

Statute and Implementation: How Phantom Policies Affect Tenure Value and Support

Educational Policy
2020, Vol. 34(2) 350–376
© The Author(s) 2018
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0895904818773917
journals.sagepub.com/home/epx



Dayna Jean DeFeo¹, Matthew Berman¹, and Diane Hirshberg¹

Abstract

Using survey responses from public school teachers and principals in Alaska, this article describes their understanding of tenure statute, and how that understanding affected support, perceived effectiveness, and valuation of tenure. Teachers and principals who inflated tenure protections were more likely to support it; the more teachers inflated tenure protections, the higher dollar value they placed on it. The article discusses the fiscal and policy implications of tenure inflation, noting that this garners the most criticism from education reformers, but concomitantly constitutes cost savings for taxpayers.

Keywords

tenure, policy implementation, teachers, educational policy, state policies

In 2012, parents of nine California public school children filed a lawsuit against the State, claiming its tenure policies prevented them from receiving a quality education by requiring districts to retain ineffective teachers. Five

Corresponding Author:

Dayna Jean DeFeo, Center for Alaska Education Policy Research, Institute of Social and Economic Research, University of Alaska Anchorage, 3211 Providence Drive, Anchorage, AK 99508-4614, USA.

Email: djdefeo@alaska.edu

¹University of Alaska Anchorage, USA

statutes were ruled unconstitutional in *Vergara v. California*, including those related to tenure, dismissal, and layoff. The landmark decision of the California Superior Court opened the door for more challenges; soon thereafter, a similar lawsuit (*Wright v. New York*) was filed in New York State. These high-profile cases reflect a broader public sentiment around teacher tenure: that tenure undermines educational objectives by retaining bad or ineffective teachers. As court proceedings unfold and states respond with policy actions, we interrogate the relationship between public opinion and understanding of the statute itself. Using a sample of educators (teachers and principals) in Alaska, we explore four key research questions:

Research Question 1: What do educators understand (or misunderstand) about tenure statute?

Research Question 2: How is understanding associated with attitudes about tenure?

Research Question 3: How does understanding predict perceptions of effectiveness?

Research Question 4: How does understanding affect valuation of tenure?

Our study found that educators have varying understandings and misunderstandings about tenure statute, and these differing conceptions have a significant impact on how tenure is perceived and valued. However, the public discourse around tenure—particularly among tenure critics—seems to promote a misunderstanding that inflates tenure protections. Because teachers and principals are among the chief participants in the earning of tenure and application of tenure, we suggest that "misunderstanding" of tenure statute may reflect not lack of knowledge, but rather a gap between written tenure statute and actual practice. We interpret these data through Weick's (1995) sensemaking theory, and posit that these organizational processes of interpreting statute into policy and action have resulted in "phantom policies" (Franzak, 2008), instances where practices become so ubiquitous that they constitute de facto policy. Our data allow us to explore what happens when teachers and principals arrive at these phantom policies around tenure.

Tenure History

In the 19th century, it was common for U.S. elected officials to reward their political supporters with government jobs. The Pendleton Federal Civil Service Act of 1883 was enacted to restrict this spoils system, transforming the nature of public service by requiring federal employees to be hired on the basis of merit, and prohibiting the government from firing or demoting them

for political reasons. These concepts caught on with state and local governments. In 1886, Massachusetts passed the first state law extending the principles of civil service to the teaching profession. The law allowed districts to enter into contracts with teachers for periods longer than 1 year, with the intent to separate the profession from political influence or abuses of power. In 1889, the Boston School Committee

suggested a tenure law providing for a probationary period . . . and thereafter permanent tenure subject to removal for cause after proper hearing. The bases for recommendations were that . . . annual contracts theretofore in vogue had not resulted in the elimination of poor, incompetent, and inefficient teachers; that the principle of annual election or appointment was not generally applied to policemen, firemen, or judicial officers, and in the very nature of things should not apply to teachers; that not infrequently the best teachers were discharged for inadequate reasons. (McSherry v. St. Paul, 202 Minn 102, 277 NW 541, 1938)

Other intentions of these early tenure statutes were to reduce the administrative burden and paperwork of rehiring teachers year-to-year, and entice teachers to stay in the profession longer (D'Amico, 2014). By 1915, the National Education Association (NEA) regarded tenure as integral to teacher employment, and it has consistently reaffirmed this position (Grinstead, 1972). By the 1960s, tenure or tenure-like protections with two key components—continued employment and protection against arbitrary dismissal—were provided in all states (Marshall, Baucom, & Webb, 1998).

More than a century after its inception, the spirit and letter of written tenure statutes provide many of these same protections and serve similar objectives (D'Amico, 2014). In the late 1990s, Marshall et al. (1998) reviewed tenure statutes across states and found sweeping similarities. 1 Over a decade later, Brunner and Imazeki (2010) again described similarities in length of probation period and how tenure is earned. However, our review of the literature and statutes noted that in the 7 years since those data were published, the nation has witnessed significant changes to tenure. Legislatures in three states—Florida, Kansas, and North Carolina—have eliminated tenure. The Idaho legislature also tried to do so in 2011, but voters subsequently repealed the law. By 2016, 16 states (an increase from 10 in 2010) required that the results of student test scores be used in making decisions about granting tenure (author analysis of state statutes; see also Doherty & Jacobs, 2015), and in 23 states, these are used as part of teacher performance evaluations (McGuinn, 2012), which was rarely done in the past (see Weisberg et al., 2009). Seven states have passed laws that return tenured teachers to probationary status if they are rated unsatisfactory on performance evaluations.

Foes, Advocates, and Public Opinion

These 2010 legislative changes align with—and are likely bolstered by—unfavorable media portrayals (see DellaVigna & Kaplan, 2006, and Hopkins & Ladd, 2013, for a discussion of conservative news media/ideologically distinctive media's impact on partisan attitudes and voting). Kahlenberg (2015) provides a considerable index of such representations, which include the October 2007 *New Yorker*'s exposé on the "rubber room" for unsuccessful teachers (Brill, 2009); *Newsweek* cover story, "Why we must fire bad teachers" (Thomas & Wingert, 2010); and *TIME* magazine's November 2014 cover story and feature article, "Rotten apples: It's nearly impossible to fire a bad teacher" (Edwards, 2014). These pieces attribute achievement gaps to poor-performing teachers and tenure policies that make it "almost impossible to fire them" (Thomas & Wingert, 2010, p. 25).

Concerted efforts by special interest groups complement these media portrayals. McGuinn (2012) calls these groups Education Reform Advocacy Organizations (ERAOs), which operate in opposition to teacher unions on policy topics; examples include *StudentsFirst, Stand for Children*, the 50 State Campaign for Achievement Now (50CAN), the Foundation for Excellence in Education (FEE), and the American Legislative Exchange Council (ALEC). These organizations differ in their geographic coverage (ranging from advocating nationwide reform to single states or communities) and use different approaches, but common stances include challenging policies around teacher tenure, evaluation, and dismissal.

