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**Working Paper 16-137**

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## Abstract

In recent years, there have been a number of high profile scandals on college campuses, ranging from cheating to hazing to rape. With so much information regarding a college's academic and non-academic attributes available to students, how do these scandals affect their applications? To investigate, we construct a dataset of scandals at the top 100 U.S. universities between 2001 and 2013. Scandals with a high level of media coverage significantly reduce applications. For example, a scandal covered in a long-form news article leads to a ten percent drop in applications the following year. This is roughly the same as the impact on applications of dropping ten spots in the *U.S. News and World Report* college rankings. This impact on applications persists for two years following the high-profile scandal. We find little evidence to suggest that this drop in applications is associated with longer-term negative effects for the school such as a less competitive applicant pool or a more dangerous campus environment.

**Keywords**: Media Economics, College Choice, Reputation, Economics of Information

[1] The findings of this are our own and do not reflect the views of our respective organizations. All remaining errors are our own.

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# 1. Introduction

In 2012, *Rolling Stone* published an article titled "Confessions of an Ivy League Frat Boy: Inside Dartmouth's Hazing Abuses" (Reitman, 2012), an 8,000 word article documenting the story of a student who had been hazed and abused during the process of pledging a fraternity at Dartmouth College. The article was extremely graphic, including twenty uses of the word "vomit" and its derivatives, and the article expanded to include other stories of – and follow up articles about – the hazing culture at Dartmouth.

Should we expect this article to affect future applicants to Dartmouth College? Although the article chronicled Dartmouth's culture, many colleges likely have strong hazing cultures. Drinking and abuse are problems that all colleges think about, and it is not clear that Dartmouth's case is any better or worse – it is simply the one that became most public. Moreover, if Dartmouth responds to this coverage by cracking down on campus, Dartmouth may actually be *less* likely than other colleges to have hazing incidents in the years after this article. Lastly, while this story is very concerning, it represents one data point out of a wide swath of information that students have access to when choosing a college. Given all of this, the responses we should expect are a priori unclear.

To explore this empirical question, we construct a novel dataset of college-related scandals that garnered negative media attention. We find that the Dartmouth story is in no way unique. Between 2001 and 2013, our search identified 118 different public scandals at the top 100 colleges in the United States. Scandals covered by the media affected over 75 percent of the colleges in our study.

Using these data, we implement a difference-in-differences approach to estimate the impact of scandals on student applications. While the overall impact of scandals seems to be small, we

find that there is a large effect of scandals with extensive media coverage, as measured by *New York Times* and long form magazine articles. Scandals with more than five mentions in the *New York Times* lead to an eight percent drop in applications at the college the following year. Colleges with scandals covered by long-form magazine articles receive ten percent fewer applications the following year. To put this into context, a long form article decreases a college's number of applications roughly as much as falling ten places in the *U.S. News and World Report* college rankings (Luca and Smith, 2013).

These results add to the literature on the role of information in college applications. Generally speaking, students do not have full information on colleges, and recent research suggests that their application strategies are sub-optimal, in part because they rely on rules of thumb and simplifying heuristics.[5] However, when information comes to them, students are often responsive, be it rankings (Monks and Ehrenberg, 1999; Alter and Reback, 2014; Luca and Smith, 2013), online informational systems (Hurwitz and Smith, 2016), or direct outreach through mailings (e.g. Hoxby and Turner, 2013). While rankings and outreach are directly aimed at influencing applicant behavior, coverage of scandals provides information that is not directly designed to aid in the decision-process.

Our paper also adds to the emerging literature on scandals. Knittel and Stango (2013) show that the Tiger Woods sex scandal led to a drop in the stock price of his corporate sponsors. Chung et al. (2013) show that the same scandal resulted in decreased sales of golf balls from Nike, one of Woods's main sponsors. Azoulay et al. (2015) show that disclosures of scientific retractions impact the career outcomes of scientists, especially those who are highly esteemed in the field. Our work provides evidence on the role of media in reactions to scandals, developing an average treatment

[5] See Page and Scott-Clayton (2015) for an overview of research on the college application and enrollment processes.

effect of the types of incidents that periodically occur in higher education. This literature is different from the earlier work on the impact of media, which argued that even negative attention was good for a company. For example, Berger, Sorenson, and Rasmussen (2010) show that even unfavorable reviews of a book lead to higher sales – presumably by increasing the attention paid by customers. In contrast, our findings suggest that, at least in our context, unfavorable press tends to lessen demand.[6]

Our paper also is related to the product-harm and service-harm literature. Negative product and service shocks have important effects on businesses, ranging from loss of baseline sales to reduced impact of marketing tools (Van Heerde et al., 2007). There is evidence that customers treat positive and negative shocks in perceived quality differently, with negative events being stronger and lasting longer than positive events. Empirically, Gijsenberg et al. (2015) analyze service crises of a European railway and note that negative service shocks lead to persistently lower consumer satisfaction. Our findings contribute to this literature by showing that high-profile scandals on college campuses are associated with persistent lower application volume in the two years following the scandal.

Our work is also unique in its ability to explore responses both from the demand side (i.e., applicants) and supply side (i.e., colleges). We find mixed evidence that colleges respond to scandals, but that the response, if any, is short-lived. This would be consistent with the role of media outlets as accountability systems (Zyglidopoulos et al., 2012; Islam and Deegan, 2010; Brown and Deegan, 1998).

[6] For the purpose of this paper, we largely focus on scandals as discrete events that happen at a point in time – such as a murder on campus, or a long-form article about hazing on campus. Apart from an exploratory investigation of coverage length in the Empirical Analysis section, we are abstracting from the dynamic way in which scandals may evolve.

We find little evidence to show that scandals impact important metrics such as yield, donation rates, and the competitiveness of the applicant pool. Given this lack of effects, one could imagine that students withholding applications are doing so in a "hot state", driven by fear of (unrealized) future ramifications of the scandalous behavior on campus life (Loewenstein 2000). In this state, students are unable to optimize long-term utility, leading to suboptimal college choices. We discuss implications of this state of decision making in the conclusion for both applicants and colleges.

