

May 24, 2016

To: The Advisory Committee on Civil Rules
of the Judicial Conference of the
United States, and Members of the
Rule 23 Subcommittee

by email

MAILING ADDRESS:
154 EAST ATLANTIC BOULEVARD
OCEAN CITY, NJ 08226-4511
+1 (215) 486-2658

WRITER:
THILSEE@HILSEEGROUP.COM

**Update: Data does not support premise for relaxing
the Rule 23(c)(2) individual notice requirement**

Dear Committee and Subcommittee Members:

My letter of March 23, 2016 advised against revising the individual notice requirement in Rule 23(c)(2).¹ I noted that if claims administrators were compelled to produce data, they would reveal that mailed notice outperforms email and dramatically outperforms other “electronic notice.” This letter provides data to further inform the committees.

Data shows that if there is a presumption in favor of first class mail, it is a correct one. Regardless, the current rule allows all forms of individual notice, so the revision serves to steer courts away from mailings. Why?

The Rule 23 Subcommittee notes for the April 14-15, 2016 Advisory Committee meeting state:

*“Since Eisen v. Carlisle & Jacquelin, 417 U.S. 156 (1974), interpreted the individual notice requirement for class members in Rule 23(b)(3) class actions, many courts read the rule to require notice by first class mail in every case. But technological change since 1974 has meant that **other forms of communication are more reliable** and important to many.”*

The key phrase (shown with emphasis added in bold) is not accurate. Rather, data and other facts show the opposite to be true, and prompt serious questions:

1. **On what basis are other methods “more reliable” than first class mail?**
2. **Why change a rule that already allows all methods of individual notice?**
3. **Why change this rule unless to steer courts away from first class mail?**
4. **Why steer courts away from first class mail if data shows it to be better?**

¹ The current rule: “the best notice that is practicable under the circumstances, including individual notice to all members who can be identified through reasonable effort” is proposed to be changed to: “the best notice that is practicable under the circumstances, by United States mail, electronic means or other appropriate means. The notice must include individual notice to all members who can be identified through reasonable effort.”

Courts already approve email as Rule 23-compliant individual notice when appropriate. There is no great controversy where email notice is being rejected by courts when physical mailing addresses are not available and email addresses are. The rule change would only encourage less effective notice than first class mail—even when physical mailing addresses are available.

The phrase “electronic notice” in the proposed rule lets internet banner ads masquerade as individual notices. Vendors seeking to undercut their competitors are telling lawyers and courts that they can target cheap banner ads at individuals and limit the exposure frequency to one banner “impression” per class member over the course of an entire notice program. Realize that the industry definition of a “viewable” internet banner impression is one where “**1/2 of the pixels are visible on screen for a minimum of one second.**”² With submissions citing this pending rule change, we are already seeing notice proposals that would bind the 99.96% of class members who do not click banner notice ads.³

This “half banner/one second” standard for notice, which would be legitimized by this rule change, will de-legitimize our opt-out system.

Class action response rates are already dropping precipitously, which claims administrator affidavits are now revealing. This rule change will embolden parties—and indeed has already done so—to avoid physical mailings even when notice would alert people about a product that may risk their personal safety. The resulting low claims rates are empowering those advocating against class actions altogether—those who cite their futility, *e.g.*, the 2103 Mayer Brown study and its supporters.⁴

New Information and data:

1. Data now publicly available from MailChimp, the world’s leading email marketing platform, indicates that only 22.73% of legal industry emails are opened.⁵

² Media Rating Council. See <http://measurementnow.net/press-release-media-rating-council-updates-viewable-ad-impression-measurement-guidelines/#.VOBuZJErlyg> last visited May 20, 2016. Note: Banners can fit only about 15-20 sizable words, thus not themselves compliant with Rule 23 content requirements. Only those who click a banner can see a Rule 23-compliant notice.

³ Data shows that on average 0.04% of banner “impressions” are clicked. <http://www.smartinsights.com/internet-advertising/internet-advertising-analytics/display-advertising-clickthrough-rates/attachment/average-clickthrough-rates-for-different-ad-formats-2016/>, last visited 4/27/16.

⁴ Mayer Brown, *Do Class Actions Benefit Class Members? An Empirical Analysis of Class Actions*, Dec. 2013, <https://www.mayerbrown.com/files/uploads/Documents/PDFs/2013/December/DoClassActionsBenefitClassMembers.pdf>, last visited May 19, 2016.

⁵ *Average Email Campaign Stats of MailChimp Customers by Industry*, April 4, 2016. <http://mailchimp.com/resources/research/email-marketing-benchmarks/>, last visited April 26, 2016.

