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STATISTICAL BIAS IN NEWSPAPER REPORTING ON CAMPAIGN FINANCE\textsuperscript{1}

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Abstract

This paper examines evidence of statistical bias in newspaper reporting on campaign finance. We compile data on all dollar amounts for campaign expenditures, contributions, and receipts reported in the five largest circulation newspapers in the United States from 1996 to 2000. We then compare these figures to the universe of campaign expenditures, contributions and receipts, as recorded by the Federal Election Commission. The figures reported in newspaper accounts exceed the average expenditure and contribution by as much as eight fold. Press reporting also focuses excessively on corporations contributions and soft money, rather than on the more common types of donors { individual { and types of contributions { hard money. We further find that these biases are reflected in public perceptions of money in elections.
1. Introduction

Public discourse about campaign finance reflects a substantial disparity between perception and reality. Most Americans hold strongly to the conjecture that there is "too much money" in politics, but also do not have a clear understanding of existing regulations or of the amounts of money spent (Mayer, 2001). To gauge the degree of misperception, we conducted a national survey of 1200 adults and asked how much money they thought the typical U.S. House incumbent raised for reelection. The average estimate among survey respondent was that House incumbents spend $5.8 million to win reelection. In reality, the average U.S. House incumbent raises and spends approximately $780,000.

In this paper we consider a potential source of this bias: media reporting of campaign finance. In a 1987 paper, Frank Sorauf examined the potential bias in the reporting of campaign finance. "Some candidates and contributors," he reported, charged that "the media display[s] a deep and pervasive bias against the solicitation and contribution of campaign contribution, and their reporting more generally overstates the importance of campaign money in campaigns, in election outcomes and in eventual legislation." (Sorauf, 1987) Sorauf presented three examples that showed clear indications of bias. The amounts reported in several cases were clearly out of line with the reality of fundraising at that time, and the reporters, Sorauf argued, had strong political beliefs that likely colored how they covered campaign finance.

We analyze the reporting of campaign finance in the five largest U.S. newspapers for the election years 1996, 1998 and 2000. What is the picture of total campaign spending that emerges? What is the picture of the sources of campaign funding that emerges? We find that amounts quoted as contributions to and expenditures by candidates in newspapers are generally much higher than the actual average. Additionally, campaign finance reporting overstates the percentage of campaign funds contributed by political action committees (PACs), corporations, and as soft money, as well as the amount spent by candidates on television and radio advertising. That is, newspapers tend to report on cases in the the "upper tail" { the most expensive races, highest-spending candidates, largest contributors
and contributions, and so on { rather than the "typical" cases.

The case of campaign finance demonstrates what we believe to be a more general sort of media bias: statistical bias in reporting. Extreme events are more newsworthy than typical or average events. As a result the picture of the world gleaned from reading newspapers or watching evening news presents a statistically biased sample of the important facts about the world around us. This bias is likely important beyond campaign finance. Paulos (1995) presents examples of a wide variety of mathematical and statistical biases in reporting. And, cognitive psychologists often link misperception of risks with excessive media reporting of particular dangers and diseases (Slovic, Fischo® and Lichtenstein 1980). Campaign finance provides a particularly clean case for comparing the reality of the subject with the reporting of it, because there are a large number of public reports of campaign finance in the press and because there is a large publicly available database, gathered by the Federal Election Commission, establishing the reality against which the media reports can be compared.

We begin in section 2 by detailing our methodology for the collection and analysis of data from the press. The next section presents the statistical picture of campaign expenditures as they are reported in newspapers. Section 4 takes a similar approach to looking at campaign contributions and the final section looks at the implications of our findings. Section 5 presents evidence of public misperception of campaign finance consistent with the statistical biases in press reporting.

2. Methodology

We extracted all articles reporting campaign expenditures and contributions from the five largest U.S. newspapers: USA Today, the Wall Street Journal, The New York Times, the Los Angeles Times, and The Washington Post. Sorauf used three of these papers (The New York Times, Los Angeles Times and Washington Post) because "they are by general consensus the three best and most influential general daily newspapers in the United States." Since his writing, the two additional papers we surveyed (the Wall Street Journal and USA Today) have grown such that their circulation has eclipsed all three papers Sorauf surveyed.

¹See http://www.freep.com/jobspage/links/top100.htm for circulation figures.
The papers we studied are not intended as a representative sample of all newspapers. They are the largest circulation papers in the country. Since many smaller newspapers pick up stories that originally appeared in the top publications, it is likely that many of these stories appear in other papers as well.

