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Buying the Verdict

Lauren H. Cohen,[a,b,*] **Umit G. Gurun**[c]

[a] Harvard Business School, Boston, Massachusetts 02163; [b] National Bureau of Economic Research, Boston, Massachusetts 02163; [c] University of Texas at Dallas, Richardson, Texas 75080

*Corresponding author

Contact: lcohen@hbs.edu, https://orcid.org/0000-0002-3583-3024 (LHC); umit.gurun@utdallas.edu, https://orcid.org/0000-0002-0746-0603 (UGG)

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Abstract. We document evidence that firms systematically increase specialized, locally targeted advertising following the firm being taken to trial in that given location, precisely following initiation of the suit. In particular, we use legal actions brought against publicly traded firms over the 20-year sample period that progress to trial between 1995 and 2014. In terms of magnitude, the increase is sizable: targeted local advertising increases by 23% ($t = 4.37$) following the suit. They focus their advertisement spikes specifically toward jury trials, and in fact specifically toward the most likely jury pool. Last, we document that these advertising spikes are associated with verdicts, increasing the probability of a favorable outcome.

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1. Introduction

Firms are legally obliged to operate within the standards of their operating jurisdictions. Even so, and despite that firms spend substantial capital to stay within this legal framework, infractions occur. Although many of these infractions are settled privately, a large number do make it into the court system to be adjudicated. These tend to be larger-stakes cases (from a value-weighted perspective) for the firms involved (Lederman 1999). Moreover, the U.S. legal system is founded on the notion that a jury of one's peers can conduct an arms-length review of a case adjudicating the guilt (or lack of sufficient evidence for guilt) of the alleged legal infraction. However, the moment that a party is sued, it has a clear incentive to influence the jury in its favor. Much of this convincing take place inside the courtroom. However, one power that large, publicly facing, and well-funded organizations have at their disposal is to do so also outside of the courtroom. In this paper, we document strong evidence for one form of that influence, namely, we find that firms systematically increase specialized, local advertising when it is taken to a court trial in a given location, specifically in the geographic location of the court deliberation, and precisely following initiation of the suit.

We test all legal actions taken against publicly traded firms in federal courthouses over the nearly 20-year sample period between 1995 and 2014. In particular, we focus on those that progressed to trial proceedings. We find that these are spread throughout the United States, across industries, and over time. However, they share a common response by the firms who are defendants. Upon being sued in a given location, firms significantly increase advertising in that location. In terms of magnitude, they increase advertising by 23% ($t = 4.37$) following the suit. In contrast, we see no increase (i) in the same city, by the firm, but *before* and leading up to suit (we find a sharp discontinuity directly following the suit); (ii) in any other similar city at the same time by the same firm (so it is not a firm-level or even firm-market type policy move); and (iii) in the exact same city where the firm is located by any other firm operating there. Moreover, firms are significantly more likely to initiate advertising in cities (in which it had previously advertised zero), directly following lawsuit, with the probability of advertising initiation increasing by 25% ($t = 4.45$). This results in firms shifting their advertising share significantly to sued locations following suits; both relative to the firm's total advertising spend and relative to the total amount spent in that designated market area (DMA) by all other firms.[1]

To concretize this, assume we find that Walmart is sued in Akron, Ohio, in 2001. We see a large spike in Walmart's advertising in Akron directly following the suit. We see no abnormal movement in Walmart's advertising policy or spending leading up to the suit. Additionally, Walmart does not increase advertising following the suit in Toledo, Ohio (a similar sized market with

similar growth rates leading up to 2001). Moreover, Target shows no abnormal move in the same sued location, Akron, Ohio, at the exact same time that Walmart is ramping up advertising (so it has nothing to do with a general location-time effect).

We establish the precision of our effect to the specific time, firm, and location of our shocks using several placebo-effect setups (e.g., redefining the "suit" year as years prior in the same location). Additionally, we do so through the inclusion of a number of fine fixed effects. In particular, we include firm-by-time (e.g., comparing all cities in which Walmart operates and advertises in a given year) and firm-by-city (e.g., comparing over time Walmart's advertising decisions and policies in solely Akron, Ohio). We find that the effect remains economically large and statistically significant in all these specifications. Moreover, when we split our sample over time, we find that these effects are large and significant up through the present day.

As an example of our impact, take the case of Samsung. Samsung is the most sued firm in the Eastern District of Texas Federal District Court. This comes nearly entirely from patent infringement allegation cases and has been driven in recent decades by the rise in Non-Practicing Entity activity (Cohen et al. 2016). Patent infringement litigation trials are unique in that nearly all are adjudicated with a jury (as opposed to bench trials (i.e., decided by the judge); Lemley 2013). Moreover, the stakes of these cases have been large, in the tens to hundreds of millions of dollars of awarded damages against the firm, with many suits still ongoing (Klerman and Reilly 2016). How has Samsung responded to this spate of allegations? Beside spending large amounts to launch legal defenses against the infringement claims, we have seen it make a number of other deliberate decisions.

First, each year Marshall Texas holds a locally famous Winter Festival (the Marshall Winter Festival). Following generous Samsung sponsorship, that festival began with the Samsung Holiday Celebration Show (Figure 1 in the online appendix). Second, Samsung paid for the construction of the Samsung Ice Skating Rink in Marshall, Texas. The Samsung Ice Skating Rink is not only the sole outdoor ice skating rink in all of Texas (for clear reasons), it is located directly outside the front of door of the District Courthouse (Figure 2 in the online appendix), visible to all jurors who enter. Third, Samsung sponsored numerous high school scholarships, for example, the Samsung General Scholarship; Samsung Math and Science Scholarship; and Samsung Football Scholarship.

A requirement to receive one of these scholarships (as seen in Figure 3 in the online appendix) was attending high school in Marshall, Texas, or one of the surrounding towns to Marshall. Samsung's spending pattern, its initiation solely following the firm's legal suits in Marshall, and its focus on the local community, make this an interesting example of a firm (by revealed preference) thinking it optimal to make these time- and region-focused investments. Moreover, to bookend this example, the Supreme Court ruled in 2017 on *TC Heartland LLC v. Kraft Foods Group Brands LLC* that firms could no longer engage in "forum-shopping" for patent cases, which are the cases being brought in Marshall, Texas. In tandem, Samsung drastically retrenched on all the charitable activities mentioned previously in Marshall.

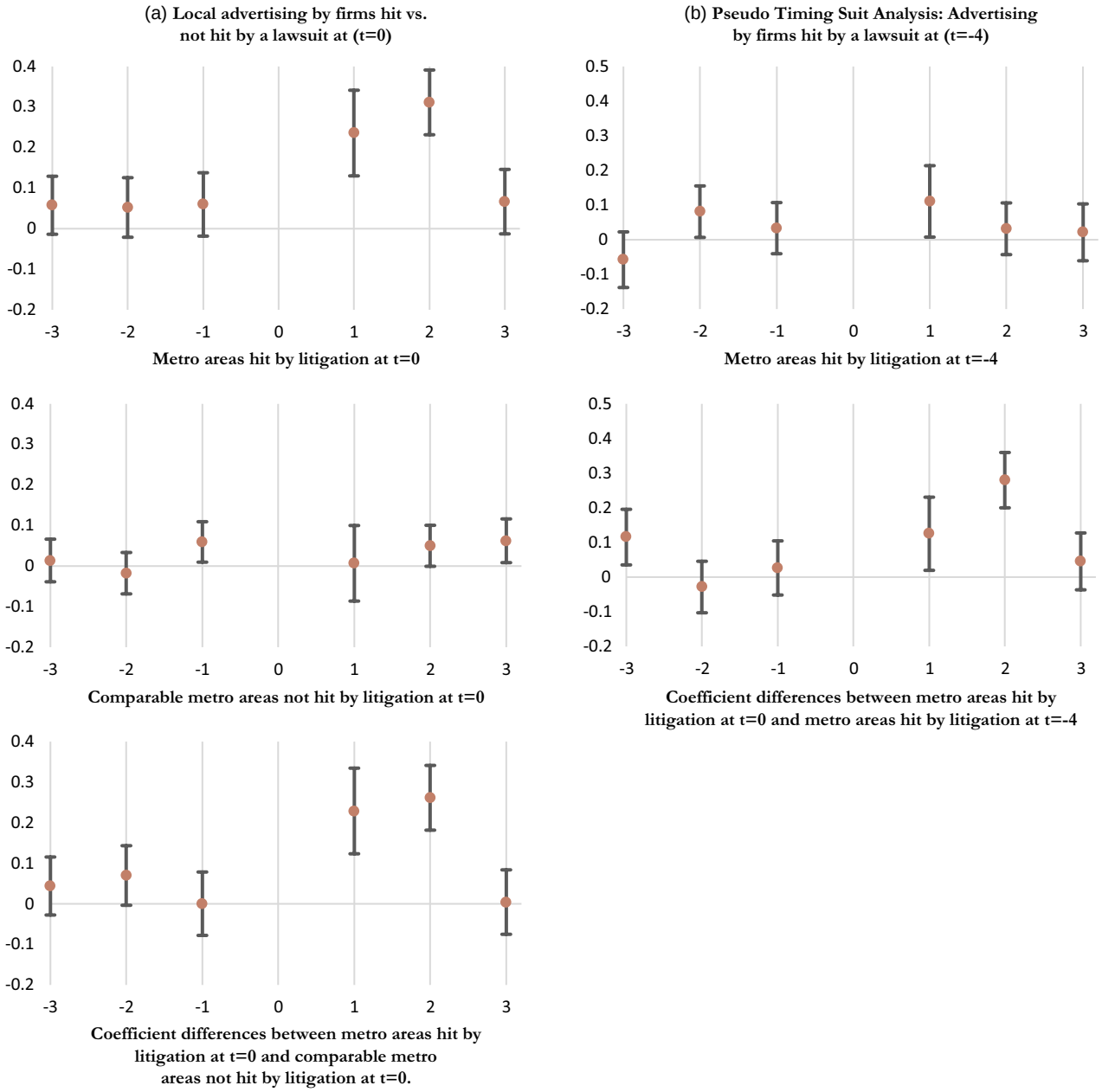
We find in this paper general evidence across time, location, and firms of corporations engaging in this "influencing of the verdict" behavior. We test a number of other implications of influencing the verdict behavior by firms. First, if firms really are attempting to maximize influence with their spikes in advertising, we might expect them to concentrate on markets where there are fewer other firms also advertising; therefore, where their increase in advertising will take up a larger share of the market. Again, this is precisely what we see in the data. Firms concentrate significantly larger advertising spikes in locations where there are fewer other firms also advertising.