2. The Direct Marketing Association reports the rate that emails are actually opened ranges from a low of 7-8% to a high of 23-24%. See **Exhibit 1**.
3. Based on public information,⁶ the Federal Trade Commission (“FTC”) is currently undertaking a review of factors that determine notice effectiveness and resulting claims rates. I understand they are actively seeking data.
4. The relative weakness of email notice as compared to physical mail is now supported by data just recently presented to the FTC by the nation’s oldest claims administrator. That data, attached as **Exhibit 2**, shows that physical mailings outstrip email, and far outstrip other forms of notice such as internet banners and other forms of publication in terms of effectiveness based on response expectations.
5. According to a booklet published by another claims administrator attached as **Exhibit 3**, “*Email notices tend to generate a lower claims rate than direct-mail notice*” and also according to that document, email is less likely to increase the number of claims relative to any of the various versions of direct postal mail notices.⁷
6. According to Google, only 44% of banners typically included in “impression” statistics are actually viewable.⁸ Yes, for 56% of banner impressions, half of the banner is not on the screen for a human to see for more than one second. Even for banners “above the fold,” which notice vendors often hold out as a tactic to improve reach, Google reveals that only 68% are viewable. This Google report is attached as **Exhibit 4**.
7. A massive internet advertising fraud is now coming to light. Advertisers have been led to believe that an “impression” means that a person—a human viewer—is exposed to an electronic communication. But new revelations show that millions of internet banner “impressions” purchased for incredibly low prices are seen not by human beings, but by robots or are outright fake. The sampling of national news stories highlighted in **Exhibit 5** are just some of the plentiful, credible, and disturbing reports. For example:

“The most startling finding: Only 20 percent of the campaign’s “ad impressions”—ads that appear on a computer or smartphone screen—

⁶ <https://www.regulations.gov/#!documentDetail;D=FTC-2015-0055-0001>, last visited April 27, 2016.

⁷ “The following are the most common types of e-mail and direct-mail notices and claim forms. They’re listed in order of least to most likely to increase the number of claims filed in a settlement: E-mail notice, Single postcard summary notice, Full notice and claim form, Full notice and claim form with return envelope, Full notice and claim form with postage-paid return envelope, Double postcard notice with tear-away claim form, Double postcard notice and postage-prepaid tear-away claim form.” Class Action Settlement Administration for Dummies, KCC Special Edition, at page 14.

⁸ https://think.storage.googleapis.com/images/infographics/5-factors-of-viewability_infographics.pdf, last visited April 26, 2016

*were even seen by actual people...As an advertiser we were paying for eyeballs and thought that we were buying views. But in the digital world, you're just paying for the ad to be served, and there's no guarantee who will see it, or whether a human will see it at all...Increasingly, digital ad viewers aren't human...According to the ANA study, which was conducted by the security firm White Ops and is titled *The Bot Baseline: Fraud In Digital Advertising*, fake traffic will cost advertisers \$6.3 billion this year.”⁹*

8. Claims administrators who have pitched electronic notice in lieu of available mailings have also sworn to courts that extremely low claims rates are now normal. In the controversial Duracell battery case, one administrator swore that the median claims rate for their notice plans with little or no direct mailed notice was 0.023%.¹⁰ In the words of a Forbes magazine article pointing to the revelation:

“For context, the probability of getting a straight flush in a 7-card poker hand is slightly higher at 0.0279%. Critics of consumer class actions have been saying for years that these cases have abysmal claims rates, but plaintiff lawyers — with the assistance of pliant judges — work hard to keep anybody from knowing the real results of their work. That’s why this filing is so fascinating: For the first time, a consultant with access to the real numbers has let us in on the truth.”¹¹

9. Failed notice campaigns that are overly reliant on electronic notice may literally be leaving class members at risk of their lives. *Pollard v. Remington*, W.D. Mo., Case No. 13-00086 highlights the exasperating position courts find themselves in after erroneous and exaggerated promises of electronic-reliant notice fall to earth. Notice to a class of owners of 7.5 to 7.8 million guns was purported to reach 73% of the class,¹² yet only 2,327 people submitted a claim for repair of allegedly defective triggers claimed to have the potential to randomly fire without being touched. The Court wrote:

“The Court cannot conceive that an owner of an allegedly defective firearm would not seek the remedy being provided pursuant to the

⁹ BLOOMBERG BUSINESSWEEK, How Much of Your Audience is Fake? Marketers thought the Web would allow perfectly targeted ads. Hasn't worked out that way, September 25, 2015. <http://www.bloomberg.com/features/2015-click-fraud/>, last visited April 28, 2016.

¹⁰ Declaration of Deborah McComb Re Settlement Claims, Poertner v. Gillette, M.D. Fla., Case No. 12-00803, ECF No. 156, April 22, 2014.

¹¹ FORBES MAGAZINE, Odds of a Payoff in Consumer Class Action? Less than a Straight Flush, May 8, 2014.

¹² Declaration of Steven Weisbrot, Esq., on Adequacy Notice Plan (stet), Pollard v. Remington Arms Co., Case No. 13-00086, M.D. Mo., ECF No. 112, Feb. 9, 2015.

Settlement Agreement. Thus, this low response rate demonstrates the notice process has not been effective.”¹³

More data should be captured and studied before making a rule change of this magnitude, especially before acting on presumptions contrary to data known to claims administrators.

The systemic problems I wrote about in March are very real. Since then, a leading notice professional made an astounding revelation to me: A lawyer in settlement discussions called to request a bid on administration. It was explained that a physical mailing list would be provided; one that was comprehensive. The parties sought a vendor who would research and develop an email list, and then, not use the physical mailing list but instead send only emails, and sign an affidavit stating such method was better. This notice professional, knowing this would be counter to best practices, and counter to ethics, declined to participate. But others will. Such requesters know that claims rates will be lower. But that, it seems, is why they want it. Too many people asking for a share reduces *pro rata* payments making a settlement look insufficient. The disincentives that prompt these motivations must be cured; we should not instead weaken the backbone of class action legitimacy.

