

# **It is in the Contract: How the Policies Set in Teachers' Unions' Collective Bargaining Agreements Vary Across States and Districts**

Educational Policy  
2018, Vol. 32(2) 280–312  
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DOI: 10.1177/0895904817741546  
[journals.sagepub.com/home/epx](http://journals.sagepub.com/home/epx)



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## **Abstract**

We examine more than 1,000 collective bargaining agreements (CBAs) in place across California, Michigan, and Washington. We investigate the prevalence of a set of 43 key provisions between and within these states, providing the first comprehensive comparison of CBA terms using data drawn from economically and demographically different districts, as well as districts that vary considerably by student enrollment. We find that CBAs vary substantially within and across states, and that this variation is more associated with district size than the proportion of low-income students within districts. We conclude by discussing the implications of these findings for research and policy.

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**Keywords**

collective bargaining agreements, teachers' unions, education policy

**Introduction**

Teachers' unions have been influential actors in K-12 public education since they began collectively bargaining with public school districts in the 1960s. Since that time, they have been a topic of great debate: Do teachers' unions enhance or impede the education of American schoolchildren? One perspective holds that unions promote teachers' working conditions, increase compensation, provide job security, and establish a sense of professionalism. Each of these in turn leads to a more effective teaching corps, thereby translating ultimately into greater student achievement. Another perspective is that unions restrain administrator decision-making, limit the extent to which teachers may be paid or retained based on their effectiveness, and protect incapable or even negligent employees in public schools. The debate between these two perspectives has become particularly heated over the last 5 years as policymakers in nearly every state appear to have adopted the more critical position, considering and in many cases enacting reforms that curb union power or remove protections for which teachers' unions have fought (Marianno, 2015).<sup>1</sup> However, the research base that informs either the debate writ large or recent policy reforms in particular remains quite thin.

The most direct way in which teachers' unions likely affect schools, and ultimately students, is the collective bargaining agreement (CBA or contract) that local unions negotiate with district administrators. These CBAs are one of the—if not *the*—most important documents governing local district policy, dictating most facets of school and district operations, and governing the interactions between teachers, students, school personnel, administrators, and parents (Strunk, 2012; Eberts, 2007; Hill, 2006). CBA provisions, for instance, can play a major role in guiding teachers' working conditions, compensation and benefits, class size, preparation time, evaluations, seniority rules, and transfer policies. The degree to which these policies and the contracts as a whole inhibit school and district administrators can make or break the successful implementation of local reforms (Strunk, 2014).

This centrality of CBAs to local district administration has motivated many of the state-level reforms targeting teachers' unions, under the assumption that the policies negotiated into the contracts constrain district administrators from acting in ways that can improve student achievement. However, relatively little evidence exists either to support or refute this assumption, or to justify specific courses of policy action. In particular, little is known about

the kinds of policies set in CBAs, and how CBAs vary across different district and state contexts.

The existing literature examining the content and implications of CBAs suffers from two important limitations. First, most of the in-depth work on the content of CBAs across a range of district types has occurred in one single state: California (see, for example, Strunk & Reardon, 2010; Strunk, 2011; Strunk, & McEachin, 2011; Moe, 2009). This precludes important comparisons of the kinds of policies set in CBAs across states. The sparse work that does examine CBA content across states (e.g., Hess & Loup, 2008; National Council on Teacher Quality, 2016) for the most part relies only on contracts from the largest urban districts in each state, making it impossible to study how the contracts teachers' unions and administrators negotiate vary by district and student characteristics, such as size, urbanicity, and student demographics. Second, nearly all of the extant research on CBAs relies on contracts collected at least a decade ago, and most of the research that examines CBAs in multiple districts within a cross-state sample uses contracts in place in the 1970s and early 1980s, when unions first began collectively negotiating with districts (McDonnell & Pascal, 1979, 1988). As a result, there is limited understanding of the content of CBAs in place in local districts today.

This article begins to address these substantial gaps in the literature by utilizing a unique dataset of CBA provisions collected from CBAs in California, Michigan, and Washington after the 2013-2014 school year. We focus on a set of 43 key CBA provisions that have been the topic of policy conversation and debate in recent years. These provisions include content related to teacher evaluation, seniority rules, layoffs and transfers, teacher compensation, and membership dues/responsibilities. In addition to an overview of the variation in these provisions between the three states, we consider differences and similarities at the local district level. We pose two research questions:

**Research Question 1:** How do CBAs compare across states?

**Research Question 2:** How does CBA content vary by district size and proportion of low-income students (a) between and (b) within states?

We choose to examine variation in CBA content according to district enrollment and the proportion of students who qualify for free or reduced-price lunches specifically to assess hypotheses generated from the extant literature on CBAs that posit that district size and working conditions (as proxied by the proportion of low-income students enrolled in the district) shape the content of teachers' union contracts. Moreover, earlier studies of CBA content have either focused on districts in one state—mostly in

California (Strunk & Reardon, 2010; Strunk & Grissom, 2010; Strunk, 2012; Anzia & Moe, 2014; Koski & Horng, 2007), with some limited study in Florida (Cohen-Vogel & Osborne-Lampkin, 2007), Washington (Goldhaber, Lavery & Theobald, 2014), and New York (Eberts, 1983; Eberts & Stone, 1984) or used cross-state samples that include only districts from a small number of contracts or from only the largest urban districts in the country (e.g., Hess & Kelley, 2006; Hess & Loup, 2008; McDonnell & Pascal, 1988). The data we utilize allow us to compare across far larger samples within multiple states and to link our between-state overview and our district-level analyses through an examination of how these relationships between district characteristics and CBA content differ across state contexts.

In what follows, we first outline the data and descriptive methods used to examine the content of CBAs within and across states.<sup>2</sup> We then discuss our results and conclude with a discussion of the implications of our findings for current policy debates.

## Data

Our core data for this article come from the CBAs negotiated between district administrators or school boards and their local teachers' unions in California, Michigan, and Washington school districts. We selected these states within the focus of a broader research project in which we are examining enacted and potential reforms to the teacher labor market and to collective bargaining. Since 2011, Michigan has made significant changes to teacher employment, including new requirements for and limitations on tenure, new restrictions on the role of seniority in personnel decisions such as layoffs and transfers, the establishment of a teacher evaluation system that prioritizes student achievement, and the passage of a Right-to-Work law prohibiting mandatory union dues as a condition of public school employment (Michigan Public Acts 100-103 of 2011; Public Act 349 of 2012)<sup>3,4</sup>. Washington has not gone so far in its changes to the teacher labor market, but did in 2012 pass a rigorous teacher and principal evaluation law that also makes advancing student achievement a more prominent part of evaluation (SB 5895 of 2012)<sup>5</sup> and has a statewide teacher salary schedule. From a legislative standpoint, California remains the least active of the three states in teacher reforms, but is the home of a great deal of judicial activity on the topic, with both the *Vergara v. California* and the *Friedrichs v. CTA* court cases centered in the state. Plaintiffs in the *Vergara* case challenged the state's teacher tenure laws, dismissal policies, and "last in, first out" seniority practices, eventually losing in an appellate court decision in the spring of 2016. Plaintiffs in the *Friedrichs* case challenged mandatory union dues, ultimately losing when the U.S. Supreme

Court affirmed an appellate decision after Justice Antonin Scalia's death left only eight justices to decide the case. In sum, the political/policy context of teacher unionization varies between each state in ways that are pertinent to this analysis.

