



---

# SCIENCE OF EMAIL | 2014

---

## FOREWORD: MIKE VOLPE

---

This is not an industry benchmark report. If you are looking for a magical number to compare your own email marketing with, you're out of luck.

Numbers are a vital piece of the inbound marketing puzzle; analytics, metrics, and statistics are what guide our strategy and tell



us when we're getting off track or doing something right. Particularly, we stack our email marketing up against benchmark reports to see what the norm is for opens, clicks, and engagement. The problem is, there hasn't been much science behind email marketing benchmark reports. Sure, there's a handful of reputable resources out

there based on consumer surveys, A/B tests, and sample data, but they're missing every inbound marketer's favorite word: context.

And that's the difference between the Science of Email 2014 and benchmark reports: benchmark reports tell you what's average, good, or bad in email marketing, but this report will show you trends that will guide you in choosing the right way to change and optimize your own email marketing. It's not a measurement bar to compare your marketing to, but rather, a set of trends to spark tests and optimization.

To help you do this, this report presents a set of observations about the attitudes towards email marketing and the effectiveness of the components of emails. You'll gain insights into how to approach your target segments, what to send them, and how to send it to them. At its heart, Science of Email 2014 is about data, and lots of it: nearly half a billion marketing emails, six million one-to-one emails, and over a thousand survey participants, to be exact. We'll let the results do the talking.

**Mike Volpe**

*CMO, HubSpot*

## ABOUT THE AUTHOR

---



### DAN ZARRELLA, HUBSPOT

Dan is the award-winning social media scientist at [HubSpot](#) and author of four books, including the bestseller [The Science of Marketing](#).

He has a background in web development and combines his programming capabilities with a passion for social marketing to study social media behavior from a data-backed position and teach marketers scientifically grounded best practices. His data-driven marketing webinars have drawn upwards of 30,000 registrants, and he holds the *Guinness World Record* for the largest webinar ever.

## CONTRIBUTORS

---



### LAUREN SMITH, LITMUS

Lauren has her hands involved with all things marketing at [Litmus](#). Whether it's blogging, tweeting, or helping plan conferences, she's always on the lookout for anything that will help the world send better emails.



### JUSTINE JORDAN, LITMUS

A lover of content, customers and cats, Justine is a recovering designer masquerading as a marketer at Litmus. She's strangely passionate about email marketing, hates being called a spammer, and still gets nervous when it's time to hit the send button.



### NITI SHAH, HUBSPOT

Niti manages HubSpot's email marketing program and is responsible for lead generation, management, and nurturing. She frequently writes about email, marketing automation, and segmentation for HubSpot's marketing blog.



## TABLE OF CONTENTS

---

- > ABOUT THE DATA
- > SELF-REPORTED VS OBSERVATIONAL DATA
- > CHANGING ATTITUDES TOWARDS EMAILS
- > DEMOGRAPHIC DIFFERENCES
- > TIMING YOUR EMAILS
- > MOBILE & EMAIL CLIENT TRENDS
- > SUCCESSFUL COMPONENTS OF EMAIL
- > TAKEAWAYS
- > GLOSSARY OF TERMS



## ABOUT THE DATA

---

The research presented in this report is composed of several data sets; three collected by myself, Dan Zarrella, at [HubSpot](#), and one from our friends at [Litmus](#). To get the most out of this report, it is important to understand the differences in those datasets.

1

**Survey responses** about email use and preferences from over 1,000 English-speakers over 21 with an office-type job. Some of these questions were also present in a 2011 version of the survey we did for an earlier Science of Email piece. We were able to compare statistics from the earlier version to the later version to track trends in attitudes about and consumption preferences for email over time.

2

**150,000 different email campaigns** sent by HubSpot customers totaling approximately **500 million sent marketing emails**. Data from HubSpot's internal use of our email tool was not included. Subject line effectiveness,

3

**6.4 million one-to-one emails** individually sent by users of HubSpot's new [Signals](#) product, a sales-oriented notification tool that allows users to track opens of their one-to-one emails. This is in contrast to the one-to-many emails analyzed in the HubSpot product dataset, as the emails are not part of a marketing campaign but rather personal conversations between salespeople and their prospects.

4

Two sets of email open data from [Litmus](#) customers' marketing emails totaling **277 million** and **323 million opened marketing emails** respectively. This data breaks down email use by client and shifting trends over the past year, as well as usage and engagement on mobile, desktop, and webmail clients.





## Self-Reported vs. Observational Data

---

# SELF-REPORTED VS. OBSERVATIONAL DATA

---

Throughout my years analyzing data and testing marketing superstitions and myths, I've come across a consistent truth that is key to understanding any kind of marketing data—the difference between self-reported data and observational data. That is, what people tell you they do, and then what they actually do.

When you conduct a survey, your respondents are going to answer in specific ways. **They'll tell you what they think is true, what they want to be true and what they think you want to hear.** Often, when you analyze actual behaviors through observational data, you find that what people thought they did was not actually what happened.

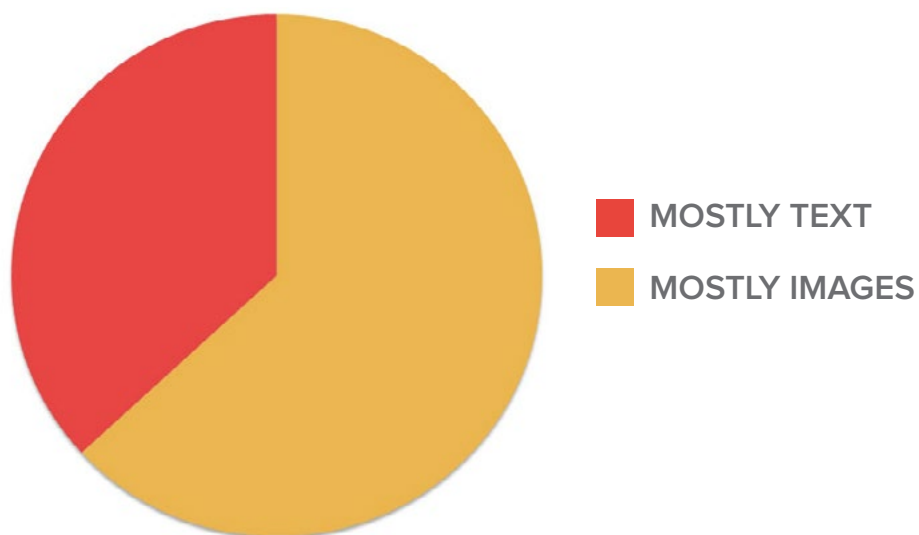
A few simple examples easily illuminate this problem. Imagine asking a room full of people if they think advertising is effective in influencing their purchasing decisions. Most will say no, but we know the opposite to be true. Or ask a room full of people to raise their hand if they think they're above average at their job. The majority of hands will be up, but simple math shows us that's impossible.

Survey data should be used as a way to understand attitudes, rather than behaviors. Read survey results as a narrative about how respondents feel about certain things, not as indicators of their actual actions.

The first few data points in this report form a key example of this. On one hand we find that survey takers report preferring emails full of images, but when we look at hard observational data, we find that they actually respond better to text heavy emails.



## SURVEY: DO YOU PREFER THAT EMAILS FROM COMPANIES CONTAIN MOSTLY IMAGES OR MOSTLY TEXT?



In both the 2011 and 2014 versions of this survey, we asked respondents whether they preferred marketing emails that were mostly images or mostly text. The results from both were very similar, with nearly **2/3 of respondents saying they preferred mostly image-based emails.**

### Pro-Tip

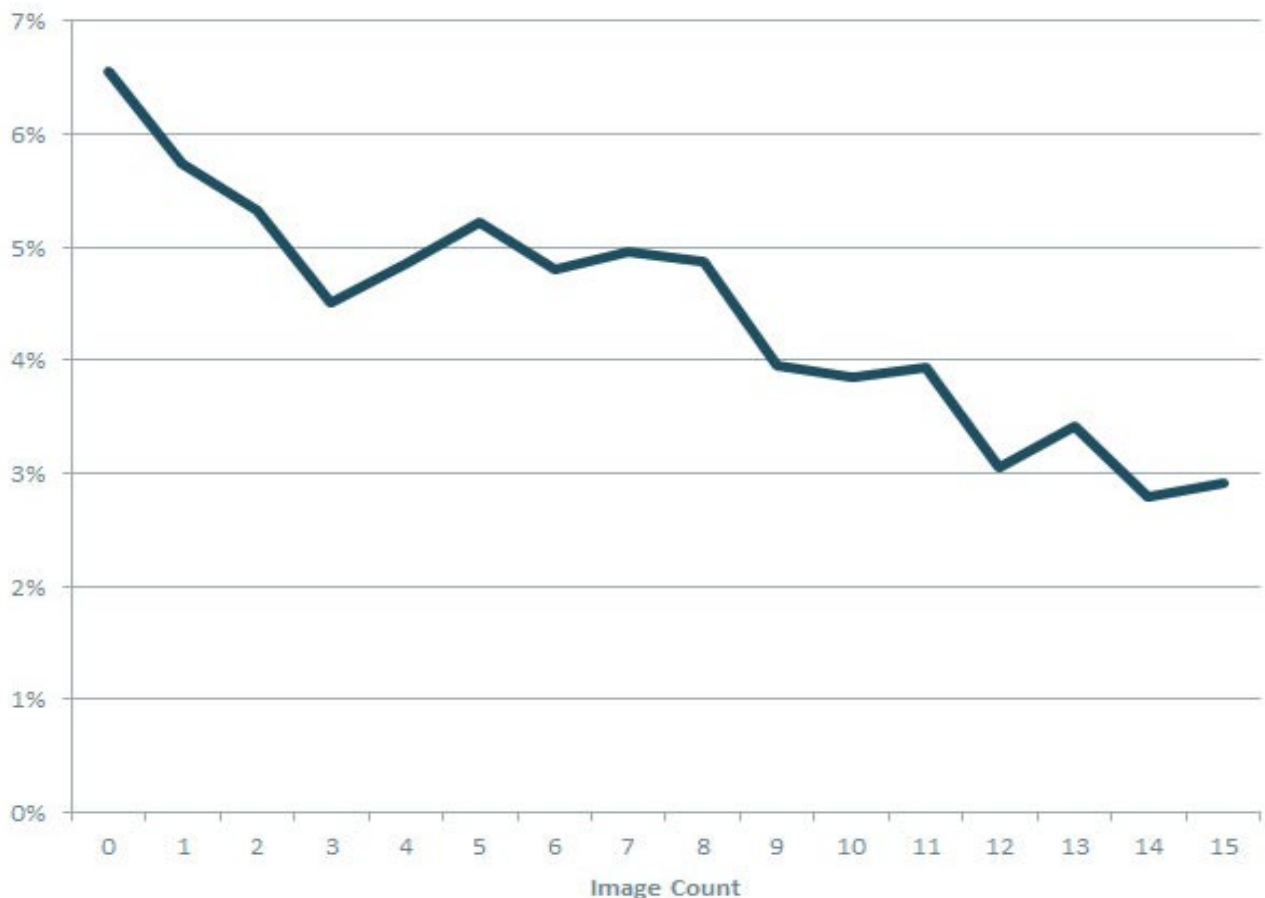
Make sure you add Alt Text to images in your emails for those recipients whose email settings prevents them from automatically viewing your images.

*[Click here for a tutorial.](#)*



## OBSERVATIONAL DATA: EFFECT OF NUMBER OF IMAGES IN MARKETING EMAILS ON CTR

Turning to the observational data found in the dataset of HubSpot customers' sent emails, we find the opposite to be true. As the number of images in an email increased, the **click-through rate** of the emails tended to **decrease**. Note that there's nearly a percent drop in CTR just from no images to one image.



This points out a difficulty in relying solely on self-reported data like surveys. When taking surveys, users often answer in ways that reflect either what they think the data collector wants to hear, or in ways that reflect what they want to think about themselves. An email with mostly images sounds more interesting than an email with mostly text when spoken about in hypothetical terms, but the reality of them is somewhat different.

## OBSERVATIONAL DATA: EFFECT OF MAX IMAGE HEIGHT



Rather than only looking at the raw number of images in an email I also looked at the size of the images. First, I looked at the height of the tallest image in the emails. I found that as the max image height of emails in our dataset increased, the CTR of the emails decreased.

With line graphs of large datasets like this one, it is important to focus on the overall trend of the line, rather than the individual bumps, which are merely artifacts of real world data.



**FYI**

**GMAIL'S NEW IMAGE-HEAVY INBOX**  
This feature is still in beta, but if your lists have a significant portion of Gmail addresses, you may want to bookmark this article on **how to optimize your emails** for when this change rolls out.

## OBSERVATIONAL DATA: EFFECT OF MAX IMAGE WIDTH



I also looked at max image width – that is, the width of the widest image in the email. The negative correlation between max image width and CTR isn't as strong as it is between CTR and max height, but there seems to be some preference for smaller images.

Our image data should not be taken to mean that you should never use images in your email messages, only that you should **experiment with various image versus text content** and not just assume that your recipients only want image-heavy emails.



## Changing Attitudes Towards Email

# CHANGING ATTITUDES TOWARDS EMAIL

---

As I mentioned in the first chapter, survey data is great for understanding attitudes: How do people feel? But when it comes to finding out how they actually act, we've got to take this kind of data with a grain of salt.

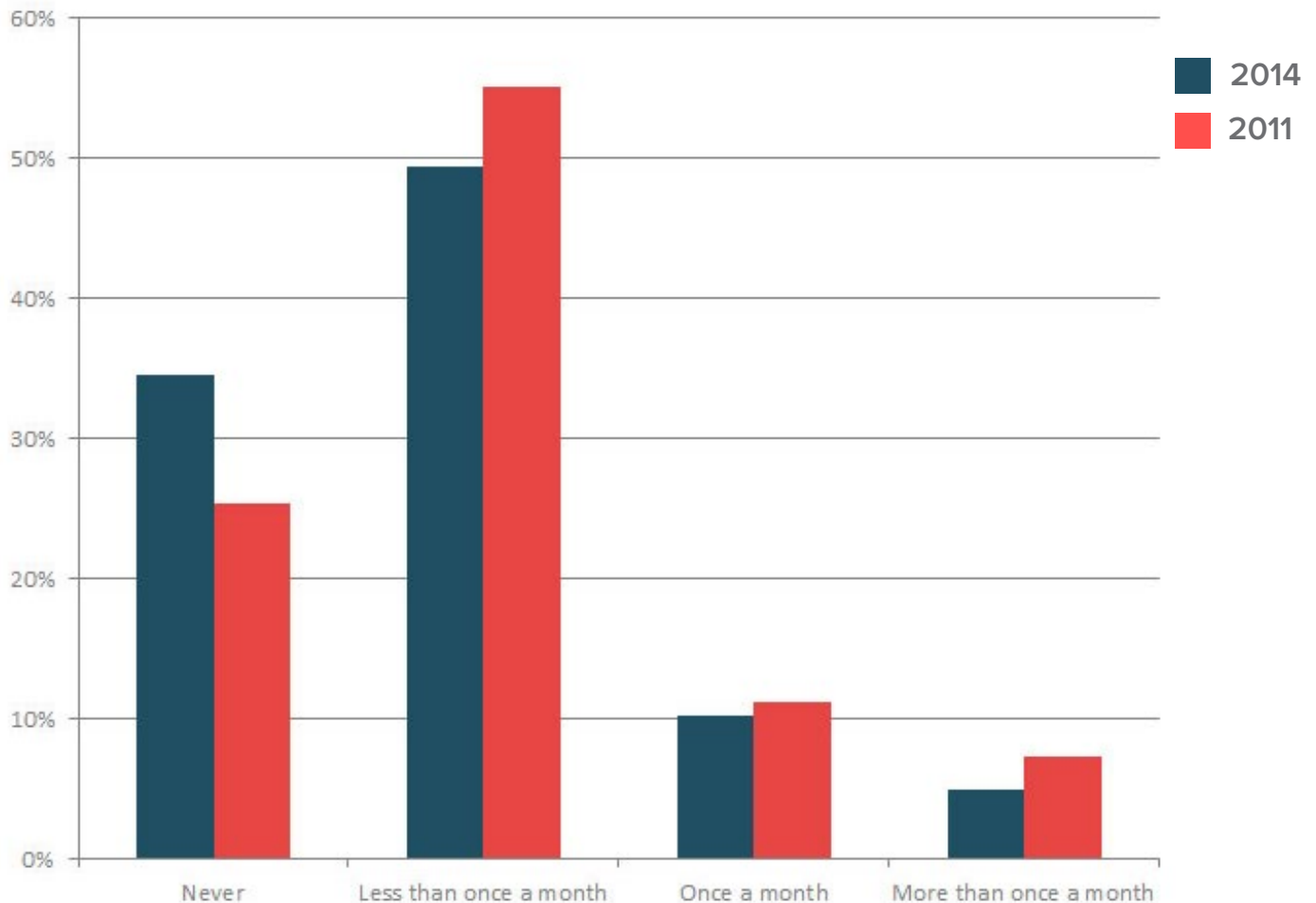
Unfortunately, some behaviors can only be studied through self-reported data, and this chapter contains data about a few of them, namely filtering email. But even here, we can look at trend-over-time data and see an image emerge of a changing mental landscape, which can help you make key decisions about your email marketing campaigns.

Email users are still concerned about avoiding unwanted spam emails, but they're becoming more sophisticated about the ways in which they deal with them (thanks in part to increased familiarity with filtering tools and Gmail's very user-friendly **Priority Inbox Feature**.)

This means that we, as marketers, must continue to become more sophisticated ourselves and learn how to deliver emails that our audiences will not consider unwanted.



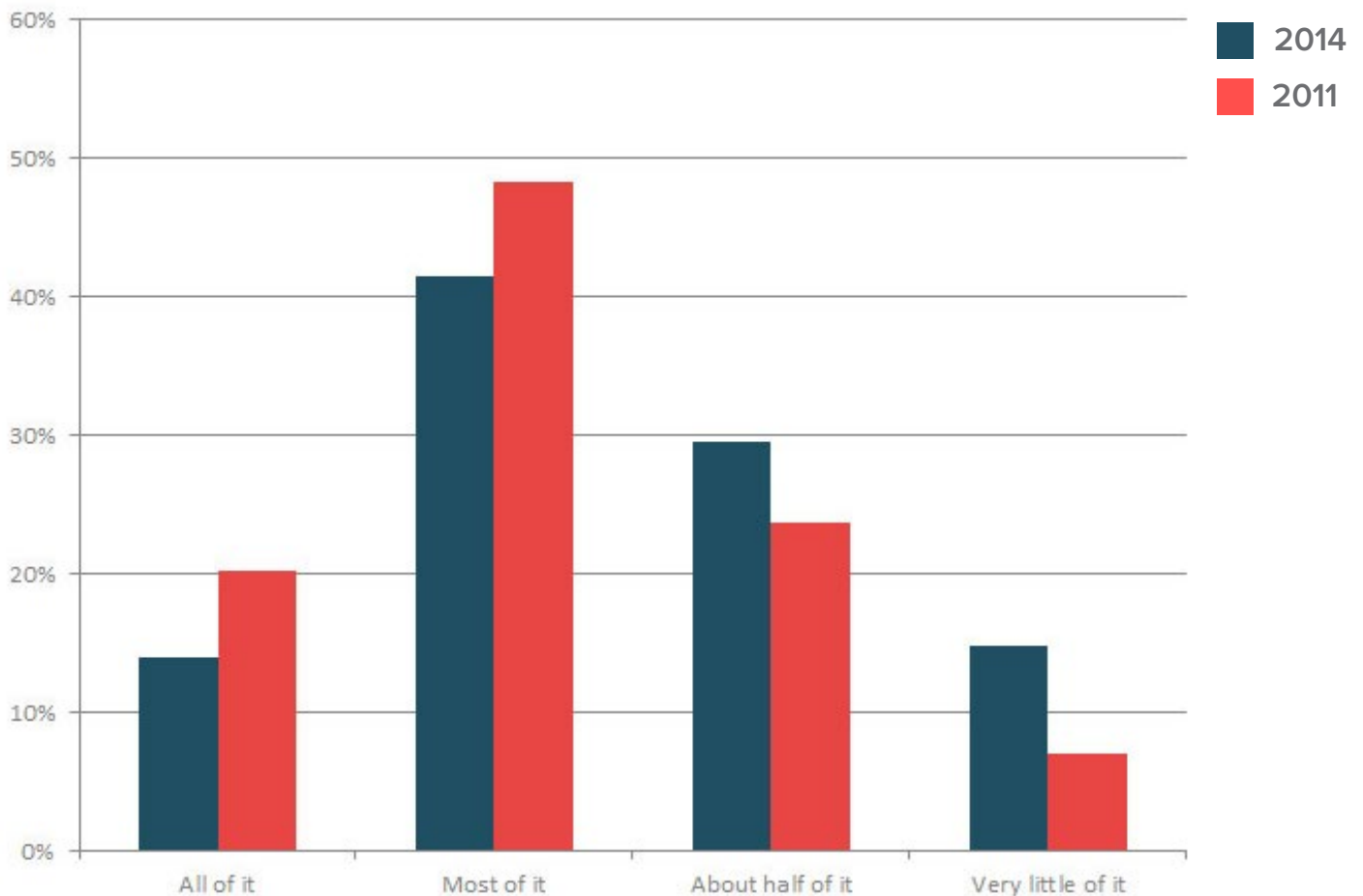
## HOW OFTEN DO YOU BUY PRODUCTS OR SERVICES FROM EMAIL MESSAGES YOU'VE RECIEVED? (BY YEAR)



In both surveys we asked respondents, "How often do you buy products or services from email messages you've received?" When we graph the responses from the 2011 survey next to the 2014 survey, we see that there seems to be a significant upward trend in the number of people who answered "Never." 35% said "Never" in 2014 whereas only 25% did in 2011.

This should not be taken to mean that email marketing has become less effective over the past three years, but rather that [successful email marketing](#) requires a more intelligent, strategic approach than it did in the past.

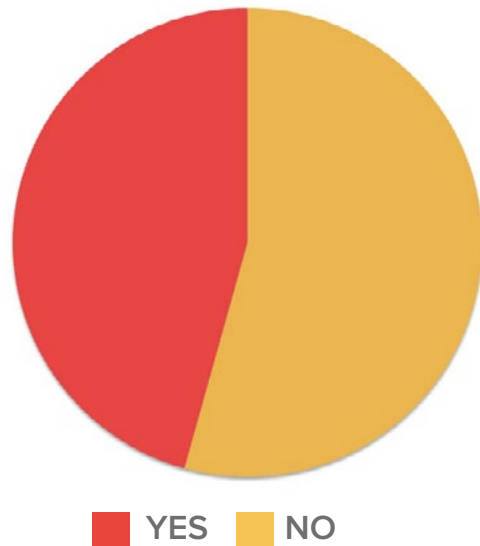
## HOW MUCH OF YOUR EMAIL DO YOU GENERALLY READ? (BY YEAR)



Another question posed in both surveys starts to explain the phenomenon we saw in the last graph. When asked, “How much of your email do you generally read?”, respondents in 2014 reported reading less of their email than respondents in 2011 did.

I don't believe that this indicates that people are using email less often, but rather they are becoming more sophisticated about how they use it.

## DO YOU USE FILTERS TO SORT YOUR EMAIL AUTOMATICALLY?



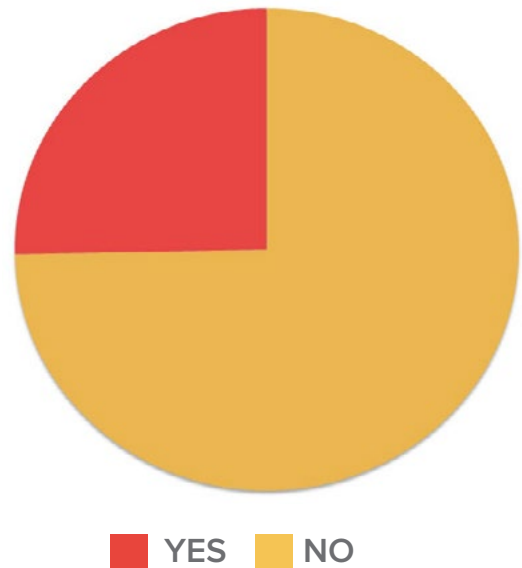
In a question new to the 2014 survey, we asked, "Do you use filters to automatically sort your email?" A full 54% of survey takers reported that they did.

This means that while the volume of commercial email being sent is likely rising, the actual percentage of that email that is getting through to recipients is likely decreasing due to the **increasing inbox management options available to email users** in relation to their understanding and use of more advanced inbox management features.

