Buying the Verdict*

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Buying the Verdict

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 from 1995-2014. In terms of magnitude, the increase is sizable: targeted local advertising increases by 23% (t=4.39) following the suit. Moreover, firms concentrate these strategic increases in locations where the return on their advertising dollars are largest: in smaller, more concentrated advertising markets where fewer competitor firms are advertising. They focus their advertisement spikes specifically toward jury trials, and in fact specifically toward the most likely jury pool. Lastly, we document that these advertising spikes are associated with verdicts, increasing the probability of a favorable outcome.

JEL Classification: K10, K41, K42

Key words: Litigation, advertising, verdict, jury influence

Firms are legally obliged to operate within the standards of their operating jurisdictions. Even so, and despite the fact that firms spend substantial capital in order to stay within this legal framework, infractions occur. While 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.[1] Moreover, the U.S. legal system is founded upon 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 takes 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 from 1995-2014. 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

[1] Lederman, Leandra, 1999, "Which Cases Go to Trial: An Empirical Study of Predictors of Failure to Settle," *Case Western Law Review*, Volume 49-2.

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=4.39) 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 – probability of advertising initiation increasing by 25% (t=4.45). To concretize this, assume we find that Walmart is sued in Akron, OH 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, OH (a similar sized market with similar growth rates leading up to 2001). Moreover, Target shows no abnormal move in the same sued-location, Akron, OH, 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 a number of placebo-effect set-ups (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), as well as firm-by-city (e.g., comparing over time Walmart's advertising decisions and policies in solely Akron, OH). We find that the effect remains economically large and statistically significant in all of 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 NPE activity (Cohen, Kominers, and Gurun (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 (Fish and Richardson (2016), Klerman and Greg 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). Secondly, 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), visible to all jurors who enter. Third, Samsung sponsored numerous High School Scholarships. For example:

1.) The Samsung General Scholarship;

2.) The Samsung Math and Science Scholarship; and even,

3.) The Samsung Football Scholarship.

A requirement to receive one of these scholarships (as seen in Figure 3) 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. What we find in this paper is 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. Firstly, if the behavior that we document truly is a result of firms attempting to impact their perception in a given region, we might expect firms to concentrate this behavior in markets in which their return on advertising is the highest. Along these lines, this impact may be easier to realize in smaller, more concentrated advertising markets (e.g., Akron vs. Los Angeles). We find evidence of exactly this

in the data – this explicit ramping of advertising is concentrated in smaller, more concentrated markets following suits.

Secondly, 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; so 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.

Thirdly, 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 influencable than the judge. While many types of lawsuits have variation in the usage of jury vs. bench, one type of lawsuit that is nearly uniformly decided by jury – as mentioned above - are patent lawsuits. 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.

Fourth, we use the novel micro-level 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 5-

year increments of the demographic (e.g., 15-19 year olds, 20-24 year olds, 25-29 year olds, 30-34 year olds, etc.). We use these data in two ways. First, if influencing the verdict really is driving firm behavior, we might expect firms to concentrate their television advertising efforts precisely where the audience eyes per advertising dollar are highest (e.g., a potential proxy for return on advertising investment). We find exactly this to be true – firms concentrate television advertising efforts precisely where audience per television advertising dollar are the highest. Second, using the fine demographic viewership data, we are able to separate viewers into the most likely jury pool (the average juror in our sample is aged 50), and those television viewers that couldn't 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).

Lastly, 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 acute.

Taking a step back, we believe that the sum of our evidence points most plausibly to firms taking strategic, targeted actions in order 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. In order to test this, we test a number of its implications. First, as mentioned above we see the effect of this increase in advertising strong and concentrated in patent (jury) trials. This is despite the fact 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 3 years following (when the suits have been adjudicated).

Lastly, we explore two sets of firms that we might *ex ante* expect to have less incentive to advertise absent the litigation. First, we examine business-to-business

firms. These firms – who sell goods only to other businesses, 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, when we run our exact same specification, we find that B2B significantly increase advertising precisely following lawsuits. In fact, they have a 50% larger probability of initiating advertising following suit (relative to retail facing firms), perhaps not surprisingly, largely due to their lower need for advertising (and presence) *ex ante*. Second, we examine plaintiff firms' advertising responses, as well. 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 in order to rule in their favor in order 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.

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, we find that a one standard deviation in this targeted advertising by firms increases their win rates by roughly 6 percentage points. Off of a mean of 44%, this equates to a roughly 14 percent increase in rate.

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 I provides a brief background and literature review. Section II describes the data we use, while Sections III presents the main results on influencing the verdict, and establishes its identification in firm-, time-, and location-specific space. Section IV explores the mechanism in more detail, establishing where buying the verdict behavior is more acute, and its increasing usage over time. Section V refines the buying the verdict activity and estimates the economic impact of influencing the verdict, while Section VI concludes.

I. 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. Average percentage of litigation costs as a percentage of total revenues rose from 0.62% to 0.89% between 2000 and 2008. While the outside litigation costs doubled, (from $66 million to $115 million), the in-house litigation costs remained

similar ($16 to $18 million).[2] 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 budgets 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.[3]

Our paper is primarily 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.[4]

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

[3] *See* 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.").

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

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 three channels through which advertising can affect consumers' response to advertising. According to the first channel, called as the information view, search costs may deter a consumer from learning of each product's existence, and advertising help consumers learn about advertised product's existence, price and quality. In this view, when a firm advertises, consumers receive at low cost additional direct (prices, location) and/or indirect (the firm is willing to spend on advertising) information. According to the persuasive view, advertising alters 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. According to persuasive view of advertising, advertising creates 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 has been documented in financial markets in which homogeneous products are marketed to investors. Hastings, Hortacsu, and Syverson (2011) 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, Matvos and Seru (2016) shows mortgage providers are able to lend at higher rates in areas they advertising efforts are higher.

