

## **Supplemental Text to “Agenda Setting in the American States: Determinants of State Legislative Attention to Tobacco Control and Vaccine Regulation”**

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The aim of this data collection project was to track state agenda setting to tobacco and vaccines over time. To accomplish this task, we collected and coded all bills related to tobacco and vaccines that were introduced in state legislatures from 1990-2010 using Lexis-Nexis’s State Capital database. For tobacco related bills, we used the following keywords: smok! OR tobacco OR cigar! OR bronch! OR nicotine OR COPD OR "chronic obstructive pulmonary disorder". These search terms produced various bills that were unrelated to tobacco control (e.g., bills regarding smoke alarms), which were not used. For vaccine related bills, we used the following keywords: Diphtheria or tetanus or pertussis or DTap or td or tdap or whooping cough or lockjaw or lock jaw or Haemophilus influenzae type b or Hib or Hepatitis A or HepA or Hepatitis B or HepB or influenza or measles or mumps or rubella or MMR or Pneumococcal or PCV or PPSV or Inactivated poliovirus or IPV or polio or Rotavirus or Varicella or chickenpox or chicken pox or meningitis or meningococcal or MCV or MCV4 or Zoster or shingles or booster shot or contagious disease or infectious disease or communicable disease or rabies or lyme disease or monkeypox or monkey pox or tuberculosis or Japanese Encephalitis or Typhoid Fever or Yellow Fever or cervical cancer or thersasol or mercury or autism! or prevent! /P health insurance. Consequently, the vaccine related search produced many bills that were unrelated to immunization. All bills that mentioned a specific disease, but that did not specifically mention immunization were not used. In the end we ended up with a total of 20,634 tobacco bills introduced across the fifty states from 1990-2010 and a total of 3,257 vaccine related bills introduced during the same time frame.

We had a team of students (Klein, Wilson, and Trikolos for tobacco; Gong, Afriyie, and Grant for vaccines) read several bill synopses and formulate a coding tree to categorize bills. For the tobacco bills, students agreed on seven distinct categories, including one “miscellaneous.” For the vaccine bills, students agree on ten distinct categories, including on “miscellaneous.” Details of these categories are provided in Tables A1 and A2 in the full text article.

For the tobacco bills, a team of students (Klein, Wilson, and Trikolos) coded the bills according to the coding tree. Two students (Klein and Wilson) coded approximately 15% of the bills (N=3200) while one student (Trikolos) coded less than 5% (N=800). The intercoder reliability across all three students as measured by Cohen’s Kappa is .73 with an average pairwise agreement of 76% (N=800). The intercoder reliability across two coders as measured by Cohen’s Kappa is .72 with an average pairwise agreement of 77% (N=3200). With more than 10% of the bills coded, we then used supervised computer learning to code the remaining bills (Collingwood advised us on this; we used RText Tools, Jurka et al. 2011). We used four algorithms (random forests, maximum entropy, support vector machine, and Bagging) which resulted in 87% accuracy covering about 87% of the bills (see Collingwood and Wilkerson 2011). Two students (Klein and Wilson) recoded the bills that did not reach an optimal agreement from the computer (bills that did not reach 3 or 4 in agreement across the four algorithms).

For the vaccine bills, a team of students (Gong, Afriyie, and Grant) coded the bills according to the coding tree. All three students coded approximately 50% of the bills (N=1900). The intercoder reliability across all three students as measured by Cohen’s Kappa is .77 with an average pairwise agreement of 80%. In the event that one coder disagreed with the other two, we took the majority code. If all three coders disagreed, we took the code of Grant, who ended

up working on the project the longest and who knew the data the best. Since there were fewer bills compared to tobacco, we had one student (Grant) code the remaining bills according to the coding tree.

Table S1 provides the percentage of all tobacco bills that fell into each of the 8 categories, pooled from 1990-2010 for each state. Similarly, Table S2 provides the percentage of all vaccine related bills that fell into each of the 11 categories, pooled from 1990-2010 for each state. Figures S1 and S2 show the trends in categories over time, pooled across states, for tobacco and vaccine bills, respectively.

