Online Appendix:

How Do Electoral Incentives Affect Legislator Behavior? Evidence from U.S. State Legislatures

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# Appendix

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A.1 Data

Table A.1 shows the coverage of our dataset in terms of states and years.

| Term       | AR   | AZ   | CA   | CO   | FL   | ME   | MI   | MO   | MT   | NV   | OH   | OK   | SD   | LA   | AZ   | ME   | Total |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 2015-2016  | 25/100 | 5/60 | 15/80 | 6/65 | 22/118 | 17/151 | 40/110 | 23/163 | 13/100 | 2/42 | 15/99 | 19/101 | 14/78 | /   | 1/30 | /   | 2/35 | 219/1324 |
| 2013-2014  | 25/100 | 3/60 | 17/80 | 9/65 | 26/120 | 20/165 | 29/120 | 12/163 | 7/100 | 3/42 | 18/99 | 7/101 | 6/70 | /   | 1/30 | /   | 1/35 | 175/1326 |
| 2012-2015  | /     | /    | /    | /    | /     | /     | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | 16/144 |
| 2011-2012  | 24/100 | 4/60 | 22/80 | 7/65 | 11/120 | 27/151 | 15/110 | 25/163 | 12/100 | 1/42 | 7/99 | 5/101 | 7/70 | /   | 2/30 | /   | 10/35 | 179/1326 |
| 2009-2010  | 34/100 | 14/60 | 18/80 | 8/65 | 24/120 | 21/151 | 34/110 | 55/163 | 11/100 | 10/42 | 15/99 | 5/101 | 8/70 | /   | 10/30 | /   | 4/35 | 271/1326 |
| 2008-2011  | /     | /    | /    | /    | /     | /     | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | 18/144 |
| 2007-2008  | 29/100 | 7/60 | 24/80 | 11/65 | 35/120 | 16/151 | 44/110 | 18/161 | 14/100 | 8/42 | 28/99 | 7/101 | 13/70 | /   | 2/30 | /   | 6/35 | 254/1326 |
| 2005-2006  | 27/100 | 3/60 | 26/80 | 13/65 | 19/120 | 18/151 | 21/110 | 8/161 | 15/100 | 8/42 | 14/99 | 15/101 | 7/70 | /   | 3/30 | /   | 1/35 | 190/1326 |
| 2004-2007  | /     | /    | /    | /    | /     | /     | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | 71/144 |
| 2003-2004  | 37/100 | 5/60 | 19/80 | 8/65 | 7/120 | 21/151 | 36/110 | 13/161 | 5/100 | 9/42 | 9/99 | 28/101 | 4/78 | /   | 2/30 | /   | 7/35 | 201/1326 |
| 2001-2002  | 14/100 | 9/60 | 21/80 | 6/65 | 14/120 | 26/151 | 23/110 | 74/161 | 9/100 | 9/42 | 10/99 | 0/101 | 7/78 | /   | 6/30 | /   | 8/35 | 227/1326 |
| 2000-2003  | /     | /    | /    | /    | /     | /     | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | 144/1326 |
| 1999-2000  | 25/100 | 14/60 | 21/80 | 9/65 | 58/120 | 17/151 | 20/110 | 0/161 | /   | 0/42 | 48/99 | 0/101 | 19/70 | /   | 7/30 | /   | 7/35 | 245/1326 |
| 1997-1998  | 31/100 | 0/60 | 14/80 | 18/65 | 0/120 | 10/151 | 64/110 | 0/161 | /   | 0/99 | 0/101 | 0/78 | /   | /   | 1/35 | /   | 136/164 |
| 1996-1999  | /     | /    | /    | /    | /     | /     | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | /    | 144/1326 |
| 1995-1996  | 0/100 | 0/60 | 26/80 | 0/120 | 29/151 | 0/110 | 0/161 | /   | /   | 0/101 | /   | /   | /   | 0/30 | /   | 4/35 | 59/950 |
| 1993-1994  | 0/100 | 0/60 | 0/80 | /   | 0/120 | 0/151 | 0/110 | /   | /   | /   | /   | /   | /   | /   | 0/30 | /   | 0/35 | 0/757 |
| 1991-1992  | 0/100 | 0/60 | 0/80 | /   | 0/120 | 0/151 | 0/110 | /   | /   | /   | /   | /   | /   | /   | /   | 0/30 | /   | 0/35 | 0/496 |
| 1989-1990  | 0/100 | 0/60 | 0/80 | /   | 0/120 | 0/151 | 0/110 | /   | /   | /   | /   | /   | /   | /   | /   | /   | /   | 0/35 | 0/256 |
| 1987-1988  | 0/100 | /   | /   | /   | 0/151 | 0/110 | /   | /   | /   | /   | /   | /   | /   | /   | /   | 0/35 | 0/256 |
| 1985-1986  | /   | /   | /   | /   | /   | 0/151 | 0/110 | /   | /   | /   | /   | /   | /   | /   | /   | 0/35 | 0/146 |
| Total      | 291/1900 | 64/780 | 223/960 | 95/958 | 205/1578 | 222/2146 | 326/120 | 226/1709 | 86/900 | 16/378 | 164/900 | 86/1212 | 85/700 | 77/525 | 34/390 | 29/195 | 51/786 | 2282/16727 |

