Buying the Verdict

Lauren Cohen

Harvard Business School and NBER

Umit G. Gurun

University of Texas at Dallas and NBER

December 1, 2017

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 all legal actions brought against publicly traded firms over the 20 year sample period that progress to trial from 1994-2014. In terms of magnitude, the increase is sizable: targeted local advertising increases by 23% (t=8.63) 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 find that the prevalence and intensity of this behavior is increasing over time.

JEL Classification: K10, K41, K42

Key words: Litigation, advertising, verdict, jury influence

Acknowledgement: We gratefully acknowledge funding from the National Science Foundation (SciSIP-1535813). All errors are ours. Please send comments to either author.

Contact information: Lauren Cohen: Harvard Business School, Rock Center 321, Soldiers Field, Boston, MA 02163, USA. Tel: 1-617-495-3888; Email: lcohen@hbs.edu.
Umit G. Gurun: University of Texas at Dallas, 800 W Campbell Rd. SM 41, Richardson, TX 75024, USA. Phone: +1-972-883-5917. Email: umit.gurun@utdallas.edu.

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 over the 20 year sample period from 1994-2014. 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

[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.

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=8.63) 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. To concretize this, assume we find that Walmart is sued in Akron, OH in 2001. We see a large spike in Walmart's advertising 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 firmXtime (e.g., comparing all cities in which Walmart operates and advertises in a given year), as well as firmXcity (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, we find that these effects are becoming economically larger over time. The estimated firm behavior is large and significant in both sub-samples, but is becoming significantly larger in the most recent sample period.

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)). 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 significantly higher in the case of patent (jury) lawsuits (over twice as large).

Fourth, we use the novel micro-level reporting of our data to explore even further 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 stronger in second half of sample – the most recent sample period. Thus, this does not appear to be a behavior that is an artifact of the past, but instead it is just as robust – in fact significantly stronger - presently. Thus, the need to understand it is even more acute.

Taking a step back, the sum of our evidence all points to firms taking strategic, targeted actions in order to the influence the verdict of litigation against them – outside in addition to inside, 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 getting stronger over time, suggests that it is worth examining more closely as litigation against firms continues to rise. Stepping back, 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 explores 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

[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.

of $1 million to $5 million in 2014. The corresponding figure in 2013 was 26%. A significant portion of all commercial litigations settle 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]

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

[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).

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 1994 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 AdSpender database. This database allows us to calculate firm level advertisement across Designated Market Areas (DMA). 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 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, ther advertiser (company), and the parent company of the advertiser. We first hand match advertiser to Compustat firm names. In cases where we can not 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 1994 and 2014, we use dockets with filing years between 1993 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 more than 20 year sample period from 1994-2014. 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). We also include FirmxYear fixed effects, which controls 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).

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 3 of Table III shows the full specification. In terms of magnitude, controlling for other determinants of firm advertising, firms increase advertising by 23 % (t=8.63) following the suit.

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, or even have reverse causality – whereby the increasing footprint (or desire for a footprint) in a location causes increases in advertising, and it is the increased footprint which leads to higher chances of suit. In either case, it would have nothing to do with lawsuits *causing* the increase in advertising. In the last column, we run a powerful placebo test to address this. Specifically, we replace future advertising expenditure (*t+1*) with the advertising expense in the year *before* the filing of the suit (*t-1*).

The results of this placebo test are shown in Column 4 of Table III. The coefficient on *Sued* is statistically indistinguishable from zero. In other words, there is no evidence of any change in advertising expenditures by the *same* firms, in the *same* locations, leading up to the suit. 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 provides strong evidence firms responding to the suits by the large increases in targeted advertising expenditures.

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 Column 8 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: following suits in a given location, large, publicly traded firms strongly increase targeted local advertising in that geographic location (and only 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 full specification regressions separately for the most recent sample period i.e. 2005-2014, compared to earlier periods, i.e. 1994-2004. From Table V, we see that the influencing the verdict behavior of firms is significantly larger in the most recent sample period. This underscores the need to

understand this phenomenon more fully, as its use appears to be growing (in estimated magnitude) over time.

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, *Number of Firms*, that captures the number of *other* firms advertising in a given DMA in the year firm advertises. This specification also includes an interaction term, *Sued x Number of Firms.* The negative 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 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

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

[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).

