

## RESEARCH PAPER

## Tobacco interests or the public interest: 20 years of industry strategies to undermine airline smoking restrictions

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**Objectives:** To understand the evolution of 20 years of tobacco industry strategies to undermine federal restrictions of smoking on aircraft in the United States.

**Design:** We searched and analysed internal tobacco industry records, public documents, and other related research.

**Results:** The industry viewed these restrictions as a serious threat to the social acceptability of smoking. Its initial efforts included covert letter-writing campaigns and lobbying of the airline industry, but with the emergence of proposals to ban smoking, the tobacco companies engaged in ever increasing efforts to forestall further restrictions. Tactics to dominate the public record became especially rigorous. The industry launched an aggressive public relations campaign that began with the promotion of industry sponsored petition drives and public opinion surveys. Results from polling research that produced findings contrary to the industry's position were suppressed. In order to demonstrate smoker outrage against a ban, later efforts included the sponsorship of smokers' rights and other front groups. Congressional allies and industry consultants sought to discredit the science underlying proposals to ban smoking and individual tobacco companies conducted their own cabin air quality research. Faced with the potential of a ban on all domestic flights, the industry sought to intimidate an air carrier and a prominent policymaker. Despite the intensification of tactics over time, including mobilisation of an army of lobbyists and Congressional allies, the tobacco industry was ultimately defeated.

**Conclusions:** Our longitudinal analysis provides insights into how and when the industry changed its plans and provides public health advocates with potential counterstrategies.

Despite increasing evidence of the harms of secondhand smoke (SHS), the federal government of the United States has rarely intervened to limit public smoking. The requirement of smoking sections on passenger aircraft represented the first federal restriction of exposure to SHS and set precedents for companion rules implemented in subsequent years on other public conveyances. For example, the Interstate Commerce Commission banned smoking on interstate buses and trains in 1990, and in 1997 President Clinton mandated a ban in federal buildings by Executive Order. Otherwise, most policies to restrict public smoking continue to be adopted at the local and state level.<sup>1-4</sup>

Tobacco industry document research has exposed efforts to defeat policies to restrict smoking in the workplace at the state and federal level.<sup>5-6</sup> Holm and Davis<sup>7</sup> have examined the advocacy and regulatory history of the airline smoking bans. Pan *et al*<sup>8</sup> have described the importance of the role of flight attendants and public health advocates in securing the industry's defeat. This paper is an in-depth analysis of tobacco industry strategies to prevent adoption of federal policies governing smoking on passenger aircraft in the United States. We conducted a longitudinal examination of the tobacco industry's efforts and the evolution of its plans over time. Our analysis provides insights into how and when the industry augmented its strategies and provides guidance for future tobacco control interventions.

## DESIGN

We defined our case study and its boundaries as tobacco industry efforts to influence the policymaking process beginning with the petition to ban smoking on passenger aircraft submitted to the Civil Aeronautics Board (CAB) by Ralph Nader in December 1969 through the implementation of the smoking ban on most domestic flights in February 1990. We searched the Legacy Tobacco Documents Library

(<http://legacy.library.ucsf.edu/>) and Tobacco Documents Online (<http://tobaccodocuments.org/>) to identify internal records describing strategies to thwart the restriction of smoking on passenger aircraft. Search terms included broad keywords such as airlines, aircraft, airplane, cabin air as well as the names of organisations, individuals, projects, and other specific terms identified through snowball searching. Searches took place between August 2003 and July 2004 with periodic updates throughout 2004. These documents comprised our primary data and included memoranda and correspondence, meeting minutes, proposals, reports, publications, presentations, budgets, newsletters, and press releases.<sup>9</sup>

In order to corroborate the implementation of the tobacco industry's plans, we supplemented our dataset with government records from relevant congressional hearings, debates, and publications identified both by electronic searches of government websites ([www.thomas.gov](http://www.thomas.gov)), LEXIS/NEXIS, and university library databases. We also compiled Federal Register notices, public commentary, hearings, and any meeting minutes from germane regulatory proceedings from the National Archives and Records Administration. Other means of triangulating our data included searches of the internet using Google, social science, science, and news media databases to identify any related research and documentation especially from flight attendant, aviation, and advocacy groups.

We initially identified several thousand pertinent tobacco industry documents, public records, and related research and documentation. Over time, we narrowed our review to

**Abbreviations:** ALPA, Air Line Pilots Association; ATA, Air Transport Association; CAB, Civil Aeronautics Board; DOT, Department of Transportation; ETS, environmental tobacco smoke; NAS, National Academy of Science; SHS, secondhand smoke; SRA, Smokers' Rights Alliance; TAN, Tobacco Action Network; TI, Tobacco Institute; VP, Vice-President

approximately 600 of the most relevant records. Our interpretative data analysis involved iteratively reviewing the documents, categorising the strategies and tactics, and summarising findings.

