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PTX0518

1:23-cv-00108

GOOG-DOJ-13557023

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DateSaved : 5/17/2017 11:18 PM
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eAuthor : nirmaljayaram@google.com
eSubject : Poirot Stats
4/15-4/19, 5%
Subject :
FileName : Poirot Stats
4-15-4-19,
5-_16Sep9eaJ7Nfhb_s
ZAj7J36miuqWXu90cSz
bYLbjVAaE.xlsx

Placeholder – Excel Spreadsheet
Tab Name: Bid multiplier stability

On 3p exchanges

	<i>control</i>	<i>expt</i>	<i>change</i>
<i>imps</i>	335762376	285353621	-15.01%
<i>revenue</i>	\$1,290,659	\$1,025,859	-20.52%
<i>payout</i>	\$1,008,971	\$798,777	-20.83%
<i>value</i>	\$1,750,917	\$1,625,862	-7.14%
<i>surplus</i>	\$741,946	\$827,085	11.48%
<i>revenue/value</i>	0.737	0.631	-14.40%

On 3p unclean exchanges

<i>imps</i>
<i>revenue</i>
<i>payout</i>
<i>value</i>
<i>surplus</i>
<i>revenue/value</i>

Adsense + Adx

	<i>control</i>	<i>expt</i>	<i>change</i>
<i>imps</i>	608456596	612618150	0.68%
<i>revenue</i>	\$1,286,958	\$1,296,947	0.78%
<i>payout</i>	\$1,040,643	\$1,048,070	0.71%
<i>value</i>	\$9,251,187	\$9,278,554	0.30%
<i>surplus</i>	\$8,210,545	\$8,230,484	0.24%
<i>revenue/value</i>	0.139	0.140	0.48%

Adx only

<i>imps</i>
<i>revenue</i>
<i>payout</i>
<i>value</i>
<i>surplus</i>
<i>revenue/value</i>

Overall

<i>imps</i>	944218972	897971771	-4.90%
<i>revenue</i>	\$2,577,617	\$2,322,807	-9.89%
<i>payout</i>	\$2,049,614	\$1,846,847	-9.89%
<i>value</i>	\$11,002,104	\$10,904,417	-0.89%
<i>surplus</i>	\$8,952,491	\$9,057,569	1.17%
<i>revenue/value</i>	0.234	0.213	-9.08%

<i>control</i>	<i>expt</i>	<i>change</i>
307133612	256337080	-16.54%
\$1,073,304	\$806,624	-24.85%
\$834,979	\$623,239	-25.36%
\$1,370,873	\$1,242,579	-9.36%
\$535,894	\$619,339	15.57%
0.783	0.649	-17.09%

Clean 3p

28628764	29016541	1.35%
\$217,355	\$219,235	0.86%
\$173,992	\$175,538	0.89%
\$380,044	\$383,284	0.85%
\$206,052	\$207,746	0.82%
0.572	0.572	0.01%

<i>control</i>	<i>expt</i>	<i>change</i>
337645058	341340337	1.09%
\$1,045,585	\$1,054,859	0.89%
\$853,526	\$860,466	0.81%
\$8,783,325	\$8,809,280	0.30%
\$7,929,799	\$7,948,814	0.24%
0.119	0.120	0.59%