Terminology has off-cycle elections, and legislators are elected for 4-year periods.

A.2 Reviewing A Simple Model of Accountability and Term Limits

To clarify the meaning of the main estimates on productivity, we consider an extremely simplified version of the model from Alt, Bueno de Mesquita, and Rose (2011). Candidates have type $\theta \in \{\theta_I, \theta_C\}$ (I for incompetent, C for competent). Among the pool of all possible candidates, the fraction $\mu_0 \in (0,1)$ are competent types. If elected to office, the candidate chooses high or low effort $a \in \{a, \bar{a}\}$. When competent types exert effort ($\bar{a}$), they produce the good outcome $H$ with certainty; if they do not exert effort ($a$), they still produce $H$ with probability $\gamma \in (0,1)$. Incompetent types cannot produce $H$ and so never exert effort. Candidates receive payoffs $B - c(a)$ where $B$ is the benefit from holding office and $c(a)$ is the cost of effort, which is $c$ for $\bar{a}$ and 0 otherwise. Voters only care about maximizing the chance of receiving the $H$ outcome.
Before the first period, a candidate is randomly drawn from the pool to serve as incumbent. The candidate then chooses whether or not to exert effort. The first-period outcome, $H$ or $L$, is observed, and the voter decides whether to retain the incumbent for the second period or replace her with a new draw from the pool. In the final period, if the incumbent is reelected, she faces a term limit and so exerts low effort for sure. If instead the voter chooses to replace the incumbent, we assume that the new incumbent behaves in the second period (her first as incumbent) just like the original incumbent did in the first period, in equilibrium (Alt, Bueno de Mesquita, and Rose (2011) works through the fuller model, in which there are infinite periods and this assumption is not necessary; our simplified version offers the same intuition as that more rigorous version.)

Below, we derive the conditions under which there is an equilibrium in pure strategies where all competent types exert effort in the first period, voters re-elect all competent types, and competent types do not exert effort in the final period. The key condition for this equilibrium is that $\gamma > \mu_0$. Intuitively, the voter will only reelect an incumbent who has produced $H$ if the payoff of having a competent incumbent slack off in the final period exceeds the expected payoff from a random draw from the pool. We now use this equilibrium to study the effects we wish to estimate. The electoral incentives effect is the effect of removing electoral incentives on incumbent effort. If the competent type exerts effort, $H$ results for sure; if the competent type does not exert effort, there is a $\gamma$ chance of $H$. Therefore the true electoral incentives effect is $\gamma - 1$.

A pooled comparison of outcomes between cases with second-term incumbents and with first-term incumbents does not estimate the electoral incentives effect. Second-term incumbents are all competent, but they exert low effort, so we observe outcome $H$ in $\gamma$ of the cases. First-term incumbents exert effort and produce $H$ if they are competent, so we observe $H$ in $\mu_0$ of the cases. The pooled comparison therefore estimates $\gamma - \mu_0$. Since $1 > \gamma > \mu_0$ in this equilibrium, this comparison underestimates the true effect of the removal of reelection.

\[\text{We define this effect to be negative rather than positive in the spirit of our empirical design below, which estimates the effect of the removal of accountability via term limits.}\]
incentives—it is positive even though the true effect is negative. This is because the true, negative accountability effect is confounded by positive electoral selection; incumbents who survive to be term limited are more likely to be competent.