Numerous notice professionals tell me they have assessed false promises that unscrupulous and untrained vendors have been pitching. But credible notice professionals may speak out only at their own peril. They have been told outright that major firms will not work with them if they publicly oppose notice plans. They face pressure to dial-back effective notice proposals to compete with falsely-effective inexpensive bids from affiants who are untrained in mass communications. Thus, despite the rule requiring “best practicable” notice, courts are too often presented with the least notice a vendor is willing to sign off on *if* awarded the contract to disseminate notice and administer the case. We should not compound the problems in the notice system by making this unnecessary and counter-productive rule change.

I understand a desire to keep pace with technology. A legitimate concern about expense is appropriate. Less expense can benefit class members, but not if high percentages of class members are left unaware and bound by their silence and inaction. I understand a visceral feeling that email use is pervasive. But people other than the homeless will always have physical addresses. U.S. mail must be delivered by law. No reasonable person goes to their mailbox, grabs the contents and drops it all in the trash without a glance at the envelopes in their hands. Not when tax refunds, jury notices, traffic offenses and gifts from grandma might be in there.

¹³ ORDER (1) DEFERRING CONSIDERATION OF JOINT MOTION FOR SETTLEMENT APPROVAL AND MOTION FOR ATTORNEY FEES, (2) CANCELLING FINAL APPROVAL HEARING, AND (3) DIRECTING PARTIES TO PROVIDE SUPPLEMENTAL BRIEFING, *Pollard v. Remington Arms Co.*, Case No. 13-00086, M.D. Mo., ECF No. 112, Dec. 8, 2015.

The same cannot be said about email. Knowable statistics can be given to courts. Will parties happily reveal that 80% of their class never opened an email notice when standing in front of a court at a fairness hearing? That most of the so-called “reach” may have been fake or viewed by robots? That 0.04% of the human viewers clicked the banner?

In truth, the type of low-priced electronic-reliant notice plan that has driven this proposed rule too far down the tracks is today’s “snake-oil.” These cheap plans are indeed too good to be true. Industry research shows *the cost of gaining attention has dramatically increased*.¹⁴

Please consider this information with the sincere intentions I bring to this process as a neutral notice expert. I have no interest in making notice more expensive than it needs to be. I’ve simply spent my career helping to improve notice and I just want the class action to remain an effective device for parties and class members, and I want our courts to be respected for overseeing a fair process.

Thank you for your consideration of these remarks.

Sincerely,



Todd B. Hilsee
Principal

¹⁴ The Rising Cost of Consumer Attention: Why You Should Care, and What You Can Do about It, Thales S. Teixeira, HARVARD BUSINESS REVIEW, working paper 14-055, Jan. 17, 2014. “*The cost of gaining attention has increased dramatically (seven- to nine-fold) in the last two decades.*”

Distribution (*via email*):

Ms. Rebecca A. Womeldorf
Secretary of the Committee on Rules of Practice and
Procedure of the Administrative Office of the United States Courts
One Columbus Circle, NE
Washington, D.C. 20544
Rules_Support@ao.uscourts.gov

Hon. David G. Campbell, Chair, Advisory Committee on Civil Rules
David_campbell@azd.uscourts.gov

Rule 23 Subcommittee of the Advisory Committee on Civil Rules
Thurgood Marshall Building
Administrative Office of the United States Courts
One Columbus Circle NE
Washington, DC 20544

Hon. Robert Michael Dow, Jr., Chair of the Rule 23 Subcommittee
Robert_Dow@ilnd.uscourts.gov