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. 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 strong 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 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 significant coefficient on the interaction term between *Audience Per Ad Dollar x Sued*).

E. Additional Placebo Tests

In addition to the placebo test we report in Table III, we report two additional placebo tests in Table X. We report a number of additional placebo tests. In Column 1, we replace the advertising in a given sued DMA (e.g., Walmart's advertising in Akron in 2007) with the *same* firm's advertising in a comparable DMA (e.g.,

Walmart's advertising in Toledo in 2007), in the *same* year, but in which the firm is *not* litigated. We identify comparable DMAs based on total advertising spending (scaled by total advertising by all firm in that DMA) in a given year. In the second placebo test (Column 2), we regress advertising expenditure of a comparable competitor on litigation dummy. To identify the comparable competitor, we pick the firm that (1) operates in the same 4-digit SIC code, (2) has a headquarter in the same state, and (3) has the closest Total Assets in the year prior to litigation. Looking at both Column 1 and Column 2 in Table X, we find no evidence of a significant change in either direction in either of these placebo tests.

In Columns 3 to 5 of Table X, we then include an additional dummy variable to capture litigation events of firms that operate in the same industry (Column 3), in the same headquarter state (Column 4), and that operate in the same industry and have the same headquarter state (Column 5). 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.

V. Economic Impact of Buying the Verdict

While we have explored the firm advertising response to being sued in a given location, the economic - and broad welfare - impact of this behavior is somewhat more nuanced and complicated to completely account for. Clearly firms are making large investments in targeted advertising – like Samsung in Marshall, TX – for the

hope of a return on that investment in the form of shading the jury pool (and specifically the jury members) toward a favorable image of the firm, and more specifically a favorable verdict for the firm. In order to test this return on investment, we would need a counterfactual of what the verdict *should* have been without this influencing behavior intervention by the firms. In order to do this, we are exploring the use of the same actions against business-to-business (B2B) firms. These are large, public firms of similar sizes, shareholder bases, operating capacities, etc. as those firms in our sample. The crucial difference is that these firms have no public image or recognition. Given this, these firms have a much smaller incentive to advertise (as the cost to do so would be much larger, thus reducing any ROI). We find that indeed these firms do not engage in the same advertising spikes when sued. Moreover, these firms then have win rates of cases relative to matched firms (same size and industry that do engage in buying the verdict) of a smaller percentage. However, even though we have established the impact on win rates, in terms of the welfare impact, it depends whether or not you believe that firms are pushing juries closer to (or further from) efficient outcomes with their influence. In either case, what is true is that this was not an intended role or channel for firms to influence case outcomes, and thus the entire channel should be considered carefully

by policy makers and the judicial system more broadly.

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 all legal actions brought against publicly traded firms over the 20 year sample period that progress to trial from 1994-2014 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=8.63) 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, this buying the verdict behavior by firms is increasing in intensity over time. In particular, we find significantly larger impacts in the most recent part of our sample period. 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. Given our results, policy makers should contemplate this mode and channel of influence, and whether it should play a role in the legal process.

References

Aaker DA, Carman JM. 1982. Are you overadvertising? J. Advert. Res. 22(4):57–70

Ackerberg DA. 2001. Empirically distinguishing informative and prestige effects of advertising. Rand J. Econ. 32(2):316–33

Ackerberg DA. 2003. Advertising, learning, and consumer choice in experience good markets: an empirical examination. Int. Econ. Rev. 44(3):1007–40

Bagwell K. 2007. The economic analysis of advertising. In Handbook of Industrial Organization, Vol. 3, ed. M Armstrong, R Porter, pp. 1701–844. Amsterdam: North-Holland

Becker GS, Murphy KM. 1993. A simple theory of advertising as a good or bad. Q. J. Econ. 108: 941–64

Bertrand M, Karlan DS, Mullainathan S, Shafir E, Zinman J. 2010. What's advertising content worth? Evidence from a consumer credit marketing field experiment. Q. J. Econ. 125:263–305

Braithwaite D. 1928. The economic effects of advertisement. Econ. J. 38:16–37

DellaVigna, Stefano, 2009, Psychology and economics: Evidence from the field, Journal of Economic Literature 47, 315–372.

