

The Impact of Highly Publicized Campus Scandals on College Outcomes¹

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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 colleges' outcomes such as application volume, incoming student body competitiveness, yield, and alumni donation rates? 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 substantially 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, but we find no impact of scandals on incoming student body competitiveness, yield, or alumni donations, and little effect on deterring other scandals.

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¹ The findings of this study 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 perceptions of 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 substantial 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 National Universities in the United States as ranked by *U.S. News and World Report* in 2015. 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 four important college outcomes: applications, incoming student body SAT scores,

yield, and donation rates. While the overall impact of scandals seems to be small across most of these outcomes, we find that application volume is depressed by scandals with extensive media coverage on applications. 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).

Our results add to the literature on the role of information in the transition from high school to college. 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.⁴ 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, 2018), 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 and media economics. 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. (2017) show that disclosures of scientific retractions impact the career outcomes of scientists, especially those who are highly

⁴ See Page and Scott-Clayton (2016) for an overview of research on the college application and enrollment processes.

esteemed in the field. In the paper perhaps most similar to ours, Lindo et al. (2018) find that, contrary to our findings, colleges with Title IX investigations lead to more applications. The authors attribute their findings to the old adage “any press is good press.” Outside of education, Berger, Sorenson, and Rasmussen (2010) show that unfavorable reviews of lesser-known books lead to higher sales – presumably by increasing the attention paid by customers. In contrast to these results, our findings suggest that not all press is good for all colleges. Rather, the media is providing information to consumers, which is consistent with the role of media outlets as accountability systems (Zyglidopoulos et al., 2012; Islam and Deegan, 2010; Brown and Deegan, 1998). In that vein, we find mixed evidence that the supply side (i.e., colleges) respond to scandals, but that the response, if any, is short-lived.

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.

2. Background and Empirical Context

Our general framework for understanding outside stakeholder 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, outside stakeholders (i.e., applicants and prospective donors) have diffuse priors about mean quality levels of the college at some point in time, and noisy signals about value arrive through 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 and prospective donors evaluate quality by weighing these and other signals and updating prior beliefs before choosing to apply or donate to the college.

Our dataset consists of the top 100 national universities as measured by the *U.S. News and World Report* for 2015.⁵ We focus on this sample because these colleges tend to be more selective, drawing from a national pool of applicants who often consider college attributes beyond price 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, Common Application Data, and Donation 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

⁵ 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. It is worth noting that 97 of 100 schools are ranked in the Top 100 National Universities rankings throughout the available time period in our sample. This stability in the ranked set of colleges helps to limit any potential endogeneity that may occur through scandalized schools dropping out of the Top 100 schools in our dataset.

programs. The database includes data on both institutional characteristics (such as tuition) and student characteristics (such as 25th and 75th percentiles of submitted 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.⁶ We also use IPEDS time-varying data for instate and out-of-state tuition prices 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.⁷ We combine these data with an indicator for whether the college is a member of the Common Application and college donation rates from the Council on Aid to Education's (CAE) Voluntary Support for Education survey from 2004-2013.⁸

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 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 instate 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.

⁶ 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.

⁷ 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.

⁸ CAE data was publicly available starting in 2004 rather than 2001, so our sample and power fall accordingly when estimating models of the impact of scandals on donations.

2.2. Scandals

We gathered our scandal data via Google searches of media content published online from 2001-2013.^{9, 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.

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

⁹ 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, 2017).

¹⁰ It is worth noting that Google search coverage may be weaker in the early years of the sample. As a robustness check, we examine two colleges, one with no scandals (Caltech) and one with multiple scandals (Duke) in our original search methodology. We find similar results to our initial Google search, with no additional scandals appearing for either school in our search results.

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.

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

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

3.1. Empirical Specifications

To determine the impact of scandals on college outcomes, we use the following specification:

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

The dependent variable is some outcome for college i in year t , such as (logarithm) of applications, donation rate, yield, or student body competitiveness. Yield is defined to be the fraction of admitted students who matriculate and the student body competitiveness is the standardized exam scores of enrollees (i.e., SAT Math – 75th Percentile and SAT Verbal – 75th Percentile). *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*)¹⁵, *Instate Tuition* and *Out-of-State Tuition*, *Common App*, and lagged *USNWR Rank*.¹⁶ Time fixed effects (*Year*) and college fixed effects (*College*) are included. Finally, η 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:

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

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 We also explore controlling for lagged dependent variables, but coefficient estimates are qualitatively unchanged. We also exclude the lagged SAT score variables when the contemporaneous variable is the outcome.

