

# Constitutions and Social Trust: An Analysis of the US States

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## Abstract

The literature on social capital argues that high trust lends itself to shorter contracts. The literature has extended this logic to constitutions. While scholars have examined constitutional verbosity at the international level, they have yet to examine the relationship between constitutional verbosity, constitutional endurance, and social capital at the subnational level. Using state-level data from 2002 through 2015, we examine the relationship between social capital and state constitutions. We find weak evidence that when trust is low, constitutions are increasingly verbose. We find stronger evidence that social trust explains state constitutions' endurance.

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*Keywords:* constitutions, constitutional verbosity, constitutional garrulity, constitutional endurance, social capital, social trust

## I. Introduction

Societies with anemic social capital tend to draft longer national constitutions than societies with more robust social capital and social trust (Bjørnskov and Voigt 2014). The idea is that a lack of social trust—“authority relations, relations of trust and consensual allocations of rights which establish norms” (Coleman 1988)—requires political and commercial contracts to be more specific. We ask if this logic extends to subnational polities in the United States. All fifty states have constitutions, which vary substantially in length. Vermont has the shortest constitution of any state at about 8,500 words. Alabama's constitution, at more than 380,000 words, is the longest of any government worldwide.<sup>1</sup>

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<sup>1</sup> Alabama's constitution is substantially longer than any other state's because it includes local constitutional amendments.

In our analysis, we use state-level volunteer rates from 2002 through 2015 as our measure of social capital. La Porta et al. (1997), Jennings and Stoker (2004), and Brown and Uslaner (2005) all document a strong and positive relationship between volunteerism or civic engagement and social trust. We examine the relationship between social trust and constitutions in two ways: first, in verbosity or length, and second, in endurance—the amount of time between the adoption of new constitutions. A US subnational approach is different from a cross-country analysis as each state is subject to two constitutions: one unique to the state and the other binding across all states. This dual-constraint structure gives us reason to examine the relationship between constitutions and social trust at the state level to determine if the findings of Bjørnskov and Voigt (2014) hold. Section 2 summarizes the existing literature and background on constitutional garrulity and places this paper within the context of the broader scholarship. Section 3 details the data and methods used in our analysis. Section 4 presents the results, and section 5 concludes.<sup>2</sup>

## II. Literature and Background

The relationship between social capital and a contract's verbosity has been well established (see Knack and Keefer 1997; La Porta et al. 1997). Knack and Keefer (1997) hypothesize that social capital facilitates economic activity in places that lack formal institutions to enforce contracts and secure property rights. Thus, the return on investment for regulations and institutions that formally enforce contracts and secure property rights is higher in places where trust is low (Knack and Keefer 1997). High-trust contexts are endowed with unwritten contracts, which, to varying degrees, can supplant aspects of formal contracts (Bjørnskov and Voigt 2014).

In *The Calculus of Consent: Logical Foundations of Constitutional Democracy*, James Buchanan and Gordon Tullock (1962) describe the political economy of efficiently designing a constitution. While constitutional architects attempt to constrain undesired political behavior, they face high transaction costs for creating a consensus. Within this framework, Bjørnskov and Voigt (2014) argue that any constraint's usefulness will partially be a function of its ability to preempt misconduct by contemporary and future political actors. Thus, the constitutional architects of polities that anticipate more

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<sup>2</sup> The terms “garrulity” and “verbosity” are used interchangeably throughout the paper, as are “social capital” and “social trust.”

misconduct will include more constraints on political behavior (Bjørnskov and Voigt 2014).

Expectations for misconduct are similar to the notions of social capital in the context of constitutional garrulity and specificity.<sup>3</sup> When expectations for misconduct are high and social capital is low, constitutions will be longer and more specific because costly constraints on political behavior are justified. When social capital is high, constitutions will be shorter.

Voigt (2009), using World Values Survey data on trust from 135 countries, finds general support for the hypothesis that higher levels of social capital are correlated with shorter constitutions. However, the inclusion of Voigt's trust variable shrinks his sample to thirty countries. Thus, Voigt states that he does "not put too much trust in this result" (2009, p. 296). Bjørnskov and Voigt (2014), using the same 135-country dataset and various country barometers, confirm that the relationship between social capital and constitutional length at the international level is both negative and statistically significant.

Other scholars have examined the political and economic implications of constitutional verbosity. Montenegro (1995) finds that countries with longer constitutions have a lower GDP per capita. Similarly, Tsebelis and Nardi (2016) demonstrate that countries with longer constitutions are more corrupt and have constraints on political behavior that impede free markets, governance, and wealth creation.

As noted, scholars identify volunteerism as conceptually distinct from, albeit highly related to, social capital, and using volunteerism to measure social capital has a well-established precedent in the literature.<sup>4</sup> Both Putnam (2000) and Hawes et al. (2013) use volunteerism in their social capital indices. Brehm and Rahn (1997) argue that social trust at the individual level is the complementary association between civic engagement and interpersonal trust. Moreover, the strong and positive relationship between volunteerism or civic engagement and trust has been well documented by La Porta et al. (1997), Jennings and Stoker (2004), and Brown and Uslaner (2005).

At the state level, Hawes et al. (2013) examine social capital levels in each state. Jackson et al. (2015) examine social capital and economic freedom. Berkowitz and Clay (2005) find that both the age

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<sup>3</sup> "Constitutional specificity" is conceptually separate but can rationally be assumed to be strongly and positively correlated with constitutional verbosity.