Educational policies focusing on efficiency and using market system principles to achieve it are rooted in the same value system as social and economic reforms, thus they become implicit social critiques (Hursh, 2006) and a platform for other political agendas (Apple, 2006). Piazza (2014) has documented how neoliberal agendas have clashed with teacher unions, and notes that anti-tenure and anti-union sentiments are often confounded. The two major education unions, the NEA and American Federation of Teachers (AFT), are strong advocates for tenure, but argue that it is not as powerful as critics depict. They note that due process protections are afforded to many public employees and that 3 years is a longer probationary period than required of most other public sector professions (Kahlenberg, 2015). Tenure, from this perspective, allows teachers to "do the right thing" for children from teaching controversial curricula in conservative communities, to advocating for child welfare, to assigning grades on merit rather than political influence (Kahlenberg, 2015; Ravitch, 2006). Tenure advocates also note that unlike other professions where employees earn salary increases through promotions, teachers who stay in the classroom increase their wages through incremental steps (Joseph & Waymack, 2014), and in this model, late-career teachers are compensated more than new ones in a system designed to encourage teachers to stay in the profession and in the classroom (Firestone, 1994; Podgursky & Springer, 2007). Without tenure, they note, there is no protection against districts dismissing experienced teachers and hiring less experienced (and less expensive) ones. Furthermore, they note, new teachers are rarely non-retained during their probationary period, suggesting that better teacher evaluations—rather than tenure reform—are needed to change classrooms (Staiger & Rockoff, 2010).

The debate between tenure critics and advocates has been ongoing, and Weisberg et al. (2009) summarize its perennial nature:

One side claims that teacher tenure and due process protections render dismissal a practical impossibility, shielding ineffective teachers from removal in all but the most egregious instances. The other argues that the process provides only minimal protection against arbitrary or discriminatory dismissal, but that administrators fail to document poor performance adequately and refuse to provide struggling teachers with sufficient support. For decades these positions have remained largely unchanged. (p. 2)

The media coverage and public debate bring tenure to the foreground in public discussions about education, and polls provide insight to public opinion. A 2014 poll by *Education Next* indicated that respondents favored ending tenure by a 2 to 1 margin (Peterson, 2014). Similarly, 59% of respondents in a 2015 Phi Delta Kappan Gallup poll of the public attitudes toward the public schools (Richardson & Bushaw, 2015) indicated they oppose tenure, with 26% favoring it. However, opinion polls may themselves perpetuate misunderstandings as they lack construct validity. For example, when *TIME Magazine* polled the public about its feelings toward tenure in 2010, it defined tenure as "the practice of guaranteeing teachers lifetime job security after they have worked for a certain amount of time," to which 66% responded in opposition ("TIME Poll Results," 2010). From these polls, it is unclear to what extent expressed opinions are based on knowledge of how tenure it is awarded, and what rights it offers teachers.

On the empirical front, researchers have studied the relationship between tenure and teacher quality (Gordon, Kane, & Staiger, 2006; Podgursky & Springer, 2007), and particularly around experience (which can be interpreted as a proxy for tenure) and quality (Clotfelter, Ladd, & Vigdor, 2006; Huang & Moon, 2009; Ladd, 2008; Pennucci, 2012; Rivkin, Hanushek, & Kain, 2005; Rosenholtz, 1985). Others have explored the economic value of tenure (Brunner & Imazeki, 2010; Eberts & Stone, 1985; Wainer, 2011), and the role

of tenure in retaining teachers (Chingos, 2014; West & Chingos, 2009). However, these studies have not considered how the voting public perceives or understands these concepts, even when they respond or participate in these processes. Our work complements the body of literature by exploring what rights educators believe tenure bestows, and how those beliefs impact their attitudes toward tenure.

Theoretical Framework

Much work on policy interpretation uses sensemaking theory to explain the process by which institutions and actors make sense of policy "on the ground." Sensemaking theory considers the roles of perception, cognition, action, and social interaction in organizations, and provides insight into how actors interpret situations and create norms (Weick, Sutcliffe, & Obstfeld, 2005). As it relates to policy, a way of acting or behaving is not merely codified in statute, but enacted by people or actors within organizations, and therefore necessarily subject to interpretation and negotiation. Moreover, actions follow patterns and social cues from experience and context (Weick, 1995); so eventually, interpretations become informally systematized via routine practices or phantom policies.

Applying this theory to tenure statute offers a unique perspective. Unlike other studies that have explored sensemaking as a process by which new policies or initiatives are introduced and interpreted in schools (see Anagnostopoulos, Sykes, McCrory, Cannata, & Frank, 2010; Bridwell-Mitchell & Sherer, 2017; Coburn, 2001; Hill, 2001; Schmidt & Datnow, 2005), our analysis is less concerned with *how*, but rather *what*, the sensemaking processes—the phantom policies—with the written statute itself, and considers the implications of the phantom policies within a policy context.

Method

In spring 2014, the Alaska Legislature passed House Bill 278, omnibus education legislation that, among other actions, called for several studies of education policy and practice across the state. One of these was "an evaluation of, and recommendations for, teacher tenure," (Sec. 52) to be conducted by the state Department of Administration. We were contracted to do this work in November 2014, with a research objective that included policy review, economic analysis, and a survey of stakeholder opinion around these topics.

Although the subset of data presented here is quantitative, the larger study employed a mixed-methods research design. To address the broader research questions, we conducted key informant interviews with legislators, attorneys who specialize in tenure policy, human resources specialists, and superintendents. Simultaneously, we engaged over 100 union leaders, teachers, principals, school board members, and school business officers in focus group interviews. In this phase of data collection, we sought to understand key themes and concerns around tenure policy and to identify language and nuance in the Alaska context.

Tenure in Alaska is defined in AS § 14.20.150-180, and largely aligns with the most common teacher tenure policies in the nation (see Education Commission of the States, 2014): after 3 years of service in the same school district and with satisfactory performance evaluations, teachers earn tenure when they begin their fourth consecutive year. Per statute, tenure is not transferrable between Alaska school districts, though teachers holding tenure have a reduced (2-year) probationary period if they move to a new district (150). It specifies employee rights to continued employment (155) but allows tenured teachers to be reassigned at the district's discretion and does not guarantee salary (158), indicates the circumstances under which a tenured teacher can be dismissed (170), and notes that tenured teachers who meet the minimum qualifications may take the positions of untenured teachers during reductions of force, though tenured teachers may also be laid off for budget reasons (177). The Alaska Department of Education and Early Development (DEED) provides support and technical assistance to districts; however, it is ultimately the individual administrators and educators throughout the state who interpret these statutes and policies through their daily activities.

Stakeholder *understanding* of tenure was not an initial research objective. However, in preliminary data collection phases, focus group interviewees lamented that tenure was poorly understood, and debates about the content of current tenure statutes erupted between participants. We realized that any survey about tenure had inherent threats to response process validity resulting from a poor understanding of the concept and nuances of tenure itself (see also Bushaw & McNee, 2009). Thus, as we were tasked with measuring stakeholder sentiment, we also determined it necessary to ascertain respondents' level of understanding in relation to the opinions they expressed.

To measure understanding of tenure statute, we wrote six true/false questions explicitly addressing the fundamental essences of tenure in Alaska as codified in the statute, including how it is earned, under what circumstances teachers can be dismissed, and district responsibilities to teachers. These questions allowed us to develop two independent variables: *misunderstanding* (magnitude of understanding, operationalized as a count of the number of responses contrary to statute) and *inflation* (direction of misunderstanding, reflecting the number of respondents' incorrect responses overestimating statutory tenure protections

minus the number of incorrect responses underestimating statutory protections). Other survey questions, detailed in the "Findings" section, served to elicit the dependent variables: support, effectiveness, and value.