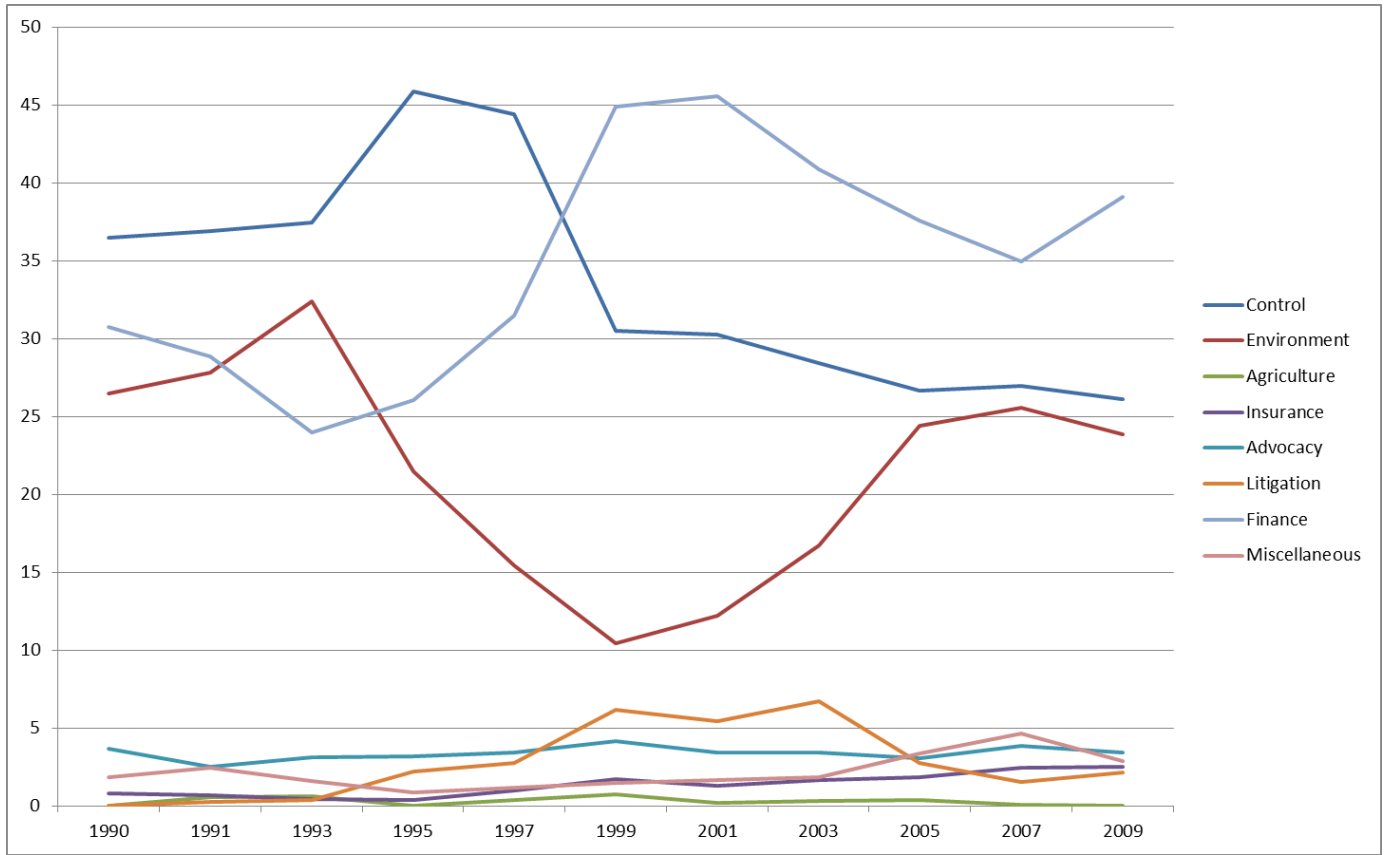
**Table S1 Percentage of Tobacco Bills Falling into Each Category, by State pooled 1990-2010**

State	Control	Environment	Agriculture	Insurance	Advocacy	Litigation	Finance	Miscellaneous
AL	25	16	0	0	2	2	55	1
AK	47	6	0	1	2	6	39	0
AZ	28	11	0	0	3	2	55	0
AR	25	14	0	0	2	4	54	1
CA	31	15	0	3	5	5	40	1
CO	24	16	0	1	1	3	53	1
CT	29	28	1	3	1	1	37	0
DE	40	21	0	1	8	6	21	4
FL	23	16	1	0	12	3	43	1
GA	32	24	1	1	9	3	28	1
HI	33	28	0	2	3	3	28	2
ID	23	17	0	0	6	5	48	1
IL	29	17	0	1	3	7	31	10
IN	37	17	0	3	3	1	37	1
IA	21	24	0	0	2	3	47	2
KS	28	24	0	0	1	7	39	0
KY	30	6	7	2	10	5	38	1
LA	23	23	0	1	3	6	43	1
ME	32	36	0	1	4	2	21	3
MD	45	12	0	2	7	2	31	1
MA	48	26	0	4	2	1	16	3
MI	37	27	0	1	3	2	28	1
MN	24	20	0	1	1	0	51	3
MS	19	28	0	1	1	1	48	1
MO	34	9	0	2	4	8	41	3
MT	15	14	0	0	2	2	65	1
NE	28	16	0	0	4	3	48	1
NV	35	24	0	0	0	9	30	1
NH	29	22	0	1	2	4	41	1
NJ	40	22	0	1	1	3	30	2
NM	21	12	0	0	5	3	57	2
NY	48	14	0	2	4	2	27	2
NC	19	22	1	1	0	4	50	2
ND	30	19	0	0	5	2	43	1
OH	27	26	0	0	3	5	36	3
OK	25	30	0	1	4	5	33	3
OR	26	19	0	2	2	4	45	2
PA	33	14	0	1	3	4	44	1
RI	41	27	0	3	3	3	19	4
SC	31	24	1	1	3	5	34	0
SD	34	15	0	0	2	1	47	1
TN	28	22	1	2	3	6	36	1
TX	37	19	0	0	3	1	39	2
UT	31	18	0	0	1	4	47	0
VT	44	20	0	2	4	3	23	5
VA	18	22	2	0	5	6	44	3
WA	35	20	0	0	5	3	35	3
WV	42	16	1	2	3	4	30	3
WI	44	23	0	4	0	4	21	4
WY	20	13	0	0	1	1	63	1