## DO YOU USE PRIORITY INBOX?

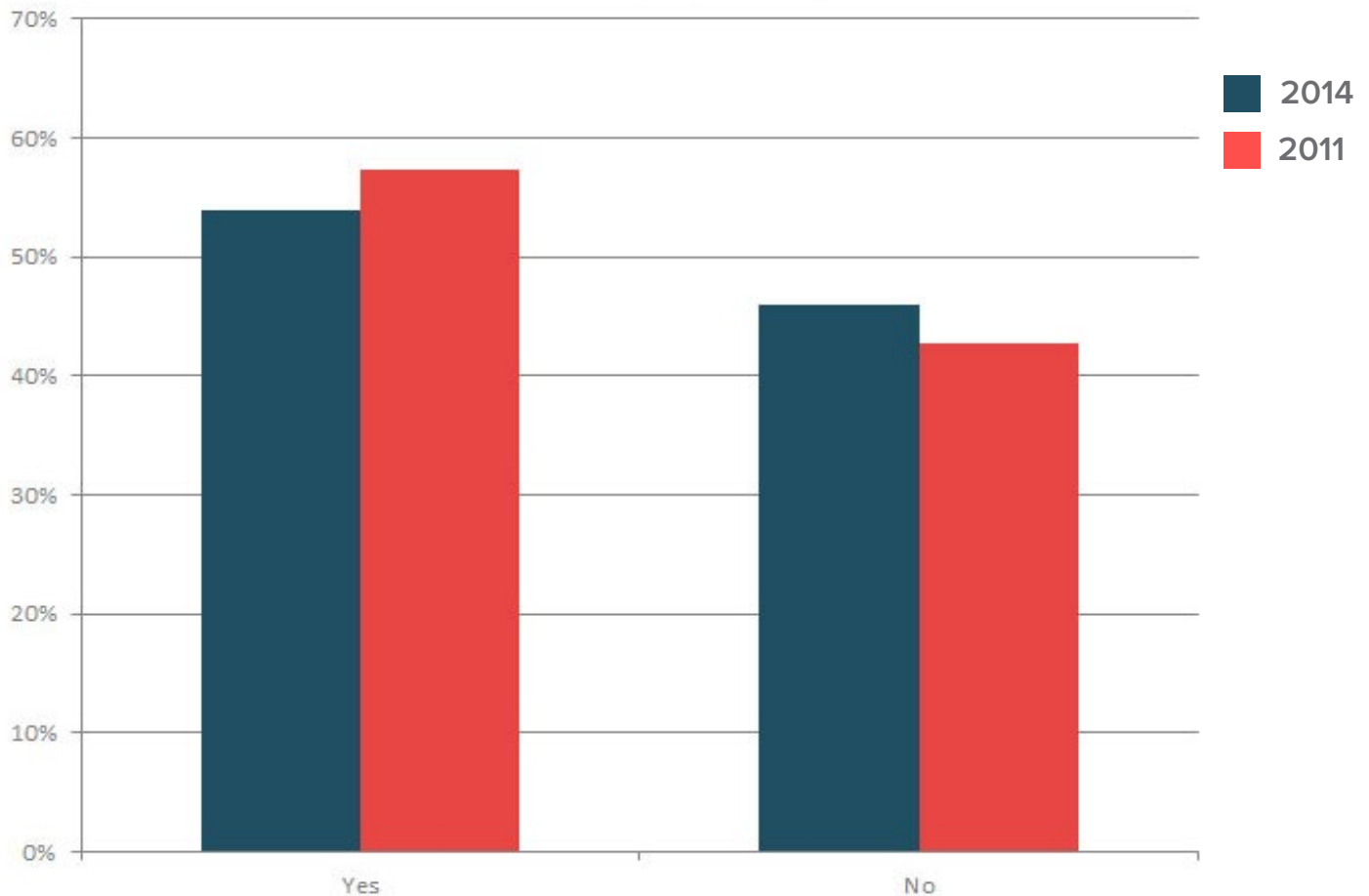
We also asked specifically about [Gmail's Priority Inbox feature](#) and found that approximately 25% of respondents reported using it.

This is an illustration of the fact that there are simply more ways for people to filter email messages, so unless you can provide compelling value to recipients, it will be harder to make your way into their inboxes.





## DO YOU USE A SEPARATE “SPAM” EMAIL FOR COMMERICAL OFFERS YOU DON’T WANT GOING TO YOUR MAIN EMAIL ADDRESS? (BY YEAR)



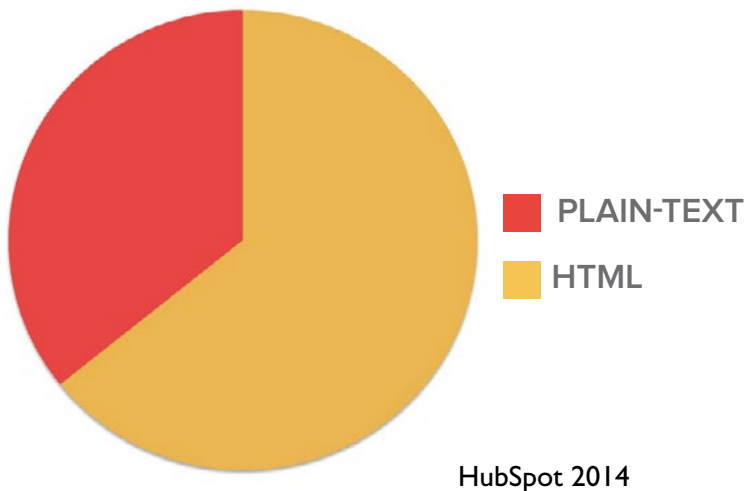
Over the past 3 years, there is a downward trend in the number of people who use separate “spam” email addresses for commercial offers. The difference in the two years is not enormous, but does represent a statistical change, with 54% of people saying yes in 2014 compared to 57% in 2011. I believe this is because of the more modern use of filters and priority inbox.

### Pro-Tip

Periodically clean up your lists to avoid sending emails to “spammy” or fake addresses. They’re not engaging with you and could be negatively impacting metrics such as CTRs and deliverability.

*Here’s a tutorial.*

## IN WHAT FORMAT DO YOU PREFER TO RECEIVE EMAIL MESSAGES FROM COMPAINES?



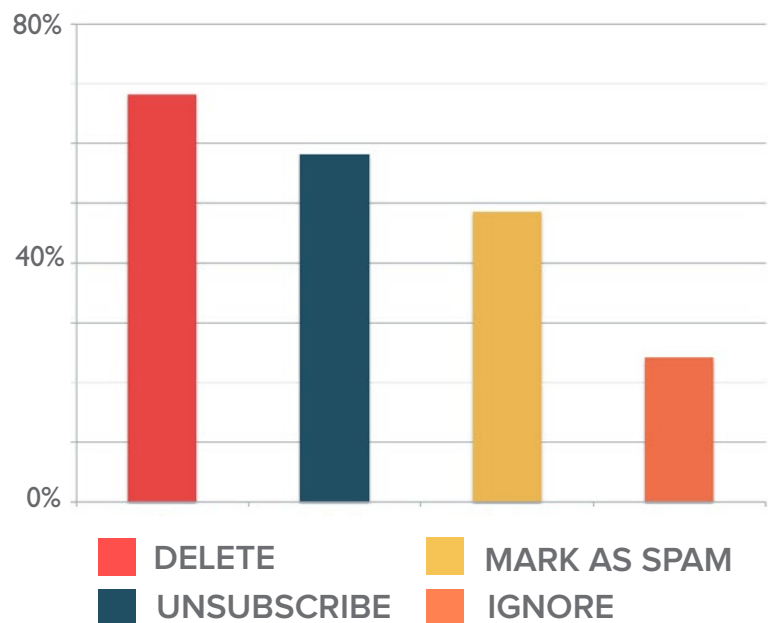
In both the 2011 and the 2014 versions of this survey question, results were similar, with the majority of respondents (64% in 2014) indicating that they prefer HTML-based (rich-text) emails.

On the other hand, this also means that the number of people who prefer plain-text emails hasn't changed, either, so you need to **optimize for both**.

## WHEN YOU GET AN UNWANTED COMMERCIAL EMAIL, HOW DO YOU RESPOND?

In a question new to the 2014 survey, we asked survey takers: "When you get an unwanted commercial email, how do you respond?"

The results are comforting for marketers, both "Delete" (at 68%) and "Unsubscribe" (at 58%) are more popular answers than "Mark as Spam" (at 49%). Recipients are self-selecting themselves out of your email marketing if what you're sending them relevant, useful content.





## Demographic Differences

---

# DEMOGRAPHIC DIFFERENCES

---

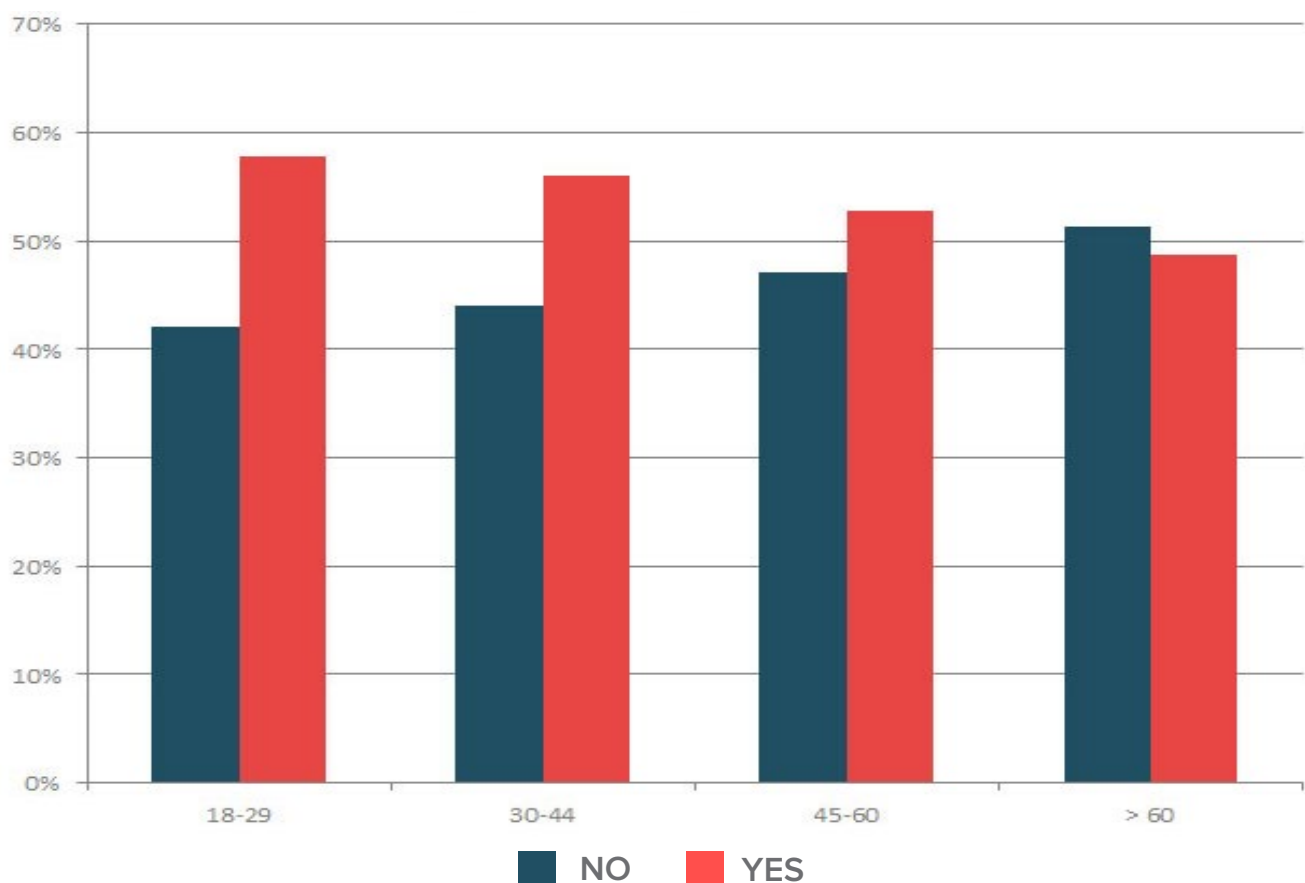
One thing that survey data does allow us to do that other kinds of data can't do as easily is break down respondents by various personal information. In this way, we can begin to understand different kinds of email users and their behaviors.

None of this data should be taken to present a fully complete and in-depth analysis of any specific kind of respondent. I've highlighted those areas where demographic data breakdowns have identified interesting and potentially useful patterns.

This should encourage you to explore your own, unique audience along these same lines. How do the people getting your emails differ from the "average" email user? It is in those differences where you'll find the keys to getting the most out of your list.



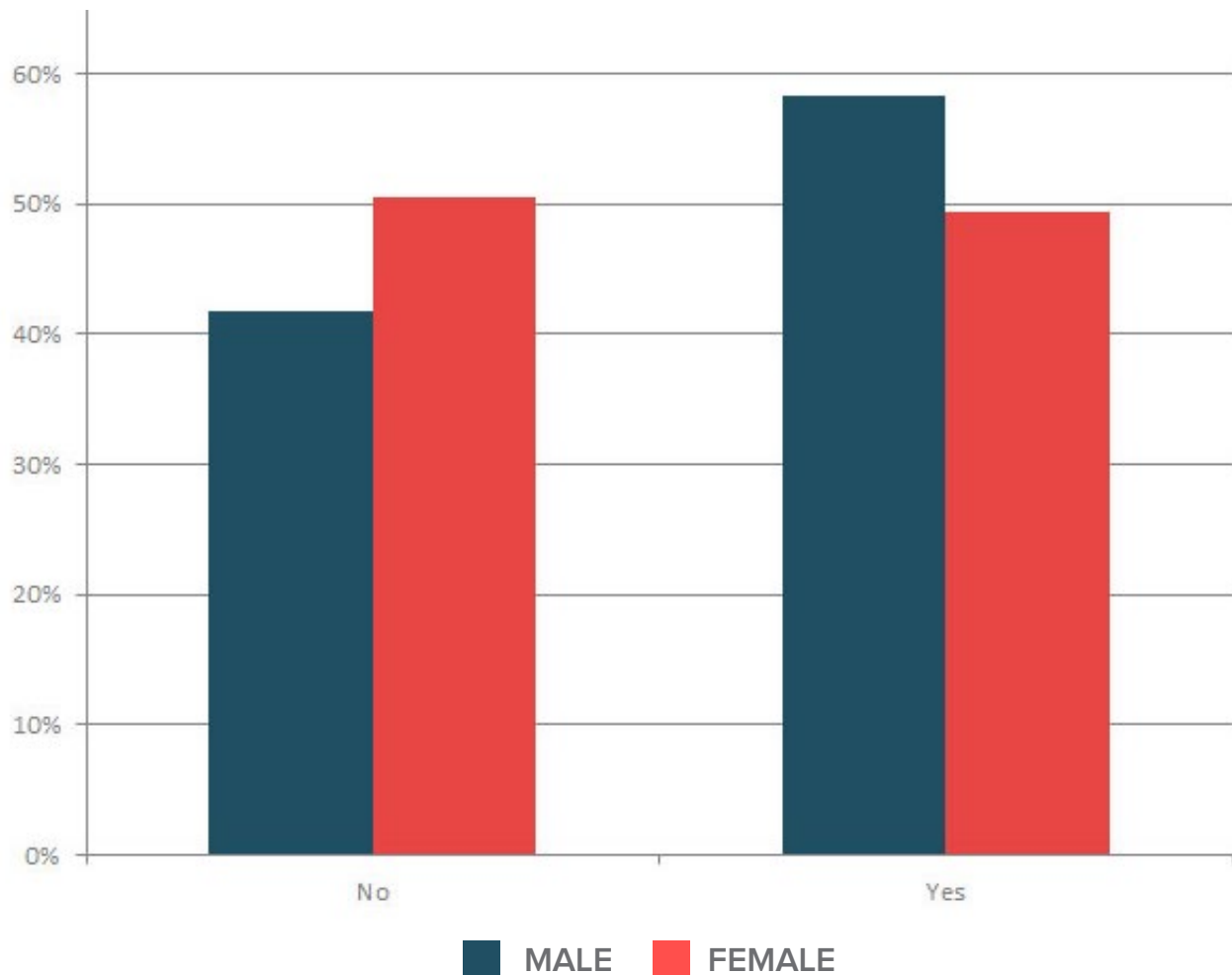
## DO YOU USE A SEPARATE SPAM EMAIL FOR COMMERCIAL OFFERS YOU DON'T WANT GOING TO YOUR MAIN EMAIL ADDRESS? (BY AGE)



We found that older email users were less likely to use a second email address to avoid unwanted messages. Younger email users are more skeptical of brands' messages – if this is your target audience, you may have to optimize the email address collection process further to gain trust (for example, explicitly stating that you will not be sending unsolicited emails, or providing a subscription frequency option).

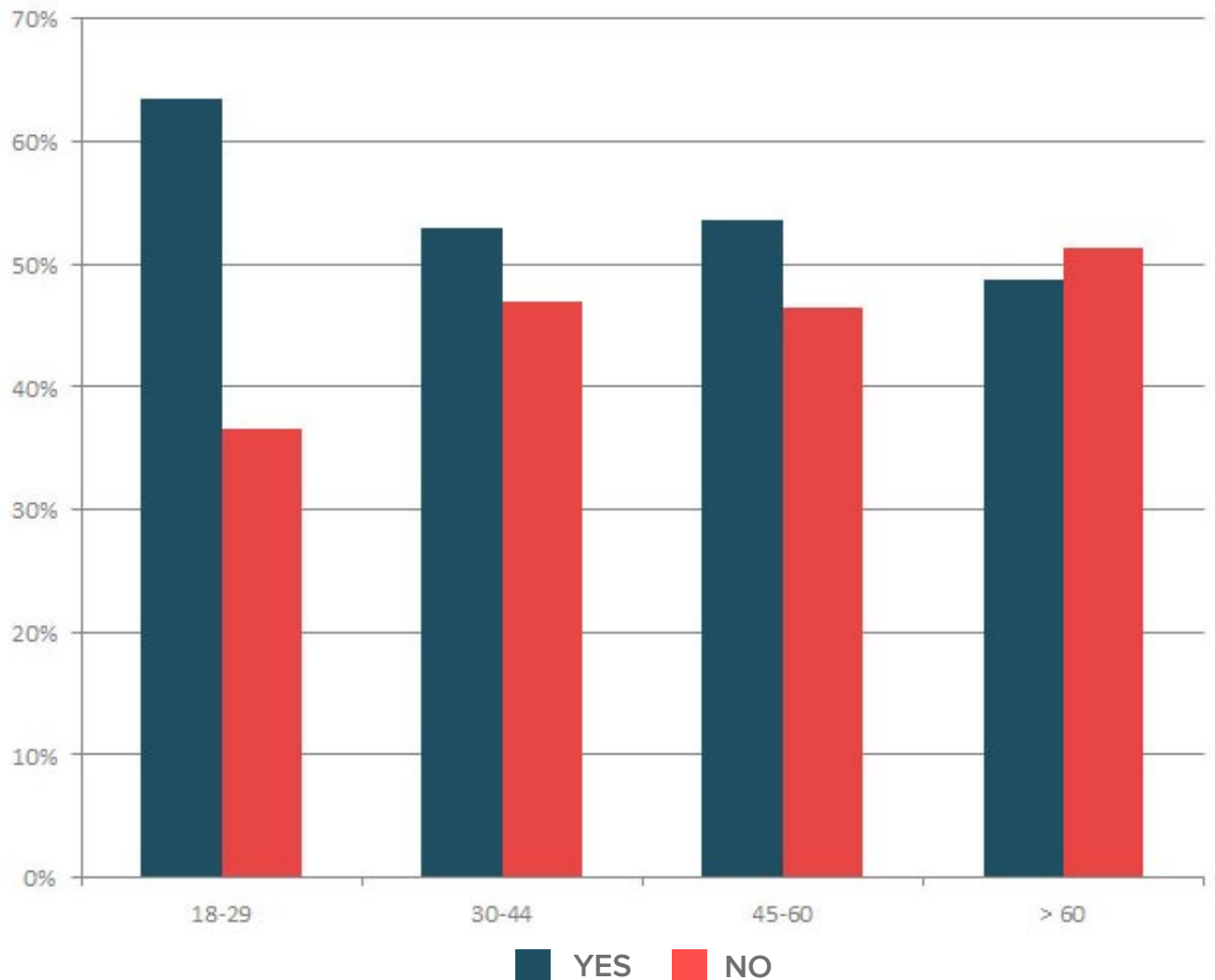
One major takeaway from this data is that **at least half of your target audience may not be providing you with authentic email addresses and therefore are not getting your emails.** You can combat this problem by providing content that is valuable enough to your target audience for them to give you their real information, as they do not want to miss out future offers.

## DO YOU USE A SEPARATE SPAM EMAIL FOR COMMERCIAL OFFERS YOU DON'T WANT GOING TO YOUR MAIN EMAIL ADDRESS? (BY GENDER)



Analyzing the same question but comparing genders, we find that 58% of men use spam inboxes while 49% of women do. At a high level, this means **at least half of your recipients could be using a separate email address to fill out forms on your website.**

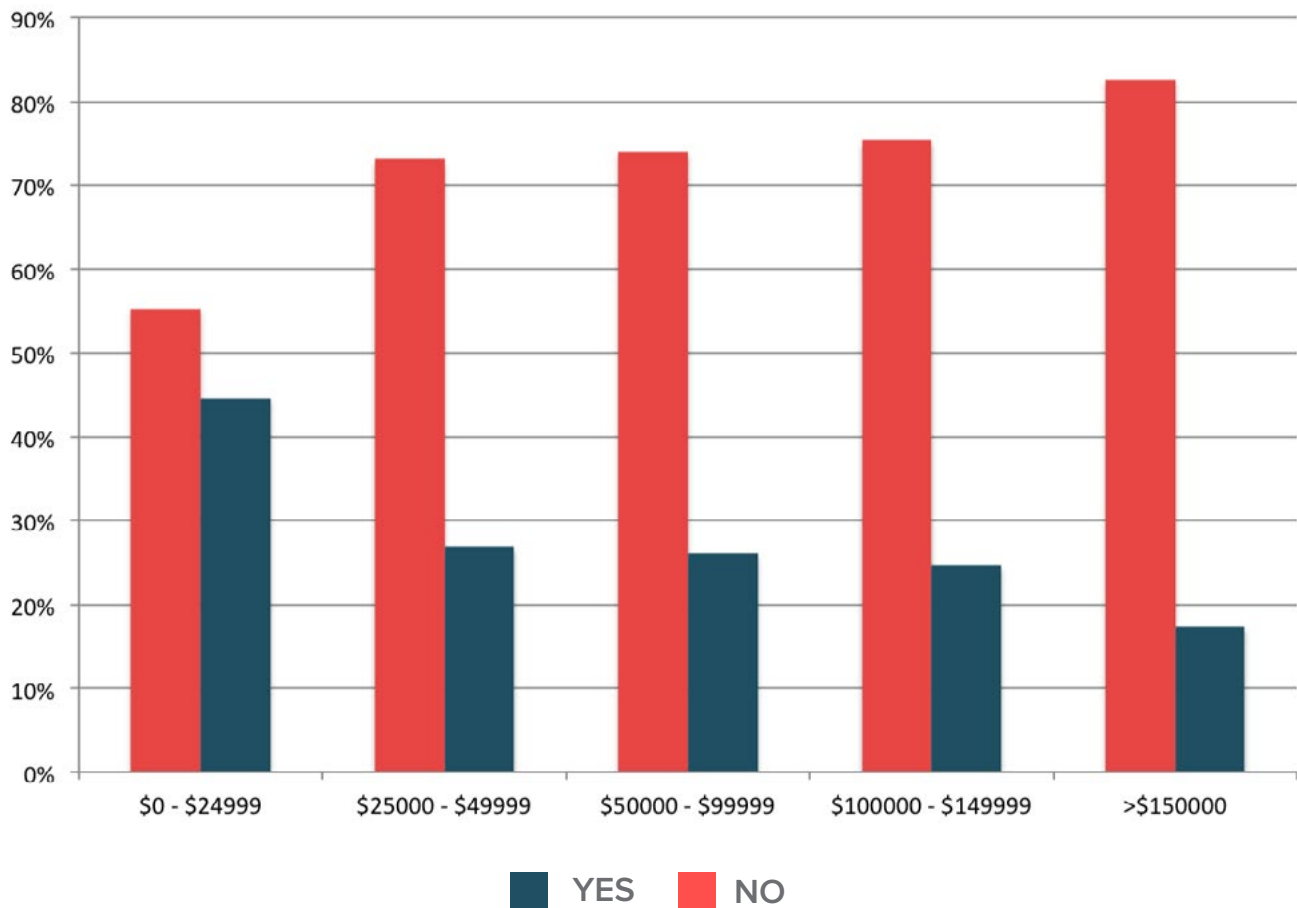
## DO YOU USE FILTERS TO SORT YOUR EMAIL AUTOMATICALLY? (BY AGE)



Comparing that to a similar breakdown of the filter usage question by age group, we find that younger users report using newer, more sophisticated filtering mechanisms to sort out unwanted email. **63% of respondents between 18 and 29 use automatic email filters**, while only 49% of respondents over 60 did.

This data tells us that regardless of the age or sophistication level of your audience, they are finding and using various methods to avoid seeing many unwanted “spammy” commercial emails in their inboxes.

## DO YOU USE PRIORITY INBOX? (BY INCOME)



Sorting this data by income shows an unexpected pattern of inbox filtering behavior. When we look at the priority inbox question by the reported income levels of the survey respondents, we see that as income rises, use of Gmail's Priority Inbox filter decreases. This is something to keep in mind if you are using income-level as a way to segment your database.