¹⁶ 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.

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.

In order to determine if scandals exhibit persistent effects, 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’ outcomes.

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 college outcomes 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.¹⁷

As a robustness check, we supplemented our *New York Times* coverage with *USA Today* from the newspaper's proprietary archive and *Wall Street Journal* coverage via Lexis Nexis. Using this expanded definition of national newspaper coverage, we find qualitatively similar effects to measuring coverage with only *New York Times* cites (see **Appendix Table 3**).^{18, 19} In the same table, we supplement the long form article measure from our initial Google search by performing targeted within-site searches of our scandals in archived coverage of *The Atlantic* and *Esquire* and noting whether the scandal was covered in these two prominent outlets. We also drop the *National Catholic Register* from our definition of long form article due to its comparatively low national readership. Using this new set of long form articles, we find similar impacts of long form articles on applications as measuring with our initial long form article variable.

¹⁷ In **Appendix Table 2**, we sequentially add control variables to models examining the effect of major scandal coverage (any national newspaper cites or a long form article) and scandal coverage with more than 5 *New York Times* cites. We see that point estimates remain significant, stable, and similar to those in **Table 2** when sequentially adding these controls.

¹⁸ 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.

¹⁹ As another (unreported) robustness check, we run six regression models with individual coverage indicators that sequentially increase the number of *New York Times* cites (i.e., 1+ *NYT* cite to 6+ *NYT* cites). All of these indicators (except 3+ *NYT* cites) are similar in magnitude and precision to those presented in **Table 2**.

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 4**). 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 5**).

3.3. Do Scandals Persist?

Next, we test whether the impact of a scandal persists to multiple cohorts. 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 on applications in the second and third years after the incident occurs. The 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 6**). This could be due to highly covered stories already tending to have longer coverage lives.

3.4. The Impact of Scandals on Class Composition and Donations

Universities care not only about the number of applications they receive, but also about the ultimate composition of the incoming class. We find that there is no discernible effect on the yield of the admitted students (**Table 4**) and 75th percentiles of SAT scores (**Table 5**).²⁰ While these are very coarse measures of the incoming class, this finding 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 addition 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 yield rates do not shift the yield or percentile SAT scores – 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 percentile SAT scores or yield).

Universities also care about alumni giving patterns. Using data on alumni giving rates from the Council on Aid to Education’s Voluntary Support for Education survey, we find no significant impact of scandals at any coverage level on alumni donation rates (see **Table 6**). Similar results have been found in related empirical studies. For example, Lindo et al. (2018) find a null effect when looking at the impact of Title IX investigations on alumni donations, despite finding impacts on application volume. While media coverage of these types of scandals might have little effect on donation rates, it is worth noting that there could be impacts on aggregate donations and donor type. Future research could work to obtain more fine-grained measures of donor profiles in order to provide a fuller picture of scandals’ impacts on alumni giving.

²⁰ We also find no impact of highly covered scandals on 25th percentile scores in unreported analysis.

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 size can be put into context by looking at several other settings. For example, *U.S. News and World Report* is often viewed as a source of college quality and reputation. We find that a negative long form article has roughly the same effect as dropping ten rankings (based on the point estimate in Luca and Smith (2013)). Aside from application responses to reputational changes, there are also countless policies aimed at getting students to apply and enroll in college. For example, when federal policy released alumni earnings by college in the College Scorecard, colleges with 10 percent lower earnings than their counterparts received 2.4 percent fewer SAT score sends, which are a proxy for applications (Hurwitz and Smith, 2018). We show that particularly highly publicized scandals can reduce applications by 10 percent, which is roughly equivalent to differences in a college’s alumni earnings of approximately 40 percent. Turning to something directly under the control of the institutions, Smith et al. (2015) find that adding an application essay reduces college applications by 6.5 percent, which is in line with a scandal receiving at least modest media coverage. In sum, 10 percent drops in applications are quite large in magnitude and uncommon in response to state and federal policies but are not far off from certain (but not most) college-specific strategies to change application behavior. However, the null effects on downstream outcomes are quite common (e.g., Hurwitz and Smith, 2018), perhaps because the marginal applicants are either not ultimately enrolling in the colleges or they do not substantially differ from inframarginal applicants.²¹