## HISTORY OF THE AIRLINE SMOKING POLICY PROCESS

In the late 1960s, public health advocates Ralph Nader and John Banzhaf figured prominently in initiating the process for restricting smoking on airlines (table 1). In 1973, the Civil Aeronautics Board (CAB) adopted a rule requiring the segregation of smokers and non-smokers on passenger aircraft. In subsequent years, the agency remained enmeshed in an ongoing sequence of rulemaking proceedings, enforcement actions, lawsuits, and policy reversals in its efforts to strengthen its smoking rule.<sup>10</sup> In the CAB's final rulemaking proceeding on the issue, the restrictions were slightly expanded and included a ban on small aircraft and of cigar and pipe smoking. Thus, after debating the issue for more than 10 years, the agency had effected little change in cabin air quality despite increasing pressure from flight attendants, passengers, and public health advocates.<sup>7</sup> With the leadership of Representatives Richard Durbin (D-Illinois) and CW Bill Young (R-Florida), and Senator Frank Lautenberg (D-New Jersey), a measure banning smoking on flights of two hours or less for two years was passed by the Congress in 1987.<sup>11</sup> Two years later the ban was extended to most commercial flights effective February 1990.

## RESULTS

### The industry conducts covert letter-writing campaigns and seeks support of the airline industry to defeat the 1973 CAB rule to segregate smokers

The individual tobacco companies and the Tobacco Institute (TI), the tobacco industry's former lobbying and trade association, responded to the CAB's first rulemaking proceedings by conducting covert letter-writing campaigns<sup>42-44</sup> and lobbying air carriers to oppose smoking sections on aircraft.<sup>45</sup> Requests to write letters indicated that any association with the tobacco industry not be disclosed.<sup>42-44</sup> Despite the industry's efforts, most of the 4500 letters received were in favour of the proposed rule.<sup>16</sup>

The TI and individual tobacco companies lobbied the airline industry to oppose smoking sections.<sup>45</sup> An October 1972 correspondence from Philip Morris VP Ross Millhiser to the company's CEO states:

"As you know, at the meeting last week at the Tobacco Institute, it was stated that the ATA [Air Transport Association] and therefore the airlines would not oppose the proposed CAB rule...Since that time, Mr. James E. Landry, Senior VP and General Counsel of the ATA – in spite of being the younger brother of John T. Landry [a VP at Philip Morris], convened with all the member airlines...with the result that all carriers, with the exception of one non-domestic carrier, have agreed to participate in a draft of opposition to the CAB proposal. The one exception will not support the CAB proposal but will merely refrain from the opposition of the proposal."<sup>46</sup>

The ATA submitted formal comment to the CAB resisting the rule a month later.<sup>47</sup>

During this rulemaking, the tobacco industry did not file formal comments with the Board. Although the tobacco industry succeeded in fostering a long-lasting alliance with the airline industry, it did not prevent the CAB from adopting the first federal restriction of public smoking.

### Out in the open and on the offence: the tobacco industry mobilises in response to requests for comment on whether smoking should be prohibited on all passenger flights (1976-1979)

The tobacco industry openly entered the proceedings in 1976 when the CAB proposed to strengthen its smoker segregation rule and requested comment on whether smoking should be banned on all flights.<sup>48-49</sup> In a December 1976 memo to the TI President, an executive from Philip Morris proposed that the industry no longer stand mute. He stated:

"In requesting comments on smoking in airplanes, the CAB has given us a wedge through which we should drive a tank. Up until now, we've postured ourselves in the defensive role of supplicant. I suggest we move with a broad stroke to the offensive. Two parallel opportunities occur to me: first that through the Tobacco Institute the industry mount a petition drive at airports among smokers to change the current configuration of smoking/non-smoking area, second that the Tobacco Institute use this opportunity to gather the names and addresses of some 250 to 500 thousand Americans who object to second class citizenship for smokers. The opportunity is here now."<sup>48</sup>

The TI followed the recommendation and conducted a canvassing drive at airports across the country. At a cost of approximately \$190 000 (1977 dollars),<sup>50</sup> about 133 000 signatures were obtained and submitted to the CAB docket in late January 1977.<sup>51</sup> Despite difficulties encountered in obtaining access to several major airports, the TI boasted of the success of its petition drive.<sup>49-52-53</sup> At a press conference, President Kornegay stated:

"... this dramatic response of airline passengers to the petition drive belies the suggestion...that a substantial proportion of ordinary airline passengers support further restriction on smoking."<sup>52</sup>

The TI did not reveal that the petitions were supplemented with signatures from within the tobacco industry and its subsidiaries.<sup>54-55</sup>

Congressional allies wrote to the CAB on the industry's behalf during this proceeding.<sup>56</sup> The tobacco industry's efforts to generate letters to the CAB, however, were not considered effective.<sup>57-58</sup> The Board received approximately 31 000 letters, about 23 950 (77%) of which favoured banning smoking on all flights.<sup>20</sup>

### "We should do everything possible"<sup>59</sup> to eliminate the smoker segregation rule: the CAB 1981 rulemaking proceedings

The importance of airline smoking restrictions as a critical component of the anti-smoking movement is illustrated in a 1980 memo from Philip Morris Senior VP James Bowling to TI President Horace Kornegay.<sup>60</sup> In this correspondence, which was generated in response to the 1981 CAB request for comment on either a ban of all in-flight smoking or complete elimination of the smoker segregation rule, Bowling states:

"As you know, I believe that the successful efforts of the anti's in getting the smoking/no-smoking rule established aboard aircraft was the single most effective thing in their effort to create and promote a social stigma to public smoking. If this presents an opportunity to turn that one around—I think we should do everything possible."<sup>60</sup>

The TI established its first formal working group to coordinate efforts among its member companies and airline

**Table 1** Detailed chronology of airlines and smoking 1969–1990

<b>1969</b>	
December	Ralph Nader petitions FAA and CAB to ban smoking on airlines. <sup>11</sup> John Banzhaf and ASH file a petition with FAA seeking separate smoking and non-smoking sections. <sup>12</sup>
<b>1971</b>	
December	A joint FAA and NIOSH report concludes that inhalation of byproducts from tobacco smoke aboard commercial aircraft does not represent a significant health hazard to non-smoking passengers. <sup>13</sup>
<b>1972</b>	
January	Surgeon General's report concludes, "It is high time to ban smoking from all confined public places such as restaurants, theatres, airplanes, trains, and buses." <sup>14</sup>
September	CAB issues notice of proposed rulemaking to segregate smoking on passenger aircraft. <sup>15</sup>
<b>1973</b>	
May	CAB requires domestic airlines to provide designated "no smoking" areas aboard aircraft for reasons of consumer comfort and protection effective 1 July 1973. <sup>16</sup>
July	FAA withdraws its Advance Notice of Proposed Rulemaking concerning segregation of smokers on commercial aircraft. <sup>17</sup>
<b>1976</b>	
October	Responding to an ASH petition to ban cigar and pipe smoking, CAB initiates a rulemaking proceeding on a wide range of smoking issues. <sup>18</sup>
<b>1978</b>	
October	Airline Deregulation Act (Public Law 95–504) is adopted. It also requires sunset of CAB 1 January 1985. <sup>19</sup>
<b>1979</b>	
January	CAB modifies the 1973 rules, requiring airlines to specially segregate cigar and pipe smokers; ban smoking when the ventilation system is not fully functioning; ensure that non-smokers are not unreasonably burdened when a no-smoking section is sandwiched between two smoking sections; provide a sufficient number of seats in the non-smoking areas to be made available to accommodate all persons who wish to be seated in such rows; expand the non-smoking areas to meet passenger demand; and that carriers must take measures to enforce these rules. <sup>20</sup> Docket 29044 is kept open for further comments.
May	CAB invites comments on the following proposals: ban smoking on flights of 1 hour or less; ban smoking on small aircraft, ban cigar and pipe smoking; provide special seating arrangements for passengers unusually susceptible to tobacco smoke; require partitions or buffer zones between smoking and non-smoking sections; and permit a waiver procedure for airlines that wish to experiment with ways of segregating smokers and non-smokers. <sup>21</sup>
<b>1981</b>	
February	In a supplemental notice of proposed rulemaking to its 16 May 1979 notice, CAB requests commentary on two more options: a ban on all in-flight smoking or an elimination of the regulation of smoking on passenger aircraft. CAB also invites commentary on the transfer of its rulemaking authority in this area. <sup>22</sup>
May	CAB holds a public hearing on the smoking rule. <sup>23</sup>
September	CAB concludes the rulemaking begun in 1976 by dropping the 1979 modifications to the smoking rule. It revises the rule by requiring airlines to guarantee a seat in the no smoking section to every non-smoker who meets the airline's designated check-in deadline. <sup>23</sup>
October	After CAB denies its request for a postponement of the effective date of the newly modified rule, ASH files a motion for a stay in a DC US Court of Appeals. <sup>24</sup>
<b>1982</b>	
May	Senate Subcommittee on Aviation holds a hearing to discuss airliner cabin safety and health standards and S. 1770. The bill does not make it out of committee. <sup>25</sup>
<b>1983</b>	
January	Court of Appeals affirms CAB's authority to regulate smoking on aircraft. <sup>24</sup>
May	CAB reinstates two of the three provisions as ordered by the Court of Appeals: provide special segregation of cigar and pipe smokers and require carriers to prohibit smoking when ventilation systems are not fully functioning.
September	CAB issues supplemental proposals to ban smoking on short flights (1 or 2 hours) and to require additional special protections for those sensitive to smoke. <sup>26</sup>
November	Senate Subcommittee on Aviation holds its second hearing to discuss airliner cabin safety and health standards and S. 197. <sup>27</sup>
<b>1984</b>	
February	CAB holds hearings on proposed rulemaking. <sup>28</sup>
June	CAB adopts rules to ban smoking on small aircraft and to ban cigar and pipe smoking on all flights. <sup>28</sup>
October	Public Law 98–466 is enacted (S. 197), requiring the FAA to contract with NAS for a literature review of studies on the airliner cabin environment. <sup>29</sup> Public Law 98–443 amends the Federal Aviation Act of 1958 to terminate and transfer certain functions of CAB as of 1 January 1985. The statutory authority enabling CAB to promulgate rules governing smoking aboard airlines is transferred to DOT. <sup>30</sup>
<b>1986</b>	
August	NAS issues its report <i>The Airliner Cabin Environment Air Quality and Safety</i> and calls for a total smoking ban on all domestic commercial flights. <sup>31</sup>
<b>1987</b>	
July	House of Representatives passes (198–193) an amendment to the DOT appropriations bill banning smoking on flights of 2 hours or less. The amendment had been rejected in subcommittee and in the full Appropriations Committee, but the Rules Committee permitted the sponsor to offer it on the House floor. <sup>32</sup>
October	House Aviation Subcommittee hears testimony on smoking aboard airliners. <sup>33</sup>
December	The conference committee agrees to a compromise provision banning smoking on flights of 2 hours or less for 2 years and a \$2000 fine for tampering with smoke detectors in airliner lavatories. <sup>34</sup>
<b>1988</b>	
April	Smoking ban goes into effect. <sup>34</sup> Between 80–85% of all domestic flights were covered by the ban. Northwest Airlines voluntarily bans smoking on all its North American flights. <sup>35</sup>
<b>1989</b>	
June	House Aviation Subcommittee hears testimony on smoking aboard airliners. <sup>36</sup>
August	House passes an amendment to the transportation appropriations bill that would make the current ban of smoking on commercial flights of 2 hours or less permanent. <sup>37</sup>
September	Senate adopts by voice vote the Lautenberg amendment to the transportation appropriations bill banning smoking on all domestic flights. <sup>38</sup>
October	House-Senate Conferees on DOT appropriations bill agree to ban smoking on all passenger flights within the continental US and all flights to Alaska and Hawaii lasting less than 6 hours. <sup>39</sup>
November	Senate passes the DOT appropriations bill with the provision to expand and extend the current airline smoking ban. <sup>40</sup>
December	DOT submits its study of cabin air quality to Congress. Report states "consideration should be given to a total ban on smoking on all flights...as a means of eliminating the ETS risks currently faced by non-smoking passengers and non-smoking cabin crew members." <sup>41</sup>
<b>1990</b>	
February	Smoking ban on most scheduled US domestic flights goes into effect. <sup>11</sup>