<sup>4</sup> Volunteerism is sometimes more broadly defined as "civic engagement."

and legal origins of the state are positively and significantly correlated to constitutional length. In contrast, Hammons (1999) demonstrates that short state constitutions tend to be replaced more often by newer constitutions, while their more verbose counterparts tend to endure.

#### *A. Social Trust: Stability over Time*

This paper presupposes that social capital is an antecedent to constitutional choice and predicts that social trust affects constitutional verbosity. Since this paper uses social trust data from 2002 through 2015 to analyze older constitutions (the most recent is North Carolina's 1983 constitution), a question arises: Can contemporary social trust explain previous decisions about constitutional length? Ideally, state-level social capital data would be readily available from 1780, the year Massachusetts enacted its first and only constitution, to the present. However, they are not: scholars of social capital have long noted the challenge of reliably measuring social capital in the late twentieth century, much less the late eighteenth (Hawes et al. 2013; Putnam 2001).

This paper reconciles the theoretical concern by following the approach of Bjørnskov and Voigt (2014), who show that trust is relatively stable over time. However, the stability of trust is an ongoing debate that pits the “institutionalists” against the “culturalists.” According to the institutionalist school, social capital is formed post hoc by the interactions between individuals and their society's institutions. Thus, institutionalists argue that trust is malleable over time and that changes in social capital are attributable to institutional changes (Dinesen 2012a, b). Conversely, the culturalists argue that social capital shapes institutions. Rooted in child psychology, their position is that because individuals acquire a basic sense of trust in childhood, social capital is stable over time since parents pass along their own levels of social trust to their children (Katz and Rotter 1969).

Moreover, scholars across disciplines have found evidence to suggest that social capital is, in fact, stable over time. Nunn and Wantchekon (2011) argue that regional variations in the number of individuals captured in the nineteenth-century slave trade help to explain contemporary regional variations in social capital. Their findings suggest that the roots of Africa's levels of social trust are centuries deep. Uslaner (2008) argues for the heritability of social trust by illustrating that ethnic heritage is more important than

culture and ethnicity for determining social trust. Bjørnskov and Svendsen (2013) examine the experiences of third-generation Americans and find evidence that social capital is stable over time, and Kesler and Bloemraad (2010) find that immigration does not erode social capital. Thus, studies suggest that social capital is determined by culture and is stable enough over time that contemporary levels can reasonably function as a proxy for historical levels of social capital.

### *B. Federal vs. State Power*

The constitutions of the fifty states operate under the same federal governing structure, have a common language, share a similar history, and have remarkably similar gubernatorial, legislative, and judicial institutions. However, the federalist structure provides greater latitude for state constitutions to address the local concerns of a subnational polity (Ginsburg and Posner 2010; Delledonne and Martinico 2010; Hammons 2001; Connor and Hammons 2008). Thus, a tension exists between federal and state power. The Supremacy Clause, Article six of the US Constitution, makes any valid exercise of federal laws enumerated in the Constitution superior to any state law. The Tenth Amendment to the US Constitution attempts to address this delineation of power by acknowledging, “The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”

Most of the thirteen colonies established their first constitutions before the Articles of Confederation in 1781 or the US Constitution in 1789. Massachusetts, with its first constitution enacted in 1780, has the oldest operating constitution in the United States. Vermont, which has the shortest constitution, has had three constitutions. The last one was established in 1793, only four years after the United States adopted its constitution. Similarly, New Hampshire, which has second-shortest constitution, also adopted its second constitution in 1784.<sup>5</sup> Thus, the federal constitution was layered over the existing state constitutions.

The state constitutions vary in scope, verbosity, and number of versions. These differences offer anecdotal evidence of how state officials experience the need to preclude—or not to preclude—

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<sup>5</sup> Detailed information about the dates of each state adoption and ratification can be found in the *Book of the States*.

certain types of political behavior. All state constitutions note their form of government and the various branches' responsibilities. Texas and Louisiana, which have the second and fifth longest constitutions, use 32,480 and 4,171 words, respectively, to outline the legislature's role. New Hampshire and Vermont, which have the forty-ninth and fiftieth longest constitutions, use 1,433 and 1,499 words, respectively, to describe their legislatures.

Other issues that appear in state constitutions include education and local government. Texas and Louisiana have sections on education that are 8,840 and 4,736 words, respectively. Massachusetts (fifteenth longest), New Hampshire, and Vermont do not contain any sections on education. In addition, Texas, Louisiana, and Georgia (fourteenth longest) outline local government, addressing aspects of counties (or parishes) and municipalities, in separate articles in their constitutions. Louisiana and Georgia have sections that address local police and fire services, while Texas only addresses fire services in detail. These sections are 5,080, 7,174, and 7,908, words respectively. Again, Massachusetts, New Hampshire, and Vermont do not address local government structures, let alone local police and fire services.

The literature has thus far neglected the opportunity to extend the work of Bjørnskov and Voigt (2014), but the variation of timing of the US Constitution relative to the states along with the variation in the scope of issues outlined across states suggests that the issue of social capital and subnational constitutional verbosity should be further examined. A subnational analysis of the United States offers a unique opportunity to better understand the forces that determine variations in state constitutions.