DellaVigna, Stefano, and Matthew Gentzkow, 2010, Persuasion: Empirical evidence, Annual Review of Economics 2, 643–669.

DellaVigna S, Kaplan E. 2007. The Fox News effect: media bias and voting. Q. J. Econ. 122(3): 1187–234

DellaVigna S, List JA, Malmendier U. 2009. Testing for altruism and social pressure in charitable giving. NBER Work. Pap. 15629

Engelberg J, Parsons C. 2012. The causal impact of media in financial markets. Journal of Finance.

Gentzkow MA. 2006. Television and voter turnout. Q. J. Econ. 121(3):931–72

Gentzkow MA, Shapiro JM. 2004. Media, education and anti-Americanism in the Muslim world. J. Econ. Perspect. 18(3):117–33

Gentzkow MA, Shapiro JM. 2006. Media bias and reputation. J. Polit. Econ. 114(2):280–316

Gentzkow MA, Shapiro JM. 2009. Media market structure and political participation: historical evidence from U.S. newspapers. Unpublished manuscript, Univ. Chicago

Gentzkow M, Shapiro J. 2010. What drives media slant? Evidence from U.S. daily newspapers. Econometrica 78(1):35–71

Gerber A, Karlan D, Bergan D. 2009. Does the media matter? A field experiment measuring the effect of newspapers on voting behavior and political opinions. Am. Econ. J. Appl. Econ. 1(2):35–52

Gerber AS, Gimpel J, Green D, Shaw D. 2007. The influence of television and radio advertising on candidate evaluations: results from a large scale randomized experiment. Work. Pap., Yale Univ.

Gerber AS, Green DP. 2000. The effects of canvassing, telephone calls, and direct mail on voter turnout: a field experiment. Am. Polit. Sci. Rev. 94(3):653–63

Green DP, Gerber AS. 2008. Get Out the Vote! How to Increase Voter Turnout. Washington, DC: Brookings Inst. Press

Green DP, Gerber AS, Nickerson DW. 2008. Getting out the vote in local elections: results from six door-to-door canvassing experiments. J. Polit. 65(04):1083–96

Gurun, Umit G. and Alexander W. Butler, 2012, Don't believe the hype: Local media slant, local advertising, and firm value, The Journal of Finance 67, 561–597.

Hortacsu, Ali, and Chad Syverson, 2004, Product differentiation, search costs, and competition the mutual fund industry: A case study of S&P 500 index funds, Quarterly Journal of Economics 119, 403–456.

Hastings, Justine, Ali Hortacsu, and Chad Syverson, 2011, Advertising and competition in privatized social security: The case of Mexico, Working paper, University of Chicago.

Iyengar S, Simon AF. 2000. New perspectives and evidence on political communication and campaign effects. Annu. Rev. Psychol. 51:149–69

Lou, Dong, 2014, Attracting investor attention through advertising, Review of Financial Studies 27, 1797–1829.

Nelson, Phillip, 1974, Advertising as information, Journal of Political Economy 82, 729–754.

Reuter, Jonathan, and Eric Zitzewitz, 2006, Advertising and bias in the financial media, Quarterly Journal of Economics 121, 197–227.

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 105 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*. *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 14,412 dockets with a filing year between 1993 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 Advertising Spending (log)	DMA Market Size	Sued	Sued Patent	Sued Tort
Mean	1,254,535	10.903	0.385	0.0088	0.0028	0.0022
Median	64,959	11.082	0.141	0.0000	0.0000	0.0000
Std. Dev.	7,222,262	2.884	0.633	0.0934	0.0526	0.0463
p5	328	5.793	0.023	0.0000	0.0000	0.0000
p95	4,721,923	15.368	1.706	0.0000	0.0000	0.0000
N	372,183	372,183	372,183	372,183	372,183	372,183

Table II – Summary statistics on litigation events

In Panel A, we tabulate unique number of dockets reported in the Audit Analytics database by year. 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. Because our advertising data covers period covers years between 1994 and 2014, we use dockets with filing years between 1993 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
1993	31
1994	47
1995	83
1996	163
1997	234
1998	302
1999	448
2000	622
2001	890
2002	783
2003	935
2004	1,252
2005	1,273
2006	1,342
2007	1,194
2008	941
2009	983
2010	948
2011	928
2012	694
2013	319
Total	14,412