## 2. Background and Empirical Context

Our general framework for understanding applicant behavior in this setting is similar to that of Zhao, Zhao, and Helsen (2011), who model consumer choice behavior during a product-harm event. In their model, consumers are uncertain about the mean level of product quality and update their beliefs based on diffuse signals from product use and the product-harm crisis. In our case, applicants hold uncertain priors about mean quality levels at their list of prospective schools, and noisy signals about value arrive through student interaction with the college (via rankings data, perusing the school's webpage, or on-campus visits, for example). Similarly, media coverage of on-campus scandals provides a noisy signal of college quality, and the intensity of media coverage serves as a primary driver of signal strength. Students evaluate quality by weighing these and other signals and updating prior beliefs before determining their final list of colleges and submitting applications.

Our dataset consists of the top 100 national universities as measured by the *U.S. News and World Report* for 2015.[7] We focus on this sample because these colleges tend to be more selective,

[7] See Appendix Table 1 for a list of the sample schools in rank order. Due to multiple ranks at the #99 place, the sample contains 102 colleges.

drawing from a national pool of applicants who often consider college attributes beyond cost and location, and tend to receive a lot of student and media attention. For each of these colleges, we collect data on application behavior and scandals (defined below) that have been covered by the media.

## 2.1. IPEDS and Common Application Data

For a number of applications and other college-specific data, we used the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) database, which contains information for all U.S. higher education institutions participating in federal student aid programs. The database includes data on both institutional characteristics (such as tuition) and student characteristics (such as mean SAT scores) for each year.

For each college-year observation, we use the college's total number of freshman applications from the year in which it made admissions decisions.[8] We also use IPEDS time-varying data for instate and out-of-state tuition costs and institutional SAT percentile scores. For missing values in our sample, we called college admissions offices for official statistics, and if the data were still unavailable, we imputed values based on the previous and following year. If the imputed year fell at the ends of our time period (admission years 2001 or 2013), we imputed values based on percent changes in values from the prior/subsequent two years.[9] We combine these data with an indicator for whether the college is a member of the Common Application.

**Table 1** shows the summary statistics for these variables. On average, the 1,192 college-year observations in this sample receive almost 20 thousand applications, half of which come from

[8] Thus, the applications received during the fall of 2000 would be marked as admission year 2001. Most colleges mark their number of applications in IPEDS in this manner, and using admission year as the time reference has the added methodological benefit of matching the *U.S. News and World Report* timing conventions.
[9]After obtaining a final count of official application numbers by year via conversations with admissions offices and cross-checking data from Alter and Reback (2014), IPEDS data for 34 of 1327 year-school entries were imputed.

females. The 25th and 75th percentile verbal SAT scores are slightly lower than those on the math SAT. Also, since many of the top institutions are private, the in-state tuition is relatively high, at over $20,000, which is about $6,000 less than out-of-state tuition. About half of the colleges accept the Common Application during this period of great expansion for the organization.

## 2.2. Scandals

We gathered our scandal data via Google searches of media content published online from 2001-2013.[10] Our search terms were "(full college name) (scandal type)". We divided the scandals into four categories: sexual assaults, murders, cheating scandals, and hazing scandals. An example search term would be "Harvard University sexual assault". Within the first ten pages of the search results, we identified unique scandals.[11] Scandals are only counted when they occurred on the college campus or in immediately adjacent student housing. Scandals occurring solely within universities' graduate programs (e.g., cheating at a law school) are not included, since our primary outcome variable is the number of applications to undergraduate programs. Hazing incidents accompanied by a Greek organization chapter closure were counted only if the offending incident was covered as a separate event from the closure announcement. For murders, we included professor deaths and student deaths in off-campus housing. We excluded suicides from the count of murders; if the suicide was linked to hazing or sexual assault, the event was labeled with one of these scandal categories instead. The month, day, and year of the breaking media story were also recorded in our data.

[10] Google's PageRank search algorithm ranks pages in search results via the amount and influence of webpages linked to the resultant page. The economics and management literature has previously used Google searches as a rich time series data set to proxy for individual economic activity in various settings such as the housing market (Wu and Brynjolfsson, 2015) and the labor market (Baker and Fradkin, 2015).

[11] In some instances, there were less than ten pages of search results, in which case we chose relevant links from the available number of results pages.

Table 1 shows that 9 percent of the college-year observations had a scandal unearthed in our search process. However, this statistic masks the distribution by college, which can be found in **Figure 1**. No college in the sample witnessed more than four scandals during the sample period. The majority of colleges in this sample (around 75 percent) experienced at least one scandal during the time period studied. There are 118 unique scandals in our sample. Our data include four types of incidents: 30% involve sexual assaults, 40% involve murders, 15% involve hazing, and 15% involve cheating.[12]

## 2.3. Media Coverage of Scandals

### 2.3.1. Scandal Size

After collecting the list of scandals from the sample colleges, we determined the number of citations for each scandal on *The New York Times* online archive. The number of *New York Times* citations serves as a proxy for size of national media coverage in our analysis, following established conventions in the literature. *The New York Times* has been described in management research as "the elite U.S. newspaper" and the "benchmark" for studying media attention (Zyglidopoulos et al., 2012). To gain a measure of a scandal's media coverage, we recorded the number of unique articles mentioning the scandal in the month following the breaking news date. In order to categorize coverage intensity, we assign covered scandals to two coverage buckets: one in which the scandal has at least one *New York Times* citation in the month following a scandal

[12] Note that the preponderance of murders in our data does not mean more murder incidents happened on campus than other incident types, just that more were picked up by our search algorithm. It may be the case that murders attract more media attention per incident relative to the other incident types. The opposite point can be made about sexual assaults, which have been shown to be generally underreported by colleges and, by extension, get less media attention. Yung (2015) reveals that universities generally underreport the number of sexual assaults on campus by auditing colleges' sexual assault policies. During the audit period examined in the paper, universities reported an average of 44 percent more sexual assaults; after the audit, the number of reported sexual assaults dropped to a value indistinguishable from the pre-period.

and one in which the scandal has more than five *New York Times* citations in the month following a scandal.

Among our sample of 118 scandals, media coverage varied widely. Roughly two thirds of the incidents were not covered by *The New York Times*, but were covered in local media outlets (in order to be included in our sample). Roughly 10% were discussed in at least five *New York Times* articles, and the remainder were discussed at least once in *The New York Times*.

