The RICO Verdict and Corrective Statements: Catalysts for Policy Change?

James D. Matheny, MPH
Elise M. Stevens, PhD
Sixia Chen, PhD
Bruce A. Christiansen, PhD
Sarah D. Kowitt, PhD, MPH
Amira Osman, PhD
Damon J. Vidrine, DrPH

Objectives: A federal court ruled tobacco companies violated racketeering laws and ordered them to publish corrective statements. This study assesses effects of exposure to the statements and related court findings on attitudes toward tobacco-related policies and tobacco company influences on policymaking. Methods: We conducted a cross-sectional survey of US adults (N = 2010) prior to publication of the statements. Participants were randomly assigned to the “unexposed” group (N = 1004), which answered attitude questions before reading the statements and court findings, or the “exposed” group (N = 1006), which answered attitude questions after reading the statements and court findings. Results: The exposed group was less likely to think lawmakers should trust tobacco companies as much as other companies (β = -.24, p < .001) or that lawmakers should trust tobacco company lobbyists to provide accurate information (β = -.17, p = .019), compared to the unexposed group. The exposed group also was more likely to support requiring graphic warning labels (β = .15, p = .014) and point-of-sale quitline signs (β = .13, p = .028). Conclusions: Exposure to the statements and court findings may aid tobacco industry denormalization and tobacco-related policy initiatives.

Key words: media; corrective statements; racketeering; policy; tobacco industry

Tob Regul Sci.™ 2019;5(3):206-228
DOI: https://doi.org/10.18001/TRS.5.3.1

Smoking continues to be the leading cause of preventable death, disease, and disability.1-4 Tobacco industry interference has been recognized as the “greatest obstacle” to implementing effective tobacco control measures.5 Despite considerable progress in overcoming this interference, all states’ tobacco control policies still fall short of best practices.6 The rate of progress in adopting some of the most effective policies has stalled.7

The scope of tobacco industry influences on public policy has been extensive. Tobacco companies have sought to defeat – separately and in all 50 states – legislation to restrict smoking inside workplaces, raise tobacco taxes, limit tobacco marketing, advance prevention programs or research, and reduce youth access to tobacco.8-29 When outright defeat cannot be achieved, the companies work to delay or weaken such measures.5,30,31 Their tactics include contributing to politicians’ election campaigns, disseminating public relations campaigns,
creating controversy over established facts, using front groups, hiring lobbyists, and “preempting” strong legislation. The companies have been successful at promoting preemption of effective local-level tobacco policies in many states. Most of these preemptive clauses remain in effect.

Actively monitoring and exposing tobacco industry misconduct enables effective tobacco control. For example, because tobacco company lobbyists prefer to work behind the scenes, calling attention to their political influence and policy goals may hamper their efforts. Such efforts aid tobacco industry denormalization (TID), “a disease prevention strategy that strips the tobacco industry of the illegitimately obtained normalcy that often blocks government implementation of effective tobacco control policies.” TID is an effective tobacco control intervention likely to affect the policy climate. Increased exposure to TID appears to increase its effects.

Consistent with the TID strategy, World Health Organization (WHO) Guidelines emphasize a “fundamental and irreconcilable conflict between the tobacco industry’s interests and public health policy interests.” Article 5.3 of the WHO Framework Convention on Tobacco Control seeks to protect tobacco control policies from tobacco industry interests.

In 2006, a United States (US) federal court found Altria, Philip Morris USA, R.J. Reynolds, and other tobacco companies in violation of the Racketeer Influenced and Corrupt Organizations Act (RICO), citing 145 distinct acts of racketeering. The 1682-page ruling concluded the companies’ “fraudulent conduct has permeated all aspects of their operations” and that they would likely continue committing fraud “indefinitely into the future.” The companies’ conspiracy sought not only to misinform the public, but also lawmakers.

The court ordered the tobacco companies to disseminate “corrective statements” through newspapers, television, package onserts, point-of-sale placements, and corporate websites regarding: (1) health effects of smoking, (2) addictiveness of nicotine, (3) low-tar cigarettes, (4) nicotine enhancement, and (5) health effects of secondhand smoke. Legal appeals delayed publication for over a decade. Publication in newspapers and on television began in November 2017. This is the first study to assess potential effects of the final versions of the corrective statements as published, examining how exposure to the statements and related court findings may help to denormalize tobacco company influences on policymaking or affect attitudes toward specific tobacco control policies.

METHODS

A cross-sectional survey (instrument available as supplementary data) was administered online to US adults (N = 2010) in May 2017 through GfK’s Web-enabled KnowledgePanel®, a probability-based panel designed to be representative of the US adult population.

