Assessing Professionalism: Street-Level Attitudes and Agency Accreditation

Adam G. Hughes[1] and Manuel P. Teodoro[2]

Abstract

Professional organizations now accredit state and local agencies across several fields. This article investigates the attitudes of street-level bureaucrats toward their agencies and the tasks required of them in accredited and nonaccredited agencies. If accreditation changes bureaucratic attitudes in ways that build a sense of mission or shape functional preferences, it could lead to more effective public service delivery. The empirical subjects of this study are American municipal police departments and the Commission on Accreditation for Law Enforcement Agencies (CALEAs). Analysis of quasi-experimental data from a survey of officers suggests that accreditation helps build a sense of mission at the street level but finds little evidence of an effect on functional preferences.

Over the past three decades, professional accreditation of government agencies has quietly emerged as an important and rapidly growing public management reform in the United States. Accreditation requires a public agency to adopt voluntarily a set of standards and practices that are sanctioned by a professional organization and then subject itself to scrutiny by a group of external reviewers. Accreditation's advocates claim that the process facilitates the diffusion of best practices, improves agency performance, and professionalizes bureaucracies. Accreditation regimes for hospitals and universities have played this role for over a century. More recently, accreditation authorities have emerged for local law enforcement, firefighting and emergency services, corrections, public health, and parks and recreation departments. The thousands of agencies that participate in accreditation schemes indicate that

accreditation is an increasingly widespread administrative strategy.

This note assesses the relationship between accreditation and the attitudes of rank-and-file workers. Students of public administration have long recognized that the effectiveness of a bureaucratic agency depends greatly on the identities, beliefs, and preferences of personnel throughout its ranks, and especially at the "street level" (Brehm and Gates 1997; Lipsky 1980; Simon 1997). A sense of organizational mission is associated with improved motivation, commitment, job satisfaction, and task

[1] University of Virginia, Charlottesville, VA, USA
[2] Colgate University, Hamilton, NY, USA

Corresponding Author:
Adam G. Hughes, University of Virginia, 1540 Jefferson Park Ave, Charlottesville, VA 22904, USA.
Email: ahughes@virginia.edu

performance (Berkowitz and Levy 1956; Harrison et al. 2006; Kaufman 1960; Wilson 1989). Accreditation's standards may be worthy or foolhardy, but their impact depends to a great extent on the degree to which accreditation affects how bureaucrats think about their organizations and their jobs.

The empirical subjects of our study are American municipal law enforcement agencies and the Commission on Accreditation for Law Enforcement Agencies (CALEAs), the leading national accreditation regime for American police organizations. As of September 2012, CALEA has accredited 600 police departments in the United States, with another 150 agencies in the initial self-assessment phase of the process (CALEA Client Database 2012). This research note evaluates accreditation's relationship with professionalism empirically by analyzing the attitudes of officers serving in six law enforcement agencies in a quasi-experimental design.

Preferences, Missions, and Agency Accreditation

Research on organizations shows that supervisors have limited direct control over their subordinates in most public agencies, and so coercion, direct monitoring, material incentives, and other so-called scientific management approaches are usually inefficient supervisory strategies (Brehm and Gates 1997; Sklansky 2008). This condition is especially true in many public organizations that face ambiguous goals and unpredictable environments. Under ambiguous conditions, *functional preferences*, the "extent to which bureaucrats feel rewarded by performing their job duties well" matters a great deal in determining bureaucratic behavior (Brehm and Gates 1997, 3). Functional preferences reflect the relative utility that an employee acquires "by performing the very things he is supposed to do" (Brehm and Gates 1997, 75). When a street-level bureaucrat believes in and is rewarded psychologically by [his or] her agency, then

[he or] she will work more effectively without direct supervision.

Professionalism offers one way to shape bureaucratic preferences. Doctors, lawyers, engineers, social workers, and other professionals are supposed to have predictable functional preferences because they are loyal to the standards of fellow practitioners outside of the organizations in which they work (Abbott 1988; Brint 1994; Mosher 1968; Wilson 1989). A kind of quasi-professionalism has evolved in many bureaucracies (Wilson 1989): public agencies typically maintain hierarchical structures but seek professionally trained bureaucrats and reinforce a sense of professionalism through rhetoric, ritual, and symbolism (Kaufman 2006). In this way, public executives use professionalism as a means of influencing bureaucrats' behavior without surrendering formal control.

