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**Political Advertising Saturation
in the 2016 Iowa Caucuses**

by

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Democratic candidates and run in eight media markets over 9 months. Using Federal

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Introduction

Optimizing the amount of advertising allocated to advertising campaigns has been a long-running, managerial question for both brand marketers (Broadbent & Fry, 1995; Ephron & McDonald, 2002; Gerard J. Tellis, 2004; Vuokko & Wells, 1997) and political campaign managers (Burton, Miller, & Shea, 2015; Panagopoulos, 2006). For corporations, the issue is a matter of resources and returns. Overspending on advertising--in other words, spending past the point of effectiveness--means that fewer financial resources are available for all other corporate activities. Underspending on advertising may result in diminished market share. However, the consequences of overspending and underspending on brand campaigns are typically minor. While reputation and jobs may be at stake within the corporation and its advertising agencies, societal impacts are limited. At worst, the impact shows in a few points of market share.

The issue of advertising spending in political campaigns is more consequential. Because elections are winner-takes-all affairs, advertising spending is a component of victory or defeat, not market share. Additionally, not only are the winners and losers chosen in part by their advertising actions, but the participants are selected in part by their ability to raise funds for advertising. A continuing concern is that the roster of candidates for consideration by the electorate is limited to those with access to advertising funds. The Citizens United (2010) decision to allow unlimited advertising by organizations such as corporations and unions was, in part, a consideration of the power of advertising dollars in the political sphere (Levitt, 2010).

The civic consequences of political advertising are broader than those of brand advertising. The choices available for political leadership, and the selection of political leaders are connected to the amount of political advertising. However, the research on the effects of political advertising is still in a developmental stage, with the question of political advertising

spending far from settled. This current project explores the outcomes of political advertising spending in a statewide election in which candidates and their supporters saturated a few media markets with advertising while spending substantially less on other media markets in the same election. The difference in advertising levels formed a natural experiment in which the effects of adspend could be seen in terms of political engagement, candidate preference, and final choice.

This research explores the results of political advertising spending under conditions of advertising saturation, in which candidates and their supporters chose to advertise in selected markets with nearly complete reach and very high frequencies, versus the same candidates and supporters advertising in different markets using more moderate levels of reach and frequency. It provides an empirical exploration of political advertising spending at a time when a foreground issue is the extent to which saturation advertising funded through political donations, influences political choice.

Literature Review

Saturation has come to have multiple definitions in research. In the hard sciences, saturation is taken to mean the point at which any additional input replaces prior inputs, without creating addition output. The metaphor of saturation has been used in media research to indicate the point at which additional inputs, for example a new medium being added to an individual's media repertoire requires the displacement of other, prior media (Greer & Ferguson, 2014; Newell, Pilotta, & Thomas, 2008).

In the advertising literature, saturation was taken to mean the point at which additional inputs, such as additional spending on advertising, no longer returned increased responses such as brand awareness. The AdStock model (Broadbent & Fry, 1995; Ephron & McDonald, 2002) proposed that the saturation point was where additional spending on advertising delivered no

increase in effects such as purchase intention. Further research on advertising repetition proposed that past the saturation point, not only do additional advertising not only fail to show positive impacts on sales, saturation advertising generated negative attitudinal responses as individuals grew tired of the advertising (Schmidt & Eisend, 2015).

Effect of political ad saturation on political engagement

While prior research in political advertising has focused on the question of the capabilities of advertising to inform and direct the actions of the electorate (Patterson & McClure, 1976) and evaluation of candidates (Kaid, 2002; Kaid & Postelnicu, 2005) there has also been a stream of research that looks at the effects of advertising on political engagement. The literature is mixed on the question of advertising's role in encouraging or discouraging political engagement. Experimental research has indicated that exposure to negative advertising diminishes intended voter turnout (S. Ansolabehere, Iyengar, Simon, & Valentino, 1994; S. D. Ansolabehere, Iyengar, & Simon, 1999). However, comparisons of survey research on voter turnout indicate no effect from negative advertising on actual turnout (Freedman & Goldstein, 1999; Goldstein & Freedman, 2002; Wattenberg & Brians, 1999).