ASH, Action on Smoking and Health; CAB, Civil Aeronautics Board; DOT, Department of Transportation; FAA, Federal Aviation Authority; NAS, National Academy of Sciences; NIOSH, National Institute for Occupational Health and Safety.

industry allies, deploy tobacco industry groups at the state level to generate letters, engage in public relations activities, and encourage Congressional supporters to call for total deregulation.<sup>61–64</sup>

Tobacco industry attorneys worked with allies in the airline industry to prepare testimony for submission to the CAB.<sup>63–65</sup> A February 1981 correspondence from counsel at Brown and Williamson to General Counsel at the TI described the importance of the alliance:

“The principal purpose of industry liaison with the ATA, airlines, and others, is to persuade them to present our arguments for us. This is a step beyond the obvious meaning of ‘coordination’ as mentioned in your action plan; we want them not only to ride in the same direction as we but also to carry our lance.”<sup>66</sup>

The TI also encouraged the airline association to produce scientific testimony, and if possible present a scientific witness at the CAB hearing.<sup>64</sup> The ATA, however, did not comply.<sup>65</sup>

Coordinated through the Institute’s state activities division and consisting predominantly of persons affiliated with the industry,<sup>67</sup> the Tobacco Action Network (TAN) was important in generating the appearance of public support for the industry’s position. A February 1981 TI memo entitled “CAB Action Plan” stated: “State activities should be authorized to employ extraordinary measures, at its discretion, to generate responses from TAN enrollees.”<sup>66</sup> By the end of the rulemaking proceedings, the docket contained about 6000 letters in response to proposals to ban smoking on flights of one hour or less and small aircraft.<sup>68</sup> Twenty-seven per cent favoured a ban on smoking while 54% opposed a ban. The industry did not, however, succeed in generating support for rescinding the current system of separating smokers and non-smokers. Only 5% of the correspondence supported revocation, 6% wrote against revoking the rule, and another 6% wanted the rule to remain unchanged.

Also during this rulemaking proceeding, Congressional allies sought access to data and made submissions to the Congressional record to discredit evidence of the harms from SHS.<sup>22 64 69 70</sup> Several memoranda dating from mid 1980 to early 1981 from Representatives Walter Jones (D-North Carolina) and Charlie Rose (D-North Carolina) requested Dr James White and Dr Herman Froeb to provide data for their study that was cited by the CAB and demonstrated respiratory effects resulting from SHS in non-smokers.<sup>69 71–73</sup> The TI was kept appraised of progress of the attempts to access the raw data,<sup>72 74</sup> however, it is unclear if the Congressmen succeeded in obtaining the requested information. In 1981, Rep. Charlie Rose submitted a report to the Congressional record recommending that the work of White and Froeb “not be relied upon by the Congress, federal departments or agencies, other legislative or policy-making bodies when considering restrictions on smoking in public places.”<sup>75</sup>