The second clientele persuasion is communication at is investors. For this

purpose, firm use various channels such as corporate responsibility events, press releases, CEO interviews (Kim and Meschke 2012), conference calls (Cohen, Lou, Malloy 2016)), analyst reports (Womack 1998), advertising (Lou 2012), or media (Engelberg and Parsons 2012), 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 (DellaVigna and Kaplan 2007, Gentzkow 2006). A fourth group is nonprofits or charities which solicit contributions with the objective of increasing donations. Examples of this work include Landry et al. (2006), and List & 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.

II. 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 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.

To measure regional level advertising, we utilize Kantar Media Stradegy database. This database allows us to calculate firm level advertisement across Designated Market Areas (DMA) from 1995-2014. 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. Stradegy 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 x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (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 M-F 9a-4p vs. Primetime) and number of persons viewing TV estimates in a given demographics (age group and gender). 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 Compustat. We obtain analyst data from the Institutional Brokers Estimate System

(IBES).

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 CIK 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 first 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 14,412 dockets, approximately 90% of all dockets filed in all federal district courthouses during the same time period.

To create our main 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 1 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 which equals to 1 if a firm was litigated for patent infringement reason. Similarly, we define *Sued Tort* as a

dummy variable equal to 1 if the litigation event is related tort. Our dataset includes only the cases contained in the Audit Analytics database, we are 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 II, 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 Panel B, we tabulate the number of unique dockets filed in top 5 federal district courthouses. In Panel C, we tabulate the number of unique dockets by case type for the top 5 categories.

III. 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 while 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 with regard to this location changes in systematic ways.

Table III 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 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 from 1995-2013. In particular, we focus on those that progressed to trial proceedings. Our unit of analysis is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (DMA) in a given year. DMA regions define boundaries of targeted local advertising and direct marketing campaigns across multiple media.

Table III regresses the amount of *future* (year t+1) advertising spending by a given firm in a given Designated Market Area (DMA) in a given year on a number of determinants. The independent variable of interest is *Sued*: a dummy variable which equals to 1 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 DMA fixed effects to control for time invariant local market conditions that impact a firm's decision to advertise there (e.g., New York City vs. Omaha), and Year fixed effects to control for systematic trends and shocks impacting all firms over time. We then include Firm x Year fixed effects, which control very finely for any firm-time effect that could impact its advertising policy across DMAs

in the same year (e.g., Apple's rollout of IPhone 7), or alternatively Firm x DMA fixed effects, which control finely for any firm-specific, time-invariant, but location specific, advertising strategy differences (e.g., Coca Cola's general advertising strategy in Tuscaloosa vs. Seattle).

From Table III, we see strong and consistent evidence that upon being sued in a given location, firms significantly increase advertising in that specific location. Column 8 of Table III shows the full specification. In terms of magnitude, controlling for other determinants of firm advertising, firms increase advertising by 23.6% (t=4.39) following the suit. Moreover, in Columns 1 and 2, we run the same regressions, 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 2 implies that upon being sued, a firm is 25.4% (t=4.45) more likely to initiate advertising in that location had it not been advertising there beforehand (from a mean of only 1.3%).

One might worry that the increases in advertising that we document in Table III 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.

In order to explore this in more detail, we explore the pre-trends, and parallel trends of fine comparison locations. These are in Exhibit 1. Exhibit 1 compares, for the *same* firm over the *same* time period (so Firm x DMA fixed effects) – DMAs hit by a lawsuit at time 0 (left graph) compared to DMAs not hit by a suit at the same time. Exhibit 1 shows three broad patterns: First, there are.no pre-trends 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 post-suit (when the cases are usually resolved), advertising is back to baseline compared to both pre-suit, and to advertising in the same year (t=3) in other, non-sued locations.

In sum, there is no evidence of any change in advertising expenditures by the same firms, in the same locations, leading up to the suit; nor 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 III and Exhibit 1 thus provide initial evidence of firms targeted advertising expenditures around the time – and spatial heterogeneous locations – of lawsuits.

In Table IV, we run a series of robustness analyses to observe how our baseline results vary across different variable definitions and alternative specifications. For instance, in the first two columns, the dependent variable is the

growth of advertising in a given DMA for a given firm between years (t) and ($t+1$). We define growth as *log(Advertising Spending in a DMA in (t+1) / Advertising Spending in a DMA in (t))*. We test this in both the full sample (Column 1) and a sample that excludes extreme growth rates (e.g. 500%) (Column 2). In specifications 3 to 7, we use *Future Advertising Spending*, varying the control variable set, fixed effects, and clustering choice of standard errors. In Columns 8-11 of Table IV we use a sample that contains advertising information throughout the entire span of the litigation, rather than solely year *t+1*. The results in Table IV tell a consistent story – irrespective of fixed effects included, standard error clustering choice, or advertising specification, the main results remain strong and significant: large, publicly traded firms strongly increase targeted local advertising in a specific geographic location following a lawsuit in that location.

IV. Mechanism Behind Buying the Verdict

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

A. Recent Behavior: First Half vs. Second Half of Sample

In Table V, 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 the influencing the verdict behavior has changed, as well. We thus run our regressions separately for the most recent sample period i.e. 2005-2014, compared to earlier periods, i.e. 1995-2004. From Table V, we see that the influencing the verdict behavior of firms is strong, robust, and significant in both the *Earlier* and *Recent* periods. 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.