In general, there appears to be an activation effect: political advertising leads to political activity (Goldstein & Freedman, 2002). However, this presumption has not been tested recently, even as the media landscape has changed to provide campaigns with the ability to reach large portions of the potential electorate on a nearly constant basis. Thus, this research first explores the effects of political advertising spending on voter engagement under modern conditions of media saturation.

H1: Increasing levels of political advertising will be associated with increasing amounts of political engagement.

Effect of political ad saturation on candidate preference

For advertising, both positive and negative, the literature tends to indicate a positive relationship between advertising spending and candidate preference (Soley, Craig, & Cherif, 1988; Weaver-Lariscy & Tinkham, 1987). The relationship holds when looking at overall spending, or particular media such as radio (McCleneghan, 1987) and direct mail (Weaver-Lariscy & Tinkham, 1987) and even yard signs(Green et al., 2016). However, while there may be an enduring relationship between adspend and candidate preference, there is less evidence that spending leads to candidate preference. Other factors may be at work: a candidate gaining in popularity attracts more donations, thus making the advertising a result of preference, not the cause. A corollary is brand advertising in which the dominant brand maintains its hold on the marketplace using advertising. Thus, a more rigorous test of the notion that advertising spending leads to candidate preference is the ability of advertising to change preference, not merely maintain preference. The second hypothesis of this research addresses the ability of advertising to mold candidate preferences in a media-saturated landscape.

H2: increased amounts of political advertising will be associated with increased amounts of change in candidate preference.

Effect of television advertising on election outcomes

Elections are an exercise in obtaining or holding political power. While the engagement of potential voters and the intention to vote for a preferred candidate are key, it is the election

itself that opens the door to exercise political power. For the second half of the 20th century, television advertising has been considered to be the dominant form of electioneering in the US.

The support for the linkage between television advertising spending and election outcome is robust. In the 1998, 1992, and 1996 presidential elections, increased advertising purchases were correlated to voting (Shaw, 1999). While the modern media landscape is changing to the point that digital advertising spending for goods and services is expected to outstrip television spending by as early as 2016 (Tadena, 2015), the spending for television advertising continues to dominate political budgets, especially for presidential campaigns. The final hypothesis for this research will retest the contention that television advertising spending correlates with political success.

H3: The amount of television advertising spending will be correlated with election outcome.

Television advertising and presidential primaries

Demonstrations, riots, and police misconduct bedeviled the 1968 Democratic convention in Chicago, an event that saw the leadership-backed candidate, Hubert Humphrey, nominated without participating in a single primary. In the aftermath, both parties took steps to provide more opportunities to develop a wider array of candidates for president. One of the steps was to designate primary elections in states with relatively small populations and low media costs. Iowa, Nevada and New Hampshire fit the profile. Over the succeeding election cycles, multiple candidates took advantage of the low-cost national platform afforded by the early state primaries (Hull, 2008). Among Democrats, Jimmy Carter and Barack Obama's campaigns gained credibility through early-state performances.

Iowa's first-in-the-nation event gives the state's voters an outsized impact in identifying viable candidates for president. The state is 30th largest in population, with 3. 1 million residents and approximately 1. 9 million registered voters. Party participation is nearly equally divided by Democrats, Republicans, and Independents. Rather than choosing candidates by ballot, the Democratic and Republican parties each hold caucuses, which are meetings of registered party members, typically held in public or semi-public spaces such as school auditoriums, town meeting halls, and churches meeting rooms. The caucuses are open only to party members, although on-site party registration is available.

The caucuses are held on a single evening, and with few exceptions such as military service, absentee participation is not permitted. Each party follows its own procedures for their caucus. Democrats seat together the supporters of each candidate. There are multiple counts of the number of party members supporting a candidate, in which the supporters typically stand to be counted. Candidates are considered to be viable if they receive the support of at least 15% of the attendees. As the meeting progresses, change in support for a candidate is evidenced through changes in seating. The percentage of support is then translated into the number of delegates to the state party convention, and forwarded to the Democratic party headquarters.

Republicans in Iowa follow a different process for determining candidate support. The meetings are held concurrently with the Democrat meetings, typically in public or semi-public spaces. In Republican caucuses, party members vote by writing their candidate's name on paper scraps, which are then counted by the caucus chairman. Vote totals are reported to the Republican state party headquarters.