To measure potential effects of exposure to the statements and court findings on attitudes, we randomly assigned participants to the “unexposed” group (N = 1004) or the “exposed” group (N = 1006). Those in the unexposed group reported their attitudes before reading the statements and court findings. Those in the exposed group reported their attitudes after reading the statements and court findings. All participants reported their prior awareness of each of the 18 bullet-point facts within the statements and 10 related court findings (Table 1). All participants also answered questions regarding smoking status and demographic variables. The median time taken to complete the survey was 10 minutes.

To measure attitudes, respondents rated how much they agree or disagree with 7 statements re-
The RICO Verdict and Corrective Statements: Catalysts for Policy Change?

<table>
<thead>
<tr>
<th>Corrective Statement – Health Effects of Smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the health effects of smoking.</td>
</tr>
<tr>
<td>• Smoking kills, on average, 1,200 Americans. Every day.</td>
</tr>
<tr>
<td>• More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol combined.</td>
</tr>
<tr>
<td>• Smoking causes heart disease, emphysema, acute myeloid leukemia and cancer of the mouth, esophagus, larynx, lung, stomach, kidney, bladder, and pancreas.</td>
</tr>
<tr>
<td>• Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corrective Statement – Addictiveness of Smoking and Nicotine</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the addictiveness of smoking and nicotine.</td>
</tr>
<tr>
<td>• Smoking is highly addictive. Nicotine is the addictive drug in tobacco.</td>
</tr>
<tr>
<td>• Cigarette companies intentionally designed cigarettes with enough nicotine to create and sustain addiction.</td>
</tr>
<tr>
<td>• It’s not easy to quit.</td>
</tr>
<tr>
<td>• When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corrective Statement – Low Tar and Light Cigarettes as Harmful as Regular Cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about low tar and light cigarettes being as harmful as regular cigarettes.</td>
</tr>
<tr>
<td>• Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are not.</td>
</tr>
<tr>
<td>• “Low tar” and “light” cigarette smokers inhale essentially the same amount of tar and nicotine as they would from regular cigarettes.</td>
</tr>
<tr>
<td>• All cigarettes cause cancer, lung disease, heart attacks, and premature death – lights, low tar, ultra lights, and naturals. There is no safe cigarette.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corrective Statement – Designing Cigarettes to Enhance the Delivery of Nicotine</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about designing cigarettes to enhance the delivery of nicotine.</td>
</tr>
<tr>
<td>• Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive.</td>
</tr>
<tr>
<td>• Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the cigarette taste less harsh, and controlling the physical and chemical make-up of the tobacco blend.</td>
</tr>
<tr>
<td>• When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corrective Statement – Health Effects of Secondhand Smoke</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the health effects of secondhand smoke.</td>
</tr>
<tr>
<td>• Secondhand smoke kills over 38,000 Americans each year.</td>
</tr>
<tr>
<td>• Secondhand smoke causes lung cancer and coronary heart disease in adults who do not smoke.</td>
</tr>
<tr>
<td>• Children exposed to secondhand smoke are at increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function.</td>
</tr>
<tr>
<td>• There is no safe level of exposure to secondhand smoke.</td>
</tr>
</tbody>
</table>

**Related Federal Court Findings (US v PHILIP MORRIS USA, INC.)**

- Violated civil racketeering laws (engaged in an organized conspiracy to commit fraud)
- Committed fraud
- Are likely to continue to commit fraud
- Denied that they control the level of nicotine to create and sustain addiction
- Suppressed and concealed scientific research
- Marketed low tar and light cigarettes as less harmful though they knew they were not
- Marketed cigarettes to young people to replace smokers who die or quit smoking
- Denied that secondhand smoke harms nonsmokers
- Denied that smoking is addictive
- Denied the health consequences of smoking
garding lawmakers’ interactions with tobacco companies or tobacco company lobbyists (potential tobacco company influences) using a 5-point scale from 1 (strongly agree) to 5 (strongly disagree) and how much they favor or oppose 12 examples of existing or proposed tobacco-related laws or policies (tobacco control policies) using a 5-point scale from 1 (strongly favor) to 5 (strongly oppose). We also asked respondents: (1) what lawmakers should do about laws influenced by tobacco companies; (2) at which level of government are lawmakers least likely to be influenced by tobacco company lobbyists; (3) if they would approve of having their retirement savings invested in tobacco company stocks; and (4) if tobacco companies are now taking responsibility for the harm caused by smoking.

Data Analysis
We used multiple linear regression to compare responses from the exposed group to those of the unexposed group. Participants’ group assignment, smoking status, educational attainment, sex, race/ethnicity, political affiliation, and household income were entered simultaneously as predictors. Attitudes toward tobacco control policies and potential tobacco company influences served as the outcome variables. All analyses incorporated survey weights produced by GfK, which compensated for the unequal probability of selection based on sex, age, race/ethnicity, education, census region, household income, home ownership status, and metropolitan/non-metropolitan area.