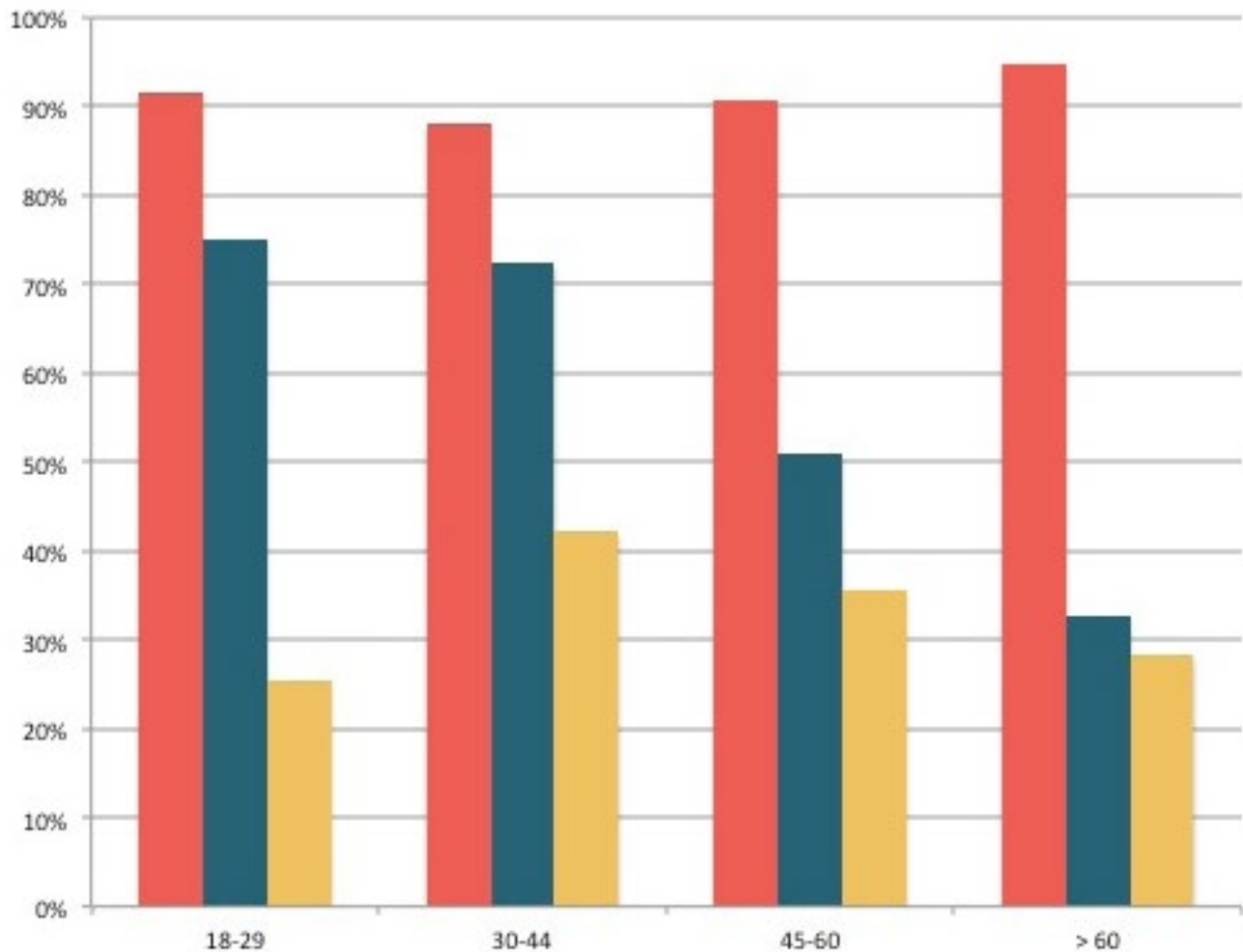
### Pro-Tip

**Always provide an "Unsubscribe" option in your commercial marketing emails.**

Not doing so can get your company in hot water – both with email clients flagging you as "spam", which hurts your deliverability, and with government fines because you're not adhering to the [CAN-SPAM Act](#).



## HOW DO YOU READ EMAIL? (BY AGE)

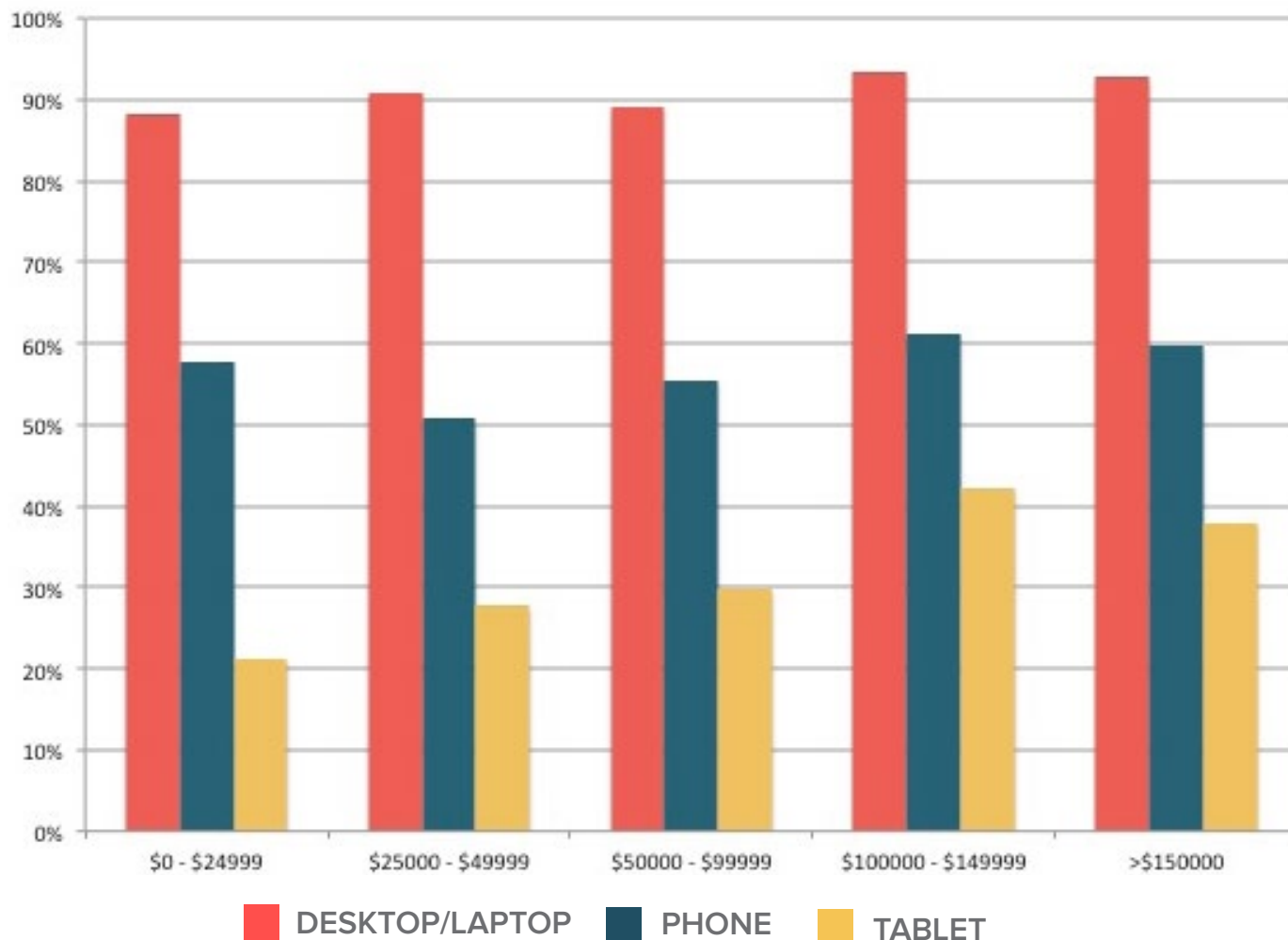


Expectedly, younger survey respondents report using their phones to read email more often than older users. Tablet use, on the other hand, is actually lower in the 18-29-year-old bucket. Respondents could select as many answers to this question as applied to them, since an individual user will likely use more than one device to read email.

■ DESKTOP/LAPTOP  
■ PHONE  
■ TABLET

This indicates that older users may prefer tablets with larger screens to phones for mobile email reading. If you're communicating with an audience above the age of 30, do not neglect to check the tablet-friendliness of your emails.

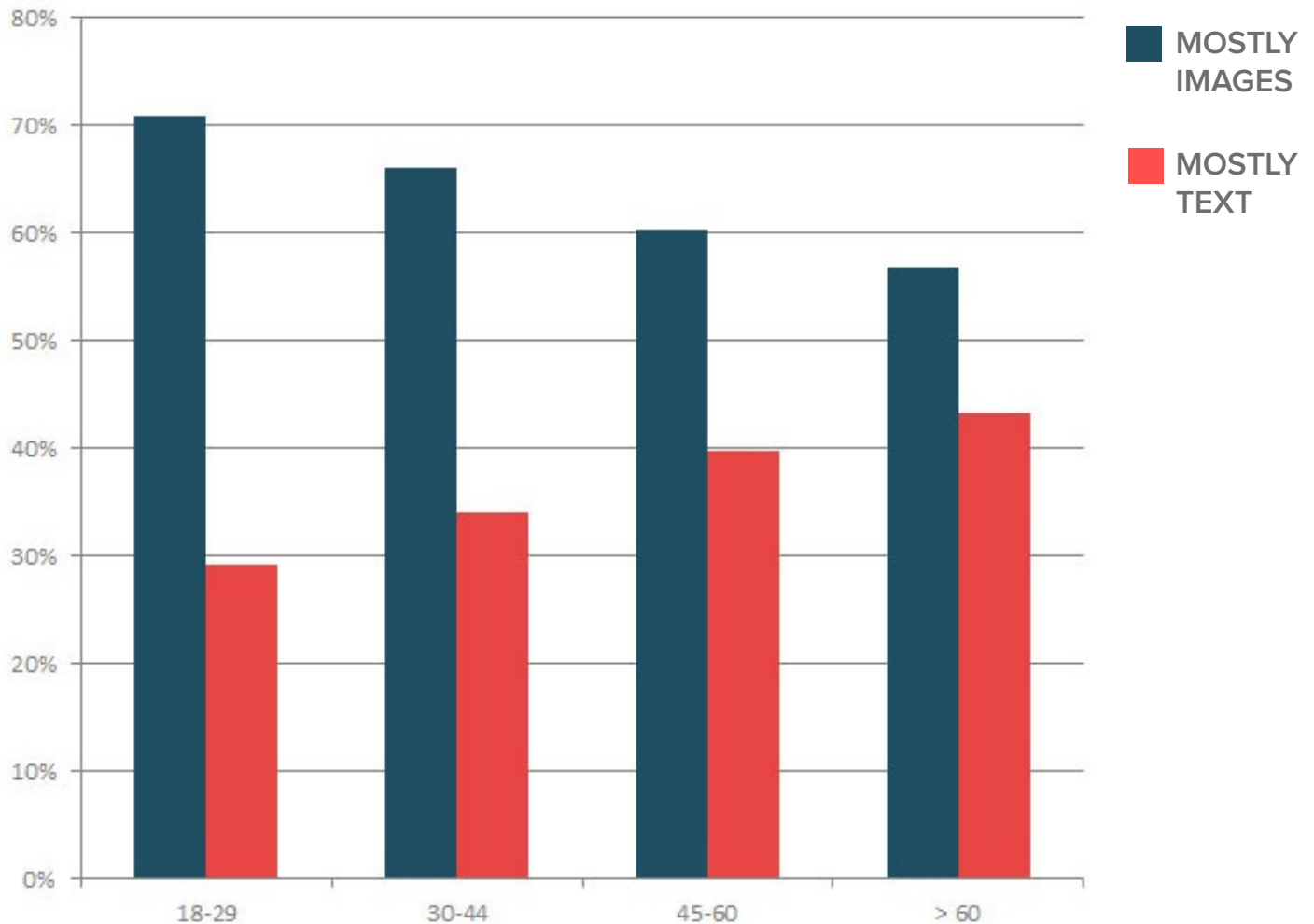
## HOW DO YOU READ EMAIL? (BY INCOME)



Also expectedly, when we break down reading devices by income level, we find that while desktop and phone email usage is mostly equal throughout the spectrum, higher income respondents are much more likely to report reading email on their tablet devices. Once again, respondents were able to choose multiple answers, as most people tend to consume email on multiple devices.

An important takeaway here is that your target audience isn't just reading your emails on mobile, or on their desktop. You need to optimize your emails for multiple screens and think about the situation your recipient is in while checking emails (for example, is he or she reading it on their phone on-the-go, or sitting at their desk at work?) to decide how to position your email as well as the length of the email

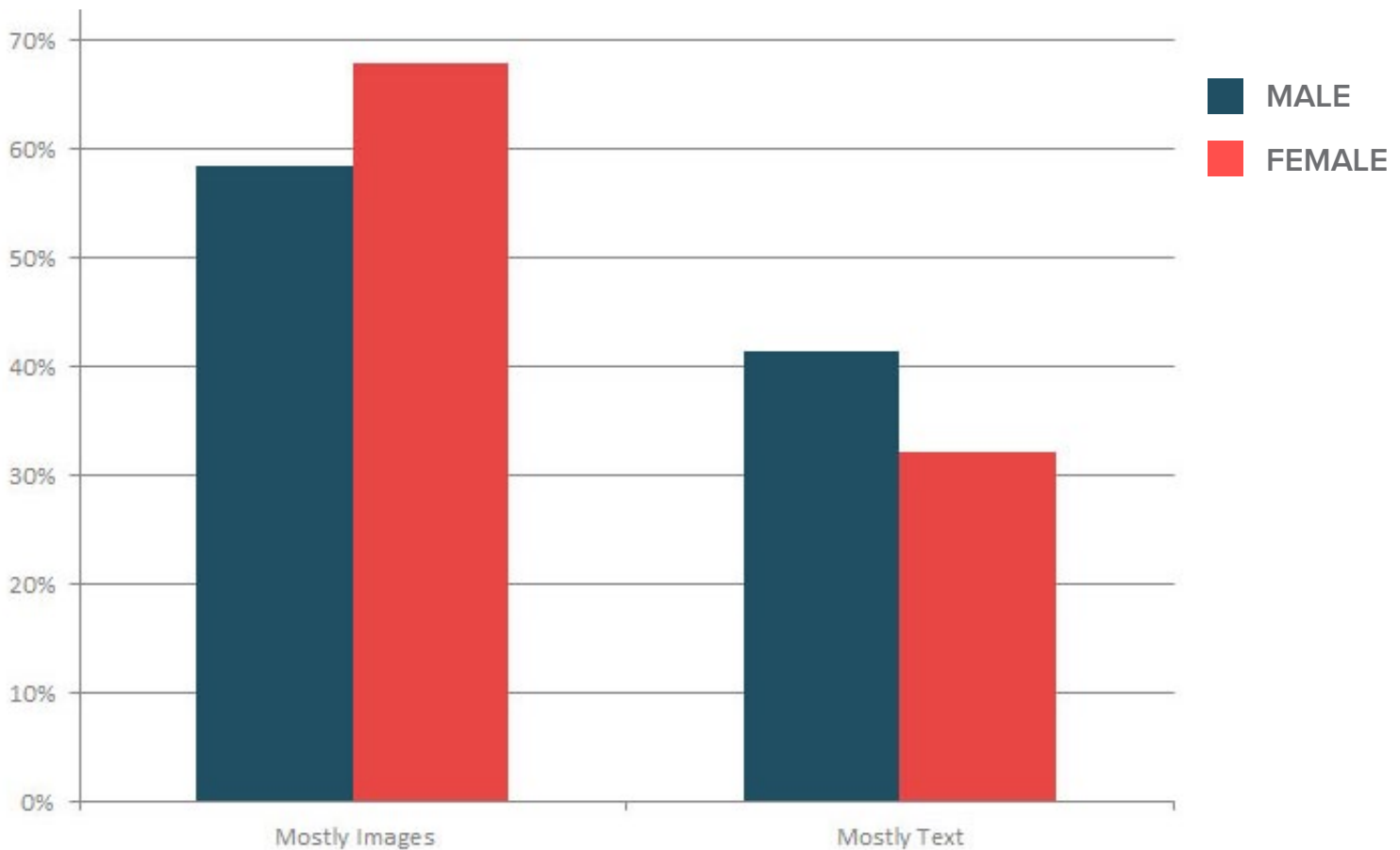
## DO YOU PREFER THAT EMAILS FROM COMPANIES CONTAIN MOSTLY IMAGES OR MOSTLY TEXT? (BY AGE)



And when we break down answers to the text versus images question by age group, we find that younger users prefer images more than older users do. However, even in the over 60 group, "Mostly Images" is still the most common answer.

It would seem that no age group consumes image-centric emails the way they say they do! (Remember, from chapter one, that the observational data pointed to opposite behavior of what is self-reported here.)

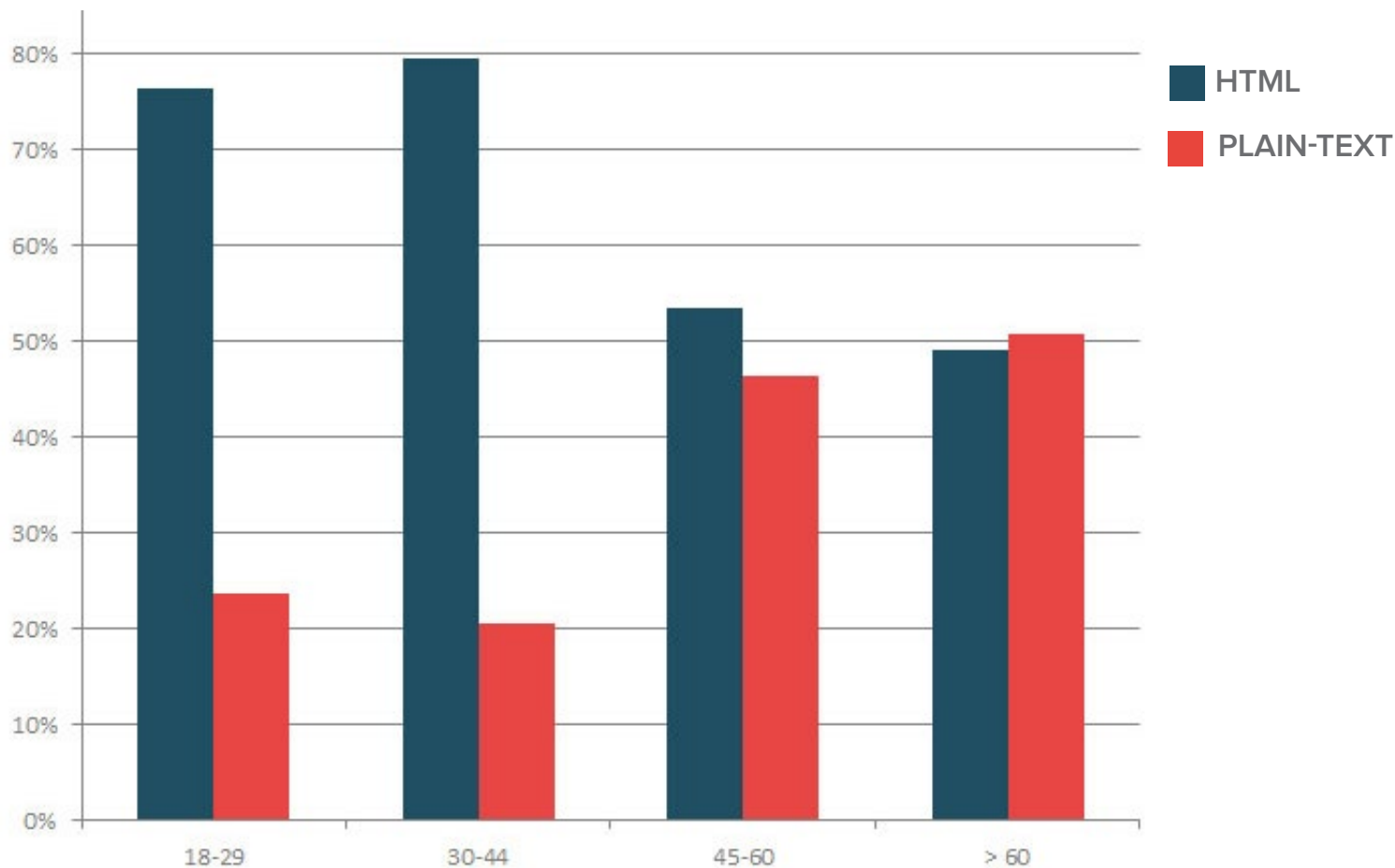
## DO YOU PREFER THAT EMAILS FROM COMPANIES CONTAIN MOSTLY IMAGES OR MOSTLY TEXT? (BY GENDER)



Looking at the images versus text question through a gender-based breakdown, we find that females report preferring images more than men do – 67% of females preferred images as opposed to 58% of males.

In the first section of this report, I had highlighted the difference between self-reported and observational data using the example of mostly images vs mostly text-based emails. While most people said they preferred mostly images in emails, the observational data collected from over half a billion opened emails suggested the opposite – the more images, the lower the CTR. While this doesn't mean you should only use text or images, it is something to keep in mind and test for amongst your own audience.

## IN WHAT FORMAT DO YOU PREFER EMAILS FROM COMPANIES? (BY AGE)



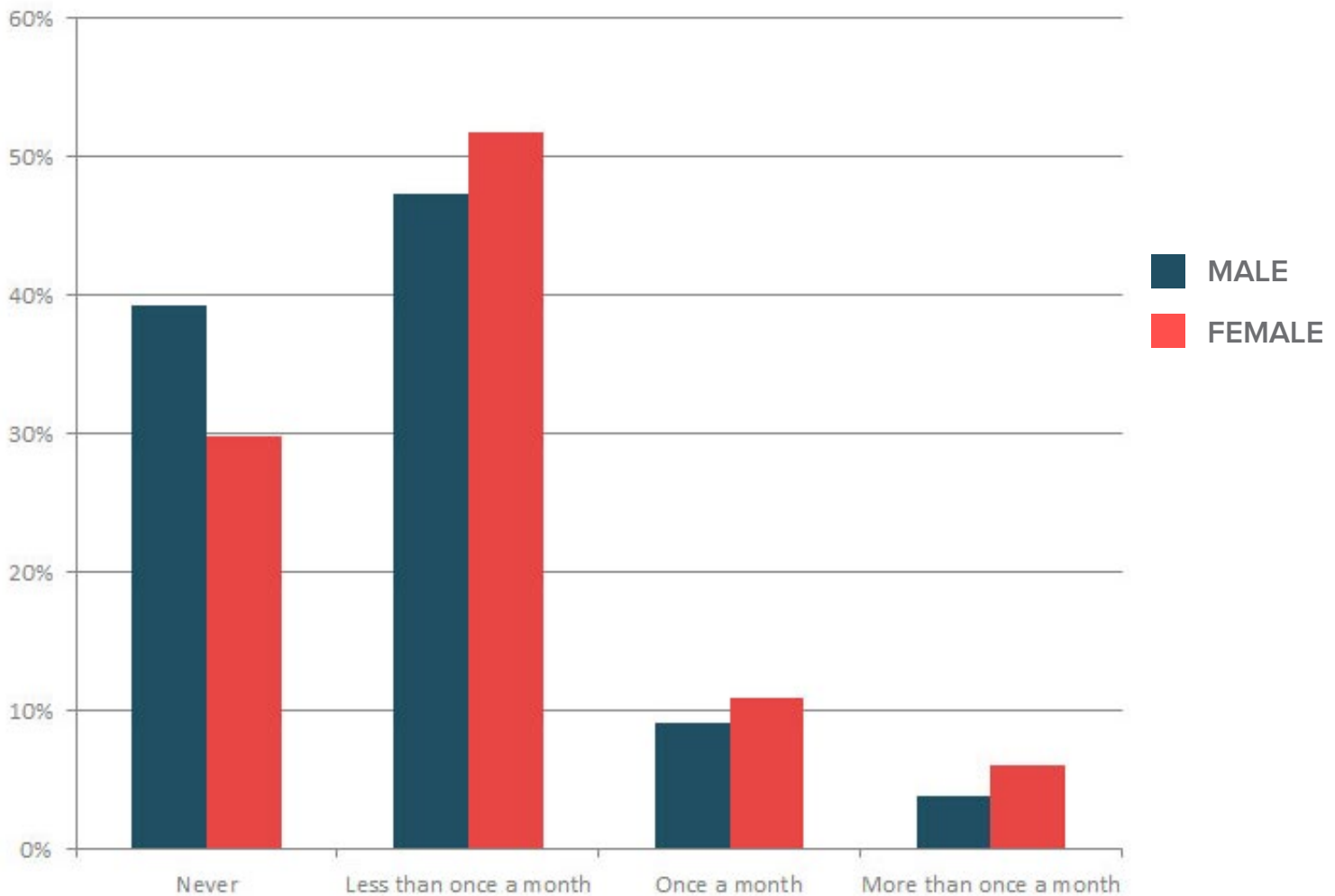
Breaking the email format question down along age-group lines uncovered a dramatic difference between survey takers under 44 and over 45. While younger users overwhelmingly preferred HTML emails, older users were split much more evenly between plain text and HTML. **79% of survey takers between the ages of 30 and 44 reported preferring HTML, while only 49% of those over 60 did.**

### Pro-Tip

### KNOW YOUR AUDIENCE

Create buyer personas to understand what kind of emails to send to your audiences. Test which format matches their preferences for reading email.

## HOW OFTEN DO YOU BUY PRODUCTS OR SERVICES FROM EMAIL MESSAGES YOU'VE RECIEVED? (BY GENDER)



A final interesting persona-based breakdown in the data is the difference between men and women and their reported purchasing behaviors. Women reported purchasing products or services they've been informed about via email more often than their male counterparts did.



## Timing Your Emails

---

# TIMING YOUR EMAILS

---

Over the years, I've published a large body of data about timing of marketing messages. As tools evolve, however, so must our understanding of timing.

As we move from email blasts to sending more intelligent, automated transactional emails, **we're sending messages to our recipients based on their schedules rather than ours.** That's the reason we did not include data about what time of the day to send emails – this type of data often found in benchmark reports relies on your schedule doesn't solve for the geographic time-zone your recipient is in.