Professor Richard L. Marcus, Associate Reporter
marcusr@uchastings.edu

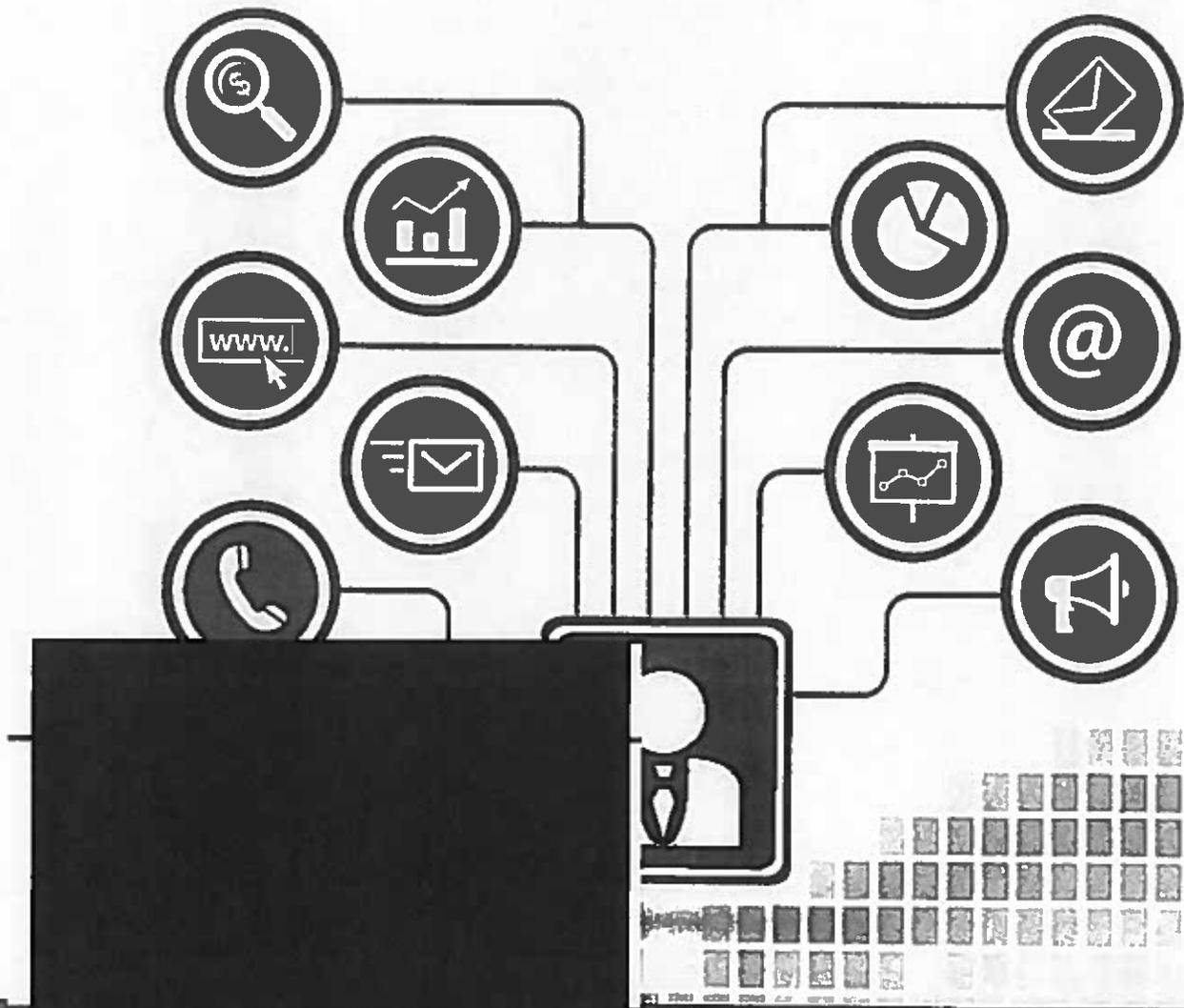
John M. Barkett, Esq., Member
jbarkett@shb.com