B. Use Across Cities: Large vs. Small DMAs

If our results truly are driven by incentives to influence the verdict, we may expect to see firms using this channel more intensely where it is likely to have a larger impact. In particular, for a given dollar of advertising, it is likely to have larger impact in smaller, more concentrated advertising markets (e.g., Akron vs. Los Angeles). We test exactly this in Table VI. Namely, we split our DMAs into the largest (NYC, LA, Chicago, and San Francisco) and the smaller DMAs. Columns 1 and 2 then run identical, full specifications in the largest (Column 1) vs. smaller (Column 2) DMAs. As can be seen comparing the coefficient on *Sued* in Columns 1 and 2, while present in both samples, the magnitude of the advertising spike is almost 3 times as large in economic magnitude in the smaller, more concentrated advertising DMA regions.

Lastly, in Column 3 we test another cross-sectional implication of firms engaging in this behavior. In particular, if firms really are attempting to maximize influence with their advertising spikes, we might expect them to concentrate these

spikes on locations with fewer other firms competing for advertising (so their increases are a relatively larger shock to the total market). In order to test this, we introduce a variable, *DMA with Few Firms*, a dummy variable that takes a value of one if the number of firms in the DMA is below the sample median. This specification also includes an interaction term, *Sued x DMA with Few Firms*. The positive coefficient on this interaction term in Column 4 of Table VI indicates that firms indeed do concentrate significantly larger advertising spikes in locations where there are a smaller number of other firms advertising.

C. 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 influencable than the judge. The average juror:[5] 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.

While many types of lawsuits have variation in the usage of jury vs. 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

[5] The Role of Age in Jury Selection and Trial Outcomes, http://repository.cmu.edu/cgi/viewcontent.cgi?article=1351&context=heinzworks

are tort lawsuits.[6] 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 VII. 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 VII 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, TX sees the plurality of patent infringement cases, and yet has a relatively small population with modest business presence.

D. Plaintiffs

The paper thus far has focused on defendant's responses upon being accused of a legal infraction. We next 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 in order to rule in their favor to win the lawsuit. We run these tests in Columns 3 and 4 of Table VII. We find that firms as plaintiffs

[6] Refo, Patricia Lee, Opening Statement: The Vanishing Trial, *The Journal of the Section of Litigation* (Volume 30-2), Winter 2004 – The American Bar Association (https://www.americanbar.org/content/dam/aba/publishing/litigation_journal/04winter_openingstatement.authcheckdam.pdf).

– like defendants – significantly increase advertising precisely in those locations in which they bring lawsuits, and precisely at the time they bring the suit.

E. 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 with regard to television advertising – we can test for exactly this. In order to do that we use the Nielsen Rating data which allows us to measure the amount of television watched within a given location, broken down into 5-year increments of the demographic viewership (e.g., 10-14 year olds, 15-19 year olds, 20-24 year olds, 25-29 year olds, 30-34 year olds, etc.). We use this data to create a measure of viewership in the prime-demographic of the average jury member (aged 45-54 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). Lastly, we now 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.

The results are reported in Table VIII. 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 *SuedxPrime Jury*. In contrast, we see no spike in advertising in locations where minors are a large share of the viewership

population (who couldn't possibly be jurors).

Lastly, if the advertising spikes we see following suits were aimed to maximize influence, we may expect to see firms concentrating their television advertising dollars in those markets where return on TV advertising investment were the highest. Table IX provides suggestive evidence of firms doing this. In particular, following suits, firms concentrate television advertising efforts especially where audience per television advertising dollar are the highest (as seen in the positive and marginally significant coefficient on the interaction term between *Audience Per Ad Dollar x Sued*).

F. Additional Placebo Tests

In addition to the diff-in-diff from Exhibit, we run a number of additional placebo tests. In Columns 1-3 of Table X, 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 x State*. These 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.

V. Discussion & 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 in order 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 above we see the effect of this increase in advertising strong and concentrated in patent (jury) trials. This is despite the fact 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 3 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).

Lastly, we explore two sets of firms that we might *ex ante* expect to have less incentive to advertise absent the litigation. First, we examine business-to-business firms. These firms – who sell goods only to other businesses, 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 3 digit SIC code and classifying it into either a primarily B2B or retail facing firm. When we run our exact same specification, we find that B2B significantly increase advertising precisely following lawsuits. This is shown in Table XI.

In fact, from Panel B of Table XI, comparing Columns 3 and 4 – B2B have a 50% larger probability of initiating advertising following suit (relative to retail facing firms) – 31% vs. 21%; perhaps not surprisingly, largely due to their lower need for advertising (and presence) *ex ante*.

Second, as mentioned above, we examine plaintiff, who have *not* been accused of any wrongdoing, and thus potentially have less of a need to repair any brand

damage with consumers. We find that plaintiffs significantly increase advertising precisely in those locations in which they bring lawsuits, and precisely at the time they bring the suit (much like defendants).

Turning to the impact of this advertising on outcome of the trial, we do find suggestive evidence of "buying the verdict," in Table XII. 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, we find that a one standard deviation ($870,000) in this targeted advertising by firms increases their win rates by roughly 6 percentage points. Off of a mean of 44%, this equates to a roughly 14 percent increase in rate.

VI. 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 1995-2014 we show that these large, publicly facing, and well-funded organizations have at their disposal a channel outside of the courtroom – which they utilize – 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=4.39) 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.