Second, if what we document truly does represent firms attempting to influence the verdict, we may expect these firms to concentrate on jury (as opposed to judge (bench)) adjudicated trials, as the average member of the jury pool is likely more influenceable than the judge. Although many types of lawsuits have variation in the use of jury versus bench, one type of lawsuit that is nearly uniformly decided by jury, as mentioned previously, is the patent lawsuit. We thus segregate out patent lawsuits and test specifically on these. Consistent with this buying the verdict being more concentrated in jury trials, we find that the advertising spike is large and significant in the case of patent (jury) lawsuits but small and statistically zero in the case of bench trials.

Third, we use the novel microlevel reporting of our data to further explore the mechanism. In particular, we have the amount spent in advertising by a given firm *specifically* on television advertising in a given location. Moreover, we have the amount of television watched within a given location, broken down finely into five-year increments of the demographic (e.g., 15–19, 20–24, 25–29, 30–34 year olds, etc.). We use fine demographic viewership data to separate viewers into the most likely jury pool (the average juror in our sample is aged 50), and those television viewers that could not possibly be jurors (minors: viewers under the age of 18). We find that television advertising dollars are strategically targeted exactly at the most likely jury pool. Alternatively, we see no spike in advertising in the same location to minors (who are ineligible to be jurors).

Taking a step back, we believe that the sum of our evidence points most plausibly to firms taking strategic, targeted actions to the influence the verdict of litigation against them outside, in addition to inside, the courtroom. However, there are other potential explanations. For instance, it might be that the firm is advertising

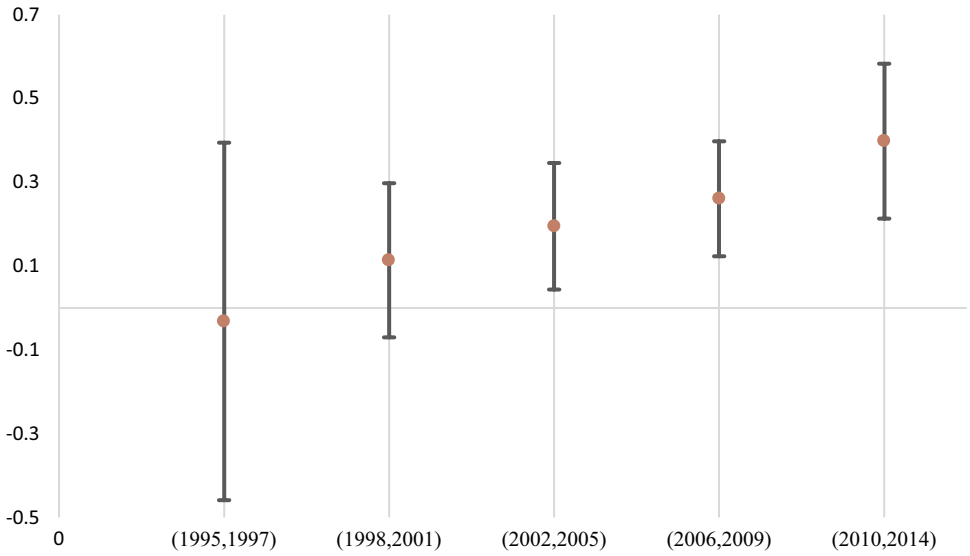
Figure 1. (Color online) Advertising Diff-in-Diff and Pretrends Surrounding Litigation



Notes. In the first chart of Panel (a), we plot the coefficient on *Sued* of the full regression specification in Table III, column 4, leading and lagging years around the actual suit date (which we label $x = 0$), that is, $Advertising\ (t + x) = b1 \times Sued + b2 \times Advertising\ (t + x - 1) + Z$, where $x = (-3, -1)$ to the left of the suit year, and $x = (1, 3)$ to the right of it. The second chart of Panel (a) shows response to litigation in comparable matched DMA (y,t), when the firm is litigated in DMA(x, 0). DMA(y) is closest to DMA(x) in terms of advertising spending in year 0 (i.e., the DMAs right above and right below DMA(x) when sorted by advertising expenditure). The third chart of Panel (a) shows the difference in coefficients between the first two respective charts. (b) Response to a placebo test in timing within a litigated metro area. The first chart of Panel (b)shows the impact of a pseudo-litigation in DMA(x,t), four years *before* the firm is actually litigated in the given metro area compared with the actual event. The second chart in Panel (b) shows the difference in coefficients between the actual litigation (first chart of Panel (a) and pseudo-litigation (first chart of Panel (b)).

more in places that it is being sued because it also faces brand backlash on the product side precisely in those locations (e.g., Chipotle food-borne contaminant issues were spatially hitting different locations (and not others); and the BP Oil spill along the Gulf Coast). You might then see advertising spike in these locations following an infraction not to convince jurors but instead to simply convince customers (and the communities) that the firm's brand was committed to a certain level of product quality or investment in the community. To test this, we test a number of its implications. First, as mentioned previously, we see the effect of this increase in advertising

Figure 2. (Color online) Time Series Pattern of Estimated Coefficients



Note. We plot the coefficient of *Sued* in the baseline specification for five subsamples.

strong and concentrated in patent (jury) trials. This is despite that patent infringement allegations are amongst the most esoteric and most difficult to both describe to (and describe direct damages toward) the average consumer and so might be least likely to cause localized public harm or outrage. Second, consistent with the firm not simply protecting important local relationships, we see a large and significant 25% increase in initiations following a lawsuit in that location. These locations (by revealed preference) were not locations that the firm sufficiently valued the act of advertising in, so not strategically important enough to advertise ongoing stakeholder relationships with, until precisely after the lawsuit, only after which advertising was initiated. Third, following the advertising spike of firms after lawsuits, we find that firms advertising in those sued locations are back to baseline by three years following (when the suits have been adjudicated).

Next, we explore subsamples of firms that we might ex ante expect to not naturally use the advertising channel, yet following lawsuit might have a heightened incentive to do so. First, we examine business-to-business firms (B2B). These firms, who sell goods only to other businesses and not to retail consumers, unsurprisingly advertise significantly less, as their business models are on average based on longer-term supply relationships with other firms. However, following being sued in a given location, they have a nearly 40% larger probability of initiating advertising. Next, we examine plaintiff firms' advertising responses. Plaintiffs (the firms filing suit or damages against another party) have *not* been accused of any wrongdoing and thus potentially have less of a need to repair any brand damage with consumers. However, they have an equivalent incentive to curry favor with juries to rule in their favor to win the lawsuit. We find that firms as plaintiffs, like defendants, significantly increase advertising precisely in those locations in which they bring lawsuits and precisely at the time they bring the suit.