We searched for articles in these publications that cited specific dollar amounts of political contributions or expenditures for the calendar years of 1996, 1998 and 2000. Most of the citations were references to financial transactions that took place during the same year the article was written. However, some articles sought to put current contributions and expenditures in an historical context by using data from past election years. We choose to include such historical citations in the data set for the year they were cited, not when the transactions took place. Since real campaign spending increases over time including citations of past amounts likely creates a downward bias on the averages of amounts cited.

Each citation is made up of several elements: the article in which it was found { which includes a newspaper, a page number, an author and a date { the size of the contribution or expenditure, and its source and destination. For each number reported we coded the detailed information about the Source of an Expenditure or Receipt and Destination of an Expenditure or Receipt. To do this, we created two dozen categories that encompassed all of the main distinctions in types of campaign finance transactions, depending on the nature of the contribution, the nature of the expenditure, the source of the funds, and the recipient of the funds. For example, a soft money advertising expenditure by the Democratic National Committee would be classified according to the DNC as the source and the destination as advertising, expenditure, and soft money. These categories are defined in the Appendix. We could then cross the variables defining source and destination information to characterize each receipt and each expenditure. All of the statistics reported below were generated using these categories.

We included citations that had an actual dollar amount attached to them, and others that

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2 We used the Dow Jones Interactive, Lexis-Nexis Academic, and ProQuest Databases with the following query: (congress or house or congressman or senate or senator or senators or congressmen or congresswomen) and (election or elections or campaign or campaigns) and (dollars) and (raise or spend) and (contribution)
were implicitly quantitative. An example of such a citation would be \( \text{Duangnet 'Georgie'} \) Kronenberg and her sister-in-law, Thai businesswoman Pauline Kanchanalak, steered hundreds of thousands of dollars in illegal contributions to various Democratic Party organizations and candidates."\(^3\) In order to make this compatible with the rest of the data we collected, we would change \( \text{hundreds of thousands" to $200,000} \) (the smallest amount that could be considered \( \text{hundreds of thousands". When a range of values was given, we picked the lowest one. These two approximations can only bias the data downwards.

If two articles quoted the same figure, or if two newspapers ran the same story, we did not remove one of the citations or articles. However, if the same article quoted the same figure more than once, we used it only once. We also made no attempt to verify that numbers quoted were accurate. If a correction was printed later in the same paper, we used the lower of the original and the correction. This occurred very rarely, and consequently put only a slight downward bias on the data.

One question of particular interest that we were unable to examine is the size of the average contribution from an individual or firm. Unfortunately, there is very little information in the press about specific contributions. Most press stories report contributions from \( \text{groups of individuals" or by the "firms in an industry, rather than the specific amounts given by particular individuals or particular firms.}

3. Reporting of Expenditures by Candidates

If a reader were to treat the numbers reported in newspapers as the reality, he or she would carry a very inaccurate picture of campaign spending in America. Expenditures reported in the papers are approximately 3 to 5 times larger than the reality. The amounts spent on television advertising are much smaller than reported. And congressional challengers spend much, much less than is presented in the press.

Table 1 shows the average total expenditures for House and Senate candidates that was reported in the newspapers we studied.

\(^3\)Fletcher, Michael A., Politics, \textit{Washington Post}, July 21, 1998, Page A06
Table 1: Total Candidate Expenditures, Reported in Press vs. Actual

|                | Reported in Press | Actual | Ratio of Reported to Actual |
|----------------|-------------------|--------|-----------------------------|
|                | Mean Expenditure  | # of Citations | % Above Actual Mean | Mean Expenditure |                              |
| House:         |                   |                  |                   |                |                              |
| Challenger     | $1,178,215        | 35               | 83%               | $151,674        | 7.8                          |
| Incumbent      | $1,330,391        | 66               | 68%               | $779,031        | 1.7                          |
| Open Seat      | $1,338,561        | 5                | 100%              | $318,761        | 4.2                          |
| Total          | $1,280,529        | 106              | 78%               | $359,861        | 3.6                          |
| Senate:        |                   |                  |                   |                |                              |
| Challenger     | $12,648,689       | 71               | 94%               | $881,238        | 14.4                         |
| Incumbent      | $11,280,074       | 34               | 85%               | $4,404,493      | 2.6                          |
| Open Seat      | $14,457,014       | 45               | 78%               | $1,955,500      | 7.4                          |
| Total          | $12,880,967       | 150              | 91%               | $1,687,108      | 7.6                          |

The FEC averages above excluded third party candidates from the challenger and open seat categories, as they were never reported on in the newspapers we studied and would bias the FEC averages downwards. We included independents (where applicable) in the numbers for incumbents. In general the amount spent by independent incumbents was almost exactly the same as the mean for all other candidates. In this case, including independents had very little effect on the reported averages. All data from http://www.fec.gov/finance/allsum.htm, http://www.fec.gov/press/allsum98.htm and http://www.fec.gov/press/051501congact/tables/allcong2000.html.