²¹ We also use the multiple hypothesis testing procedure described in List et al. (2016) to examine the impact of scandal media coverage on our 5 primary outcomes (log of applications, 75th Percentile SAT Math, 75th Percentile SAT Verbal, Yield, and Alumni Giving Rates). Using our “major coverage” treatment variable, which is an indicator of whether the scandal had any national coverage in *The New York Times* or a long form article, we find

4.1. Limitations and Future Research

Our results shed light on the impact of widely-covered negative incidents on product demand. These results can be compared to Lindo et al. (2018) and Berger et al. (2010), which find that unfavorable press can often lead to favorable outcomes. 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 7**).²² 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. We acknowledge that one limitation of our empirical approach is our inability to tease out the effects of scandals on lower-ranking colleges, which paradoxically may benefit from the media exposure that accompanies a scandal (e.g., Lindo et al., 2018). However, if we consider adding a larger set of colleges, we would be changing the underlying nature of the applicant pool in question. Applicants and enrollees to less selective colleges tend to stay in-state, and their decisions are heavily influenced by tuition and location (e.g., Hoxby and Avery, 2012; Dillon and Smith, 2017). Therefore, we would anticipate that the estimates for this group to be smaller in magnitude (or zero) compared to our current sample.

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,

that our results on applications are robust to this test and maintain significance at the 5% level (Multiplicity-adjusted p-value = 0.046).

²² In unreported regressions, we also find that there is little impact of highly covered scandals on total enrollment or out-of-state enrollment at these prestigious schools.

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 8**, and further examining these differences across incident type could serve as a fruitful avenue for future research.

We do not directly observe how colleges respond to these scandals, which is another area that merits additional investigation. Our estimates are net of any college responses, whether it be increased outreach or marketing or changing admission standards. Relatedly, scandals may lead universities to “crack-down” on scandal-inducing behavior in future years, leading to a “deterrent effect.” **Appendix Table 9** briefly shows some underpowered analyses where we estimate the probability of a school having a scandal in years post-scandal and whether the amount of coverage matters.²³ Taken as a whole, there is weak suggestive evidence that a deterrent effect may be present in the years following a scandal, but it fades away.

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

²³ We use a conditional logit and results are presented in log-odds.

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. While we perform an initial analysis in **Appendix Table 7**, more rigorous analysis of reputation effects is an important direction for future research.

4.2. College 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 that scandal coverage leads to demand responses that increase the cost of on-campus incidents. 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
<i>Controls:</i>						
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: <i>U.S. News and World Report</i> 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 <i>U.S. News and World Report</i> . 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

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dependent Variable = log(Total Applicants)</i>						
Scandal	-0.020 (0.013)					-0.004 (0.012)
At Least 1 NYT Cite		-0.049* (0.025)				-0.020 (0.031)
More Than 5 NYT Cites			-0.088** (0.038)			-0.028 (0.044)
Long Form Article				-0.104** (0.040)		-0.066 (0.042)
Scandal with Major Coverage					-0.052** (0.025)	
Constant	9.111*** (0.591)	9.156*** (0.581)	9.160*** (0.588)	9.155*** (0.585)	9.156*** (0.580)	9.167*** (0.585)
Summed Effects						
Scandal + At Least 1 NYT Cite + Greater Than 5 NYT Cites + Long Form Article						-0.119** (0.046)
F-statistic on joint test of significance						6.71** (0.011)
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	0.750	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 (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .						
*** 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)
<i>Dependent Variable = log(Total Applicants)</i>								
Scandal	-0.026** (0.013)	-0.013 (0.013)	-0.020 (0.014)	-0.019 (0.014)	-0.013 (0.011)	-0.007 (0.013)	-0.008 (0.012)	-0.013 (0.011)
At Least 1 NYT Cite		-0.040 (0.026)				-0.016 (0.028)		
More Than 5 NYT Cites			-0.049 (0.033)				-0.038 (0.041)	
Long Form Article				-0.081** (0.039)				-0.008 (0.041)
Constant	9.477*** (0.661)	9.515*** (0.657)	9.490*** (0.661)	9.488*** (0.657)	9.473*** (0.661)	9.479*** (0.659)	9.479*** (0.659)	9.474*** (0.661)
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	0.744	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
<p>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 (<i>SAT Math—25th Percentile</i>, <i>SAT Math—75th Percentile</i>, <i>SAT Verbal—25th Percentile</i>, <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i>, <i>Out-of-State Tuition</i>, <i>Common App</i>, and <i>USNWR Rank</i>.</p> <p>*** p<0.01, ** p<0.05, * p<0.1</p>								