However, a within-incumbent comparison of outcomes for the incumbent’s second term vs. first term correctly estimates the effect of the removal of reelection incentives, because incumbent type is a fixed attribute that can be differenced out. In their first term, competent incumbents all produce $H$. Only competent incumbents are re-elected to serve a second term, where they do not exert effort and product $H$ with probability $\gamma$. Therefore the average of the within-incumbent comparisons, made only for incumbents who serve two terms, will be $\gamma - 1 < 0$. In the difference-in-differences design below, we will interpret the estimated effect of term limits as capturing this electoral incentives effect.

In addition to the electoral incentives effect, this model also predicts an electoral selection effect; second-term incumbents are all competent, in this equilibrium, while first-term incumbents have only a $\mu_0$ chance of being competent. The settings we study below will feature term limits of greater than two lengths—a context that, to our knowledge, has not been explored theoretically because of the complexity that comes in accountability models with more than two terms—but we will examine this qualitative prediction. If there is an electoral selection effect, then incumbents who have served more terms should be of higher competence than those who survive fewer rounds of electoral selection; our data confirms that this is the case in term-limited state legislatures.

The gap between models of adverse selection and moral hazard in elections and our empirical context is considerable. Virtually all models of elections as accountability mechanisms focus on executive offices, supposing that incumbents can directly implement policy or influence the state of the world if elected. Not coincidentally, existing studies using term limits to study electoral accountability also focus on executive offices; Besley and Case (1995), List and Sturm (2006), and Alt, Bueno de Mesquita, and Rose (2011) all study U.S. governors, while Ferraz and Finan (2011) studies Brazilian mayors. Unlike executives, an individual
legislator is rarely pivotal. Although she can certainly influence policy, it will be particu-
larly difficult for voters to attribute any change in the state of the world to their individual
representative. Given this challenge, and the lack of theoretical work, we see our paper as
a first step in helping to stimulate the production of models of this form. As we will show,
legislative elections appear to affect the allocation of legislator effort despite these differences
from elections for executive offices.

Details on Equilibrium

We are interested in a possible equilibrium in pure strategies in which the voter retains the
incumbent if she observes $H$ at the end of the first period, and kicks out the incumbent if
she instead observes $L$.

Let the voter’s belief about the probability the incumbent is competent, conditional on
observing outcome $O$, be $\tilde{\mu}$. If the voter observes $H$ at the end of the first period, she
knows with certainty that the incumbent is a competent type; that is, $\tilde{\mu}_H = 1$. If the voter
observes $L$ at the end of the first period, either the incumbent is an incompetent type, or
the incumbent is a competent type who has exerted low effort. Therefore her belief is

$$\tilde{\mu}_L = \frac{\mu_0(1 - \alpha)(1 - \gamma)}{\mu_0(1 - \alpha)(1 - \gamma) + (1 - \mu_0)},$$

where $\alpha$ is the voter’s belief about the probability that a competent time chooses high effort.
In a pure strategy equilibrium, we have $\alpha = 1$, so this simply reduces to $\tilde{\mu}_L = 0$.

Consider first when the voter observes $H$ in the first period. In the second and final
period, when the termed-out incumbent does not exert effort, she will receive $H$ with prob-
ability $\gamma$. For the voter to retain the incumbent after observing $H$ in the first period, this
must be higher than the chance of getting $H$ in second period from replacing the incumbent
with a new, first-term incumbent. There is a $\mu_0$ chance the replacement incumbent would
be a competent type. We assume this replacement would also exert effort in the first term. Therefore for this equilibrium we must have $\gamma > \mu_0$.

Now consider when the voter observes $L$ in the first period. Again, she has a $\mu_0$ chance of getting $H$ from replacing the incumbent with a new incumbent. If she retains the incumbent, she has a $\tilde{\mu} \cdot \gamma$ chance of getting $H$ in the final period. Therefore, for an equilibrium in which the voters retains if $H$ and removes if $L$ in the first period, it must be the case that $\mu_0 > \tilde{\mu} \cdot \gamma = 0$. Therefore, our condition for this equilibrium is $\gamma > \mu_0 > 0$.