For the purposes of this article and its companion piece (Marianno, Kilbride, Theobald, Strunk, Goldhaber & Cowen, 2018) in the same issue of this volume, we focus on the most recent contracts in each state collected as part of our larger study. In California, we focused data collection on districts with four or more schools, resulting in a total of 492 contracts (86% of all such districts) from the 2014-2015 school year.<sup>6</sup> In Michigan, we include the most recently available CBAs from 516 (99.6%) of districts with a contract in place in the year of data collection, which ranges from 2013 onward.<sup>7</sup> In Washington, we include contracts from all 268 districts with a contract in place during the 2014-2015 school year.<sup>8</sup> When we compare provisions across states, we focus only on CBAs in place in districts with four or more schools ( $N = 323$  in Michigan and  $N = 167$  in Washington).

Individual coders based in all three states read and analyzed all provisions from each CBA collected. After creating coding templates that included all potential provisions visible in contracts across all states, based on a California-specific template generated in Strunk & Reardon, (2010) and later adapted for Washington in Goldhaber, D'Entremont, Fang, Lavery, & Theobald (2013), coders indicated the presence or absence of each provision in each contract. To ensure interrater reliability (IRR) within states, one master coder in each state coded 10% of all same-state CBAs. When we found systematic coding discrepancies, coders were re-trained and re-coded the provisions in question. This process resulted in within-state IRRs ranging from 91% to 93%, depending on the state. In addition, coders from one state coded 20 of the CBAs from the other states, providing a check on cross-state IRR. Our cross-state IRR ranged from 86% to 90%. These IRR rates give us confidence that our coding is quite consistent both within and across states.

In this article, we focus our analysis on 43 individual, "high profile" provisions found in the CBAs that fall under seven areas of contract provisions: (a) context/union dues, (b) compensation, (c) class size, (d) teacher evaluation, (e) grievances and layoffs, (f) school day schedule, and (g) transfers and vacancies. The selection of these provisions was informed by our prior work in California and Washington and intended to highlight the nature of the ongoing national debates about collective bargaining rights and CBAs themselves (e.g., Cowen & Strunk, 2015; Marianno, 2015). We provide a detailed discussion of these areas and their prevalence across districts and states below. Supplementing our CBA data, we also use administrative data on each district to examine the presence of different CBA provisions across districts

that vary by size (student enrollment) and income level (as measured by the share of free/reduced lunch participants in each district). We collected these data from the California Department of Education, the Michigan Center for Educational Performance and Information, and the Washington Office of Public Instruction. Table 1 provides summary statistics (means, proportions, and percentages) for all districts with four or more schools in all three states, and for the universe of districts in Michigan and Washington. We test differences in means between California and the other two states on the comparable samples with four or more schools.

Casual observation reveals a number of stark demographic differences across districts in the three states. California districts are, on average, substantially larger than districts in Michigan and Washington, and there is far greater variation in district size in California. Approximately, a quarter of districts in the California sample are located in urban centers, as opposed to only 11% and 13% of Michigan and Washington districts with four or more schools, respectively. Michigan and Washington have far more rural districts, even in their restricted samples, and fewer suburban districts. California districts also tend to have much larger shares of students who are from underrepresented minorities (Hispanic, Black, and American Indian), with the average California district serving a population that is 53% underrepresented minority compared with average shares of 19% in Michigan and 28% in Washington. In California and Washington alike, far more of these students are Hispanic, while Michigan districts have more Black students on average. Washington (9%) and, especially, California (21%) have far more students classified as English language learners than Michigan (4%).

In other aspects, districts in each state are similar. Notably, the average rate of free/reduced-price lunch students in each state is similar, hovering around 50% of each state's student body and with only slightly greater variation around the mean in California than in the other two states. In addition, districts appear on average to serve similar shares of students with special educational or academic needs across the three states. Finally, districts in all three states have similar average experience levels for their teachers: between 13 and 14 years of mean teacher experience in the average district. The standard deviation of experience is between 8 and 10 years, indicating that not only are teacher experience averages similar in California, Michigan, and Washington but also are similarly distributed around those means as well.

## Methods

Recall from our research questions posed above that the purpose of this article is (1) to provide the first comparison of CBAs from comprehensive

**Table 1.** Summary Statistics of District Characteristics.

	California		Michigan		Washington	
	>3 schools	All	>3 schools	All	>3 schools	All
District enrollment	11,620.655 (31,335.955)	2,626.313 (3,689.312)	3,784.817 <sup>***</sup> (4,245.449)	3,987.478 (6,655.033)	6,164.671 <sup>***</sup> (7,648.608)	0.126 <sup>***</sup>
Proportion urban	0.262	0.066	0.105 <sup>***</sup>	0.078	0.194	0.287 <sup>***</sup>
Proportion suburban	0.492	0.287	0.427 <sup>†</sup>	0.198	0.275 <sup>***</sup>	0.311 <sup>***</sup>
Proportion town	0.163	0.176	0.226 <sup>*</sup>	0.530	48.012 <sup>***</sup> (18.698)	
Proportion rural	0.083	0.471	0.241 <sup>***</sup>			
Percent students receiving free/reduced-price lunch (FRL)	54.154 (25.541)	49.396 (18.361)	46.920 <sup>***</sup> (19.474)	50.313 (19.476)		
Percent American Indian students	0.013 (0.050)	0.017 (0.061)	0.009 (0.036)	0.041 (0.117)	0.029 <sup>***</sup> (0.082)	
Percent Black students	3.974 (5.265)	7.446 (16.190)	10.742 <sup>***</sup> (19.236)	1.562 (2.968)	2.135 <sup>***</sup> (3.562)	
Percent Hispanic students	48.104 (26.291)	5.946 (8.417)	6.965 <sup>***</sup> (9.014)	20.570 (21.684)	22.622 <sup>***</sup> (21.534)	
Percent underrepresented minority (URM) students	53.368 (26.490)	15.115 (19.226)	18.640 <sup>***</sup> (21.470)	26.212 (23.589)	27.615 <sup>***</sup> (22.828)	
Percent English language learner (ELL) students	21.214 (14.947)	2.674 (6.324)	3.511 <sup>***</sup> (6.609)	7.717 (11.307)	9.121 <sup>***</sup> (11.003)	
Percent special education (SPED) students	10.586 (2.338)	12.661 (3.499)	12.662 <sup>***</sup> (3.025)	14.104 (3.616)	13.666 <sup>***</sup> (2.558)	
Standardized mean scale score in math	0.134 (0.894)	-0.035 (0.310)	-0.020 <sup>***</sup> (0.345)	-0.089 (0.594)	-0.003 <sup>†</sup> (0.571)	
Standardized mean scale score in ELA	0.134 (0.894)	0.001 (0.258)	0.012 <sup>***</sup> (0.284)	-0.089 (0.594)	-0.003 <sup>***</sup> (0.571)	
Mean teaching experience	13.726 (2.157)	14.764 (1.864)	14.906 <sup>***</sup> (1.618)	14.713 (2.541)	14.335 <sup>***</sup> (1.972)	
Median teaching experience	12.830 (2.836)	14.166 (2.297)	14.348 <sup>***</sup> (1.907)	13.613 (3.432)	13.112 (2.783)	
Standard deviation (SD) teaching experience	8.829 (0.989)	8.074 (1.273)	7.898 <sup>***</sup> (1.020)	9.774 (1.379)	9.690 <sup>***</sup> (0.811)	
Number of districts	492	516	323	268	167	

Note. >3 schools represents districts with more than three schools, t tests in columns 3 and 5 relative to California districts with more than three schools. Cells represent means or mean percentages except where noted, with standard deviations in parentheses.