### 2.3.2. Long-Form Articles

From our initial search, we noted whether or not scandals were covered in a long-form article. We had two qualifications for a scandal publication to be considered long-form coverage: first, the article in question must be longer than two pages, and second, the outlet in which the article appears must have nationwide circulation. Media coverage of 9 of 118 scandals met these criteria. The outlets for the long-form articles were *Rolling Stone*, *National Catholic Register*, *The New Yorker*, *New York Magazine*, *The New York Times*, *Sports Illustrated, People Magazine*, and *Vanity Fair.* Within our sample, there is significant overlap between a scandal having a long-form article and the same scandal being covered in *The New York Times* – with coverage in *The Times* generally coming after the long-form article or local news outlet that breaks the story. Out of the nine scandals with long-form articles, only one scandal was not covered by *The New York Times* in the month following the scandal.[13] Three articles were covered with between one and five *New York Times* stories, and five of the long-form articles were covered with more than five unique *New York Times* articles in the month post-breaking coverage. This supports our interpretation of long-form journalism as a form of extensive coverage of a scandal.

[13] This event is the 2010 Elizabeth Seeberg sexual assault and suicide at The University of Notre Dame, which was covered in a long-form article in the *National Catholic Register*.

# 3. Empirical Analysis

In this section, we formalize the estimating equations for both of our questions. First, how does media coverage of on-campus scandals impact the number of applications a college receives? Second, after a scandal occurs, do we observe persistent effects of that scandal on applications in the years that follow? In examining the results of these tests in the following sections, we use both graphical and regression evidence, which can be found in the figures and tables at the end of the paper.

## 3.1. Empirical Specifications

### 3.1.1. The Impact of Scandals on Applications

To determine the impact of scandals on the number of applications that a college receives, we use the following specification:

$$log(Total\ Applicants_{it}) = \alpha_0 + \alpha_1 * (Scandal_{it}) + \beta(X_{it}) + \mu_1(Year_t) + \mu_2(College_i) + \eta_{it}$$

The dependent variable is the natural logarithm of applications (*log(Total Applicants)*) for college *i* in year *t*. *Scandal* equals one if there was at least one scandal for that college in that year.[14] The vector *X* includes lagged institutional SAT percentile variables *(SAT Math—25th Percentile, SAT Math—75th Percentile, SAT Verbal—25th Percentile, SAT Verbal—75th Percentile)*, *Instate Tuition* and *Out-of-State Tuition*, *Common App*, and lagged *USNWR Rank*.[15]

[14] Under this metric, multiple incidents can occur in the same year. Six college-year observations had more than one incident. In an alternative specification not reported in this paper, we regressed the number of incidents per year on number of applications and found no effect.

[15] Changes in the ranking display in the early part of the panel necessitated the later inclusion of a variable, *Rank Dummy*, which equals 1 if the ranking for a college in a certain year is absent from the *U.S. News and World Report* rankings and 0 otherwise.

Time fixed effects (*Year*) and college fixed effects (*College*) are included. Finally, $\eta$ is an independent and identically distributed error term.

To capture variation in the intensity of media coverage of scandals among various outlets, we use a set of *Media Coverage* indicators in the specification below:

$$log(Total\ Applicants_{it}) = \alpha_0 + \alpha_1 * (Media\ Coverage_{it}) + \beta(X_{it}) + \mu_1(Year_t) + \mu_2(College_i) + \eta_{it}$$

We use three different indicator variables under the *Media Coverage* umbrella: *At Least 1 NYT Cite, Greater than 5 NYT Cites, and Long-Form Article*. These take the value one when a scandal has the associated media coverage profile and zero otherwise. The fixed effects and controls are the same as in the first specification.

**3.1.2. The Persistent Effects of Scandals**

In order to determine if scandals exhibit persistent effects on applications, we start with the same specifications in the prior subsection for scandals and media coverage indicators. We then transform these specifications by "leading" our scandal and media coverage variables one and two years. By doing so, we can examine the impact of a scandal in the second and third years following the initial breaking news to see if there are any persistence effects on later years' applications.

For a separate, but related analysis, we also add a "coverage length" variable to our *Media Interaction* specification that determines if coverage length (i.e., a rough proxy for the "evolution" of a scandal over time) impacts applications beyond the intensity of coverage received. To construct our coverage length variable, we recorded the first and last piece of coverage for all of our scandals covered in *The New York Times*, calculated the number of days between initial and final coverage, and interacted the coverage length with our coverage level dummy variables.

## 3.2. The Impact of Scandals on Applications

**Table 2** presents the main results from a regression of the log of the number of applications on different measures of scandals and media coverage. The first column shows that in the year following a scandal, colleges receive 2 percent fewer applications, but this is not statistically different than zero. However, the next few columns consider scandals with relatively larger amounts of media coverage. A scandal that receives at least one mention in *The New York Times* receives almost 5 percent fewer applications. A scandal generating more than five *New York Times* pieces in the month following breaking news leads to an 8.8 percent drop in applications. Long-form coverage of a scandal leads to 10 percent fewer applications. Column (5) considers the impact of the scandal with any relatively large amount of media coverage (at least 1 *New York Times* cite and/or a long-form article), which corresponds to a 5 percent drop in applicants. Column (6) reports the full model. The individual coefficients remain negative and lose significance, but the combined effect of the coverage remains negative and significant. Overall, the results suggest that the impact of a scandal depends on the amount of media coverage that the scandal receives. As a robustness check, we gathered coverage from *USA Today* and find qualitatively similar effects to measuring coverage with *New York Times* cites (see **Appendix Table 2)**.[16]

### 3.2.1 Do Scandals Persist?

A priori, the persistence of the impact of a scandal is unclear. While these provide large shocks in the first year, reputational effects are likely to dissipate over time as the event becomes less salient or the school responds. We explore the persistence of the effect in **Table 3**, which shows the impacts of scandal coverage in the second and third years after the incident occurs. The

[16] In an analysis not reported in this paper, we also examined the impact of scandals featured in the largest regional newspapers on applications. Our results yielded point estimates that were too noisy to draw meaningful conclusions about the local effects of scandal.

impact of a scandal persists for a second year, with roughly similar effect size and significance to the initial impact. The effect is insignificant in the third year. Relative to the impact of the *U.S. News and World Report* college rankings, the immediate effect of a scandal is large (roughly the effect of a ten-rank change). However, the effects seem to dissipate relatively quickly, suggesting that scandals have a large but temporary impact, potentially because the incidents become less salient over time.