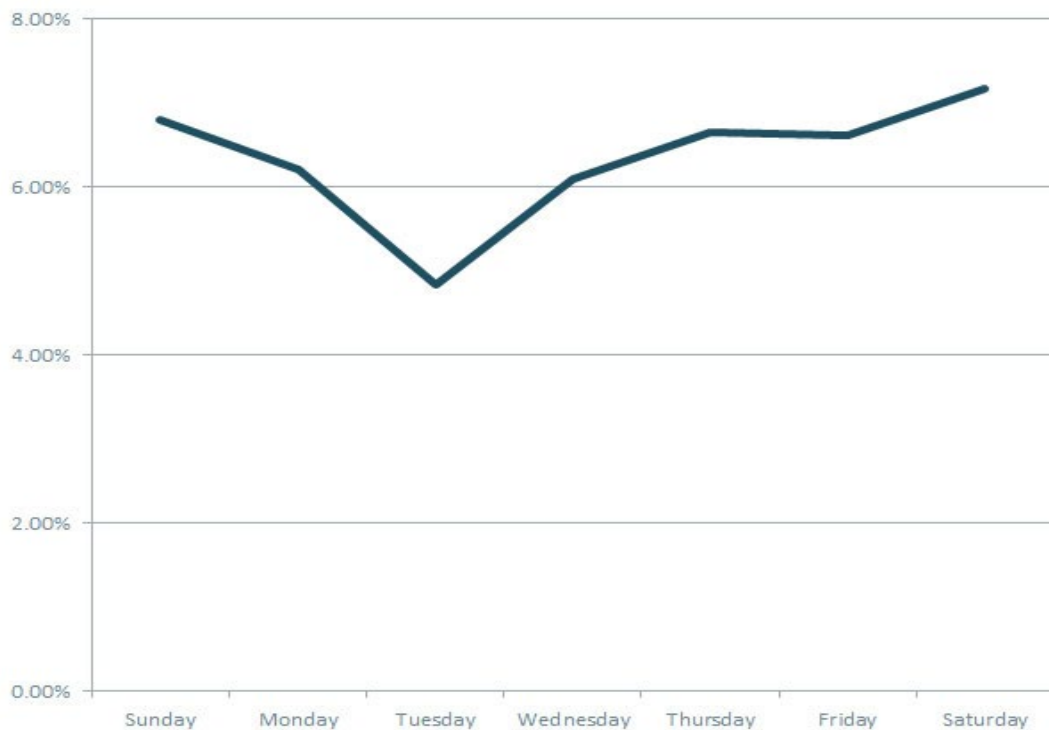
But there are still some interesting lessons to be learned from timing data, specifically when it comes to the day of the week and in correlation to variables such as list size.

With all of this data (but timing most especially), do not take the graphs presented here as set-in-stone laws. If this data tells you that a certain day shows higher response rates, do not suddenly shift to only sending emails on that day. Rather, begin experimenting with that day with your audiences and your messages. You may find that it works for you, or you may find that your individual case is different





# EFFECT OF DAY OF THE WEEK ON CTR IN ONE-TO-MANY EMAILS



One of my favorite data points to analyze in email marketing is email sends by day of the week. Every time I analyze it, in any dataset, in any year, I find a similar pattern.

In this dataset, emails sent on Saturdays and Sundays had higher CTRs than emails sent during the business week. And during the business week, the later 3 days performed better than the first two days. I call this effect contra-competitive timing.

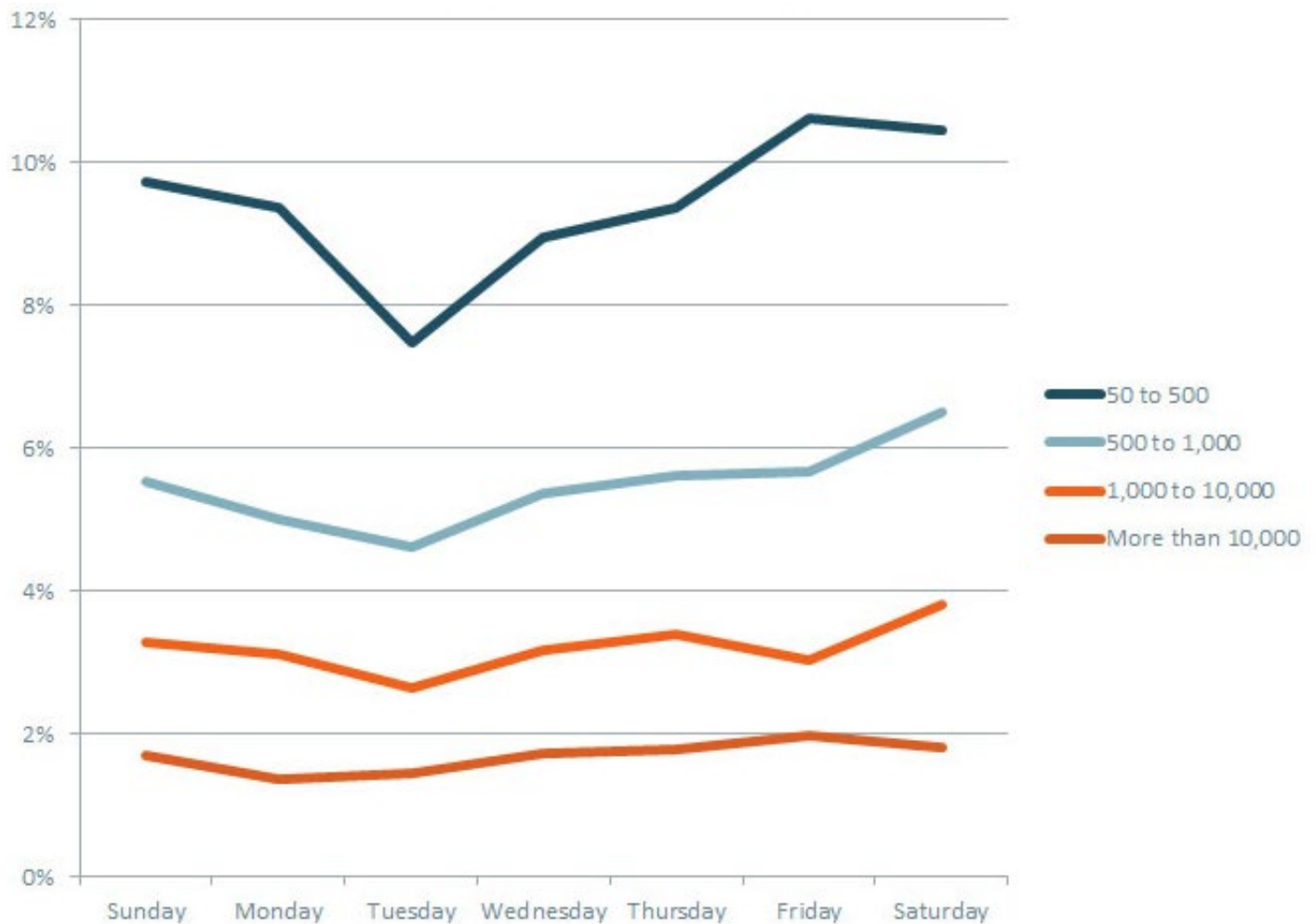
Most people get a lot of email during the week – the going theory is that sending marketing emails works best during the workweek, when recipients are paying attention to their work inboxes (especially for B2B marketing). But then, you run into the problem of everyone sending email at the same time, which, combined with the fact that recipients are most likely busy at work, leads to less chances of your emails being read. With so much volume, recipients turn to filters and Priority

*Always A/B test  
for YOUR audience*

Send the same email to each half of your segment at two different times to remove any variables such as content or different email lists.

*Here's how to set one up.*

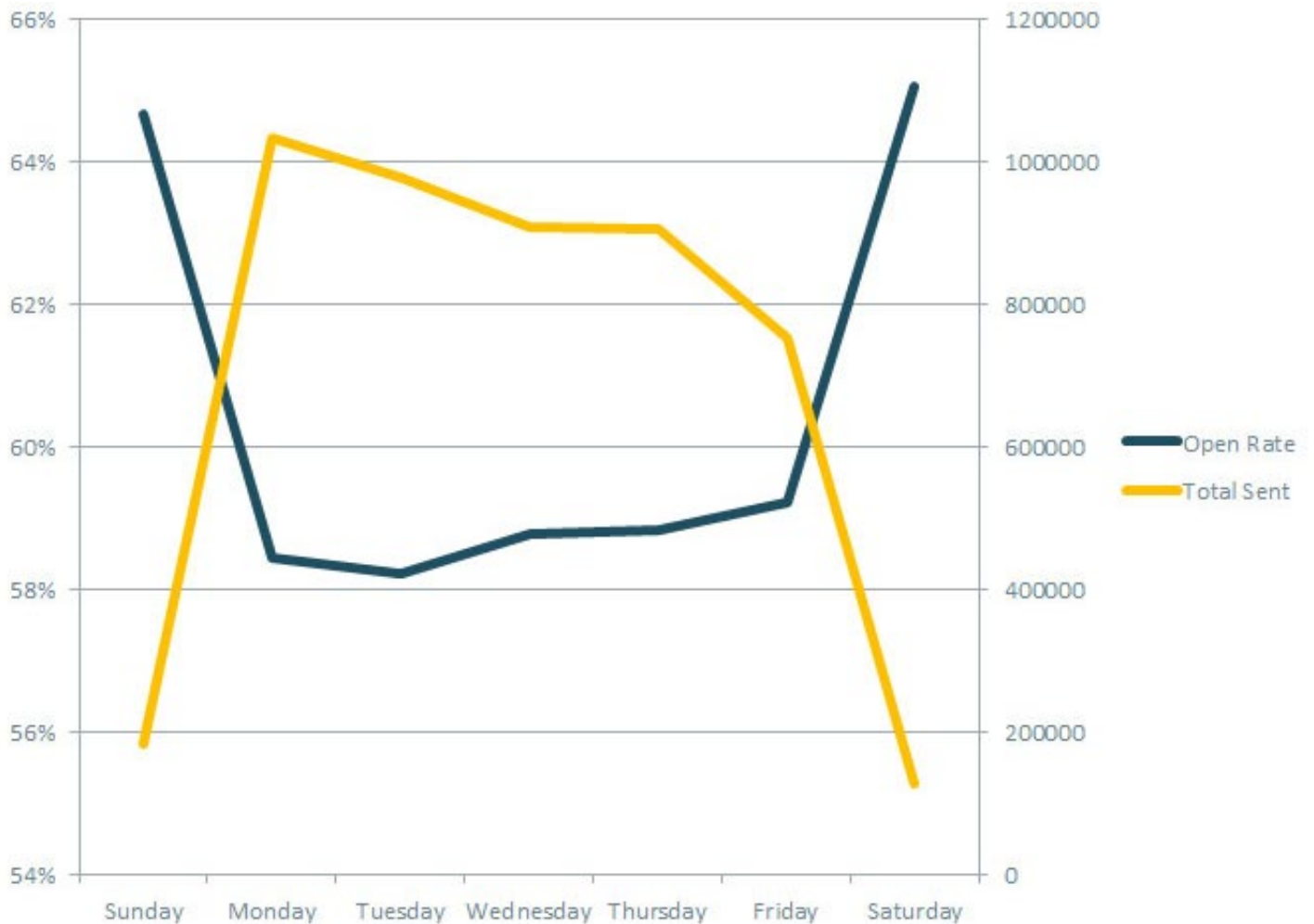
## EFFECT OF DAY OF THE WEEK ON CTR IN ONE-TO-MANY EMAILS BY LIST SIZE



When I broke this day-of-the-week data down by email list size, I found that smaller email lists tend to exhibit a more exaggerated version of this trend. But the over-performance of Saturdays and Sundays is still visible even in the larger list sizes.

Picking which day to send a marketing email is give-and-take: some days may yield better results than others, but sending email at the same time week after week can result in recipients simply learning to tune it out. Think outside of the box of “we send emails only on Tuesdays and Thursdays”; combining experimentation with more segmentation may yield better results.

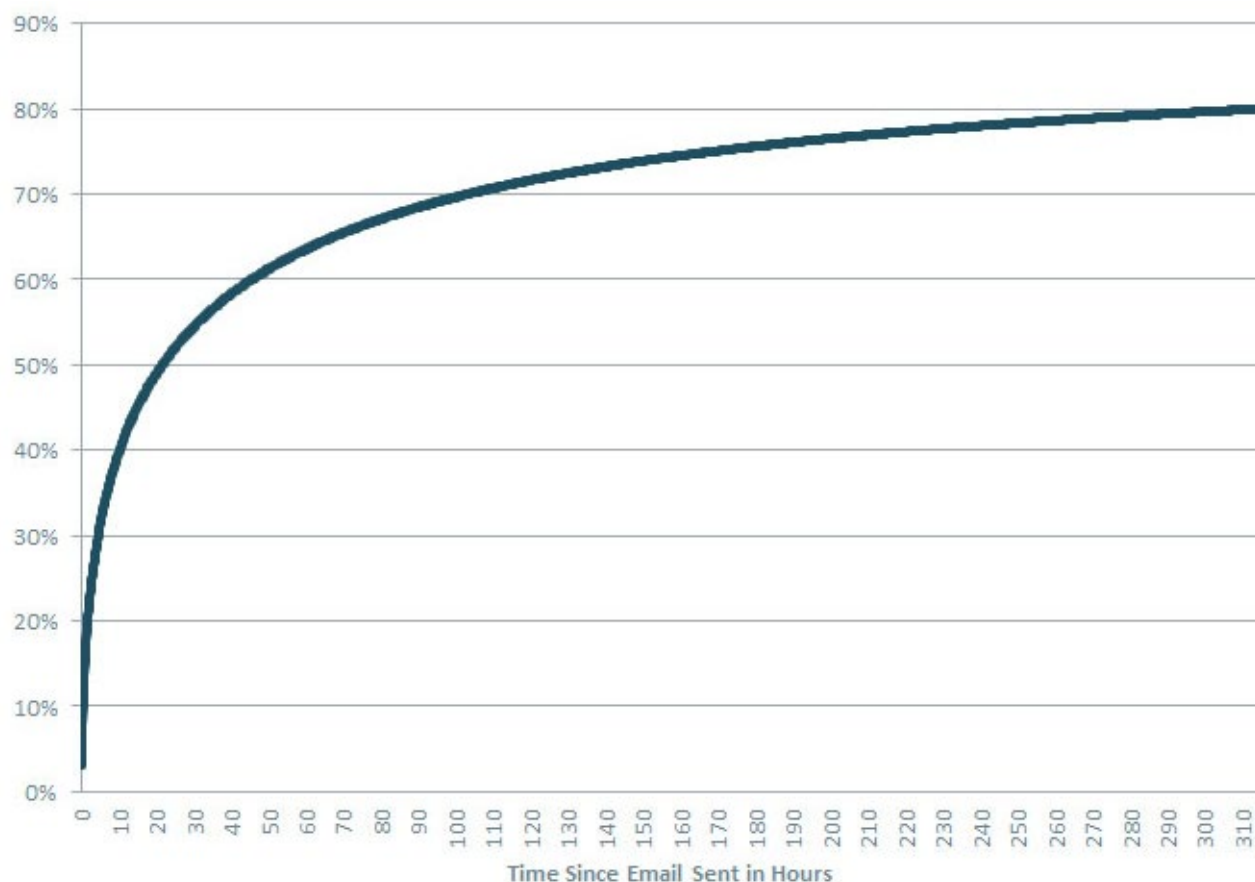
## EFFECT OF DAY OF THE WEEK ON OPEN RATES ONE-TO-ONE EMAIL



Switching over to the Signals product one-to-one dataset, we find a similar pattern. While more email is actually sent Monday through Friday, the open rate of emails sent on Saturday and Sunday is dramatically higher.

And again, this shouldn't be taken to mean that all of your emails should be sent only on the weekends. It should be taken to mean that you should experiment with sending on the weekends. Contra-competitive timing is a powerful tool once you learn how to effectively use it for your audience.

# CUMULATIVE EMAIL OPEN RATES BY TIME ELAPSED SINCE EMAIL SEND



Perhaps the most interesting data I extracted from the one-to-one email dataset was this graph of the half-life of email. When I graphed the time elapsed between the sending of an email and the time it was opened, I found a typical Pareto curve distribution with the 50% point at about 24 hours.

50% of emails in our dataset were opened in the first day after they were sent. After that, the graph flattens off into a long tail, capping at around 80% by day 12.

The takeaway here is that email consumption doesn't necessarily increase in the first 24 hours if you send it at a specific time, such as 7 am – this dataset removes the bias of time zones to give you an idea of how people consume email at different time intervals regardless of what time you send your email.



## Mobile & Other Email Client Trends

---

# MOBILE & OTHER EMAIL CLIENT TRENDS

---

Your messages are no longer only being read on just desktop clients such as Outlook or in a web browser client such as Gmail. Formatting emails to be read in these environments has traditionally been the priority for most marketers.

Understanding the trends in email client usage and cross-referencing that with your target audience can help you make key decisions such as investing in the proper templates and prioritizing which components to optimize to improve engagement.

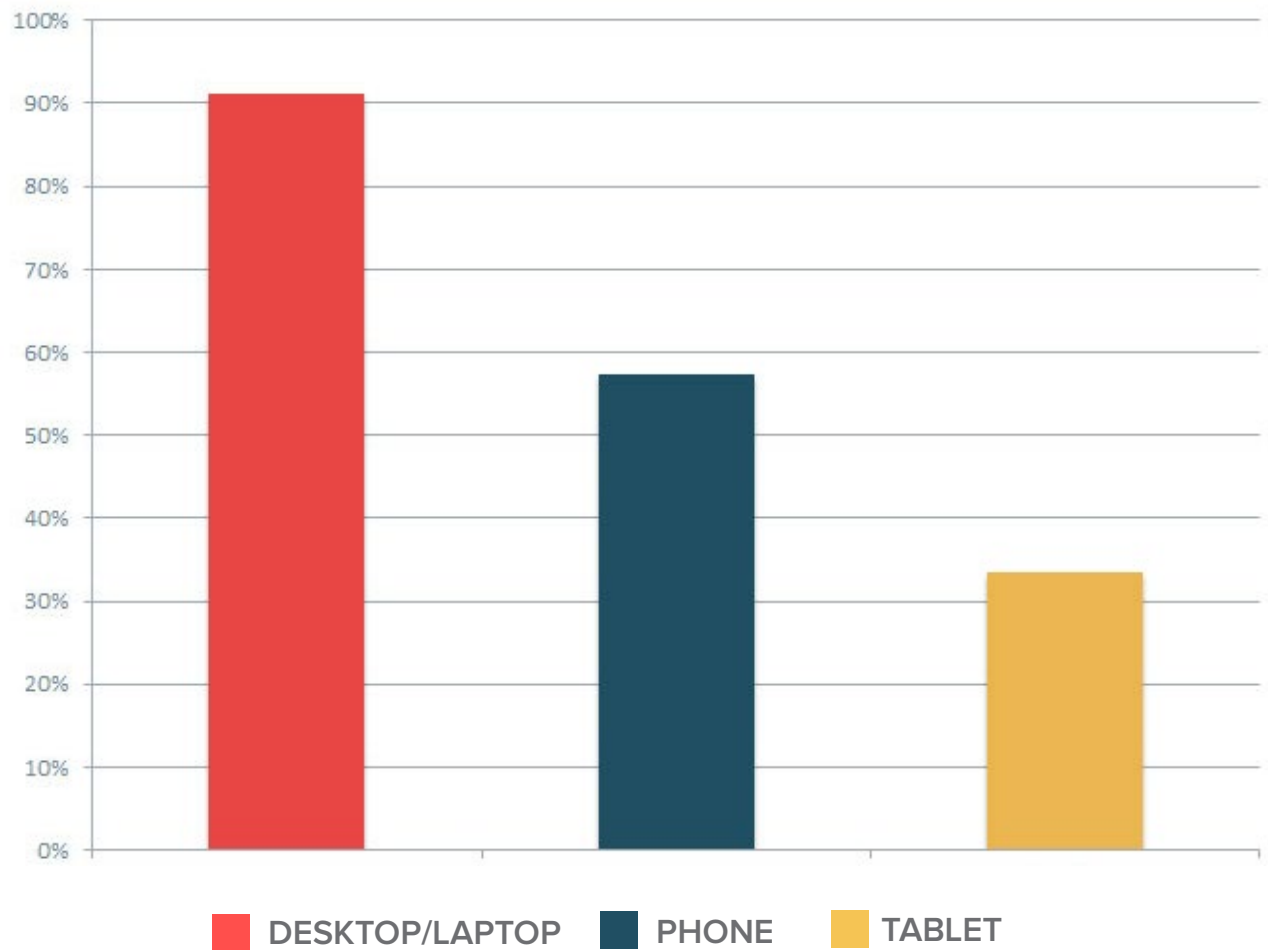
One of the biggest, long-term trends email marketers need to be aware of is the rise of mobile device usage. Your messages are no longer only being read on just desktop clients such as Outlook or in a web browser client such as Gmail, for which traditionally you have been able to easily format your emails.

With multiple screen sizes, differing loading times (3G and 4G, internet connections commonly used for mobile devices, are still not as fast as WiFi or LAN), and different requirements per email client for optimization (for example, you'd need to optimize images differently from Outlook than for Gmail), there's a lot to consider when planning your email marketing strategy.

The data in this section illustrates the changing ways people are consuming emails. Collected from over 270 million opened emails, this data will give you an indication of where email marketing is headed, which clients to optimize for, and the importance of adapting your emails to mobile – for example, investing in [responsive, fluid, or scalable email templates](#) and learning how to optimize your email components for different clients with different screen sizes.



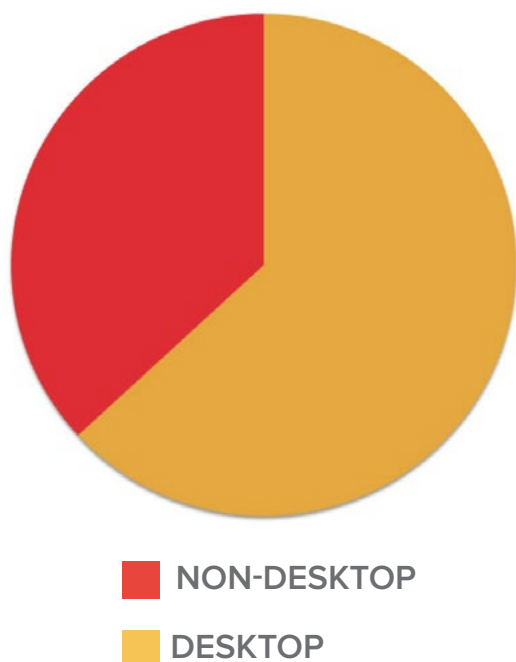
# HOW DO YOU READ EMAIL?



Mobile email usage has been a hot topic for a few years now, and a question we posed to respondents in the 2014 version of our survey highlights the importance of mobile friendliness. When we asked, “How do you read your email?” (allowing for multiple answers per respondent), we found that a majority (57%) of survey takers reported reading email on their phones and a surprisingly high 33% reported reading it on tablet devices.

Comparing this self-reported data to Litmus’ observational data comprising of over 270 million email opens tells a similar story – of a trend towards using mobile devices such as phones and tablets – but you’ll notice that this observational data differs, especially in the breakdown between desktop, webmail, and mobile.

## PERCENTAGE OF ONE-TO-ONE EMAILS OPENED ON DESKTOP VS NON-DESKTOP DEVICES



One-to-one email data doesn't always behave the same way as larger data sets comprising of marketing emails. One-to-one emails are sent client to client, so this pertains to your sales teams the most.

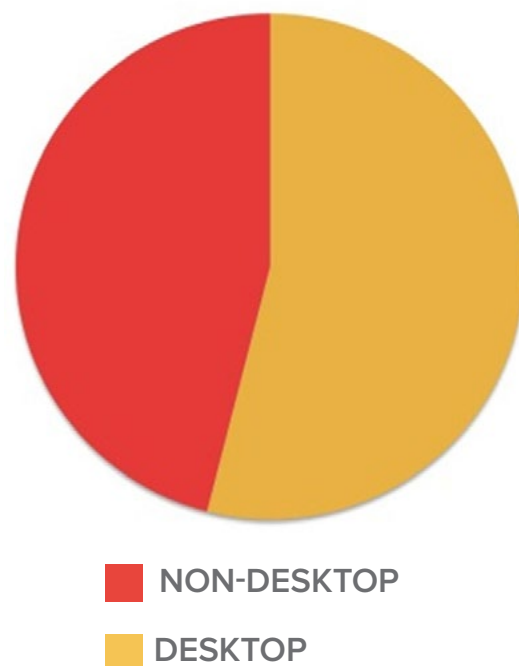
Our [Signals](#) data also allowed me to analyze the type of device used to open the email for the first time. 37% of them were opened on non-desktop devices, including phones and tablets.

This is interesting because it is observational data, rather than self-reported survey data about device usage for emails. Mobile-friendliness goes beyond just your marketing campaigns – even your sales organization needs to optimize their emails for clients such as iPhone, Android, and tablets.