web_property	exchange	cntl imps	expt imps	cntl revenue	expt revenue	cntl payout	expt payout	cntl value
ca-pub-1429895623202285	spotxchange	2242130	2113950	\$34,163.39	\$31,139.48	\$27,195.25	\$24,729.65	\$40,402.92
ca-pub-1525150946658422	adingo	1088218	1047651	\$1,529.02	\$1,410.44	\$1,144.17	\$1,054.71	\$3,596.19
ca-pub-1633277228031978	adaptv	2819035	2878747	\$27,969.59	\$28,499.94	\$21,955.34	\$22,382.48	\$65,207.85
ca-pub-1640496599382717	lijit	4654946	3673786	\$14,789.08	\$10,397.50	\$11,221.25	\$7,749.20	\$14,539.46
ca-pub-1852583624082418	smartclip	725781	647017	\$13,686.17	\$11,549.61	\$11,189.19	\$9,405.96	\$18,191.68
ca-pub-1974716548107238	imobile	236571	244477	\$183.12	\$179.67	\$127.90	\$125.15	\$580.70
ca-pub-2093442111761240	united	771965	683760	\$600.29	\$473.75	\$435.03	\$346.49	\$1,486.93
ca-pub-2328895497139603	smartstreamtv	79561	80221	\$1,544.23	\$1,554.15	\$1,231.39	\$1,242.61	\$2,253.72
ca-pub-2399441271239169	rightmedia	19671533	17778961	\$61,929.81	\$53,209.75	\$47,699.11	\$40,914.54	\$96,290.73
ca-pub-2409612739278653	baidu	37803	37379	\$27.73	\$26.47	\$22.98	\$21.98	\$1,307.94
ca-pub-2965089325117527	contextweb	7301053	5884145	\$23,307.18	\$15,624.15	\$18,250.02	\$12,126.35	\$20,831.08
ca-pub-3028258428956246	openx	33363774	25456459	\$106,729.63	\$70,287.89	\$80,683.74	\$52,536.45	\$127,745.91
ca-pub-3076890012741467	appnexus	74811769	63210999	\$203,384.54	\$159,092.29	\$159,932.90	\$124,701.15	\$297,835.79
ca-pub-3567512973010615	adscale	1105453	884187	\$3,275.34	\$2,537.50	\$2,566.06	\$1,970.01	\$6,593.47
ca-pub-3868886228591888	platformid	96306	106268	\$87.09	\$89.52	\$57.35	\$58.64	\$235.81
ca-pub-4339119772293745	tanx	529095	528983	\$70.76	\$70.32	\$61.47	\$60.78	\$270.32
ca-pub-4393823001626070	microad	710265	677942	\$634.92	\$590.58	\$432.71	\$408.06	\$1,647.70
ca-pub-4497245928647415	dailymotion	145220	147473	\$1,026.15	\$1,043.41	\$769.46	\$780.18	\$1,408.24
ca-pub-4925306480219738	brightroll	4003680	3245044	\$45,908.29	\$36,179.13	\$37,127.35	\$28,814.87	\$58,091.89
ca-pub-5085450378852851	nexage	2013139	2059667	\$5,483.72	\$5,566.08	\$4,180.28	\$4,238.88	\$9,635.33
ca-pub-5446915690262785	tremorvideo	2557800	2582121	\$36,431.91	\$36,744.30	\$29,988.35	\$30,246.50	\$66,646.18
ca-pub-5722610347565274	casale	22981803	17119506	\$94,747.50	\$62,541.69	\$72,143.22	\$47,035.58	\$106,450.87
ca-pub-5955580522647743	geniee	3843438	3586734	\$4,111.81	\$3,847.16	\$3,161.72	\$2,996.16	\$10,809.83
ca-pub-6068497455919343	smarttrb	7188723	7299612	\$16,377.00	\$16,381.29	\$12,366.82	\$12,351.26	\$39,315.26
ca-pub-6362111942204036	pubmatic	38638136	30628582	\$208,880.27	\$143,639.66	\$165,403.48	\$113,009.19	\$187,885.95
ca-pub-6402014330148934	mopub	12159237	11340535	\$14,432.27	\$12,678.25	\$10,917.21	\$9,489.82	\$27,685.57
ca-pub-6451420571434375	qihoo	8491	8208	\$3.01	\$2.87	\$2.71	\$2.59	\$18.09
ca-pub-6463948665732549	adtech	11994934	10405297	\$32,023.16	\$25,509.60	\$23,930.85	\$18,933.77	\$46,018.34
ca-pub-6513011533210025	teadstv	2554285	2560995	\$37,418.30	\$37,538.02	\$30,704.60	\$30,806.43	\$63,874.85
ca-pub-6579838053286784	rubicon	49026633	41686177	\$129,563.11	\$99,247.73	\$99,727.60	\$75,757.49	\$195,568.82
ca-pub-6677732202158146	stickyexchange	4476007	4523028	\$58,300.87	\$58,897.92	\$46,471.17	\$47,001.44	\$77,234.14
ca-pub-6771908423553379	xbidpub	229535	230361	\$3,786.64	\$3,805.11	\$3,527.25	\$3,545.24	\$3,538.17
ca-pub-6949724085261467	admeta	636086	612218	\$1,658.27	\$1,577.08	\$1,361.98	\$1,294.21	\$2,151.75
ca-pub-7098577362019730	adform	1672152	1690378	\$5,175.47	\$5,173.28	\$4,241.36	\$4,243.28	\$9,275.33
ca-pub-7306760027101340	yieldmo	450110	451338	\$1,776.16	\$1,780.26	\$1,474.53	\$1,478.76	\$3,412.42
ca-pub-7350897138099958	bidswitch	17257558	15506657	\$76,923.77	\$64,047.56	\$59,686.56	\$49,185.44	\$105,640.18
ca-pub-8391639848056334	improvedigital	3625995	3680085	\$22,641.62	\$22,846.66	\$17,509.24	\$17,661.60	\$37,134.95
ca-pub-8436534779487435	ibillboard	54156	54673	\$77.95	\$79.03	\$69.62	\$70.61	\$102.88