While we treat scandals generally as a one-time event, scandal coverage naturally evolves over time, especially for high profile scandals with long-lived media attention. Beyond the coverage intensity of the scandals, the length of time that a scandal is covered could impact applications as well. We recorded the last piece of coverage in the *New York Times* for our covered scandals, calculated the number of days between initial and final coverage, and interacted the coverage length with our coverage level dummy variables. We find little evidence that the length of coverage impacts applications independently of the coverage level (see **Appendix Table 3**). This could be due to highly covered stories already tending to have longer coverage lives.

# 4. Discussion

Scandals on college campuses – especially those with extensive media coverage – lead to decreases in the number of applications a college receives. The effect is large relative to other responses observed in the college choice setting. For example, a negative long form article has roughly the same effect as dropping ten rankings in the popular *U.S. News and World Report* college rankings (based on the point estimate in Luca and Smith (2013)).

## 4.1. When is Bad News Good?

Our results shed light on the impact of widely-covered negative incidents on product demand. These results can be compared to Berger et al. (2010), which finds that even unfavorable reviews lead to spikes in demand for books for new authors but drops in demand for established authors. One potential explanation for these contrasting sets of results comes from the fact that we are analyzing top universities and that scandals presumably receive media coverage precisely because people already know these institutions (See **Appendix Table 4**). This is consistent with the hypothesis that negative media may increase demand in contexts where awareness is the primary challenge but decrease demand for products or services with more established brands.

## 4.2. Limitations and Future Research

In this paper, we treat incidents as one-time major events – in this context, negative incidents that receive salient media coverage. However, one could imagine dynamic elements of scandals that this does not capture. For example, how does the effect of small bits of bad news over time compare to the effect of the major incidents we observe in our data? Moreover, scandals have a tendency to evolve – for example, coverage of Hillary Clinton's email servers persisted, ebbed, and flowed for months during the 2016 U.S. presidential campaign. While we have performed an initial analysis of the impact of the coverage length of scandals, an important direction for future research is to more deeply explore the evolution of scandals over time.

While our analysis examines differences in media coverage, there also may be differences in effect among incident types. In principle, the impact of an incident depends on its salience and on the extent to which students update their beliefs based on it. While we lack statistical power to reject heterogeneous effects across incident type, we estimated the results broken out by type of incident. Overall, the results suggest that negative effects are seen across the different types of incidents. We have included a sample analysis examining the impact of murders versus other

scandals in **Appendix Table 5**, and examining these differences across incident type could serve as a fruitful avenue for future research.

Universities care not only about the number of applications they receive, but also about the ultimate composition of the incoming class. In the appendix, we show that there is no discernible effect on the composition of incoming classes in terms of yield (**Appendix Table 6**) and average SAT score (**Appendix Table 7**). While these are very coarse measures of the incoming class, they may be driven by the fact the marginal students who choose not to apply due to a scandal are less likely to be admitted even if accepted. In additional to shedding light on potential mechanisms, these results are also directly relevant as they enter rankings that can create downstream effects for universities. Overall, these results – effects on applications and acceptances rates that do not shift the yield or average SAT score – are consistent with the findings of Luca and Smith (2013), who examine impacts of the U.S. News and World Report rankings (which also impact applications, but not average SAT or yield).[17]

As a robustness check, we examined school-by-school application deadlines in relation to scandal timing and found results that were consistent with our main specification (**Appendix Table 8**). The temporal distance between the scandal and a university's application deadline does not impact the number of applications received, potentially because the scandal's coverage is ongoing during the period or applications submitted prior to the scandal offset any proximity effect (**Appendix Table 9**).

Scandals may also lead universities to "crack-down" on scandal-inducing behavior, leading to a "deterrent effect" that could lower the probability of future scandals at the school. In order to investigate potential deterrent effects of scandal, we examine the probability of a school having a

[17] Universities also care about alumni giving patterns. In an analysis not reported in this paper, we find no impact of scandals on donations at any level of media coverage.

scandal in years post-scandal in **Appendix Table 10**. We examine the results from a conditional logit analysis and focus on two outcomes: coefficients on lagged scandal variables in OLS models and log odds in conditional logistic models. The first column of **Appendix Table 10** shows a gradual increase in the absolute value of the OLS coefficients until two years after an initial scandal. At this point, the coefficients drift slightly towards zero, providing weak evidence that the probability of a second scandal only gradually converges to the base average probability of a scandal over time. The second column shows a similar increase-then-decrease movement with three lags. We estimate the remainder of our deterrence analysis using a conditional logistic model. We see in the third and fourth columns that the log odds generally follow this same pattern, but there is not a significant difference between the largest and smallest log odds values. We replicate this analysis for scandals with relatively large amounts of media coverage (corresponding to Column 5 in **Table 2**). In the conditional logistic model in the seventh and eighth columns, we see a roughly similar trend to the entire set of scandals, but the largest and smallest log odds values are not significantly different from each other. Taken as a whole, while there is weak suggestive evidence that a deterrent effect may be present in the years following a scandal, we lack statistical power to cleanly demonstrate such an effect.

In this setting, reputation may vary based on a college's ranking. For example, Hu and Van den Bulte (2014) show that scientists at middle ranked universities are more conservative about adopting promising but not yet generally accepted methods of genetic engineering, a finding that they attribute to reputational risk. Luca and Smith (2015) show that middle–ranked MBA programs are most likely to publish their MBA program rankings on their home pages, potentially because the very top-ranked universities have the most established reputations. In principle, the

impact of a scandal might then depend on the reputation of the university. This suggests an important direction for future research.

### 4.3. Managerial and Consumer Implications

Overall, our results have implications for applicants, for colleges, and for the media. Applicants should consider the multiple effects of a scandal. Scandals provide information about a school. And to the extent that scandals also serve as a deterrent, the campus actually may be less risky. Applicants should also understand that schools will receive fewer applications in the wake of a scandal, potentially making it easier to get in. This demand response is consistent with other research literature highlighting the fact that student applications respond to small changes in costs or informational environment (e.g. Luca and Smith, 2013; Pallais, 2015; Smith, Hurwitz, and Howell, 2015).