Although the results we found are consistent with firms' strategic use of advertising following being sued, one might be still be concerned that an unobserved firm-DMA-year level factor can drive the dynamics that we observe. For this to be the case, the unobserved firm-level variable to explain the pattern needs to change at the firm-DMA-year level at the precise time as the suit. Specifically, it must begin only after the suit is initiated in the solely the DMA being sued, terminate directly after the suit, and exist for both defendant and plaintiff firm cases. Moreover, this unobservable factor should have "turned on" only for trials when firms are either defendants or plaintiffs (but not both), only for jury trials, causes firms to only target 50 year olds with their advertising, and so on. The same unobserved factor should also increase for B2B firms but remain unchanged for firms whose ability to advertise is constrained by law. Stepping back, we thus believe that the totality of the results is most consistent with advertising being used as a strategic response by firms in the sued locations.

Taken together, our tests strongly indicate that firms strategically respond to litigation shocks using advertising as a tool to influence the outcomes. It is worth noting that the effects we document are robust across our sample period, even through present day. Thus, this does not appear to be a behavior that is an artifact of the past but

instead is a robust firm behavior through the present, making the need to understand it more acute.

Turning to the impact of this advertising on outcome of the trial, we do find suggestive evidence of "buying the verdict." We caveat this, as we do not observe settlements or terms of settlements, and thus we can estimate only the trials that proceed to verdict for either the plaintiff or defendant. This being said, our results suggest that a $183,000 increase in advertising is associated with a roughly 21% increase in winning odds for the average firm, which is a sizable effect compared with the median damages paid in most common litigation types observed in our sample.

Stepping back, the fact that this behavior is (i) robust across time, firms, and locations; (ii) lines up across strategic dimensions of the behavior; and (iii) is strong and robust through present day suggests that it is worth examining more closely as litigation against firms continues to rise. The broader implication of this is that policy makers, given this increasing trend in behavior, should consider what impact it is having, and whether it is a desired impact, on the judicial process and its outcomes.

The remainder of the paper is organized as follows. Section 2 provides a brief background and literature review. Section 3 describes the data we use, whereas Section 4 presents the main results on influencing the verdict and establishes its identification in firm-, time-, and location-specific space. Section 5 explores the mechanism in more detail, establishing where buying the verdict behavior is more acute and its increasing use over time. Section 6 refines the buying the verdict activity and estimates the economic impact of influencing the verdict, whereas Section 7 concludes.[2]

2. Background and Literature

Litigation is generally recognized as being costly, unpredictable, and inefficient. Yet it is also a fact of life that any business activity inevitably involves litigation. The average percentage of litigation costs as a percentage of total revenues rose from 0.62% to 0.89% between 2000 and 2008. Although the outside litigation costs doubled (from $66 million to $115 million), the in-house litigation costs remained similar ($16 to $18 million).[3] Increasingly litigious corporate environment has been also documented in recent surveys involving smaller companies. The *2015 Litigation Trends Annual Survey*, compiled by Norton Rose Fulbright, found that 34% of the 803 corporate counsels responded to survey reported a litigation spending budget of $1 million to $5 million in 2014. The corresponding figure in 2013 was 26%. A significant portion of all commercial litigation settles short of trial.[4]

Our paper is primarily related to the law literature that explores the potential effects of the media on juror and jury decision making. The general premise of this literature is essentially to test the claim that "jury verdicts are more likely to be driven by whim, prejudice, or emotion than by the hard facts of the case." (MacCoun 1993). Similarly, Trager et al. (2004, p. 687) proposes that "advertisements are intended to influence people and, when used by attorneys to reach potential or sitting jurors, may be more likely to cause a substantial likelihood of material prejudice than nearly any other form of expression." Along the same lines, Greene (1990), Robbennolt and Studebaker (2003), Fontham (2013), Lim (2015), and La Belle (2019) study how other forms of persuasion including media reporting create an influence on courts and jurors. We provide a large sample empirical investigation of these previously proposed arguments and test whether corporations use advertising as a tool to influence the judicial process.

Our paper is also related to the literature on how persuasion affects different clienteles' opinions. Our evidence shows that advertising plays a role in persuading the public opinion on the company and potentially create a positive impression of the firm on potential jurors. In their survey paper, DellaVigna and Gentzkow (2010) list four different clienteles through with persuasion changed the way these groups made their decision: consumers, investors, voters, and donors.[5]

The first clientele is consumers. Bagwell (2007) notes that firms spend considerable amounts of money for advertising primarily because they believe consumers respond to these advertising efforts. He puts forth various channels through which advertising can affect consumers' response to advertising. According to one channel, called as the information view, search costs may deter a consumer from learning of each product's existence, and advertising helps consumers learn about advertised product's existence, price, and quality. In this view, when a firm advertises, consumers receive low cost additional direct (prices, location) and/or indirect (the firm is willing to spend on advertising) information. Advertising can also influence consumers' tastes and creates spurious product differentiation and brand loyalty. If the demand for a firm's product is inelastic, advertising can help extract more rent from these consumers. Last, advertising may create no "real" value to consumers but rather induces artificial product differentiation and this leads to a marketplace with high prices and profits. Examples of this view have been documented in financial markets in which homogeneous products are marketed to investors. For instance, Hastings et al. (2013) show that the use of advertising of private social security funds in Mexico is related to their pricing. Bertrand et al. (2010) use a field experiment to show that advertising increases demand for consumer loans. Gurun et al. (2016) shows mortgage providers are able to lend at higher rates in areas they advertising efforts are higher.

The second clientele persuasion is communication with investors. For this purpose, firm use various channels such as corporate responsibility events, press

releases, chief executive officer (CEO) interviews (Kim and Meschke 2011), conference calls (Cohen et al. 2020), analyst reports (Womack 1996), advertising (Lou 2014), or media (Reuter and Zitzewitz 2006, Engelberg and Parsons 2011, Gurun and Butler 2012). A third clientele of persuasion is voters. Persuasion may come from politicians themselves, interested third parties (Gerber and Green 2000), or the news media (Gentzkow 2006, DellaVigna and Kaplan 2007). A fourth group is nonprofits or charities that solicit contributions with the objective of increasing donations. An example of this work include List and Lucking-Reiley (2002). Our evidence shows that advertising plays a role in persuading the public opinion on the company and potentially create a positive impression of the firm on potential jurors.

In addition to the persuasion literature, we also contribute to the literature in marketing that shows companies use targeted advertising to address the negative impact of corporate scandals, such as brand scandals and product recalls (Cleeren et al. 2008, 2013; Rubel et al. 2011). The main thesis in this literature is that advertising can help restore companies' image following scandals through targeted image management. We contribute to this literature by highlighting the existence and importance of a previously unstudied litigation channel.

3. Data and Summary Statistics

We draw from a variety of data sources to construct the sample we use in this paper. To identify involvement in litigation events, we use the Audit Analytics Litigation database, which covers the period from 1995 to 2013 and reports information on litigation for Russell 1000 firms from legal disclosures filed with the Securities Exchange Commission (SEC). Audit Analytics collects details related to specific litigation, including the original dates of filing and locations of litigation; information on plaintiffs, defendants, and judges; and, if available, the original claim amounts and the settlement amounts. The Audit Analytics data set does not contain the final judgement of the cases (i.e., defendant won, plaintiff won) To obtain these final judgements, we merged Audit Analytics with the 2014 Federal Court Cases: Integrated Database using the case docket numbers.

To measure regional level advertising, we use the Kantar Media Stradegy (AdSpender) database. This database allows us to calculate firm level advertisement across a DMA between 1995 and 2014. DMA regions define boundaries of targeted local advertising and direct marketing campaigns across multiple media. A DMA typically refers to a geographic region rather than a city or county and may contain zip codes from neighboring states. AdSpender contains data from 105 of all 210 DMAs, which correspond to 92% of the population in the United States. Because our interest lies in local level advertising, in our tests, we primarily use total advertising spending information in the following channels: spot TV, spot radio, outdoor (billboard), and local newspapers. Our unit of analysis is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year.

In some of our tests, we focus on a particular media channel, namely spot TV, to identify the relation between advertising and litigation. For these tests, we draw data from TV ratings information contained in the Nielsen Ratings database. This database allows us to estimate the number of TV exposure hours a given age group watches TV. This estimate combines information on duration and timing of the rating measurement period (day time Monday through Friday 9 a.m. through 4 p.m. versus Primetime) and number of persons viewing TV estimates in a given demographics (age group and gender).

We use the Ravenpack data set to obtain news coverage of firms. This data set allows us to identify both the data and the specific media outlets in which the firm was covered. Finally, we obtain monthly stock returns from the Center for Research in Security Prices (CRSP) and firms' book value of equity and earning per share from the Standard and Poor's Compustat Database.

To construct our sample, we first match both the litigation and the advertising data to public firm identifiers. To match Audit Analytics to Compustat firms, we use the Central Index Key identifier contained in the data. This identifier is a number given to an individual company by the SEC. To match AdSpender to Compustat, we use several pieces of information given on the advertiser. For a given advertisement, we can observe the brand, their advertiser (company), and the parent company of the advertiser. We hand match advertiser to Compustat firm names. In cases where we cannot match advertiser to a Compustat firm, we use the parent company information for matching process.