Table 4: The Impact of Scandals on Yield

	(1)	(2)	(3)	(4)
<i>Dependent Variable = Yield</i>				
Scandal	-0.001 (0.003)			
At Least 1 NYT Cite		-0.000 (0.004)		
More Than 5 NYT Cites			0.008 (0.008)	
Long Form Article				0.008 (0.009)
Constant	0.521*** (0.115)	0.521*** (0.115)	0.518*** (0.115)	0.518*** (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
<p>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 (<i>SAT Math—25th Percentile</i>, <i>SAT Math—75th Percentile</i>, <i>SAT Verbal—25th Percentile</i>, <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i>, <i>Out-of-State Tuition</i>, <i>Common App</i>, and <i>USNWR Rank</i>.</p> <p>*** p<0.01, ** p<0.05, * p<0.1</p>				

Table 5: The Impact of Scandals on Matriculating Student Competitiveness

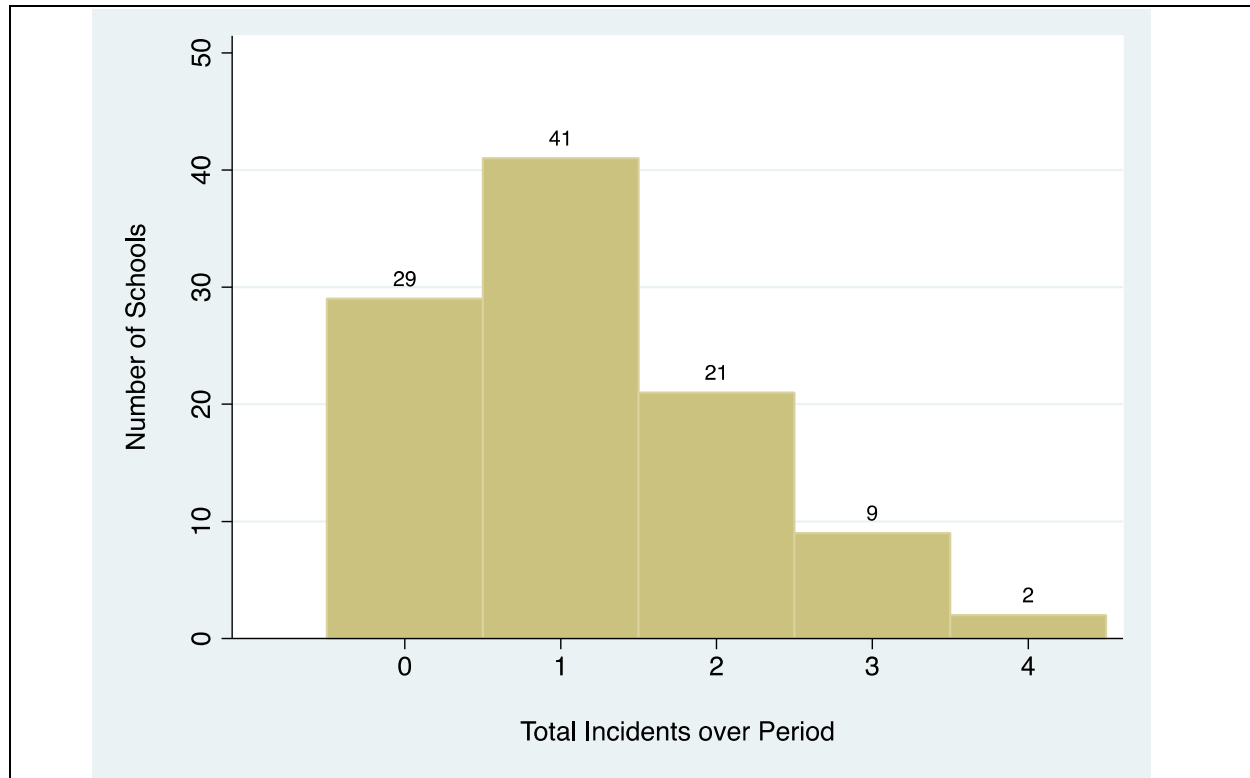
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Dependent Variable = SAT 75th Percentile Scores</i>	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math
Scandal	-1.446 (1.060)	0.797 (0.851)						
At Least 1 NYT Cite			-2.992 (1.962)	-2.462 (1.737)				
More Than 5 NYT Cites					-1.856 (2.693)	-2.602 (2.623)		
Long Form Article							-1.908 (2.687)	-2.455 (2.234)
Constant	681.444*** (5.501)	706.218*** (6.069)	681.602*** (5.534)	706.588*** (6.068)	681.354*** (5.530)	706.434*** (6.057)	681.299*** (5.524)	706.353*** (6.050)
Controls	X	X	X	X	X	X	X	X
Observations	1,204	1,204	1,204	1,204	1,204	1,204	1,204	1,204
R-squared	0.254	0.451	0.255	0.451	0.253	0.451	0.253	0.451
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: <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .								
*** p<0.01, ** p<0.05, * p<0.1								