Accreditation is supposed to facilitate the diffusion of policies across public agencies, as contact with peers introduces public executives to practices used elsewhere (Balla 2001; Strang and Meyer 1993; Teodoro 2010; Weinstein 2007; Wolman and Page 2002). Still, the policies and procedures required for accreditation are public information, and so any agency could adopt them without the cost and difficulty of the accreditation process. However, beyond policies and procedures, accreditation also is supposed to promote professionalism by fostering individual bureaucrats' "acceptance—at least by inference—of professional and ethical principles in the performance of responsibilities" (Carter and Sapp 1994, 196). Despite recent growth in agency accreditation, there is surprisingly little empirical research on its effects on street-level workers.

Accreditation and Bureaucratic Attitudes

We argue that accreditation's value is not so much in the policies and procedures that it demands as it is the ways that it makes rank-and-file officers think about their work. Specifically, we address law enforcement accreditation's potential impact on street-level

officers' sense of mission and functional preferences. Brehm and Gates (2008) find that effective public managers look for ways to define ''good performance'' unambiguously (p. 26) and to communicate their organizations' ''mission, vision, and values'' (p. 22) to their subordinates. CALEA's standards define good law enforcement work, and CALEA's symbols and rituals convey a collective organizational devotion to those standards. In short, accreditation helps executives to define an agency's mission. ''[H]aving a sense of mission is the chief way by which managers overcome the problem of shirking in organizations . . .'' observed James Q. Wilson in *Bureaucracy* (1989, 95; see also Kaufman 2006). In this study we define ''sense of mission'' as an individual bureaucrat's perception of his agency's commitment to high-performance standards and professional goals. Executives may cajole, exhort, and wrap their initiatives in the rhetoric of professionalism, but accreditation offers external validation of the organization's commitment to high standards and professional goals (Mastrofski 1986). Accreditation demands a significant investment of time and money and is still a relatively uncommon distinction. In this sense, accreditation is a costly signal of an organization's goals. If accreditation clarifies agency priorities and reduces ambiguity at the street level, then officers in accredited agencies should recognize their agencies' commitment to high standards and professional goals after their agencies receive accreditation. Our first hypothesis follows:

> *Hypothesis 1*: Officers in CALEA-accredited agencies report a greater sense of mission than officers in nonaccredited agencies.

Accreditation also might strengthen officers' preferences for the kinds of work that CALEA champions. Thus, our second hypothesis is

> *Hypothesis 2*: The functional preferences of officers in CALEA-accredited agencies align more closely with CALEA

standards than do the preferences of officers in nonaccredited agencies.

Building on Kreps (1990) and Miller (1992), Brehm and Gates (1997) argue that officers observe the attitudes and behaviors of fellow officers and learn to conform with organizational expectations. An accreditation award might change officers' functional preferences by socializing them through the publications, processes, symbols, and rituals that accompany accreditation. CALEA chairman Louis Dekmar claims that ''institutionalizing CALEA in the culture'' of an agency is an explicit goal of accreditation (2012, 1; see also Slaughter 2008). If CALEA shapes agency culture, then officers in accredited agencies might prefer doing tasks that would otherwise seem burdensome, such as filling out paperwork or complying with unpopular agency directives that are championed by CALEA.

In order to isolate the relationship between accreditation and officer attitudes, we compare accredited and unaccredited agencies with a third group: agencies that have begun, but not completed, the initial accreditation process. All American police agencies are (a) accredited by CALEA; (b) unaccredited, but in the process of seeking CALEA accreditation for the first time; or (c) unaccredited and not in the process of seeking accreditation. Distinguishing between accredited agencies and agencies in the process of initial self-assessment pursuant to accreditation allows us to distinguish *accreditation itself* from the conditions that might make agencies seek accreditation in the first place.

An accredited agency and an unaccredited agency in the process of seeking accreditation share an important quality: the leaders of both organizations evidently value the kind of professionalism that CALEA represents. The key difference between the two groups is that officers in a currently accredited agency have experienced the full, sustained effects of signaling and/or socializing that accompany accreditation. Thus, we consider two alternative hypotheses:

> *Alternative Hypothesis 1*: Officers whose agencies are in the self-assessment

process (including currently accredited agencies seeking reaccreditation) report a greater sense of mission than do officers in nonaccredited agencies.

Alternative Hypothesis 2: The functional preferences of officers in agencies that are in the process of self-assessment (including currently accredited agencies seeking reaccreditation) align more closely with CALEA standards than do the preferences of officers in nonaccredited agencies.