### **III. Data and Methods**

We use data on constitutional length and number, social capital (volunteering), and various economic, political, and historical variables from the US states for the years 2002–2015 to examine the relationship between a constitution's verbosity and the trust context that constitution is situated in. Assuming social capital is relatively stable over time as Bjørnskov and Voigt (2014), Bjørnskov and Svendsen (2013), and Uslaner (2008) argue, then following Bjørnskov and Voigt (2014), we collapse the data into a cross-section of the states.<sup>6</sup>

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<sup>6</sup> Given the large variation in Alabama's constitution relative to all other states, we do not include it in our final estimation of equation (1). For completeness, we did estimate equation (1) with Alabama and find the results to be similar in sign, but

Following the specifications of Berkowitz and Clay (2005), Voigt (2009), Ginsburg (2010), Bjørnskov and Voigt (2014), and Tsebelis and Nardi (2016), this analysis presents the following model of constitutional analysis:

$$Constitution\ Length_i = \beta_0 + \beta_1 SocialCapital_i + \beta_2 C_i + \beta_3 E_i + \beta_4 P_i + \beta_5 H_i + u_i \tag{1}$$

where *SocialCapital<sub>i</sub>* is our measure of social capital for state *i*, *C<sub>i</sub>* represents the matrix of constitutional dimensions, *E<sub>i</sub>* represents the matrix of economic variables, *P<sub>i</sub>* represents a matrix of political measures, *H<sub>i</sub>* represents relevant historical factors, and *u<sub>i</sub>* represents a normally distributed residual term. Table 1 presents the variation in constitutional verbosity, endurance, and number of amendments for each state. Table 2 presents variable definitions and sources, and table 3 provides descriptive statistics.

**Table 1. State constitution characteristics as of January 1, 2016**

State	Words	Rank by Words	No. of Const.	Year of Current Const.	Age of Const.	No. of Amendments
Alabama	388,882	1	6	1901	114	892
Alaska	13,479	41	1	1956	59	29
Arizona	45,910	16	1	1912	103	152
Arkansas	65,700	6	5	1874	141	102
California	67,048	7	2	1879	136	529
Colorado	72,860	4	1	1876	139	158
Connecticut	16,562	35	2	1965	50	31
Delaware	29,613	31	4	1897	118	159
Florida	43,514	9	6	1969	46	122
Georgia	42,100	14	10	1983	32	75
Hawaii	21,498	33	1	1978	37	113
Idaho	24,626	30	1	1890	125	125
Illinois	16,401	37	4	1971	44	14
Indiana	11,476	48	2	1851	164	47
Iowa	11,089	45	2	1857	158	54
Kansas	14,097	44	1	1861	154	97
Kentucky	27,234	27	4	1891	124	42

not statistical significance. In addition, we tried a pooled OLS estimation clustering the standard errors by state; however, given the time invariant nature of some variables and the relative stability of social capital, we found the results to be serially correlated. These results are available from the authors upon request.

**Table 1, cont.**

State	Words	Rank by Words	No. of Const.	Year of Current Const.	Age of Const.	No. of Amend- ments
Louisiana	73,224	5	11	1975	40	184
Maine	16,313	38	1	1820	195	172
Maryland	43,198	13	4	1867	148	230
Massachusetts	45,283	15	1	1780	235	120
Michigan	31,164	19	4	1964	51	30
Minnesota	11,734	46	1	1858	157	120
Mississippi	26,229	28	4	1890	125	126
Missouri	68,670	10	4	1945	70	120
Montana	12,790	43	2	1973	42	31
Nebraska	34,934	23	2	1875	140	230
Nevada	29,895	18	1	1864	151	138
New Hampshire	13,060	49	2	1784	232	145
New Jersey	26,360	29	3	1948	67	70
New Mexico	33,198	21	1	1912	103	169
New York	44,397	12	4	1895	120	227
North Carolina	17,177	36	3	1971	44	32
North Dakota	18,895	34	1	1889	126	156
Ohio	56,818	11	2	1851	164	175
Oklahoma	81,666	3	1	1907	108	196
Oregon	49,016	8	1	1859	156	255
Pennsylvania	26,078	25	5	1968	47	30
Rhode Island	11,407	47	2	1843	172	13
South Carolina	27,421	26	7	1896	119	500
South Dakota	27,774	24	1	1889	126	118
Tennessee	13,960	42	3	1870	145	43
Texas	86,936	2	5	1876	139	491
Utah	20,320	39	1	1896	119	118
Vermont	8,565	50	3	1793	222	54
Virginia	21,899	32	6	1971	44	49
Washington	32,578	17	1	1889	126	106
West Virginia	33,324	22	2	1872	143	72
Wisconsin	15,392	40	1	1848	167	147
Wyoming	26,349	20	1	1889	126	100
<b>Average</b>	<b>39,962</b>		<b>3</b>	<b>1897</b>	<b>118</b>	<b>150</b>

Source: *Book of the States*.