ELA= English Language Arts.

<sup>†</sup>p < .10. \*p < .05. <sup>\*\*\*</sup>p < .001.

samples of districts across multiple states and (2) to assess differences within and between states in the CBAs of districts that vary by size and student makeup (proportion of low-income students). Our primary method of analysis of the contracts for this article amounts to a systematic content analysis generated from the coding procedure described above. In our most general approach, we calculate summary statistics across all three states for the 43 provisions noted above.

We chose to exclude CBA content areas affected by recent legislation or older statewide law since districts would be unable to negotiate over these areas. For Michigan, this implies that we exclude any provisions related to union dues and seniority-based personnel decisions, for Washington, the rows and columns on teacher salary schedules are blank because the state has a statewide schedule, and in both states items pertaining to teacher evaluation are excluded as these are subject to state laws.<sup>9</sup> For California, we exclude layoff procedures because they are dictated by the state education code and do not vary across districts.<sup>10</sup>

To address Research Question 2, we calculate summary statistics by districts according to variation in district size (student enrollment) and income (free/reduced lunch percentages). We focus on district size because previous literature has stressed that larger and urban districts tend to have more restrictive contracts (restrictive in the sense that the managerial discretion over district operations is limited by the contract) and greater union strength (e.g., Strunk, 2012; Goldhaber, Lavery & Theobald, 2014; Brunner & Squires, 2013; McDonnell & Pascal, 1979; Moe, 2009, 2011; Rose & Sonstelie, 2010). Due to the differences in urbanicity across the three states depicted in Table 1, however (the majority of districts in Michigan and Washington are rural or within towns while the vast majority in California are urban or suburban), we focus on enrollment as a continuous measure with inherent variation that is interpretable in the same manner across all three states.

We focus on the proportion of students enrolled in free or reduced-price lunch programs because of the hypothesis posed in previous studies that contracts in place in districts that have difficulty attracting and retaining teachers—usually proxied as those with high proportions of low-income, minority, and/or low-achieving students (e.g., Hanushek, Kain, & Rivkin, 2004; Lankford, Loeb, & Wyckoff, 2002)—may contain different regulations related to teacher staffing (Strunk, 2012; Johnson & Kardos, 2000; McDonnell & Pascal, 1979; Ravitch, 2007). Although we are interested in the way certain provisions in teacher contracts may disproportionately affect students of color or students from low-income backgrounds, the fact that average districts in Michigan and Washington have comparably few students of color would render an analysis on the basis of student race a comparison



between a handful of unrepresentative districts in those states to a greater number of similarly proportioned districts in California. Thus, we focus on the rates of free/reduced-price lunch as a proxy for low family income, which as Table 1 indicates are similar on average across all three states.

For these demographic analyses, we simply calculate bivariate relationships between district enrollment or free/reduced lunch share and the linear probability of a contract containing a particular provision (or the estimated mean, for provisions that are continuous rather than dichotomous indicators). We estimate these relationships separately by state. We also compare districts within each state by quartiles of enrollment and free/reduced lunch percentage.

Our analyses are not designed to be causal as we are skeptical that models, even with controls such as district size or the demographics of students, would adequately account for unobserved factors. For instance, districts with very poor, but unobserved in the data, working conditions may adopt certain CBA provisions as a response to those conditions (see (Cowen & Strunk, 2015, for a more extensive discussion of these concerns in the teacher CBA and union literature more generally). Thus, the findings we describe below should be interpreted as a descriptive picture of contract variation within and between districts in California, Michigan, and Washington.

## Results

Before turning to specific results, we note by way of overview that our analysis indicates considerable variation between and within states in terms of contract scope and provisions. CBAs in our data range from extensive, elaborate, and lengthy contracts to brief documents outlining only a handful of major employment terms, such as salary and work schedule. There are some similarities in CBAs between the states, and yet considerable differences as well, both in the content of CBAs on average and in the way districts within each state vary between each other relative to districts in another state.

### *How Do CBAs Compare Across States?*

Table 2 provides results from our first set of descriptive analysis. Before discussing the different CBA provisions, it is important to note where CBAs in each state do not dictate policy. In particular, it is clear that in Michigan, teachers' collective bargaining rights are significantly curtailed relative to those in California and Washington and (although not shown) relative to the state before the recent reforms affecting union membership fees, teacher evaluation, layoffs, teachers' abilities to grieve disciplinary actions, and

**Table 2.** Summary Statistics of High-Profile CBA Provisions by State and District Type.

	California		Michigan		Washington	
	>3 schools	All	>3 schools	All	>3 schools	All
Panel A: Context, union dues, and compensation						
CBA page length (mean)	93.557	51.598	60.023***	80.601	96.743	0.952
Members maintain union membership or pay fair share/ service fee						
CBA allows for religious exemption from payment of union dues/fees		0.031	0.034	0.672	0.784	
Bonus for "Hard to Recruit" teachers	0.291	0.021	0.028***	0.075	0.120	
Number of rows in salary schedule (mean)	19.409	16.490	16.707***			
Number of columns in salary schedule (mean)	5.474	4.367	4.537***			
Panel B: Class size						
CBA includes a negotiated class size for fourth-grade classrooms	0.484	0.366	0.406*	0.302	0.353**	
Negotiated class size for fourth-grade classrooms (mean)	29.869	27.063	27.405***	26.420	26.424***	
CBA includes a negotiated class size for eighth-grade classrooms	0.441	0.339	0.378†	0.254	0.293***	
Negotiated class size for eighth-grade classrooms (mean)	30.176	28.246	28.762***	28.743	28.888**	
CBA includes a negotiated class size for ninth- to 12th-grade classrooms	0.360	0.335	0.375	0.239	0.287†	
Negotiated class size for ninth- to 12th-grade classrooms (mean)	30.554	28.480	29.124***	29.820	30.323	

(continued)

Table 2. (continued)

	California		Michigan		Washington	
	>3 schools		All	>3 schools	All	>3 schools
CBA includes a maximum class size for fourth-grade classrooms	0.618		0.653	0.715**	0.534	0.629
Maximum class size for fourth-grade classrooms (mean)	31.857		29.503	29.730***	27.427	27.343***
CBA includes a maximum class size for eighth-grade classrooms	0.500		0.578	0.625***	0.504	0.605*
Maximum class size for eighth-grade classrooms (mean)	33.284		31.383	31.916*	30.148	30.277***
CBA includes a maximum class size for ninth- to 12th-grade classrooms	0.364		0.583	0.638***	0.466	0.599***
Maximum class size for ninth- to 12th-grade classrooms (mean)	34.328		31.615	32.209***	30.984	31.090***
District takes action if class size ceiling is exceeded	0.689		0.678	0.771*	0.784	0.874***
Panel C: Teacher evaluation						
CBA does not say teachers are evaluated on student achievement	0.809					
CBA allows HQ perm members to be evaluated every 5 years only	0.541					
Permanent/tenured members can use alternative evaluation process	0.374					
CBA defines consequences of negative evaluations	0.795					
CBA allows for teachers to rebut or appeal negative evaluations	0.114					

(continued)