Table 6: The Impact of Scandals on Alumni Donation Rates

	(1)	(2)	(3)	(4)
<i>Dependent Variable = Alumni Donation Rates</i>				
Scandal	0.001 (0.003)			
At Least 1 NYT Cite		0.004 (0.004)		
More Than 5 NYT Cites			0.009 (0.009)	
Long Form Article				0.008 (0.008)
Constant	0.031 (0.119)	0.0260 (0.119)	0.024 (0.119)	0.027 (0.119)
Controls	X	X	X	X
Observations	948	948	948	948
R-squared	0.290	0.291	0.291	0.291
Number of Colleges in Sample	96	96	96	96
<p>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 (<i>SAT Math—25th Percentile</i>, <i>SAT Math—75th Percentile</i>, <i>SAT Verbal—25th Percentile</i>, <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i>, <i>Out-of-State Tuition</i>, <i>Common App</i>, and <i>USNWR Rank</i>.</p> <p>*** p<0.01, ** p<0.05, * p<0.1</p>				

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: Adding Covariates across Regression Models

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Dependent Variable = log(Total Applicants)</i>								
Major Coverage	-0.069** (0.027)	-0.052** (0.024)	-0.053** (0.025)	-0.052** (0.025)				
More Than 5 New York Times Cites					-0.114*** (0.038)	-0.088** (0.037)	-0.084** (0.036)	-0.088** (0.038)
Constant	9.374*** (0.019)	8.783*** (0.500)	9.072*** (0.536)	9.156*** (0.580)	9.375*** (0.019)	8.793*** (0.507)	9.073*** (0.545)	9.160*** (0.588)
College Percentile SAT Scores		X	X	X		X	X	X
Tuition Covariates			X	X			X	X
Common App and Rank				X				X
Observations	1,326	1,204	1,202	1,202	1,326	1,204	1,202	1,202
R-squared	0.716	0.722	0.736	0.750	0.715	0.721	0.736	0.749
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. Other covariates include: (lagged) college percentile SAT scores (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), tuition covariates (<i>Instate Tuition</i> , <i>Out-of-State Tuition</i>), and other institutional characteristics (<i>Common App</i> , <i>USNWR Rank</i>).								
*** p<0.01, ** p<0.05, * p<0.1								

Appendix Table 3: The Impact of Scandals on Applications: Expanded List of National Outlets