It is tempting for universities to think about applicants as conducting a search for colleges with a wide set of information in a high stakes environment. However, our results suggest that despite the wide availability of influential quality reports and rankings (Luca and Smith 2013), and the fact that colleges market with this material (Luca and Smith 2015), widely covered scandals can have a large impact on student decisions. Given the fact that scandals do not seem to predict future scandals and that there is some suggestive evidence that they deter future scandals, the evidence suggests that the response from students may not be optimal and that the salience of information about scandals is what is driving the response. Schools might then take a broader view of what it means to have a good reputation, and maintain focus on what students normally use to evaluate schools in the absence of a scandal. When negative incidents do occur on a campus, the university might help provide other information and shift students into what psychologists would think about as cold state thinking (e.g., Loewenstein 2000). Given that scandals do not seem to

lead to future scandals, temporary rapid changes in applicant preferences driven by fear could lead to projection-biased (and hence, suboptimal) decisions about where to attend college (Loewenstein et al. 2003).

These results, which are net of any effort to mitigate the unfortunate circumstances, also have implications for colleges. Clearly college administrators do not wish harm on students, staff, or faculty, regardless of the downstream implications. Our work suggests demand responses that will increase the cost of scandals that occur on campus. Having fewer applicants can impact rankings and prestige but may also make it difficult to craft the ideal class. Given that we find no impact on the composition of the class, the impacts may be largely reputational, both from potential changes in ranking and the scandal itself.

The results have implications for the media as well. Our estimates do show that scandals with more media coverage have the larger impacts on applications. Not only are they providing information to potential applicants, but our findings suggests that media may serve the purpose of holding colleges accountable by deterring future scandals. That said, for media outlets looking to help students optimize their decisions, it might be helpful to shift student attention to a broader set of outcomes, including, but not limited to, negative incidents on campus.

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# Tables

## Table 1: Summary Statistics

| Variable: | OBS | MEAN | STD DEV | MIN | MAX | MED |
|---|---|---|---|---|---|---|
| Total Applicants | 1326 | 19840.6 | 11449.9 | 732 | 80522 | 18493 |
| Female Applicants | 1326 | 10426.0 | 6310.5 | 309 | 42922 | 9677 |
| Scandal | 1326 | 0.086 | 0.28 | 0 | 1 | 0 |
| Sexual Assault | 1326 | 0.029 | 0.17 | 0 | 1 | 0 |
| Murder | 1326 | 0.040 | 0.20 | 0 | 1 | 0 |
| Cheating Scandal | 1326 | 0.011 | 0.10 | 0 | 1 | 0 |
| Hazing Scandal | 1326 | 0.014 | 0.12 | 0 | 1 | 0 |
| Long-Form Article | 1326 | 0.008 | 0.09 | 0 | 1 | 0 |
| At Least 1 NYT Cite | 1326 | 0.028 | 0.16 | 0 | 1 | 0 |
| Greater Than 5 NYT Cites | 1326 | 0.009 | 0.09 | 0 | 1 | 0 |
| Scandal with Major Coverage | 1326 | 0.028 | 0.17 | 0 | 1 | 0 |
| *Controls:* | | | | | | |
| SAT Verbal – 25$^{th}$ Percentile | 1304 | 575.7 | 57.5 | 420 | 720 | 560 |
| SAT Verbal – 75$^{th}$ Percentile | 1304 | 679.1 | 50.7 | 580 | 800 | 670 |
| SAT Math – 25$^{th}$ Percentile | 1304 | 602.6 | 58.2 | 462 | 780 | 600 |
| SAT Math – 75$^{th}$ Percentile | 1304 | 702.3 | 49.8 | 600 | 800 | 690 |
| Instate Tuition | 1324 | 20217.5 | 14227.4 | 0 | 47055 | 21207 |
| Out-of-State Tuition | 1326 | 26563.2 | 9459.9 | 3060 | 47055 | 26556 |
| Common App | 1326 | 0.470 | 0.5 | 0 | 1 | 0 |
| USNWR T-100 Nat'l Univ. Rank* | 1326 | 41.6 | 32.0 | 0 | 123 | 37 |

Source: *U.S. News and World Report* college rankings 2001-2013, Authors' Proprietary Scandal Data
* Of 1326 total rank-admission year observations, there were 165 rank-application year observations not reported in *U.S. News and World Report*. We controlled for missing ranks by creating a binary variable that took on the value 1 if rank was missing and 0 otherwise.

## Table 2: The Impact of Scandals on Applications

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Scandal | -0.019 | | | | | -0.004 |
| | (0.013) | | | | | (0.012) |
| At Least 1 NYT Cite | | -0.047* | | | | -0.013 |
| | | (0.026) | | | | (0.033) |
| More Than 5 NYT Cites | | | -0.088** | | | -0.036 |
| | | | (0.038) | | | (0.045) |
| Long Form Article | | | | -0.100** | | -0.062 |
| | | | | (0.040) | | (0.041) |
| Scandal with Major Coverage | | | | | -0.048* | |
| | | | | | (0.025) | |
| Constant | 9.113*** | 9.161*** | 9.160*** | 9.155*** | 9.161*** | 9.167*** |
| | (0.591) | (0.582) | (0.588) | (0.586) | (0.582) | (0.584) |
| ***Summed Effects*** | | | | | | |
| Scandal + At Least 1 NYT Cite + Greater Than 5 NYT Cites + Long-Form Article | | | | | | -0.116** |
| | | | | | | (0.046) |
| F-statistic on joint test of significance | | | | | | 6.37** |
| | | | | | | (0.013) |
| Controls | X | X | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.749 | 0.749 | 0.750 | 0.749 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Table 3: Do Scandals Persist? "Carry-Over" Effects following the Year of Breaking News (First Year)