**Table 2. Variable names and definitions**

<b>Variable name</b>	<b>Definition</b>	<b>Source</b>
<i>Constitution Length</i>	Average constitution length in words	Book of the States
<i>Number of Constitutions</i>	Average number of constitutions in a state's history (including current constitution)	Book of the States
<i>Volunteer Rate</i>	Average rate of volunteerism in the state	Corporation for National & Community Service
<i>Volunteer Hours</i>	Average number of hours volunteered per capita	Corporation for National & Community Service
<i>Age</i>	Average age of current constitution	Book of the States
<i>Amendments</i>	Average adopted amendments (as of Jan. 1, 2016)	Book of the States
<i>GDP</i>	Average real total GDP in millions of 2009 chained dollars, not seasonally adjusted	Bureau of Economic Analysis
<i>Population</i>	Average state population	US census
<i>Racial Fractionalization</i>	Average fractionalization index	US census/author's calculations
<i>Slave State</i>	1 if slave state in 1854 (before secession), 0 if not	Schneider and Schneider 2014
<i>Initiated Amendment</i>	1 if state allows voter initiated amendment, 0 if not	Ballotpedia
<i>Legal Origins</i>	1 if Napoleonic Code, 0 if other	Berkowitz and Clay 2005
<i>Voter Turnout</i>	Average voter turnout in a state's gubernatorial election	Federal Register/author's calculations
<i>Census Refusal</i>	Average percent of households that refuse to participate in US census	US census

**Table 3. Descriptive statistics**

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
<i>Constitution Length</i>	49	31,233.89	19,170.45	9,529.143	88,622.43
<i>Number of Constitutions</i>	49	2.816327	2.288317	1	11
<i>Volunteer Rate</i>	49	0.28984	0.054958	0.197508	0.448327
<i>Volunteer Hours</i>	49	36.64327	9.016002	26.09059	83.04131
<i>Age</i>	49	111.8265	53.04966	25.5	228.5
<i>Amendments</i>	49	129.3324	110.3866	11.5	517.2857
<i>GDP</i>	49	290,450.5	354,269	25,951.29	1,951,801
<i>Population</i>	49	6,113,542	6,838,216	546,641.6	3.69E+07
<i>Racial Fractionalization</i>	49	-0.42118	5.030012	-34.8996	0.717243
<i>Slave State</i>	49	0.285714	0.456436	0	1
<i>Initiated Amendment</i>	49	0.346939	0.480929	0	1
<i>Legal Origins</i>	49	0.183674	0.39123	0	1
<i>Voter Turnout</i>	49	0.434721	0.097867	0.27	0.64
<i>Census Refusal</i>	49	1.142128	0.416982	0.521429	2.164286

Equation (1) is estimated as a simple ordinary least squares (OLS). Our dependent variable, *Constitution Length*, is the average number of words in a given state's constitution over the period in question.

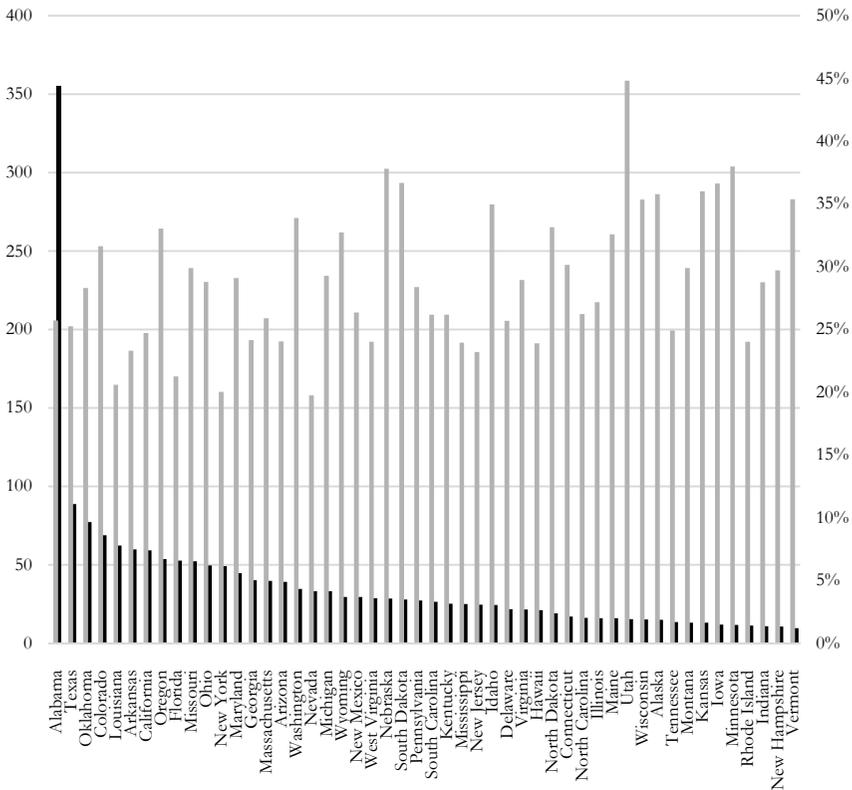
For each state, our key variable for measuring social capital is volunteering. These data were collected from the Corporation for National and Community Service, which uses the US Census Bureau's definition of an adult volunteer: a person age sixteen or older that worked through an organization without compensation in the past twelve months.<sup>7</sup> Within this volunteering measure, activities are categorized as religious; educational or youth service; civic, political, professional, or international; hospital or other health; social or community service; sport, hobby, cultural, or arts; and other (Corporation for National and Community Service 2006). It is clear from this definition that the ways an individual can become involved in civil society are consistent and comprehensive across states and are not merely political or religious. We measure volunteering in two ways. The first is the *Volunteer Rate*, defined as the average number of individuals who have volunteered in a given state in a given year

<sup>7</sup> Respondents were asked, "Since September 1st of last year, [have you] done any volunteer activities through or for an organization?"

divided by the population in that same year. The second measure is the average volunteer hours per capita, *Volunteer Hours*.