The media landscape in Iowa allows for lower cost access to advertising than in more populated states. Two Nielsen designated market areas (DMAs), Des Moines-Ames (rank 72)

and Cedar Rapids (rank 90), consist nearly entirely of counties within Iowa, affording little waste

for advertisers who wish to target Iowa caucus-goers and avoid paying for an out-of-state

audience. Approximately 65% of the state population resides within those two DMAs. There are

seven other media markets that fall partially within Iowa and partially within neighboring states.

There is a greater degree of advertising waste within those seven markets, as the majority of each

market's audience resides outside Iowa and cannot participate in the caucuses. Typically

campaigns purchase fewer television ads in those markets, relying on local events and more

geographically constrained media such as local newspapers, outdoor advertising, and local radio.

The overall availability of low-cost television advertising, plus the divisions in the amount of advertising purchased in markets with low amounts of waste versus high amounts of waste, creates a natural experiment in the effects of saturation advertising in political campaigns. Party members of the same state, facing the same roster of candidates, made their choices at the same moment in time. The substantial difference for all was the amount of television advertising in their markets. This research takes advantage of that difference to explore the current effects of political advertising saturation.

Method

The hypotheses on the effects of advertising saturation on political interest, candidate choice, and voting outcome were addressed by comparing broadcast advertising purchases made before the 2016 Iowa Presidential Caucuses with responses from a two-wave panel survey of Iowa voters.

Measurement of political advertising purchases

The Federal Communication Commission (FCC) collects information on political advertising purchases made on licensed broadcast television stations in the United States. Specifically, FCC rules 73.3526(e)(6) and 73.3527(e)(5) require that television and radio stations keep a file of "all requests for specific schedules of advertising time by candidates" and issue advertisers, as well as information about when the ads actually aired "as soon as possible, which the Commission has determined is immediately absent extraordinary circumstances" (see FCC, 2017). The information is provided by the stations and consists of requests for airtime by candidate committees, National Association of Broadcasters affidavits self-certifying the organization as representing a political entity, and the advertising contracts as generated by the station or the station's sales representation firms.

. The requests, affidavits, and contracts are uploaded to the online FCC Public Inspection File system within a few days of receipt by the television station in Adobe PDF format. While the PDF format allows for viewers to inspect the documents using any computer, the opportunity for automated data interpretation is limited. Additionally, the structure of each document is up to the purchaser, the station, or the sales representative firm, further limiting the opportunity for automated data interpretation.

The unit of measurement for this research was the station's advertising contracts. This was expected to provide valid documentation of broadcast advertising purchases. Contracts typically include the start and end dates, the number of ads, cost, and the daypart or show title for each purchase.

We were able to find only two studies that used the political files within the FCC's Public Inspection File as a data source. In her doctoral thesis, Moshary (2015) took an econometrics approach to argue that a price differential existed for airtime purchased by supporters of different political parties that could not be distinguished by any quality other than the party preference of the purchaser. To conduct the analysis, she reviewed advertising contracts from stations in 19 markets. The second study was an analysis by the Campaign Legal Center of 1,220 political advertiser identification forms filed with 240 stations in four markets, finding errors or omissions in 35% of the filings (McGehee & Moran, 2016).

The coding for this research was conducted in cooperation with the Investigative Reports unit of one of the state's newspapers, which used the data for a series of articles on political advertising spending. Each contract was inspected by a trained student coder, who recorded the contract number, the advertiser, start/stop dates, gross cost and number of spots. Coding for

advertising running between April 1, 2015, and Feb 1, 2016, began in October 2015, and ran

through the first week of February 2016, following the February 1 Iowa Presidential Caucuses.

Nielsen's Designated Market Area denotes nine media markets that provide broadcast

television service and measurement to the 99 counties of Iowa. Television call signs for each of

the markets were determined using the Television Bureau of Advertising (TVB) markets and

stations list. Adverting contracts from for operating full-power broadcasting stations were

entered. Excluded were public television stations, low power stations, station translators, and

stations not selling advertising.