Elizabeth J. Cabraser, Esq., Member
ecabraser@lchb.com

Dean Robert H. Klonoff, Member
klonoff@lclark.edu

EXHIBIT 1

DMA RESPONSE RATE REPORT 2015



DATA TO BENCHMARK
All of Your Marketing Campaigns





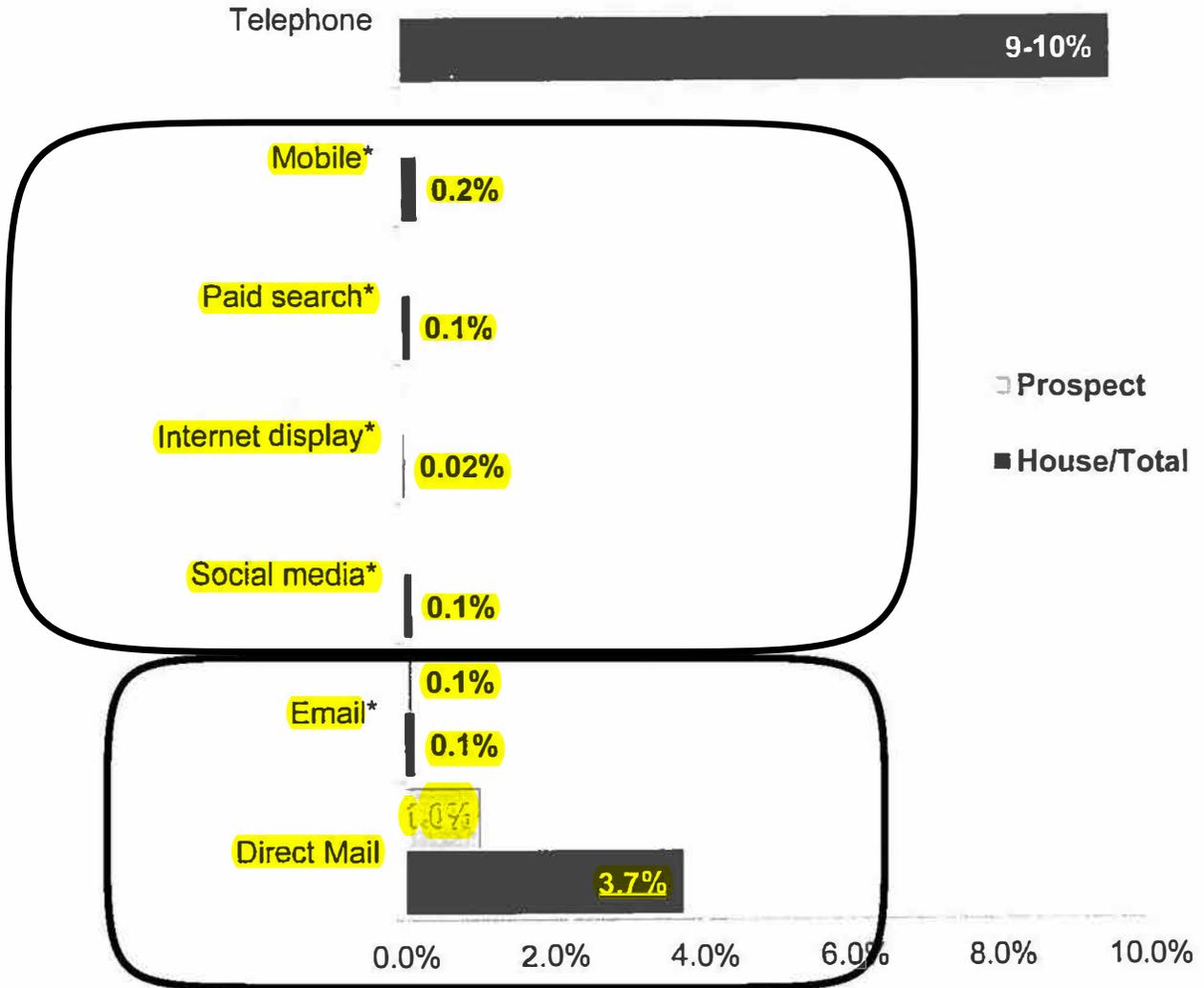
About DMA

The Direct Marketing Association (www.thedma.org) is the world's largest trade association dedicated to advancing and protecting responsible data-driven marketing. Founded in 1917, DMA represents thousands of companies and nonprofit organizations that use and support data-driven marketing practices and techniques. DMA provides the Voice to shape policy and public opinion, the Connections to grow members' businesses and the Tools to ensure full compliance with ethical and best practices as well as professional development.

ISBN information: 978-0-9833791-7-1



Figure 3: Response by Selected Media



2015 Response Rate Benchmark Study, DMA & Demand Metric, March 2015

Note: Response rate for telephone was graphed using the midpoint of the range.

*CTR x Conversion rate





Chapter 3: Email

Chapter Highlights

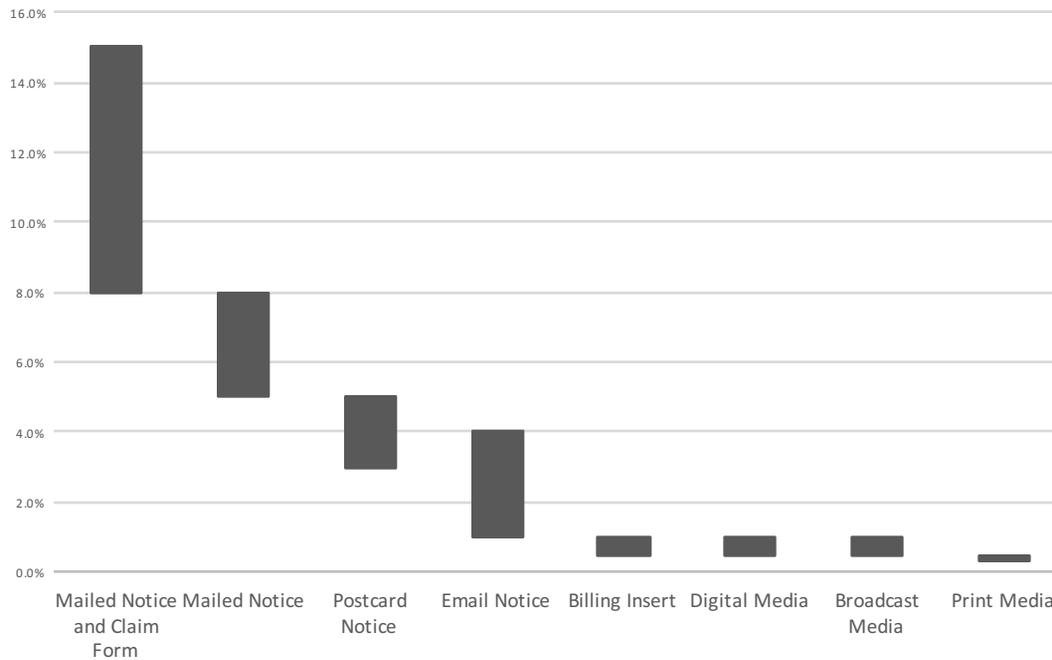
- **Open rates ranged from a low of 7-8%* for emails sent to prospect lists to drive traffic. Ironically, emails sent to house lists to drive traffic enjoyed the highest open rate at 23-24%.**
- **Click rates were lowest for lead generation emails sent to prospect lists (3-4%) and highest for B-to-B emails sent to house lists (17-18%).**
- **Conversion rates were lowest for B-to-C, B-to-B and lead gen emails sent to prospect lists (1-1.9%) and highest for email campaigns to drive traffic sent to house lists (4-4.9%).**
- **For 36% of respondents, the primary purpose of emails sent to house lists was to make a direct sale. For emails sent to prospect lists, 62% say the main purpose was lead generation.**
- **Email usage for marketing campaigns equals or exceeds 80% for most industries. Email usage is lower for Consumer Packaged Goods (63%), Education (70%), Financial Services/Insurance (75%), Healthcare/Pharmaceuticals (79%) and Travel/Hospitality (53%).**



EXHIBIT 2

Participation Rates and Types of Notice

Everything Else Being Equal...



Key Takeaways

Participation Rates are Generalizations

Known Class Members: Direct Notice With a Claim Form is more expensive than the alternatives, but generally has higher class member participation.