RESULTS
Participants
Participants (N = 2010) were half women (50.3%) and 71.2% white, 11.7% Hispanic, 9.4% black, and 7.7% other races/ethnicities. Participants were represented in all income brackets with the largest representation in the $100,000 to $124,999 range (12.1%) and the $60,000 to $74,999 range (9.5%). Nearly one-fifth of participants (19.5%) had a bachelor’s degree. About the same proportion had some college but no degree (18.8%). Participants ages ranged from 18 to 92 years (M = 51.72, SD = 17.22). Overall, 13.9% were cigarette smokers (had smoked at least 100 cigarettes and currently smoke) and 86.1% were non-smokers.

Attitudes toward Potential Tobacco Company Influences on Policymaking
Within both the unexposed group and the exposed group, most respondents’ attitudes were unfavorable (strongly or somewhat) toward all potential tobacco company influences surveyed (Table 2). We examined attitudes toward these potential influences using a composite score of all 7 items (3 reverse-coded). Results showed no significant association between exposure groups (β = -.07, p = .07).

We also examined each item on its own. The exposed group was less likely than the unexposed group to think “lawmakers should trust tobacco companies as much as they trust other companies” (β = -.24, p < .001) or that “lawmakers should trust tobacco company lobbyists to provide accurate information on tobacco issues” (β = -.17, p = .019). Though our findings did not reach statistical significance, a consistent trend was observed in the mean scores for the exposed group versus the unexposed group toward each of the 5 remaining items, suggesting slightly stronger negative attitudes toward potential tobacco company influences after exposure.

Attitudes toward Specific Tobacco Control Policies
Within both the unexposed group and the exposed group, most respondents’ attitudes were favorable (strongly or somewhat) toward all policies surveyed (Table 3). We examined attitudes toward the policies using a composite score of all 12 items. Results showed no statistically significant associations between exposure groups (β = .06, p = .22).

We also examined each item on its own. The exposed group was more likely than the unexposed group to favor the policy to “require large graphic warning labels on cigarette packs to better convey health risks of smoking” (β = .15, p = .014) and to “require stores that sell tobacco products to post a tobacco quitline sign” (β = .13, p = .028). Although findings did not reach statistical significance, we observed a lower mean (greater support) for the exposed group for 8 other policies. The mean score was unchanged for 2 policies.

Other Attitudes
There were no statistically significant differences
between the exposed and unexposed groups for the remaining attitude questions. Among all respondents, when asked: “If a tobacco-related law was written or influenced by a tobacco company or tobacco company lobbyist, what do you think lawmakers should do?” most thought lawmakers should either “revise the law” (30.8%) or “remove the law and start over” (35.8%). Few thought lawmakers should “leave the law as it is” (4.2%). Others were “not sure” (28.2%).

When asked: “In general, which of the following types of lawmakers do you think are least likely to be influenced by a tobacco company lobbyist,” a large proportion of respondents chose “local-level law-

---

### Table 2

<table>
<thead>
<tr>
<th>Question/Item</th>
<th>Mean (SD)</th>
<th>p-value</th>
<th>Frequency (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed below are questions about how you think lawmakers should or should not interact with tobacco companies or tobacco company lobbyists. (A tobacco company lobbyist is a person who is paid by a tobacco company to influence lawmakers.) How much do you agree or disagree with each statement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawmakers should trust tobacco companies as much as they trust other companies</td>
<td>3.45 (1.45)</td>
<td>.001</td>
<td>11.8</td>
<td>10.9</td>
<td>20.6</td>
<td>13.5</td>
<td>12.2</td>
</tr>
<tr>
<td>Lawmakers should trust tobacco company lobbyists to provide accurate information on tobacco issues</td>
<td>3.66 (1.49)</td>
<td>.019</td>
<td>15.1</td>
<td>12.7</td>
<td>12.3</td>
<td>11.9</td>
<td>12.1</td>
</tr>
<tr>
<td>Lawmakers should refuse to meet with tobacco company lobbyists</td>
<td>2.52 (1.44)</td>
<td>.257</td>
<td>33.6</td>
<td>38.6</td>
<td>20.9</td>
<td>15.3</td>
<td>13.2</td>
</tr>
<tr>
<td>Lawmakers should refuse campaign contributions from tobacco companies</td>
<td>1.97 (1.29)</td>
<td>.594</td>
<td>51.5</td>
<td>55.2</td>
<td>19.4</td>
<td>14.9</td>
<td>10.4</td>
</tr>
<tr>
<td>Lawmakers should refuse meals or other gifts from tobacco company lobbyists</td>
<td>1.84 (1.19)</td>
<td>.658</td>
<td>54.4</td>
<td>58.2</td>
<td>20.0</td>
<td>13.6</td>
<td>10.9</td>
</tr>
<tr>
<td>Lawmakers should refuse campaign contributions from tobacco company lobbyists</td>
<td>1.93 (1.24)</td>
<td>.735</td>
<td>52.0</td>
<td>55.4</td>
<td>20.7</td>
<td>14.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Lawmakers should allow tobacco companies or tobacco company lobbyists to help write laws</td>
<td>3.80 (1.35)</td>
<td>.913</td>
<td>9.4</td>
<td>11.1</td>
<td>10.3</td>
<td>8.5</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Note. Respondents in the unexposed group (U) answered attitude questions before reading the statements and court findings (N = 1004). Respondents in the exposed group (E) answered attitude questions after reading the statements and court findings (N = 1006). Means were weighted using gender, age, race/Hispanic ethnicity, education, census region, household income, home ownership status, and metropolitan/non-metropolitan area for the US population.
Table 3