Now we must consider the competent incumbent’s payoffs to ensure he has no profitable deviation. If the incumbent exerts effort, he wins for sure, receiving payoff $B - c$. If he does not exert effort, he still wins with probability $\gamma$. In choosing whether to deviate, and potentially to mix, he faces the following optimization problem

$$\max_{\alpha} \alpha (B - c) + (1 - \alpha) \gamma B.$$ 

Therefore, the competent incumbent will have no incentive to deviate if $B - c > \gamma B$. 
A.3 Elections Select For Productive Legislators

Theories of adverse selection and moral hazard in elections predict a causal effect of politician competence on survival in office. High-type politicians should, on average, survive more rounds of electoral selection than less competent politicians. While this predicted effect cannot be directly estimated because competence, by definition, is unobservable in these models, these theories do predict an observable, positive association between a politician’s productivity and the number of elections she survives (because intrinsically competent politicians are both more productive and, in expectation, survive more elections).

Figure A.1 offers a simple test of this prediction. The figure presents the conditional expectation of incumbent productivity in their first term, only, across the number of elections incumbents go on to win in their entire careers. The idea is that first-term productivity reflects incumbent type separate from effects of learning while in office and of term limits. As the plot shows, the more elections an incumbent wins over the course of her career, the more productive she was in her first term, on average. Incumbents who survive more rounds of electoral selection appear to be more productive types.

To investigate this association more formally, we use OLS to estimate models of the form

\[ \text{Productivity}_{ic,\text{min}(t_i)} = \beta_s \text{Elections Won}_{ic,\text{max}(t_i)} + \delta_{ct} + \varepsilon_{ict}, \]  

(1)

where \( \text{Productivity}_{ic,\text{min}(t_i)} \) measures the productivity of legislator \( i \) in chamber \( c \) in his first term in office, \( \text{min}(t_i) \); \( \text{Elections Won}_{ic,\text{max}(t_i)} \) counts the total number of elections that legislator \( i \) in chamber \( c \) has won at the end of his career in year, \( \text{max}(t_i) \); \( \delta_{ct} \) are chamber-by-term fixed effects. To be clear, this is not a panel regression, but a cross-sectional comparison of legislators. The coefficient \( \beta_s \) is essentially estimated by comparing first-term productivity of legislators who differ in the number of elections they survive over the course of their careers, but who were elected to the same chamber in the same year. By focusing exclusively on
Legislators who win more elections are already more productive in their first term, suggesting that elections successfully select for high productivity types. The selection effect is not confounded by learning effects, or by the effects of term limits. Theory predicts that $\beta_s > 0$.

Table A.2 presents the results. As the table shows, consistent with the figure, we see evidence that incumbents who win more elections were more productive in their first term, on average. Although there is no difference in the number bills sponsored, the differences in committee activity, showing up to cast roll-call votes, and the overall productivity index are considerable.

The average state in our sample has a term limit of 4.4 terms. According to column 4, an incumbent who serves 4.4 terms is predicted to be 0.26 units more productive on the productivity index. This electoral selection effect is roughly as large as the electoral incentives effect we estimated in the paper, as would be predicted in an equilibrium in which voters are willing to reelect incumbents into final, term-limited terms. In sum, we find evidence for substantial electoral selection for more productive incumbents, despite the fact that these elections are relatively low salience affairs with little information available to voters.
On average, incumbents who survive more rounds of electoral selection are more productive than those who survive fewer rounds.

|                           | Log of Bills Sponsored, 1st Term | Committee Activity, 1st Term | Pct Floor Votes, 1st Term | Productivity Index, 1st Term |
|---------------------------|---------------------------------|------------------------------|----------------------------|----------------------------|
| Elections Won             | 0.01 (0.01)                     | 0.05 (0.02)                  | 1.73 (0.25)                | 0.05 (0.01)                |
| Legislatore               | 5,316                           | 5,210                        | 3,679                      | 3,679                      |
| Mean                      | 2.63                            | 3.44                         | 92.77                      | -0.16                      |
| Standard Dev.             | 1.10                            | 2.11                         | 13.27                      | 0.94                       |
| Chamber-Year FE           | Yes                             | Yes                          | Yes                        | Yes                        |

Outcome variables are all measured using only the incumbent’s first term in office, to measure type rather than learning. In columns 1 the outcome variable is the log of the number of sponsored bills, plus one. In columns 2 the outcome variable is an index of committee activity. In columns 3 the outcome is the percentage of roll-call votes the legislator is present for and votes on. In columns 4 the outcome variable is the first principal component from a PCA of the three measures of effort. The variable Elections Won is a simple count of the total number of elections a legislator has won over her entire career. The unit of observation is a legislator. Dataset covers the 14 state legislative chambers with term limits of three terms are longer, and covers legislative terms following elections from 1984-2014. Robust standard clustered by legislator in parentheses.