If *accreditation itself* is an effective signal or socializing mechanism, it should be manifest in a difference between officers whose agencies have just begun accreditation and those whose agencies have completed the process. This three-category approach marks an important difference between the present analysis and studies that simply compare accredited against unaccredited agencies (e.g., Alpert and Mac-Donald 2001; Burlingame and Baro 2005; Giblin 2006; Gingerich and Russell 2006; McCabe and Fajardo 2001).

Empirical Methods

The present study is a natural quasi experiment: we compare the attitudes of officers in a "treatment" group (accredited agencies) with those of officers in "control" groups (Campbell and Stanley 1963). Ours is not a true experimental design because we do not directly manipulate the treatment. We aim to test hypotheses about treatment effects, not to make parametric inferences that are generalizable to other public agencies. Therefore, we selected six broadly similar police departments for our study: two unaccredited, two that had been CALEA accredited for at least seven years (having completed at least two reaccreditations), and two that were in the self-assessment process pursuant to initial CALEA accreditation. The names and locations of the participating police departments remain confidential to protect participants' anonymity. The selected departments are medium-sized municipal law enforcement agencies, ranging in size from 40 to 65 full-time sworn officers. All selected agencies serve primarily residential, suburban areas with majority white, non-Hispanic populations, and relatively low crime rates. Descriptive statistics for each agency and its service area are reported in the online appendix.

Ideally, all six agencies would be identical in all relevant ways but these six are not. However, studying these six broadly similar agencies helps isolate the hypothesized causal variable (accreditation) and so allows us to detect differences between agencies under different accreditation status, even with a relatively small number of cases. The six agencies vary in accreditation status, while controlling for the grossest, most obvious potentially confounding agency-level variables (e.g., size, region, governance structure, characteristics of the service population). The main drawback of this approach is its limited generalizability: if the effects of accreditation are contingent on agency context, then the relationships between accreditation and officer attitudes that we observe in the sampled agencies may not apply elsewhere. Individual-level variables (e.g., race, ethnicity, gender) are likely to affect officers' attitudes toward COP and equal opportunity regulations, as well. The present research design seeks to control for these variables by muting them through sampling: we selected agencies whose officers are overwhelmingly white, non-Latino, and male. Our present purpose is simply to detect significant differences between the "treatment" and "control" groups, not to predict the degree to which accreditation affects officer attitudes beyond the agencies studied here. As such, our findings should be interpreted as indicative, not definitive. Additional information about sampling procedure is available in our online appendix.

A brief questionnaire asked officers to indicate the degree to which they agreed with statements about their agencies and their jobs. Responses were captured with a five-point Likert-type scale, including responses ranging from "disagree completely," to "neutral," to "agree completely." Questionnaire items about the agency and its mission alternated with questions about functional preferences; in this

article we group the items topically for ease of presentation.[1] For purposes of analysis, we converted each item to a 0–100 scale.

The first dependent variable of interest is officers' sense of mission. Two items measure how an officer evaluates his or her department's standards in a comparative context:

1. My agency handles challenges better than neighboring agencies.
2. My agency holds its officers to higher standard than other agencies do.

If accreditation builds a sense of mission, then officers in accredited agencies should perceive that their organizations adhere to higher standards and perform better than comparable agencies. A third item captures officers' perceptions of their agencies' goals in terms of the CALEA's dominant law enforcement paradigm:

1. My agency is devoted to community policing.

If CALEA accreditation ''embodies the precepts of community-oriented policing'' as it claims, then officers in accredited agencies should perceive their organizations to be more committed to community policing than officers in unaccredited agencies.[2] These three statements capture a ''sense of mission'' (Wilson 1989).

The second dependent variable is officers' attitudes toward their own work, or their functional preferences with respect to CALEA's standards. Three items capture these functional preferences, each of which is associated with major CALEA standards:

1. Community-oriented policing strategies are an important part of my job.
2. I think that doing relevant paperwork is an important part of the job.
3. Promoting racial, ethnic, and gender diversity in the work place is important to me.

The fourth item gauges whether officers are personally invested in community policing strategies. The fifth item probes officers' attitudes toward written documentation—a ubiquitous, if mundane, part of police work, and one that is critical to the process of attaining accreditation. The sixth prompt asks officers about their attitudes toward racial, ethnic, and gender diversity. CALEA advocates equal opportunity hiring, and accredited agencies are required to follow suit (CALEA 2006, 31-2). Item 6 tests whether accredited officers personally prefer CALEA's policy, and thus whether it has become a functional preference (i.e., a policy that they would prefer to implement if given the choice). These measures are admittedly somewhat crude, and we do not claim that these professional goals are the most important for organizational performance, or even that they are important at all. However, CALEA clearly holds community policing and diversity in the officer ranks as important, while rank-and-file officers might not. If accreditation helps align street-level officers' functional preferences with CALEA's priorities, then agreement with these statements indicates the extent to which accreditation helps shape bureaucratic attitudes. The online appendix offers a descriptive summary of these data.