expt value	cntl surplus	expt surplus	Unclean
\$38,901.70	\$13,207.67	\$14,172.05	TRUE
\$3,550.39	\$2,452.02	\$2,495.68	TRUE
\$66,521.59	\$43,252.51	\$44,139.12	FALSE
\$12,652.57	\$3,318.21	\$4,903.36	TRUE
\$16,909.53	\$7,002.50	\$7,503.57	TRUE
\$553.26	\$452.81	\$428.11	FALSE
\$1,461.72	\$1,051.90	\$1,115.23	TRUE
\$2,258.07	\$1,022.33	\$1,015.46	FALSE
\$94,633.28	\$48,591.62	\$53,718.74	TRUE
\$1,312.96	\$1,284.95	\$1,290.99	FALSE
\$18,176.47	\$2,581.06	\$6,050.12	TRUE
\$110,974.65	\$47,062.17	\$58,438.20	TRUE
\$274,946.32	\$137,902.89	\$150,245.18	TRUE
\$5,697.13	\$4,027.40	\$3,727.12	TRUE
\$267.04	\$178.46	\$208.41	FALSE
\$267.76	\$208.85	\$206.98	FALSE
\$1,681.63	\$1,215.00	\$1,273.56	TRUE
\$1,429.16	\$638.78	\$648.98	TRUE
\$51,510.46	\$20,964.54	\$22,695.59	TRUE
\$9,781.93	\$5,455.05	\$5,543.06	FALSE
\$67,099.74	\$36,657.83	\$36,853.24	FALSE
\$89,011.32	\$34,307.65	\$41,975.74	TRUE
\$10,767.79	\$7,648.12	\$7,771.63	TRUE
\$39,555.19	\$26,948.45	\$27,203.93	FALSE
\$162,131.83	\$22,482.47	\$49,122.64	TRUE
\$26,586.15	\$16,768.36	\$17,096.33	TRUE
\$16.26	\$15.38	\$13.66	FALSE
\$42,626.00	\$22,087.48	\$23,692.23	TRUE
\$64,151.11	\$33,170.25	\$33,344.68	FALSE
\$177,853.74	\$95,841.22	\$102,096.25	TRUE
\$77,694.07	\$30,762.97	\$30,692.63	FALSE
\$3,556.87	\$10.92	\$11.62	FALSE
\$2,122.69	\$789.77	\$828.48	TRUE
\$9,239.13	\$5,033.98	\$4,995.85	FALSE
\$3,417.55	\$1,937.90	\$1,938.80	FALSE
\$98,954.05	\$45,953.62	\$49,768.61	TRUE
\$37,487.16	\$19,625.71	\$19,825.56	FALSE
\$104.20	\$33.26	\$33.59	FALSE