Further, 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., 45-55 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. Lastly, 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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Exhibit 1
Advertising Diff-in-Diff and Pre-trends surrounding Litigation

This figure plots the coefficient on *Sued* of the full regression specification in Table III Column 8, i.e. Advertising (t+x)= b1* Sued + b2* Advertising (t+x-1) + *Z*, where x=-3 in the first bar, x=-2 in the second bar, x=-1 in the third bar, x=1 in the fourth bar, x=2 in the fifth bar, x=3 in the sixth bar. The right chart shows response to litigation in DMA(y,t), when the firm is litigated in DMA(x, t0), where DMA(y) is closest to DMA(x) in terms of advertising spending in year t0 (i.e. the DMAs right above and right below DMA(x) when sorted by advertising expenditure).

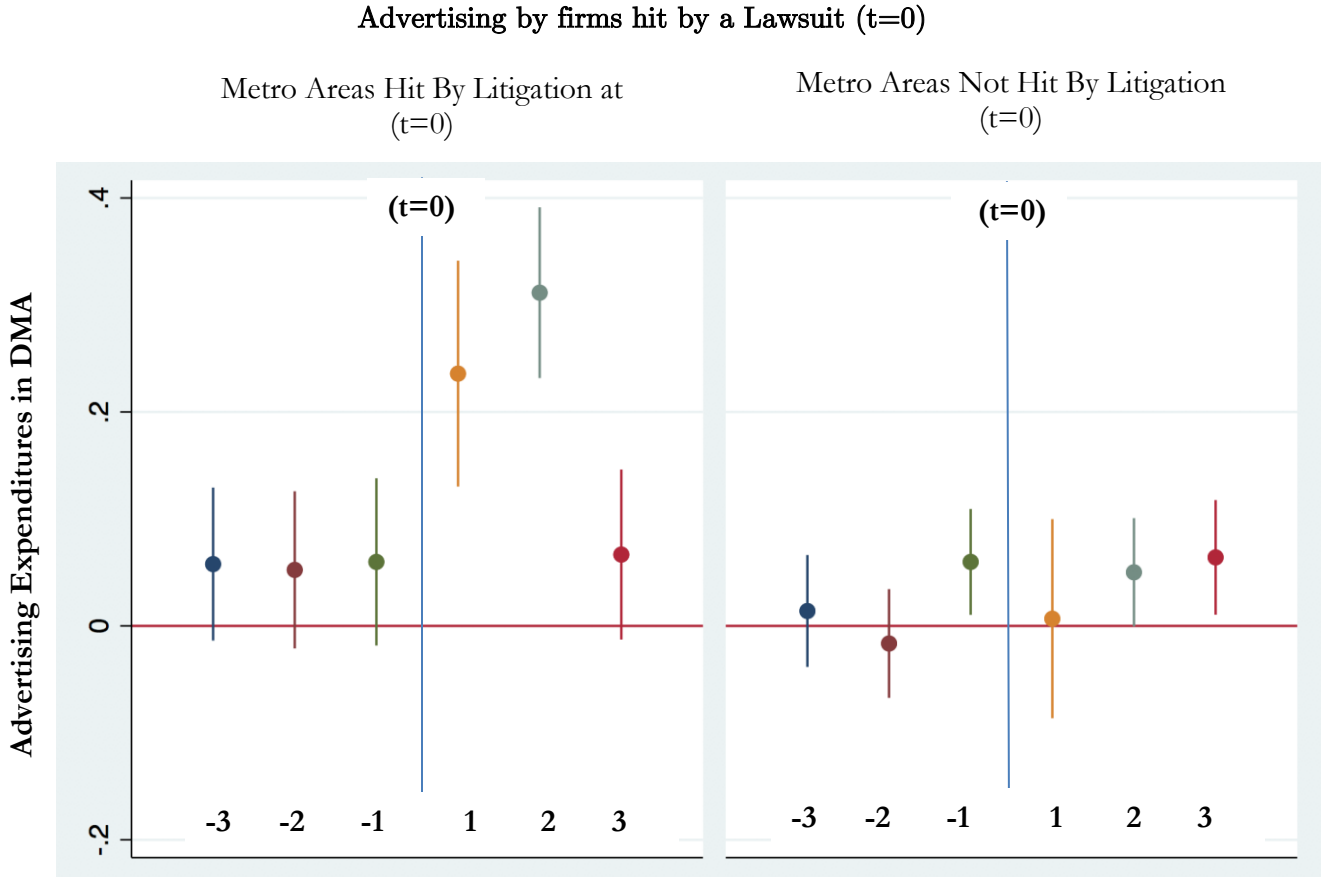


Table I – Summary statistics

This table presents summary statistics on the dataset used in the tests. Unit of observation is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (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. Our 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, i.e. 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 didn't 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 1 if a firm was litigated at least one time in a federal district courthouse in a given DMA in year *t*. Our dataset includes only the cases contained in the Audit Analytics database. *Sued Patent* is a dummy variable equal to 1 if a firm was litigated for patent infringement reason. *Sued Tort* is a dummy variable equal to 1 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.

Panel A. Summary Statistics on Local Advertising and Litigation Actions

	Advertising Expense (Raw)	Future Adv. Spending (log)	DMA Market Size	Initiate	Sued	Sued Patent	Sued Tort
Mean	964,613	8.501	0.387	0.013	0.019	0.008	0.004
Median	21,894	9.994	0.141	0.000	0.000	0.000	0.000
STD	6,310,581	5.182	0.638	0.112	0.135	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

Table II – Summary statistics on litigation events

In Panel A, we tabulate unique number of dockets used in our analysis. Information on these dockets come from Audit Analytics database. 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 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. In Panel B, we tabulate the number of unique dockets filed in top 5 federal district courthouses. In Panel C, we tabulate the number of unique dockets by case type for the top 5 categories.