The table shows two statistical biases. The average amounts reported exceed the amount spent in a typical race by a factor of 4 for U.S. House campaigns and 8 for U.S. Senate campaigns. More than four out of every five citations of total campaign expenditures exceeded the real average expenditure. If one were to read only one article containing a citation of a campaign expenditure, there would be an 82% chance that this citation was higher than the real mean. Almost all of the citations in the press were higher than the real world median.

The skew in reporting of total expenditures is especially pronounced for congressional challengers. The numbers from the press suggest that challengers in congressional campaigns spend about as much as incumbents. In fact, the average challenger is outspent, according to the numbers from the Federal Election Commission (FEC), by about 5 to 1. Academic researchers have long been concerned about just this discrepancy, and it is something that a newspaper reader would never pick up on from the facts and figures reported in the press.

The figures reported for actual expenditures in the Table reflect national patterns, as much of the reporting by these papers concerns national trends and issues. The papers also
have a local orientation. The New York Times and Wall Street Journal would be expected to have more reporting from the states of New York, New Jersey and Connecticut; the Los Angeles Times: California and The Washington Post: Maryland and Virginia.\textsuperscript{4}

If we restrict the actual expenditures to only those in the local area of each paper, the conclusions we draw from Table 1 remain. The average cost of a House race in the papers' local area or region during the years we surveyed was slightly lower than the national average. Hence, the ratio of reported to actual expenditures for the U.S. House is slightly higher using the local area as a baseline. The average cost of a Senate Race was about 2.5 times higher than the national average. This is not enough to explain the eight fold difference between the average reported figures and those from the FEC. Averaging across the papers, the local U.S. Senate races were about 1.5 times more expensive than the national average. Hence, the reported expenditures are about 4 times larger than actual local U.S. House campaign spending and about 5 times higher than U.S. Senate campaign spending in a region.

There is a further bias in reporting expenditures on broadcast advertising. Some articles report on what activities candidates spend campaign funds, ranging from dry cleaning to direct mail. We divided these into expenditures on television and radio advertising and all other expenditures. Two-thirds (66\%) of the detailed expenditures reported in the press concern television and radio advertising. In reality, House candidates spent only one-fifth (22\%) of their funds on advertising.

Campaign expenditures reported by the press, then, exceed the amount spent in the typical race by 3 to 5 times. Newspaper accounts also suggest a very high dependence on television advertising, which is far from the reality.

4. Reporting of Contributions to Candidates

Donations come from one of three sources: individuals, PACs, or political parties. Money from political party committees can be either "hard money", which is coordinated with the

\textsuperscript{4}Only 10\% of the citations of Senate races in the Wall Street Journal and The Washington Post were about local contests. The other papers we studied had much higher rates: 70\% for The New York Times, and 80\% for the Los Angeles Times.
candidate it is spent on, or "soft money" which can be given in unlimited amounts and spent only indirectly on campaigns. We consider only the immediate source of funds as the source, such as a party contribution to a candidate. This ignores the fact that the ultimate sources of PAC money and most party hard money are individual donations, and the party money soft money comes primarily from corporations, labor unions and other groups.

4.1. Individuals and PACs

Individuals and PACs are by far the two most important sources of money for congressional campaigns. How does press reporting of the relative importance of these sources compare with the reality?