### A.4 Selection Effect in States without Term Limits

In figure A.2, we show the selection effects based on legislators in chambers without term limits. In particular, the graph is constructed using data on TX and NY as well as data on the states with term limits before they take effect. The positive slope suggests that elections select for more productive legislators in chambers without term limits.
Figure A.2 – Selection Effects: States without Term Limits.
A.5 Heterogeneity in the Effects of Electoral Incentives

Table A.3 looks at several key sources of heterogeneity in the overall effect of being term limited on legislator productivity.

In the first column, we interact the Term Limited indicator with an indicator for whether the state that the legislator serves in has a lifetime ban, or not. As we see, the effect of being term limited on bill sponsorship appears to be much larger (almost twice as large) in states with lifetime bans.

We also investigate how the effect varies across state legislatures that pay their legislators more or less. Higher salaries give legislators stronger incentives to desire reelection, and are also a proxy for more professional legislatures where career incentives are stronger and voter information may be higher (Squire 2007; Rogers 2017). Salary is measured in thousands of dollars per day; as the results show, the effect of being term limited on productivity appears to grow substantially as salary increases.

In the third column, we interact the Term Limited variable with the measure of state legislative professionalization from Bowen and Greene (2014). We scale this measure to run from 0, in the least professionalized legislature, to 1 in the most professionalized legislature. Similar to the previous column, we see that the effect of being term limited on productivity is much larger (more than twice as much) for the most professionalized legislature than the least.

In the fourth column, we interact the treatment with an indicator for whether the state has a cumulative ban. As mentioned in the paper, in California and Oklahoma, term limits are based on the total number of terms served irrespective of whether they are served in the lower or upper chamber of the legislature, which means that treated legislators in these states do not have electoral incentives related to considering a run for the other chamber after they are termed out. As we see, while the interaction is too noisy to provide much
confidence, we do estimate that the effect is meaningfully larger (more negative) in these states.

Finally, in the fifth column, we interact the treatment variable with a measure of the power of the Speaker, which comes from Mooney (2013). As the resulting estimate shows, we do not find any evidence that the effect of being term limited on productivity gets smaller (or larger) in cases where the majority party is more powerful.
Table A.3 – Variation in the Effect of Electoral Incentives.

|                                | Productivity Index |      |      |      |      |
|--------------------------------|--------------------|------|------|------|------|
|                                | (1)                | (2)  | (3)  | (4)  | (5)  |
| Term Limited                   | -0.19              | -0.16| -0.15| -0.23| -0.21|
|                                | (0.04)             | (0.05)| (0.05)| (0.03)| (0.07)|
| Term Limited × Lifetime Ban    | -0.13              |      |      |      |      |
|                                | (0.06)             |      |      |      |      |
| Term Limited × Daily Salary    | -0.22              |      |      |      |      |
|                                | (0.12)             |      |      |      |      |
| Term Limited × Professionalization | -0.20             |      |      |      |      |
|                                | (0.08)             |      |      |      |      |
| Term Limited × Cumulative Ban  | 0.07               |      |      |      |      |
|                                | (0.08)             |      |      |      |      |
| Term Limited × Mooney Ranking  | -0.00              |      |      |      |      |
|                                | (0.01)             |      |      |      |      |

| N                              | 11,109             | 10,412| 10,412| 11,109| 11,109|
| Legislator Fixed Effects       | Yes                | Yes   | Yes   | Yes   | Yes   |
| Chamber-Year Fixed Effects     | Yes                | Yes   | Yes   | Yes   | Yes   |