### The industry “maximizes public opportunity” to prevent a smoking ban on short flights and small aircraft

The strategic plan developed to combat the CAB’s proposed rules to ban smoking on short flights (one or two hours) and small aircraft in 1983 was outlined in a memo from TI Executive William Kloefer to its’ staff stating “Our objective is to maximize public opportunity to urge the Board to maintain the status quo” (emphasis in original).<sup>76</sup> The industry intensified efforts to generate “personal letters” from all potential tobacco-related sources and its airline allies (emphasis in original).<sup>76</sup> The tobacco industry monitored the content of the CAB docket and in one surveillance report found that before the initiation of the industry’s letter-writing campaign, the correspondence was

overwhelming in support of the agency’s proposals.<sup>77</sup> A later TI memorandum from September 1983 indicated that the CAB received a total of 3700 letters, with 1700 against further restrictions.<sup>78</sup> By November, the count was 64% to 36% against the proposed regulations.<sup>79</sup> However, the industry sought to make the letter count match the results of its recently released poll on airline smoking showing that approximately 80% of the public supported the existing arrangement of smoker segregation (discussed below).<sup>80</sup> A November 1983 memo from TI Senior VP Kloefer to its staff declared:

“But this is not enough. As we measured public opinion, it’s 80–20 against. The docket ratio should be the same and that is our goal” (emphases in original).<sup>79</sup>

The TI nearly reached its objective. Of the approximately 20 000 individual letters submitted to CAB, 14 399 (72.4%) opposed any further restrictions.<sup>28 81</sup>

As mentioned above, the TI funded a poll on airline smoking. Carried out by Tarrance and Associates, the telephone survey found that 83% of 1000 air travellers felt that the present arrangement “works pretty well in making all passengers comfortable”. The TI did not disclose, however, the results of the pilot study (300 respondents).<sup>78 82 83</sup> A September 1983 memorandum from TI Senior VP William Kloefer to the Institute’s President reported:

“On our pilot survey of airline passengers, we do not have reassuring results. While the great majority feel that present arrangements are OK, their number diminishes the moment they are told of possible new regulations. We came out 50% for and 38% against the prohibition of smoking on planes with fewer than 60 seats. We came out 46–47 on the two hours or less prohibition” (emphasis in original).<sup>82</sup>

Specific questions on proposed regulations or legislation as used in the pilot survey do not appear in the full study or in any subsequent publicly disclosed surveys sponsored by the industry.<sup>80 84 85</sup>

The TI launched a public relations campaign that promoted the results of its surveys.<sup>79 86 87</sup> TI VP Kloefer described the efforts in a November 1983 memorandum stating that the “media contacts on this matter are the broadest in scope of any project we’ve tackled”.<sup>79</sup> The TI repeated the survey in 1985 and found 82% of 1000 respondents indicating that they approved the current system.<sup>84</sup> The data from these polls were used repeatedly in testimony claiming that there was no public support for further restrictions.<sup>33 88 89</sup>

In the same time period, Philip Morris studied air traveller’s attitudes toward smoking restrictions and found results consistent with findings from the TI’s pilot study. The unpublished survey showed that 55% of 101 non-smokers and 13% of 99 smokers strongly approved of a smoking ban on all airplane flights.<sup>85</sup>

The TI conducted a second airport petition drive<sup>90</sup> and filed the more than 180 000 signatures gathered with the CAB.<sup>89</sup> Again, the Institute did not disclose that the petitions had been circulated among tobacco industry employees.<sup>91–93</sup> One internal document revealed that approximately 50 000 signatures were collected by the Philip Morris USA Field Sales force.<sup>94</sup> Complaints from private citizens were filed with the Board claiming that petition gatherers did not always disclose tobacco industry sponsorship or the exact nature of the petition when asked.<sup>95 96</sup>

Also during this rulemaking, the tobacco industry’s scientific experts submitted testimony to the CAB refuting the harms of SHS<sup>97–100</sup> and the airline industry worked with tobacco industry attorneys to prepare testimony.<sup>97</sup> Members of Congress coordinated with the tobacco industry to appear at

the CAB hearing in June 1984 and wrote letters in support of the industry's position.<sup>101–103</sup> The industry's files and the public record also provided evidence that some letters were drafted by the TI for both tobacco and non-tobacco state senators.<sup>104–105</sup> The tobacco industry successfully defeated the CAB's proposals to ban smoking on some flights and the agency sunset in 1985.