EXHIBIT 3

**Ensure high-quality,
cost-effective notice and
settlement administration**

Class Action Settlement Administration For Dummies, KCC Special Edition, is packed with details about the administration process and how your administrator makes the process run smoothly. This book provides you with an overview of class action settlement administration and legal notification. You'll learn about the mechanics of settlement administration, how to choose a claims administrator, what makes a notice program effective, and how to keep administration costs in line, among other topics.

- **Avoid pitfalls** — understand and avoid key mistakes in a settlement
- **Reduce costs** — find out how working with experts saves time and money
- **Comply with court requirements** — work with experienced professionals to ensure court approval

**FOR
DUMMIES**
A Wiley Brand



**Open the book
and find:**

- How to consult with a claims administrator to make the process run smoothly
- The mechanics of settlement administration
- What makes a notice program effective
- How to keep administration costs in line

Making Everything Easier!

Go to Dummies.com for videos, step-by-step examples, how-to articles, or to shop!

ISBN: 978-1-118-55696-2
Not for resale

Compliments of  **KCC**

KCC Special Edition

Class Action Settlement Administration

FOR
DUMMIES
A Wiley Brand

Learn to:

- Avoid pitfalls
- Reduce costs
- Comply with court requirements



KCC Class Action Services

KCC creates a higher standard for its industry by focusing on clients' needs from the perspective of professionals. KCC provides professional-level client service, industry expertise, and innovative technology solutions to support clients' critical business processes and transactions. As a result, KCC has earned national and industry recognition for its services, leadership, innovative business model, and company growth.

With experience administering over 1,500 settlements, KCC's team knows first-hand the intricacies of class action settlement administration. Its domestic infrastructure includes a 900-seat call center and document production capabilities that handle hundreds of millions of documents annually. In addition, KCC's disbursement services team distributes more than \$500 billion annually.

This book is proudly written by the KCC Class Action Services Team:

- Dee Christopher
- Robert P. DeWitte
- Drake Foster
- Gina Intrepido-Bowden
- Patrick Ivie
- Patrick Passarella
- Carla Peak
- Nancy Timpanaro
- Steven Weisbrot

To learn more about KCC Class Action Services or to request additional copies of this book, call (866) 381-9100 or e-mail classaction@kccllc.com. You can also call Patrick Ivie, Executive Vice President KCC Class Action Services, at (310) 776-7385 or e-mail at pivie@kccllc.com.

Class Action Settlement Administration

FOR
DUMMIES[®]
A Wiley Brand

KCC Special Edition

**by The KCC Class Action
Services Team**

FOR
DUMMIES[®]
A Wiley Brand

E-mail notices tend to generate a lower claims rate than direct-mail notices. But not all direct-mail notices are created equal — many types of notice and claim form designs exist, and they all tend to have different claims rates. The claims rates of the varying types of notice and claim form designs tend to be most impacted by their distribution methods, their ability to be easily understood by recipients, and the ease with which class members can file the necessary forms and take any required action.

The following are the most common types of e-mail and direct-mail notices and claim forms. They're listed in order of least to most likely to increase the number of claims filed in a settlement.

- ✓ E-mail notice
- ✓ Single postcard summary notice
- ✓ Full notice and claim form
- ✓ Full notice and claim form with return envelope
- ✓ Full notice and claim form with postage-paid return envelope
- ✓ Double postcard notice with tear-away claim form
- ✓ Double postcard notice and postage-prepaid tear-away claim form



When thinking about the potential claims rate, be sure to think about factors other than just the amount of the monetary award. Your claims administrator should review the settlement details and identify the major factors that impact the claims rate in your settlement.

For example, in an employment context, consider whether a particular class member is a current, past, or seasonal employee. In the consumer context, consider whether the product was a luxury item with a high price tag or whether the lawsuit involved a high-profile product, such as a common, everyday food item. Was there a safety hazard? Was this a well-publicized settlement?

Calculating Claims Rates

While claims rates are an important factor in settlement planning, be sure to focus not only on the individuals making the claims but also on the percentage of the class fund that those claims represent. It'll be pretty straightforward to allocate the class member awards if the settlement is set up on a per capita basis with a set value per claimant or a simple pro rata share with a value that varies in proportion to an easily calculated factor.



The calculation process becomes a lot more complex when the allocations vary based on considerations such as the length of time a customer received a service or the amount of time an employee worked in a particular position. Talk to your claims administrator about the complexity of your settlement, and be sure you understand what the class member allocations are based on.

EXHIBIT 4

5 FACTORS of VIEWABILITY

Many of the ads served on the web never appear on a screen. But thanks to new advancements, we can now measure which digital ads were actually viewable—on screen. And as advertisers shift to paying for viewable instead of served impressions, it's important to understand what factors affect ad viewability. We explored this by conducting a study of our display advertising platforms, including Google and DoubleClick. Here we size up five factors of viewability—from page position to ad dimensions and more.

VIEWABLE IMPRESSIONS: A new industry standard

A display ad is considered viewable when **50% of an ad's pixels are in view** on the screen **for a minimum of one second**, as defined by the Media Rating Council.