**Table S2 Percentage of Vaccine Bills Falling into Categories, by State Pooled 1990-2010**

State	School-Related Mandates	Employment	Insurance	Animals	Research & Development	Disclosure-Registry	Content	Advocacy	Public Health Service	Administration	Miscellaneous
AL	28	9	9	26	0	11	2	6	2	2	6
AK	44	13	13	0	0	25	0	0	0	0	6
AZ	23	0	3	16	3	10	0	0	26	3	16
AR	38	10	0	5	5	19	5	0	5	0	14
CA	22	5	15	9	11	7	1	4	12	5	11
CO	19	0	11	14	0	14	5	5	14	3	16
CT	15	4	6	23	0	4	3	5	8	12	21
DE	5	14	5	29	0	5	14	5	0	19	5
FL	21	9	7	14	2	7	7	7	1	11	12
GA	28	15	8	10	3	5	0	0	5	0	26
HI	23	0	13	4	0	5	7	6	17	12	13
ID	37	0	5	5	5	11	0	0	21	5	11
IL	20	4	15	15	4	4	7	7	10	1	14
IN	27	4	7	6	1	14	7	9	7	7	10
IA	21	10	19	8	0	4	15	6	6	0	12
KS	26	0	4	7	4	4	4	7	4	11	30
KY	29	18	2	18	0	8	4	4	0	6	10
LA	37	2	23	6	2	10	0	4	4	4	10
ME	18	4	1	28	1	3	12	3	14	5	12
MD	25	2	2	8	5	8	8	3	13	13	12
MA	30	5	3	12	2	3	4	1	9	7	23
MI	17	2	17	11	0	5	4	3	14	2	23
MN	22	9	0	6	5	11	9	8	5	9	15
MS	62	13	7	7	0	0	0	1	6	3	1
MO	35	12	3	8	0	0	5	5	4	4	25
MT	32	9	5	5	0	5	14	5	5	5	18
NE	20	0	15	10	10	20	5	0	5	0	15
NV	24	0	24	0	0	4	8	0	20	4	16
NH	4	1	3	29	10	1	6	0	7	13	25
NJ	15	5	27	5	3	3	5	5	12	2	19
NM	22	4	9	9	0	13	9	0	13	0	22
NY	27	6	10	18	2	3	1	3	4	9	16
NC	14	11	5	15	3	3	6	2	38	0	3
ND	24	0	0	19	0	19	0	5	5	19	10
OH	46	9	6	6	0	0	9	3	3	11	9
OK	24	15	15	15	2	0	2	0	7	2	17
OR	14	7	14	10	2	12	10	0	10	10	12
PA	15	7	11	10	0	1	10	6	8	3	28
RI	9	7	14	5	4	2	14	0	32	7	7
SC	19	3	0	39	0	8	0	3	3	6	19
SD	31	13	0	19	0	13	13	0	6	0	6
TN	22	1	7	13	1	10	4	3	12	1	24
TX	17	3	6	6	4	20	1	9	8	5	23
UT	36	0	21	14	0	0	7	7	0	0	14
VT	28	0	6	11	0	6	17	6	11	6	11
VA	15	4	9	23	0	7	1	5	1	11	23
WA	13	7	11	5	0	5	9	7	16	9	18
WV	27	6	1	23	0	3	6	0	4	8	22
WI	19	3	16	29	3	6	3	0	6	6	6
WY	33	0	11	39	6	0	0	0	0	11	0

**Figure S1 Percentage of Tobacco Bills Falling into Categories, by Session Pooled Across States**



**Figure S2 Percentage of Vaccine Bills Falling into Categories, by Session Pooled Across State**