### The industry strives to keep its friends close and create its own scientific evidence

In the interim period between the final CAB rulemaking and the emergence of airline smoking on the agenda of Congress in 1987, the tobacco industry developed a strategy to ensure allegiance of the airline industry.<sup>106</sup> The plan stated as its main objectives:

“... reinforce airline industry awareness of: the users of tobacco products as a major air travel market segment, legislative and other threats of common concern to the tobacco and airline industries, the value of the tobacco industry as an ally, and the tobacco industry's opposition to further restrictions of smoking aboard commercial aircraft”<sup>106</sup>

The industry did not succeed in its efforts. Fearing the implications of the findings and recommendations of the 1986 NAS cabin air quality report to ban smoking on all domestic flights,<sup>31</sup> the airline industry no longer supported the tobacco industry.<sup>107–108</sup> A February 1987 correspondence between two Institute executives described the retreat:

“Now we have learned that individual airlines are talking privately with staffers on Congressional aviation and transportation committees, suggesting that, although they will never openly support legislation to ban smoking, Congress would be doing them a favor by banning.”<sup>107</sup>

Despite the loss of this key ally, the tobacco industry was not overly concerned because of the leadership positions of its Congressional allies. The industry's confidence is reflected in a July 1987 correspondence from TI Executive Peter Sparber to the Institute's President where he stated:

“Congress repeatedly looks at airline smoking bans with Senator Wendell Ford's [D-KY] chairmanship of the Aviation Safety Subcommittee, action on a ban is certainly not imminent.”<sup>108</sup>

In its public relations efforts, the industry continued to claim there was no public support for a smoking ban on passenger flights<sup>109</sup> and sought to discredit evidence and authoritative opinions of the harms of SHS.<sup>110</sup> The day before the NAS press conference announcing the findings of its report, the industry broadcast the results of its first cabin air quality study claiming that existing evidence did not support the NAS recommendation to ban smoking on aircraft.<sup>110–111</sup> A memo dated 15 August from President Chilcote to members of the TI's executive committee touted the success of the industry's plan to generate controversy regarding the NAS study.<sup>112</sup> Legislative allies again made submissions to the public record criticising the science underlying attempts to further restrict smoking on aircraft.<sup>113–115</sup>

### Airline smoking in Congress: the industry is taken by surprise and responds with intensive lobbying and “grassroots” mobilisation

The industry was taken by surprise when Rep. Durbin succeeded in passing a provision to appropriations legislation on the House floor to ban smoking on flights of two hours or less in mid 1987.<sup>32–116</sup> To stop the two-hour ban, the industry

worked predominantly through direct one-on-one lobbying and grassroots mobilisation.<sup>117–118</sup> Allies in Congress delivered speeches or asked questions prepared by the industry during hearings, committee meetings, and floor debates.<sup>119–121</sup>

Efforts to demonstrate public support against a ban were augmented with the formation of the “Committee for Airline Passengers Rights”, an organisation “made up of smokers and tobacco industry personnel”.<sup>116–122–124</sup> The group was developed and deployed in New Jersey with the intention of affecting airline smoking ban proponent Senator Frank Lautenberg.<sup>125–126</sup> In this covert campaign, private citizens in receipt of the groups' “Fact Sheets” and letter-writing requests were unaware that there was no affiliation with an actual airline passenger organisation.<sup>125</sup>

The industry boasted of success in generating letters, mailgrams, and phone calls to key legislators, the DOT, and airline executives.<sup>116–118–127–128</sup> Congressmen were aware, however, that the flood of communications were generated by the tobacco lobby.<sup>33</sup>

The tobacco industry found an ally in the Air Line Pilots Association (ALPA)<sup>108–129–130</sup> even though the majority of the association's members were believed to support a smoking ban.<sup>107–131</sup> Rep. Durbin claimed that the reason for the alliance was that the association was wary of offending Senator Ford, Chair of the Aviation subcommittee.<sup>132</sup> A March 1987 memorandum between Institute executives stated that Senator Ford was to be made “aware of the tremendous help ALPA has been to us on the smoking issue.”<sup>130</sup> The correspondence also noted:

“Paul [Halasay of ALPA] continues to remind us that he wants Wendell Ford to know of his assistance – not only for the labor protection provision under consideration in the Commerce Committee, but also because the committee is considering a drug testing bill for pilots...”<sup>130</sup>

The ALPA worked with the TI to conduct a public opinion poll to support the continued assertion that there was a lack of public support for banning smoking on passenger aircraft.<sup>33–36–130–133</sup> The TI hid its involvement in the collaboration.<sup>33–36</sup> In other efforts to assist the industry, the ALPA agreed to meet with flight attendant unions to persuade them to take a “neutral position” on the airline smoking issue.<sup>129</sup> Neither the TI nor the ALPA succeeded in forging an alliance with flight attendant groups.<sup>107–134</sup>

### The industry pulls out all the stops to sunset the two-year ban and fails

Despite the tobacco industry's efforts, it experienced its first defeat in almost 15 years when Congress banned smoking on flights of two hours or less in December 1987. Before the temporary ban went into effect, the TI had already developed a 25 page “action plan” and an airline smoking programme with a budget of over \$2.5 million (1988 dollars) to ensure its sunset.<sup>116–135</sup> The plan had three objectives:

“To ensure that the two-hour ban sunsets as scheduled on April 22, 1990. To persuade congressional and DOT decision makers that the issues to be confronted are cabin air quality and ventilation. To persuade congressional and DOT decision-makers and airlines that smokers expect to be accommodated and that all parties should fight for restoration of a more reasonable system.”<sup>116</sup>

An additional strategy was to “contain the public debate on environmental tobacco smoke (ETS) within Congress, DOT and the scientific community” with the help of scientific consultants and the results of industry sponsored cabin air quality research.<sup>33–36–116–133–136</sup>