**Table 2. (continued)**

	California		Michigan		Washington	
	>3 schools	All	>3 schools	All	>3 schools	All
<b>Panel D: Grievances and layoffs</b>						
CBA does not specify the board can hear grievances at all	0.722	0.663	0.582***	0.511	0.647 <sup>†</sup>	0.150***
Grievances can go to mediation	0.419	0.079	0.065***	0.116	0.994**	0.210***
Grievances can go to arbitration	0.935	0.944	0.954	0.993	0.937	0.964
Teachers may grieve disciplinary action	0.368			0.168		
CBA specifies that layoffs must occur in reverse order of seniority				0.966		0.988
CBA provides recall rights after layoffs				0.933		0.964
CBA specifies how reemployment offers are made after layoffs				0.799		0.838
CBA mandates reemployment offers in seniority order after layoffs						
<b>Panel E: School day</b>						
CBA includes mandated preparation time for fourth-grade classrooms	0.567	0.841	0.873***	0.910	0.946***	
Preparation time for fourth-grade classrooms (mean minutes per week)	151.084	239.371	238.758***	215.807	216.310***	
CBA includes mandated preparation time for eighth-grade classrooms	0.683	0.783	0.789***	0.903	0.928***	
Preparation time for eighth-grade classrooms (mean minutes per week)	239.935	255.856	258.004***	249.231	244.368	

(continued)

Table 2. (continued)

	California		Michigan		Washington	
	>3 schools		All	>3 schools	All	>3 schools
CBA includes mandated preparation time for ninth- to 12th-grade classrooms	0.522		0.800	0.814***	0.884	0.928***
Preparation time for ninth- to 12th-grade classrooms (mean minutes per week)	253.210		259.386	262.990**	241.338	245.368†
There is a set amount of time teachers must work per day	0.665		0.672	0.681	0.922	0.964***
Panel F: Transfers and vacancies						
Teacher with most seniority fills position if two or more apply	0.030				0.030	0.030
Seniority is the deciding factor for involuntary transfers	0.222				0.075	0.102***
CBA specifies order that district can consider new employees for vacancies	0.386				0.806	0.868***
CBA requires that district posts all certificated vacancies	0.860		0.564	0.588***	0.847	0.904
Number of districts	492		516	323	268	167

Note. t tests in columns 4 and 6 versus California. Statistics suppressed for provisions covered by state codes. Cells represent proportions except where noted. CBA = collective bargaining agreement; HQ= High Quality.  
†p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001.

seniority-based transfers; all of these areas are now governed at least in part by state regulations (Michigan Public Acts 100-103 of 2011; Public Act 349 of 2012) rather than negotiated at the local level. Thus, on these areas, at least, unions in California have greater ability to bargain than in Michigan. In California, the state education code dictates teacher layoff processes, requiring that layoffs must occur in reverse order of seniority and re-hiring must occur in order of seniority. In Washington, the state sets a standard base salary schedule for all districts and recent legislation removed teacher evaluation processes from collective bargaining.

Now turning to the specific CBA provisions, Panel A presents information on provisions taken from the context, union dues, and compensation areas of CBAs. We first examine CBA length because length can serve as an initial and easy indicator of complexity in a contract. California contracts tend to be longer than those in Michigan, but comparable in length to those in Washington. In both Michigan and Washington, districts with four or more schools have longer CBAs than the full sample, which is in accordance with the California coders' rationale for focusing only on CBAs in districts with more schools. In Washington, nearly all negotiated contracts—especially in districts with four or more schools—require that union members must maintain their membership or pay fair share/service fees. This is important because unions derive their resources, and therefore political and negotiating power, from membership fees. However, two thirds of all districts (and over three quarters of districts in the restricted sample) allow members to take religious exemptions if their faith prohibits them from paying dues to a membership organization.

We include three compensation-specific provisions in our dataset. The first, whether or not a district offers an incentive for teachers to teach in a "Hard to Recruit" shortage subject or geographic area, is found far more frequently in California than in either Michigan or Washington. We also code the number of rows (steps) and columns (lanes) in district salary schedules (Washington is excluded because of the statewide salary schedule). The number of steps and rows in a salary schedule denotes how many times teachers receive experience- and education credit-related pay raises over the course of their careers in a district, respectively, thus providing teachers with valuable information about their present and future expected compensation. We see that, on average, California districts have slightly more rows and columns than districts in Michigan.

Panel B provides information about class size-related provisions. We only report negotiated and maximum class sizes for fourth-grade, eighth-grade, and high school classrooms in the interest of space. We see that higher proportions of district CBAs include negotiated and maximum class sizes than

average class sizes, with California CBAs nearly always more likely to include such provisions than CBAs in Michigan or Washington. In addition, higher proportions of districts with three or more schools include negotiated average and maximum class sizes in both Michigan and Washington.<sup>11</sup> Negotiated average and maximum class sizes are larger as grade levels increase across all three states, but California's negotiated class sizes remain larger at all three grade ranges than in the other two states. The negotiated maximum class size for fourth-, eighth-, and ninth- to 12th-grade classrooms is approximately 32, 33, and 34 students in California, respectively, which is 2 to 4 students/classroom greater at each grade level than in Michigan and Washington. These maximum class sizes are intended to be binding, as indicated by the fact that 69% of California CBAs in districts with three or most schools require that the district takes some action—usually providing overage pay to teachers, necessitating balancing of class sizes within a specified time range, or providing teachers with some other effort-based incentive—if class size maximums are exceeded. This is even more common in comparable districts in Michigan (77%) and Washington (87%).

As noted above, only in California can districts bargain over teacher evaluation, shown in Panel C. A total of 80% of California CBAs do not expressly provide the right to include student achievement as a basis for evaluation, and a similar proportion clearly define the consequences of negative evaluations. Approximately, half of California CBAs include provisions that allow permanent teachers who are “highly qualified” under the old Elementary and Secondary Education Act (ESEA) regulations to be evaluated only once in every 5 years, and over a third of district CBAs allow for teachers with tenure to select an alternative evaluation system. Together, these evaluation provisions paint a picture of fairly lenient evaluations, especially for permanent teachers, both in terms of frequency and basis in utilized measures. Notably, however, relatively few CBAs (11%) allow teachers to rebut or appeal negative ratings, suggesting that teachers in very few districts have recourse if they believe an evaluation was executed unfairly.

Panel D provides information on grievance and layoff provisions. Districts in the three states vary in these areas, though some of this variation is due, as noted above, to the presence of state legislation. Where legislation is not guiding, the right to take grievance to mediation, for example, only in California do a substantial proportion (42%) of districts allow grievances to go to mediation. Far fewer CBAs (less than 10% in Michigan and 15% in Washington) allow that step, whereas nearly all districts in all three states allow grievances to go to arbitration. Layoffs, in Washington, are nearly always required to be made on the basis of seniority.

Panel E contains provisions surrounding the school day and schedule, and we highlight here preparation time for teachers and whether or not CBAs set specific amounts of time teachers must work per day. We see that Michigan and Washington generally require more time for teaching preparation time than California, especially for teachers of younger students, though required prep time for high school teachers is similar in California and Washington. Whereas in Michigan and California, approximately two thirds of district CBAs dictate the total amount of time teachers must work a day, nearly all Washington CBAs do so.

Some of the most high profile provisions in CBAs are found in the transfer and vacancy areas of CBAs, shown in Panel F. Michigan CBAs are not allowed to determine policy in this area, but we see some substantial variation in this area between the two remaining states. While in both Washington and California 30% of CBAs require that the most senior teacher applying for voluntary transfer gets to fill the position, in California 22% of CBAs also allow seniority to dictate involuntary transfers—where teachers do not *choose* to move schools, such that the most junior teacher must be displaced—whereas this is only the case in approximately 10% of comparable Washington districts. Although the majority of districts in all states must post all teacher vacancies publicly, there is far more variation in these requirements in Michigan relative to California and Washington (only 56%-59% of districts, compared with more than nine in 10).