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dependent Variable = log(Total Applicants)</i>						
Scandal	-0.020 (0.013)					-0.003 (0.012)
At Least 1 National News Cite		-0.049** (0.024)				-0.021 (0.031)
More Than 5 National News Cites			-0.090** (0.035)			-0.041 (0.039)
Long Form Article				-0.089** (0.036)		-0.043 (0.038)
Scandal with Major Coverage					-0.049** (0.024)	
Constant	9.111*** (0.591)	9.151*** (0.581)	9.158*** (0.588)	9.160*** (0.587)	9.151*** (0.581)	9.167*** (0.586)
Summed Effects						
Scandal + At Least 1 National News Cite + Greater Than 5 National News Cites + Long Form Article						-0.109** (0.012)
F-statistic on joint test of significance						6.53** (0.012)
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	0.750	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. National news outlets include <i>The New York Times</i> , <i>USA Today</i> , and <i>The Wall Street Journal</i> . The long form article indicator variable in this table supplements our long form article indicator variable in Table 2 with site-specific searches of our scandal coverage in <i>The Atlantic</i> and <i>Esquire</i> . All regressions have college and admission year fixed effects. Each regression includes the following control variables: lagged institutional SAT percentile variables (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .						
*** p<0.01, ** p<0.05, * p<0.1						

Appendix Table 4: The Impact of Scandals on Applications given School-by-School Deadlines

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dependent Variable = log(Total Applicants)</i>						
Scandal	-0.088 (0.161)					-0.009 (0.014)
At Least 1 NYT Cite		-0.047 (0.029)				-0.025 (0.033)
More Than 5 NYT Cites			-0.072** (0.034)			-0.020 (0.043)
Long Form Article				-0.093** (0.037)		-0.068* (0.040)
Scandal with Major Coverage					-0.052* (0.029)	
Constant	9.139*** (0.592)	9.173*** (0.584)	9.169*** (0.592)	9.167*** (0.588)	9.174*** (0.584)	9.185*** (0.586)
Summed Effects						
Scandal + At Least 1 NYT Cite + Greater Than 5 NYT Cites + Long- Form Article						-0.113** (0.012)
F-statistic on joint test of significance						6.62** (0.011)
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	0.750	0.750	0.750	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 (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .						
*** p<0.01, ** p<0.05, * p<0.1						

Appendix Table 5: The Impact of Scandal “Distance from the Deadline” on Applications

	(1)	(2)	(3)	(4)
<i>Dependent Variable = log(Total Applicants)</i>				
Scandal	-0.012 (0.018)			
Time Remaining Until Deadline*Scandal	-0.018 (0.037)			
At Least 1 NYT Cite		-0.073* (0.043)		
Time Remaining Until Deadline*At Least 1 NYT Cite		0.049 (0.079)		
Greater than 5 NYT Cites			-0.029 (0.048)	
Time Remaining Until Deadline *Greater than 5 NYT Cites			-0.120 (0.092)	
Long Form Article				-0.082 (0.062)
Time Remaining Until Deadline *Long Form Article				-0.043 (0.117)
Constant	9.108*** (0.592)	9.170*** (0.582)	9.143*** (0.588)	9.153*** (0.585)
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 (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .				
*** p<0.01, ** p<0.05, * p<0.1				

Appendix Table 6: Does Coverage Length Matter Beyond Coverage Level?

	(1)	(2)	(3)	(4)
<i>Dependent Variable = log(Total Applicants)</i>				
Scandal	-0.016 (0.012)			
Scandal*Coverage Length	-0.111 (0.089)			
At Least 1 NYT Cite		-0.042 (0.027)		
At Least 1 NYT Cite* Coverage Length		-0.065 (0.089)		
More than 5 NYT Cites			-0.101** (0.049)	
More than 5 NYT Cites* Coverage Length			0.041 (0.092)	
Long Form Article				-0.110** (0.045)
Long Form Article* Coverage Length				0.023 (0.099)
Constant	9.143*** (0.594)	9.169*** (0.585)	9.156*** (0.590)	9.154*** (0.586)
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
<p>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 (<i>SAT Math—25th Percentile</i>, <i>SAT Math—75th Percentile</i>, <i>SAT Verbal—25th Percentile</i>, <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i>, <i>Out-of-State Tuition</i>, <i>Common App</i>, and <i>USNWR Rank</i>.</p> <p>*** p<0.01, ** p<0.05, * p<0.1</p>				

Appendix Table 7: Do Scandals Impact Higher Ranked Schools Differently?