The average volunteer rate for a state is 28.9 percent. In the period of our analysis, the citizens of Utah displayed the strongest penchant for volunteerism as measured by the volunteer rate, 44.8 percent. In an attempt to establish the relationship between *Volunteer Rate* and *Constitution Length*, we present the raw data. Figure 1 shows the average volunteer rate and the average number of words in a state’s constitution. Utah has the highest average volunteer rate and the twelfth shortest constitution. Tennessee, the self-proclaimed “Volunteer State,” fails to live up to its epithet, with an average volunteer rate of only 24.9 percent—below the national average of 28.9 percent. Louisianans have the third-lowest average volunteer rate at 21 percent, and as figure 1 shows, Louisiana has the fifth-longest constitution.

**Figure 1. Average volunteer rate (gray) and constitutional words by state (black)**

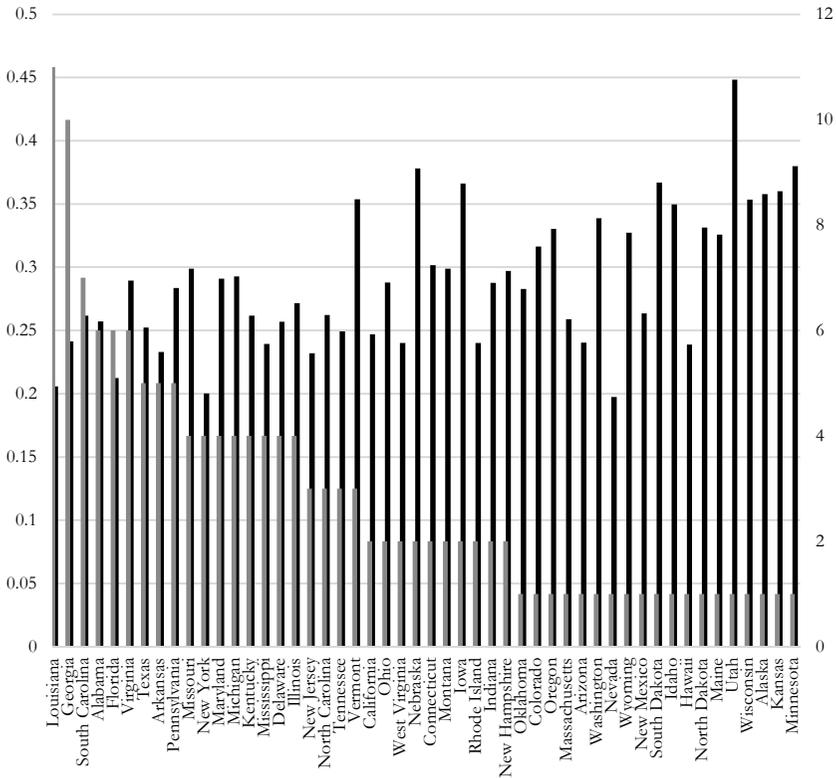


Left axis: Average number of words (thousands)  
 Right axis: Average volunteer rate/social capital

In the literature, the frequency with which a polity feels compelled to rewrite the basic rules of politics and redesign the framework of its government is known as “constitutional endurance” (Elkins et al. 2009).<sup>8</sup>

Thirty-one out of fifty states have revised their constitution at least once. Figure 2 presents the average number of constitutions and the average volunteer rate by state as an alternative measure of constitutional verbosity. Again, the raw data suggest a negative relationship between volunteering and the number of constitutions. While the raw data seem consistent with our hypothesis, further analysis is necessary to better understand this relationship.

**Figure 2. Average volunteer rate (black) and number of constitutions by state (gray)**



Left axis: Volunteer rate/social capital  
 Right axis: Number of constitutions

<sup>8</sup> While constitutional endurance is conceptually distinct from constitutional verbosity, Berkowitz and Clay (2005) have used the two measurements interchangeably. We argue that constitutional verbosity and endurance are related but distinct.

Our model controls for numerous constitutional, economic, political, and historical variables that have strong precedents in the literature. Berkowitz and Clay (2005), Ginsburg (2010), Bjørnskov and Voigt (2014), and Tsebelis and Nardi (2016) all include the age of a constitution (*Age*) in their analysis of constitutional verbosity. Since written language varies over time, we included *Age* to control for literary reasons that would lead one constitution to be longer than another. We control for the number of amendments passed as of January 1 in state *i* in year  $t - 1$ . Among the fifty states, there is little to no variation in the rate at which constitutions are amended, typically zero to two amendments per year. We include a measure of GDP similar to Ginsburg (2010) and Bjørnskov and Voigt (2014). Measures of GDP have shown mixed results in previous studies.

Our historical matrix includes three variables: *Population* (population size), *Racial Fractionalization*,<sup>9</sup> and *Slave State* (whether or not the state allowed slavery). Berkowitz and Clay (2005), Ginsburg (2010), and Bjørnskov and Voigt (2014) all include some population measurement in their analysis. Ginsburg (2010) finds a positive and statistically significant correlation between constitutional verbosity and racial fractionalization; therefore, we also include a measure of *Racial Fractionalization*.<sup>10</sup> Berkowitz and Clay (2005) include a dummy variable for slavery but do not detect a statistically significant association between slavery and constitutional verbosity. Bjørnskov and Voigt (2014) find a negative and statistically significant relationship between slavery and constitutional verbosity at the country level. Similar to Berkowitz and Clay (2005), we include a dummy variable for slavery, *Slave State*.