### *How Does CBA Content Vary by District Size and Proportion of Low-Income Students Between and Within States?*

Tables 3 through 5 summarize these provisions as they vary within each state by district size and free/reduced lunch percentage. Given that districts with four or more schools are both larger and have higher rates of students in poverty, we focus the remainder of our analyses on comparisons of state samples with four or more schools. Table 3 reports the results of bivariate regressions predicting each provision (or the linear probability of each provision, in cases of dichotomous indicators, which are the vast majority) by the log of district enrollment and the percentage of free/reduced lunch students. Table 4 presents means and proportions of each provision by quartile of enrollment, and Table 5 presents means and proportions of each provision by quartile of free/reduced lunch.

**District size.** Tables 3 and 4 show that larger districts have substantially different CBAs than their smaller counterparts. Not only are the CBAs



**Table 3.** Bivariate Relationships Between District Enrollment, % FRL, and CBA Provisions (>3 Schools).

	California		Michigan		Washington	
	Log (enroll)	% FRL	Log (enroll)	% FRL	Log (enroll)	% FRL
Panel A: Context, union dues, and compensation						
CBA page length	19.993***	-0.181*	21.148***	-0.181*	24.100***	-0.371*
Members maintain union membership or pay fair share/service fee					0.026†	0.001
CBA allows for religious exemption from payment of union dues/fees			0.001	0.000	0.038	-0.003
Bonus for "Hard to Recruit" teachers	0.017	0.004***	0.020	-0.000	0.079***	-0.002
Number of rows in salary schedule	-1.298***	0.013	-0.970†	-0.012		
Number of columns in salary schedule	0.142*	0.000	0.360**	-0.007†		
Panel B: Class size						
CBA includes a negotiated class size for fourth-grade classrooms	0.047*	-0.001	-0.027	-0.001	0.037	-0.001
Negotiated class size for fourth-grade classrooms	0.736***	0.017**	0.239	0.010	0.063	0.004
CBA includes a negotiated class size for eighth-grade classrooms	0.060**	-0.001	-0.042	-0.001	0.010	0.000
Negotiated class size for eighth-grade classrooms	0.655***	0.010	0.233	-0.002	0.666	0.004
CBA includes a negotiated class size for ninth- to 12th-grade classrooms	0.073***	-0.002†	-0.035	-0.001	0.013	0.000
Negotiated class size for ninth- to 12th-grade classrooms	0.326†	0.019*	0.379	-0.004	0.173	-0.006
CBA includes a maximum class size for fourth-grade classrooms	0.023	0.001	0.085*	-0.001	0.058†	0.001
Maximum class size for fourth-grade classrooms	0.820***	0.012*	0.670**	0.008	0.007	0.015
CBA includes a maximum class size for eighth-grade classrooms	0.024	0.000	0.069†	-0.001	0.065*	0.001
Maximum class size for eighth-grade classrooms	1.065***	0.008	0.392	0.020	0.166	-0.002
CBA includes a maximum class size for ninth- to 12th-grade classrooms	0.087***	0.001	0.081*	-0.000	0.067*	0.001
Maximum class size for ninth- to 12th-grade classrooms	0.877***	0.007	0.593	0.017	0.457*	-0.007
District takes action if class size ceiling is exceeded	-0.007	0.001	0.052	-0.001	0.049*	-0.001

(continued)

**Table 3. (continued)**

	California		Michigan		Washington	
	Log (enroll)	% FRL	Log (enroll)	% FRL	Log (enroll)	% FRL
Panel C: Teacher evaluation						
CBA does not say teachers are evaluated on student achievement	-0.008	-0.001				
CBA allows HQ perm members to be evaluated every 5 years only	0.074***	0.000				
Permanent/tenured members can use alternative evaluation process	0.039†	-0.004***				
CBA defines consequences of negative evaluations	0.013	-0.000				
CBA allows for teachers to rebut or appeal negative evaluations	0.015	-0.001				
Panel D: Grievances and layoffs						
CBA does not specify the board can hear grievances at all	0.062**	0.002*	-0.251***	0.002	0.138***	-0.006**
Grievances can go to mediation	-0.015	0.001	-0.007	0.000	0.038	-0.002
Grievances can go to arbitration	0.041***	0.001*	-0.005	0.001	-0.004	-0.000
Teachers may grieve disciplinary action	0.071***	0.000			0.014	-0.003
CBA specifies that layoffs must occur in reverse order of seniority					0.011	-0.001
CBA provides recall rights after layoffs					0.005	0.000
CBA specifies how reemployment offers are made after layoffs					0.014	0.000
CBA mandates reemployment offers in seniority order after layoffs					0.016	-0.001
Panel E: School day						
CBA includes mandated preparation time for fourth-grade classrooms	0.056**	-0.001	0.020	-0.000	0.014	0.001
Preparation time for fourth-grade classrooms (minutes per week)	-2.224	-0.063	-0.999	-0.601***	3.147	-0.206
CBA includes mandated preparation time for eighth-grade classrooms	0.027	-0.000	-0.029	0.000	0.012	0.002

(continued)

Table 3. (continued)

	California		Michigan		Washington	
	Log (enroll)	% FRL	Log (enroll)	% FRL	Log (enroll)	% FRL
Preparation time for eighth-grade classrooms (minutes per week)	-3.805	-0.136	0.590	-0.168	2.020	0.190
CBA includes mandated preparation time for ninth- to 12th-grade classrooms	0.103***	-0.001	-0.012	-0.001	0.012	0.002
Preparation time for ninth- to 12th-grade classrooms (minutes per week)	-3.138	-0.370***	7.448*	-0.241†	2.205	0.195
There is a set amount of time teachers must work per day	-0.025	0.003***	0.019	0.000	0.024†	0.000
Panel F: Transfers and vacancies						
Teacher with most seniority fills position if two or more apply	-0.004	0.001†			0.006	0.001
Seniority is deciding factor for involuntary transfers	0.064***	0.001			0.047*	-0.000
CBA specifies order district can consider new employees for vacancies	0.005	0.000			-0.038†	0.001
CBA requires that district posts all certificated vacancies	-0.006	0.001	-0.067†	0.001	-0.040*	-0.000
Number of districts	490	492	323	323	167	167

Note. Cells are coefficients from separate bivariate regressions of the contract item's summary statistic on either log enrollment or the % of free/reduced lunch as noted, suppressed if covered by state codes. FRL = free/reduced-price lunch; CBA = collective bargaining agreement; HQ= High Quality.