Table 2 isolates contributions to congressional campaigns from Individuals and PACs. For House and Senate candidates separately, we report the total number of citations and the share of individual and PAC contributions for each source reported by the press. We also present that actual share of money coming from each source in congressional campaigns from 1998 to 2002. Referring to the definitions found in the appendix, contributions that came from either "Individuals" or "Groups of Individuals" were considered to be from Individuals. Donations from "Industries" or "Firms or PACs" were considered to be from PACs.

|                  | Reported | Actual |
|------------------|----------|--------|
|                  | Citations| % of Money | % of Money |
| **House:**       |          |          |          |
| Individual       | 21       | 26%      | 63%      |
| PAC              | 129      | 74%      | 37%      |
| **Senate:**      |          |          |          |
| Individual       | 76       | 40%      | 80%      |
| PAC              | 165      | 60%      | 20%      |

The actual numbers are only percentages of total money from individuals and PACs. This does not imply that 80% of all money contributed to Senate campaigns comes from individuals, only that 80% of the money that comes from either individuals or PACs comes from individuals.

The newspapers in our study overstate the relative contribution of PACs compared to individuals in U.S. House and Senate campaigns. Of press reports of PAC and individual
donations to House candidates, 86% came from PACs. In reality only 37% came from PACs. Of press reports of PAC and individual donations to Senate candidates, 60% came from PACs. In reality only 20% came from PACs. Many of the contributions in the press attributed to individuals are actually soft money. Filtering out such citations leads to an even greater discrepancy between press reports and the reality of the relative importance of group and individual donations.

Table 2 also reveals that there is much more reporting of PAC and firm contributions than of individual contributions. The exact number of individual contributors is unknown because contributors who give less than $200 to a candidate are not required to report their donations. However, survey data suggest that individual contributors { perhaps as many as 10 million people { greatly outnumber the 4000 or so registered PACs. But, stories about PAC contributions are 5 times more numerous than stories about individual donors.

4.2. Parties

Table 2 does not include party contributions, because of the complicated accounting involved with soft money. Hard party contributions to congressional campaigns have always been a small amount, and have received relatively little press attention. Soft money contributions exploit a loophole in the administrative code that allows unlimited contributions to party committees for the purpose of state and local \party building." Soft money donations showed the fastest growth of all sorts of contributions in the 1990s and attracted considerable attention in the press.

If we treat soft money expenditures in congressional campaigns as direct contributions to those campaigns, the picture in Table 2 somewhat. Table 3 adds a new category that consists of reports of contributions from \National Party Committees" or \Soft Money".5 We ignore

5Since Soft Money is not given directly to candidates it is difficult to assess how much of it is actually spent on House or Senate Campaigns. We estimated the amount of Soft Money in House and Senate Campaigns in the following way: “Buying Time” from the Brennan Center (p. 57) gives the estimated amount of money soft money spent on television ads by parties in House and Senate races. La Raja (2001 p. 100) gives the uses of Soft Money. We took advertising as a percentage of total expenditures that would be directed at candidates (Media, Mobilization, and Traditional Party Hoopla). Dividing the advertising expenditures by the percentage above, we arrived at a number for soft money for House and Senate races. We combined
donations from other candidates (\Leadership PAC", \Individual Candidate" and \Group of Candidates") and coordinated party expenditures (\Coordinated Party Expenditures") since there were too few citations of these types.

Table 3: Contributions Including Soft Money, Reported in Press vs. Actual

|               | Reported       | Actual       |
|---------------|----------------|--------------|
|               | Citations      | % of Money   | % of Money   |
| House:        |                |              |              |
| Individual    | 21             | 22%          | 56%          |
| PAC           | 129            | 62%          | 35%          |
| Soft Money    | 12             | 16%          | 9%           |
| Senate:       |                |              |              |
| Individual    | 76             | 23%          | 64%          |
| PAC           | 165            | 34%          | 19%          |
| Soft Money    | 33             | 44%          | 13%          |

Using figures from the Brennan Center, we estimate that soft money expenditures from 1998 to 2002 amounted to about 9% of receipts of House campaigns and 13% of Senate campaigns. The numbers reported in the press are a different story. Using the actual dollar figures in newspaper stories, \"soft money\" and \"national party contributions\" amounted to 23% of the party, PAC, and individual money in House campaigns and 44% of the party, PAC, and individual money in Senate campaigns.

The sources of soft money are also of interest. Parties raise hard and soft money from individuals and organizations. One may view them as campaign committees, as well as contributors. Indeed, soft party accounts are of concern to regulators because rms and other organizations can give unlimited amounts to soft money accounts and they do not have to contribute through their political action committees. Where does soft money come from? What is the picture that emerges from the numbers reported in the press?

We repeated the analysis shown in Table 1 for parties instead of candidates. We used the same categories for Individuals and PACs, and added a third category \{ Other Candidates \} made up of \Individual Candidates" and \Group of Candidates." The results are summarized in Table 4 below.