To link local advertisement to litigation, we hand match 90 of the federal district courthouses to DMAs. We match 65 of the federal district courthouses to a DMA for which we have local advertising data. These 65 federal courthouses handle more than 13,000 dockets, approximately 90% of all dockets filed in all federal district courthouses during the same time period.

To create our test sample, we join litigation and advertising databases only for those DMAs for which we have both advertising and litigation data. Moreover, if a firm is sued multiple times in a given DMA, we collapse these multiple litigation events to one observation. We define *Sued* as a dummy variable equal to one if a firm was litigated at least one time in a federal district courthouse in a given DMA in year t. We also define *Sued Patent* as a dummy variable that equals to one if a firm was litigated for a patent infringement reason. Similarly, we define *Sued Tort* as a dummy variable equal to one if the litigation event is related tort. Our data set includes only the cases contained in the Audit Analytics database; we are

Table 1. Summary Statistics

	Advertising expense (raw)	Future advertising spending (log)	DMA market size	Initiate	Sued	Sued patent	Sued tort
Mean	964,613	8.501	0.387	0.013	0.021	0.008	0.004
Median	21,894	9.994	0.141	0.000	0.000	0.000	0.000
Standard deviation	6,310,581	5.182	0.638	0.112	0.143	0.087	0.062
p5	0	0.000	0.023	0.000	0.000	0.000	0.000
p95	3,505,976	15.070	1.706	0.000	0.000	0.000	0.000
N	498,386	498,386	498,386	498,386	498,386	498,386	498,386

Notes. This table presents summary statistics on the data set used in the tests. Unit of observation is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year. DMA regions define boundaries of targeted local advertising and direct marketing campaigns across multiple media. A DMA typically refers to a geographic region rather than a city or county and may contain zip codes from neighboring states. The data vendor, Kantar Media, collects data from 102 of all 206 DMAs, which correspond to 92% of the population in the United States. *Advertising Expense* refers to total local advertising in local media outlets, that is, spot TV, spot radio, outdoor (billboard), and local newspapers. *Future Advertising Spending (log)*, our main variable of interest, is the log of total local advertising in year $t+1$. Initiate is a dummy variable that takes a value of one if the firm did not advertise in the corresponding DMA in year t but advertises in year $t+1$. *DMA Market Size* is sum of all local advertising expenses by all firms at a given DMA in a given year. *Sued* is a dummy variable equal to one if a firm was litigated at least one time in a federal district courthouse in a given DMA in year t. Our data set includes only the cases contained in the Audit Analytics database. *Sued Patent* is a dummy variable equal to one if a firm was litigated for patent infringement reason. *Sued Tort* is a dummy variable equal to one if the litigation is related tort. Audit Analytics reports information on litigation for Russell 1000 firms from legal disclosures filed with the SEC. Audit Analytics collects details related to specific litigation, including the original dates of filing and locations of litigation: information on plaintiffs, defendants, and judges. We match 65 of the federal district courthouses to a DMA for which we have local advertising data. Our sample contains 13,301 dockets with a filing year between 1995 and 2013. This corresponds to 90% of all dockets filed in all federal district courthouses.

not able to identify litigation if a firm is litigated in state court or if the defendant firm did not consider the litigation material and not reported to SEC, the primary data source of Audit Analytics. In Table 1, we provide the summary statistics of the key variables used in the study. In Table 2, we tabulate unique number of dockets reported in the Audit Analytics database by year. Because our advertising data covers period covers years between 1996 and 2014, we use dockets with filing years between 1995 and 2013. In Table 3, we tabulate the number of unique dockets filed in the top five federal district courthouses. In Table 4, we tabulate the number of unique dockets by case type for the top five categories.

4. Buying the Verdict: Empirical Results

Litigation represents a potentially large liability to firms; in the extreme negative realization, it can impact potential firm viability. The optimal response of firms is investing to maximize the chance of a positive outcome, which although including a large investment of legal expertise within the courtroom, also allows for investment outside of the courtroom itself. In particular, one power that large, publicly facing, and well-funded organizations have at their disposal is to use the channel of influence of local, specialized advertising. Namely, when a firm is taken to trial in a specific geographic location, we test whether behavior regarding this location changes in systematic ways.

Table 5 shows the first test examining the behavior of firms. In particular, it explores the advertising behavior of firms, and in particular, how this behavior may

Table 2. Summary Statistics on Litigation Events: Breakdown of Dockets Over Years

Year	Number of cases
1995	46
1996	82
1997	162
1998	226
1999	301
2000	432
2001	604
2002	867
2003	730
2004	890
2005	1,182
2006	1,209
2007	1,197
2008	1,074
2009	850
2010	864
2011	849
2012	823
2013	640
2014	292
Total	13,320

Notes. We tabulate a unique number of dockets used in our analysis. Information on these dockets comes from Audit Analytics database. Audit Analytics reports information on litigation for Russell 1000 firms fromlegal disclosures filedwith the SEC. Audit Analytics collects details related to specific litigation, including the original dates of filing and locations of litigation; information on plaintiffs, defendants, and judges. We restrict our analysis to dockets in which either defendant or plaintiff (or both) is a public firm, and the court of the docket is covered by one of the DMAs in our advertising database. Our advertising data covers period covers years between 1996 and 2014, and we use dockets with filing years between 1995 and 2013.

Table 3. Summary Statistics on Litigation Events: Breakdown of Dockets Across Top Five DMAs

	DMA name	Number of cases
1	New York	2,130
2	Philadelphia	1,752
3	San Francisco	1,399
4	Los Angeles	1,012
5	Shreveport	666

Note. We tabulate the number of unique dockets filed in the top five federal district courthouses.

change around the times- and locations- of being sued. We examine all legal actions taken against publicly traded firms over the nearly 20-year sample period between 1995 and 2013. In particular, we focus on those that progressed to trial proceedings. Our unit of analysis is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year. DMA regions define boundaries of targeted local advertising and direct marketing campaigns across multiple media.

Table 5 regresses the amount of *future* (year $t + 1$) advertising spending by a given firm in a given DMA in a given year on a number of determinants. The independent variable of interest is *Sued*: a dummy variable that equals to one if a firm was litigated at least one time in the federal courthouse in a given DMA in year t. We also include control variables of *DMA Market Size*: the sum of all local advertising expenses by all firms at a given DMA in year (t); and *Advertising Spending (t)*: advertising expenditure by the same firm, in the same location, in year (t). In these specifications, we also include fine fixed effects. Specifically, we include Firm × DMA fixed effects to control for firm-location invariant conditions that impact a given firm's strategy to advertise there (e.g., Walmart's advertising in Los Angeles versus in Akron) and investigate the time series variation for a given firm in a given DMA. In addition, we include year fixed effects to control for systematic trends and shocks impacting all firms over time.

From Table 5, we see strong and consistent evidence that upon being sued in a given location, firms significantly increase advertising in that specific location.

Table 4. Summary Statistics on Litigation Events: Breakdown of Dockets Across Top Five Case Types

	Case type	Number of cases
1	Securities	4,130
2	Patent	3,483
3	Contract	2,322
4	Tort	1,479
5	Labor	683

Note. We tabulate the number of unique dockets by case type for the top five categories.

Column 4 of Table 5 shows the full specification. In terms of magnitude, controlling for other determinants of firm advertising, firms increase advertising by 23.6% ($t = 4.37$) following the suit.

Moreover, in column 1, we run the same regression, but instead of level of advertising, we test for the impact of the suit on the probability of initiating advertising in a DMA that had zero beforehand. These show similar inferences. Namely, the coefficient on *Sued* in column 1 implies that upon being sued, a firm is 25.4 percentage points ($t = 40.91$) more likely to initiate advertising in that location had it not been advertising there beforehand. From a mean of 2.4%, this effect translates to a probability of 27.8% (=25.4% + 2.4%), over a 10 times larger probability of advertising initiation directly following the suit being filed in that location.

One might worry that the increases in advertising that we document in Table 5 are simply artifacts of firm-level policies to expand the firms' footprints in those locations. Thus, we might simply be capturing a firm strategic policy shift, whereby the increasing footprint (or desire for a footprint) in a location causes both higher chances of suit and increase in advertising (but no direct causal relation between the latter two). It would then have nothing to do with lawsuits *causing* the increase in advertising.

To explore this in more detail, we explore the pretrends and parallel trends of fine comparison locations. These are in Figure 1. Figure 1(a) compares, for the *same* firm over the *same* time period (so Firm × DMA fixed effects), DMAs hit by a lawsuit at time 0 (left graph) compared with *comparable* DMAs of the firm that are not hit by a suit at the same time. In selecting *comparable* DMAs, we sorted all the advertising expenditures of all DMAs for the given firm in that year and picked the ones that are right above and below the litigated DMA with respect to the advertising expenditure. Figure 1 shows three broad patterns: First, there are no pretrends in any DMA in advertising (either the DMAs that will eventually be sued (left) or those that will not (right)). Second, advertising spikes directly after the suit, but *only* in those locations in which the suit is filed (not other locations for the same firm). Third, advertising gradually decreases in the sued location as the suit is resolved, and by three years after the suit (when the cases are usually resolved), advertising is back to baseline compared with both before the suit and advertising in the same year ($t = 3$) in other nonsued locations.