† $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 4. Provisions by Quartile of District Enrollment (Districts With >3 Schools).**

	State, quartile of district enrollment					
	California, Q4	California, Q1-Q3	Michigan, Q4	Michigan, Q1-Q3	Washington, Q4	Washington, Q1-Q3
Panel A: Context, union dues, and compensation						
CBA page length (mean)	123.422	83.709 <sup>***</sup>	83.146	52.444 <sup>***</sup>	136.902	83.675 <sup>***</sup>
Members maintain union membership or pay fair share/service fee					1.000	0.937 <sup>†</sup>
CBA allows for religious exemption from payment of union dues/fees			0.013	0.041	0.805	0.778
Bonus for "Hard to Recruit" teachers	0.295	0.289	0.037	0.025	0.244	0.079 <sup>***</sup>
Number of rows in salary schedule (mean)	18.270	19.784 <sup>*</sup>	15.731	17.030		
Number of columns in salary schedule (mean)	5.508	5.462	4.861	4.432 <sup>*</sup>		
Panel B: Class size						
CBA includes a negotiated class size for fourth-grade classrooms	0.574	0.454 <sup>*</sup>	0.362	0.420	0.390	0.341
Negotiated class size for fourth-grade classrooms (mean)	30.912	29.435 <sup>***</sup>	27.655	27.333	26.500	26.395
CBA includes a negotiated class size for eighth-grade classrooms	0.549	0.405 <sup>***</sup>	0.338	0.391	0.317	0.286
Negotiated class size for eighth-grade classrooms (mean)	31.005	29.806 <sup>***</sup>	29.074	28.674	30.000	28.486
CBA includes a negotiated class size for ninth- to 12th-grade classrooms	0.500	0.314 <sup>***</sup>	0.338	0.387	0.293	0.286
Negotiated class size for ninth- to 12th-grade classrooms (mean)	30.775	30.438	29.556	29.000	30.333	30.319
CBA includes a maximum class size for fourth-grade classrooms	0.639	0.611	0.800	0.687 <sup>†</sup>	0.659	0.619
Maximum class size for fourth-grade classrooms (mean)	33.128	31.418 <sup>***</sup>	30.219	29.543 <sup>*</sup>	27.630	27.244
CBA includes a maximum class size for eighth-grade classrooms	0.549	0.484	0.750	0.584 <sup>***</sup>	0.634	0.595
Maximum class size for eighth-grade classrooms (mean)	34.817	32.711 <sup>***</sup>	31.950	31.901	30.692	30.133
CBA includes a maximum class size for ninth- to 12th-grade classrooms	0.549	0.303 <sup>***</sup>	0.762	0.597 <sup>***</sup>	0.634	0.587

(continued)

Table 4. (continued)

	State, quartile of district enrollment							
	California,		Michigan,		Michigan,		Washington,	
	Q4	Q1-Q3	Q4	Q1-Q3	Q4	Q1-Q3	Q4	Q1-Q3
Maximum class size for ninth- to 12th-grade classrooms (mean)	35.470	33.645***	32.410	32.124	32.192	30.703***		
District takes action if class size ceiling is exceeded	0.656	0.700	0.838	0.749	0.878	0.873		
Panel C: Teacher evaluation								
CBA does not say teachers are evaluated on student achievement	0.803	0.811						
CBA allows HQ perm members to be evaluated every 5 years only	0.664	0.500**						
Permanent/tenured members can use alternative evaluation process	0.426	0.357						
CBA defines consequences of negative evaluations	0.803	0.792						
CBA allows for teachers to rebut or appeal negative evaluations	0.131	0.108						
Panel D: Grievances and layoffs								
CBA does not specify the board can hear grievances at all	0.836	0.684**	0.313	0.671***	0.829	0.587**		
Grievances can go to mediation	0.443	0.411	0.063	0.066	0.244	0.119†		
Grievances can go to arbitration	0.992	0.916**	0.963	0.951	0.976	1.000†		
Teachers may grieve disciplinary action	0.475	0.332**			0.293	0.183		
CBA specifies that layoffs must occur in reverse order of seniority					0.976	0.960		
CBA provides recall rights after layoffs					1.000	0.984		
CBA specifies how reemployment offers are made after layoffs					1.000	0.952		
CBA mandates reemployment offers in seniority order after layoffs					0.927	0.810†		
Panel E: School day								
CBA includes mandated preparation time for fourth-grade classrooms	0.664	0.535*	0.875	0.872	0.976	0.937		
Preparation time for fourth-grade classrooms (mean minutes per week)	149.644	151.673	239.714	238.442	225.300	213.263		

(continued)

**Table 4. (continued)**

	State, quartile of district enrollment					
	California, Q4	California, Q1-Q3	Michigan, Q4	Michigan, Q1-Q3	Washington, Q4	Washington, Q1-Q3
CBA includes mandated preparation time for eighth-grade classrooms	0.746	0.662 <sup>†</sup>	0.775	0.794	0.976	0.913
Preparation time for eighth-grade classrooms (mean minutes per week)	233.407	242.359	260.484	257.207	249.300	242.652
CBA includes mandated preparation time for ninth- to 12th-grade classrooms	0.721	0.457 <sup>***</sup>	0.838	0.807	0.976	0.913
Preparation time for ninth- to 12th-grade classrooms (mean minutes per week)	244.830	257.574 <sup>†</sup>	269.582	260.737	250.175	243.696
There is a set amount of time teachers must work per day	0.631	0.676	0.738	0.663	1.000	0.952
Panel F: Transfers and vacancies						
Teacher with most seniority fills position if two or more apply	0.025	0.032			0.049	0.024
Seniority is deciding factor for involuntary transfers	0.311	0.192 <sup>**</sup>			0.146	0.087
CBA specifies order district can consider new employees for vacancies	0.410	0.378			0.756	0.905 <sup>*</sup>
CBA requires that district posts all certificated vacancies	0.852	0.862	0.487	0.621 <sup>*</sup>	0.854	0.921
Number of districts	122	370	80	243	41	126

Note: t tests in columns 2, 4, and 6 relative to columns 1, 3, and 5, respectively. Statistics suppressed for provisions covered by state code. Cells represent proportions except where noted. Quartile breaks: California, Q4 > 712,983; Michigan, Q4 > 4,308; Washington, Q4 > 7,934. CBA = collective bargaining agreement; HQ = High Quality.

<sup>†</sup>p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001.

**Table 5.** Provisions by Quartile of District % FRL (Districts With >3 Schools).

	State, quartile of district % FRL					
	California, Q4	California, Q1-Q3	Michigan, Q4	Michigan, Q1-Q3	Washington, Q4	Washington, Q1-Q3
Panel A: Context, union dues, and compensation						
CBA page length (mean)	82.291	97.272 <sup>***</sup>	62.481	59.204	90.122	98.897
Members maintain union membership or pay fair share/service fee					1.000	0.937 <sup>†</sup>
CBA allows for religious exemption from payment of union dues/fees			0.037	0.033	0.732	0.802
Bonus for "Hard to Recruit" teachers	0.434	0.243 <sup>***</sup>	0.025	0.029	0.122	0.119
Number of rows in salary schedule (mean)	18.893	19.578	15.544	17.098 <sup>†</sup>		
Number of columns in salary schedule (mean)	5.443	5.484	4.362	4.596		
Panel B: Class size						
CBA includes a negotiated class size for fourth-grade classrooms	0.467	0.489	0.375	0.416	0.390	0.341
Negotiated class size for fourth-grade classrooms (mean)	30.286	29.738	28.100	27.198 <sup>†</sup>	26.750	26.302
CBA includes a negotiated class size for eighth-grade classrooms	0.426	0.446	0.350	0.387	0.366	0.270
Negotiated class size for eighth-grade classrooms (mean)	30.191	30.171	29.179	28.638	29.533	28.603
CBA includes a negotiated class size for ninth- to 12th-grade classrooms	0.270	0.389 <sup>*</sup>	0.362	0.379	0.366	0.262
Negotiated class size for ninth- to 12th-grade classrooms (mean)	31.045	30.442	29.517	29.000	30.400	30.288
CBA includes a maximum class size for fourth-grade classrooms	0.639	0.611	0.725	0.712	0.610	0.635
Maximum class size for fourth-grade classrooms (mean)	32.064	31.785	30.097	29.607	27.920	27.163 <sup>†</sup>
CBA includes a maximum class size for eighth-grade classrooms	0.500	0.500	0.637	0.621	0.585	0.611
Maximum class size for eighth-grade classrooms (mean)	33.278	33.286	31.804	31.954	30.417	30.234