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<sup>9</sup> Racial fractionalization was calculated as a Herfindahl-Hirschman index, a common measurement of concentration (Rhoades 1993). The paper used the six racial categories defined in the US census (White, African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, and other). A percentage for each racial category in each state was created for every year from 2002–2015 by dividing the number of individuals in one of the six racial categories by the state's population according to the US census. Finally, the sum of these percentages was subtracted from 1.

<sup>10</sup> Voigt (2009) utilizes a measurement for religious fractionalization but finds no meaningful relationship. The issue of immigration may also be of concern. Similar to Voigt and Bjørnskov (2014), we do not directly address migration. State-level foreign migration data do not indicate origin country, which makes the data not as useful. In addition, the immigration rates across states are fairly consistent over time (Migration Policy Institute 2018). Kesler and Bloemraad (2010) find that immigration does not erode social capital.

Our political variables attempt to capture the degree of democracy within a state. Ginsburg (2010), Voigt (2009), and Bjørnskov and Voigt (2014) all include a measurement that attempts to capture the degree of democracy of a given polity. Ginsburg (2010) utilizes an index, while Voigt (2009) and Bjørnskov and Voigt (2014) use dummy variables to capture whether the polity was a democracy at birth and whether the polity has a presidential system. Voigt (2009) and Ginsburg (2010) report a positive and statistically significant relationship between their measures of democracy and constitutional verbosity, but Bjørnskov and Voigt (2014) do not. Here again is a situation in which the overall federal constitution creates a constraint on the states.

All of the states elect their national representatives using the same democratic institutions. The variation in democracy between US states is not as wide as the variation in democracy between countries. Nevertheless, we include a dummy variable of direct democracy that directly pertains to the constitutional amendment process: voters' ability to directly initiate amendments to a state constitution, *Initiated Amendment*. In addition to serving as a proxy of democracy at the international level, we also include *Initiated Amendment* to control for the likely correlation between an electorate's ability to lengthen (amend) a constitution and constitutional length. In the United States, seventeen states allow for initiative or referendum amendments by citizens.

Our final political variable is a dummy for *Legal Origins*. Ten US states, at one time settled by Spain, Mexico, or France, were founded on civil law.<sup>11</sup> Berkowitz and Clay (2005), Voigt (2009), Bjørnskov and Voigt (2014), and Tsebelis and Nardi (2016) all include a variable pertaining to a polity's legal origins in their analysis of constitutional verbosity, but the results are mixed. At the subnational level in the United States, Berkowitz and Clay (2005) find a positive and statistically significant correlation between civil law origins and constitutional verbosity. We argue that legal code, independent of social trust, could generate different choices with regard to length. In addition, legal origin has been shown to be correlated with economic freedom, which could affect trust (Berggren and Jordahl 2005; La Porta et al. 1999).

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<sup>11</sup> These states are Alabama, Arizona, Arkansas, California, Florida, Louisiana, Mississippi, Missouri, New Mexico, and Texas. Upon admission into the Union, all excluding Louisiana received common law.

#### IV. Results

As a first attempt to establish a relationship between *Constitution Length* and *Number of Constitutions* and our key independent variable, *Volunteer Rate*, we estimate an OLS model with no control variables. For *Constitution Length*, *Volunteer Rate* is negative and statistically significant at the 1 percent level. *Volunteer Hours* is also negative but not statistically significant. Both *Volunteer Rate* and *Volunteer Hours* are statistically significant for explaining constitutional endurance (*Number of Constitutions*) at the 1 percent level. These results are reported in table 4. The full results of equation (1) are presented in table 5.

**Table 4. Baseline regression**

Variable	<i>Constitution Length</i>	<i>Constitution Length</i>	<i>Number of Constitutions</i>	<i>Number of Constitutions</i>
	Coefficient	Coefficient	Coefficient	Coefficient
<i>Volunteer Rate</i>	-129171.5*** (47263.9)		-20.223*** (5.30907)	
<i>Volunteer Hours</i>		-417.35 (304.115)		-0.0924*** (0.03448)
<i>Constant</i>	68672.95 (13938.1)	46526.9 (11469.5)	8.67773 (1.56564)	6.20115 (1.30048)
<i>N</i>	49	49	49	49
<i>R-Squared</i>	0.1188	0.0385	0.2359	0.1325
<i>F</i>	7.47	1.88	14.51	7.18

Notes: Standard errors in parentheses. \*\*\* .01, \*\* .05, \* .10 denotes significance levels.

Column 1 of table 5 shows that *Volunteer Rate* is consistent with the results of Voigt (2009) and Bjørnskov and Voigt (2014) in that the correlation between social capital and *Constitution Length* is negative, but is not statistically significant. In this first estimate, the other explanatory variables are all of the expected sign, but only *Initiative Amendment* is statistically significant at the 5 percent level. States that allow their citizens to directly amend their constitutions by voting have longer constitutions. Moreover, similar to the model of Bjørnskov and Voigt (2014), our model of constitutional verbosity is not meant to be a predictive one and, as a result, we intentionally do not emphasize the exact size of the various coefficients and instead focus on their direction and statistical significance.