<table>
<thead>
<tr>
<th>Question/Item</th>
<th>U</th>
<th>E</th>
<th>p-value</th>
<th>Strongly Favor</th>
<th>Somewhat Favor</th>
<th>Not Sure</th>
<th>Somewhat Oppose</th>
<th>Strongly Oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Require large graphic warning labels on cigarette packs to better convey the health risks of smoking</td>
<td>1.91 (1.20)</td>
<td>1.79 (1.28)</td>
<td>.014</td>
<td>50.6</td>
<td>56.2</td>
<td>23.7</td>
<td>20.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Require stores that sell tobacco products to post a tobacco quitline sign</td>
<td>2.10 (1.37)</td>
<td>1.96 (1.40)</td>
<td>.028</td>
<td>42.9</td>
<td>50.1</td>
<td>28.8</td>
<td>22.8</td>
<td>11.8</td>
</tr>
<tr>
<td>Prohibit menthol flavorings in cigarettes to make it harder to start smoking</td>
<td>2.36 (1.49)</td>
<td>2.27 (1.54)</td>
<td>.072</td>
<td>40.6</td>
<td>43.3</td>
<td>17.8</td>
<td>18.4</td>
<td>14.3</td>
</tr>
<tr>
<td>Raise the minimum age to purchase cigarettes to 21</td>
<td>1.92 (1.34)</td>
<td>1.78 (1.33)</td>
<td>.074</td>
<td>55.7</td>
<td>60.5</td>
<td>16.7</td>
<td>15.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Increase taxes on cigarettes</td>
<td>2.13 (1.36)</td>
<td>2.05 (1.40)</td>
<td>.133</td>
<td>45.4</td>
<td>49.5</td>
<td>20.5</td>
<td>17.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Prohibit price promotions on cigarettes such as coupons or 2-for-1 deals</td>
<td>2.27 (1.43)</td>
<td>2.18 (1.47)</td>
<td>.192</td>
<td>44.5</td>
<td>47.2</td>
<td>16.3</td>
<td>14.6</td>
<td>10.4</td>
</tr>
<tr>
<td>Ban smoking inside multi-unit housing such as apartments or condominiums</td>
<td>2.03 (1.35)</td>
<td>2.00 (1.39)</td>
<td>.232</td>
<td>51.5</td>
<td>52.6</td>
<td>16.7</td>
<td>16.0</td>
<td>7.3</td>
</tr>
<tr>
<td>Ban smoking inside all public places and workplaces including restaurants and bars</td>
<td>1.59 (1.09)</td>
<td>1.56 (1.19)</td>
<td>.273</td>
<td>66.8</td>
<td>70.5</td>
<td>15.8</td>
<td>10.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Prohibit pharmacies from selling tobacco products</td>
<td>2.23 (1.43)</td>
<td>2.14 (1.45)</td>
<td>.286</td>
<td>45.1</td>
<td>46.1</td>
<td>17.2</td>
<td>17.9</td>
<td>11.4</td>
</tr>
<tr>
<td>Fund programs to help prevent youth from smoking and to help smokers quit</td>
<td>1.78 (1.20)</td>
<td>1.70 (1.20)</td>
<td>.481</td>
<td>55.2</td>
<td>58.3</td>
<td>25.8</td>
<td>22.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Ban smoking in cars with children in them</td>
<td>1.65 (1.19)</td>
<td>1.65 (1.24)</td>
<td>.500</td>
<td>65.9</td>
<td>67.8</td>
<td>14.9</td>
<td>11.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Reduce nicotine in cigarettes to a level that is not addictive</td>
<td>1.90 (1.34)</td>
<td>1.90 (1.42)</td>
<td>.994</td>
<td>54.7</td>
<td>55.3</td>
<td>21.5</td>
<td>19.3</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Note. Respondents in the unexposed group (U) answered attitude questions before reading the statements and court findings (N = 1004). Respondents in the exposed group (E) answered attitude questions after reading the statements and court findings (N = 1006). Means were weighted using gender, age, race/Hispanic ethnicity, education, census region, household income, home ownership status, and metropolitan/non-metropolitan area for the US population.