	(1)	(2)	(3)	(4)
<i>Dependent Variable = log(Total Applicants)</i>				
Scandal	-0.019 (0.013)			
Scandal*T25	-0.044 (0.039)			
At Least 1 NYT Cite		-0.050* (0.027)		
At Least 1 NYT Cite*T25		0.007 (0.048)		
More than 5 NYT Cites			-0.093** (0.041)	
More than 5 NYT Cites*T25			0.056 (0.043)	
Long Form Article				-0.126*** (0.044)
Long Form Article*T25				0.122** (0.050)
Constant	9.120*** (0.593)	9.155*** (0.582)	9.157*** (0.588)	9.146*** (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
<p>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 (<i>SAT Math—25th Percentile</i>, <i>SAT Math—75th Percentile</i>, <i>SAT Verbal—25th Percentile</i>, <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i>, <i>Out-of-State Tuition</i>, <i>Common App</i>, and <i>USNWR Rank</i>.</p> <p>*** p<0.01, ** p<0.05, * p<0.1</p>				

Appendix Table 8: Do Murders Impact Applications Differently than Other Scandals?

	(1)	(2)	(3)	(4)
<i>Dependent Variable = log(Total Applicants)</i>				
Scandal	-0.028*			
	(0.016)			
Murder*Scandal	0.015			
	(0.022)			
At Least 1 NYT Cite		-0.062*		
		(0.032)		
Murder*At Least 1 NYT Cite		0.023		
		(0.046)		
Greater than 5 NYT Cites			-0.114*	
			(0.063)	
Murder*Greater than 5 NYT Cites			0.050	
			(0.070)	
Long Form Article				-0.127
				(0.087)
Murder*Long Form Article				0.037
				(0.093)
Constant	9.110***	9.155***	9.155***	9.159***
	(0.592)	(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 (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .				
*** p<0.01, ** p<0.05, * p<0.1				

Appendix Table 9: Do Administrators React? Probabilities of Future Scandals Given Prior Scandals

	All Scandals				Scandals with Major Coverage			
<i>Dependent Variable = 1 if scandal occurred in admission year</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS		Conditional Logistic Log Odds		OLS		Conditional Logistic Log Odds	
Lag Scandal	-0.231*** (0.035)	-0.146*** (0.031)	-2.986*** (0.554)	-1.450*** (0.388)	-0.181*** (0.067)	-0.114* (0.066)	-1.388** (0.600)	-1.041* (0.553)
Lag 2 Scandal	-0.292*** (0.044)	-0.199*** (0.034)	-3.662*** (0.659)	-2.085*** (0.520)	-0.232*** (0.059)	-0.161** (0.064)	-2.034*** (0.755)	-1.563** (0.706)
Lag 3 Scandal	-0.216*** (0.055)	-0.135*** (0.045)	-3.136*** (0.597)	-1.567*** (0.466)	-0.084 (0.097)	-0.024 (0.079)	-1.197* (0.641)	-0.688 (0.606)
Lag 4 Scandal	-0.184*** (0.056)		-2.898*** (0.625)		0.039 (0.107)		-0.455 (0.749)	
Lag 5 Scandal	-0.106* (0.062)		-2.398*** (0.676)		-0.097 (0.131)		-1.564 (1.049)	
Constant	-1.435 (1.225)	-0.810 (0.934)			-0.577 (1.155)	-0.239 (0.907)		
Controls	X	X	X	X	X	X	X	X
Observations	809	1,008	536	709	809	1,008	536	709
R-squared	0.135	0.096			0.061	0.058		
Number of Colleges in Sample	102	102			102	102		
Number of Groups in Sample			67	71			67	71
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 (<i>SAT Math—25th Percentile</i> , <i>SAT Math—75th Percentile</i> , <i>SAT Verbal—25th Percentile</i> , <i>SAT Verbal—75th Percentile</i>), <i>Instate Tuition</i> , <i>Out-of-State Tuition</i> , <i>Common App</i> , and <i>USNWR Rank</i> .								
*** p<0.01, ** p<0.05, * p<0.1								