Literature review and qualitative data analysis from focus group interviews informed the preliminary survey development and enhanced its construct validity for the intended audiences (see Olshansky et al., 2012; Yoshikawa, Weisner, Kalil, & Way, 2008). The survey was further vetted for construct and content validity by the Alaska Council of School Administrators, administrators in the Alaska DEED, members of the Center for Alaska Education Policy Research (CAEPR) advisory board, and the Director of the University of Alaska Office of K-12 Outreach. With their feedback, we adjusted questions for clarity, precision, and language most appropriate for the intended audience.

The instrument was administered electronically over a 6-week period in the spring of 2015. To recruit participants, we engaged stakeholder networks and emailed a survey link to all members of 16 statewide professional organizations. For teachers, these included the NEA-Alaska, Alaska Native Educators Association, and the Association of Interior Native Educators. For principals, this included the Alaska Council of School Administrators, which includes the Alaska Association of Elementary School Principals and the Alaska Association of Secondary School Principals. In addition, we made a link available on our website, and made stakeholder presentations to the state school board association, the state board of education, the state association for school business officers, the NEA state board of directors, and the superintendents' association legislative meeting. Superintendents and administrators in several districts facilitated survey dissemination to school employees by promoting the study and forwarding the link.

Findings

From the self-selecting population following our recruitment efforts, we ultimately received 905 completed surveys from education stakeholders statewide. The analysis presented in this article focuses on the educators themselves. Aside from the obvious need for statistical power, we focus on educators for two additional reasons. First, though we cannot calculate a precise response rate (as we did not send the email invitations ourselves and could not track the roles of people who attended our presentations), we have data about the number of educators employed in Alaska, and can identify with some degree of certainty their representativeness of the state N. Also, though we do not know what the general public understands, it seems reasonable that educators would represent the most well-informed cross-section of

	Teach	ers	Principals		
	Respondents $n = 503$	Statewide N = 7,585	Respondents $n = 91$	Statewide N = 503	
Male	28.7%	29.7%	42.9%	53.3%	
White, non-Hispanic	89.8%	88.8%	86.5%	86.5%	
Tenured ^a	80.0%	73.6%			
Master's degree or higher	58.3%	42.2%	87.6%	87.5%	
Mean experience in current position (years) ^b	10.6	10.9	8.94	8.29	
M age (years)	48.5	46.4	48.9	49.0	
Rural school	23.7%	26.8%	36.3%	43.2%	

Table I. Characteristics of Survey Respondents.

Source. Alaska Department of Education and Early Development (DEED) certificated personnel database.

Note. Chart displays demographics of survey respondents and summary statistics for teachers and principals working full-time in October 2013. The sample represents 6.6% of teachers and 18.1% of principals in Alaska public schools. Compared with all Alaska teachers, respondents were more likely to have a master's degree and tenure, and less likely to work in a rural school. However, differences between the survey and statewide population were not statistically significant.

the population, which provides an interesting point of departure for the findings and discussion.

After excluding about 10% of observations that had missing values for demographic and job assignment characteristics, the sample includes 594 respondents (503 teachers and 91 principals). Table 1 provides a crosstab of the sample and population by role and demographic characteristics. The sample represents 6.6% and 18.1%, respectively, of teachers and principals in Alaska. A sample's representativeness in web survey research is more important than response rate (Cook, Heath, & Thompson, 2000), and a larger percentage of survey respondents than Alaska teachers had master's degrees and had tenure, and fewer worked in rural schools, many of which have a majority Alaska Native student population. However, neither these nor any other differences were statistically significant ($p \le .1$). Nevertheless, we controlled for age, race, gender, years of experience, primary job assignment, degree level, rural location, and whether or not the respondent had tenure in all the statistical tests reported below, to adjust for potential effects of differences between the survey sample and the Alaska population.

^aSelf-reported for survey respondents. Figure for the population represents the percentage of teachers with 3 or more years of experience in the district.

^bMay be less than total teaching experience.

^cNo school in the district located within 50 road miles of a community with 10,000 or larger population.

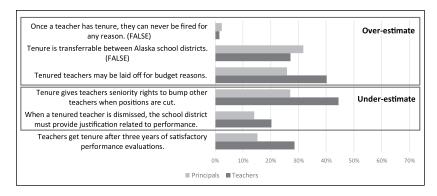


Figure 1. Percentage of respondents responding incorrectly to tenure statute questions.

Note. This figure represents the percentage of teachers and principals who responded incorrectly to true/false statements about tenure (n = 503 for teachers; 91 for principals). Questions are true except where indicated with FALSE. The boxes indicate statements that over- or underestimate tenure protections.

Misunderstanding

Our data detected widespread misunderstandings of tenure statute among teacher and principal respondents, detailed in Figure 1. Nearly all agreed that "Once a teacher has tenure, they can never be fired for any reason" is a false statement. However, a significant level of misunderstanding was evident around how and under what circumstances a teacher can be laid off or dismissed. Nearly half of respondents responded contrary to policy that teachers with tenure can be laid off for budget reasons, or with just cause documented by the district. Their responses also demonstrate misunderstanding of the transferability of tenure between districts, and of how tenure and seniority affect teacher appointments. These numbers reflect a fundamental misalignment between educator understanding and state statute regarding how tenure factors in when school districts manage staffing and budgeting. The distribution of responses across the two independent variables is presented in Figure 2.

Support

To measure support for tenure, we used agreement with or opposition to the statement, "What do you think about eliminating tenure and replacing it with fixed-length contracts?" We estimated ordered logistic regression equations to analyze the extent to which misunderstanding and inflating tenure protections predicted support for tenure, controlling for teacher and job characteristics, based on the following model:

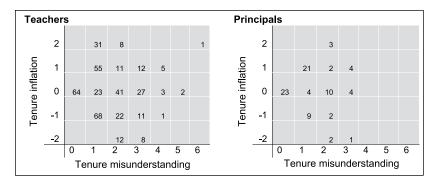


Figure 2. Distribution of tenure misunderstanding and inflation. *Note.* This scatterplot represents the distribution of responses on two variables: tenure misunderstanding (*x* axis) represents the number of true/false questions answered incorrectly. Tenure inflation (*y* axis) reflects the composite direction of misunderstanding (over- or underestimating tenure protections).

$$y = \mu + \alpha X + \beta_1 \times (\text{misunderstanding}) + \beta_2 \times (\text{inflation}) + u,$$
 (1)

where y indicates responses on a 5-point Likert-type scale ranging from $strongly\ support$ to $strongly\ oppose$, μ represents the set of thresholds for the ordered probability model, and \mathbf{X} is a vector of teacher and job assignment characteristics. Teacher and job characteristics include age, race (non-White non-Hispanic), gender, years of experience, primary job assignment, degree level, rural location, and whether or not the respondent had tenure. Tenure misunderstanding and inflation are measured as defined in Figure 2.