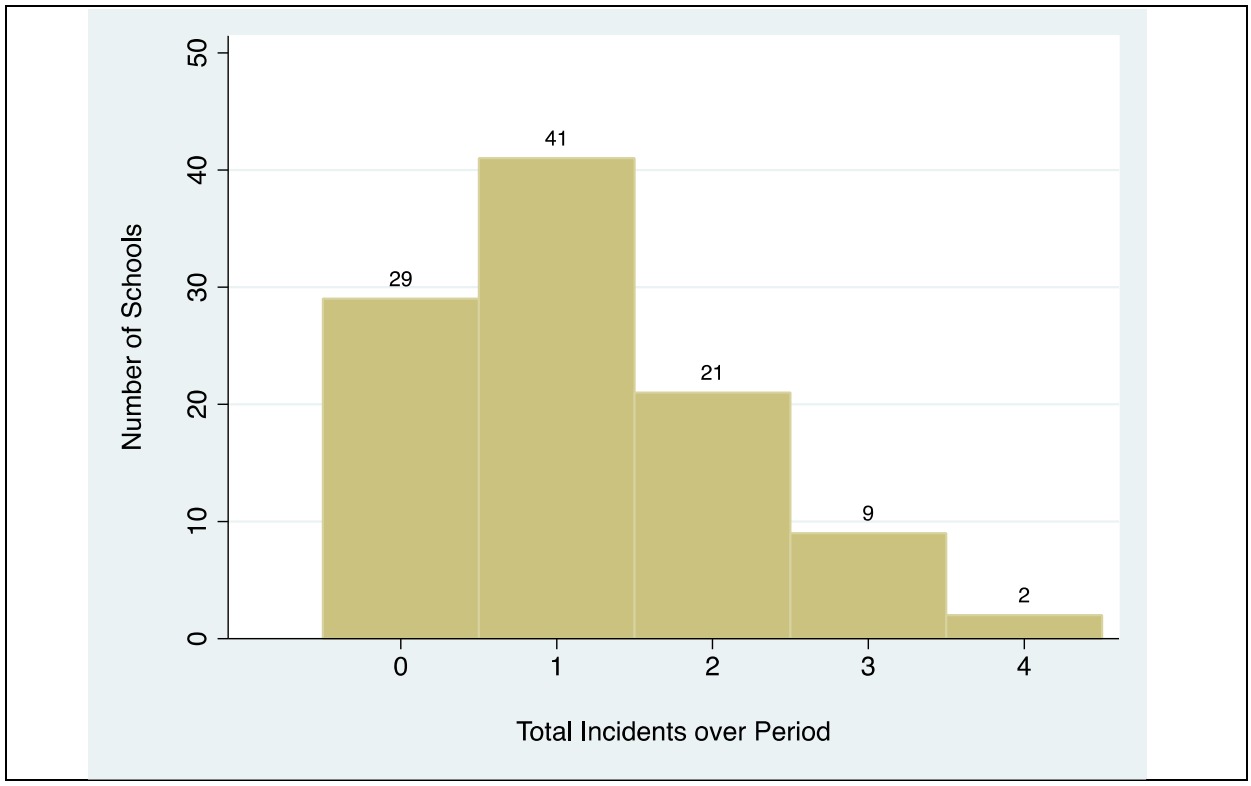
| | Second Year | | | | Third Year | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| *Dependent Variable = log(Total Applicants)* | | | | | | | | |
| Scandal | -0.027* | -0.013 | -0.021 | -0.020 | -0.014 | -0.011 | -0.014 | -0.012 |
| | (0.014) | (0.013) | (0.015) | (0.015) | (0.012) | (0.013) | (0.013) | (0.012) |
| At Least 1 NYT Cite | | -0.044 | | | | -0.010 | | |
| | | (0.027) | | | | (0.023) | | |
| More Than 5 NYT Cites | | | -0.049 | | | | -0.004 | |
| | | | (0.034) | | | | (0.031) | |
| Long Form Article | | | | -0.079** | | | | -0.029 |
| | | | | (0.039) | | | | (0.041) |
| Constant | 9.481*** | 9.529*** | 9.493*** | 9.488*** | 9.473*** | 9.475*** | 9.473*** | 9.474*** |
| | (0.662) | (0.658) | (0.661) | (0.657) | (0.660) | (0.659) | (0.660) | (0.659) |
| Controls | X | X | X | X | X | X | X | X |
| Observations | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 |
| R-squared | 0.744 | 0.745 | 0.744 | 0.745 | 0.743 | 0.743 | 0.743 | 0.743 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |

Each column fits an OLS regression model. Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

# Figures

## Figure 1: Number of Scandals by College (2001-2013)



# Appendix Tables

## Appendix Table 1: U.S. News and World Report *"Best Colleges 2015"* Top 100 National Universities, Listed in Rank Order

| COLLEGE NAME | COLLEGE NAME |
|---|---|
| Princeton University | Yeshiva University |
| Harvard University | University of Texas - Austin |
| Yale University | George Washington University |
| Columbia University | Ohio State University - Columbus |
| Stanford University | Pepperdine University |
| University of Chicago | Tulane University |
| Massachusetts Institute of Technology | Fordham University |
| Duke University | Southern Methodist University |
| University of Pennsylvania | Syracuse University |
| California Institute of Technology | University of Connecticut |
| Dartmouth College | Brigham Young University - Provo |
| Johns Hopkins University | Clemson University |
| Northwestern University | Purdue University - West Lafayette |
| Washington University in Saint Louis | University of Georgia |
| Cornell University | University of Maryland - College Park |
| Brown University | University of Pittsburgh |
| University of Notre Dame | Texas A&M University - College Station |
| Vanderbilt University | Worcester Polytechnic Institute |
| Rice University | Rutgers University - New Brunswick |
| University of California - Berkeley | American University |
| Emory University | Baylor University |
| Georgetown University | University of Iowa |
| University of California - Los Angeles | University of Minnesota - Twin Cities |
| University of Virginia | Virginia Tech |
| Carnegie Mellon University | Clark University |
| University of Southern California | Indiana University - Bloomington |
| Tufts University | Marquette University |
| Wake Forest University | Miami University - Oxford |
| University of Michigan - Ann Arbor | Stevens Institute of Technology |
| University of North Carolina - Chapel Hill | SUNY College of Environmental Science and Forestry |
| Boston College | Texas Christian University |
| New York University | University of Delaware |
| College of William and Mary | University of Massachusetts - Amherst |
| University of Rochester | Michigan State University |
| Brandeis University | University of California - Santa Cruz |
| Georgia Institute of Technology | University of Vermont |
| University of California - San Diego | Binghamton University - SUNY |
| Case Western Reserve University | Colorado School of Mines |
| University of California - Davis | Stony Brook University - SUNY |
| Lehigh University | University of Alabama |
| University of California - Santa Barbara | University of Colorado - Boulder |
| Boston University | University of Denver |
| Northeastern University | University of Tulsa |
| Rensselaer Polytechnic University | Drexel University |
| University of California - Irvine | Florida State University |
| University of Illinois - Urbana-Champaign | North Carolina State University - Raleigh |
| University of Wisconsin - Madison | University of San Diego |
| Pennsylvania State University - University Park | Saint Louis University |
| University of Florida | University of Missouri |
| University of Miami | University of Nebraska - Lincoln |
| University of Washington | University of New Hampshire |

