock Exchange (EBQ).

About AD/FIN

AD/FIN (www.adfin.com) is a media intelligence company for the programmatic era. As digital media continues to grow exponentially, new approaches are needed to deliver transparency, accountability, and unbiased cost, fee, and performance insights across the digital supply chain. AD/FIN is the solution. AD/FIN is the only purpose-built independent intelligence platform capable of processing the scale and complexity of programmatic media. The result: next-generation insights, recommendations, and decisioning power for digital media buyers and sellers. Based in NYC, AD/FIN is backed by Cantor Ventures and Julserra Holdings.