makers” (41.1%). Few chose “state-level lawmakers” (6.0%) or “national-level lawmakers” (10.0%). Many others were “not sure” (41.7%). When asked: “Would you approve of having any
of your current or future retirement savings invested in tobacco company stocks,” most respondents answered “no” (70.4%). Few answered “yes” (8.6%). Others were “not sure” (20.0%).

When asked: “Do you think tobacco companies are now taking responsibility for the harms caused by smoking,” few respondents answered “yes” (9.2%). Most answered “no” (66.4%). Others were “not sure” (23.5%).

**DISCUSSION**

This paper focuses on how exposure to the court-ordered corrective statements and related court findings could affect attitudes toward tobacco-related policies and potential tobacco company influences on policymaking. A single, comprehensive exposure to the statements and court findings appears to reduce public support for lawmakers to trust tobacco companies or tobacco company lobbyists while directly increasing support for certain policies.

**Implications for Tobacco Regulation**

The changes observed within the exposed group for the 2 measures directly related to lawmakers’ “trust” in tobacco companies or tobacco company lobbyists suggest that higher public awareness of the statements and court findings may aid TID by further denormalizing practices that may allow the companies any substantive input during the policymaking process, regardless of the specific policy under consideration. Public health advocates could capitalize on this unique opportunity to help advance virtually any contested tobacco control policy initiative. To the extent that tobacco companies’ credibility is further undermined, even their ability to influence policy debates regarding e-cigarettes and other emerging products may be affected.

To provide context to survey respondents, this study provided related court findings in addition to the court-ordered corrective statements. Therefore, these results might not generalize to the actual attitudinal impact of the corrective statements alone. This is a study limitation. There is reason to believe that simply hearing information such as that conveyed in the court findings can affect attitudes toward TID. Indeed, the court-ordered publication of the statements presents public health practitioners with an opportunity to enhance and amplify the statements’ impact through earned media, social media, and paid media campaigns that also address the federal court findings, including the racketeering verdict itself. Several such efforts have been initiated.

Another limitation of this study is that it does not measure changes in attitudes that might happen when individuals are repeatedly exposed to the statements and court findings. Respondents were exposed to each statement and court finding only once. Future research should explore potential effects of multiple exposures over time.

Despite tobacco industry efforts to fight effective policies and influence lawmakers, baseline public support (support within the unexposed group) appears high for all tobacco control policies surveyed. Support for policies mandating informational interventions (graphic warning labels and point-of-sale quitline signs) appear most likely to be enhanced by exposure to the statements and court findings. This may be because the statements themselves are informational in nature, directly increasing public support for similar interventions.

Significant increases in support for other policies will likely require additional efforts to communicate their relevance to the statements or court findings. For example, advocates for smoke-free policies could emphasize the statement that specifically addresses tobacco company misinformation about the health effects of secondhand smoke.

The public’s perception that local-level lawmakers are least likely to be influenced by tobacco company lobbyists is consistent with observations from the lobbyists themselves.

Strong public support for lawmakers to revise or remove laws “written or influenced” by tobacco companies could be used to foster renewed dialogue about preemption and other counter-productive statutory language promoted by tobacco companies. Unchanged skepticism (within both the exposed group and unexposed group) that tobacco companies are taking responsibility for the harm caused by smoking suggests that the court-ordered corrective statements are unlikely to improve their negative public image.

Attitudes against investing retirement savings in tobacco company stocks may have implications for public and private pension funds.
Although beyond the scope of this paper, future research should examine how demographic variables as well as smoking status interact with exposure conditions to predict attitudes.

Tobacco companies will likely continue to commit fraud. In all 50 states, at least one lobbyist is representing a tobacco company named in the racketeering verdict. Reflecting public opinion, lawmakers could refuse potential tobacco company influences and seek to remedy past harms. Quotes from internal tobacco industry documents could be used to illustrate historical influences in each state. Non-binding legislative resolutions could be introduced to raise awareness of tobacco company behaviors and the need for specific policy changes.

If put to full use, the corrective statements and related court findings may serve as catalysts for de-normalization of tobacco industry influences and for accelerating the adoption of effective policies. At the population level, even modest impacts could benefit public health.