web_property	exchange	cntl imps	expt imps	cntl revenue	expt revenue	cntl payout
ca-pub-1525150946658422	adingo	1088218	1047651	\$1,529.02	\$1,410.44	\$1,144.17
ca-pub-6949724085261467	admeta	636086	612218	\$1,658.27	\$1,577.08	\$1,361.98
ca-pub-3567512973010615	adscale	1105453	884187	\$3,275.34	\$2,537.50	\$2,566.06
ca-pub-6463948665732549	adtech	11994934	10405297	\$32,023.16	\$25,509.60	\$23,930.85
ca-pub-3076890012741467	appnexus	74811769	63210999	\$203,384.54	\$159,092.29	\$159,932.90
ca-pub-7350897138099958	bidswitch	17257558	15506657	\$76,923.77	\$64,047.56	\$59,686.56
ca-pub-4925306480219738	brightroll	4003680	3245044	\$45,908.29	\$36,179.13	\$37,127.35
ca-pub-5722610347565274	casale	22981803	17119506	\$94,747.50	\$62,541.69	\$72,143.22
ca-pub-2965089325117527	contextweb	7301053	5884145	\$23,307.18	\$15,624.15	\$18,250.02
ca-pub-4497245928647415	dailymotion	145220	147473	\$1,026.15	\$1,043.41	\$769.46
ca-pub-5955580522647743	geniee	3843438	3586734	\$4,111.81	\$3,847.16	\$3,161.72
ca-pub-1640496599382717	lijit	4654946	3673786	\$14,789.08	\$10,397.50	\$11,221.25
ca-pub-4393823001626070	microad	710265	677942	\$634.92	\$590.58	\$432.71
ca-pub-6402014330148934	mopub	12159237	11340535	\$14,432.27	\$12,678.25	\$10,917.21
ca-pub-3028258428956246	openx	33363774	25456459	\$106,729.63	\$70,287.89	\$80,683.74
ca-pub-6362111942204036	pubmatic	38638136	30628582	\$208,880.27	\$143,639.66	\$165,403.48
ca-pub-2399441271239169	rightmedia	19671533	17778961	\$61,929.81	\$53,209.75	\$47,699.11
ca-pub-6579838053286784	rubicon	49026633	41686177	\$129,563.11	\$99,247.73	\$99,727.60
ca-pub-1852583624082418	smartclip	725781	647017	\$13,686.17	\$11,549.61	\$11,189.19
ca-pub-1429895623202285	spotxchange	2242130	2113950	\$34,163.39	\$31,139.48	\$27,195.25
ca-pub-2093442111761240	united	771965	683760	\$600.29	\$473.75	\$435.03

expt payout	cntl value	expt value	cntl surplus	expt surplus	Unclean
\$1,054.71	\$3,596.19	\$3,550.39	\$2,452.02	\$2,495.68	TRUE
\$1,294.21	\$2,151.75	\$2,122.69	\$789.77	\$828.48	TRUE
\$1,970.01	\$6,593.47	\$5,697.13	\$4,027.40	\$3,727.12	TRUE
\$18,933.77	\$46,018.34	\$42,626.00	\$22,087.48	\$23,692.23	TRUE
\$124,701.15	\$297,835.79	\$274,946.32	\$137,902.89	\$150,245.18	TRUE
\$49,185.44	\$105,640.18	\$98,954.05	\$45,953.62	\$49,768.61	TRUE
\$28,814.87	\$58,091.89	\$51,510.46	\$20,964.54	\$22,695.59	TRUE
\$47,035.58	\$106,450.87	\$89,011.32	\$34,307.65	\$41,975.74	TRUE
\$12,126.35	\$20,831.08	\$18,176.47	\$2,581.06	\$6,050.12	TRUE
\$780.18	\$1,408.24	\$1,429.16	\$638.78	\$648.98	TRUE
\$2,996.16	\$10,809.83	\$10,767.79	\$7,648.12	\$7,771.63	TRUE
\$7,749.20	\$14,539.46	\$12,652.57	\$3,318.21	\$4,903.36	TRUE
\$408.06	\$1,647.70	\$1,681.63	\$1,215.00	\$1,273.56	TRUE
\$9,489.82	\$27,685.57	\$26,586.15	\$16,768.36	\$17,096.33	TRUE
\$52,536.45	\$127,745.91	\$110,974.65	\$47,062.17	\$58,438.20	TRUE
\$113,009.19	\$187,885.95	\$162,131.83	\$22,482.47	\$49,122.64	TRUE
\$40,914.54	\$96,290.73	\$94,633.28	\$48,591.62	\$53,718.74	TRUE
\$75,757.49	\$195,568.82	\$177,853.74	\$95,841.22	\$102,096.25	TRUE
\$9,405.96	\$18,191.68	\$16,909.53	\$7,002.50	\$7,503.57	TRUE
\$24,729.65	\$40,402.92	\$38,901.70	\$13,207.67	\$14,172.05	TRUE
\$346.49	\$1,486.93	\$1,461.72	\$1,051.90	\$1,115.23	TRUE