This with the numbers for total receipts, receipts from individuals and receipts from PACs from the FEC to calculate the above percentages. Since the relative percentages of money raised in campaigns is generally very stable, this is probably a good estimate for all three years surveyed.
Table 4: Sources of Soft Money, Reported in Press vs. Actual

|                  | Reported |          |          |
|------------------|----------|----------|----------|
|                  | Citations| % of Money| % of Money|
| Individuals      | 92       | 6%       | 28%      |
| Corporations     | 222      | 93%      | 72%      |
| Candidates       | 10       | 1%       | <1%      |

From La Raja, 2001, p. 89. La Raja only calculated these percentages for 1994-1998. They were very stable, so we extended them to 2000. We also independently confirmed his numbers for 1998.

Press reports do mirror the realities of where soft money comes from. Soft money donations come overwhelmingly from corporations’ treasuries. According to Federal Election Commission Figures (see La Raja 2001 and Ansolabehere, de Figueiredo and Snyder 2003), 72% of Soft Money comes from corporations and other organizations. Over 90% of the soft money contributions reported in the press came from corporations.

5. Public Perception

Across a wide range of public policy matters, political scientists have demonstrated the importance of the press as the primary source of information (Zaller, 1992). Of course people may discount information as specific to a particular case, but more likely they store and aggregate information they learn and form general impressions about the issues at hand (Lodge, McGraw, and Stoh 1989). At the beginning of this paper we noted that public perceptions of total campaign expenditures deviate substantially from the realities of campaign finance. Here we consider public perceptions in more detail.

A first step in assessing the consequences of press reporting is to map public perceptions of a subject. Similar work has been done in the area of risk assessment (Fischø, Lichter, and Slovic 1980). On the issue of campaign finance, the press is the most likely vector of information, if not the primary source.

We asked a national sample of 1000 people to estimate the amounts and sources of House campaign funds. The question was located at the end of an unrelated survey conducted
over the Internet by Knowledge Networks. There are biases in Internet surveys toward people who are better educated and higher income. These biases, we expect, will produce a sample of people with higher than average information levels. We validated the question by distributing it in college classes and asking for comments and clarifications. The students interpreted the question as we intended. The responses of the undergraduate and graduate students were similar to those of the survey respondents.

Our specific question asked respondents to estimate the amount of money the average U.S. House member raises in an election from interest groups, from individuals, from parties, and from their own personal wealth. From these answers we constructed the respondent’s subjective estimates of the total amount raised by U.S. House members and the share that comes from each source. Table 5 shows the average estimated share and the average and median estimated total amounts.

| Table 5: Subjective Estimates of the Sources and Total Amount of a Typical U.S. House Incumbent’s Campaign Funds |
|-------------------------------------------------------------------------------------------------------------|
| Sources: Knowledge Network Survey, October 2003, FEC Reports                                               |
| Total Expenditures | Estimated Amount* | Actual Amount |
|---------------------|-------------------|---------------|
| Median              | $1,110,000        | $406,000      |
| Average             | $5,830,000        | $785,000      |
| Source              | Average Estimated Percent | Average Actual Percent |
| PACs                | 33%               | 42%           |
| Individuals         | 22%               | 51%           |
| Parties             | 31%               | 06%           |
| Own Money           | 14%               | 01%           |

*We use a trimmed mean, dropping the bottom and top 5 percent, because a few enormous outliers among survey respondents skew the overall mean.

The results are strikingly similar to the patterns in newspaper reporting. The survey respondents’ estimates of the amounts raised by a typical incumbent exceed the actual amounts spent by a factor of three for the medians and a factor of 7 for the average amounts. The average estimate of a typical House incumbent’s expenditure $5.8 million, far in excess of the $785,000 expenditure of the typical incumbent running for reelection. Because this average is
affected by a few outliers in the data, we think the median is a better measure of the typical person's belief. The typical person estimates that U.S. House incumbents spend about $1.1 million each election { almost exactly what is reported on average in the press. The median expenditure of House incumbents came to $400,000 during the elections under study.

Estimates of the sources of money also paralleled figures in the press. People believe that there is 50% more interest group money than individual money, when in fact incumbents rely much more on individual donations. More strikingly, people estimated that party contributions and candidates' own resources were as important as donations from PACs and individuals. Personal funds and direct party contributions account for less than 10% of incumbents' campaign money, not half.