Human Subjects Statement

The University of Oklahoma Institutional Review Board for the Protection of Human Subjects approved all study procedures. Study procedures meet the ethical standard outlines in the Helsinki Declaration of 1975 as revised in 2000. All participants consented to participate in the study.

Conflict of Interest Statement

James D. Matheny was Chief of the Tobacco Use Prevention Service at the Oklahoma State Department of Health from 1994 to 2011. In 2012, he launched tobacmoney.com, a voluntary effort to reduce tobacco industry influences in the Oklahoma Legislature. None of the other authors have any potential conflicts of interest to declare.

Acknowledgements

This research and the preparation of this manuscript were supported by the Stephenson Cancer Center through a Support Grant (P30CA225520) from the National Cancer Institute (NCI) and a Program Grant (092-016-0002) from the Oklahoma Tobacco Settlement Endowment Trust (TSET). The content of this paper is solely the responsibility of the authors and does not necessarily represent the official views of the NCI, TSET, or the Stephenson Cancer Center. Many thanks to Dr. Joyce Morris; Desmond Jenson of the Public Health Law Center at the Mitchell Hamline School of Law; Dr. Michael Businelle, Laura DeLongy, Tatiana Elonge, Dr. Summer Frank, Dr. Robert McCaffree, Bob Miner, Dr. Raees Shaikh, Tracey Strader, Dr. Jennifer Vidrine, and Dr. Ted Wagener of the Oklahoma Tobacco Research Center; Dr. Laura Beebe and Ashley White of the Department of Biostatistics and Epidemiology at the University of Oklahoma Health Sciences Center; and Dr. Michael Cummings of the Department of Psychiatry and Behavioral Sciences at the Medical University of South Carolina.

References

The RICO Verdict and Corrective Statements: Catalysts for Policy Change?

41. US v Philip Morris USA Inc, Amended Final Opinion (D DC 2006).
42. US v Philip Morris USA Inc, Final Judgment and Remand Order (D DC 2006).
43. US v Philip Morris USA Inc, Memorandum Opinion (D DC 2016).
44. Dyer O. Tobacco companies protest about federal court ruling on corrective statements. BMJ 2014;349:g6067.
46. US v Philip Morris USA Inc, Third Superseding Consent Order Implementing the Corrective Statements Remedy for Websites and Onsets (D DC 2018).
The RICO Verdict and Corrective Statements: Catalysts for Policy Change?


### SUPPLEMENTARY DATA

**Survey Instrument**

### INTRODUCTION

**Base: all respondents**

Thank you for participating in this national survey on current tobacco-related issues. It should take about 10 minutes to complete. As with all KnowledgePanel® surveys, your response to this survey, or any individual question on the survey, is completely voluntary. You will not be individually identified and your responses will be used for analyses only.

**Base: all respondents**

**S1.** Have you smoked at least 100 cigarettes in your entire life? (100 cigarettes = 5 packs)

1. Yes
2. No
3. Not sure

**Base: if s1=1**

**S2.** Do you now smoke cigarettes every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all

Create DATA ONLY VARIABLE: Smoker [S]

If s1=1 and s2=1 or 2, dov_smoker=1; else smoker=2.

Create DATA ONLY VARIABLE: Assign [S]

**LOGIC:** Randomly assign a value of 1 or 2 with equal probability.

1=Show Q1 to Q8 first (law and policies), Q9-Q14 second (statements and findings)
2=Show Q9 to Q14 first (statements and findings), Q1-Q8 second (law and policies)
Q1. Listed below are some examples of existing or proposed tobacco-related laws and policies. How much do you favor or oppose each one?

**Statements per row:**
1. Fund programs to help prevent youth from smoking and to help smokers quit
2. Prohibit menthol flavorings in cigarettes to make it harder to start smoking
3. Require large graphic warning labels on cigarette packs to better convey the health risks of smoking
4. Reduce nicotine in cigarettes to a level that is not addictive
5. Increase taxes on cigarettes
6. Prohibit price promotions on cigarettes such as coupons or 2-for-1 deals
7. Ban smoking inside all public places and workplaces including restaurants and bars
8. Prohibit pharmacies from selling tobacco products
9. Raise the minimum age to purchase cigarettes to 21
10. Ban smoking in cars with children in them
11. Require stores that sell tobacco products to post a tobacco quitline sign
12. Ban smoking inside multi-unit housing such as apartments or condominiums

**Statements per column:**
1. Strongly favor
2. Somewhat favor
3. Somewhat oppose
4. Strongly oppose
5. Not sure

Q2. Listed below are questions about how you think lawmakers should or should not interact with tobacco companies or tobacco company lobbyists. (A tobacco company lobbyist is a person who is paid by a tobacco company to influence lawmakers.) How much do you agree or disagree with each statement?
Statements per row:

1. Lawmakers should trust tobacco companies as much as they trust other companies
2. Lawmakers should trust tobacco company lobbyists to provide accurate information on tobacco issues
3. Lawmakers should refuse campaign contributions from tobacco companies
4. Lawmakers should refuse campaign contributions from tobacco company lobbyists
5. Lawmakers should refuse meals or other gifts from tobacco company lobbyists
6. Lawmakers should allow tobacco companies or tobacco company lobbyists to help write laws
7. Lawmakers should refuse to meet with tobacco company lobbyists

Statements per column:

1. Strongly agree
2. Somewhat agree
3. Somewhat disagree
4. Strongly disagree
5. Not sure

Programming instructions: Randomize and record order of Q3 through Q8

Base: All respondents

On the next screen there are a few more questions about tobacco companies, tobacco company lobbyists or related issues. (A tobacco company lobbyist is a person who is paid by a tobacco company to influence lawmakers.)

Base: All respondents

Q3. What is your best guess of how many tobacco company lobbyists have registered to lobby lawmakers in your state this year?

[Numberbox]

Q4. If a tobacco-related law was written or influenced by a tobacco company or tobacco company lobbyist, what do you think lawmakers should do?

1. Leave the law as it is
2. Revise the law
3. Remove the law and start over
4. Not sure
**Base: All respondents**

**Q5.** In general, which of the following types of lawmakers do you think are least likely to be influenced by a tobacco company lobbyist?

1. Local-level lawmakers (like members of a city council or town board)
2. State-level lawmakers (like State Representatives or State Senators)
3. National-level lawmakers (like United States Representatives or United States Senators)
4. Not sure

**Base: All respondents**

**Q6.** Would you be more or less likely to vote for a lawmaker who accepts a campaign contribution or meal from a tobacco company or tobacco company lobbyist?

1. Much more likely
2. Somewhat more likely
3. Neutral
4. Somewhat less likely
5. Much less likely

**Base: All respondents**

**Q7.** Would you approve of having any of your current or future retirement savings invested in tobacco company stocks?

1. Yes
2. No
3. Not sure

**Base: All respondents**

**Q8.** Do you think tobacco companies are now taking responsibility for the harm caused by smoking?

1. Yes
2. No
3. Not sure
STATEMENTS AND FINDINGS

Programming instructions: Randomize and record order of Q9 through Q13

Base: All respondents

Q9. Shown below is one of five court-ordered statements that will soon be published in newspapers, on television, and on the internet. Please read this statement:

A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the health effects of smoking.

- Smoking kills, on average, 1,200 Americans. Every day.
- More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol, combined.
- Smoking causes heart disease, emphysema, acute myeloid leukemia and cancer of the mouth, esophagus, larynx, lung, stomach, kidney, bladder, and pancreas.
- Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix.

Before you took this survey today, were you aware of the following information about the health effects of smoking?

Statements in row:

1. Smoking kills, on average, 1,200 Americans. Every day.
2. More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol, combined.
4. Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix.

Statements in column:

1. Yes
2. No
3. Not sure
### Q10. Shown below is one of five court-ordered statements that will soon be published in newspapers, on television and on the internet. Please read this statement:

**A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the addictiveness of smoking and nicotine.**

- Smoking is highly addictive. Nicotine is the addictive drug in tobacco.
- Cigarette companies intentionally designed cigarettes with enough nicotine to create and sustain addiction.
- It’s not easy to quit.
- When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.

Before you took this survey today, were you aware of the following information about the addictiveness of smoking and nicotine?

**Statements in row:**

1. Smoking is highly addictive. Nicotine is the addictive drug in tobacco.
2. Cigarette companies intentionally designed cigarettes with enough nicotine to create and sustain addiction.
3. It’s not easy to quit.
4. When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.

**Statements in column:**

1. Yes
2. No
3. Not sure
**Base: All respondents**

Q11. Shown below is one of five court-ordered statements that will soon be published in newspapers, on television, and on the internet. Please read this statement:

A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about low tar and light cigarettes being as harmful as regular cigarettes.

- Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are **not**.
- "Low tar" and "light" cigarette smokers inhale essentially the same amount of tar and nicotine as they would from regular cigarettes.
- All cigarettes cause cancer, lung disease, heart attacks, and premature death – lights, low tar, ultra lights, and naturals. There is no safe cigarette.

Before you took this survey today, were you aware of the following information about low tar and light cigarettes being as harmful as regular cigarettes?