Panel B. Breakdown of Dockets across Top 10 DMAs

	DMA Name	Number of Cases
1	NEW YORK	2297
2	PHILADELPHIA	1936
3	SAN FRAN-OAK-SJ	1494
4	LOS ANGELES	1121
5	SHREVEPORT	685

Panel C. Breakdown of Dockets across Top 5 case types

	Case Type	Number of Cases
1	Securities	3862
2	Patent	3622
3	Contract	2577
4	Tort	1591
5	Civil	724

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. The dependent variable in the first three columns, *Future Advertising Spending (log)*, our main variable of interest, is the log of total local advertising in year *t+1*. The last specification, our placebo test, we use *Past Advertising Spending* instead of *Future Advertising Spending. 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. 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.

				Placebo Test
	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	*Past* Advertising Spending (*t-1*)
Sued	0.589***	0.588***	0.227***	-0.032
	(0.038)	(0.037)	(0.026)	(0.058)
DMA Market Size		0.018	-0.034	0.100**
		(0.041)	(0.025)	(0.042)
Advertising Spending (*t*)			0.597***	0.419***
			(0.004)	(0.006)
Advertising Spending (*t-2*)				0.532***
				(0.004)
Fixed Effect - DMA	Yes	Yes	Yes	Yes
Fixed Effect - Firm x Year	Yes	Yes	Yes	Yes
Observations	368,697	368,697	368,697	346,109
R-squared	0.667	0.667	0.784	0.782

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 *Future Advertising Spending (log)*, and is the log of total local advertising in year *t+1*. In column B, we drop extreme growth rates to minimize effect of outliers, i.e. we dropped observations with *Ad Growth* greater than 500%. In column 3, we report our baseline specification reported in Table 3 without including *Cont. Ad Spending. DMA Market Size* is subsumed in specifications that include DMAxYear fixed effects, i.e. columns 4, 6, and 7. In Columns 4-7, 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 specification, we use a sample that contains advertising information through out the course of the litigation, rather than only year t+1. In all columns expect for column 4 and 7, standard errors are clustered by FirmxYear and are reported in parentheses. In column 4 (7), we cluster the standard errors by YearxDMA (Firmx DMA). ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Ad Growth	Ad Growth	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending
Sued	0.227***	0.189***	2.382***	0.233***	0.060**	0.066**	0.232***	0.194***
	(0.026)	(0.023)	(0.378)	(0.027)	(0.026)	(0.027)	(0.027)	(0.017)
DMA Market Size	-0.034	-0.043**	1.132**		0.069***			-0.036
	(0.025)	(0.022)	(0.473)		(0.020)			(0.025)
Ad Spending (t)	-0.403***	-0.322***		0.598***	0.341***	0.336***	0.597***	0.596***
	(0.004)	(0.004)		(0.002)	(0.003)	(0.006)	(0.003)	(0.004)
FE – DMA	Yes	Yes	Yes					Yes
FE – Firm				Yes				
FE – Year					Yes			
FE - Firm x Year	Yes	Yes	Yes				Yes	Yes
FE - DMA x Year				Yes		Yes	Yes	
FE - Firm x DMA					Yes	Yes		
Observations	368,697	361,026	368,697	371,938	361,063	361,063	368,697	415,793
R-squared	0.373	0.335	0.247	0.733	0.785	0.788	0.787	0.755

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, 1994-2004 (column 1) and 2005-2014 (column 2). 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.

	1994-2004	2005-2014
	Future Advertising Spending	Future Advertising Spending
Sued	0.197***	0.253***
	(0.039)	(0.034)
DMA Market Size	-0.087***	-0.008
	(0.032)	(0.048)
Advertising Spending (*t*)	0.598***	0.593***
	(0.005)	(0.006)
Fixed Effect - DMA	Yes	Yes
Fixed Effect - Firm x Year	Yes	Yes
Observations	176,283	192,414
R-squared	0.782	0.783