## PERCENTAGE OF ONE-TO-MANY EMAILS OPENED ON DESKTOP VS NON-DESKTOP DEVICES

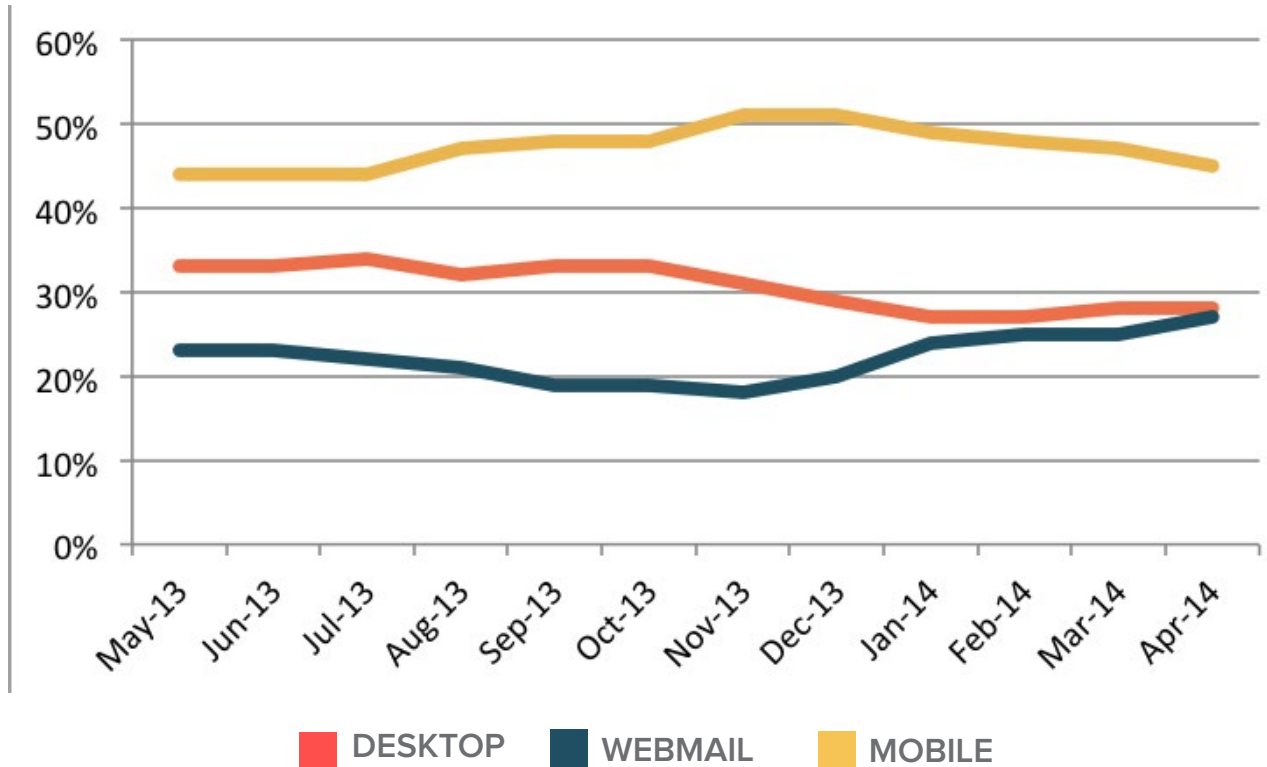
24% more one-to-many marketing emails are opened on mobile than one-to-one personal emails. One-to-one emails (personal emails, often used by salespeople) sometimes have different consumption patterns.

While the previous chart shows that only 37% of one-to-one emails were opened on mobile devices, we found through Litmus' data of opened marketing messages that the percentage of opens on mobile devices was much higher, at an average of 47% over the past 12 months.





## EMAIL CLIENT USAGE TRENDS FOR DESKTOP, MOBILE, AND WEBMAIL



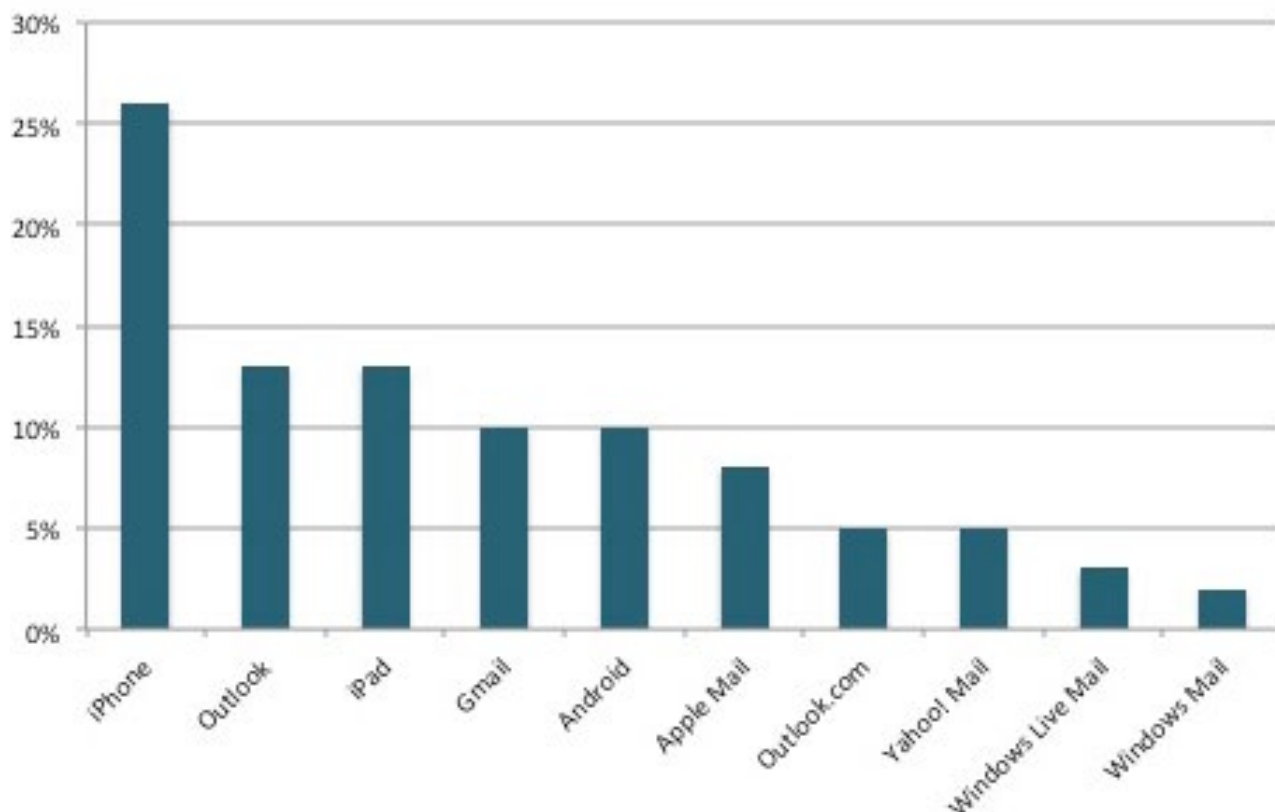
We looked at client usage based on email opens from the past year. An average of **47% of all emails were opened on mobile**, with two months peaking above 50%. Meanwhile, desktop email client usage including Outlook and Apple Mail has decreased by 15% over the past year, and Webmail clients such as Gmail and Outlook.com saw a slight decrease around the holidays before picking back up.

### Pro-Tip

### KNOW HOW PEOPLE OPEN YOUR EMAILS.

Where does your audience fall in the spectrum of client usage? Consider using [email analytics software such as Litmus](#) that measures your target segments' email opens by device and client, and even how long they read an email in different clients.

# TOP 10 EMAIL CLIENTS



In February 2014, Litmus analyzed over 323 million opened marketing emails to determine the top 10 email clients in use today. **iPhone leads the pack with 26% market share**, and the iOS platform has an overall share of 39% (iPhone and iPad). This is good news for marketers, since CSS and HTML are well supported in iOS, meaning your formatting will come through as desired.

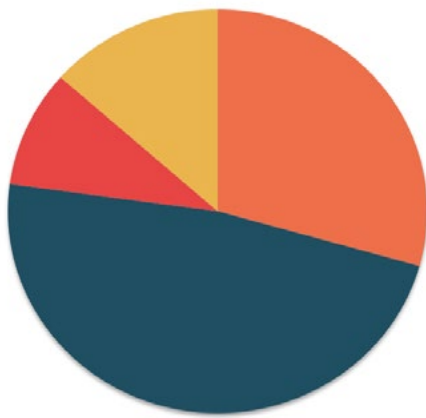
However, note that Outlook and Gmail are also in the top 4, taking 13% and 10% of market share respectively. Both clients have certain quirks. For example, Outlook 2007-2013 uses Microsoft Word as a rendering engine and Gmail strips CSS in the <head> of emails.

## Pro-Tip

### KNOW EMAIL BEST PRACTICES FOR DIFFERENT CLIENTS.

Each client has its own features and limitations. For example, did you know some webmail clients strip portions of HTML from emails, or that Gmail has a 102kb limit on email size? [Read more here.](#)

## DESKTOP MARKET SHARE



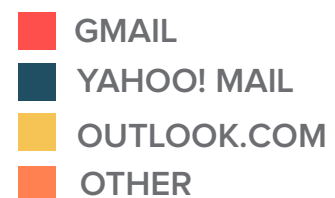
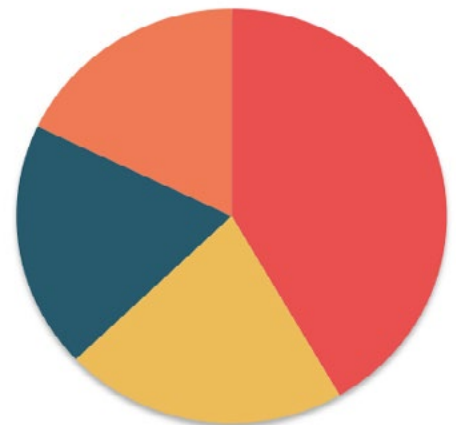
As of April 2014, desktop email clients accounted for 28% of email market share. Outlook had nearly half the total share of desktop clients, with Apple Mail and Windows Live Mail accounting for another third of desktop opens respectively.

Other clients with negligible share included Windows Mail, Thunderbird, Sparrow, and Lotus Notes – together, all other desktop clients amounted to only around 3% of total market share of email clients used, and the trends only point downward.

## WEBMAIL MARKET SHARE

Webmail email clients accounted for 27% of total market share as of April 2014. While Gmail's introduction of tabs lowered opens by 24% in Gmail, between May and November 2013, its elimination of automatic image blocking helped increase opens.

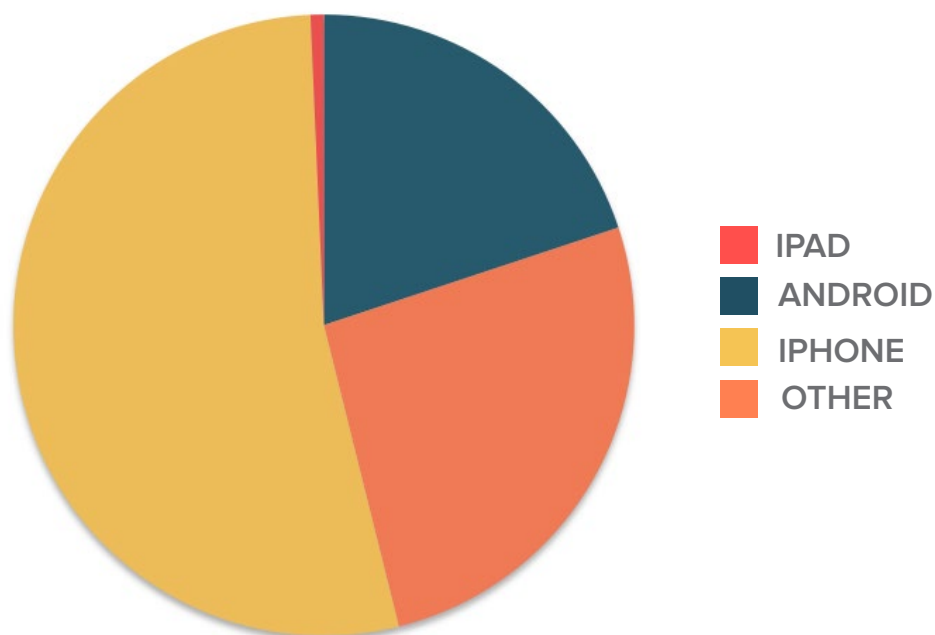
As of February 2014, Gmail accounts for 10.3% of total market share and almost half of all Webmail client share. A smaller percentage of users opened emails in Outlook.com and Yahoo! Mail. AOL Mail, Outlook Web Access, and Web Version.



*use responsive email templates*

Because different devices have different screen sizes, you want to make sure you're providing an intuitive, positive reading experience to your audience – otherwise, they're most likely going to simply X out of it. Many email tools include responsive templates and even [options to preview the email on different screen sizes and inboxes](#) prior to sending

# MOBILE MARKET SHARE



Over the past few years, mobile has become undeniably more popular, increasing more than 400% since 2011, and creeping up to almost the 50% market share line. We predict that 2014 will be the year more than half of all emails will be read on mobile as more people adopt smartphones and tablets and read their emails on-the-go. This means marketers need to [adapt to mobile](#) or risk losing a sizeable chunk of their audience – responsive email templates, mobile-friendly calls-to-action, concise copy, and optimizing images for faster load times will be crucial to email marketing success.

iPhones account for over half of mobile clients, and over a quarter of all emails opened across all clients, with Android and the iPad accounting for another 22% of total market share. Other mobile clients with negligible market share include BlackBerry, Windows Phone, and Kindle.

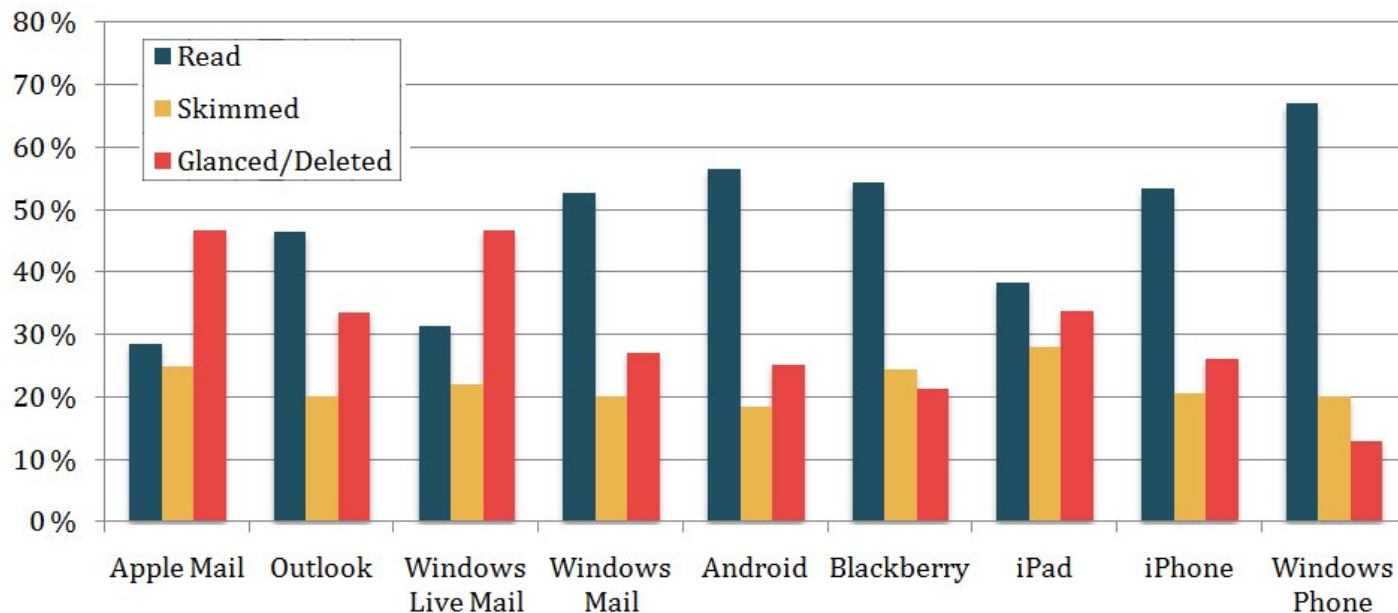
## Pro-Tip

Always optimize your emails for mobile. Not sure how to get started?

Read this blog post on [5 ways to make sure your emails look good on mobile devices.](#)

## ENGAGEMENT BY EMAIL CLIENT

I've highlighted the most popular email clients, as well as breakdowns of specific usage by desktop, webmail, and mobile. But how does [engagement](#) compare across these clients? We looked at 227 million email opens and measured whether emails were read, skimmed, or glanced at/deleted by different clients in desktop and mobile.\*



Outlook users, which make up the largest share of desktop email client users, read their emails 48% more than the next most popular desktop client, Apple Mail. Engagement times should be taken with a grain of salt, however.

To play devil's advocate: high engagement times with an email doesn't necessarily equate to a positive experience for the end user. It could be that the subscriber is taking more time with the email because it's hard to read (perhaps they're zooming and scrolling a lot on a mobile device) or searching for a call-to-action. Low engagement times can also mean that subscribers are clicking more (and going to a landing page) and reading less – not necessarily a bad thing.

On average, mobile users spend more time reading their emails compared to desktop users. Engagement may increase further in 2014 as more marketers move towards using responsive email templates designed for multiple screen sizes.

*\*Webmail (Gmail, Outlook.com, and Yahoo! Mail) use an asynchronous processing model that will continue to load an email even after you've closed it and moved on to another message in your inbox. As a result we are unable to detect when the user stops viewing the email like we can in other clients. We excluded the engagement of Gmail, Outlook.com, Yahoo! Mail, and AOL Mail users from our engagement reports, to avoid reducing the accuracy of the report.*



## Successful Components of Email

---

# SUCCESSFUL COMPONENTS OF EMAIL

---

The largest chunk of data I've analyzed for this report comes from the sent emails themselves. Using observational data from HubSpot customers' marketing emails and Signals users' one-to-one emails, I was able to identify specific criteria present in emails that were correlated with either higher or lower success rates.

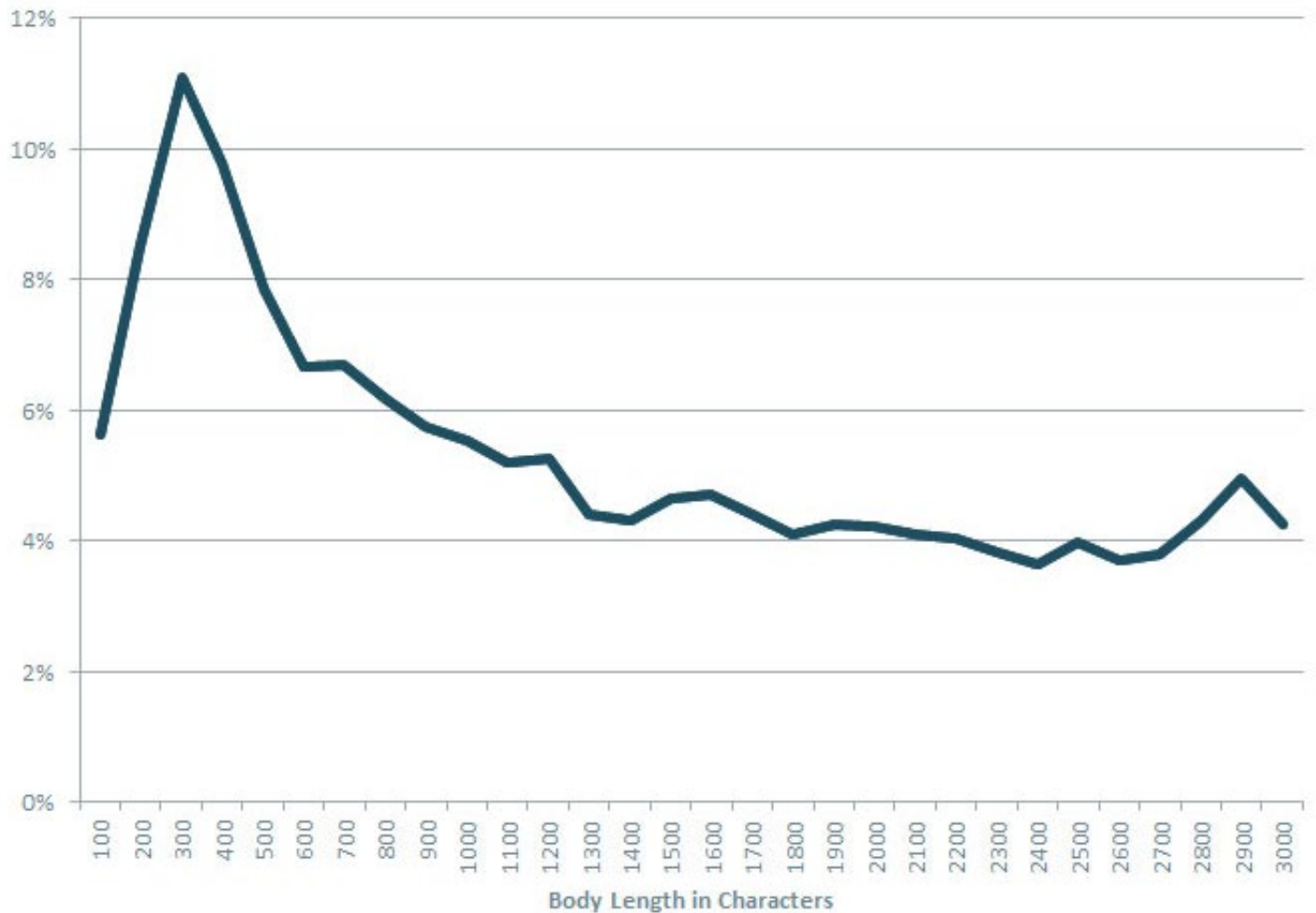
I measure these success rates through a few different [email marketing metrics](#): click-through, open, unsubscribe and deliverability rates. In most cases we find that clicks, opens and unsubscribes are closely correlated. That is, those email characteristics that are correlated with an increase in clicks are also correlated with an increase in opens and unsubscribes. Something that draws attention to an email in the form of an open typically also leads to more clicks or, if the email is unwanted, more unsubscribes.

Use this section to get ideas for your own email marketing. We've broken down the impact of copy on success rates of emails, such as which words yield better results when used in subject lines, which are applicable to your own marketing. Try testing your emails based off of these findings, which are an aggregate of over 500 million sent emails and represent overall trends in email marketing.

We also need to remember that these graphs represent correlations, not causations. However, to quote Edward Tufte: *"correlation is not causation, but it sure is a hint."*



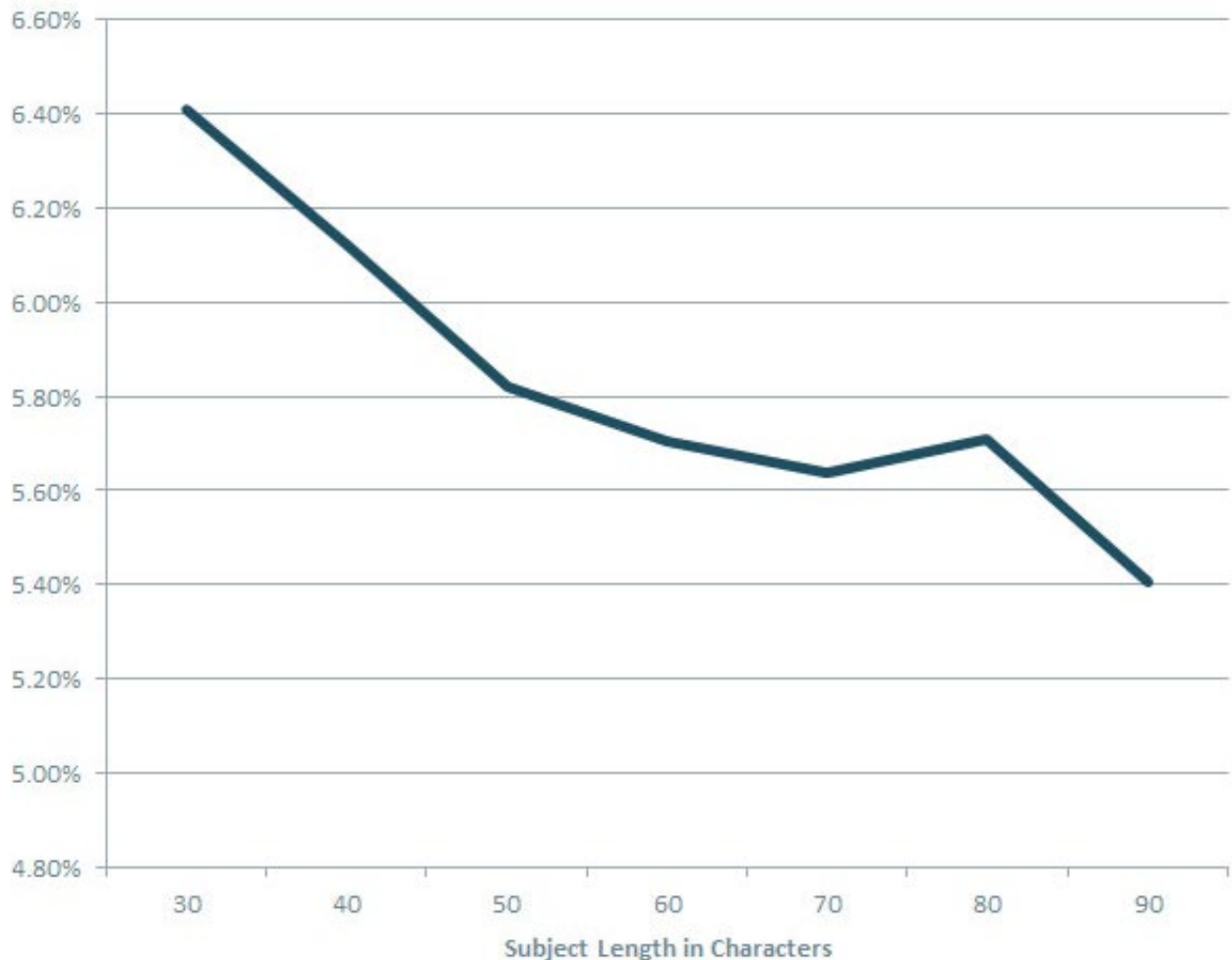
## EFFECT OF BODY LENGTH ON CTR IN ONE-TO-MANY EMAILS




I analyzed the content of emails sent through the one-to-many email marketing software inside of HubSpot and found a relationship between the length of the non-HTML text in the body of the email (looking at both emails that included some HTML and those that were entirely plain text) and the CTR of those emails. Emails with between 300 and 500 total non-HTML characters tended to have the highest CTRs in our dataset. This suggests that email marketers should focus on using very direct [calls-to-action](#) without an abundance of extraneous text.