(continued)

**Table 5. (continued)**

	State, quartile of district % FRL							
	California, Q4	California, Q1-Q3	Michigan, Q4	Michigan, Q1-Q3	Washington, Q4	Washington, Q1-Q3		
CBA includes a maximum class size for ninth- to 12th-grade classrooms	0.320	0.378	0.662	0.630	0.585	0.603		
Maximum class size for ninth- to 12th-grade classrooms (mean)	34.608	34.250	32.094	32.248	30.958	31.132		
District takes action if class size ceiling is exceeded	0.730	0.676	0.775	0.770	0.878	0.873		
Panel C: Teacher evaluation								
CBA does not say teachers are evaluated on student achievement	0.811	0.808						
CBA allows HQ perm members to be evaluated every 5 years only	0.500	0.554						
Permanent/tenured members can use alternative evaluation process	0.230	0.422***						
CBA defines consequences of negative evaluations	0.770	0.803						
CBA allows for teachers to rebut or appeal negative evaluations	0.123	0.111						
Panel D: Grievances and layoffs								
CBA does not specify the board can hear grievances at all	0.762	0.708	0.537	0.597	0.439	0.714**		
Grievances can go to mediation	0.426	0.416	0.063	0.066	0.073	0.175		
Grievances can go to arbitration	0.975	0.922*	0.975	0.947	0.976	1.000†		
Teachers may grieve disciplinary action	0.402	0.357			0.098	0.246*		
CBA specifies that layoffs must occur in reverse order of seniority					0.976	0.960		
CBA provides recall rights after layoffs					1.000	0.984		
CBA specifies how reemployment offers are made after layoffs					0.976	0.960		
CBA mandates reemployment offers in seniority order after layoffs					0.854	0.833		

(continued)



**Table 5. (continued)**

	State, quartile of district % FRL					
	California, Q4	California, Q1-Q3	Michigan, Q4	Michigan, Q1-Q3	Washington, Q4	Washington, Q1-Q3
Panel E: School day						
CBA includes mandated preparation time for fourth-grade classrooms	0.500	0.589†	0.887	0.868	0.976	0.937
Preparation time for fourth-grade classrooms (mean minutes per week)	151.066	151.089	226.845	242.766†	206.000	219.805
CBA includes mandated preparation time for eighth-grade classrooms	0.623	0.703	0.762	0.798	0.976	0.913
Preparation time for eighth-grade classrooms (mean minutes per week)	237.039	240.781	256.902	258.351	246.625	243.583
CBA includes mandated preparation time for ninth- to 12th-grade classrooms	0.385	0.568***	0.738	0.840*	0.976	0.913
Preparation time for ninth- to 12th-grade classrooms (mean minutes per week)	249.468	254.048	260.846	263.605	247.875	244.496
There is a set amount of time teachers must work per day	0.746	0.638*	0.713	0.671	1.000	0.952
Panel F: Transfers and vacancies						
Teacher with most seniority fills position if two or more apply	0.066	0.019**			0.024	0.032
Seniority is deciding factor for involuntary transfers	0.262	0.208			0.098	0.103
CBA specifies order district can consider new employees for vacancies	0.443	0.368			0.927	0.849
CBA requires that district posts all certificated vacancies	0.910	0.843†	0.625	0.576	0.927	0.897
Number of districts	122	370	80	243	41	126

Note. t tests in columns 2, 4, and 6 relative to columns 1, 3, and 5, respectively. Statistics suppressed for provisions covered by state code in each state. Cells represent proportions except where noted. Quartile breaks: California, Q4 > 76.15%; Michigan, Q4 > 59.60%; Washington, Q4 > 60.42%. FRL = free/reduced-price lunch; CBA = collective bargaining agreement; HQ= High Quality.

†p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001.

substantially longer for larger districts but they also differ across all sub-areas of the CBAs. In all three states, we see that CBAs in larger districts have higher negotiated class sizes and are more likely to include limits on maximum class sizes. And in both states that allow individual districts to negotiate salary schedules (Michigan and California), teachers in larger districts are given raises less frequently for simple experience (fewer rows), but more frequently for increases in educational attainment (more columns). Although there is no significant relationship between district size and the role of seniority in voluntary applications for transfer in either Washington or California, in both states seniority is more likely to be the deciding factor in involuntary transfers in larger districts. And in all three states, CBAs in larger districts are less likely to require that district administrators must post all certificated vacancies before filling them. These patterns align with earlier research that suggests that CBAs in larger districts are negotiated by more powerful unions and are more restrictive (in the sense that they limit the discretion of administrators over district operations; for example, Strunk & Grissom, 2010; Strunk, 2012; Goldhaber, Lavery & Theobald, 2014; Brunner & Squires, 2013; Moe, 2009; Rose & Sonstelie, 2010).

However, there are more differences between states in the relationship between district size and contract content than one might expect. The most obvious difference is that there are far more significant associations between district size and contract content in California than in the other two states. This may in part be due to the larger quantity of districts and greater variation in district characteristics in the California sample, but it also might be the case that CBAs simply differ more according to size in California than in the other states. In California, which is the only state in our sample to allow for collective bargaining over evaluations, senior teachers are given greater flexibility in their evaluation processes in larger versus smaller districts. In addition, grievance procedures in larger districts are different in larger California districts; not only are CBAs in larger districts more likely to remove the local board from grievance proceedings but they also are more likely to require arbitration and to allow teachers to grieve disciplinary actions.

There are also some smaller differences between states in the relationships between district size and CBA content. For instance, in Washington, as in California, larger district CBAs are more likely to remove the local board from grievance proceedings, whereas the opposite is the case in Michigan. CBAs in larger California districts are also more likely to include mandated preparation time across grade levels, although the actual preparation time allocated to teachers is smaller.

*Proportion of low-income students.* Tables 3 and 5 show that there are fewer relationships between districts' contract content and poverty levels than district size across all three states. Again, there are more significant relationships in California than in the other two states, but, in general, contract provisions vary less according to the proportion of low-income students in districts than by size. This again substantiates earlier research that district size is a critical predictor of contract content. Moreover, the extant literature that suggests that local unions and their district partners may use the CBAs as avenues to negotiate teacher-friendly policies to help recruit teachers to high-need districts may be incorrect. In fact, we find only mixed evidence to substantiate that argument. For instance, in all three states, contracts are shorter in districts with greater proportions of low-income students. In addition, districts with higher proportions of low-income students have larger negotiated class sizes and maximum class sizes in California, and are less likely to allow permanent teachers to use alternative evaluation processes. In both California and Michigan, CBAs in districts with higher proportions of low-income children have less preparation time for high school teachers (and fourth-grade teachers in Michigan). That said, California districts with more low-income students are more likely to have provisions that legislate the total amount of time teachers must work each day, and are more likely to allow the most senior teachers preference in voluntary transfers.