The results for teachers, summarized in Table 2, showed no statistically significant effect of tenure misunderstanding (p = .212); however, results for tenure misunderstanding showed marked differences between tenured and untenured teachers. Tenured teachers were 3 times more likely to support tenure than untenured teachers (p < .001). Results in Table 2 also show that the more tenured teachers inflated tenure protections, the more they supported tenure (p = .081), while effects were insignificant for untenured teachers (p = .463). Similar equations estimated for principals (not shown in Table 2) also showed a positive correlation between tenure inflation and support for tenure (p = .024), and insignificant effect of tenure misunderstanding (p = .852).²

Effectiveness

Many attitudes are cognitively based, but they can also be affective or behavioral (Eaton & Visser, 2008); thus, we focused on the perceived effectiveness

Table 2. Results of Statistical Equations Estimating Effects of Tenure Misunderstanding and Inflation on Teachers' Support for Tenure, Perceived Effectiveness of Tenure, and Tenure Value.

		n	Tenure misunderstanding		Tenure inflation	
Dependent variable	Specification		Odds ratio	Þ	Odds ratio	Þ
Support for tenure ^a	Ordered logistic	376	1.130	.212		
Tenured teachers					1.222	.081
Untenured teachers					0.848	.463
Tenure effectiveness ^a	Ordered logistic					
Protect rights	_	384	1.068	.946	1.187	.066
Attract		382	1.100	.287	1.245	.019
Accountable		378	1.084	.373	0.944	.533
		n	Value ratio ^c	Þ	Value ratio ^c	Þ
Value of tenure ^b	Binary probit	342	-			
5-year probation			1.013	.865	0.890	.259
Yearly contract			1.013	.865	1.393	.011
5-year contract			0.763	.033	1.393	.011

Note. Tenured teachers who inflated tenure protections were more likely to support tenure. Teachers who inflated tenure protections were more likely to perceive that tenure protects teacher rights and increases the teacher supply. Teachers who inflated tenure protections also would require greater salary compensation to give it up. Table depicts maximum likelihood estimates; coefficients for demographic characteristics (age, gender, race) and teacher characteristics (assignment type, experience, degree level) are not shown.

aOrdered logistic: 5-point Likert-type scale, with higher values indicating greater support.
Binary probit equation: I = reject bid (value higher than amount offered), 0 = accept bid (value less than or equal to amount offered).

of tenure—largely because this is the target of media portrayals. To calculate perceptions of tenure effectiveness, we used participants' responses to questions on a 5-point Likert-type scale rating tenure's effectiveness in achieving certain objectives. Using themes identified in the literature and in our focus group interviews, we wrote 11 questions to ascertain perceptions of tenure effectiveness in three categories: protecting teacher rights, attracting and retaining teachers, and ensuring accountability. Crosstabs of responses by role found strongest agreement that tenure effectively protected teacher

^cThe value ratio represents the ratio of inferred value of current tenure system to the specified alternative.

rights, with principals agreeing more strongly than teachers. On the contrary, teachers more often than principals agreed that tenure held districts accountable, and attracted and retained teachers in the profession.

For teachers, we added the number of questions with which they agreed or strongly agreed in each of the three categories of effectiveness to develop three ordinal effectiveness indexes. We then estimated ordered logistic regressions to ascertain how tenure misunderstanding and inflation predicted the score for each index, using the same model as specified in Equation 1, except that *y* now represents the number of questions associated with that particular category of effectiveness for which teachers agreed or strongly agreed. As before, the equations control for age, race, years of experience, gender, primary job assignment, degree level, and whether or not the respondent had tenure. Table 2 summarizes the results. Unsurprisingly, teachers who inflated tenure protections were more likely to agree that it protected their rights and increased the teacher supply. There was no significant effect of misunderstanding on teacher perception of accountability.

Value

Survey responses allowed us to estimate a dollar value that teachers subjectively placed on the current Alaska tenure system relative to three alternative new tenure regimes. In the survey, teachers were offered a random bid in exchange for accepting a change to one of three randomly selected alternatives: extending the probation period to 5 years, eliminating tenure and replacing it with annual contracts, or eliminating tenure and replacing it with 5-year contracts. We assumed that the respondent's subjective value of tenure was less than or equal to the bid amount if the bid were accepted, and more if the bid were rejected. The salary increases or bids were randomly generated with equal probability of being 20%, 30%, 40%, 50%, or 60% higher than current salary. Respondents declining the first bid were offered a second bid randomly increased by 5%, 10%, or 15%; those who accepted the first offer were offered a second bid randomly decreased by one of the same percentages.³

The survey expressed the bid as a percentage of current salary rather than as a lump sum amount. Current salary was not asked in the survey, so to adjust for potential issues with interpretation of the results, we estimated an equation for all Alaska public school teachers using data from the state certificated employee database that predicted salary of full-time teachers as a function of the individual characteristics observed in the survey. We applied the equation that predicted salary for all Alaska teachers to the teacher survey respondents to estimate a predicted salary for each respondent, and then calculated a dollar bid as the product of the percentage bid offered in the survey

and the predicted salary. Assuming a lognormal distribution for the value of tenure, we estimated probit equations for the probability that the bid would be rejected depending on the natural logarithm of the bid, based on the model:

$$\operatorname{prob}(y) = \log(\operatorname{bid}) - \begin{bmatrix} \mu + \alpha X + \beta_1 \times (\operatorname{misunderstanding}) + \\ \beta_2 \times (\operatorname{inflation}) \end{bmatrix}, \quad (2)$$

where y represents acceptance (1) or rejection (0) of the bid, μ is a constant term, and the other variables are defined as in Equation 1. Besides tenure misunderstanding and tenure inflation, the equation controls for demographic characteristics (age, gender, race) and teacher characteristics (assignment type, experience, degree level), with the coefficient on the log of the bid constrained to -1. The negative signs for the coefficients follow because accepting the bid implies that the respondent's subjective valuation is lower than the log of the bid amount.

The equation results demonstrated (unsurprisingly) that teachers preferred the current tenure system to any of the three options presented. Increasing the probationary period from 3 to 5 years was the least onerous, requiring a 23% of salary to accept, or about US\$16,000 for the average teacher in Alaska. Teachers required about 3 times that amount to accept either of the two options that eliminated tenure, with no significant difference between renewable 5-year contracts and year-to-year contracts. Because the effects of demographic and teacher characteristics did not differ significantly among tenure alternatives, we estimated a single equation combining the three alternatives with alternative-specific intercepts and coefficients on tenure misunderstanding. Results are summarized in Table 2. It is interesting to note that men and teachers with high demand assignments (e.g., special education or Alaska Native language instructors) valued tenure less, perhaps because they perceive additional job security or employment opportunities outside of teaching (see Boe, Bobbitt, Cook, Barkanic, & Maislin, 1998; Grissmer & Kirby, 1992; Murnane, 1996).

Misunderstanding and inflating tenure protections had no significant effect on the monetary value teachers placed on keeping the current 3-year relative to a 5-year probationary period. Greater misunderstanding also had no significant effect on the value relative to year-to-year contracts, but reduced the value of tenure relative to 5-year contracts by 24% for each wrong answer. As one might expect, the more teachers inflated tenure protections, the more compensation they said they would require to give it up. As shown in Table 2, each additional incorrect response overestimating statutory tenure protections increased the value by about one third, with no difference found between an annual and 5-year contract.

We conducted robustness checks (Frank, 2000; Frank, Maroulis, Duong, & Kelcey, 2013) to test the sensitivity of other results regarding tenure inflation to possible response bias. To invalidate the inference that tenure inflation increased teachers' perceived effectiveness of tenure as a policy to attract teachers to the profession, 16% (82) of the respondents would have to be replaced by cases with no effect. To invalidate the finding that tenure inflation increased teachers' tenure value (5-year contract vs. current regime) would require replacing 21% (56) of respondents with cases for which there is no effect of zero. For the effect of tenure inflation on tenure value (5-year contract and yearly contract), it would take replacing 22% (59) of the respondents with cases for which there is a zero effect to invalidate the inference.