A semi-automated Google Sheets spreadsheet applied the station name and media market

to each case from the FCC Station Index database. Candidate committees, super PACs, and other

non-candidate organizations were identified by referencing the database on OpenSecrets.Org, a

political advocacy group.

Contracts were entered for both candidate committees and non-candidate organizations.

As many contracts were updated as the campaigns progressed, only the latest version of any

contract was entered for analysis, providing the most recent contract that reflected actual runs.

Assessing interest in political participation and preference

Political attitudes were measured in a telephone panel survey managed by the political

science department of a large Midwestern university and a local television station, among

registered Democrats, Republicans, and Independents in Iowa. The initial registry was obtained

from the Iowa Secretary of State in October 2015. Inactive voters were removed, as were those

with missing or inaccurate data, such as fake telephone numbers. The resulting list contained

1,905,582 registered active voters, including Democrats (582,450), Republicans (608,691) and

Independents (714,441). Five variables were used to create strata or sorting variables to ensure variation in age, voter activity, geography, gender, and party affiliation.

A sample of 12,000 voters was selected, consisting of 5000 Democrats, 5000 Republicans, and 2000 Independents. From those 12,000 voters, a total of 1076 telephone interviews were completed successfully in November 2016, among 515 Democrats, 423 Republicans, and 138 registered Independents. This provided a response rate of 10% or a cooperation rate (number of completed interviews divided by sum of completed interviews, refusals, and non-compliance) of 34. 4%.

A second wave of interviews among first-wave respondents was conducted in January, 2016, the month prior to the Iowa Caucuses. A total of 746 second wave interviews were completed, providing a mortality rate of 31%.

Within both surveys, items assessed the likelihood of attending a caucus, strength of support for a particular candidate, and first choice of candidates. Residence addresses, including county, were recorded and used to determine the Nielsen Designated Market Area for each participant.

The outcome of the Iowa Democratic and Republican Caucuses was reported by the parties to news media following the completion of the February 1, 2016, event. Each party follows its own procedures for reporting results. Republicans report percentages of support for each candidate, while Democrats report the number of delegates to the state convention for each candidate who received the support of more than 15% of caucus-attendees in each precinct. The Associated Press approximates a percentage of Democratic caucus-attendees supporting a candidate by multiplying the county-level delegate totals by 100. This research uses the Associated Press counts for assessing candidate choice among caucus attendees.

Analysis

This research seeks to determine the effects of a high level of candidate advertising on political attitudes and behaviors. The analysis was conducted by dividing the eight Iowa media markets into high and moderate adspend conditions. The high/moderate determination was made based on the number of political spots that were purchased in the market. Pricing was not considered as a determining variable, as per spot price would be expected to reference, in part, market size and advertising inventory availability.

Many candidates benefited from advertising purchased by their own campaign committees as well as non-candidate organizations such as Super PACs. For the analysis, overall spending and the number of spots from candidate committees and non-candidate organizations were pooled on behalf of the candidate.

While the amount of spending provides a mechanism for assessing the resources devoted to a campaign, insight into the number of ads for a candidate were used to estimate the percentage of population exposed to the ads and the number of ads for any given candidate seen by the average viewer.

Reach is the percentage of individuals within a target market that sees at least one ad from a given advertiser (Tellis, 2004) or in this case study, on behalf of a given candidate. Typically expressed as a percentage multiplied by 100, product marketers often use a reach target of 65-75. In other words, within the advertising period 65-75% of the individuals in the market will have seen one or more ads. Because usage of any medium tends to follow a curve, an attempt to use a single medium to access the entire population is seem as a waste of resources—the infrequent media users on the tail end of the curve require many runs of the ad, and could be accessed more efficiently through a different medium (Tellis, 2009).

Another key advertising metric is frequency, the average number of ads seen by an individual in the reached population (Webster & Phalen, 1997). Three exposures to an ad were considered to be optimum in classic advertising media planning (Ostrow, 1982), with a recent meta-analysis finding that under experimental conditions, 10 viewings were optimum (Schmidt & Eisend, 2015).

Reach and frequency for the overall adspend in each market were estimated on a monthly basis for each candidate using Media Flight Plan, an online computer program that determines reach and frequency on a per-market basis using daypart averages (Martin & Coons, 2015). For each month in each market, the number of broadcast television spots for all candidates were pooled into a single buy and divided among four dayparts: primetime (60%), daytime (20%), evening news (10%) and late news (10%). From those choices, Media Flight Plan derived the monthly reach and frequency for each market.