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, *Number of Firms*, that captures the number of firms advertising in a given DMA in the year firm advertises. This specification also includes an interaction term, *SuedxNumber of Firms.* Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Large DMAs	Smaller DMAs	
	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending
Sued	0.081*	0.200***	0.344***
	(0.042)	(0.031)	(0.059)
DMA Market Size	0.017	-0.007	0.002
	(0.036)	(0.060)	(0.008)
Advertising Spending (t)	0.581***	0.584***	0.614***
	(0.011)	(0.004)	(0.004)
Number of Firms			0.388***
			(0.006)
Sued x Number of Firms			-0.032***
			(0.011)
Fixed Effect - DMA	Yes	Yes	Yes
Fixed Effect - Firm x Year	Yes	Yes	Yes
Observations	22,471	342,927	415,793
R-squared	0.879	0.779	0.753

Table VII – Jury vs. Bench Trials

In 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. Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Future Advertising Spending
Sued Patent	0.234***
	(0.043)
Sued Tort	0.101**
	(0.047)
DMA Market Size	-0.030
	(0.025)
Advertising Spending (t)	0.597***
	(0.004)
Fixed Effect - DMA	Yes
Fixed Effect - Firm x Year	Yes
Observations	368,697
R-squared	0.784

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.

	Future Advertising Spending _ TV	Future Advertising Spending _ TV
Advertising Spending - TV	0.664***	0.664***
	(0.014)	(0.014)
DMA Market Size	0.000	-0.000
	(0.000)	(0.000)
Sued	0.202*	0.157
	(0.111)	(0.114)
Prime Jury	4.895***	3.959**
	(1.274)	(1.720)
Sued x Prime Jury	1.432***	5.719**
	(0.394)	(2.231)
Children Viewers		1.740
		(1.830)
Sued x Children Viewers		-5.179**
		(2.632)
Fixed Effect - DMA	Yes	Yes
Fixed Effect - Firm x Year	Yes	Yes
Observations	170,282	170,282
R-squared	0.656	0.656

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 (log)* is the log of total local spot TV advertising in year *t+1*. *Advertising Spending (t) _ 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 ratio of total number of potential viewers to total TV advertising expenditure. Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Future Advertising Spending on TV
Advertising Spending - TV	0.812***
	(0.015)
DMA Market Size	-0.000
	(0.000)
Sued	0.237***
	(0.063)
Audience Per Ad Dollar	0.084
	(0.069)
Audience Per Ad Dollar x Sued	0.133**
	(0.061)
Fixed Effect - DMA	Yes
Fixed Effect - Firm x Year	Yes
Observations	37,037
R-squared	0.810

Table X – Additional Placebo Tests

In this table, we use a fixed effect OLS model used in baseline model to investigate the results of two placebo tests (columns 1 and 2) and impact of competitors' litigation events (columns 3,4, and 5). In the first placebo test, we regress the litigated firm's advertising expense in a comparable DMA, rather than the expenditure in the DMA where litigation occurs. To identify the comparable DMA for each firm, we first calculate each DMA's advertising market size by adding up all advertising spending by all firms. We then (a) calculate an advertising market share for each firm-DMA by scaling ad spending by DMA's ad market size, (b) for each firm-year, we sort DMAs by this ratio, (3) and then determine which DMA has the closest market share to the market share of DMA in which the firm is litigated. In the second placebo test, we regress advertising expenditure of a comparable competitor on litigation dummy. To identify the comparable competitor, we pick the firm that (1) operates in the same 4-digit SIC code, (2) has a headquarter in the same state, and (3) has the closest Total Assets in the year prior to litigation. In Columns 3 to 5, we include an additional dummy variable to capture litigation events of firms that operate in the same industry (Column 3), in the same headquarter state (Column 4), and that operate in the same industry and have the same headquarter state (Column 5). Standard errors, clustered by FirmxYear, are reported in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels.

	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending	Future Advertising Spending
Sued - Own	0.017	-0.045	0.226***	0.232***	0.218***
	(0.032)	(0.032)	(0.027)	(0.027)	(0.027)
Sued - Industry			0.027		
			(0.023)		
Sued - State				-0.032	
				(0.035)	
Sued - IndustryxState					0.037
					(0.024)
DMA Market Size	-0.074***	0.010	-0.039	-0.039	-0.038
	(0.026)	(0.022)	(0.025)	(0.025)	(0.025)
Advertising Spending	0.550***	0.100***	0.598***	0.598***	0.598***
	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)
FE – DMA	Yes	Yes	Yes	Yes	Yes
FE – Firm	Yes	Yes	Yes	Yes	Yes
FE – Year	Yes	Yes	Yes	Yes	Yes
Observations	368,240	369,919	371,938	371,938	371,938
R-squared	0.649	0.546	0.730	0.730	0.730