In Figure 1(b), we then explore a placebo timing of the litigation suits. In particular, we redefine the *Sued* dummy based on future litigation events, that is, we assume *Sued* = 1 if the firm is litigated in year $t + 4$ rather than the actual litigation time $t = 0$. Thus, we are taking the same exact locations where firms are sued but moving the timing of the litigation to a period when no litigation event occurred ($t + 4$). The graph in Figure 1(b) shows no response in advertising: The coefficient of Sued

Table 5. Buying the Verdict: Main Effect

	Initiate	Future advertising spending	Future advertising spending	Future advertising spending
Sued	0.254***	0.170***	0.236***	0.236***
	(0.006)	(0.062)	(0.054)	(0.054)
Advertising Spending (t)			0.539***	0.539***
			(0.010)	(0.010)
DMA Market Size				−0.008
				(0.053)
Fixed effect: Year	Yes	Yes	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes	Yes	Yes
Observations	485,704	478,840	485,704	485,704
R^2	0.824	0.575	0.618	0.618

Notes. In this table, we use a fixed effect OLS model. The unit of observation is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year. *Initiate* is a dummy variable that takes a value of one if the firm did not advertise in the corresponding DMA in year t but advertises in year $t + 1$. The dependent variable in the last three columns, *Future Advertising Spending (log)*, our main variable of interest, is the log of total local advertising in year $t + 1$. *Advertising Spending (t)* refers to contemporaneous advertising expense, that is, the log of total local advertising in year t. *Sued* is a dummy variable equal to one if a firm was a defendant at least one time in the federal courthouse in a given DMA in year t for the case types recorded in the Audit Analytics database. Standard errors, clustered by Firm × Year, are reported in parentheses.

is statistically indistinguishable from zero in all years between −3 and +3 of the pseudo-event year.

In sum, Figure 1 suggests that there is no evidence of any change in advertising expenditures by the same firms, in the same locations, leading up to the suit, or of the same firm at the same time in other locations. We only see the increase following the suit, only in the locations where the firm is sued, and only by the firms that are sued. This advertising then gradually drops as the suits complete. Table 5 and Figure 1 thus provide initial evidence of firms targeted advertising expenditures around the time and spatial heterogeneous locations of lawsuits.

In Table 6, we run a series of robustness analyses to observe how our baseline results vary across different variable definitions and alternative specifications. In the first column, we rerun our tests after excluding persistently sued firms from our sample. The idea here is that persistently sued firms (in a given DMA) should see no spike, as they are always advertising a lot because are always litigated in that particular DMA. We identify a persistently sued firm as those that have no variation in *Sued* variable in a given DMA and that the firm should have at least three observations within that DMA. Once we identify these firms (there are 110 of them in our sample), we remove all observations of these firms from the sample. We find that our results are unaffected by the inclusion of these observations. In fact, the coefficient of advertising is larger in point estimate, as might be expected given the exclusion of the persistently sued firms.

In column 2, we run a specification in which we exclude the first time that a defendant is being sued in

Table 6. Alternative Specifications

	Exclude persistently sued	Exclude first litigation		
	Future advertising spending	Future advertising spending	Future advertising spending	Future advertising spending
Sued	0.304***	0.363***	0.143***	0.236***
	(0.058)	(0.071)	(0.046)	(0.054)
Advertising Spending (t)	0.542***	0.533***	0.548***	0.539***
	(0.010)	(0.011)	(0.009)	(0.010)
DMA Market Size	−0.000	−0.090	−0.038	−0.008
	(0.000)	(0.061)	(0.046)	(0.053)
Fixed effect: Year	Yes	Yes	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes	Yes	Yes
Observations	481,236	462,374	524,999	485,704
R^2	0.615	0.604	0.687	0.618

Notes. In this table, we use a fixed effect OLS model. Unit of observation is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year. In column 1, we exclude the persistently sued firms from the sample. We identify a persistently sued firm as those which have no variation in *Sued* variable in a given DMA and that the firm should have at least three observations within that DMA. In column 2, we exclude the first time that a defendant is sued in a given DMA. In column 3, we use a sample that contains advertising information throughout the entire span of the litigation rather than solely year $t + 1$. In column 4, we change clustering of standard errors from Firm × Year to Firm × DMA. In standard errors, in the first two columns are clustered by Firm × Year and are reported in parentheses.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

a given DMA. We find that subsequent advertising behavior for that defendant in that given DMA is higher in point estimate, consistent, for instance, with their learning how to better exploit this channel over time. In column 3, we use a sample that contains advertising information throughout the entire span of the litigation rather than solely year $t + 1$. With this specification, we are essentially comparing the advertising response following the litigation to all other time periods, including time periods that the firm does not advertise. We find that our results are unaffected by the inclusion of these observations.

In our baseline specification, we cluster the standard errors at the *Firm* × *Year* level to broadly account for any correlations that impact advertising in all DMAs for a given firm × year (e.g., Walmart's marketing campaign in all DMAs in a given year to a specifically increase nationwide visibility). In column 4, we change the standard error clustering level from *Firm* × *Year* to *Firm* × *DMA* to account for correlation that impacts advertising across years for a given *Firm* × *DMA* (e.g., Walmart persistently invests and retains an advertising campaign in New York over many years).[6] From the results reported, we conclude that our statistical inferences are not affected by the choice of standard error clustering level.

In the online appendix, Table II, we report results using a different set of fixed effects: *Firm* × *Year* rather than *Firm* × *DMA*, which we discussed in detail in Table 3. The benefit of using *Firm* × *Year* fixed effects is to control for any firm-time specific effect that could impact its advertising policy across DMAs in the same year, such as Apple's rollout of IPhone 12. In this table, we can see the strong and consistent evidence that upon being sued in a given location, firms significantly increase advertising in that specific location compared with other DMAs. The results in Tables III and IV and Online Appendix II tell a consistent story: Irrespective of fixed effects included, standard error clustering choice, or advertising specification, the main results remain strong and significant; following suits in a given location, large, publicly traded firms strongly increase targeted local advertising in that geographic location (and only that location).[7]

In the online appendix, Table III, we run our analysis using the change in advertising as our dependent variable. In this table, the first two columns replicate the baseline results reported in Table 5 in which we use Firm × DMA and Year fixed effects. In the last two columns, we use Firm × Year and DMA fixed effects for changes.[8] In all specifications, we find economically and statistically significant coefficients for the litigation variable.

In the online appendix, Table IV, we investigate to what extent including a lagged dependent variable as a regressor violates strict exogeneity because the lagged dependent variable could be correlated with the idiosyncratic error. The concern here is that when the strict exogeneity assumption is violated, commonly used static panel data techniques such as fixed estimators could be inconsistent, that is, the Nickell (1981) bias. For this purpose, we follow the Arellano-Bond method by defining the observations in two dimensions: Firm × DMA and year. The Arellano-Bond method first computes the first differences to eliminate the fixed effects and then uses GMM with deeper lags of the dependent variables as instruments for differenced lags of the dependent variable. In the online appendix, Table IV, we present the results of this procedure for both dependent variables we investigated in Table 5: *Initiate* and *Future Advertising Spending*. These results suggest that our result remains strong and consistent with the findings reported in baseline specifications.

Finally, rather than level of advertising, we investigate the market share in advertising markets and how it changes around litigation events. More specifically, we compute advertising share using two measures. The first measure maps the intuition of the conceptual model from Online Appendix I and tests its predicted dynamics. Specifically, advertising share is measured by a given firm's advertising in a particular DMA, scaled by the total advertisement of that firm in all DMAs (e.g., advertisement of Apple in Austin/total advertisement of Apple). As an alternate measure, we also calculate advertisement share at a DMA level. The idea of this measure is to capture the advertisement spike of the sued firm relative to its peers in the same industry advertising in the same DMA (e.g., advertisement of Apple in Austin/total advertisement of tech industry in Austin). The results in Table 7 show that using either of these measures, firms significantly increase the share they advertise in cities in which they are sued directly following the suit. For instance, the coefficient in the first specification implies that the relative advertising share in a DMA increases by 77% ($t = 11.13$) following litigation there compared with the mean advertising share.

5. Mechanism Behind Buying the Verdict

In this section, we explore the mechanism behind the targeted advertising increases we document in Section 4 in more depth. In particular, we explore *when*, *where*, and to *whom* the targeted advertising spikes following suits are largest.