Once the markets were divided into high and moderate political advertising conditions, t-tests were conducted on the responses of the two-wave telephone survey participants who indicated membership in the Democratic or Republican parties. Independents, who are not permitted to participate in the party caucuses, were excluded from analysis. The within-subjects changes over time in intention to participate in the caucus and candidate preference were the target variables.

Results

Did advertising saturation occur?

The first ads for the February 2016 caucus ran in April 2015, with political ads running every month after that through Caucus Day. Unduplicated contracts with television stations totaled 3786, with some of those contracts having been revised seven or more times. The

contracts called for a total of 91,355 ads over the nine-month period, with a gross adspend of slightly over $46. 3 million. Des Moines was the most active DMA, with slightly under $20 million of spending. In comparison, one of the most active television advertising categories in the Des Moines DMA is convenience stores, with spending measured by Kantar for all brands at $1. 9 million in the 12 months preceding the start of the caucus campaigns. To the extent that saturation requires additional inputs (such as advertising spending) to be accompanied by a concurrent reduction of prior inputs, there were reports of saturation in the Des Moines and Cedar Rapids DMAs, where local advertisers could not purchase airtime because of limited advertising inventory (Pfannenstiel & Kummer, 2015). (See table 1).

Non-candidate organizations such as Political Action Committees and Super PACs paid a high price for their independence from candidates. Candidate committees are guaranteed to be offered the lowest applicable rate for television spots, while PACs and Super PACs can be charged at market rates or higher. On average, PACs and Super PACs paid 2. 5 times the per-spot charge paid by candidate committees.

Eight candidates and Super PACs spent over $1 million each statewide, with the top Republican spenders Marco Rubio ($9. 2 million, mostly via Super PACs,), Jeb Bush ($9. 2 million, nearly entirely via Super PACs) and Ted Cruz ($4. 4 million, via a mix of candidate committee and Super PAC funding). Donald Trump, considered to be a light user of advertising, purchased $1. 8 million dollars of advertising. Among the Democrats, Hillary Clinton was the top advertiser, at $7. 8 million, and Bernie Sanders with $2. 5 million.

(PLACE TABLE 1 ABOUT HERE)

Political advertising and political engagement

The first hypothesis addressed the ability of advertising to increase political engagement. This was tested by comparing the within-subjects difference in political interest levels between the November and January panel surveys among Democrats and Republicans. For members of any party (N = 658), political interest, as measured by interest in following the election, increased between November and January by less than 1% (M = -. 58, SD = . 614). Between the subjects in the high advertising markets and the moderate advertising markets, there was no difference in change in political interest (t = 1. 053, ns). Additionally, the intention to caucus was high among Democrats and Republicans in both the November and January surveys, but there was no within-subjects difference over time between respondents in high advertising and the moderate advertising markets (t = . 107, ns). Thus, *this study finds no support for H1: Increasing levels of political advertising will be associated with increasing amounts of political engagement.*

Advertising saturation and candidate preference change

The historical role of the Iowa caucus was to allow individuals who did not have access to vast funding or extensive political organizations to become viable candidates for president. Advertising in the Iowa markets is inexpensive compared larger markets, and thus advertising budgeting would be less of a barrier to entry. This presupposes that advertising can effect change in candidate preference. The second hypothesis was tested by looking at the amount of change between November and January in candidate preference for party members in the high advertising markets versus the moderate advertising markets. Among Democrats, where there were three well-covered candidates at both points (Clinton, O'Malley, Sanders), there was no difference in the amount of preference change between high and moderate advertising markets

(t = . 534, NS). Results were different in the Republican party, which had 18 well-covered candidates in November and 16 well-covered candidates in January. There was a greater degree of preference change among Republicans in the high advertising markets, t = -2. 89, P < . 01. *Thus this study finds partial support for H2: increased amounts of political advertising will be associated with increased amounts of change in candidate preference.*