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

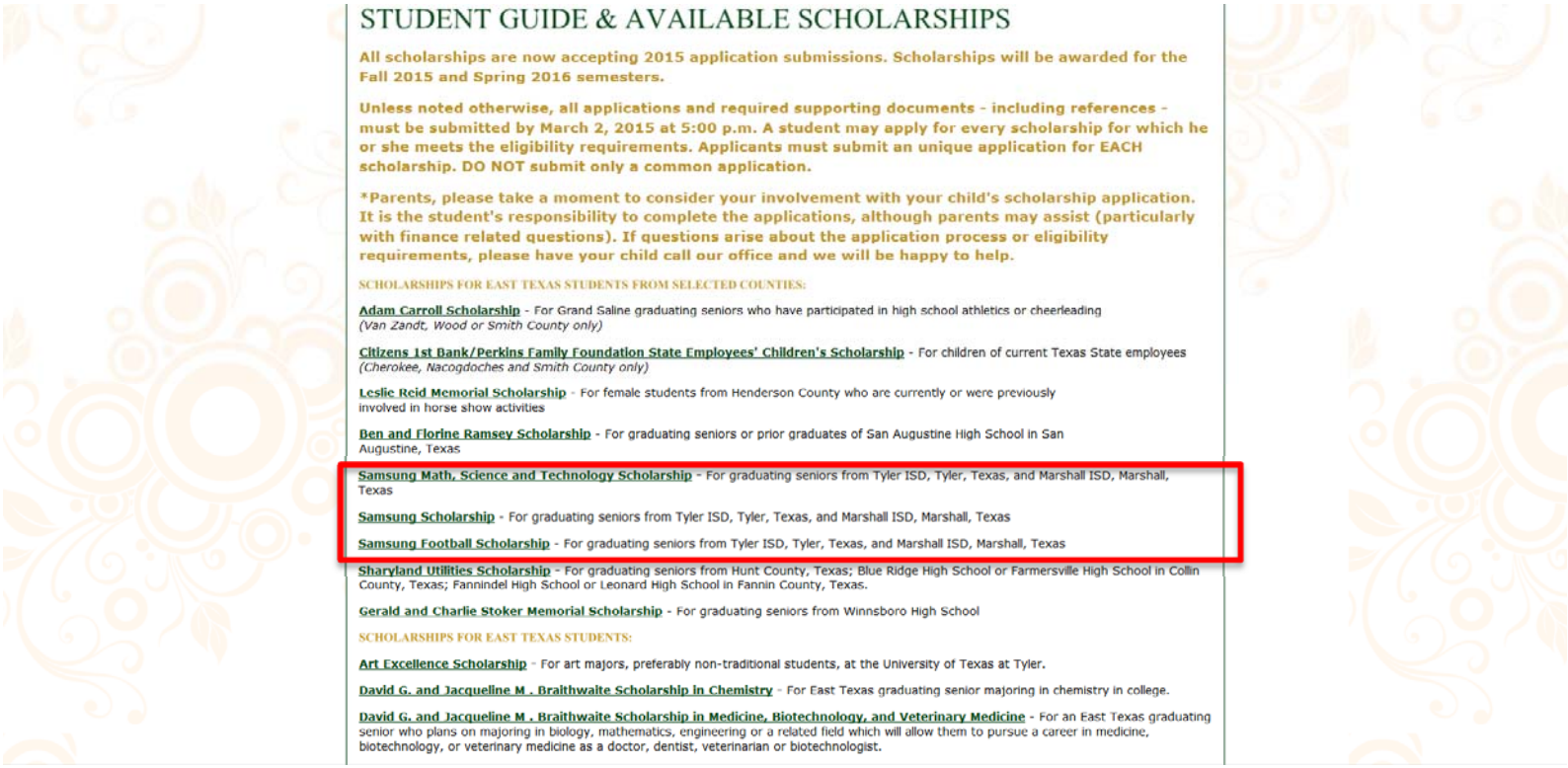
Samsung Ice Skating Rink



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