5.1. Advertising Behavior over Time

In Figure 2, we investigate whether our results have varied over time. In particular, as lawsuits have become more frequent, and the stakes larger, in the latter parts of the sample, we test to see whether influencing the verdict behavior has changed as well. We thus run our regressions by splitting our sample into five subsamples starting from 1994, with each subsample containing four years (except the first, with only three years).

Table 7. Advertising Share Analysis

	Change in advertising share	Change in advertising share
Sued (×100)	2.763***	2.885***
	(0.248)	(0.360)
Advertising Spending (t)	−0.005***	0.005
	(0.002)	(0.004
Fixed effect: Year	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes
Observations	485,704	485,704
R^2	0.246	0.223

Notes. In this table, we regress various market share variables on a dummy variable, *Sued*, which equals to one if a firm was a defendant at least one time in the federal courthouse in a given DMA in year *t* for the case types recorded in the Audit Analytics database. We compute two advertising share variables: (1) advertisement of a given firm in a given DMA scaled by total advertisement of that firm in all DMAs (e.g., advertisement of Apple in Austin/total advertisement of Apple) and (2) advertisement of a given firm in a given DMA scaled by total advertisement in that DMA in the industry of that firm (e.g., advertising of Apple in Austin/total advertising of tech industry in Austin). Standard errors, clustered by Firm × Year, are reported in parentheses.
***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

From Figure 2, we see that the influencing the verdict behavior of firms is stronger in recent years. This underscores the need to understand this phenomenon more fully, as its use appears to be strong and persistent (in estimated magnitude) up through present day. We further explore whether any particular year drives our results by running our baseline specification after excluding one year at a time and did not find any evidence of outliers (shown in the online appendix, Table V).

5.2. Litigation Type: Jury Trials vs. Bench Trials

If the empirical regularities that we have thus far documented in firm advertising responses really do represent firms' attempts to influence the verdict, we may expect these firms to concentrate on jury (as opposed to judge (bench)) adjudicated trials, as the average member of the jury pool is likely more influenceable than the judge. The average juror is roughly 50 years old, has lower than average education (i.e., high-school, but no bachelor's degree), and limited legal expertise compared with the average sitting judge (Anwar et al. 2014).

Although many types of lawsuits have variation in the use of jury versus bench, a class of lawsuits that are nearly uniformly decided by jury are patent lawsuits. In contrast, a class of lawsuits in which the majority are adjudicated through a judge are tort lawsuits (Refo 2004). We thus segregate out both patent lawsuits and tort lawsuits in the data and test specifically on these samples. The results are reported in Table 8. Consistent with this buying the verdict being more concentrated when the jury pool can be more easily influenced, we find that the advertising spike is significantly higher in the case of patent (jury) lawsuits (over twice as large) as in tort lawsuits. The results in Table 8 also help to provide further evidence against an endogeneity story related to firms ramping up firm activities. In particular, the patent cases have nearly nothing to do with firm-specific strategic geographic location expansion. For example, Marshall, Texas, sees the plurality of patent infringement cases and yet has a relatively small population with modest business presence.

5.3. Plaintiffs

We thus far focused on defendant's responses upon being accused of a legal infraction. Now, we examine plaintiff firms' advertising responses as well. Plaintiffs (the firms filing suit or damages against another party) have contrastingly *not* been accused of any wrongdoing, and thus potentially have less of a need to repair any brand damage with consumers. However, they do have an equivalent incentive to curry favor with juries to rule in their favor to win the lawsuit. We run these tests in the second column of Table 8. We find that firms as plaintiffs, like defendants, significantly increase advertising precisely in those locations in which they bring lawsuits, and precisely at the time they bring the suit.

5.4. High Stakes Litigation

If a defendant firm has relatively higher expected losses/costs from a given litigation (due to higher tangible and intangible costs such as legal penalties and fees, as well as reputational costs), then the firm may face steeper incentives to engage in activities such as the increased advertising that we document. That said, it is difficult to measure the ex ante economic importance of each lawsuit for the defendants using stock market–based measures, such as stock market reaction to litigation announcement events, as announcement of the market can often become aware of, or probabilistically aware of, the litigation event prior to the official "announcement" of lawsuit and components of its realization. As an alternative measure, we thus use average sizes of lawsuit settlement amounts shown in the literature to proxy for the relative E(importance) of a given lawsuit to a firm. Eisenberg and Lanvers (2009) and Bulan and Simmons (2022) suggest that both securities class action and patent lawsuits are consistently ranked among the highest-stakes litigations facing firms with

Table 8. Jury vs. Bench Trials and Litigation by Plaintiff

	Future advertising spending	Future advertising spending	Future advertising spending
Sued Patent	0.285***		
	(0.080)		
Sued Tort	0.076		
	(0.085)		
Sued Plaintiff		0.316***	
		(0.077)	
Sued High Stakes			0.269***
			(0.067)
Sued Other			0.206***
			(0.063)
DMA Market Size	−0.002	−0.003	−0.007
	(0.053)	(0.053)	(0.053)
Advertising Spending (t)	0.538***	0.538***	0.539***
	(0.010)	(0.010)	(0.010)
Fixed effect: Year	Yes	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes	Yes
Observations	485,704	485,704	485,704
R^2	0.618	0.618	0.618

Notes. In the first two columns of this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 5 to estimate the relation between litigation types (i.e., patent, tort) and advertising. Unit of observation is Firm × DMA × Year, that is, amount of advertising spending by a given firm at a given DMA in a given year. The dependent variable, *Future Advertising Spending (log)*, our main variable of interest, is the log of total local advertising in year $t + 1$. *DMA Market Size* is sum of all local advertising expenses by all firms at a given DMA in a given year. *Advertising Spending (t)* refers to contemporaneous advertising expense, that is, the log of total local advertising in year t. *Sued Patent* is a dummy variable equal to one if a firm was litigated for a patent infringement reason. *Sued Tort* is a dummy variable equal to one if the litigation is related to tort. *Sued - Plaintiff* is a dummy variable equal to one if a public firm was a plaintiff at least one time in the federal courthouse in a given DMA in year t for the case types recorded in the Audit Analytics database. *Sued High Stakes* is a dummy variable equal to one if the litigation is related to a securities class action or patent litigation. *Sued Other* is a dummy variable equal to one if the litigation is related to other litigation events. Standard errors, clustered by Firm × Year, are reported in parentheses.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

regard to settlement amounts and legal expenses paid. We thus investigate whether the advertising response of firms is markedly different for these two types of high-stakes lawsuits relative to others. In Table 8, column 3, we report the results, which suggest that these firms' responses to high-stakes lawsuits are larger (in point estimate) magnitude response than that of other lawsuits.

5.5. Targeted Advertising to Jury Pool

If firms have the goal of maximizing the impact on their potential jury pools, we might expect to see them target advertising expenditures specifically toward the pool of individuals most likely to be jury members. Given the granular nature of our data, in particular regarding television advertising, we can test for exactly this. To do that, we use the Nielsen Rating data that allow us to measure the amount of television watched within a given location, broken down into five-year increments of the demographic viewership (10–14, 15–19, 20–24, 25–29, and 30–34 year olds, etc.). We use these data to create a measure of viewership in the prime demographic of the average jury member (aged 50–54 years), which we call *Prime Jury*. We compare this to those television viewers that couldn't possibly be jurors, using a variable we call Children Viewers (minors: viewers from age 2 to 5). The sample size in this test is smaller than our baseline specification as we are only able to use advertising spending on television provided by the Nielsen Rating data set rather than all advertising expenditure data provided through AdSpender.

Last, we show regressions solely focusing on the television advertising behavior of firms (as opposed to total advertising expenditures in a given location), such that the dependent variable measures the future television advertising expenditures following being sued in a given location. In these regressions, we include *Firm* × *DMA* and *Year* fixed effects, and thus we are absorbing any general TV advertising strategy differences of a firm across cities (e.g., Kellogg's TV advertising strategy in Chicago versus New Orleans), along with shocks to all firms' TV advertising in a given year. In addition, we include *DMA Market Size* to capture within-*DMA* market size changes over time that might drive TV advertising incentives.

The results are reported in Table 9. We find evidence that television advertising dollars are strategically targeted precisely at the likely jury pool. This is seen in the positive interaction term on *Sued* × *Prime Jury*. In contrast, we see no spike in advertising in locations where minors are a large share of the viewership population (who could not possibly be jurors).

5.6. Placebo Tests

In addition to the diff-in-diff results reported in Figure 1(a) and (b), we run a number of additional placebo tests.