This discussion highlights an important finding: There is substantially more variation in CBA provisions as a function of district enrollment rather than free/reduced lunch percentage. This pattern is completely consistent with the top-line result in Table 3 that larger districts have longer contracts (which, it follows, include more provisions and thus the greater probability that any single type of provision exists within them), while poorer districts have shorter contracts (i.e., CBAs with less room to contain meaningful variation in particular provisions). That pattern speaks to the importance of considering district demographics when analyzing the prevalence of key CBA provisions—one contribution of this article. One additional detail within this pattern highlights the second contribution: the importance of considering different states or regions. Although CBA provisions appear to vary more widely with district enrollment than free/reduced lunch in all states, this is especially true in California, where we find a greater number of statistically significant relationships between enrollment and CBA provisions. This may be partly a function of the fact that districts are larger in California than in the other states, on average, but it may also speak to the particulars of the bargaining process in that state relative to the others.

## Discussion and Conclusion

In this article, we utilize unique data collected from teacher CBAs in California, Michigan, and Washington. This article contributes to the extant literature on CBA content in several ways. First, by considering a set of key provisions common across all three states, the article provides the first analysis of CBAs as they vary in policy-relevant ways both within *and* between states. These provisions include content related to class sizes, teacher evaluation, seniority rules, layoffs and transfers, teacher compensation, and membership dues/responsibilities. Second, this study examines differences and similarities at the local district level. As we report, the districts in our data vary widely by urbanicity, enrollment, income, and student demographics, marking a major advantage over previous cross-state studies that focus only on the largest urban districts in the country (e.g., Hess & Loup, 2008; Moe, 2011; National Council on Teacher Quality, 2016). Third, we use recently negotiated CBAs in our analyses. Given the extent to which unions and their collective bargaining rights and contracts have been central to education policy debates in the last decade (Cowen & Strunk, 2015; Marianno, 2015), relying on knowledge about CBA content generated from the 1970s or even the early 2000s risks missing important changes that may have occurred in the last several decades. Finally, we examine variation in CBA content by district size (student enrollment) and income levels of its students (the percentage of free/reduced lunch students) to explicitly assess hypotheses, generated in previous literature on union contracts, that district size is a major covariate of union strength and that CBAs in low-income districts can be used as vehicles through which districts can compensate—through enhanced working conditions—teachers for working in those contexts.

Several key findings emerge from our analyses. First, we are the first to document the considerable variation across states in the amount of leeway left to local union-district bargaining partners. States have the ability to dictate a great deal of education policy, even that which is traditionally left to districts. In our sample, we see that Michigan constrains local collective bargaining the most of the three states.

Second and consistent with earlier work (e.g., Strunk, 2012; Goldhaber, Lavery & Theobald, 2014), we observe that district size is correlated to the presence of certain contract provisions, and to overall CBA length, in each state. Apart from CBA length, however, there are only a few relationships between contract provisions and district free/reduced lunch percentages, suggesting that in all three states the income levels of students served by different districts are not directly related to the terms that districts negotiate with their teachers. More broadly, even the more prevalent relationships between

district size and CBA provisions are most apparent in California, suggesting that in the other states the variation we do observe, if systematically determined at all, has its source in other features of the local educational conditions.

Nevertheless, the dominant finding of this article—and the one we argue should hold the attention of the research and policymaking communities alike—is that teacher contracts do vary considerably between and within states. It is clear from our results that some though not all of this variation is related to the presence of state legislation, as noted above, but we do observe meaningful differences between states even in areas where there is no state-wide authority. We also observe, to some extent, differences within states. To put the point in its simplest terms, there are relatively few of these “high profile” provisions existing in nearly all or almost no contracts. For some provisions, there are real exceptions to visible statewide patterns in the presence or absence of a provision, while for others, the results suggest a near-even probability that a district contains that provision or not. This work, and the earlier studies from which it builds, implies that discussions within and across the policymaking and research communities should include explicit recognition that teacher contracts differ in important ways. Neither CBAs nor by extension, the unions that negotiate them are monolithic. The extent to which unions and contracts guide the operation of American public school districts depends on the particular contexts of those districts themselves.

This variation across contracts and states, and the relative lack of variation that exists by student poverty rates, suggests a role for unions and their local bargaining partners to play in education reform. The policies highlighted in this article are just a small, but highly visible, subsample of the myriad regulations negotiated by local unions and district administrators and ensconced in teachers’ unions’ contracts. There is room here for bargaining teams to work together to implement policies that can address local problems and challenges. These CBAs are not set in stone, and the variation within and across states suggests that they can be amended to meet local needs and preferences. As policy documents that quite literally contain the terms of agreement between employees and employers, CBAs need not inherently impose trade-offs between teacher well-being and student outcomes. Rather, as new elements of the teacher labor market become routine features of public school administration—as teacher evaluation systems continue to develop, for example, and more districts experiment with differential teacher pay based on effectiveness but also subject area and expertise—CBAs provide the opportunity to ensure that schools remain professional and collaborative while adjusting to changing contexts.

In sum, what seems clear at this stage of policymaking is that collective bargaining in education is inherently varying and context-dependent, not only between but also within states. As new laws and new policies continue to emerge, policymakers and researchers alike who debate these changes would do well to recognize that what it means to be unionized, or to be under contract, differs depending on where teachers teach.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was funded by grants from the Laura and John Arnold Foundation and from an anonymous foundation. The contents of this article do not reflect the opinions of the funders or the authors' institutions. All errors are our own.

### **Notes**

1. Marianno (2015) defined two types of union-related laws: "comprehensive" (laws seeking "to substantially alter the bargaining rights of teachers") and "noncomprehensive" ("laws that pertain to rights of teachers in specific areas of CBAs like compensation, evaluation, and discipline procedures"). He finds that in 20 states lawmakers proposed comprehensive laws restricting bargaining rights for teachers between 2011 and 2013 (enacting laws in five such states), while in 49 states noncomprehensive laws restricting union protections were proposed, enacted in 44 states.
2. Given that the relevant literature on teachers' unions and their CBAs has been covered extensively in Cowen, & Strunk, (2015) and in other studies in this volume, we focus in this article on the CBA content within and across states.
3. Downloaded from <http://www.legislature.mi.gov/documents/2011-2012/publicacttable/pdf/2011-PAT.pdf> on November 6, 2017.
4. Downloaded from <http://www.legislature.mi.gov/documents/2011-2012/publicacttable/pdf/2012-PAT.pdf> on November 6, 2017
5. Downloaded from <http://app.leg.wa.gov/billsummary?BillNumber=5895&Year=2012> on November 6, 2017
6. We focus on districts with four or more schools for both practical and empirical reasons. First, there are nearly 1,000 districts in California, and the smallest districts (those with fewer than four schools,  $N = 363$ , or 39% of all California districts in 2014-2015) often do not have functional websites and it can be difficult to contact human resources or other central office staff to respond to requests for the CBAs. Second, many of the provisions in CBAs should necessarily differ

between larger and smaller districts, and some will be more or less binding depending on the size. For comparability in such a large state, we choose to remove from our sample the smallest districts.

7. About 3.5% of the 540 districts in Michigan do not have operational CBAs and are not included in this count. The 516 CBAs referenced above, thus, are drawn from 96% of all Michigan districts.
8. Washington has 295 school districts; 27 districts in 2014-2015 reported that they do not have an operational CBA.
9. Michigan Public Acts 100-103 of 2011; Public Act 349 of 2012; Washington SB 5895 of 2012.
10. California State Education Code §44955.
11. We note that this may be a function of the distribution of districts with varying grade spans. A district's contract cannot include a negotiated average or maximum class size for a grade it does not serve.

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