Discussion

Although our work explored misunderstanding empirically, the lack of public understanding has been noted anecdotally in debates about tenure for nearly a 100 years—almost as long as the protections themselves. In the NEA's 1924 *Report of the Committee of One Hundred on the Problem of Tenure* (Winship & West, 1924), public perception of tenure was addressed for the first time. A 1922 Research Bulletin of the NEA, published 2 years prior, had noted that "[t]he fear of making the incompetent teacher secure in her position has delayed the adoption of teacher tenure regulations in many of the States [and the report itself strove] to acquaint people with the actual facts" (p. 140). Contemporary writers continue to document these misconceptions or exaggerations made in the political arena (see Goldstein, 2014), most commonly the perception of a "job for life" or "permanent employment" (see Kahlenberg, 2015; Marshall et al., 1998).

Our data also reflect a significant amount of misunderstanding which, through sensemaking theory, we interpret as a reflection of *practice* rather than *misunderstanding of statute*. As evidence, after we tested understanding with our six true/false questions, the survey supplied an explanation of tenure statute to respondents before we asked about attitudes, effectiveness, or value. This information we supplied did not seem to impact responses, and could be interpreted as "ignored residue" (Russell, Stefix, Pirolli, & Card, 1993); when beliefs are strongly held, the focus is on confirming them, rather than questioning or renegotiating them. However, free responses offered examples of tangible and concrete policy contradictions, including instances where teachers committed unethical acts without consequence, teachers having no accountability after earning tenure and "slacking off," and the paperwork and processes required to dismiss a teacher being so extensive that they constitute de facto permanent appointments.

This implores us to consider that while our survey tested understanding of written statute, teachers' and principals' answers may reflect the reality of implementation or the sensemaking process of interpreting policy. Within organizations, activity is negotiated in response to a number of social, contextual, and historical factors. Statute—in this case, an old statute that was developed far away and at the statewide level—is only one influence on local activity, and teachers and principals as actors in organizations will negotiate and interpret that statute in practice. Although we originally regarded this as a concern of test validity in the measurement of understanding, the nuance supplied by sensemaking theory suggests that responses simply reflected the outputs of sensemaking processes in schools. Thus, we wondered about how tenure practices align with statute.

To What Extent Is Tenure Applied in Ways That Contradict Statute?

Educators in our study did not demonstrate a consensus around how tenure is applied or misapplied (about 31% inflate, 25% underestimate, and there is no directional misunderstanding for the others); however, popular representations of tenure in the broader public discourse that claim it is "nearly impossible to fire a bad teacher" inflate tenure significantly. We were surprised at the proportion of tenure underestimating, given the recent media portrayals. Upon reflection, it seems the fundamental difference in the visibility of these misunderstandings can be attributed to the arena where disputes are mediated. When principals inflate tenure protections to the point that school quality declines, these practices gain public attention and are portrayed in the media. Actual examples (e.g., Vergara v. California) and depictions in popular culture (e.g., the Johnson & Barnz, 2012 film, Won't back down) highlight the impacts of tenure inflation. On the contrary, principals who underestimate tenure protections are autocrats denying due process to teachers. When they underestimate, these misunderstandings impact individual teachers and are likely handled locally and privately in union-mediated conversations without media fanfare. Thus, it seems that tenure inflation receives disproportionate media attention, though our data suggest it is as prevalent as underestimation.

We were particularly interested in tenure inflation, because of recent lawsuits and media attention that underscore this practice. Our participants mostly knew that teachers who have tenure can be dismissed, but a significant number still inflated its protections in other ways. An example is the transferability of tenure between districts in Alaska. Although statute states that tenure can be earned after 2 years when teachers transfer between districts (but teachers remain in probationary status in the interim), in our focus groups, principals and teachers alike were adamant that tenure is in fact transferrable. When principals inflate tenure protections in this way and act on those misconceptions (e.g., being leery of hiring a tenured teacher from another district, or feeling that they cannot nonretain a new teacher who was awarded tenure elsewhere), their misunderstandings become phantom policies, alternate guidelines that direct their actions.

This sensemaking process is ubiquitous in organizations—a statute is written and then the regulative policy is interpreted within the institutional system. This has been explored for other policy topics, for example, reforms (Schmidt & Datnow, 2005), curriculum (Coburn, 2001), and certification (Anagnostopoulos et al., 2010). However, tenure presents an interesting and complementary case. First, tenure is more than a century old and—at least until recent debates—statutes had been largely unchanged. All players—in the organizational (school) and policy arenas—are younger than tenure itself, suggesting that phantoms resulting from institutional sensemaking can be long-lived and far-reaching. Next, most teachers and principals will have few direct interactions with the nuances of tenure statute—it confers automatically and is rarely formally challenged (see Chingos, 2014; Gordon et al., 2006). In this case, it seems that legacy phantoms may blur contemporary understandings, but these can, in a legal challenge, have real consequences; as Sharma (2006) notes, "inertia and commitment can give people a false sense of security while they hold on to outdated frameworks" (p. 4). Thus, we wondered about the implications of tenure inflation.

What Happens When Educators Ascribe to Phantom Policies That Inflate Tenure Protections?

We see two countervailing impacts. The more teachers inflate tenure protections, the more valuable tenure itself becomes to them. Eliminating or reducing tenure would take away that value, even if that subjective value is rooted in misunderstanding. In other words, the phantom policies around tenure inflation constitute both a real value to teachers and a cost savings to taxpayers, and thus weakening or abolishing these protections would require that teachers be paid more (see Rothstein, 2014, who also posited that changes to teacher dismissal policies would require significant salary increases). Because most states still have tenure, eliminating or weakening it in any one state would require salary increases to ensure market competitiveness, as teachers consider salary, working conditions, and employee benefits when making choices around labor market opportunities (Marchand & Weber, 2015). Previous research supports this; longer probation periods and entry-level teacher salaries are directly correlated (Brunner & Imazeki, 2010), and as a benefit with no direct cost, it saves taxpayer dollars (Wainer, 2011).

A mitigating factor in teacher understanding of their own rights and protections are unions—organizations that advocate for teachers' best interests. Although it seems reasonable that trust in unions could lead to teacher complacency, it does not appear that perceptions of union or collective bargaining effectiveness are linked to a lack of teacher attention to policy issues. Rather, teachers tend to be more engaged with policy when they regard their union as effective (Popiel, 2013). Conversely, disengagement can be attributed to unhappiness with the perception that unions protect inadequate teachers (Popiel, 2013)—or, using our language, the perception that unions foster tenure inflation. Research suggests that, while teachers are not uniform in their interests for contract negotiations (Pogodzinski & Jones, 2014), they are most interested in the union's role in collective bargaining and ensuring contract adherence to contract provisions (see Hammer, Bayazit, & Wazeter, 2009).

When principals inflate tenure protections, they tie their own hands as they acquiesce their right and responsibility to reassign or dismiss teachers who are not performing. This aspect of the phantom policy is what gains most caviling from tenure critics. Ironically in this case, they are condemning not statute, but rather the phantom policy, and the legal statute itself becomes irrelevant in the case of a functioning phantom policy. Fixing the problem actually requires no change in statute, but simply ghost-busting the phantom. The paradox is that dispelling phantom policies around tenure will be costly; as we note above, as teachers discover that their rights are limited to those actually in statute, it will require more compensation to attract and keep them in the profession. If the funds are not provided to increase teacher salaries, the quality of public education is likely to decline (Chaudhary, 2009; Sander, 1999), and this concern for effective teachers was the impetus for attacks against tenure in the first place.