Advertising saturation and political outcome

The extent to which advertising, especially in large amounts and paid for by outside interests, affects the outcome of political races is a key question for our time. If advertising can buy victory, then the victors will be the candidates with the greatest financial resources. The third hypothesis explored the relationship between advertising and political success. The final outcome, as reported by the statewide percentage of support for each candidate for each party, was compared to the nine-market tally of spots for each candidate, with spots from interest groups such as Super PACs credited to the candidate supported by the Super PAC (See table 2). For the three Democratic candidates, there was a .97 correlation between spending and outcome. For the 9 Republican candidates who spent more than $100,000 on television advertising (Bush, Cruz, Huckabee, Jindal Paul, Perry, Rubio, Trump, and Walker) there was a lesser, but still substantial, impact of adspend on outcome, with a correlation of . 28. Among Democrats, with only three candidates, there was a strong relationship between adspend and outcome: Clinton, who had run the most ads, came in first, followed by second-spender Sanders and then O'Malley. Thus, *H3 is supported: The amount of television advertising spending will be correlated with election outcome.*

(PLACE TABLE 2 ABOUT HERE)

Discussion

This research took advantage of an unusual situation during the 2016 first in the national presidential caucus in Iowa. Relatively low-cost television ads were purchased in high numbers in some markets, but more modest numbers in others. This natural experiment was used to test notions of political advertising effectiveness. In contrast to some earlier studies, increasing levels of advertising spending did not serve to activate the interest of potential voters: while it was high to begin with, and went higher during the election period, the extra advertising was not associated with additional interest. However, there were some, although inconsistent, effects for advertising. For the Democratic party, with just three well-covered candidates, extensive amounts of broadcast television advertising played no role in shifting allegiances between candidates. The results were different among Republicans, where markets with extensive advertising saw more churn in allegiances than the modestly-advertised markets.

The 2016 Iowa Caucus will be remembered for providing a second-place finish for Donald Trump, a candidate who commanded extensive amounts news coverage and social media interest but purchased relatively small amounts of television advertising. It will also be remembered for dashing the election hopes of Jeb Bush, whose political action committees purchased millions of dollars of advertising, with disappointing results. Even with these exceptional circumstances, there was a substantial positive correlation between advertising spending and political outcome. More media money was associated with more votes.

However, the absence of differences between the high adspend markets and moderate adspend markets should tell a cautionary tale to campaign managers. While preference (sometimes) and votes (all of the time) followed the media money, there is little in the data to suggest that overspending was rewarded. This is consistent with a recent meta-analysis of advertising repetition (Schmidt & Eisend, 2015) in which the optimum frequency was proposed

to be in the mid-teens, and frequency above that showing no improvement in outcome. Perhaps coincidentally, the average frequency for the moderate advertising markets was around 40 in the closing month of the campaign, and the average frequency for the high advertising markets soared above 120. The lower frequency seemed to provide benefits at a fraction of the cost.

In addition, the ad purchasing behavior of campaign managers was out-of-sync with commercial media buying practice in terms of reach, or the percentage of target market seeing one or more ads. While typical reach targets are generally around 65-75, reach in the two high spending markets averaged just under 89 for the bulk of the year-long campaign, rising to 99.8 in the final full month of advertising. Those last 25-35 points of reach, which added only light television viewers to the tally, came at the expense of over-advertising to the viewers who spend a large or even typical amount of time with television. In the moderate spending markets, reach for the average month was around 50, possibly indicating underspending: only heavy television viewers would have seen ads in the low-spending months.

From a public policy standpoint, the outcome of the 2016 Iowa Presidential Caucus provides a disturbing look at the power of money in politics. The opponents of the *Citizens United* decision (Levitt, 2010) decry the distortion of advertising spending on political choice. In Iowa, citizens had face-to-face access to most of the candidates for the better part of a year, plus a vigorous debate in the press, but their choices were still associated with the amount of advertising purchased. Money has an outsized impact on political power.

Limitations

The findings should be interpreted in the context of the limitations of both case studies and natural experiment methods. As the set of first in the nation caucuses is limited to a single state, the results seen in Iowa may not be replicated elsewhere or at another time. Approximately

$92 was spent in television advertising per each caucus-goer. Were that same amount projected on the national turnout of the 2012 presidential election (Peters & Ragsdale, 2015), the television adspend would have totaled $11. 86 billion, an amount that would be equivalent to 15% of the total 2015 adspend for broadcast and cable television for all products and services advertised, nationwide.