Table 9. Targeting Jury Pool

	Future advertising spending	Future advertising spending
Advertising Spending - TV	0.333***	0.333***
	(0.018)	(0.018)
DMA Market Size	−0.258**	−0.276**
	(0.111)	(0.119)
Sued	0.130	0.095
	(0.104)	(0.105)
Prime Jury	4.449***	3.506***
	(1.029)	(1.333)
Sued × Prime Jury	0.940***	4.707**
	(0.341)	(1.924)
Children Viewers		1.760
		(1.593)
Sued × Children Viewers		−4.569**
		(2.301)
Fixed effect: Year	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes
Observations	214,015	214,015
R^2	0.729	0.729

Notes. In this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 5 to estimate the relation between the local TV advertising spending and the viewership base. Unit of observation is Firm × DMA × Year. The dependent variable, *Future Advertising Spending - TV (log)* is the log of total local spot TV advertising in year $t + 1$. *DMA Market Size* is sum of all local advertising expenses by all firms at a given DMA in a given year. *Advertising Spending - TV* refers to contemporaneous TV advertising expense, that is, the log of total local TV advertising in year t. *Sued* is a dummy variable equal to one if a firm was litigated at least one time in the federal courthouse in a given DMA in year t. Prime Jury is the estimated total number of hours male and female between ages 50 and 54 in the watch TV in a given DMA in a given year. *Children Viewers* is the estimated total number of hours minors between ages 2 and 5 in the watch TV in a given DMA in a given year. We use Nielsen Ratings database to estimate the number of TV exposure hours a given age group watches TV. This estimate combines information on duration and timing of the rating measurement period (Day Time M-F 9a-4p versus Primetime) and number of persons viewing TV estimates in a given demographics (age group and gender). Standard errors, clustered by Firm × Year, are reported in parentheses.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

In Table 10, we include an additional dummy variable to capture litigation events of firms that operate in the same industry (column 1) *Industry*, in the same headquarter state (column 2) *State*, and that operate in the same industry and have the same headquarter state (column 3) *Industry × State*. These are meant to test for the possibility that the effects we capture with *Sued* are picking up a (potentially unobservable) broader industry or geographical location effect driving advertising expenses. From Table 8, the dummy variables do not load up significantly in any of the specifications (in an economic or statistical sense), indicating the firm's use of advertising is not responding to litigation events of competing firms in the product space or geographic proximity. However, being the direct target of litigation (*Sued – Own*) remains associated with a large and significant advertising response controlling for all of these.

6. Discussion and Economic Impact of Buying the Verdict

Taking a step back, we believe that the sum of our evidence points most plausibly to firms taking strategic, targeted actions to the influence the verdict of litigation against them outside, in addition to inside, the courtroom. However, there are other potential explanations. For instance, it might be that the firm is advertising more in places that it is being sued because it also faces brand backlash on the product side precisely in those locations (e.g., Chipotle food-borne contaminant issues were spatially hitting different locations (and not others) and the BP Oil spill along the Gulf Coast). You might then see advertising spike in these locations following an infraction not to convince jurors but instead to simply convince customers (and the communities) that the firm's brand was committed to a certain level of product quality or investment in the community.

We explore this alternative explanation versus advertising more pointedly focused on juries following litigation. First, as mentioned previously, we see the effect of this increase in advertising strong and concentrated in patent (jury) trials. This is despite that patent infringement allegations are amongst the most esoteric and most difficult to both describe to (and describe direct damages toward) the average consumer and so might be least likely to cause localized public harm or outrage. Second, consistent with the firm not simply protecting important local relationships, we see a large and significant 25% increase in initiations following a lawsuit in that location.

Table 10. Additional Placebo Tests

	Future advertising spending	Future advertising spending	Future advertising spending
Sued – Own Firm	0.254***	0.259***	0.237***
	(0.058)	(0.058)	(0.058)
DMA Market Size	−0.002	−0.003	−0.001
	(0.055)	(0.055)	(0.055)
Advertising Spending (t)	0.541***	0.541***	0.541***
	(0.010)	(0.010)	(0.010)
Sued - Industry	0.053		
	(0.078)		
Sued - State		0.012	
		(0.165)	
Sued – Industry × State			0.063
			(0.060)
Fixed effect: Year	Yes	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes	Yes
Observations	477,708	477,708	477,708
R^2	0.612	0.612	0.612

Notes. In this table, we use a fixed effect OLS model used in baseline model to investigate the impact of competitors' litigation events. We rename our *Sued* variable *Sued – Own Firm* for ease of comparison. In columns 1 to 3, we include an additional dummy variable to our baseline specification to capture litigation events of firms that operate in the same industry *Sued - Industry* (column 1), in the same headquarter state *Sued - State* (column 2), and that operate in the same industry and have the same headquarter state *Sued – Industry × State* (column 3). All other independent variables are defined as in Table 5. Standard errors, clustered by Firm × Year, are reported in parentheses.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

These locations (by revealed preference) were not locations that the firm sufficiently valued the act of advertising in, so not strategically important enough to advertise ongoing stakeholder relationships with, until precisely after the lawsuit, only after which advertising was initiated. Third, following the advertising spike of firms after lawsuits, we find that firms advertising in those sued locations are back to baseline by three years following (when the suits have been adjudicated). Fourth, we find that the advertising is focused directly on the demographic that is most likely to be jury pool members (and not spread across the entire demographic spectrum).

Last, we explore advertising practices of B2B firms. These firms, who sell goods only to other businesses and not to retail consumers, unsurprisingly, advertise significantly less, as their business models are on average based on longer-term supply relationships with other firms. We identify B2B industries by going through each industry three-digit SIC code and classifying it into either a primarily B2B or retail facing firm. When running identical specifications from Table 5, we do find some evidence that B2B also increases advertising precisely following lawsuits. The results are shown in Table 11. From Table 11, both in advertising amounts (column 1) and advertising initiations (column 2), B2B firms do have a positive point estimate for increasing advertising activity. Although not statistically significant in column 1, the estimate of the increased probability on initiating advertising in a DMA in which the B2B firm had never previously advertised rises markedly. The coefficient on *Sued* × *B2B* of 0.112 ($t = 8.43$) implies a nearly 40% larger probability of initiating advertising following suit (relative to retail facing firms facing the same shock), perhaps, not surprisingly, largely due to their lower need for advertising (and presence) ex ante.[9]

Table 11. Business to Business (B2B) Industries and Advertising

	Future advertising spending	Initiate
Sued	0.233***	0.203***
	(0.060)	(0.006
B2B	−0.942*	−0.034
	(0.495)	(0.051)
Sued × B2B	0.029	0.112***
	(0.111)	(0.013)
DMA Market Size	−0.007	−0.003***
	(0.053)	(0.001)
Advertising Spending (t)	0.539***	−0.009***
	(0.010)	(0.010)
Fixed effect: Year	Yes	Yes
Fixed effect: Firm × DMA	Yes	Yes
Observations	485,653	485,653
R^2	0.618	0.841

Notes. In this table, we estimate our baseline models reported in Table 5, for firms in B2B industries and firms in non B2B industries (identified through the categorical variable *B2B*). We identify B2B industries by going through each industry's three-digit Standard Industrial Classification code and classifying it into either a primarily B2B or retail facing firm. Initiate is a dummy variable that takes a value of one if the firm didn't advertise in the corresponding DMA in year t but advertises in year $t+1$. *Future Advertising Spending (log)* is the log of total local advertising in year $t+1$. *Advertising Spending (t)* refers to contemporaneous advertising expense, that is, the log of total local advertising in year t. *Sued* is a dummy variable equal to one if a firm was a defendant at least one time in the federal courthouse in a given DMA in year t for the case types recorded in the Audit Analytics database. Standard errors, clustered by Firm × Year, are reported in parentheses.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

Turning to the impact of this advertising on the outcome of the trial, we do find suggestive evidence that the increased advertising of firms succeeds, to some extent, in "buying the verdict." These results are shown in Table 10. In this table, we regress the defendant win rate, a dummy variable that takes a value of one if a defendant wins the case, on its advertising expenditure spent following the litigation initiation. The Audit Analytics data set (our litigation data source) does not contain the final judgement of the cases (i.e., defendant won, plaintiff won, etc.). To obtain these final judgements, we merged Audit Analytics with the 2014 Federal Court Cases: Integrated Database by ICPSR using case docket numbers. Doing so allows us to observe only a small percentage of the judgements we are interested in because, as Eisenberg and Lanvers (2009) estimate, in the United States, more than 90% of the cases settle *explicitly* sealing the details of the settlement. Thus, we caveat this test as we do not observe settlements or terms of settlements, and thus we can estimate for (and include in the test) only the trials that proceed to a verdict for either the plaintiff or defendant.