While we cannot measure directly where people learn their information about politics, public opinion researchers have identified good markers for attentive publics." One of the best indicators is education. Better educated people are more likely to read newspapers and pay attention to public affairs.

How did education of respondents relate to perceptions of campaign finance? We performed regression analyses that use a battery of demographic characteristics to predict perceptions of total expenditures and shares of funds from PACs, individuals, parties, and the candidates themselves. The demographic factors are educational attainment, gender, race, income, and age, as well as state and metropolitan area in which the respondent resides.

Education correlates with perceptions of campaign spending and dependence on interest groups. Better educated people perceived House expenditures to be significantly higher than less well educated people. The median perceived expenditure by those with grade school education was $300,000; by those with a high school education, $700,000; by with some college, $1,005,000; and by those with a bachelor's degree or higher, $1,625,000. The segment of the population with the highest incidence of newspaper readership typically had the highest estimated expenditures. The median amount among this group exceeded the median incumbent expenditure four fold. We also ran a multivariate analysis predicting estimated amounts with education, income, age, gender, race, and state of interview. Education was
highly significant and the strongest predictor. Gender and race also mattered: men and whites estimated higher amounts than women and non-whites. Income and age were not significant predictors.

The same pattern arises with perceptions of sources. All groups perceive that individual donors account for a smaller fraction of funds than interest groups. Consistent with newspaper reporting (see Table 2), this perception is especially pronounced among college educated people. All groups perceive that candidates own funds and party contributions are very important, but in fact they are trivial. College educated respondents, on average, estimate that PAC contributions account for 41% of total receipts, individual donors for 21%, parties for 27%, and candidates for 11%. Other groups, on average, estimate that 30% of funds come from PACs, 24% from individuals, 32% from parties, and 16% from candidates themselves.

In short, public perceptions of campaign finance are remarkably consistent with the picture that emerges from newspaper coverage of the topic. The segment of the electorate most likely to read the newspaper shows the greatest biases in their perceptions. The picture in people's minds is of multi-million dollar elections in which individual donors are of secondary importance. That view is especially pronounced among the college educated.

6. Conclusion

Our data analysis provides strong support Sorauf's assertion that the press overstates the amount of money in U.S. politics and the importance of PACs and corporations as a source of campaign money. The overall campaign expenditures and receipts cited by the press from 1996 to 2000 were many times larger than the average amount spent. Readers of the five major national newspapers are likely to have an inflated estimate of the cost of running for Congress and how much of that money goes to television and radio advertising. Press reports also presented interest group donations much more often than individual donations, producing a skewed picture of candidates dependence on corporations, unions, and other organizations for funds. Newspapers under report the role of individuals in funding campaigns.

The patterns of reporting that we document may reflect, as Sorauf argued, the reform agenda of most journalists. While this may play some role, we do not attribute the patterns
above primarily to ideological bias. Ideological bias corresponds to giving more or more favorable coverage to one sort of political view. There is little evidence that liberal candidates' campaign expenditures receive more favorable treatment. To the extent that one interest or ideology is targeted it is reflected in the exaggerated reporting of corporate contributions.

We think the patterns documented can be understood more simply as the tendency of journalism to report on exceptional events. Corruption, scandals, and high spending races are news. What is typical or average may not seem as important or eye-catching as what is exceptional or extreme. It may even be a public service to report the extremes, as that may be where one is more likely to uncover illegal or unethical behavior.

Such reporting practices, whatever the motivation, create a strong "statistical bias." Journalists focus on cases in the "upper tail"—the most expensive races, highest-spending candidates, largest contributors and contributions, and so on. Such cases are deemed interesting or tantalizing hooks for a story.

Unfortunately, people process quantitative information using a variety of heuristics that make them susceptible to misunderstanding an important issue like campaign finance. Kahneman and Tversky (1982) discuss the more prominent heuristics that people use in dealing with data and the biases in their thinking that result. Anchoring is of particular concern here. Giving people different starting points or extreme numbers yields estimates that are biased toward the starting point or the piece of data at hand. Specifically, people systematically miss-estimate averages when they are given the first few numbers in a sequence, such as the upper tail of the distribution or the lower tail of the distribution. Subjects given information that anchors their thinking on the lowest numbers in a sequence will underestimate an average or other quantitative calculation. Subjects that are led to anchor their thinking on the highest numbers will overestimate (Kahneman and Tversky 1982, page 15). People do not adequately adjust their mental calculations to correct for the incompleteness of the information or calculation made.