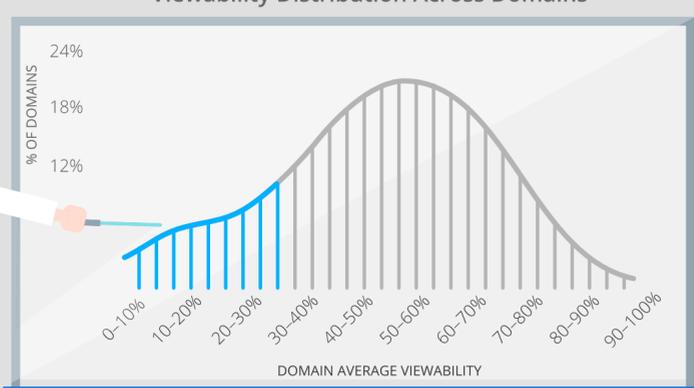
Viewability rate: Percentage of ads determined viewable out of the total number of ads measured.



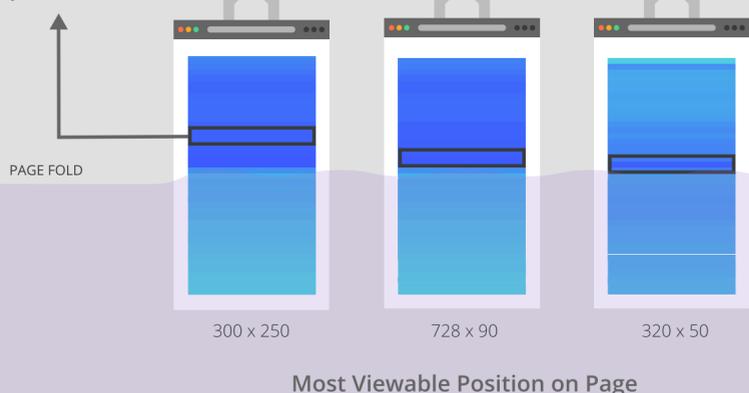
1 State of publisher viewability

A small number of publishers are serving most of the non-viewable impressions; **56.1% of all impressions** are not seen, but the average **publisher viewability is 50.2%**.

Viewability Distribution Across Domains



2 Page position matters ...



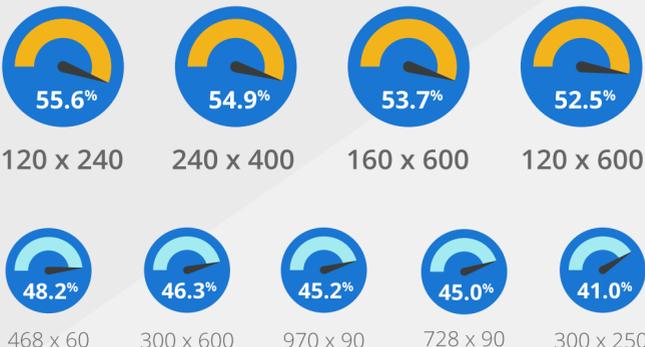
The most viewable position is **right above the fold**, not at the top of the page.

3 ... So does ad size

The most viewable ad sizes are **vertical units**. Not a surprise, since they stay on screen longer as users move around a page.

Popular ad size rates

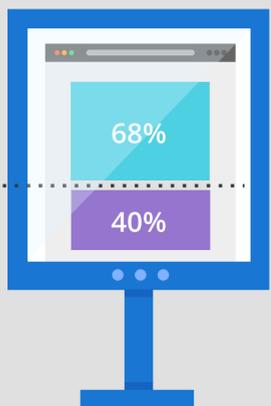
Viewability Rates by Ad Size



Above the fold ≠ always viewable

average viewability rates

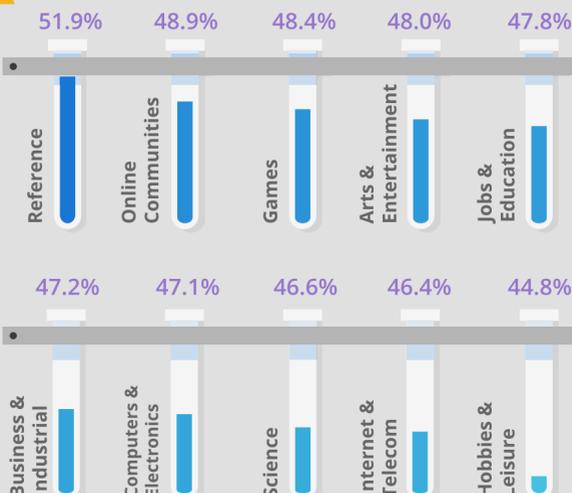
ABOVE THE FOLD
BELOW THE FOLD



Page position isn't always the **best indicator of viewability**.
Not all above-the-fold impressions are viewable, while **many below-the-fold impressions are**.

5 Viewability varies across industries

While it ranges across content verticals, or industries, content that **holds a user's attention** has the highest viewability.



Source: Google, "The Importance of Being Seen: Viewability Insights for Digital Marketers and Publishers" study, November 2014.