The natural experiment reduced the amount of experimental control. While subjects were randomly selected from the list of all registered voters, their decisions on where to live in state (within the two largest DMAs in the center of the state, or in the seven DMAs that share borders with other states) was non-random, making the assignment to high or moderate advertising levels non-random. Additionally, as the telephone surveys did not capture exposure to advertising, media exposure was assumed to be randomly distributed among all participants in the differing conditions. Finally, this research focused on a single medium at a time when candidates and campaigns were not only using multiple mass media and social media but also avidly pursuing interpersonal events. Several candidates promised to visit every one of the 99 counties, and at least one, Ted Cruz, did. The extent to which mass media (other than broadcast television advertising) social media and personal interactions differed between the high and moderate ad level markets is an unknown.

However, this research provides a window into the extremities of political advertising and shows what might happen as political advertising continues its expansion. Even in an election cycle in which a single celebrity candidate soaked up much of the news coverage, there was a variable but positive relationship between the amount of advertising and the percentage of votes won by candidates. While increased levels of advertising were not associated with increased interest in the campaign or changes in intention to participate, high levels of

advertising were associated with a greater degree of change in candidate preference. In the case

of the 2016 Iowa Caucuses, saturation advertising provided limited but measurable effects.

The extent to which the saturation will continue in future election cycles can be the

subject of future research. However, the research will be difficult to conduct as greater amounts

of resources move to digital advertising. Television stations are required to report political

broadcast advertising to the FCC, but no such requirements exist for non-licensed media such as

digital, newspapers, and outdoor advertising. Spending may increase, but public oversight will be

reduced. Other methods, such as single-source monitoring, may need to be considered as the

amount and sophistication of political campaigning continues to grow.

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Table 1: *Results*

Broadcast advertising sales contracts, April 2015-February 2016. N = 3786	High Political Advertising Markets	Moderate Political Markets
Markets (DMA rank)	Des Moines-Ames (mkt. size: 72) Cedar Rapids, Waterloo (90)	Omaha- Council Bluffs (mkt size: 74) Davenport, Rock Island, Moline (101) Sioux City (149) Mason City-Austin-Rochester (153) Burlington-Quincy-Hannibal (170) Ottumwa-Kirksville (200) Sioux Falls (110)
Adspend (all)	$29,347,563	$16,967,641
Spot totals	50,141	41,214
Per spot cost	$430 (campaign committee) $949 (Super PAC)	$290 (campaign committee) $583 (Super PAC)
Monthly reach	88. 9 (mean, April-Jan.) SD = 36.06 99. 8 (peak, Jan 2016)	49.4 (mean, April-Jan.) SD = 27.4 93. 8 (peak, Jan 2015)
Monthly frequency	23.4 (mean, April-Jan.) SD = 35.15 123.5 (peak, Jan. 2016)	7.8 (mean April-Jan) SD = 12.5 40.0 (peak, Jan. 2016)
Panel survey results Wave 1: Nov 2015, Wave 2: Jan 2016 N = 737	n = 533	n = 204
Age	62. 5	64. 2

Gender	50. 4% female, 49. 5% male	52. 4% female, 47. 5% male
Party	53. 2% Dem 35. 4% Rep 11. 2% Independent	39. 2% Dem 48% Rep 12. 7% Independent

Table 2: Outcomes

Results of the 2016 Iowa Caucuses.	Adspend	Votes (%)	Pearson R
Republicans			. 28, P<. 05
Ted Cruz	$4,405,665	27. 60	
Donald J. Trump	$1,845,150	24. 30	
Marco Rubio	$9,250,149	23. 10	
Ben Carson	$2,482,856	9. 30	
Rand Paul	$387,420	4. 50	
Jeb Bush	$9,156,679	2. 80	
Democrats			. 95, P<. 05
Hillary Clinton	$7,830,839	49. 9*	
Bernie Sanders	$5,507,265	49. 6*	
Martin O'Malley	$1,874	0. 6*	

*Voter equivalents, as calculated by Associated Press.