**Table 5. Estimates of equation 1 using volunteer rate and hours**

	(1)	(2)	(3)	(4)
Variable	<i>Constitution Length</i>	<i>Constitution Length</i>	<i>Number of Constitutions</i>	<i>Number of Constitutions</i>
	Coefficient	Coefficient	Coefficient	Coefficient
<i>Volunteer Rate</i>	-45887 (31448.4)	—	-7.8378** (3.80568)	—
<i>Volunteer Hours</i>	—	-47.703 (141.133)	—	-0.0349* (0.01974)
<i>Age</i>	-19.433 (41.0196)	-22.587 (43.3013)	—	—
<i>Amendments</i>	61.8181 (39.3643)	58.465 (37.437)	-0.0012 (0.00298)	-0.0015 (0.00313)
<i>GDP</i>	0.00727 (0.047)	0.01321 (0.04819)	1.17E-07 (4.63E-06)	5.76E-07 (4.89E-06)
<i>Population</i>	-1E-05 (0.00227)	-0.0002 (0.00234)	4.74E-08 (2.64E-07)	3.32E-08 (2.75E-07)
<i>Racial Fractionalization</i>	-19.943 (218.675)	-8.2846 (224.018)	-0.0636*** (0.02519)	-0.0614*** (0.02491)
<i>Slave State</i>	4425.68 (4771.37)	6119.02 (4681.46)	3.21412*** (0.65382)	3.34912*** (0.67168)
<i>Initiative Amendment</i>	12499.6** (6328.32)	12935.9** (6457.79)	-0.625 (0.51172)	-0.6393 (0.51115)
<i>Legal Origins</i>	7509.1 (8309.25)	8717 (8024.38)	-0.0173 (1.11246)	0.16124 (1.14142)
<i>Constant</i>	29696.4 (12620.2)	17641.7 (9515.21)	4.20068 (1.32368)	3.12926 (0.93175)
<i>N</i>	49	49	49	49
<i>R-Squared</i>	0.5477	0.5366	0.6208	0.6128
<i>F</i>	10.52	8.75	32.12	33.49

Notes: Standard errors in parentheses. \*\*\* .01, \*\* .05, \* .10 denotes significance levels.

Our second specification of equation (1) using *Volunteer Hours* is reported in column 2. The results in column 2 are similar to those in column 1. The correlation between *Volunteer Hours* and *Constitution Length* is negative but not statistically significant. The results for the other explanatory variables are the same in column 2 as they are in column 1, with only *Initiative Amendment* being statistically significant. While all of the signs on our independent variable are as we would predict, they are not statistically significant in explaining state constitutions' verbosity.

As a robustness check, this analysis also examines constitutional endurance (*Number of Constitutions*). Conceptually, additional constitutional iterations can be thought of as increasing the "historic constitutional verbosity" over the state's entire history. A closer look suggests a state's constitution tends to become longer with additional

revisions and adoptions.<sup>12</sup> For instance, Kentucky's 1792 constitution is eleven pages, its 1799 constitution is twelve pages, its 1850 constitution is twenty-one pages, and its 1891 constitution is eighty-six pages. Again, figure 2 shows the average number of constitutions and the average volunteer rate by state.

We estimate equation (1) with *Number of Constitutions* as the dependent variable and report the results in columns 3 and 4 of table 5. This specification removes *Age* from the right-hand side of the equation, but it is otherwise identical to the specifications in columns 1 and 2. The estimations in columns 3 and 4 use *Volunteer Rate* and *Volunteer Hours*, respectively.

The results from our third estimation confirm the theoretical results of the previous two estimations. However, the correlation between a state's *Volunteer Rate* and *Number of Constitutions* is negative and statistically significant at the 1 percent level. In addition, the correlation between *Number of Constitutions* and *Slave State* is positive and statistically significant at the 1 percent level: being a slave state implies more constitutional revisions or lack of endurance. The historical presence of slavery in a state can be thought of as another proxy for social trust. One can argue that as states confronted the issue of slavery, social trust would not be high. The correlation between *Number of Constitutions* and *Racial Fractionalization* is negative and statistically significant at the 1 percent level: having greater racial fractionalization implies fewer constitutions. Greater racial fractionalization or greater heterogeneity in a society might reduce social trust; however, in this case, it might also increase the transaction cost of calling a constitutional convention and revising the constitution.

The results from our estimation presented in column 4 affirm the results of the previous estimation in column 3. The association between *Volunteer Hours* and *Number of Constitutions* is negative and statistically significant at the 10 percent level. Overall, our results provide relatively consistent support for the proposition that constitutional garrulity in the form of constitutional endurance is a function of social capital.

#### *A. Robustness Checks*

Volunteering is one potential measure of social capital, but data on social capital and trust are not easy to measure at the state level.

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<sup>12</sup> Again, table 1 indicates the number of constitutions for each state.

Thus, alternative measures of social capital are not easily available. Knack (2002) uses United States census response rates and Knack (1992) and Hawes et al. (2013) argue that voter turnout is one potential measure of social capital. Both voter turnout and United States census response rates are considered a form of civic mindedness and engagement. They are both arguably more political than volunteering, which can reflect more than just civic duty and, we argue, might make them less reflective of social trust. Nonetheless, in an effort to test our hypothesis with respect to constitutional verbosity and endurance, we estimate equation (1) using *Voter Turnout* and *Census Refusal* data in place of volunteering. For our *Voter Turnout* measure, we use gubernatorial election turnout over the period in question because it reflects concern for state as opposed to national issues. Higher *Voter Turnout* suggests higher levels of social capital in a state.

The US census response rate is very high over this period and has little variation over time. Instead of using the response rate we use the *Census Refusal* rate, which has more variation over time.<sup>13</sup> Thus, *Census Refusal* is an anti-social-capital measure. We estimate equation (1) for *Constitution Length* and the *Number of Constitutions* for these two new proxies of social capital. The results are presented in table 6.