Thus, as constituents advocate to strengthen or weaken tenure protections, decision makers might consider the depth of advocates' understanding of the rights tenure bestows in tandem with the strength of their opinions of tenure's merit. Any evaluation of tenure rights that includes public opinion should verify the degree that respondents—even the teachers themselves—understand the actual statute shaping the rights that they advocate or critique.

Implications

Symbolic politics (Edelman, 1977) consider how political actions have both an instrumental dimension (as they are written in policy and practiced through implementation) and a symbolic dimension (which represents the way these policies are presented to the public). Thus, even the voting public—the members of which provide context for but are outside of institutional sensemaking

processes—are exposed to statute through lenses of interpretation. Within this context, people make choices not based on clear understanding of laws themselves but rather on constructed ideological perspectives (Sears, 2001). The power of the phantom within institutions and the electorate is that it can be exploited by special interest groups, and encourages people to do things that may not be in their best interests.

If the inflation of tenure protections is ameliorated, individual teachers will lose a perceived benefit and will need to be compensated. If it is cleared up for principals, they may change practices with individual teachers, initiating dismissals that had been heretofore prohibited by the phantom. For the system of districts and taxpayers, realizing the ability to fire bad teachers (which policy has always allowed) will come at a price of increasing teacher salaries to maintain market competitiveness.

The significant amount of misunderstanding or misapplication of statute reflects not only vulnerabilities but also opportunities for dialogue. It also underscores some impacts of policy changes. In conversations, particularly between tenure advocates and reform organizations, there is a need to figure out whether discussants are referring to written statutes or phantom policies, noting that opposing sides may be arguing not just different positions, but over different policies.

More broadly, this study raises questions about the relationships between understanding and opinion around policy concepts. Whether they be policy objectives (e.g., Title IX, affirmative action) or scientific ones (e.g., climate change), there is a need to consider the presence and impact of phantoms. We live in a new context of viral fake news, characterized by a preference for opinion over objectivity (Marchi, 2012), and where "speed often takes precedence over truth" (Maheshwari, 2016). In a world where the number of Facebook likes garners more legislative attention than a well-constructed scientific analysis, the impact of these "new metrics of scholarly authority" (Jensen, 2007) cannot be ignored, and there is a need to consider the role of stories in creating or perpetuating misinformation, and how this impacts public opinion and its demand for responsive policy. The example of tenure misunderstanding in this time of diminishing critical information literacy exposes these vulnerabilities in the policy arena.

Recommendations

By identifying phantom policies around tenure, the data in this study underscore Brenner's (2007) assertion that "policy is less about using research to answer the right questions than it is about values, negotiation, access, and influence" (p. 166). From a practical standpoint, our data suggest an opportunity to

increase understanding around tenure statute and practice within the education profession. This may be a valuable focus for unions and educator preparation programs, as a deeper understanding would better allow educators to advocate and participate in policy conversations.

We also recommend that policy makers heed our findings when considering legislative action. Phantom policies that inflate tenure protections are at the forefront of the political debate, but the focus needs to shift to education objectives and examine what tenure needs to do in current sociopolitical contexts. A significant need is to retain the best educators in a time of diminishing teacher supply (Ingersoll, Merrill, & Stuckey, 2014; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Data demonstrate that the highest quality teachers leave the profession more frequently than low-performing ones are retained (Chingos, 2014), and rather than elevate the unintended consequences to the heart of the discussion, there is an opportunity to shift focus to tenure's intent, and to think critically and productively about how to achieve those objectives.

Our work also invites more research. There is a broad opportunity to better understand public understanding of tenure, and to explore the relationship between attitudes and understanding for other stakeholder groups. As our research was limited to Alaska, we recommend additional studies to see if our findings apply in other places, particularly states with different tenure policies. Because our data seem to have identified a gap between statute and practice, there is also a significant opportunity to explore the phantom policies around tenure, and the difference between tenure statute as it is written and implemented.

Limitations

Although the instrument design, data collection, and analysis were done with integrity, we can identify some significant limitations:

- The data are limited to Alaska. Although tenure statute in Alaska is similar to most other states (earned after 3 years), the Alaska educational system and the context in which tenure statutes are interpreted is unique, so these results may not be replicable or generalizable elsewhere.
- Participation was not randomized. The number of participants was fair (594) and represent a good cross-section of Alaskan communities, and we controlled for differences between respondent and population characteristics. However, nonresponse bias could affect the results (Schalm & Kelloway, 2001). Findings with respect to the effects of

- tenure inflation on teachers' support for tenure and effectiveness in protecting teacher rights are not robust, and should be viewed with caution until verified through additional research.
- The small number of participants representing other key stakeholder groups required us to limit our analysis to teachers and principals. As other education administrators (e.g., school business officers, school board members, superintendents) also participate in implementing tenure policy, their perspective must also be considered in the larger discussions.
- The small number of questions on which we created the index and directional variables limited our ability to explore the conditions and nuances for understanding and inflation.
- The likely misalignment between statute and implementation raises a
 test validity concern for the concept of understanding. It is unclear
 whether responses reflect true misunderstanding of statute or the reality of implementation following institutional sensemaking. Although
 this interesting contradiction was the foundation of our discussion, it
 is a limitation of our method.

Nonetheless, the unique focus of the study offers an interesting point of departure for further discussion and exploration.

Conclusion

The benefits of tenure are not limited to the protections it affords by statute. Free responses in our survey noted that tenure allows teachers to advocate on behalf of students, attracts new teachers into the profession, and gives teachers a feeling of security that allows them to invest in their schools and communities. Kahlenberg (2015) notes that even amid a significant amount of worker protection legislation enacted since tenure's inception (e.g., the Civil Rights Acts of 1964 and 1991; the Equal Pay Act of 1963; the Americans With Disabilities Act of 1990), tenure is still relevant in the educational milieu. In those statutes, burden of proof for wrongdoing falls on employee, but tenure shifts that responsibility to the employer, which is an important distinction. Tenure still serves the critical function of protecting teachers from arbitrary dismissal, and though workers have more protection now than they did when tenure was first introduced, the school environment has also changed in that time period.

Teacher and principal inflation of tenure protections is associated with greater support for it. However, media representations, education reformers, and public opinion polls suggest that other stakeholders who make the same

overestimations would support tenure less, and the misunderstanding on both sides contributes to polarization and inhibits meaningful dialogue. Phantom policies around tenure inflation both create cost savings as they extend the protections of tenure offered in policy, and concomitantly receive significant public criticism. To the extent that media portrayals influence this inflation among teachers and principals, they become a self-fulfilling prophecy.

In our current political climate, we anticipate that more and more dramatic changes to tenure will be proposed in Alaska and beyond. Our concern is that decisions will be made not using the best empirical data on the effects of tenure, but rather on popular understandings and misunderstandings that derive from political ideology or long-held perceptions. This article helps unpack what some of those misunderstandings are and can provide guidance around what educators and policy makers might do to counter these views.

Acknowledgments

The authors wish to thank the organizations that facilitated instrument development and data collection: the Alaska Council of School Administrators, Alaska Department of Education & Early Development, Alaska Native Educators Association, Association of Interior Native Educators, National Education Association—Alaska, and the University of Alaska Office of K-12 Outreach. They also thank Liz Brooks, Lexi Hill, Zeynep Kılıç, and Rebeca Maseda for their constructive insights in the manuscript's development.

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) received no financial support for the research, authorship, and/or publication of this article. However, data presented in this article were collected as part of a project conducted under contract to the Alaska Department of Administration, per Alaska State Statue Chapter No. 15, SLA 2014, known as House Bill 278 from the 28th Alaska Legislature, 2013-2014.