For its part public opinion echoes the statistical bias in campaign finance reporting. In the survey data reported here, public perceptions of the amounts spent and the sources of
campaign funds mirrored the information available in the press. Those with the highest levels of education tend to report the largest expenditures and perceive the greatest dependence on interest groups.

In many ways, this pattern strikes against a basic precept of research and theorizing about information in a democracy. More information and learning, it is commonly conjectured, will lead to enlightened preferences. Much research considers what people would believe if they were "fully informed" and the contrast is usually between a "low interest", non-newspaper reading person and a "high-interest", newspaper reading person. The statistical biases evident here raise a more fundamental concern: How can one become "fully informed?" After all, in our survey, it was people with lower tendencies to read newspapers (those with less education), who had the closest estimates of the amount of money spent in politics and the relative importance of interest groups.
Appendix

In general we tried to categorize citations according to the discernable intentions of the author of the article. The rules below for categorization reflect this:

Advertising - This is a type of expenditure, as in "Candidate x spent $30,000 for a 30 second spot on the evening news."

Expected, Needed - This was not an actual dollar amount that someone or something took in or spent. These citations often read something like "Candidate X will need $1,000,000 to run an effective campaign." Or "The RNC promised to raise $2,000,000 for Candidate X" or even "It is expected that this race will cost $10,000,000 in the primary alone."

Expenditure - A candidate spent some money on something other than television and radio advertising.

Firm or PAC - This was a particular organization, "rm or PAC that gave money to a race or party. This is a broad category and includes: Unions, Political interest groups, "rms, and groups of people specifically associated with a "rm. This last group has to do with the intention of the person writing the article. For example if the author wrote "WorldCom executives gave $100,000 to the DNC," "WorldCom executives" would be categorized as a "rm. This would cause the data to have a downward bias since WorldCom may have given much more than just what their executives kicked in.

Fundraiser - A particular event to raise funds. For example "Dinner featuring Bill Clinton."

Group of Candidates - This is a group of candidates that is not organized in some way that "ts in above. For example "Congressmen in vulnerable seats." If it is explicitly an average for such a class the citation was classed as either "Expected, Needed" or "Individual Candidates."
Group of Individuals - A group of individuals who gave to a campaign that doesn't seem to have some sort of overarching organization that "fits" into one of the above groups. For example, "Donors outside of Georgia" or "Person X's family" or "Person X and Person Y".

Coordinated Party Expenditures - Data that is specifically labeled as hard money.

Individual - A person who is not running for office who is explicitly named. For example, "Bill Gates" is a person, "Microsoft's Chairman" is not.

Individual Candidate - A candidate for a particular office.

Industry - A group of firms, PACs, corporations or other groups. Both of the following would be classified as industries: "Trial Lawyers" and "13 Lawyers and their families from firms with tobacco cases pending" - it is unclear whether the second citation should the tobacco industry or trial lawyers but it is certainly an industry. However, we would classify the AFL-CIO or similar union as a "Firm or PAC" but "unions" or "labor" as an industry.

Leadership PAC - These are PACs associated with a particular candidate.

National Party - A citation of a particular party or group of party committees. For example, "John Huang gave $30,000 to the DCCC and other congressional campaign committees" would have a destination type of "National Party."

National Party Committee - A particular committee run by the national party such as the DNC or the NRSC.

On Hand - These were citations of a candidate or other group having a certain amount "on hand", "in the bank" or in their "war chest." 

Partial - This is a citation of an amount spent or received during a particular time, or up to a particular place in time. For example, "Candidate x spent $30,000,000 in the
primary" would be Partial" since it is likely that the candidate spent more overall. If the candidate was eliminated in the primary, such a citation would be classified as Total."

Race - This refers to a group of candidates that make up an entire race or most of a race. For example Clinton and Lazio" or Clinton, Lazio and Giuliani" or Newt Gingrich's race."

Soft Money - A donation or transaction that is explicitly labeled as soft money. For example, the sentence "Hillary Clinton took in $300 in soft money" would in theory translate to a source of soft money", a destination of individual candidate" and an amount of $300. However, the sentence "Hillary Clinton received $300 from the Democratic Party" would have a source of National Party" even though the contribution is most likely soft money.

State Party - A state part or organization.

Total - This is the total amount given to a candidate, spent by a candidate, donated by a rm, PAC, individual, industry, national party committee, etc.
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