Column 5 shows that *Voter Turnout* is negatively correlated with *Constitution Length*, but again is not statistically significant.<sup>14</sup> With *Census Refusal* and *Constitution Length*, we find a positive and statistically significant result at the 10 percent level, suggesting that the less social capital (more *Census Refusal*), the longer a state's constitution. Again, *Initiative Amendment* is positive and statistically significant at the 5 percent level in explaining *Constitution Length*.

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<sup>13</sup> The refusal rate is not merely one minus the response rate. There are multiple reasons provided why someone did not respond to their census form besides refusal to fill it out.

<sup>14</sup> Voter turnout is only marginally insignificant as the *t*-statistic is 1.63 with a *p*-value of 0.11.

**Table 6. Robust regressions**

	(5)	(6)	(7)	(8)
Variable	<i>Constitution Length</i>	<i>Constitution Length</i>	<i>Number of Constitutions</i>	<i>Number of Constitutions</i>
	Coefficient	Coefficient	Coefficient	Coefficient
<i>Voter Turnout</i>	-33206.27 (20339)	—	-3.7029* (2.24985)	—
<i>Census Refusal</i>	—	7382.66* (4163.96)	—	0.212582 (0.47436)
<i>Age</i>	-14.73003 (38.2799)	-30.39134 (39.822)	-0.0093 (0.00598)	-0.01028* (0.00595)
<i>Amendments</i>	53.9726 (36.6302)	62.22823* (33.8451)	-0.0003 (0.00272)	0.000272 (0.00293)
<i>GDP</i>	0.0135202 (0.04405)	-0.013353 (0.04842)	2.04E-07 (4.43E-06)	-4.94E-07 (5.44E-06)
<i>Population</i>	-0.0003749 (0.00214)	0.0010788 (0.00237)	2.37E-08 (2.48E-07)	7.42E-08 (2.94E-07)
<i>Racial Fractionalization</i>	-29.42106 (205.952)	77.05651 (204.724)	-0.0497** (0.02302)	-0.04515* (0.02539)
<i>Slave State</i>	5924.536 (4591.4)	5387.248 (4444.74)	3.16101*** (0.61566)	3.190565*** (0.62894)
<i>Initiative Amendment</i>	13253.36** (6231.73)	13458.7** (6180.91)	-0.5353 (0.45109)	-0.542 (0.45368)
<i>Legal Origins</i>	8131.511 (8160.28)	7711.034 (7920.83)	-0.0228 (1.06666)	0.020375 (1.10178)
<i>Constant</i>	30904.24 (11181.7)	7842.996 (7626.2)	4.55744 (1.43487)	2.631625 (0.87502)
<i>N</i>	49	49	49	49
<i>R-Squared</i>	0.5585	0.5571	0.6558	0.6376
<i>F</i>	8.95	9.95	21.4	23.53

Notes: Standard errors in parentheses. \*\*\* .01, \*\* .05, \* .10 denotes significance levels.

Our findings for *Voter Turnout* and *Census Refusal* for the *Number of Constitutions* are reported in columns 7 and 8, respectively. *Voter Turnout* for a state is negative and statistically significant at the 10 percent level. Thus, an active voting electorate seems to suggest greater constitutional endurance. Again, the remaining variables are consistent with our estimations using volunteerism. *Census Refusal* is positive, similar to our estimation with *Constitution Length*, but not significant. Both *Slave State* and *Racial Fractionalization* remain the same sign and are statistically significant with respect to their explanatory power for the number of constitutions.

## V. Conclusion

This paper has analyzed the relationship between constitutional verbosity and social capital at the subnational level. We have built on

the existing scholarship identifying a relationship between constitutional verbosity and social capital at the international level. We have noted that subnational polities are different from national ones in that states have to abide by both the national and state constitutions. This dual constraint and the division of powers suggest that national-level conclusions are worth considering at the subnational level and are not necessarily certain.

State constitutions in the United States vary substantially with regard to length and endurance. This paper has asked whether the prevailing explanations of constitutional verbosity, endurance, and social capital at the international level apply at the subnational level. Using a cross-sectional OLS of forty-nine states from 2002 through 2015,<sup>15</sup> we have examined two measures of constitutional garrulity and four measures of state-level social capital.

Our findings suggest that volunteerism is theoretically consistent with Bjørnkov and Voigt (2014), that higher levels of trust are associated with shorter constitutions. Although these findings are not statistically significant in explaining constitutional length. However, we do find evidence that social capital is negative and statistically significant in its correlation with constitutional endurance. Testing the robustness of these results, we find reasonably consistent results. Social capital at the subnational level appears to weakly explain verbosity and to strongly explain constitutional endurance, which might be a good proxy for verbosity and lack of social trust.

Thus, when trust contexts are more anemic, constitutional architects feel compelled to revise state-level constitutions. Conversely, when trust contexts are more robust, constitutions remain intact. More research should be done to examine the relationship between subnational constitution length and political and economic outcomes before individuals support normative policy prescriptions about an optimal subnational constitutional length or endurance. Overall, this paper provides some evidence, consistent with the existing scholarship, of an inverse association between the length and endurance of a constitution and social trust among its citizens.

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<sup>15</sup> Because Alabama is such an outlier (see fn. 6), we do not include it in our regression analysis.

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