Panel A. Breakdown of Dockets over Years

Year	Number of Cases
1995	82
1996	160
1997	223
1998	295
1999	429
2000	594
2001	842
2002	720
2003	867
2004	1,168
2005	1,192
2006	1,186
2007	1,054
2008	829
2009	838
2010	827
2011	808
2012	627
2013	290
Total	13,031

Panel B. Breakdown of Dockets across Top 10 DMAs

	DMA Name	Number of Cases
1	New York	2086
2	Philadelphia	1726
3	San Francisco	1375
4	Los Angeles	994
5	Shreveport	660

Panel C. Breakdown of Dockets across Top 5 case types

	Case Type	Number of Cases
1	Securities	4037
2	Patent	3425
3	Contract	2283
4	Tort	1453
5	Labor	668

Table III – Buying the Verdict: Main Effect

In this table, we use a fixed effect OLS model. Unit of observation is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (DMA) in a given year. 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. The dependent variable in the last six 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, i.e. the log of total local advertising in year *t*. *Sued* is a dummy variable equal to 1 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. The specification includes fixed effects for DMA, to proxy for time invariant local market conditions that could affect a firm's decision to advertise. By including FirmxYear fixed effects, we investigate a given firm's allocation of advertising expenditure across DMAs in the same year. Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Future	Future	Future	Future	Future	Future
			Advertising	Advertising	Advertising	Advertising	Advertising	Advertising
	Initiate	Initiate	Spending	Spending	Spending	Spending	Spending	Spending
Sued	0.320***	0.254***	0.917***	0.170***	0.997***	0.235***	0.999***	0.236***
	(0.007)	(0.006)	(0.061)	(0.062)	(0.048)	(0.054)	(0.048)	(0.054)
Advertising Spending (t)					0.821***	0.539***	0.821***	0.539***
					(0.006)	(0.010)	(0.006)	(0.010)
DMA Market Size							-0.028	-0.008
							(0.044)	(0.053)
Fixed Effect – DMA	YES		YES		YES		YES	
Fixed Effect – Year		YES		YES		YES		YES
Fixed Effect - Firm x Year	YES		YES		YES		YES	
Fixed Effect - Firm x DMA		YES		YES		YES		YES
Observations	498,386	485,704	491,391	478,840	498,386	485,704	498,386	485,704
R-squared	0.769	0.824	0.603	0.575	0.694	0.618	0.694	0.618

Table IV – Robustness: Alternative Specifications

In this table, we use a fixed effect OLS model. Unit of observation is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (DMA) in a given year. The dependent variable in the first two columns is the growth of advertising in given DMA for a given firm between years t to t+1. We define growth as log (Ad Spending in year t+1 / Ad Spending in year t). The dependent variable in the remaining columns is unlogged *Future Advertising Spending* (column 3), logged *Future Advertising Spending* (columns 4 to 11). In column 2, we drop extreme growth rates to minimize effect of outliers, i.e. we dropped observations with *Ad Growth* more than 10 times. *DMA Market Size* is subsumed in specifications that include DMAxYear fixed effects, i.e. columns 4, 6, 7, 9 and 11. In Columns 4-11, our baseline specification is altered by inclusion of various fixed effects that capture factors that could effect a firm's advertising decision. In the last four specifications (Columns 8-11), we use a sample that contains advertising information through out the course of the litigation, rather than only year t+1. In the last row of the table, we report the standard error clustering level. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Ad Growth	Ad Growth	Future Advertising Spending (Raw)	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending
Sued	0.999***	0.896***	1.905***	1.437***	0.236***	0.256***	0.994***
	(0.048)	(0.043)	(0.270)	(0.050)	(0.046)	(0.055)	(0.045)
DMA Market Size	-0.179***	-0.076***		0.814***	0.539***	0.529***	0.818***
	(0.006)	(0.006)		(0.003)	(0.004)	(0.010)	(0.004)
Advertising Spending (t)	-0.028	-0.102***	0.845**		-0.008		
	(0.044)	(0.037)	(0.342)		(0.041)		
Fixed Effect - DMA	YES	YES	YES				
Fixed Effect - Year					YES		
Fixed Effect - Firm				YES			
Fixed Effect - Firm x Year	YES	YES	YES				YES
Fixed Effect - Firm x DMA					YES	YES	
Fixed Effect - Year x DMA				YES		YES	YES
Observations	498,386	469,700	498,386	508,461	485,704	485,704	498,386
R-squared	0.449	0.378	0.234	0.576	0.618	0.624	0.697
Standard Errors Clustered by	Firm x Year	Firm x Year	Firm x Year	Year x DMA	Firm x DMA	Firm x Year	Firm x DMA

	(8) Future Advertising Spending	(9) Future Advertising Spending	(10) Future Advertising Spending	(11) Future Advertising Spending
Sued	0.866***	0.143***	0.866***	0.143***
	(0.031)	(0.046)	(0.031)	(0.041)
DMA Market Size	0.796***	0.548***	0.796***	0.548***
	(0.005)	(0.009)	(0.003)	(0.004)
Advertising Spending (t)	-0.068*	-0.038	-0.068**	-0.038
	(0.041)	(0.046)	(0.029)	(0.035)
Fixed Effect - DMA	YES		YES	
Fixed Effect - Year		YES		YES
Fixed Effect - Firm				
Fixed Effect - Firm x Year	YES		YES	
Fixed Effect - Firm x DMA		YES		YES
Fixed Effect - Year x DMA				
Observations	521,989	524,999	521,989	524,999
R-squared	0.723	0.687	0.723	0.687
Standard Errors Clustered by	Firm x Year	Firm x Year	Firm x DMA	Firm x DMA