Notes

- Their analysis did note small differences in length of probationary period, whether part-time teachers qualify for tenure, and how administrators can earn it. However, for the typical classroom teacher assignment, protections were broadly similar and germane.
- 2. Interestingly, even with a small n for superintendents (26 out of 53 Alaska superintendents), we also detected a significant effect, which was opposite

- from principals and teachers: the more they inflated tenure rights, the more they opposed tenure (p = .028).
- Hanemann, Loomis, and Kanninen (1991) provides a technical description of the valuation method. The distribution of bids was determined by analyzing information gathered from survey pre-tests asking an open-ended question about the amount needed to accept a change to the new regime.

ORCID iD

Dayna Jean DeFeo (D) https://orcid.org/0000-0001-7638-3683

References

- Anagnostopoulos, D., Sykes, G., McCrory, R., Cannata, M., & Frank, K. (2010). Dollars, distinction, or duty? The meaning of the national board for professional teaching standards for teachers' work and collegial relations. *American Journal* of Education, 116, 337-369.
- Apple, M. (2006). Interrupting the right: On doing critical educational work in controversial times. In G. Ladson-Billings & W. Tate (Eds.), *Education research in the public interest: Social justice, action, and policy* (pp. 27-45). New York, NY: Teachers College Press, Columbia University.
- Boe, E. E., Bobbitt, S. A., Cook, L. H., Barkanic, G., & Maislin, G. (1998). Teacher turnover in eight cognate areas: National trends and predictors. Philadelphia, PA: Center for Research and Evaluation in Social Policy.
- Brenner, D. (2007). Strategies for becoming involved in policy: What was learned when faculty opposed a stand-alone course in phonics. *Journal of Literacy Research*, 39, 163-171.
- Bridwell-Mitchell, E. N., & Sherer, D. G. (2017). Institutional complexity and policy implementation: How underlying logics drive teacher interpretations of reform. *Educational Evaluation and Policy Analysis*, 39, 223-247.
- Brill, S. (2009, August 31). The rubber room: The battle over New York City's worst teachers. *The New Yorker*. Retrieved from https://www.newyorker.com/magazine/2009/08/31/the-rubber-room
- Brunner, E. J., & Imazeki, J. (2010). Probation length and teacher salaries: Does waiting pay off? *Industrial and Labor Relations Review*, 64, 164-180.
- Bushaw, W. J., & McNee, J. A. (2009). Americans speak out: Are educators and policy makers listening? *Phi Delta Kappan*, 91, 8-23.
- Chaudhary, L. (2009). Education inputs, student performance and school finance reform in Michigan. *Economics of Education Review*, 28, 90-98.
- Chingos, M. M. (2014). *Ending teacher tenure would have little impact on its own*. Washington, DC: Brown Center on Education Policy, Brookings Institution.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006). Teacher-student matching and the assessment of teacher effectiveness. *Journal of Human Resources*, 41, 778-820.
- Coburn, C. E. (2001). Collective sensemaking about reading: How teachers mediate reading policy in their professional communities. *Educational Evaluation and Policy Analysis*, 23, 145-170.

Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web-or internet-based surveys. *Educational and Psychological Measurement*, 60, 821-836.

- D'Amico, D. (2014, July 23). The myth of teacher tenure. *Teachers College Record*. Available from http://www.tcrecord.org
- DellaVigna, S., & Kaplan, E. (2006). *The Fox News effect: Media bias and voting* (No. w12169). Cambridge, MA: National Bureau of Economic Research.
- Doherty, K. M., & Jacobs, S. (2015). *State of the states: Evaluating, teaching, leading, and learning.* Washington, DC: National Council on Teacher Quality.
- Eaton, A., & Visser, P. (2008). Attitudes. In P. Lavrakas (Ed.), *Encyclopedia of survey research methods* (pp. 40-43). Thousand Oaks, CA: SAGE.
- Eberts, R. W., & Stone, J. A. (1985). Wages fringe benefits, and working conditions: An analysis of compensating differentials. *Southern Economic Journal*, *52*, 274-280.
- Edelman, M. (1977). Political language: Words that succeed and policies that fail. New York, NY: Academic Press.
- Education Commission of the States. (2014). 50-state comparison: Teacher tenure/continuing contract policies. Retrieved from https://www.ecs.org/teacher-tenure-continuing-contract-policies/
- Edwards, H. S. (2014, October). The war on teacher tenure. *TIME Magazine*, 184(7). Retrieved from http://time.com/magazine/us/3533552/november-3rd-2014-vol-184-no-17-u-s/
- Firestone, W. A. (1994). Redesigning teacher salary systems for educational reform. *American Educational Research Journal*, 31, 549-574.
- Frank, K. (2000). Impact of a confounding variable on the inference of a regression coefficient. *Sociological Methods & Research*, 29, 147-194.
- Frank, K. A., Maroulis, S., Duong, M., & Kelcey, B. (2013). What would it take to change an inference? Using Rubin's causal model to interpret the robustness of causal inferences. *Education, Evaluation and Policy Analysis*, 35, 437-460.
- Franzak, J. (2008). On the margins in a high-performing high school: Policy and the struggling reader. *Research in the Teaching of English*, *42*, 466-505.
- Goldstein, D. (2014). The teacher wars: A history of America's most embattled profession. New York, NY: Doubleday.
- Gordon, R. J., Kane, T. J., & Staiger, D. (2006). *Identifying effective teachers using performance on the job*. Washington, DC: Brookings Institution.
- Grinstead, K. (1972). The Michigan teacher and tenure: A study of the Michigan teachers' tenure act. Washington, DC: National Institute of Education.
- Grissmer, D. W., & Kirby, S. N. (1992). *Patterns of attrition among Indiana teachers*. Santa Monica, CA: Rand Corporation.
- Hammer, T. H., Bayazit, M., & Wazeter, D. L. (2009). Union leadership and member attitudes: A multi-level analysis. *Journal of Applied Psychology*, 94, 392-410.
- Hanemann, M., Loomis, J., & Kanninen, B. (1991). Statistical efficiency of double-bounded dichotomous choice contingent valuation. *American Journal of Agricultural Economics*, 73, 1255-1263.
- Hill, H. C. (2001). Policy is not enough: Language and the interpretation of state standards. *American Educational Research Journal*, 38, 289-318.