## EFFECT OF SUBJECT LINE LENGTH ON CTR IN ONE-TO-MANY EMAILS

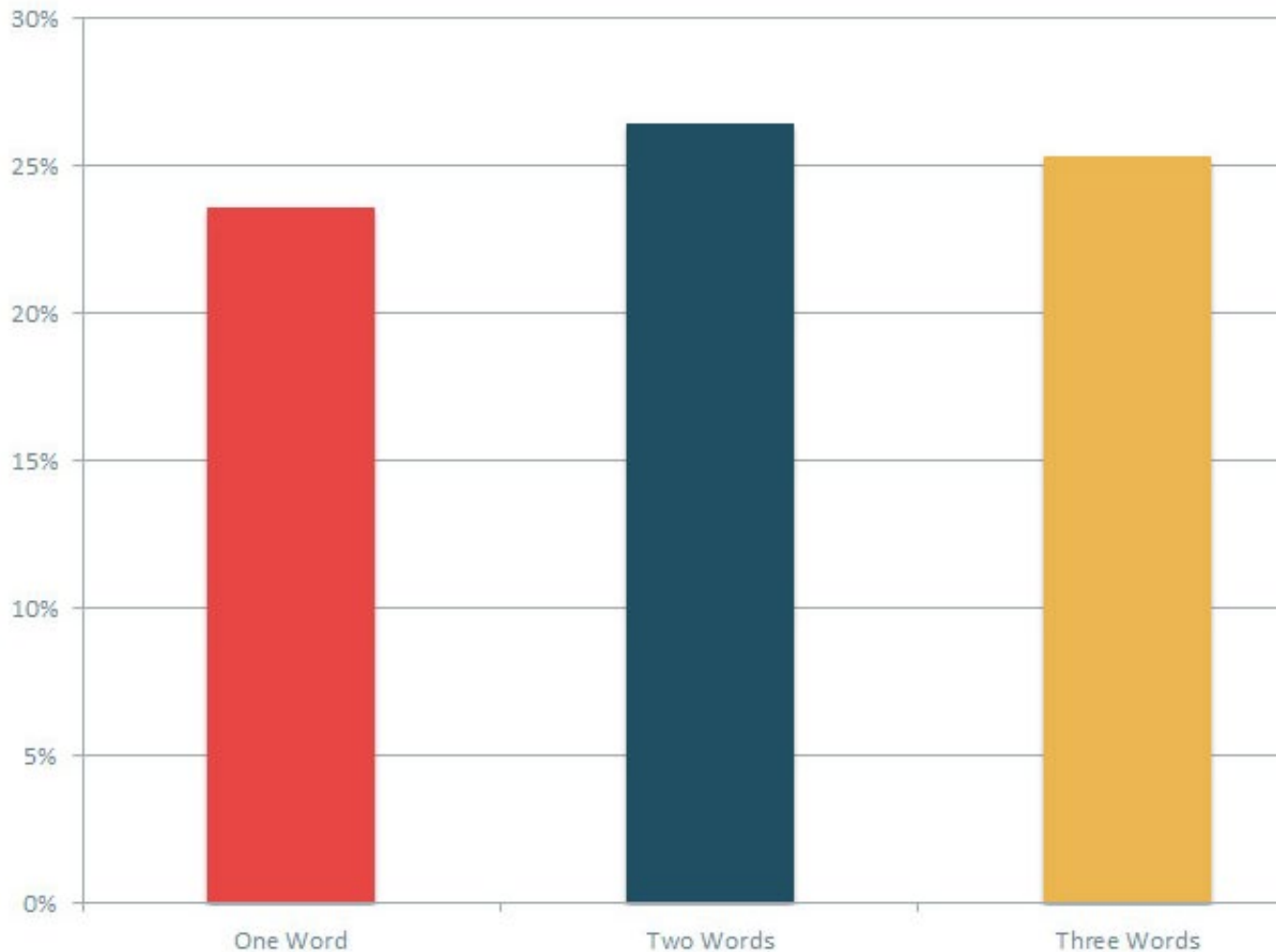


Comparing that to the effect of the length of the subject of the emails sent through HubSpot's email marketing service, we find a similar preference for shorter text. As the length in characters of subject lines increased, CTR of those emails in our dataset decreased. Create subject lines that are concise and persuasive.



**WHAT'S IN A 5-STAR SUBJECT LINE?** Personalization, persona-aware language, and action-oriented verbs are just a few of the ways subject lines can shine. [Read how to write 5-star subject lines.](#)

# EFFECT OF NUMBER OF WORDS IN FROM NAME ON OPEN RATES IN ONE-TO-MANY EMAILS

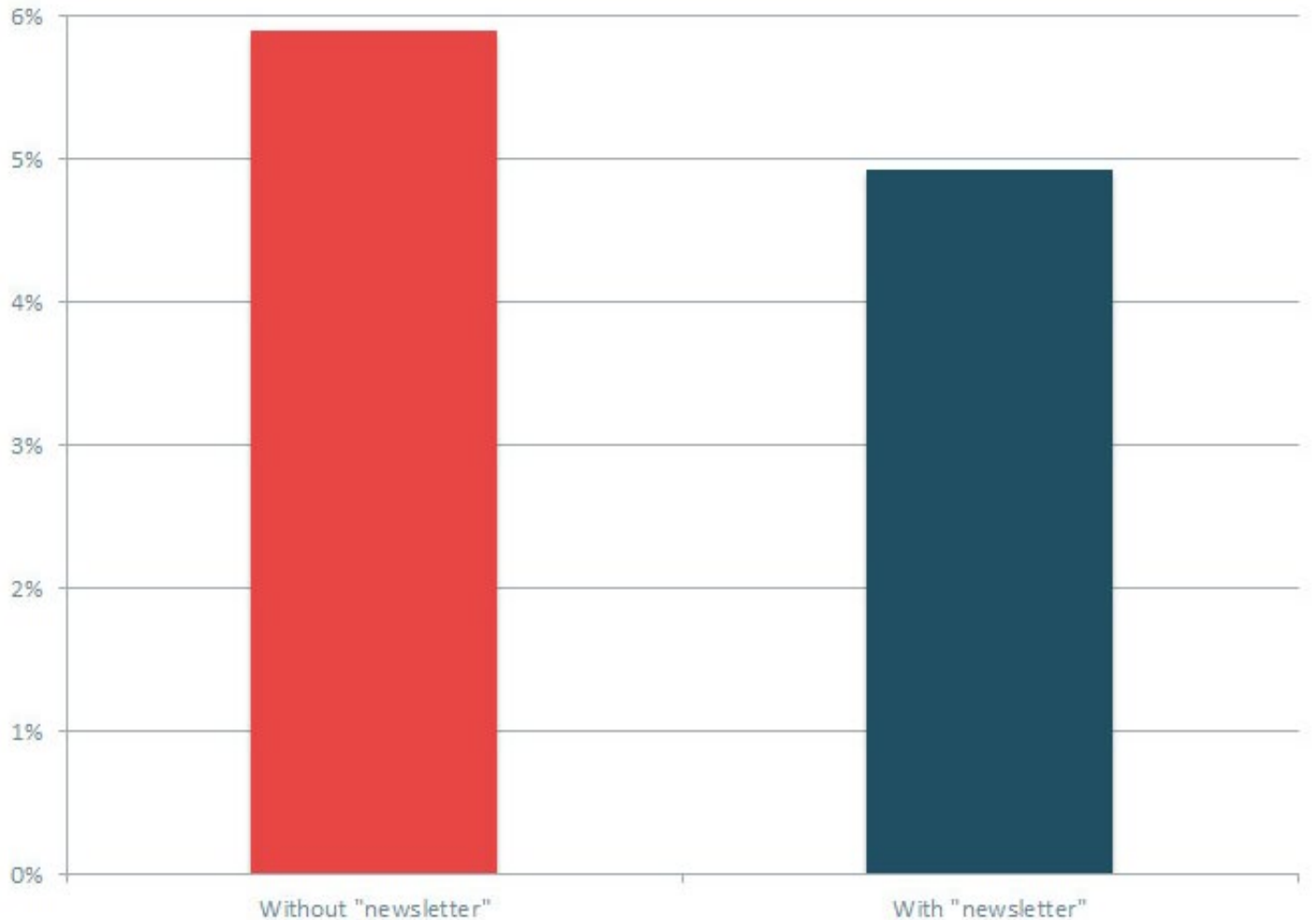


Appearing alongside the subject line of an email in an inbox is the “From Name”. That is the name associated with the email address that sent an email. As an email marketer, you have control over this, so it makes sense to understand how it can affect your open rates.

I looked at the number of words in “From Names” and found that two-word versions tended to have the highest open rates. The difference in open rates from one to two word names represents an approximately 7% increase. This may indicate that there is a preference for real-person, first and last name type “From Names” as opposed to single word brand names or three word first name, last name and company name styles.

The differences here aren’t huge, which should tell you that you have some room to experiment with different “From Name” formats.

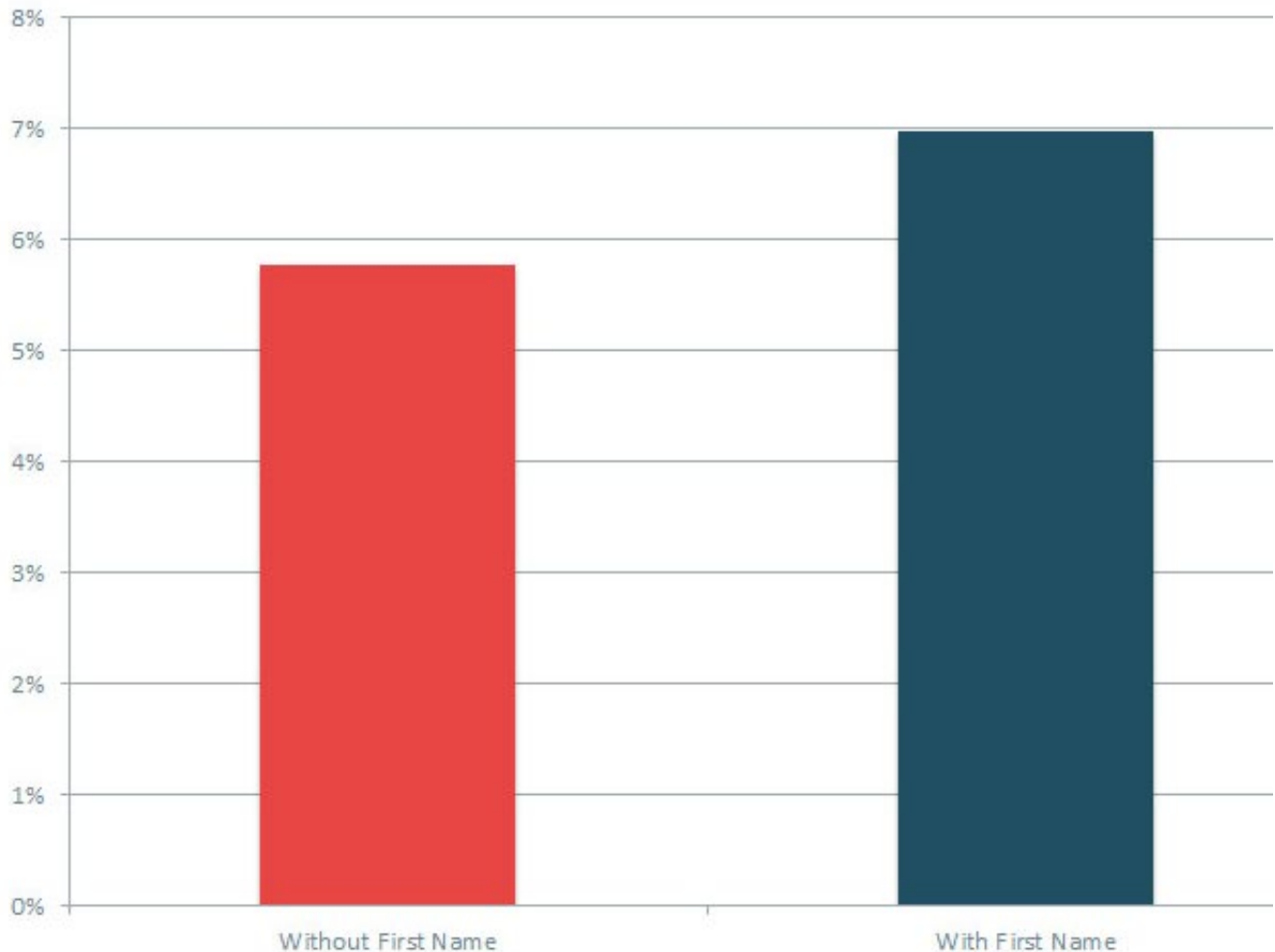
## EFFECT OF “NEWSLETTER” ON CTR IN ONE-TO-ONE EMAIL SUBJECT LINES



Digging into the content of the subject lines in our dataset, I started with the word “newsletter.” I found that emails that included that word in their subject lines tended to have lower CTRs than emails that did not include that word. The difference is approximately 30%.

The word “newsletter” indicates that this email was sent because it was the newsletter day, not because there was some new important or valuable information that needed to be shared. It shows that the email marketer is sending email on their own schedule, rather than their recipients' schedule.

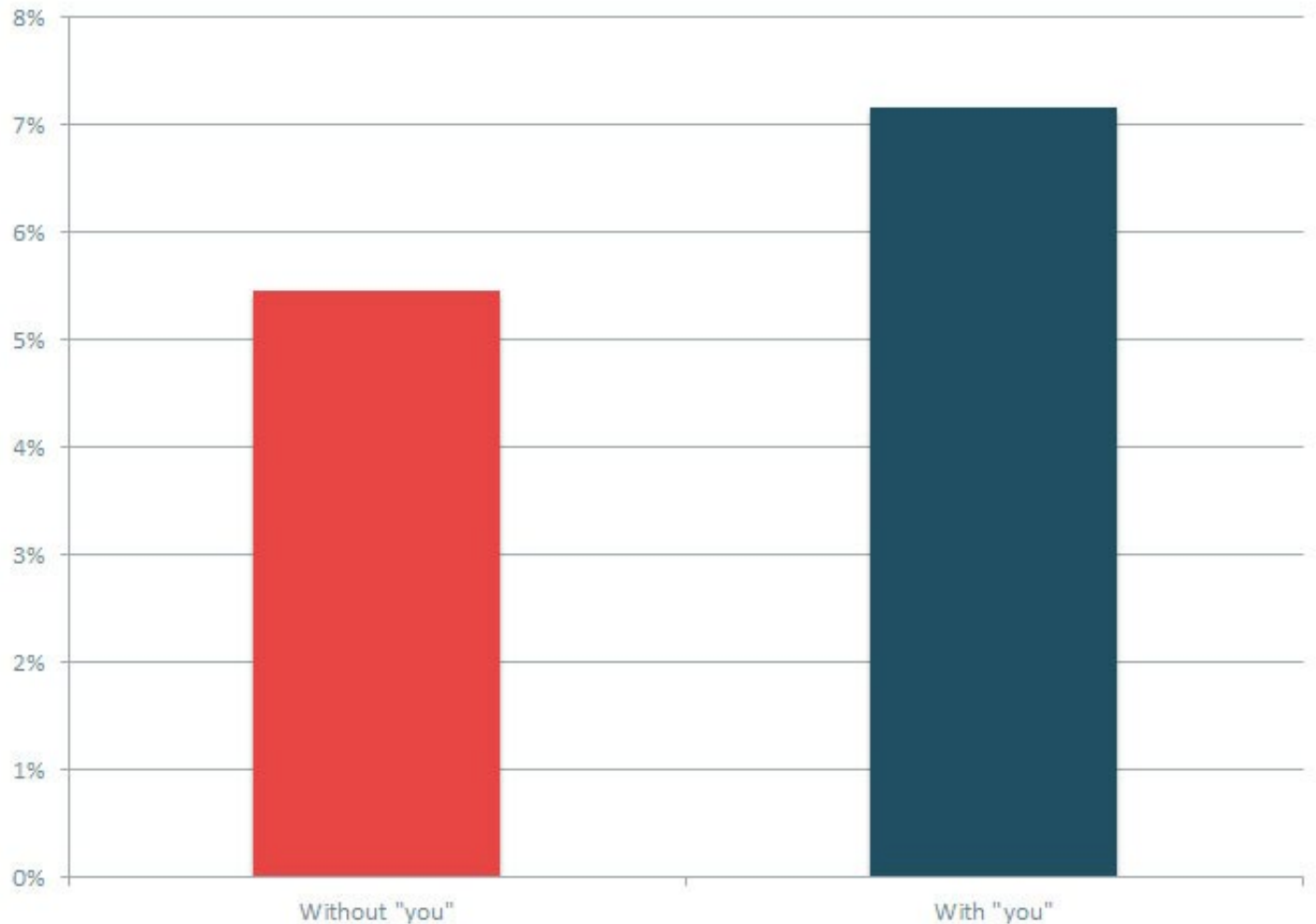
## EFFECT OF FIRST NAME PERSONLIZATION ON CTR IN ONE-TO-MANY EMAILS



I also looked at the effect of [personalization](#) in one-to-many email subject lines. Unsurprisingly, I found that emails that included the first name of the recipient in their subject line had higher CTRs than emails that did not. When you start using components like first name personalization, it starts to become clear that you are trying to send email to solve your reader's problems, rather than just your own.

Personalization is all about making your content even more relevant to individuals even in the context of a large email send, and first name personalization is only a first step—be sure to experiment beyond that.

## EFFECT OF “YOU” ON CTR IN ONE-TO-ONE EMAIL SUBJECT LINES

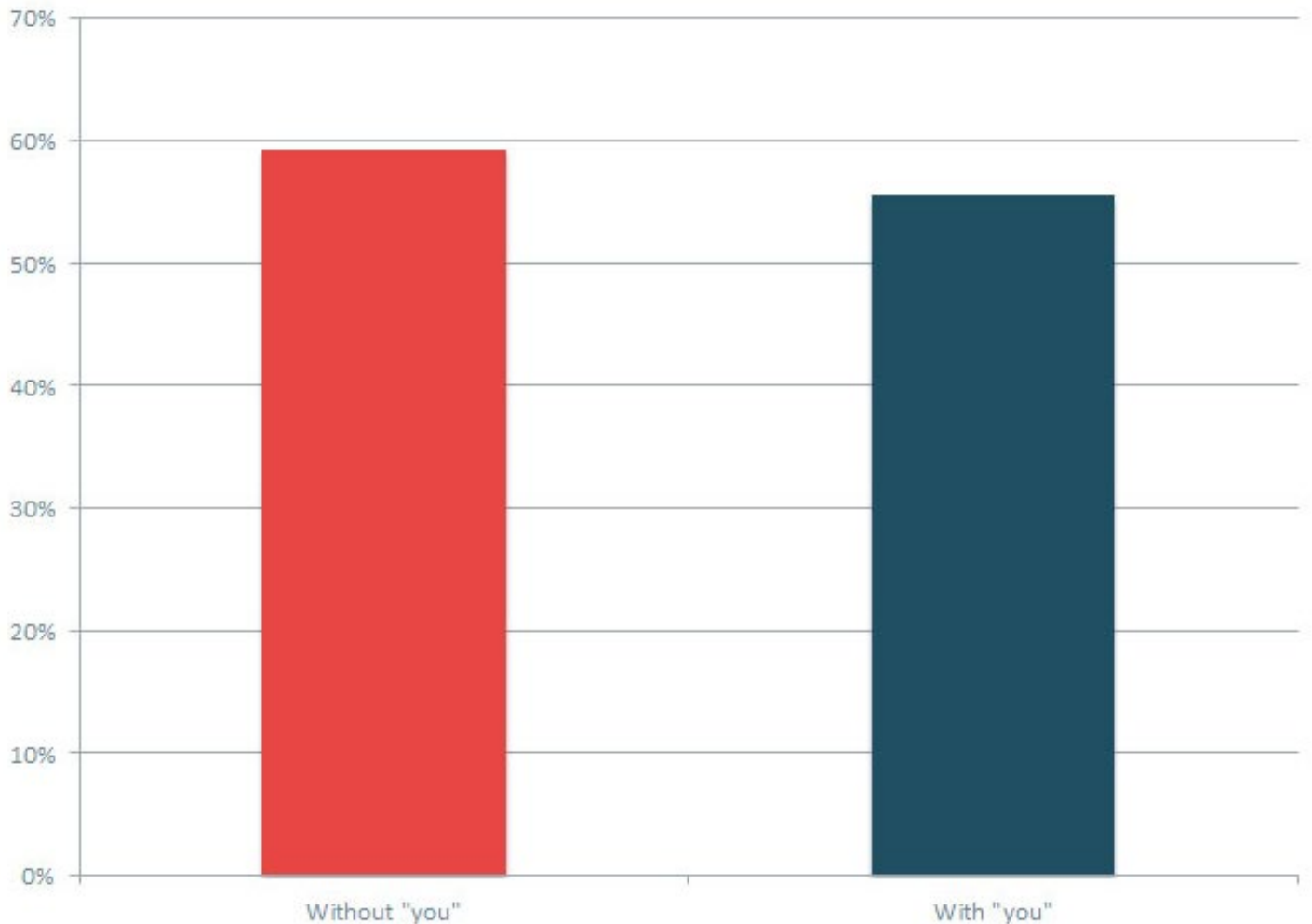


Continuing that trend, we find that emails with the word “you” in their subject lines have higher CTRs than emails without the word “you.” It is best to speak to your audience about them, rather than just talking about yourself, your brand or your products. Tell your subscribers what this email will do for them.

**Pro-Tip**

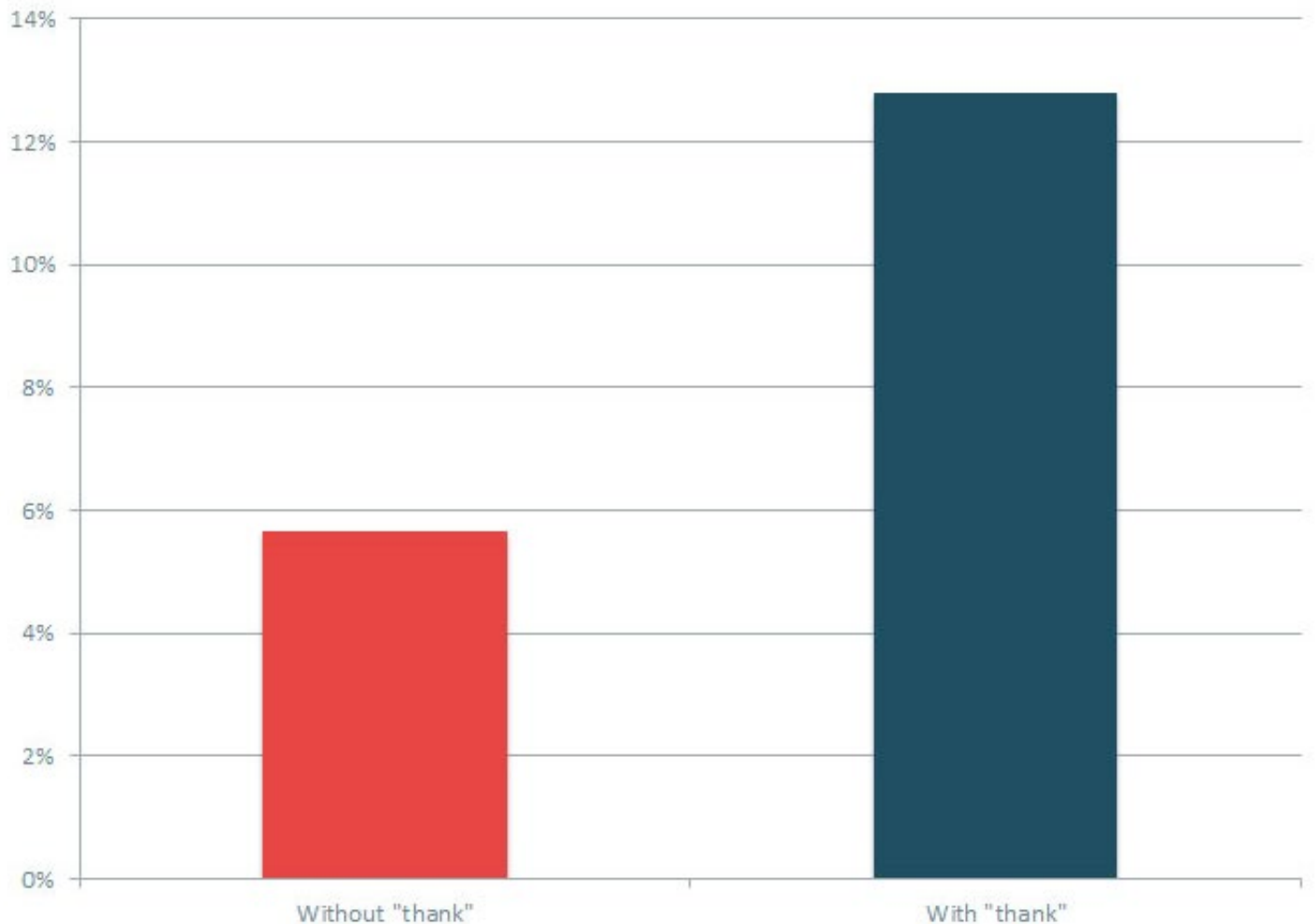
**8 little tricks to make your  
emails more clickable:  
[\(read now\).](#)**

## EFFECT OF “YOU” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



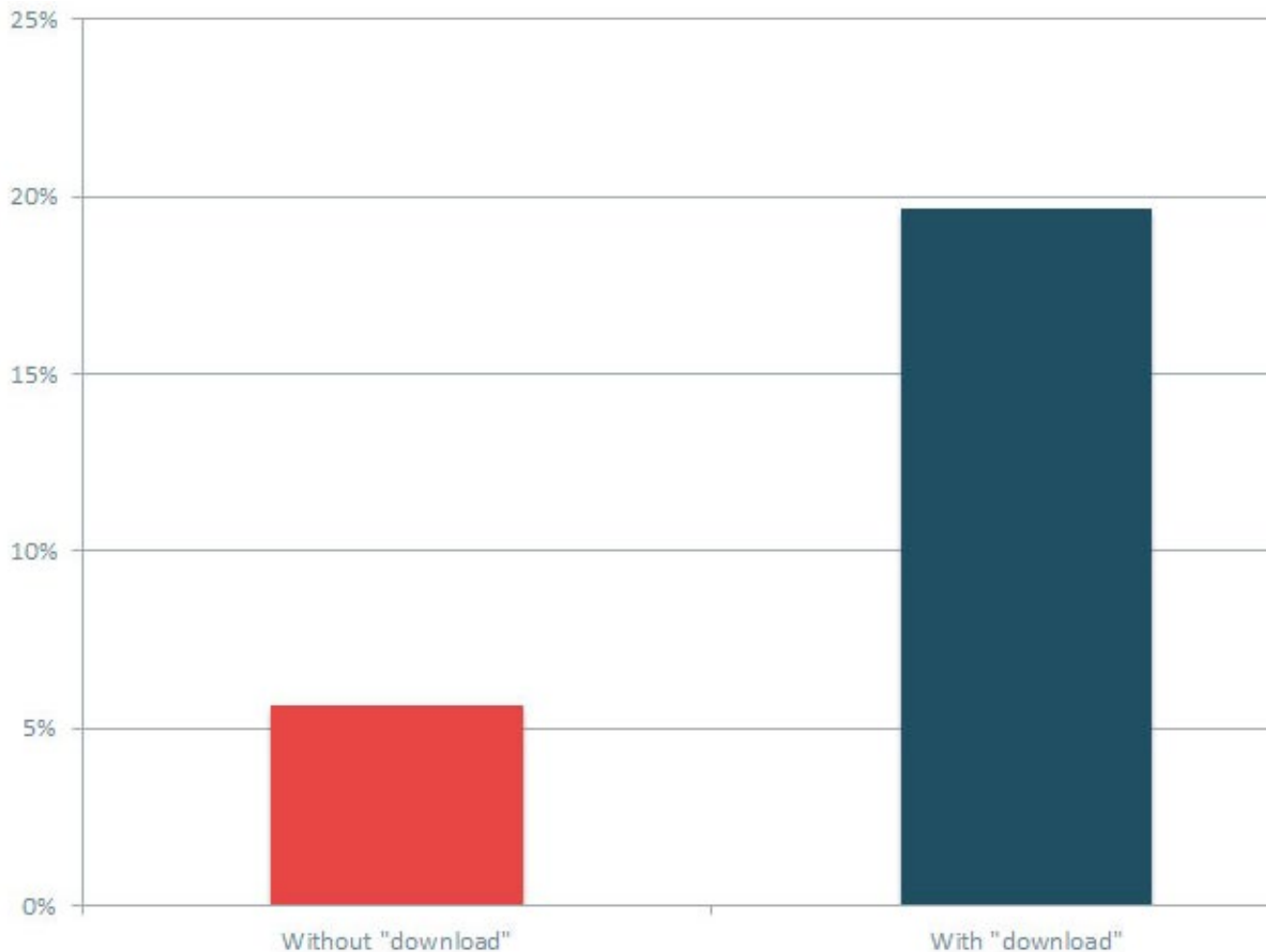
Comparing that one-to-many data with the one-to-one data from the Signals product dataset, we find that one-to-one emails with the word “you” in their subject lines don’t have the same kind of advantage over emails that don’t. This is likely due to the fact that in an individually sent email, the sender is speaking to and about the recipient is a given.