Table V – Sample Split by Time

In this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 3 for two subsamples, 1995-2004 (Early Period) and 2005-2014 (Recent Period). Unit of observation is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (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, i.e. the log of total local advertising in year *t*. *Sued* is a dummy variable equal to 1 if a firm was litigated 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 FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

VARIABLES	(1) Future Advertising Spending	(2) Future Advertising Spending
Sued Early Period	0.206***	1.132***
	(0.070)	(0.064)
Sued Recent Period	0.392***	1.044***
	(0.066)	(0.062)
DMA Market Size	-0.08	-0.044
	(0.058)	(0.084)
Advertising Spending (t)	0.842***	0.799***
	(0.008)	(0.009)
Fixed Effect – DMA		YES
Fixed Effect – Year	YES	
Fixed Effect - Firm x Year		YES
Fixed Effect - Firm x DMA	YES	
Observations	244,006	254,380
R-squared	0.693	0.695

Table VI – Sample Split by DMA Size

In the first two columns of this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 3 for two subsamples, DMAs with highest amount of total local advertising (column 1) and other DMAs (column 2). The highest advertising DMAs are New York, Chicago, Los Angeles, and San Francisco. In the last specification, we introduce a variable, *DMA with Few Firms*, a dummy variable that takes a value of one if the number of firms in the DMA is below the sample median. This specification also includes an interaction term, *Sued x DMA with Few Firms.* Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Large DMA	Small DMA	
	Future Advertising	Future Advertising	Future Advertising
VARIABLES	Spending	Spending	Spending
Sued	0.441***	1.043***	0.924***
	(0.089)	(0.057)	(0.049)
DMA Market Size	0.048	-0.087	-0.044
	(0.079)	(0.102)	(0.045)
Advertising Spending (t)	0.828***	0.813***	0.821***
	(0.015)	(0.006)	(0.006)
DMA with Few Firms			0.112***
			(0.019)
Sued x DMA with Few Firms			0.681***
			(0.101)
Fixed Effect - DMA	YES	YES	YES
Fixed Effect - Firm x Year	YES	YES	YES
Observations	30,699	460,951	498,386
R-squared	0.834	0.690	0.694

Table VII – Jury vs. Bench Trials and Litigation by Plaintiff

In the first two columns of this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 3 to estimate the relation between litigation types (i.e. patent, tort) and advertising. Unit of observation is Firm x DMA x Year, i.e. amount of advertising spending by a given firm at a given Designated Market Area (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, i.e. the log of total local advertising in year *t*. *Sued Patent* is a dummy variable equal to 1 if a firm was litigated for patent infringement reason. *Sued Tort* is a dummy variable equal to 1 if the litigation is related to tort. *Sued - Plaintiff* is a dummy variable equal to 1 if a 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. Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	(1) Future Advertising Spending	(2) Future Advertising Spending	(3) Future Advertising Spending	(4) Future Advertising Spending
Sued Patent	0.994***	0.285***		
	(0.069)	(0.080)		
Sued Tort	0.556***	0.076		
	(0.077)	(0.085)		
Sued - Plaintiff			0.779***	0.316***
			(0.086)	(0.077)
DMA Market Size	-0.007	-0.002	-0.004	-0.003
	(0.044)	(0.053)	(0.044)	(0.053)
Advertising Spending (t)	0.816***	0.538***	0.814***	0.538***
	(0.006)	(0.010)	(0.006)	(0.010)
Fixed Effect - DMA	YES		YES	
Fixed Effect - Year		YES		YES
Fixed Effect - Firm x Year	YES		YES	
Fixed Effect - Firm x DMA		YES		YES
Observations	498,386	485,704	498,386	485,704
R-squared	0.694	0.618	0.694	0.618

Table VIII – Targeting Jury Pool

In this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 3 to estimate the relation between the local TV advertising spending and the viewership base. Unit of observation is Firm x DMA x 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, i.e. the log of total local TV advertising in year *t*. *Sued* is a dummy variable equal to 1 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 45 and 54 in the watch TV in a given DMA in a given year (average age of a juror = 50). 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 vs. Primetime) and number of persons viewing TV estimates in a given demographics (age group and gender). Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	(1) Future Advertising Spending _ TV	(2) Future Advertising Spending _ TV	(3) Future Advertising Spending _ TV	(4) Future Advertising Spending _ TV
Advertising Spending - TV	0.333***	0.333***	0.659***	0.659***
	(0.018)	(0.018)	(0.012)	(0.012)
DMA Market Size	-0.258**	-0.276**	-0.060	-0.109
	(0.111)	(0.119)	(0.123)	(0.133)
Sued	0.130	0.095	1.634***	1.597***
	(0.104)	(0.105)	(0.093)	(0.095)
Prime Jury	4.449***	3.506***	3.751***	2.026
	(1.029)	(1.333)	(1.111)	(1.481)
Sued x Prime Jury	0.940***	4.707**	0.063	4.032**
	(0.341)	(1.924)	(0.273)	(1.594)
Children Viewers		1.760		3.226**
		(1.593)		(1.624)
Sued x Children Viewers		-4.569**		-4.786**
		(2.301)		(1.875)
Fixed Effect - DMA	YES	YES		
Fixed Effect - Year			YES	YES
Fixed Effect - Firm x Year	YES	YES		
Fixed Effect - Firm x DMA			YES	YES
Observations	214,015	214,015	224,755	224,755
R-squared	0.729	0.729	0.698	0.698