In Table 12, we see that advertising is positively and significantly related to win rates. From columns 1 to 3, this is true for both defendants and plaintiffs, that is, the spending of defendants and plaintiffs on advertising have opposite effects on the win rate probabilities of defendant firms. More specifically, the coefficient on defendant advertising in column 3 of 0.018 ($t = 5.47$) implies that median advertising spending of \$183,000 increases the chance of winning the suit by roughly 21% (where the median win rate of defendants is 51%). Using this estimate, we can calculate a rough, back-of-the-envelope estimate regarding the return on investment (ROI) from this particular type of targeted advertising postlitigation.[10] To do so, we use the median damages or settlements paid in a number of our most frequent litigation types observed in our sample: intellectual property and securities class action suits. The median damages award in intellectual property cases between 2013 and 2017 is \$6.0 million, whereas an analogous figure (settlement) for securities class action suits is \$5.0 million in 2017.[11] Using these figures, the implied ROI to advertising is quite high, implying a five times return (\$183,000 investment translates into roughly \$1M of expected value). However, advertising is likely only one element of a broader strategy firms take regarding the litigation event and ultimately influencing the end result.

Past literature has also shown evidence that local media coverage can be influenced by local advertising (Reuter and Zitzewitz 2006, Gurun and Butler 2012), suggesting the effect of advertising on case outcomes may be particularly strong for firms that have higher local media coverage. We explored this hypothesis by using media coverage data in Ravenpack. This data set contains data on news coverage of firms collected from various news media outlets. Of the media outlets, we selected local media outlets and counted the amount of news for each firm in a given year. The results reported in the last column of Table 12 imply that the effect of advertising on favorable case outcomes is significantly higher for firms with more media coverage in local media outlets. This result suggests that local media coverage and local advertising spending are potentially complementary (and interactive) channels at play in the empirical patterns observed.

Table 12. Buying the Verdict

	Defendant win rate	Defendant win rate	Defendant win rate	Defendant win rate
Defendant Ad Spending	0.019***	0.017***	0.018***	0.007
	(0.005)	(0.006)	−0.003	(0.006)
Plaintiff Ad Spending			−0.038***	
			−0.003	
Local Media				0.032
				(0.088)
Local Media × Defendant Ad Spending				0.020**
				(0.008)
Fixed effect: Year	Yes	Yes	Yes	Yes
Fixed effect: DMA		Yes	Yes	Yes
Observations	607	604	525	604
R^2	0.074	0.127	0.097	0.138

Notes. In this table, we regress *Defendant Win Rate*, a dummy variable that takes a value of one if a defendant wins the case, on its advertising expenditure spent following the litigation year. To identify the litigation outcomes, we rely on the *2014 Federal Court Cases: Integrated Database* disseminated by ICPSR. This database contains information to identify whether the final judgment of the case is in favor of defendant or plaintiff. The database also allows us to identify the manner in which the cases disposed. For example, we can identify the cases were transferred or remanded, disposed because of dismissal (lack of jurisdiction, voluntary dismissal, settlement). In our specification, we exclude cases that were disposed because of dismissal or transfer and focus on cases that were disposed with a judgement. Standard errors are clustered by year. *Local Media* is a dummy variable that takes a value of one if the firm was covered in the local media outlets during the trial year.

***, **, and *Statistical significance at the 1%, 5%, and 10% levels, respectively.

7. Conclusion

In this paper, we document systematic evidence that firms engage in specialized, locally targeted advertising when taken to a court-trial in a given location. In particular, using legal actions brought against publicly traded firms over the nearly 20-year sample period that progress to trial from 1995 to 2014 we show that these large, publicly facing, and well-funded organizations have at their disposal a channel outside of the courtroom, which they use, to influence the verdict of cases. When faced with a suit in a given location, firms significantly increase advertising in that location. In terms of magnitude, they increase advertising by 23% ($t = 4.37$) following the suit. In contrast, we see no increase (i) in the same city, by the firm, but *before* and leading up to suit (we find a sharp discontinuity directly following the suit); (ii) in any other similar city at the same time by the same firm (so it is not a firm-level or even firm-market type policy move); and (ii.) in the exact same city where the firm is located by any other firm operating there.

Furthermore, firms appear to use these advertising spikes in a strategic manner. First, they focus the advertising efforts in those particular locations where the effect is expected to be largest: in terms of both the number of jurors they can sway and in terms of the highest return on advertising dollar. Moreover, they focus their television advertising dollar spikes specifically on the potential jury pool (e.g., 50–55 year olds) and not on those who cannot serve on juries (e.g., 2–5 year olds). In addition, these spikes are concentrated in jury adjudicated cases, as opposed to bench (judge-adjudicated) trials. Last, we document that these advertising spikes are associated with verdicts, increasing the probability of a favorable outcome.

Stepping back, the sum of our results implies that firms are having a subtle, potentially important, impact on case outcomes through their strategically targeted actions outside of the courtroom. The fact that this behavior is (i) robust across time, firms, and locations; (ii) lines up across strategic dimensions of the behavior; and (iii) is strong and robust through present day suggests that it is worth examining more closely as litigation against firms continues to rise. Given our results, policy makers should contemplate this mode and channel of influence and whether it should play a role in the legal process.

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Endnotes

[1] The Nielsen Company determines the boundaries of designated market areas (DMA) in the United States. The DMAs are used to define local television and radio markets. There are over 200 DMAs covering the whole United States. The Nielsen Company determines the boundaries of designated market areas (DMA) in the United States. The DMAs are used to define local television and radio markets. There are over 200 DMAs covering the whole United States.

[2] In Online Appendix I, we provide a conceptual framework for a firm operating in multiple regions experiencing a shock in one, and its resultant resource reallocation dynamics.

[3] Litigation Cost Survey of Major Companies, 2010, Lawyers for Civil Justice, Civil Justice Reform Group, and the U.S. Chamber Institute for Legal Reform.

[4] Hope Viner Samborn, *The Vanishing Trial: More and More Cases Are Settled, Mediated or Arbitrated Without a Public Resolution*, 88 A.B.A.J. 24 (October 2002). The author discusses a widely cited study from Marc Galanter that found the number of cases resolved by trial in 2001 was only 2.2% of all cases filed in federal court. *See also* Beverly J. Hodgson, *Who's the Alternate Now?*, Conn. Law Tribune, March 8, 2004, at 2 ("a recent survey of federal district courts reveals that just 1.8% of civil cases go to trial." and "In the state courts, the estimate is that just under 5 percent of the civil cases filed are ever tried.").

[5] DellaVigna and Gentzkow (2010) categorizes models in modeling persuasion in two groups. In the first category, persuasion affects behavior because it changes receivers' beliefs. This includes models in which receivers are rational Bayesians, such as information (Stigler 1961, Telser 1964) and signaling (Nelson 1970, 1974) models of advertising, cheap-talk models (Crawford and Sobel 1982), and persuasion games (Milgrom and Roberts 1986), among others. In the second category, persuasion affects behavior independently of beliefs. This includes models such as those of Stigler and Becker (1977) and Becker and Murphy (1993) in which advertising enters the utility function directly, as well as older models of persuasive advertising (Braithwaite 1928).

[6] We also obtain statistically significant results for the coefficient of *Sued* when we cluster the errors by: (1) *Year* ($t = 3.21$), (2) *DMA* ($t = 4.10$), (3) *Firm* ($t = 3.83$), (4) multiway clustering independently by *Firm* × *Year* and *DMA* ($t = 3.69$), or (5) multiway clustering independently on *Firm*, *Year*, and *DMA* ($t = 2.88$).

[7] Moreover, we obtain similar results when we use *DMA* × *Year* along with *Firm* fixed effects. In this fixed-effect specification, we are obtaining identification by comparing how differently a firm's advertising responds in a year being sued relative to both its average advertising behavior over time and to other firms in the same DMA and year. In this specification, we find the coefficient of *Sued* to be 1.437 ($t = 29.32$).

[8] We also report this analogous fixed effect set-up for the main specification in the online appendix, Table II.

[9] The role of corporate governance on firms' strategic advertising behavior is also somewhat theoretically ambiguous. For instance, it could be that (i) better governed firms may be more ethically aligned and thus less likely to engage in using local advertising to influence case outcomes or (ii) better governed firms may focus more centrally on shareholder maximization and so may find the use of local advertising a value-enhancing tool during the litigation process. We explore these hypotheses in the online appendix, Table VI, using a specification that includes DMA and year fixed effects. We do not include a firm fixed effect because the g-index (Gompers et al. 2003) is highly autocorrelated for the same firm across years (rho = 0.972). The evidence indicates that firms with better governance index engage significantly less in strategic advertising around litigation events.

[10] Calculating ROI for this advertising is made even more complex as much depends on how we measure the full impacts and costs of advertising. Figuring out what portion of the win rate is attributable to a directed advertising campaign is difficult to predict; as opposed to, for instance, other correlated, contemporaneous investments (observable and unobservable) that are being undertaken by the firm.

[11] See https://www.pwc.com/us/en/forensic-services/publications/assets/2018-pwc-patent-litigation-study.pdf and http://securities.stanford.edu/research-reports/1996-2017/Settlements-Through-12-2017-Review.pdf, respectively.

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