## EFFECT OF “THANK” ON CTR IN ONE-TO-ONE EMAIL SUBJECT LINES



Emails with the word “thank” in their subject lines had much higher CTRs than emails without it. An email that says “thank you” is likely a transactional email—it was sent as part of an interactive experience with a subscriber. Likely someone came to your site and filled out a form, requested some content or otherwise interacted with you, and the “thank you” email is a follow up to that experience.

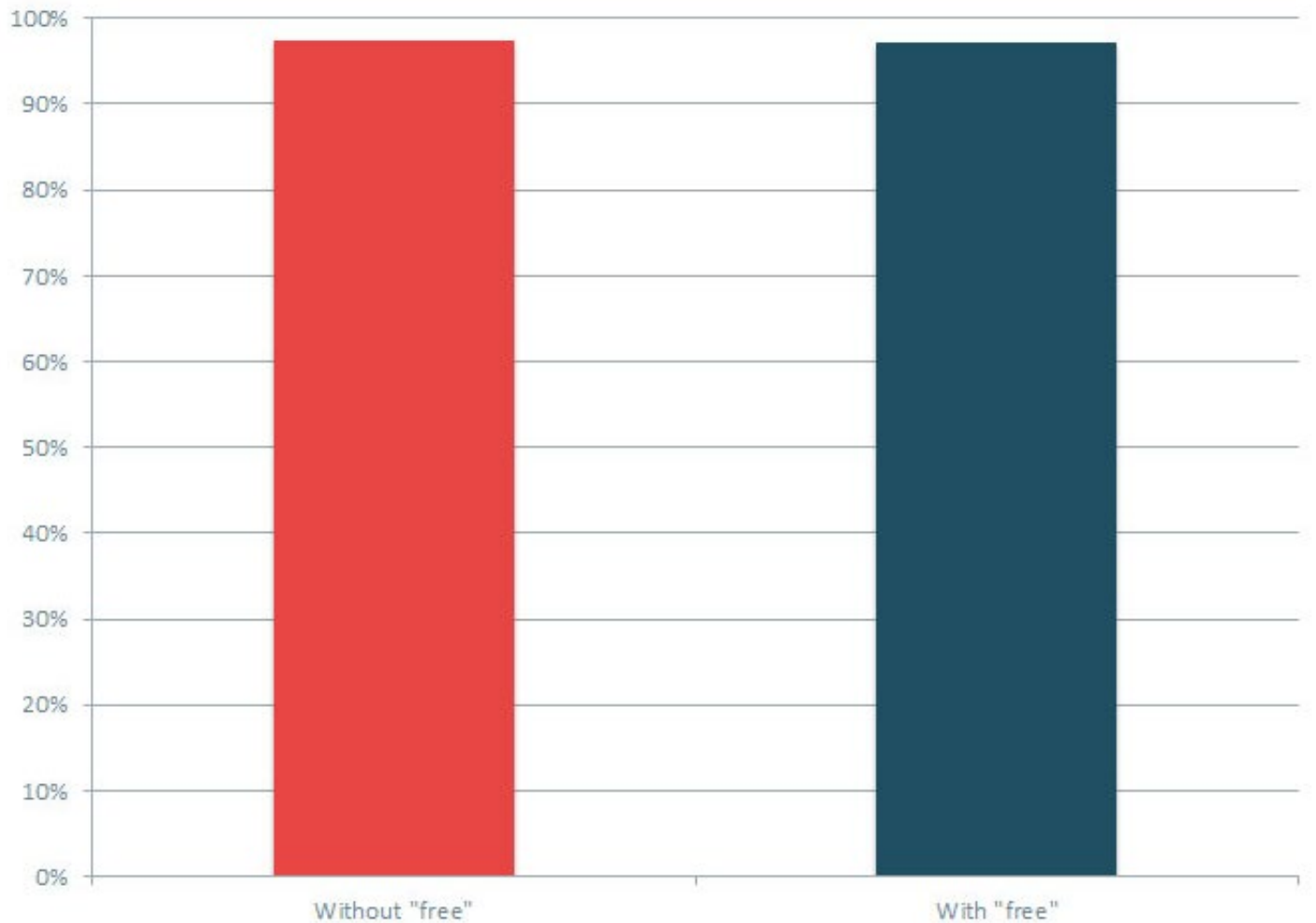
## EFFECT OF “DOWNLOAD” ON CTR IN ONE-TO-ONE EMAIL SUBJECT LINES



The presence of the word “download” in subject lines also had a very positive impact on CTRs. Using this word makes it very clear that the email you're sending has some direct value to the person receiving it, and many emails with the word “download” are part of a transactional interaction.



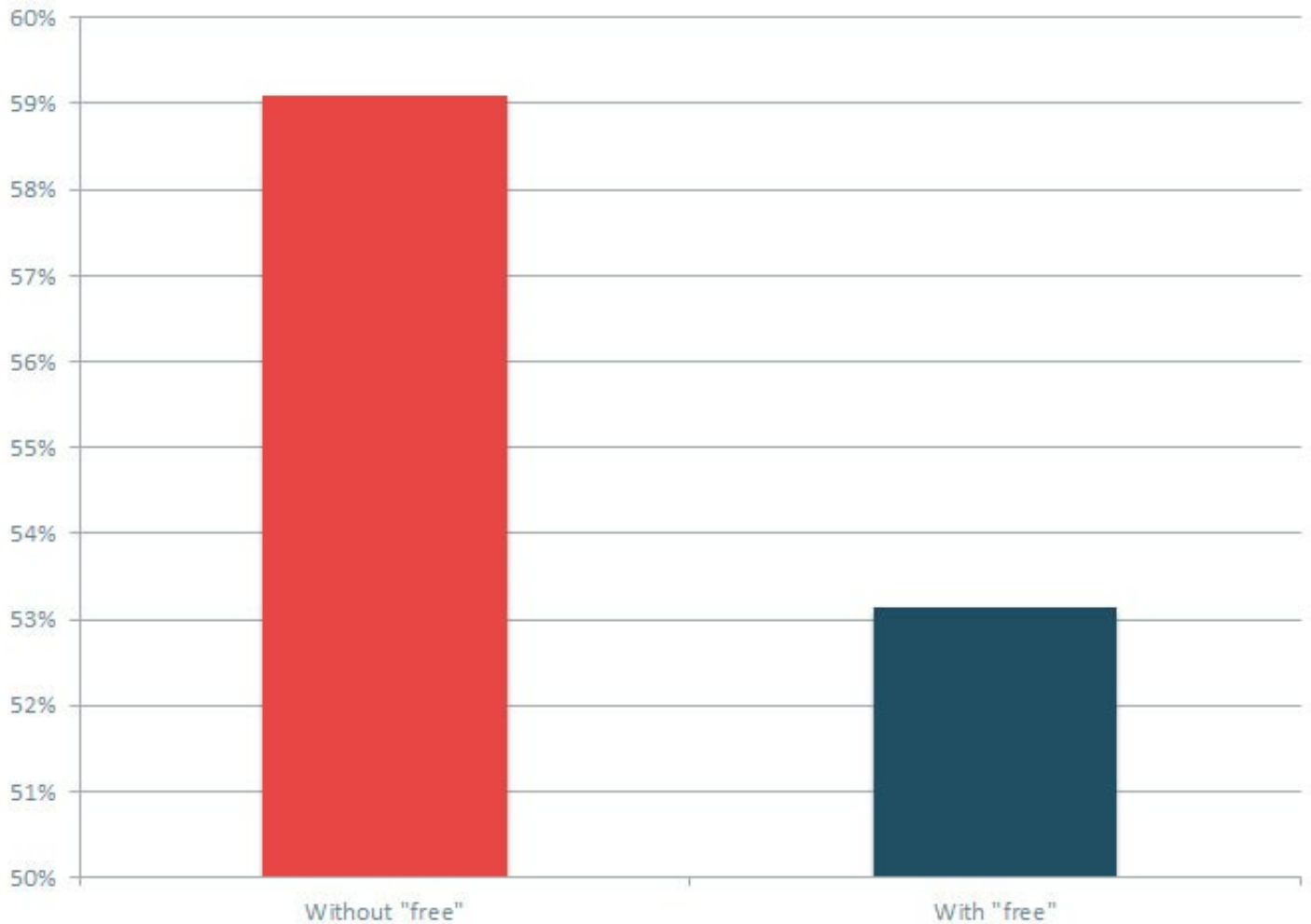
## EFFECT OF “FREE” ON DELIVERABILITY IN ONE-TO-ONE EMAIL SUBJECT LINES



One of the most pervasive myths and superstitions about email marketing is a fabled list of “spam trigger” words. Supposedly, words like “free” can get your email trapped in automatic spam filters.

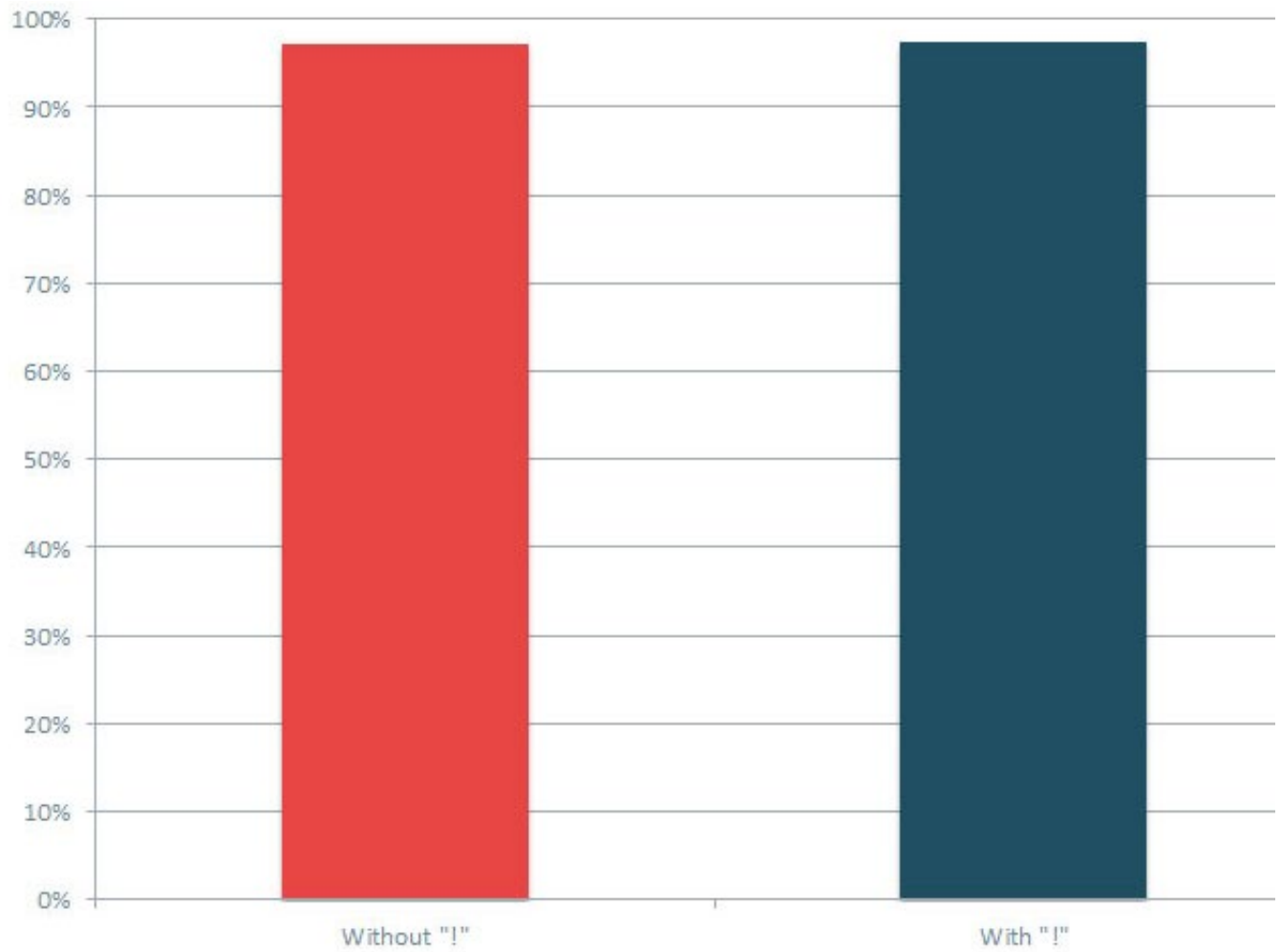
Using the one-to-many email dataset, I was able to analyze deliverability rates and various examples of these “bad words.” Perhaps the most feared one is “free.” I found that emails with the word free in their subject lines had nearly identical deliverability rates as emails that did not.

## EFFECT OF “FREE” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



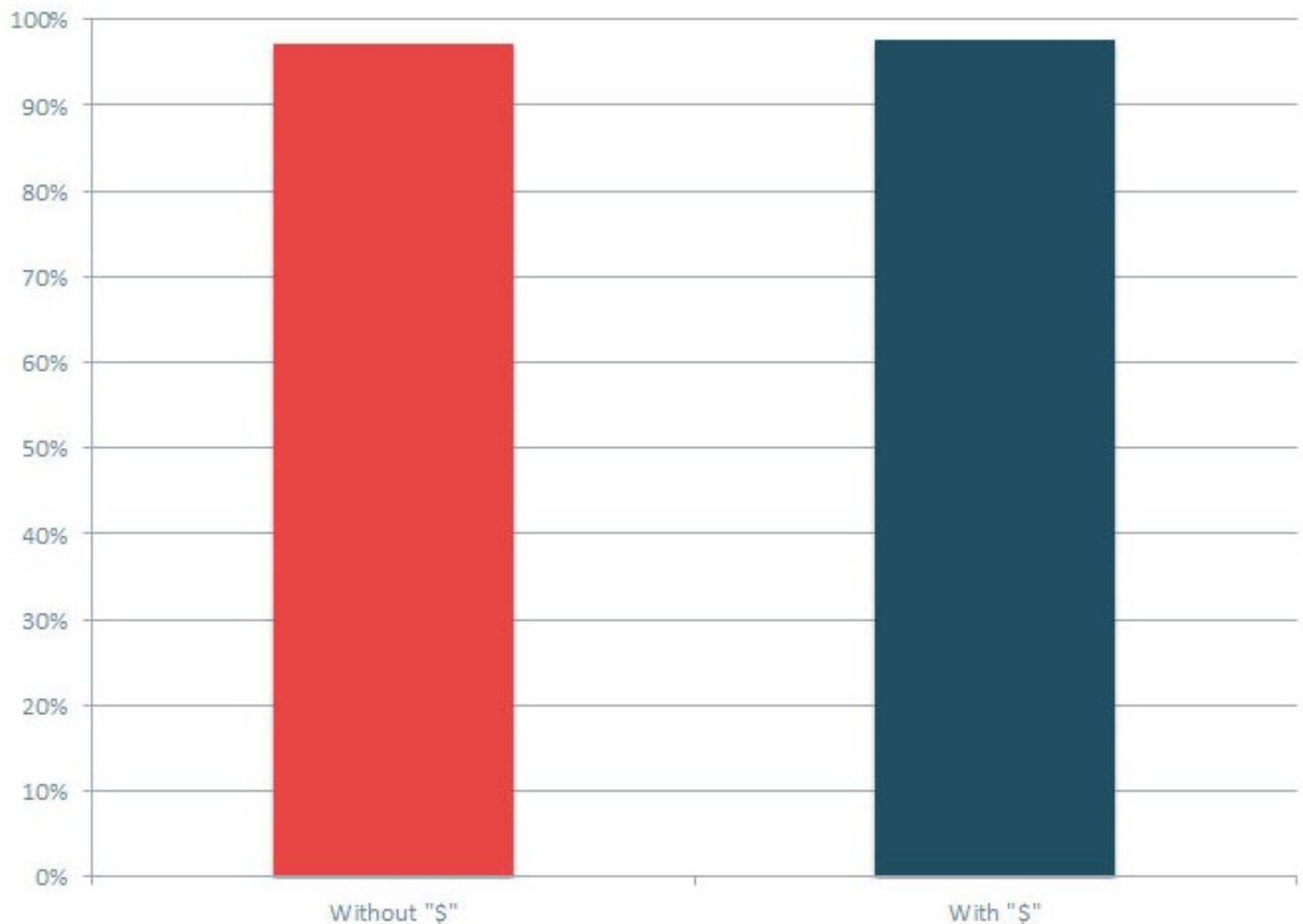
Furthermore, when I looked at the one-to-one Signals dataset, I found that emails that included the word “free” in their subject lines had much higher open rates than emails with subject lines that did not include the word “free.”

## EFFECT OF “!” ON DELIVERABILITY IN ONE-TO-ONE EMAIL SUBJECT LINES



Another feared spam filter trigger is the exclamation point. Again, I found that emails with exclamation points in their subject lines don't have drastically lower deliverability rates than emails without them.

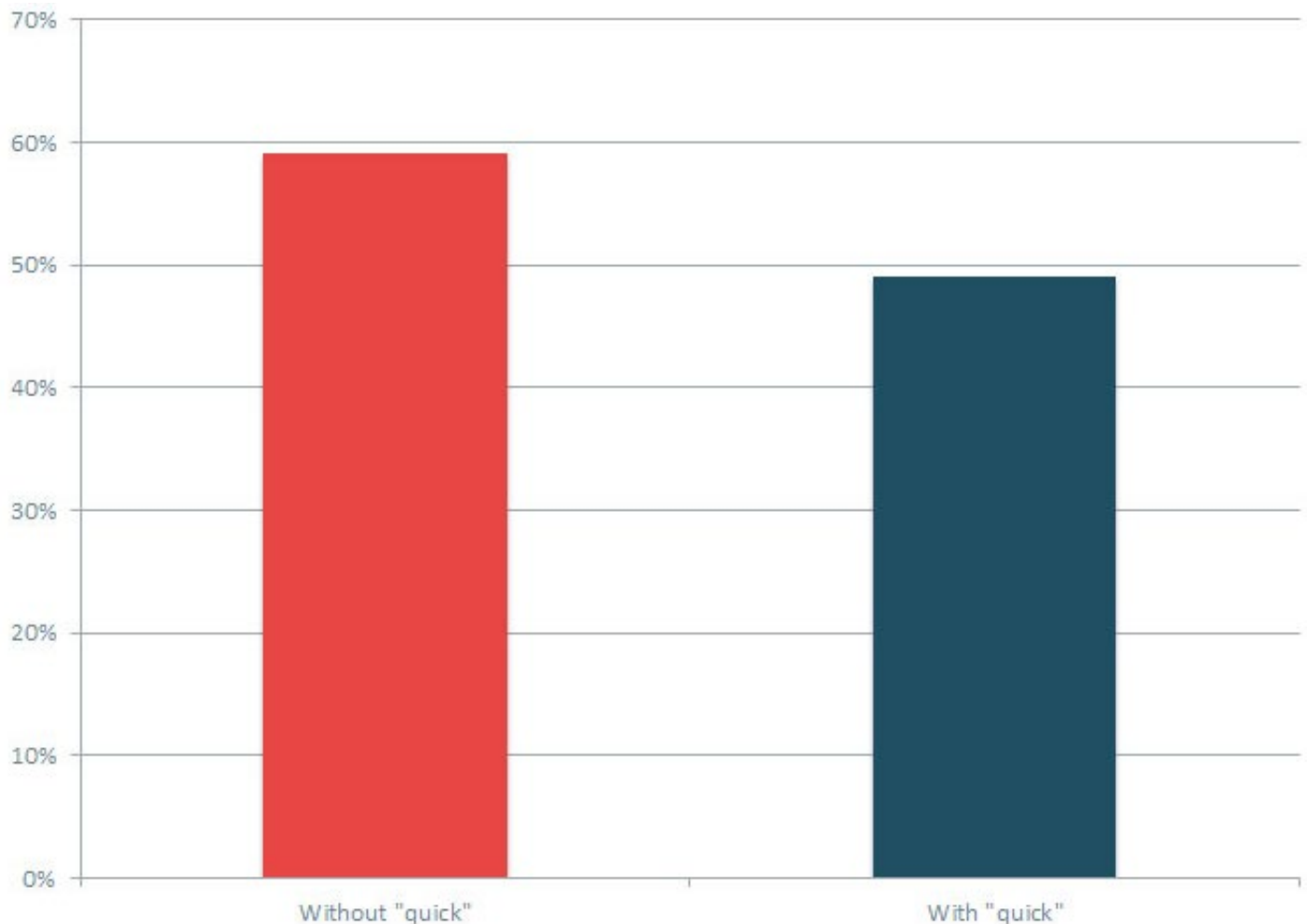
## EFFECT OF “\$” ON DELIVERABILITY IN ONE-TO-ONE EMAIL SUBJECT LINES



I checked one more dastardly spam trigger—the dollar sign. Emails with dollar signs didn’t have the much-anticipated drop off in deliverability rates compared to emails without dollar signs in their subject lines.