Table IX – Targeting Highest ROI TV Advertising

In this table, we use a fixed effect OLS model to estimate the baseline model reported in Table 3 to estimate the relation between the local TV advertising spending and the viewership base. Unit of observation is Firm x DMA x Year. The dependent variable, *Future Advertising Spending -TV* is the log of total local spot TV advertising in year *t+1*. *Advertising Spending - TV* refers to contemporaneous TV advertising expense, i.e. the log of total local TV advertising in year *t*. *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 1 if a firm was litigated at least one time in the federal courthouse in a given DMA in year *t*. *Audience Per Ad Dollar* is the log of ratio of total number of potential viewers to total TV advertising expenditure. Standard errors, clustered by Firm x Year, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Future Advertising Spending - TV
Advertising Spending – TV	0.699***
	(0.012)
Sued	6.471*
	(3.324)
Audience Per Ad Dollar	0.169
	(0.128)
Audience Per Ad Dollar x Sued	0.481*
	(0.259)
DMA Market Size	-0.389*
	(0.203)
Fixed Effect – DMA	YES
Fixed Effect - Firm x Year	YES
Observations	178,537
R-squared	0.711

Table X – Additional Placebo Tests

In this table, we use a fixed effect OLS model used in baseline model to investigate the impact of competitors' litigation events. 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 (Column 1), in the same headquarter state (Column 2), and that operate in the same industry and have the same headquarter state (Column 3). Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	(1) Future Advertising Spending	(2) Future Advertising Spending	(3) Future Advertising Spending
Sued - Own	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 - IndustryxState			0.063
			(0.060)
Observations	477,708	477,708	477,708
R-squared	0.612	0.612	0.612

Table XI. B2B Results

In this table, we estimate our baseline model reported in Table 3 for two sets of firms, firms in B2B industries and firms in non B2B industries. We identify B2B industries by going through each industry 3 digit SIC 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, i.e. the log of total local advertising in year *t*. *Sued* is a dummy variable equal to 1 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. In Panel A, we include DMA and FirmxYear fixed effects. In Panel B, we include Year and FirmxDMA fixed effects. Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

Panel A.

	B2B Industry	Non B2B Industry	B2B Industry	Non B2B Industry
	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending
Sued	1.234***	0.871***	0.397***	0.264***
	(0.097)	(0.058)	(0.012)	(0.007)
DMA Market Size	0.105	-0.048	-0.010***	-0.007***
	(0.086)	(0.055)	(0.002)	(0.001)
Advertising Spending (t)	0.728***	0.837***	-0.011***	-0.008***
	(0.011)	(0.008)	(0.000)	(0.000)
Fixed Effect - DMA	YES	YES	YES	YES
Fixed Effect - Firm x Year	YES	YES	YES	YES
Observations	121,065	337,631	121,065	337,631
R-squared	0.649	0.707	0.817	0.782

Panel B.

	B2B Industry	Non B2B Industry	B2B Industry	Non B2B Industry
VARIABLES	Future Advertising Spending	Future Advertising Spending	Initiate	Initiate
Sued	0.259**	0.226***	0.309***	0.211***
	(0.111)	(0.068)	(0.011)	(0.007)
DMA Market Size	0.164	-0.055	-0.004**	-0.002**
	(0.108)	(0.066)	(0.002)	(0.001)
Advertising Spending (t)	0.523***	0.547***	-0.011***	-0.008***
	(0.018)	(0.013)	(0.000)	(0.000)
Fixed Effect - Year	YES	YES	YES	YES
Fixed Effect - Firm x DMA	YES	YES	YES	YES
Observations	121,065	337,631	121,065	337,631
R-squared	0.649	0.707	0.817	0.782

Table XII. Buying the Verdict

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 2014 Federal Court Cases: Integrated Data Base 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. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Defendant Win Rate	Defendant Win Rate
Future Advertising Spending	0.017***	0.013**
	(0.005)	(0.005)
Fixed Effect - Year	YES	YES
Fixed Effect - DMA		YES
Observations	2,287	2,287
R-squared	0.061	0.159

Figure 1 – Samsung example

27th Annual Wonderland of Lights Festival Begins With Samsung Holiday Celebration Show



Historical Harrison County Courthouse is the center stage event for 27th Annual Wonderland of Lights Festival that begins November 27