- Hopkins, D. J., & Ladd, J. M. (2013). The consequences of broader media choice: Evidence from the expansion of Fox News. Retrieved from http://www.jonathan-mladd.com/uploads/5/3/6/6/5366295/foxpersuasion102612.pdf
- Huang, F. L., & Moon, T. R. (2009). Is experience the best teacher? A multilevel analysis of teacher characteristics and student achievement in low performing schools. *Educational Assessment, Evaluation and Accountability*, 21, 209-234.
- Hursh, D. (2006). Carrying it on: Fighting for progressive education in neoliberal times. In G. Ladson-Billings & W. Tate (Eds.), Education research in the public interest: Social justice, action, and policy (pp. 46-63). New York, NY: Teachers College Press, Columbia University.
- Ingersoll, R., Merrill, L., & Stuckey, D. (2014). Seven trends: The transformation of the teaching force (CPRE Report #RR-80). Philadelphia, PA: Consortium for Policy Research in Education.
- Jensen, M. (2007, June 15). The new metrics of scholarly authority. *The Chronicle of Higher Education*, 53(41), 6-9.
- Johnson, M. (Producer), & Barnz, D. (Director). (2012). Won't back down [Motion picture]. Los Angeles, CA: Walden Media.
- Joseph, N., & Waymack, N. (2014). Smart money: What teachers make, how long it takes and what it buys them. Washington, DC: National Council on Teacher Quality.
- Kahlenberg, R. D. (2015). *How due process protects teachers and students*. Retrieved from http://www.aft.org/ae/summer2015/kahlenberg
- Ladd, H. F. (2008, November). Value-added modeling of teacher credentials: Policy implications. Proceedings from the 2nd Annual Conference of the Center for Analysis of Longitudinal Data in Educational Research, Washington, DC.
- Maheshwari, S. (2016, November 20). How fake news goes viral: A case study. *The New York Times*. Retrieved from https://www.nytimes.com/2016/11/20/business/media/how-fake-news-spreads.html
- Marchand, J., & Weber, J. (2015). *The labor market and school finance effects of the Texas shale boom on teacher quality and student achievement*. Edmonton, Canada: University of Alberta. Retrieved from https://sites.ualberta.ca/~econwps/2015/wp2015-15.pdf
- Marchi, R. (2012). With Facebook, blogs, and fake news, teens reject journalistic "objectivity." *Journal of Communication Inquiry*, *36*, 246-262.
- Marshall, P. L., Baucom, D. V., & Webb, A. L. (1998). Do you have tenure, and do you really want it? The Clearing House: A Journal of Educational Strategies, Issues, and Ideas, 71, 302-304.
- McGuinn, P. (2012). Fight club: Are advocacy organizations changing the politics of education? *Education Next*, 12, 25-31.
- Murnane, R. J. (1996). Staffing the nation's schools with skilled teachers. In Improving America's schools: The role of incentives (pp. 241-258). Washington, DC: National Academy Press.
- National Education Association. (1922). Facts on the cost of public education and what they mean. Washington, DC: NEA Research Division.

Olshansky, E., Lakes, K. D., Vaughan, J., Gravem, D., Rich, J. K., David, M., . . . Cooper, D. (2012). Enhancing the construct and content validity of rating scales for clinical research: Using qualitative methods to develop a rating scale to assess parental perceptions of their role in promoting infant exercise. *The International Journal of Educational and Psychological Assessment*, 10, 36-49.

- Pennucci, A. (2012). *Teacher compensation and training policies: Impacts on student outcomes* (Document No. 12-05-2201). Olympia: Washington State Institute for Public Policy.
- Peterson, P. E. (2014, August 19). The public turns against teacher tenure. *The Wall Street Journal*. Retrieved from https://www.wsj.com/articles/paul-e-peterson-the-public-turns-against-teacher-tenure-1408420803
- Piazza, P. (2014). The media got it wrong! A critical discourse analysis of changes to the educational policy making arena. *Education Policy Analysis Archives*, 22(36), 1-27.
- Podgursky, M. J., & Springer, M. G. (2007). Teacher performance pay: A review. *Journal of Policy Analysis and Management*, 26, 909-949.
- Pogodzinski, B., & Jones, N. (2014). Exploring novice teachers' attitudes and behaviors regarding teacher unionism. *Education Policy*, 28, 491-515.
- Popiel, K. (2013). Teacher union legitimacy: Shifting the moral center for member engagement. *Journal of Education Change*, 14, 465-500.
- Ravitch, D. (2006). Why teacher unions are good for teachers—And the public. *American Educator*, 30(4), 6-8.
- Richardson, J., & Bushaw, W. (2015). *The 47th annual PDK/Gallup poll of the public's attitudes toward the public schools*. Bloomington, IN: Phi Delta Kappa.
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73, 417-458.
- Rosenholtz, S. J. (1985). Effective schools: Interpreting the evidence. *American Journal of Education*, 93, 352-388.
- Rothstein, J. (2014). Teacher quality policy when supply matters. *The American Economic Review*, 105, 100-130.
- Russell, S. D. M., Stefix, M. J., Pirolli, P., & Card, S. K. (1993). The cost structure of sensemaking. In *Proceedings of the INTERACT 'and CHI93'93 conference on human factors in computing systems*. Amsterdam, The Netherlands. Retrieved from http://dl.acm.org/citation.cfm?id=164922&CFID=812373103&CFTOKEN=22674655
- Sander, W. (1999). Endogenous expenditures and student achievement. *Economics Letters*, 64, 223-231.
- Schalm, R. L., & Kelloway, E. K. (2001). The relationship between response rate and effect size in occupational health psychology research. *Journal of Occupational Health Psychology*, *6*, 160-163.
- Schmidt, M., & Datnow, A. (2005). Teachers' sense-making about comprehensive school reform: The influence of emotions. *Teaching and Teacher Education*, 21, 949-965.
- Sears, D. O. (2001). The role of affect in symbolic politics. In J. H. Kuklinski (Ed.), Citizens and politics: Perspectives from political psychology (pp. 14-40). New York, NY: Cambridge University Press.

- Sharma, N. (2006). Sensemaking: Bringing theories and tools together. *Proceedings* of the Association for Information Science and Technology, 43(1), 1-8.
- Staiger, D. O., & Rockoff, J. E. (2010). Searching for effective teachers with imperfect information. *The Journal of Economic Perspectives*, 24, 97-117.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. Palo Alto, CA: Learning Policy Institute.
- Thomas, E., & Wingert, P. (2010, March 5). Why we must fire bad teachers. *Newsweek*. Retrieved from http://www.newsweek.com/why-we-must-fire-bad-teachers-69467
- TIME poll results: Americans' views on teacher tenure, merit pay, and other education reforms. (2010, September). *TIME Magazine*. Retrieved from http://content.time.com/time/nation/article/0,8599,2016994,00.html
- Wainer, H. (2011). Visual revelations: How much is tenure worth? *Chance*, 24, 54-57. Weick, K. E. (1995). *Sensemaking in organizations*. London, England: SAGE.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16, 409-421.
- Weisberg, D., Sexton, S., Mulhern, J., Keeling, D., Schunck, J., Palcisco, A., & Morgan, K. (2009). The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness. Brooklyn, NY: The New Teacher Project.
- West, M. R., & Chingos, M. M. (2009). Teacher effectiveness, mobility, and attrition in Florida. In M. Springer (Ed.), *Performance incentives: Their growing impact* on American K-12 education (pp. 251-271). Washington, DC: The Brookings Institution.
- Winship, A., & West, A. F. (1924). Report of the Washington meeting, National Education Association. *The Journal of Education*, 100, 60-78.
- Yoshikawa, H., Weisner, T. S., Kalil, A., & Way, N. (2008). Mixing qualitative and quantitative research in developmental science: Uses and methodological choices. *Developmental Psychology*, 44, 344-354.

Author Biographies

Dayna Jean DeFeo is Director of the Center for Alaska Education Policy Research (CAEPR) at the University of Alaska Anchorage. Her research interests include college and career readiness, and teacher supply and demand.

Matthew Berman is Professor of Economics at the University of Alaska Anchorage Institute of Social and Economic Research. Dr. Berman's research includes quantitative and qualitative studies of economic organization, political economy, and social change, especially as related to Alaska and arctic communities.

Diane Hirshberg is Professor of Education Policy at the Institute of Social and Economic Research, University of Alaska Anchorage, and Advisor to the Chancellor on Arctic Research and Education. Her research interests include education policy analysis, Indigenous education, circumpolar education issues, and the role of education in sustainable development.