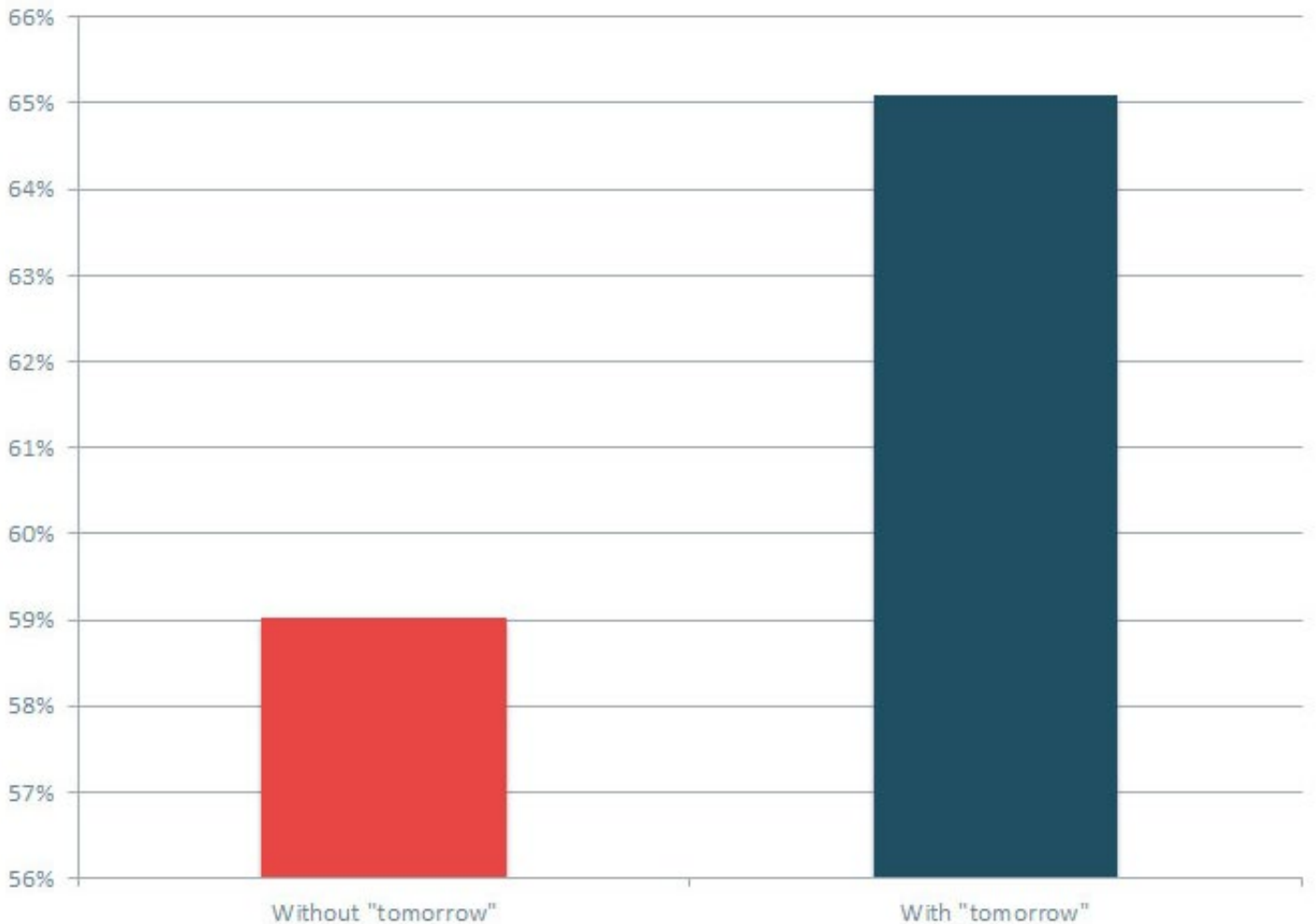
Email clients are much more sophisticated now than they were a decade ago. As we saw from the survey results, the biggest concern for legitimate email marketers is not [automated spam detectors](#), but rather intelligent filters like Priority Inbox and user-created filters and spam inbox email addresses. Concern your email marketing efforts with appealing more to users and stop worrying so much about robots not liking your subject lines.

## EFFECT OF “QUICK” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



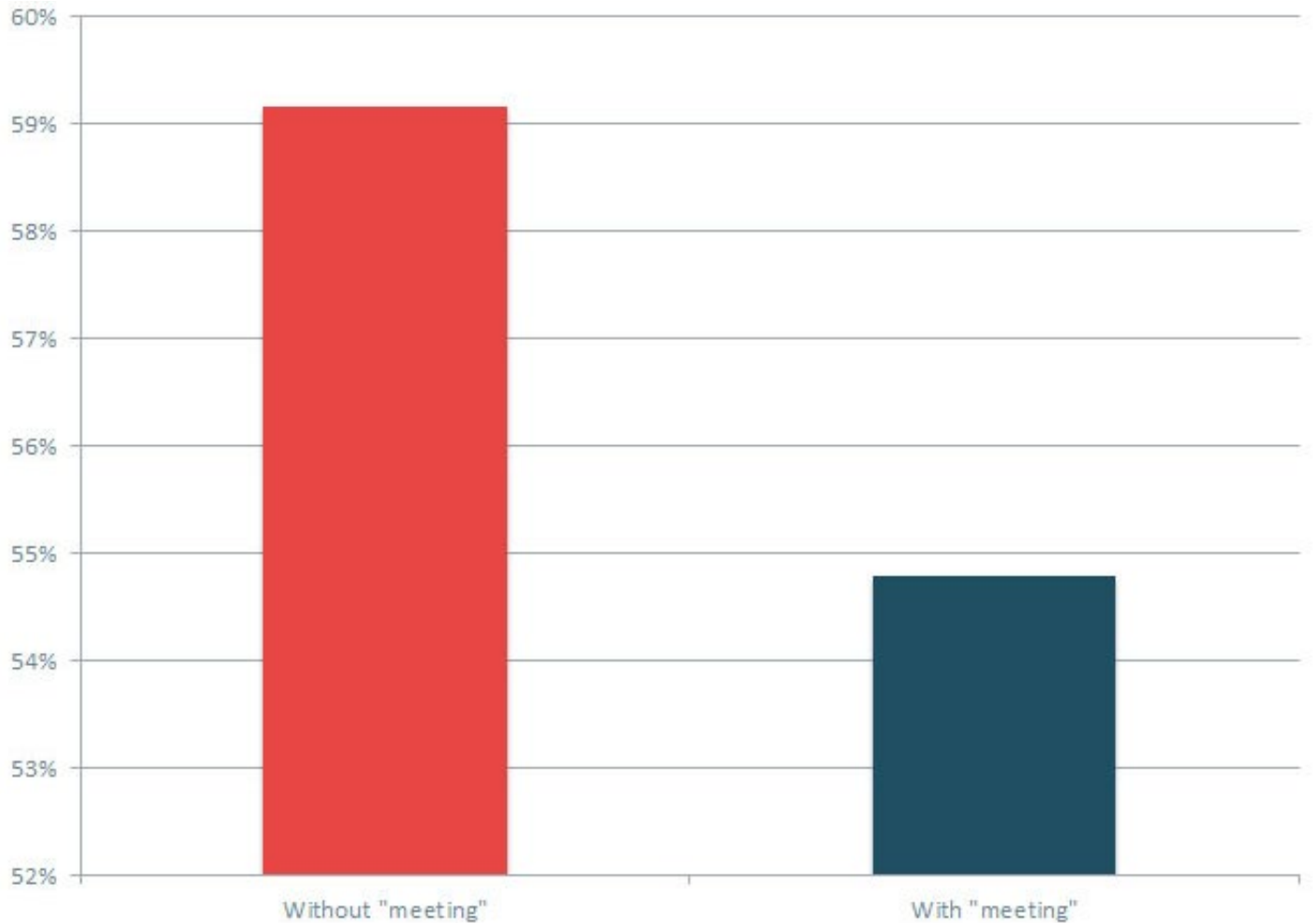
An interesting line of analysis in the one-to-one email dataset was the presence of words that indicated some form of urgency, as that is a common (and valued) sales tactic. Emails with the word “quick” in their subject lines had lower open rates than emails that did not.

## EFFECT OF “TOMORROW” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



In comparison, emails that included the word “tomorrow” in their subject lines did have higher open rates than emails that did not. Tomorrow is a specific and concrete type of urgency. It does not seem like “urgency for urgency’s sake.” “Quick” is rather generic and may be used to indicate false urgency, whereas “tomorrow” represents a more real kind of [time sensitivity](#).

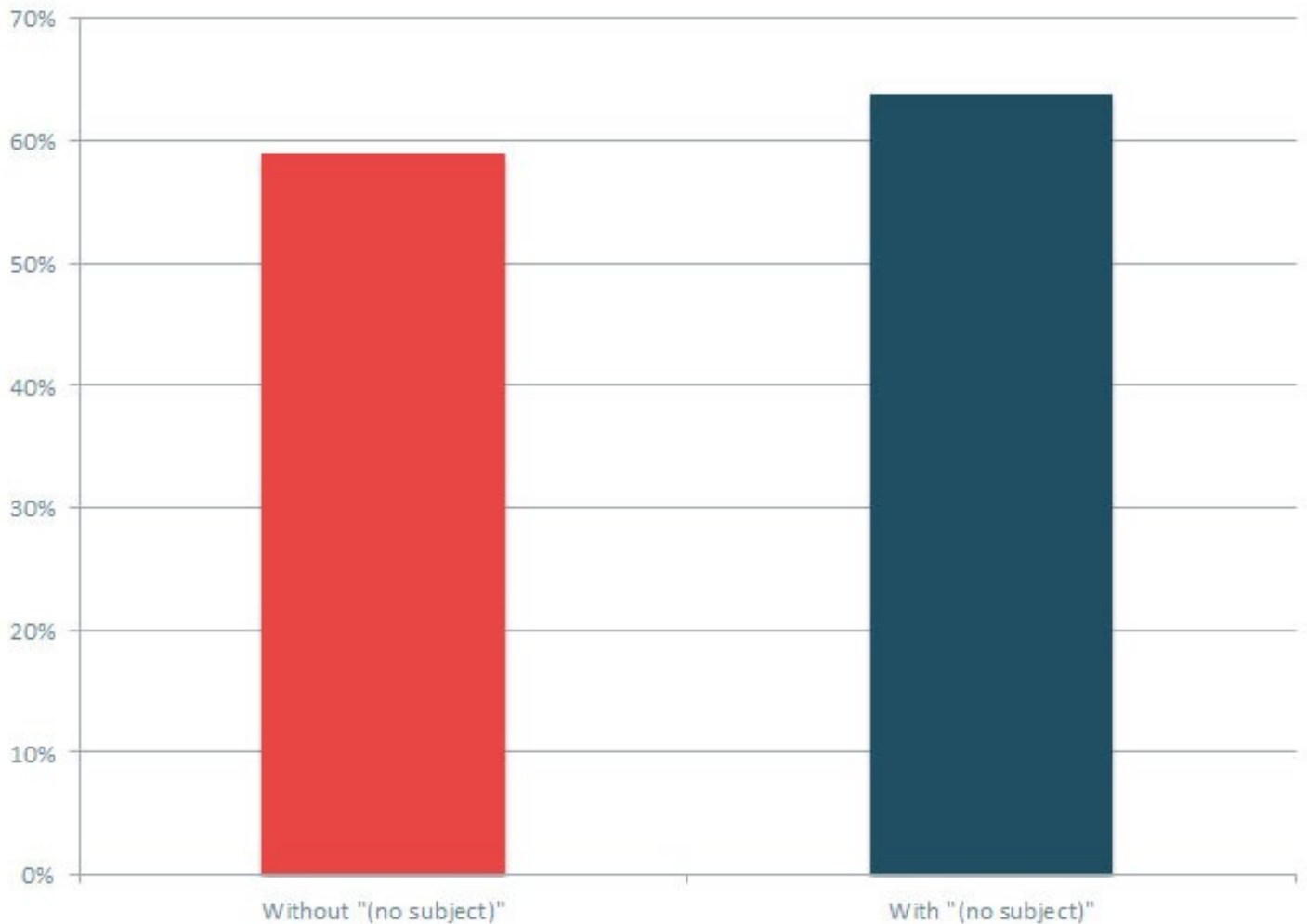
## EFFECT OF “MEETING” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



Everyone who works in an office loves meetings, right? Well no, of course not. They're often looked at as a necessary evil and we can all remember a day full of too many useless meetings. So it comes as no surprise that one-to-one emails with the word “meeting” in the subject line had lower open rates than those without it.

The word “meeting” is also often used as a euphemism for a sales call—as in let's have a meeting about how much I can get you to pay for my product.

## EFFECT OF “(NO SUBJECT)” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES

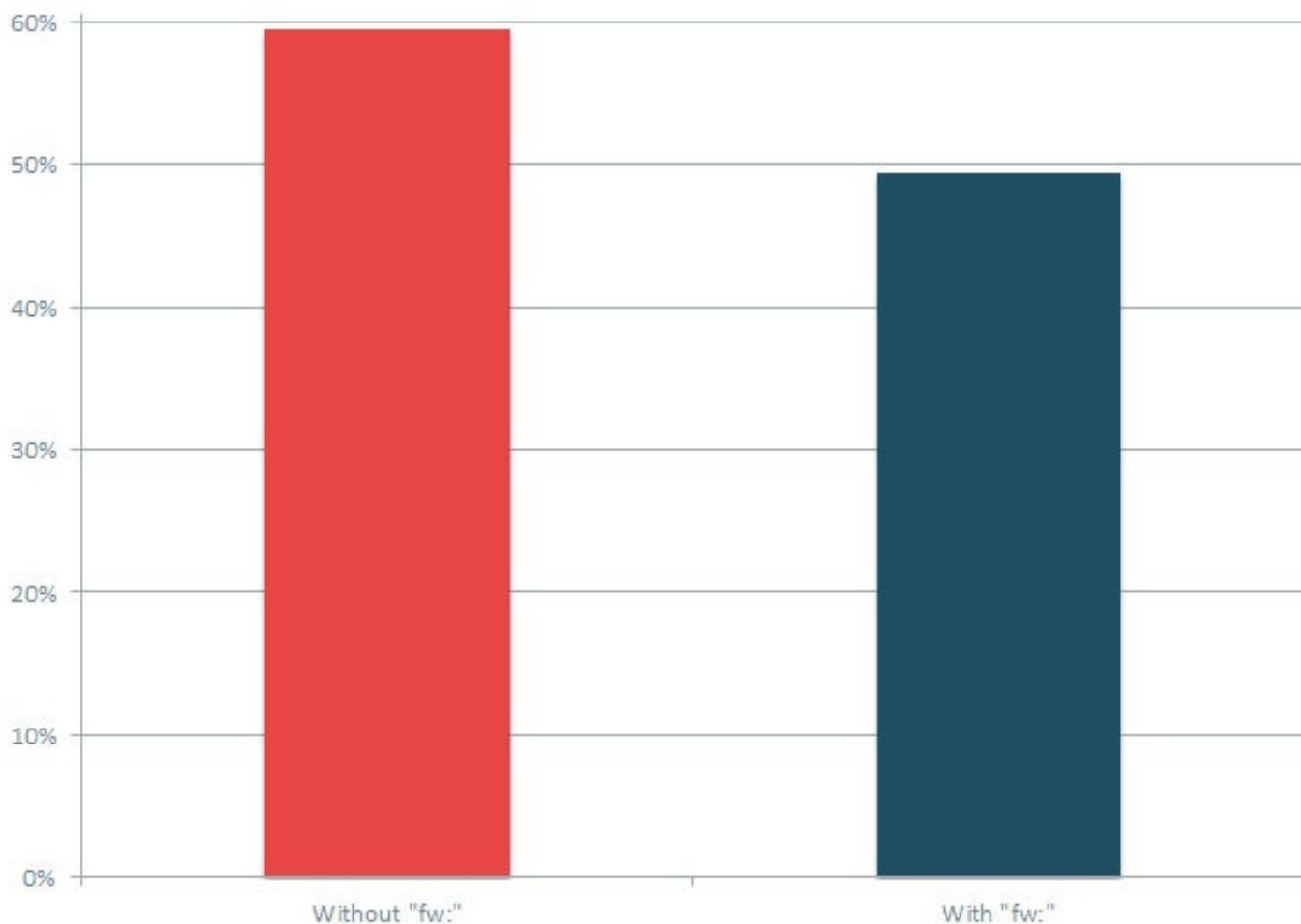


We've all done it; accidentally sent an email without a subject line. But I was able to actually analyze the performance of those “(no subject)” emails and what I found was somewhat surprising.

Not only is there no major decline in open rate for emails without subject lines, but there was actually a small (perhaps insignificant) increase in open rates of “(no subject)” emails. This may be due to the fact that this kind of email is both rare and indicates that the sender is an actual human, not an automated email marketing system.

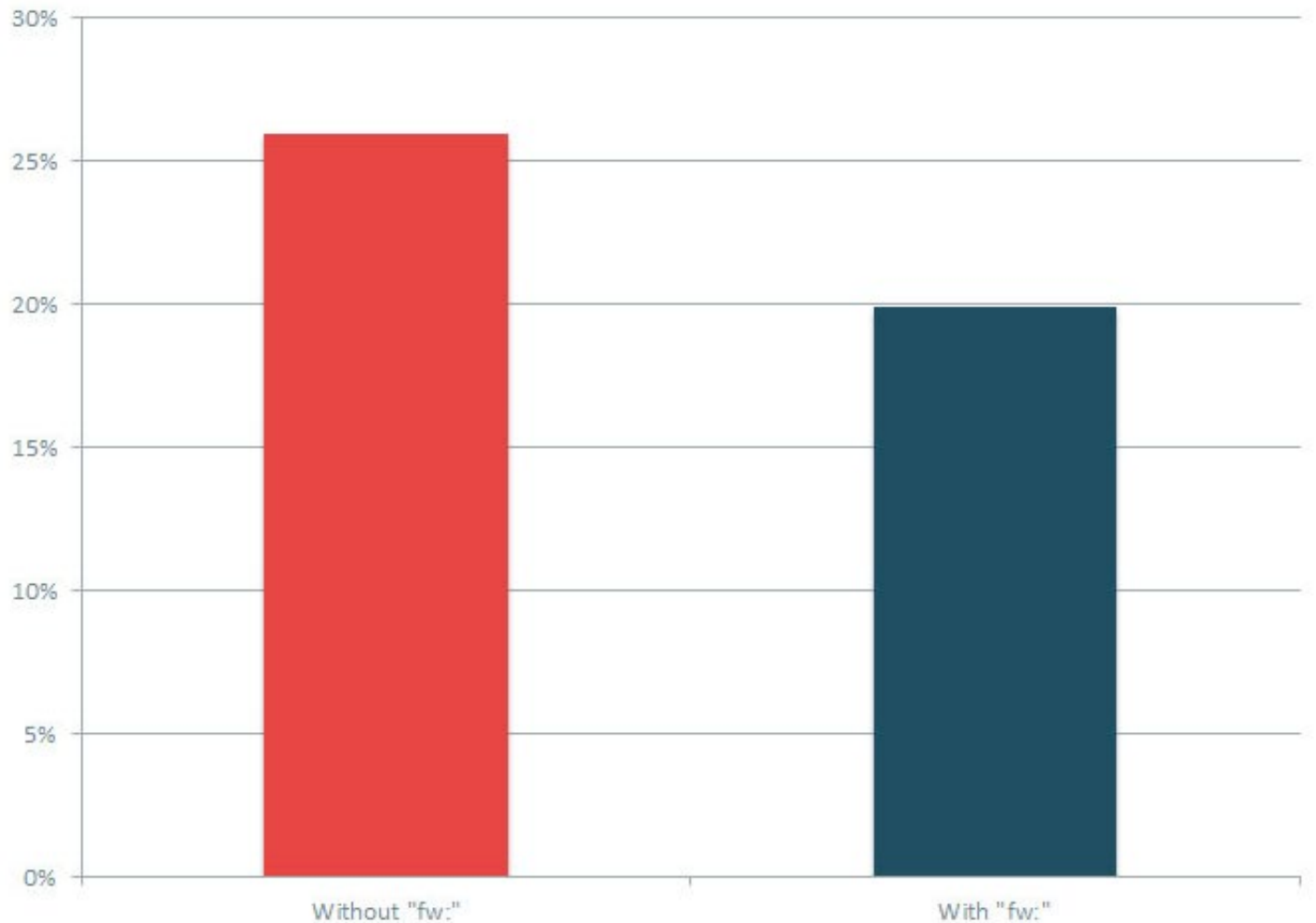


## EFFECT OF “FW:” ON OPEN RATES IN ONE-TO-ONE EMAIL SUBJECT LINES



We all know the pain of getting email chain letters forwarded from unsophisticated colleagues or family members. And again, we have real data to analyze this finally. Unsurprisingly, one-to-one emails with “fw:” in the subject had lower open rates than emails without it. It is interesting to note that we saw a similar result for one-to-many emails.

## EFFECT OF “FW:” ON OPEN RATES IN ONE-TO-MANY EMAIL SUBJECT LINES



And the effect is the same when we look at the open rates of one-to-many emails. If you want to be sure your email is opened and read, avoid using “fw:” whenever you can. And don't think you're being clever by adding it to your email marketing message subject lines to look more [human](#).

# TAKEAWAYS

---

Email Marketing is evolving, but some things stay the same. I hope that this report highlighted both these components – for example, the changing trends in email consumption, as well as the fact that self-reported data isn't always the same as observational data. I'm sure you like data as much as I do – but just in case your eyes glazed over a bit taking in so much information at once, I'd like to leave you with this shortlist of takeaways from the report.

1. **Self-reported survey data is only part of the picture.** Self-reported preferences tell you what respondents think they prefer. When possible, compare this against observational data – quantitative third-party data as well as your own A/B tests.
2. **Your audience reads your emails on multiple devices, so you need to optimize your emails for multiple devices.** People start their day on their mobile phones on their way to work, switch over to a desktop, and then check their tablet at the end of the day. You need to make sure you are optimizing emails for different screen sizes. Use responsive templates, format images to load quickly on mobile, and make sure calls-to-action are easy to click on or tap with a finger.
3. **Different segments have different email consumption patterns.** Depending on factors such as demographics, your particular audience may behave a certain way. For example, younger people use more inbox filters due to being more skeptical of marketing messages.
4. **Email timing isn't just about time-of-day.** Time of day accounts for your timing, not your audience's. Widen your range of experiments, testing different days, frequency, as well as sending it at the opposite of when you normally send emails to test for contra-competitive advantage. The results in this dataset can provide a starting point to testing for your own audience.
5. **Mobile is here to stay. 47% of all email is opened on mobile.** That means you need to adapt your marketing accordingly.
6. **Those common “spam triggers” marketers often avoid aren't decreasing deliverability.** Using multiple exclamation points, dollar signs, and the word “free” doesn't decrease deliverability, or even engagement metrics such as open rates and CTR significantly.
7. **Some words do result in better engagement.** Certain words in subject lines showed increased engagement, such as, surprisingly, “free”. Test this report's findings in your own emails – as the data is based off of hundreds of millions data points, your marketing emails will likely show similar patterns.

# GLOSSARY OF TERMS

---

**CAN-SPAM** – Short for 'Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003,' it's a law that outlines rules for commercial email, establishes requirements for commercial messages, provides email recipients with the right to make you stop emailing them, and lays out consequences for violations of the Act. You can read more about compliance in our post about marketing laws.

**Click-Through Rate (CTR)** – The percentage (the number of unique clicks divided by the number that were opened) of recipients that click on a given URL in your email.

**Commercial Email** – Large-scale email marketing sends in which the same content goes to a large group of people.

**Contra-Competitive Timing** – Sending emails at the opposite time from all competitor sends.

**Conversion Rate** – The percentage of recipients who respond to your call-to-action in an email marketing campaign or promotion. This is one measure of your email campaign's success.

**Deliverability** – The ability to get an email into the intended recipient's inbox.

**Desktop Client** – An email client that is part of a computer's operating system, such as Windows Outlook, Apple Mail, and Lotus Notes.

**Email Client** – An email service provider.

**Email Filter** – A technique used to block email based on the sender, subject line, or content of an email.

**HTML Email** - Sending HTML email makes it possible to get creative with the design of your emails.

**Landing Page** – A lead-capture page on your website that is linked to from an email to provide additional information directly related to products or services promoted in the email's call-to-action.

**List Segmentation** – Selecting a target audience or group of individuals for whom your email message is relevant. A segmented list means a more targeted and relevant email campaign, thus a higher response rate and less unsubscribes and spam reports.

**Mobile Client** – An email client that can operate on mobile devices, such as iPhone or Android.

**One-to-Many Emails** – Also referred to as commercial emails and marketing emails, these are emails sent as part of a marketing campaign from a company to many individuals.

**One-to-One Emails** – Also referred to as personal emails, these emails are sent from one individual to another. Sales emails fall under this category.

**Open Rate** – The percentage of emails opened in an email marketing campaign, or the percentage opened of the total number of emails sent.

**Opt-In (or Subscribe)** – To opt-in or subscribe to an email list is to choose to receive email communications by supplying your email address to a particular company, website or individual thereby giving them permission to email you. The subscriber can often indicate areas of personal interest (e.g. mountain biking) and/or indicate what types of emails they wish to receive from the sender (e.g. newsletters).

**Opt-Out (or Unsubscribe)** - When a subscriber chooses not to receive email communications from the sender anymore, and requests removal from your email list. It is legally required that you provide a clear way to opt out in every email you send.

**Pareto Distribution** – a skewed, heavy-tailed distribution.

**Personalization** – Adding elements to your email that are personalized based on information you already know about them. It could refer to addressing the recipient by name, referencing past purchases, or other content unique to each recipient.

**Plain Text Email** - An email sent without HTML. You should always give your recipients the option to read emails in either HTML or plain text for better readability.

**Priority Inbox** – One of several inbox styles available in Gmail that attempts to automatically identify the most important incoming messages and separates them out from everything else.

**Promotions Tab** – One of the features of Gmail's priority inbox, which places marketing emails and subscriptions in a separate tab from the main inbox.

**Webmail Client** – A cloud-based email client that can be accessed via an internet browser. Popular clients include Gmail and Outlook.com.

# EXCLUSIVE OFFERS FOR SCIENCE OF EMAIL 2014 READERS



## free email marketing assessment

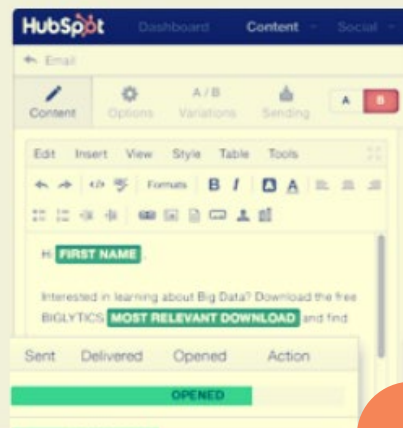
### Talk to a certified marketing specialist

20-minutes of in-depth evaluation of your current marketing from an expert.

### Get free insights and takeaways

You'll get action items for email marketing, lead management, marketing automation, and inbound marketing.

[Reserve Now](#)



litmus

### Data you've never had

Discover your mobile audience and how long subscribers read your emails.

### Test your emails

Get screenshots of your emails in 30+ mobile, desktop and webmail clients.

[LEARN MORE](#)