Source: Marshall News Messenger - Marshall, TX

Figure 2 – Samsung example

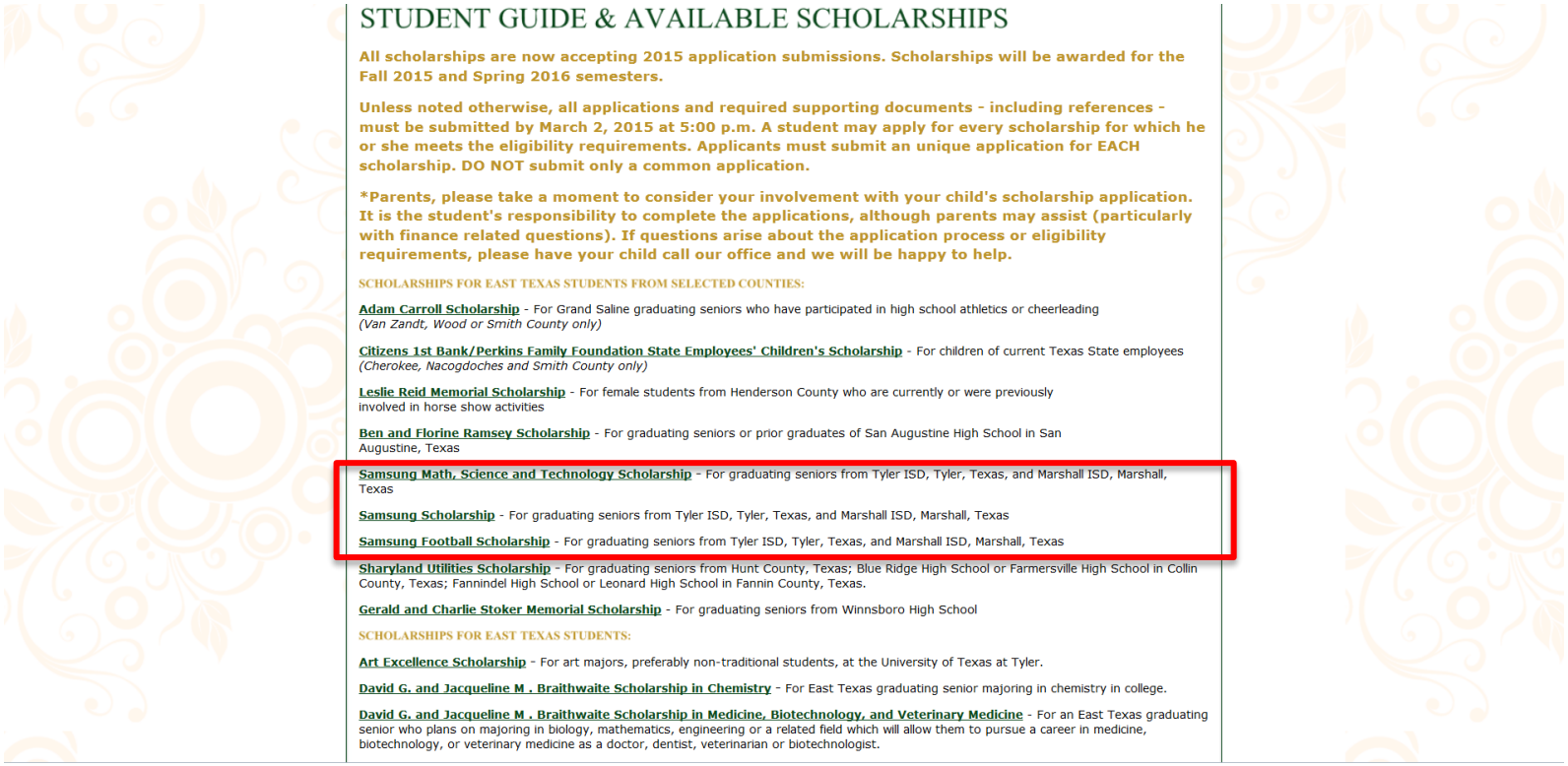
Samsung Ice Skating Rink



Winter ice rink in Marshall, Texas. The historic county courthouse is in the background.

Source: Marshall News Messenger - Marshall, TX

Figure 3 – Samsung example



STUDENT GUIDE & AVAILABLE SCHOLARSHIPS

All scholarships are now accepting 2015 application submissions. Scholarships will be awarded for the Fall 2015 and Spring 2016 semesters.

Unless noted otherwise, all applications and required supporting documents - including references - must be submitted by March 2, 2015 at 5:00 p.m. A student may apply for every scholarship for which he or she meets the eligibility requirements. Applicants must submit an unique application for EACH scholarship. DO NOT submit only a common application.

***Parents, please take a moment to consider your involvement with your child's scholarship application. It is the student's responsibility to complete the applications, although parents may assist (particularly with finance related questions). If questions arise about the application process or eligibility requirements, please have your child call our office and we will be happy to help.**

SCHOLARSHIPS FOR EAST TEXAS STUDENTS FROM SELECTED COUNTIES:

Adam Carroll Scholarship - For Grand Saline graduating seniors who have participated in high school athletics or cheerleading *(Van Zandt, Wood or Smith County only)*

Citizens 1st Bank/Perkins Family Foundation State Employees' Children's Scholarship - For children of current Texas State employees *(Cherokee, Nacogdoches and Smith County only)*

Leslie Reid Memorial Scholarship - For female students from Henderson County who are currently or were previously involved in horse show activities

Ben and Florine Ramsey Scholarship - For graduating seniors or prior graduates of San Augustine High School in San Augustine, Texas

Samsung Math, Science and Technology Scholarship - For graduating seniors from Tyler ISD, Tyler, Texas, and Marshall ISD, Marshall, Texas

Samsung Scholarship - For graduating seniors from Tyler ISD, Tyler, Texas, and Marshall ISD, Marshall, Texas

Samsung Football Scholarship - For graduating seniors from Tyler ISD, Tyler, Texas, and Marshall ISD, Marshall, Texas

Sharyland Utilities Scholarship - For graduating seniors from Hunt County, Texas; Blue Ridge High School or Farmersville High School in Collin County, Texas; Fannindel High School or Leonard High School in Fannin County, Texas.

Gerald and Charlie Stoker Memorial Scholarship - For graduating seniors from Winnsboro High School

SCHOLARSHIPS FOR EAST TEXAS STUDENTS:

Art Excellence Scholarship - For art majors, preferably non-traditional students, at the University of Texas at Tyler.

David G. and Jacqueline M . Braithwaite Scholarship in Chemistry - For East Texas graduating senior majoring in chemistry in college.

David G. and Jacqueline M . Braithwaite Scholarship in Medicine, Biotechnology, and Veterinary Medicine - For an East Texas graduating senior who plans on majoring in biology, mathematics, engineering or a related field which will allow them to pursue a career in medicine, biotechnology, or veterinary medicine as a doctor, dentist, veterinarian or biotechnologist.

Source: Marshall News Messenger - Marshall, TX