**Statements in row:**

1. Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are **not**.
2. “Low tar” and “light” cigarette smokers inhale essentially the same amount of tar and nicotine as they would from regular cigarettes.
3. **All** cigarettes cause cancer, lung disease, heart attacks, and premature death – lights, low tar, ultra lights, and naturals. There is no safe cigarette.

**Statements in column:**

1. Yes
2. No
3. Not sure
Base: All respondents

Q12. Shown below is one of five court-ordered statements that will soon be published in newspapers, on television, and on the internet. Please read this statement:

A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about designing cigarettes to enhance the delivery of nicotine.

- Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive.
- Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the cigarette taste less harsh, and controlling the physical and chemical makeup of the tobacco blend.
- When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.

Before you took this survey today, were you aware of the following information about designing cigarettes to enhance the delivery of nicotine?

**Statements in row:**

1. Altria, R.J. Reynolds Tobacco, Lorillard, and Phillip Morris USA intentionally designed cigarettes to make them more addictive.
2. Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the cigarette taste less harsh, and controlling the physical and chemical make-up of the tobacco blend.
3. When you smoke, the nicotine actually changes the brain – that’s why quitting is so hard.

**Statements in column:**

1. Yes
2. No
3. Not sure
Base: All respondents

Q13. Shown below is one of five court-ordered statements that will soon be published in newspapers, on television, and on the internet. Please read this statement:

A Federal Court has ordered Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA to make this statement about the health effects of secondhand smoke.

- Secondhand smoke kills over 38,000 Americans each year.
- Secondhand smoke causes lung cancer and coronary heart disease in adults who do not smoke.
- Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function.
- There is no safe level of exposure to secondhand smoke.

Before you took this survey today, were you aware of the following information about the health effects of secondhand smoke?

Statements in row:
1. Secondhand smoke kills over 38,000 Americans each year.
2. Secondhand smoke causes lung cancer and coronary heart disease in adults who do not smoke.
3. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function.
4. There is no safe level of exposure to secondhand smoke.

Statements in column:
1. Yes
2. No
3. Not sure
Q14. A United States federal court found that major tobacco companies (including Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA) have violated civil racketeering laws, that is, they have engaged in an organized conspiracy to commit fraud. As part of the racketeering verdict, the federal court ruled that these tobacco companies have marketed cigarettes to young people to replace smokers who die or quit smoking, have suppressed and concealed scientific research, have denied facts they knew to be true, have committed fraud, and are likely to continue to commit fraud.

Before you took this survey today, were you aware of the following federal court findings about these tobacco companies?

**Statements in row:**

1. Committed fraud
2. Are likely to continue to commit fraud
3. Violated civil racketeering laws (engaged in an organized conspiracy to commit fraud)
4. Suppressed and concealed scientific research
5. Denied that secondhand smoke harms nonsmokers
6. Marketed cigarettes to young people to replace smokers who die or quit smoking
7. Marketed low tar and light cigarettes as less harmful though they knew they were not
8. Denied that they control the level of nicotine to create and sustain addiction
9. Denied that smoking is addictive
10. Denied the health consequences of smoking

**Statements in column:**

1. Yes
2. No
3. Not sure

**END OF STATEMENTS AND FINDINGS**
BASE: all respondents

You have almost completed the survey. There are only a few more questions.

BASE: if smoker=1

Q15. Which of the following most applies to you?

1. I still smoke, but I have begun to change, like cutting back on the number of cigarettes I smoke. I am ready to set a quit date.
2. I definitely plan to quit smoking within the next 30 days.
3. I definitely plan to quit smoking within the next 6 months.
4. I often think about quitting smoking, but I have no plans to quit.
5. I sometimes think about quitting smoking, but I have no plans to quit.
6. I rarely think about quitting smoking, and I have no plans to quit.
7. I never think about quitting smoking, and I have no plans to quit.
8. I enjoy smoking and have decided not to quit smoking for my lifetime. I have no interest in quitting.

Base: if smoker=1

Q16. During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

1. Yes
2. No
3. Not sure

Base: All respondents

Q17. In the past 30 days, which of these other tobacco products have you used?

1. Cigars
2. Cigarillos (little cigars)
3. Roll-your-own cigarettes
4. Smoking tobacco from a hookah or water pipe
5. Electronic cigarettes or vapor devices (includes any form of electronic cigarette, tank system, vapor pen or other similar device)
6.  Chewing tobacco
7.  Dip
8.  Snuff
9.  Snus
10. None. I have not used any of these tobacco products in the past 30 days.

**Base: All respondents**

**Q18.** Before you took this survey today, have you taken any smoking-related surveys in the past 12 months?
   1.  No
   2.  Yes

**Base: if Q18=2**

**Q18A.** How many smoking-related surveys have you taken in the past 12 months?
   ___ [INSERT NUMBER BOX]

**END OF QUESTIONNAIRE**