In column 1, the indicator for being term-limited is interacted with an indicator for whether or not a state’s term limit is a lifetime ban or only requires the legislator to sit out a term. In column 2, the term-limited indicator is interacted with the average legislative salary per day. In column 3, the term-limited indicator is interacted with an index of legislative professionalization. In particular, all states are ranked according to Bowen and Greene (2014)’s index of legislative professionalization and the most professional legislature is assigned a score of 1, and the least professional is assigned a score of 0. In column 4, the term-limited indicator is interacted with an indicator of whether the legislator is elected in one of the states that use cumulative bans (CA and OK). In column 5, the term-limited indicator is interacted with a ranking of the states based on Mooney’s index on the power of legislative leaders. The main effects of Lifetime Ban, Daily Salary, Professionalization, Cumulative Ban, and Mooney Ranking are absorbed by the chamber-year fixed effects. Robust standard errors clustered by legislator and reported in parentheses.
A.6 Interest Group Ratings

The table below lists the interest groups whose ratings of legislators we use in our ideological analysis in the paper. For each interest group, we provide their issue area classification, the states in which they provide ratings, the range of years for which we obtained ratings, and the total number of ratings we observe.
| Interest Group                                                      | Issue Area | States                  | Year Range   | Observations |
|-------------------------------------------------------------------|------------|-------------------------|--------------|--------------|
| American Civil Liberties Union                                    | Other      | CA CO FL LA ME MI MO OH OK | 1994-2014   | 610          |
| American Conservative Union                                        | Other      | AR AZ CA CO FL LA ME MI MO NV OH OK | 1992-2014 | 1,677        |
| American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) | Labor Union | AR AZ CA CO FL LA ME MI MO MT OH OK | 1995-2014 | 1,274        |
| Americans for Prosperity                                            | Taxes      | AZ CA FL LA MI MO MT OH | 2003-2014   | 1,033        |
| Arkansas Citizens First Congress                                   | Other      | AR                      | 2002-2014   | 590          |
| Associated Builders & Contractors                                  | Business   | CA CO FL LA ME MI OH OK | 1994-2012   | 775          |
| Associated Industries of Florida                                   | Business   | FL                      | 1998-2014   | 1,062        |
| California Communities United Institute                           | Abortion   | CA                      | 2000-2012   | 524          |
| California Manufacturers and Technology Association                 | Business   | CA                      | 2002-2014   | 481          |
| California National Organization for Women                         | Abortion   | CA                      | 1996-2010   | 636          |
| California Park & Recreation Society                               | Business   | CA                      | 2000-2014   | 476          |
| California Republican Assembly                                     | Other      | CA                      | 2000-2014   | 600          |
| California Taxpayers’ Association                                  | Taxes      | CA                      | 1996-2014   | 650          |
| Center for Arizona Policy                                          | Abortion   | AZ                      | 2002-2014   | 395          |
| Children’s Advocacy Institute                                      | Education  | CA                      | 1996-2014   | 611          |
| Christian Coalition of America                                    | Other      | CA FL LA ME MI MO OK    | 1992-2012   | 928          |
| Clean Water Action                                                 | Environment| CA MI                    | 2000-2014   | 927          |
| Colorado Conservation Voters                                       | Environment| CO                      | 2000-2014   | 513          |
| Colorado Union of Taxpayers                                        | Taxes      | CO                      | 1996-2014   | 644          |
| Congress of California Seniors                                     | Other      | CA                      | 1998-2014   | 624          |
| Conservation Colorado                                              | Environment| CO                      | 1998-2014   | 384          |
| Consumer Federation of California                                  | Business   | CA                      | 2000-2014   | 527          |
| Drug Policy Forum of California (DPFFCA)                           | Other      | CA                      | 1998-2014   | 499          |
| Equality California                                                | Abortion   | CA                      | 2000-2014   | 632          |
| Family Planning Association of Maine                               | Abortion   | ME                      | 1998-2004   | 761          |
| Florida Health Care Association (FHCA)                             | Business   | FL                      | 2008-2014   | 471          |
| Foundation for Florida’s Future                                    | Education  | FL                      | 2006-2014   | 583          |
| Gun Owners of California                                          | Guns       | CA                      | 1996-2014   | 440          |