EXHIBIT 5

Examples of News Stories - Fraud of Overstated Internet Banner Reach Statistics

Within the last year, a deluge of national and advertising industry press is revealing a massive \$6.3 billion to \$8.2 billion internet advertising fraud. Revelations include that millions of internet banner “impressions” that advertisers have been buying for incredibly low prices are seen, not by human beings, but by robots or are outright fake. The majority are not “viewable” as that term is defined:¹

The Alleged \$7.5 billion Fraud in Online Advertising. MOZ, June 22, 2015. *“This is the biggest advertising story of the decade, and it’s being buried...the three main allegations...half or more of the paid online display advertisements that ad networks, media buyers, and ad agencies have knowingly been selling to clients over the years have never appeared in front of live human beings. In another words, an “impression” occurs whenever one machine (an ad network) answers a request from another machine (a browser)... Just in case it’s not obvious: Human beings and human eyeballs have nothing to do with it. If your advertising data states that a display ad campaign had 500,000 impressions, then that means that the ad network served a browser 500,000 times—and nothing more.”*²

Is Ad Fraud Even Worse Than You Thought? Bloomberg Businessweek Seems to Think So. Ad Age, September 25, 2015. *“Just how much of a problem is ad fraud? If you’re a regular reader of Ad Age, you know it’s a big problem—though just how big depends on lots of variables, including specific digital agencies, ad-tech vendors and publishers a given marketer chooses to work with.”*³

How Much of Your Audience is Fake? Marketers thought the Web would allow perfectly targeted ads. Hasn’t worked out that way. Bloomberg Businessweek, September 25, 2015. *“The most startling finding: Only 20 percent of the campaign’s “ad impressions”—ads that appear on a computer or smartphone screen—were even seen by actual people...As an advertiser we were paying for eyeballs and thought that we were buying views. But in the digital world, you’re just paying for the ad to be served, and there’s no guarantee who will see it, or whether a human will see it at all...Increasingly, digital ad viewers aren’t human. A study done last year in conjunction with the Association of National Advertisers embedded billions of digital ads with code designed to determine who or what was seeing them. Eleven percent of display ads and almost a quarter of video ads were “viewed” by software, not people. According to the ANA study, which was conducted by the security firm White Ops and is titled *The Bot Baseline: Fraud In Digital Advertising*, fake traffic will cost advertisers \$6.3 billion this year.”*⁴

¹ A display ad is considered viewable when 50% of an ad’s pixels are in view on the screen for a minimum of one second, as defined by the Media Ratings Council.

² <https://moz.com/blog/online-advertising-fraud>, last visited April 28, 2016.

³ <http://adage.com/article/the-media-guy/ad-fraud-worse-thought/300545/>, last visited April 28, 2016.

⁴ <http://www.bloomberg.com/features/2015-click-fraud/>, last visited April 28, 2016.

What's Being Done to Rein in \$7 Billion in Ad Fraud. AdWeek, Feb. 21, 2016. *“Long a dirty little secret of the digital media business, the topic of ad fraud has been thrust front and center in discussions among agency executives, advertisers and publishers over the last three years. Bot traffic, or nonhuman digital traffic, is at its highest ever, and recent projections from the Association of National Advertisers have more than \$7 billion in advertising investment wasted.”*⁵

Inside Yahoo's troubled advertising business. CNBC, Jan. 7, 2016. *“The company's ad business, which brought in \$1.15 billion in the second quarter of 2015, is rife with ad fraud, multiple sources told CNBC...the company's programmatic video ad platform generates mostly fraudulent ad traffic, and otherwise does not work as promised. The platform is largely powered by BrightRoll, which was acquired by Yahoo in November 2014.... discovered 30 to 70 percent of its ads were not running in areas where Yahoo was claiming they were. ...Another source said that it found BrightRoll's traffic was mostly coming from data centers' IP addresses, suggesting most of the ad views were nonhuman and fraudulent.”*⁶

Ad Fraud, Pirated Content, Malvertising and Ad Blocking Are Costing \$8.2 Billion a Year, IAB says. Ad Age, Dec. 1, 2015. *“More than half of the money lost each year derives from ‘non-human traffic’ -- fake advertising impressions that advertisers pay for but don't represent contact with real consumers, the [Interactive Advertising Bureau] said in the report, which was conducted for the group by Ernst & Young.”*⁷

No More Ads. Wall Street Journal, February, 17, 2015. *“As if the online ad industry didn't have enough thorny issues to deal with—from fraud to ads nobody can see—here come the ad blockers. Reams of people, mainly young and tech-savvy folks, the kinds of people lots of advertisers want to reach, are downloading and utilizing ad blocking software—or tools that keep online ads from ever appearing on a person's screen. Ad blocking is on the rise, and the topic has been thrust to the top of the list by online ad industry leaders, reports Ad Age. In the short term, this creates another worry for brands, who now have to fret about whether they are paying for ads that are getting blocked. But in the long term, the bigger worry for Web publishing is when does the cumulative effect of what seems like a mounting list of problems cause more advertisers to say, ‘You know what? The Internet just isn't ready for prime time, or my ad budgets.’”*⁸

⁵ <http://www.adweek.com/news/advertising-branding/whats-being-done-rein-7-billion-ad-fraud-169743>, last visited April 28, 2016.

⁶ <http://www.cnn.com/2016/01/07/yahoos-troubled-advertising-business.html>, last visited April 28, 2016.

⁷ <http://adage.com/article/digital/iab-puts-8-2-billion-price-tag-ad-fraud-report/301545/>, last visited April 28, 2016.

⁸ <http://blogs.wsj.com/cmo/2015/02/17/cmo-today-apples-watch-is-coming-soon/>, last visited April 28, 2016.