## Appendix Table 2: The Impact of Scandals on Applications with *USA Today* Coverage

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Scandal | -0.019 | | | | | 0.001 |
| | (0.013) | | | | | (0.014) |
| At Least 1 USA Today Cite | | -0.074*** | | | | -0.060** |
| | | (0.021) | | | | (0.023) |
| More Than 5 USA Today Cites | | | -0.094** | | | 0.013 |
| | | | (0.043) | | | (0.061) |
| Long Form Article | | | | -0.100** | | -0.064 |
| | | | | (0.040) | | (0.046) |
| Scandal with Major Coverage | | | | | -0.048* | |
| | | | | | (0.025) | |
| Constant | 9.114*** | 9.182*** | 9.142*** | 9.155*** | 9.161*** | 9.189*** |
| | (0.592) | (0.586) | (0.591) | (0.586) | (0.582) | (0.589) |
| ***Summed Effects*** | | | | | | |
| Scandal + At Least 1 USA Today Cite + Greater Than 5 USA Today Cites + Long-Form Article | | | | | | -0.109** (0.047) |
| F-statistic on joint test of significance | | | | | | 5.39** |
| | | | | | | (0.022) |
| Controls | X | X | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.750 | 0.749 | 0.750 | 0.749 | 0.751 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 3: Does Coverage Length Matter Beyond Coverage Level?

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Scandal | -0.011 | | | |
| | (0.013) | | | |
| Scandal*Coverage Length | -0.000** | | | |
| | (0.000) | | | |
| At Least 1 NYT Cite | | -0.028 | | |
| | | (0.032) | | |
| At Least 1 NYT Cite* Coverage Length | | -0.000 | | |
| | | (0.000) | | |
| More than 5 NYT Cites | | | -0.133 | |
| | | | (0.092) | |
| More than 5 NYT Cites* Coverage Length | | | 0.000 | |
| | | | (0.000) | |
| Long Form Article | | | | -0.117* |
| | | | | (0.064) |
| Long Form Article* Coverage Length | | | | 0.000 |
| | | | | (0.000) |
| Constant | 9.141*** | 9.163*** | 9.170*** | 9.156*** |
| | (0.590) | (0.582) | (0.589) | (0.586) |
| Controls | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.749 | 0.750 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 4: Do Scandals Impact Higher Ranked Schools Differently?

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Scandal | -0.017 | | | |
| | (0.013) | | | |
| Scandal*T25 | -0.045 | | | |
| | (0.039) | | | |
| At Least 1 NYT Cite | | -0.047* | | |
| | | (0.028) | | |
| At Least 1 NYT Cite*T25 | | 0.005 | | |
| | | (0.048) | | |
| More than 5 NYT Cites | | | -0.093** | |
| | | | (0.041) | |
| More than 5 NYT Cites*T25 | | | 0.056 | |
| | | | (0.043) | |
| Long Form Article | | | | -0.121*** |
| | | | | (0.044) |
| Long Form Article*T25 | | | | 0.118** |
| | | | | (0.051) |
| Constant | 9.123*** | 9.160*** | 9.157*** | 9.146*** |
| | (0.593) | (0.583) | (0.588) | (0.584) |
| Controls | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.749 | 0.749 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 5: Do Murders Impact Applications Differently than Other Scandals?

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Scandal | -0.027* | | | |
| | (0.016) | | | |
| Murder*Scandal | 0.015 | | | |
| | (0.023) | | | |
| At Least 1 NYT Cite | | -0.063* | | |
| | | (0.034) | | |
| Murder*At Least 1 NYT Cite | | 0.030 | | |
| | | (0.048) | | |
| Greater than 5 NYT Cites | | | -0.114* | |
| | | | (0.063) | |
| Murder*Greater than 5 NYT Cites | | | 0.050 | |
| | | | (0.070) | |
| Long Form Article | | | | -0.128 |
| | | | | (0.087) |
| Murder*Long Form Article | | | | 0.044 |
| | | | | (0.092) |
| Constant | 9.114*** | 9.158*** | 9.155*** | 9.160*** |
| | (0.593) | (0.581) | (0.590) | (0.587) |
| Controls | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.749 | 0.750 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 6: The Impact of Scandals on Yield

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Scandal | -0.001 | | | |
| | (0.003) | | | |
| At Least 1 NYT Cite | | 0.001 | | |
| | | (0.004) | | |
| More Than 5 NYT Cites | | | 0.008 | |
| | | | (0.008) | |
| Long Form Article | | | | 0.008 |
| | | | | (0.009) |
| Constant | 0.521*** | 0.520*** | 0.518*** | 0.519*** |
| | (0.116) | (0.115) | (0.115) | (0.115) |
| Controls | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.322 | 0.322 | 0.322 | 0.322 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 7: The Impact of Scandals on Matriculating Student Competitiveness

| *Dependent Variable = log(Total Applicants)* | (1) Verbal | (2) Math | (3) Verbal | (4) Math | (5) Verbal | (6) Math | (7) Verbal | (8) Math |
|---|---|---|---|---|---|---|---|---|
| Scandal | -0.610 | 0.557 | | | | | | |
| | (0.806) | (0.761) | | | | | | |
| At Least 1 NYT Cite | | | -2.014 | -1.430 | | | | |
| | | | (1.401) | (1.239) | | | | |
| More Than 5 NYT Cites | | | | | 0.301 | 0.719 | | |
| | | | | | (0.803) | (1.516) | | |
| Long Form Article | | | | | | | -0.679 | 0.980 |
| | | | | | | | (1.647) | (1.610) |
| Constant | 249.505*** | 228.180*** | 251.428*** | 229.081*** | 249.664*** | 227.616*** | 250.010*** | 227.602*** |
| | (53.882) | (48.182) | (53.385) | (47.679) | (54.053) | (48.028) | (53.962) | (48.074) |
| Controls | X | X | X | X | X | X | X | X |
| Observations | 1,197 | 1,197 | 1,197 | 1,197 | 1,197 | 1,197 | 1,197 | 1,197 |
| R-squared | 0.536 | 0.605 | 0.536 | 0.605 | 0.536 | 0.605 | 0.536 | 0.605 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 8: The Impact of Scandals on Applications given School-by-School Deadlines