| Howard Jarvis Taxpayers Association                                | Taxes      | CA                      | 2002-2014   | 536          |
| League of Conservation Voters                                      | Environment| AZ CA CO FL LA ME MI MO OH OK | 1994-2014 | 2,985        |
| Louisiana Association of Business and Industry (LABI)              | Business   | LA                      | 1995-2011   | 498          |
| Maine Conservation Voters                                          | Environment| ME                      | 1998-2014   | 1,301        |
| Maine Education Association                                        | Education  | ME                      | 1996-2012   | 642          |
| Maine People’s Alliance                                           | Other      | ME                      | 1996-2014   | 1,086        |
| Maine Women’s Lobby                                                | Abortion   | ME                      | 2002-2010   | 695          |
| Michigan Farm Bureau                                               | Business   | MI                      | 1998-2014   | 626          |
| Missouri Farm Bureau Federation                                    | Business   | MO                      | 1996-2006   | 654          |
| Missouri National Education Association                            | Education  | MO                      | 1996-2006   | 822          |
| Missouri Progressive Vote Coalition                                | Abortion   | MO                      | 2002-2012   | 930          |
| Missouri Voters Conservation                                       | Environment| MO                      | 2003-2008   | 564          |
| Montana Audubon                                                    | Environment| MT                      | 2000-2014   | 720          |
| Montana Conservation Voters                                        | Environment| MT                      | 2000-2014   | 781          |
| Montana Contractors’ Association                                   | Labor Union | MT                      | 2006-2014   | 491          |
| Montana Education Association-Montana Federation of Teachers       | Education  | MT                      | 2000-2014   | 791          |
| Montana Environmental Information Center                           | Environment| MT                      | 2000-2014   | 694          |
| Montana Family Foundation                                          | Other      | MT                      | 2004-2012   | 593          |
| Montana Human Rights Network                                       | Other      | MT                      | 2009-2012   | 673          |
| Montana Shooting Sports Association                                | Guns       | MT                      | 2000-2014   | 493          |
| Montana Stockgrowers Association                                   | Business   | MT                      | 2000-2006   | 398          |
| NARAL Pro-Choice America                                           | Abortion   | AZ CA CO FL LA ME MI MO MT NV OH OK | 1994-2014 | 2,998        |
| National Federation of Independent Business (NFIB)                 | Business   | AR AZ CA CO FL LA ME MI MO MT NV OH OK | 1994-2014 | 9,514        |
| National Rifle Association                                         | Guns       | AR AZ CA CO FL LA ME MI MO MT NV OH OK | 1992-2014 | 5,566        |
| National Right to Life Committee                                   | Abortion   | AZ CA FL LA ME MI MO OK | 1994-2014   | 1,502        |
| Northern Plains Resource Council                                   | Environment| MT                      | 2000-2014   | 792          |
| Oklahoma Institute for Child Advocacy                             | Education  | OK                      | 2002-2012   | 500          |
| PROMO- For the Personal Rights of Missourians                      | Abortion   | MO                      | 1996-2002   | 607          |
| PasePAC - California’s Political Action Committee for Animals      | Environment| CA                      | 1996-2014   | 759          |
| Planned Parenthood Action Fund                                    | Abortion   | AR AZ CA CO FL LA ME MI MO MT NV OK | 1992-2014 | 3,944        |
| Research Institute for Economic Development                       | Business   | OK                      | 1998-2014   | 850          |
| Sierra Club                                                        | Environment| AR AZ CA CO FL LA ME MI OH OK | 1994-2014 | 1,806        |
| South Dakota Farmers Union                                        | Business   | SD                      | 1996-2014   | 553          |
| The Oklahoma Constitution                                         | Other      | OK                      | 2006-2014   | 492          |
| United States Chamber of Commerce                                 | Business   | AZ CA CO FL LA ME MI MO MT OH OK | 1994-2014 | 7,140        |
| United States Public Interest Research Group (U.S. PRIG)            | Business   | CA CO ME MI MT OH      | 1994-2012   | 1,159        |

Total Legislator-Terms Ratings: 80,331
A.7 NY and TX as Non-Term-Limited Control States

In this section, we offer graphs to show how NY and TX span the range of professionalism and salaries of term-limited state legislatures, and are therefore logical “control” states to use in our alternative design in which we compare term-limited legislators to legislators in other states that don’t have term limits.

Figure A.3 – State Legislative Professionalism: How NY and TX Compare.

Note: The figure is based on data from Bowen and Greene (2014).
Figure A.4 – State Legislative Salaries: How NY and TX Compare.

Note: The figure is based on data from Bowen and Greene (2014).
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