Friends in Congress assisted the tobacco industry by influencing the direction of federal research on cabin air quality. The DOT received permission from the House Appropriations Transportation Subcommittee to further examine SHS in cabin air.<sup>137–138</sup> Fearing that the proposed study would narrowly focus on SHS in the aircraft environment, Congressional allies wrote to the agency and Subcommittee Chair William Lehman (D-Florida) requesting that the research be expanded to incorporate examination of other factors in cabin air.<sup>138–141</sup> By March 1988, Transportation Secretary James Burnley agreed to conduct “a more comprehensive analysis of cabin air quality”.<sup>142</sup> Industry documents attributed this success to pressure from its friends in Congress.<sup>141–143–144</sup>

The general consensus among the TI’s airline working group in early 1988 was that mobilisation of smokers was needed to exert pressure on policymakers and airlines to ensure sunset of the smoking ban.<sup>145–146</sup> A March 1988 memo summarising the proposed airline strategy from the group’s leader, John Lyons to TI Executive Peter Sparber stated:

“Smokers are an unorganized political constituency, but unless there is an outcry among smokers, there will be no reason, no context, to repeal the ban or allow it to sunset.”<sup>146</sup>

To achieve this aim, the TI coordinated, publicised and funded activities of Dave Brenton and the Smokers’ Rights Alliance (SRA).<sup>116–147</sup> Mr Brenton was available on a full-time basis for activities pertaining to the airline smoking issue and would receive \$5000 per month compensation.<sup>147</sup> In addition, the TI would provide informational materials and fund various public relations activities budgeted at about \$80 000.<sup>148</sup> Included among the SRA’s activities were television and radio appearances, and information booths, petition drives, and demonstrations at airports across the country. Picketing consisted of tobacco industry personnel in the various locales rather than outraged smokers.<sup>148–150</sup> Also during this time period, the TI and the SRA worked cooperatively to challenge the decision by Northwest officials to voluntarily ban smoking on all domestic flights.<sup>151</sup> The relationship between the tobacco industry and the SRA was exposed in the print media and the Congressional Record in 1989.<sup>152–153</sup>

The TI’s media relations team focused on attacking unfavourable research findings. Efforts included attempts to discredit a poll that demonstrated overwhelming public support for banning smoking on passenger flights<sup>154–157</sup> and a cabin air quality study that showed that passengers seated in non-smoking sections are exposed to nicotine levels comparable to those found in the smoking sections.<sup>136–158–159</sup>

Two other investigations of the cabin air environment were conducted by the tobacco industry in this time period: a collaborative effort by Philip Morris and RJ Reynolds on Japan Air Lines (JAL)<sup>160–162</sup> and a study sponsored principally by Philip Morris on Scandinavian Airlines Systems (SAS).<sup>163</sup> Both studies concluded that the ventilation systems on aircraft are successful in keeping SHS within the smoking sections with little discharge into non-smoking areas. Only the JAL study was completed in time to be used by the industry in testimony before Congress in 1989.<sup>36</sup> Nielsen and Glantz<sup>164</sup> showed that Philip Morris hid its involvement in the SAS study and deleted inconvenient findings.

The tobacco industry knew that it had no allies<sup>165</sup> and sought to intimidate an air carrier, Northwest Airlines, that expanded its smoking ban voluntarily.<sup>166–167</sup> The TI made appearances on major news networks attacking the airline portraying the decision as a public relations gimmick and focusing on the purportedly poor record of passenger complaints and safety violations at Northwest.<sup>167–168</sup> It also called for a boycott of the airline.<sup>167</sup>

The individual tobacco companies also mobilised to attack Northwest. RJ Reynolds retaliated by firing the ad agency Saatchi & Saatchi responsible for creating the Northwest campaign advertising its voluntary ban.<sup>166–169</sup> Philip Morris barraged the airline with disruptive phone calls to its reservation number, called for a boycott, and sent more than 6900 mailgrams protesting the smoking ban.<sup>166–170</sup> Later reports indicated that in spite of the industry’s efforts, the airline did not lose passengers.<sup>168</sup>

A leading Congressional proponent of further restrictions, Senator Frank Lautenberg, was also threatened (oral communication with member of Senator Lautenberg’s re-election campaign, March 2004). The TI backed his Republican opponent, Pete Dawkins, because the Senator continued to pursue further smoking restrictions on airlines. Senator Lautenberg was re-elected.