[Data from a 5% experiment on 4/15 to 4/19](#)

Advertiser * exchange level

212547019 control

212547020 experiment

ZESTA

	<i>control</i>	<i>expt</i>	<i>expt_scaled</i>	<i>change</i>
<i>Adsense BC</i>	\$186,493	\$187,015	\$207,835	11.44%
<i>Adsense noBC</i>	\$54,390	\$54,584	\$54,584	0.36%
<i>Adx BC</i>	\$808,990	\$815,254	\$906,015	11.99%
<i>Adx noBC</i>	\$236,076	\$239,088	\$239,088	1.28%
<i>3p clean BC</i>	\$170,787	\$171,526	\$190,622	11.61%
<i>3p clean noBC</i>	\$55,346	\$55,415	\$55,415	0.12%
<i>3p unclean BC</i>	\$869,334	\$657,891	\$731,133	-15.90%
<i>3p unclean noBC</i>	\$204,319	\$148,940	\$148,940	-27.10%
<i>Total DBM_BC</i>	\$2,035,604	\$1,831,686	\$2,035,604	0.00%
<i>Total DBM_on_Adx</i>	\$1,045,066	\$1,054,342	\$1,145,103	9.57%
<i>Total DBM</i>	\$2,585,735	\$2,329,713	\$2,533,631	-2.02%
<i>Adx fraction of DBM</i>	40.42%	45.26%	45.20%	11.83%
Scaling	1.111			
Fraction of Adx that's DBM	30.04%			
Fraction of 3p that's clean	17.40%			

Since DBM is 31% of Adx, overall Adx revenue increases by 3%

	Control	Expt	Change
Adsense	\$240,883	\$262,419	8.94%
Adx	\$1,045,066	\$1,145,103	9.57%
Clean	\$226,133	\$246,037	8.80%
Unclean	\$1,073,653	\$880,073	-18.03%
	\$2,585,735	\$2,533,631	-2.02%
	\$240,883	\$241,599	0.30%
	\$1,045,066	\$1,054,342	0.89%
	\$226,133	\$226,941	0.36%
	\$1,073,653	\$806,831	-24.85%
	\$2,585,735	\$2,329,713	-9.90%

[ZESTA](#)

	revenue			rpi	
	control	experiment	experiment_scaled	control	experiment
Adsense	\$240,883	\$241,599	\$262,419	\$0.89	\$0.89
Adx	\$1,045,066	\$1,054,342	\$1,145,103	\$3.10	\$3.09
3p clean	\$226,133	\$226,941	\$246,037	\$7.56	\$7.51
3p dirty	\$1,073,653	\$806,831	\$880,073	\$3.49	\$3.15

impressions						
experiment_scaled	control	experiment	experiment_scaled			
\$0.89	270,169,358	270,638,512	293,961,031	0.17%		8.81%
\$3.09	337,553,618	341,255,179	370,631,352	1.10%		9.80%
\$7.51	29,929,984	30,211,670	32,753,791	0.94%		9.43%
\$3.15	307,240,807	256,413,589	279,690,050	-16.54%		-8.97%
	944,893,767	898,518,950	977,036,224	-4.91%		3.40%