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Scandal | -0.021 | | | | | -0.007 |
| | (0.013) | | | | | (0.012) |
| At Least 1 NYT Cite | | -0.047* | | | | -0.012 |
| | | (0.026) | | | | (0.033) |
| More Than 5 NYT Cites | | | -0.088** | | | -0.036 |
| | | | (0.038) | | | (0.045) |
| Long Form Article | | | | -0.100** | | -0.061 |
| | | | | (0.040) | | (0.041) |
| Scandal with Major Coverage | | | | | -0.049* | |
| | | | | | (0.025) | |
| Constant | 9.113*** | 9.159*** | 9.160*** | 9.155*** | 9.159*** | 9.164*** |
| | (0.592) | (0.582) | (0.588) | (0.586) | (0.582) | (0.585) |
| ***Summed Effects*** | | | | | | |
| Scandal + At Least 1 NYT Cite + Greater Than 5 NYT Cites + Long-Form Article | | | | | | -0.116** |
| | | | | | | (0.046) |
| F-statistic on joint test of significance | | | | | | 6.36** |
| | | | | | | (0.013) |
| Controls | X | X | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.749 | 0.749 | 0.750 | 0.749 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 9: The Impact of Scandal "Distance from the Deadline" on Applications

| *Dependent Variable = log(Total Applicants)* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Scandal | -0.032 | | | |
| | (0.024) | | | |
| Days Since Last Deadline*Scandal | 0.000 | | | |
| | (0.000) | | | |
| At Least 1 NYT Cite | | -0.003 | | |
| | | (0.044) | | |
| Days Since Last Deadline*At Least 1 NYT Cite | | -0.000 | | |
| | | (0.000) | | |
| Greater than 5 NYT Cites | | | -0.137** | |
| | | | (0.063) | |
| Days Since Last Deadline *Greater than 5 NYT Cites | | | 0.000 | |
| | | | (0.000) | |
| Long Form Article | | | | -0.117* |
| | | | | (0.069) |
| Days Since Last Deadline *Long Form Article | | | | 0.000 |
| | | | | (0.000) |
| Constant | 9.108*** | 9.189*** | 9.146*** | 9.153*** |
| | (0.591) | (0.583) | (0.588) | (0.585) |
| Controls | X | X | X | X |
| Observations | 1,202 | 1,202 | 1,202 | 1,202 |
| R-squared | 0.749 | 0.750 | 0.750 | 0.750 |
| Number of Colleges in Sample | 102 | 102 | 102 | 102 |

Robust standard errors are in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25th Percentile*, *SAT Math—75th Percentile*, *SAT Verbal—25th Percentile*, *SAT Verbal—75th Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1

## Appendix Table 10: Do Administrators React? Probabilities of Future Scandals Given Prior Scandals

| | All Scandals | | | | Scandals with Major Coverage | | | |
|---|---|---|---|---|---|---|---|---|
| *Dependent Variable = 1 if scandal occurred in admission year* | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | OLS | | Conditional Logistic Log Odds | | OLS | | Conditional Logistic Log Odds | |
| Lag Scandal | -0.221*** | -0.143*** | -3.027*** | -1.511*** | -0.228*** | -0.165*** | -2.025*** | -1.609** |
| | (0.037) | (0.032) | (0.573) | (0.406) | (0.064) | (0.057) | (0.714) | (0.668) |
| Lag 2 Scandal | -0.310*** | -0.217*** | -4.154*** | -2.541*** | -0.250*** | -0.181*** | -2.724*** | -2.110** |
| | (0.045) | (0.031) | (0.746) | (0.632) | (0.061) | (0.052) | (0.907) | (0.847) |
| Lag 3 Scandal | -0.201*** | -0.124** | -3.207*** | -1.535*** | -0.088 | -0.044 | -1.627** | -1.002 |
| | (0.059) | (0.049) | (0.623) | (0.483) | (0.113) | (0.094) | (0.735) | (0.673) |
| Lag 4 Scandal | -0.184*** | | -2.991*** | | 0.061 | | -0.682 | |
| | (0.058) | | (0.648) | | (0.104) | | (0.850) | |
| Lag 5 Scandal | -0.108* | | -2.569*** | | -0.048 | | -1.154 | |
| | (0.064) | | (0.743) | | (0.091) | | (1.353) | |
| Constant | -1.293 | -0.659 | | | -0.383 | -0.009 | | |
| | (1.229) | (0.938) | | | (1.150) | (0.892) | | |
| Controls | X | X | X | X | X | X | X | X |
| Observations | 809 | 1,008 | 520 | 689 | 1,008 | 1,008 | 520 | 689 |
| R-squared | 0.135 | 0.098 | | | 0.098 | 0.061 | | |
| Number of Colleges in Sample | 102 | 102 | | | 102 | 102 | | |
| Number of Groups in Sample | | | 65 | 65 | | | 65 | 65 |

Columns (1), (2), (4), and (5) fit an OLS model, while columns (3), (4), (7), and (8) fit a conditional (fixed-effects) logistic regression model. Standard errors in parentheses, clustered at the college level. All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables *(SAT Math—25$^{th}$ Percentile*, *SAT Math—75$^{th}$ Percentile*, *SAT Verbal—25$^{th}$ Percentile*, *SAT Verbal—75$^{th}$ Percentile)*, *Instate Tuition, Out-of-State Tuition*, *Common App*, and *USNWR Rank*.

*** p<0.01, ** p<0.05, * p<0.1