By 1989, executives at the TI described airline smoking as the industry’s “most persistent and intractable issue”<sup>171</sup> and one of the industry’s “most difficult challenges in Congress”.<sup>172</sup> The TI and individual tobacco companies mobilised a virtual army of lobbyists including those already working for the industry in Washington, TI state activities lobbyists, lobbying firms, public relations associates, tobacco subsidiaries, tobacco-related organisations, and allies in the farm industry.<sup>173–178</sup> Despite the industry’s efforts and the assistance of influential allies in Congress, the industry was unable to stop the adoption of legislation permanently banning smoking on most domestic flights. Even before final passage of the ban, the TI acknowledged defeat by eliminating the airline smoking programme from its 1990 budget proposal, withdrawing funding of the SRA, and abandoning efforts to generate favourable public opinion research.<sup>179–180</sup> Twenty years of effort by public health advocates and flight attendants was finally realised when Congress extended the smoking ban to most domestic flights in late 1989.<sup>7–8</sup>

## DISCUSSION

This longitudinal analysis reveals the progression of tobacco industry motives and actions to influence the first federal restrictions of public exposure to SHS. In the first regulatory proceeding that resulted in the adoption of a rule requiring smoking sections on aircraft, the tobacco industry sought to operate beyond public view. Working primarily through the TI, the industry openly entered the conflict when the CAB requested comment on banning smoking on passenger flights while continuing its covert activities. Faced with continued attempts to expand restrictions on aircraft, the industry marshalled a vast range of activities as it became more desperate. These included grassroots lobbying, public relations campaigns, coordinating with its allies in the airline industry, support from Congressional allies and scientific experts, conducting research, and intimidating adversaries. The strategies and tactics employed are not presently viewed as noteworthy; however, our examination of a single policy area over nearly two decades offers insights into how the industry’s efforts evolved.

The tobacco industry realised from the inception of the policy process the importance of generating public support against restricting smoking on aircraft. Our analysis shows that the industry intensified its efforts to mischaracterise the public record via covert letter-writing campaigns, petition drives, and the conduct of public opinion polls. Survey research findings contrary to the industry’s position were suppressed and the industry sought to hide its involvement in future polls. It is noteworthy that only a few of the industry’s strategies to mischaracterise public opinion were exposed, mostly near the end of the 20-year process (for example, correspondence to congressmen and the sponsorship of the SRA). Also the extent of the effectiveness of its’ grassroots mobilisation efforts was

not revealed. For example, the tobacco industry's surveillance of the docket contents during several regulatory proceedings showed that in the absence of industry driven letter-writing campaigns, public preference indicated strong support for banning smoking on aircraft. Public health advocates should consider their own monitoring efforts in future proceedings to detect similar evidence of malfeasance. Such findings should be exposed to both policymakers and the general public. It is likewise important to distinguish between industry sponsored public opinion surveys and truly independent data. Tobacco control advocates should endeavour to call for full disclosure of the design and methods of surveys conducted by the tobacco industry and its potential allies.

The tobacco industry formed an early alliance with and sought to hide behind the airline industry. However, with the emergence of further evidence of the harms of SHS and the NAS recommendation to ban smoking on all commercial flights, the tobacco industry lost its key ally. The industry formed a temporary political allegiance with the ALPA. Finally, the tobacco industry sought to economically intimidate an air carrier that banned smoking voluntarily and to unseat a political opponent. Neither strategy was successful. Whereas Pan *et al*<sup>8</sup> and Holm and Davis<sup>7</sup> have demonstrated the importance of the role of flight attendants and public health advocates in the fight for smoke-free airlines, our findings suggest that disruption of the tobacco industry's alliances with other stakeholders in the airline industry was also important for its defeat.

As expected, the tobacco industry concentrated much of its efforts on direct lobbying and relying on its Congressional allies once the airline smoking issue reached the congressional agenda in 1987. Assistance from friends in Congress took many traditional forms including lobbying colleagues and testifying or submitting comments on the tobacco industry's behalf. The most notable findings, however, were successful efforts to influence the direction of federally funded research and attempts to publicly discredit scientific evidence. Tobacco control advocates could deflate future efforts to bias the public record by encouraging Congressional supporters to submit counter statements to expose and question the work of tobacco industry sponsored research and scientific experts.

Research using internal documents has certain limitations as previously described.<sup>181</sup> It is not always clear if the tobacco industry's plans were in fact implemented and the available records are likely to be incomplete. We sought to circumvent these problems by employing an exhaustive search strategy and relying on multiple outside sources, including contemporaneous public records, press accounts and other relevant research. Despite the inherent limitations, this in-depth examination of 20 years of tobacco industry strategies contributes to the current understanding of how the industry responds to continued attempts to restrict the use of its products and how those efforts might intensify over time. Although the industry was ultimately unsuccessful in preventing a smoking ban on passenger aircraft, it managed to delay effective regulation for nearly two decades that would have protected non-smokers. Only a few of its efforts were exposed and this occurred late in the policy process. Our findings demonstrate that careful monitoring of tobacco industry activity is warranted, particularly when efforts are made to strengthen existing restrictions. Public health advocates need to anticipate the industry's actions and respond in a timely manner especially regarding transparency and exposure of tobacco industry's activities.

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## What this paper adds

The federal ban of smoking on passenger aircraft was a keystone policy in the tobacco control movement in the United States. The importance of the role of flight attendants and public health advocates in the fight for smoke-free airlines has been examined. In this study, we provide an in-depth analysis of 20 years of tobacco industry strategies to undermine these efforts using internal documents, public records, and related research. Our analysis provides insights into how and when the industry augmented its strategies and gives guidance for future tobacco control interventions.

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