We use factor analysis to confirm that the six questionnaire items reflect these two different phenomena and to distill them into two continuous variables for modeling. Factor analysis generates two factors with eigenvalues greater than 1. The three agency perception variables (items 1-3) clearly align with each other, while the functional preference variables (items 4-6) cluster together. Oblique rotation yields factor loadings for the two factors (reported in the online appendix). We use the resulting factor loadings to generate two regression-based factor scores for sense of mission and functional preferences, with mean values of 0 and standard deviations of 1.0. These factor scores are the dependent variables in our main models.

The key independent variable in this analysis is CALEA accreditation status for the agencies in which each officer works. We coded police departments with two 0/1 dummy variables: *accredited* and *self-assessment*. Agencies that were not CALEA accredited and

were not in the process of pursuing accreditation at the time of the survey are coded as 0 for both dummies. Agencies that were seeking CALEA accreditation for the first time are coded 0 for *accredited*, but 1 for *self-assessment.* Police departments that held CALEA accreditation at the time of the survey were coded as 1 for *accredited*. Because the reaccreditation process begins almost immediately after accreditation is awarded, we also coded currently accredited agencies as 1 for *self-assessment.* Coding accredited agencies in this way isolates the effects of accreditation from the conditions that cause agencies to seek accreditation.

Models and Results

The analytical task at hand is to compare the attitudes of street-level bureaucrats in accredited agencies, nonaccredited agencies, and agencies in the process of accreditation. Efficient analysis must account for potential omitted variable bias caused by unobserved variation among officers and the agencies in which they work. As noted above, individual officers vary in several potentially important but unobserved ways. While we selected broadly similar agencies, differences across agencies unrelated to accreditation status also can affect officers' attitudes. The most common approach to addressing this problem is to pool all of the data and control for cluster-level variation with dummy variables or fixed effects. However, this approach is inefficient, risks allowing outliers undue influence, and can inflate statistical significance where predictors vary across clusters, as they do in the present study (Bafumi and Gelman 2006; Gelman 2006). Random effects models generate efficient estimates in the presence of significant latent unit-level variation (Mundlak 1978) but may be inefficient and possibly biased if predictors and units are correlated (Bafumi and Gelman 2006; Hausman and Taylor 1981). The present study is such a case, since the predictors of interest (accreditation status) are cluster-level characteristics that are hypothesized to correlate with unit values.

To address these issues, we use hierarchical models that correct for varying response rates at the cluster (agency) level, while modeling latent variables at the unit (officer) level. We model accreditation status as the only cluster-level fixed variables and rely on our selection of broadly similar agencies to account for other latent cluster-level variation. At the unit level, individual officers are assumed to vary across agencies in observed (*career* length) and unobserved (gender, race, ethnicity, etc.) ways that might affect their attitudes, and there are between-agency differences in the slopes of the individual observed and latent characteristics. Therefore, the unit-level variable *career* is entered with a random coefficient and intercept for each agency, and we use robust standard errors to calculate statistical significance. This approach efficiently models latent variables and makes maximum use of the available information to generate efficient estimators without risking inflated statistical significance. We employ the generalized linear latent and mixed model (GLLAMM) package for Stata to perform our estimations (Rabe-Hesketh et al. 2002).[3] Table 1 reports the results of two models for sense of mission. The first, model A, estimates the effects of accredited versus all other agencies. Model B adds a dummy for accredited and self-assessment agencies together. Table 2 reports the results of similar models of functional preferences. The online appendix offers an item-by-item analysis.

Our models indicate that officers in CALEA-accredited agencies have a significantly stronger sense of mission than their peers in unaccredited agencies, affirming Hypothesis 1. Model A indicates that, when compared against all unaccredited agencies (nonaccredited and agencies in self-assessment), accreditation is associated with a 0.93 standard deviation increase in sense of mission. Model B adds the self-assessment variable, which includes agencies that are currently accredited and those that are seeking accreditation for the first time. Model B's results indicate that accreditation retains a significant and positive effect on sense of mission independent of self-assessment status. That is, officers in long-accredited agencies report a stronger sense of

Table 1. Effects of CALEA Accreditation on Sense of Mission.

	Model A		Model B	
Variable	Coefficient (robust *SE*)	P	Coefficient (robust *SE*)	*p*
Accreditation	.93 (.37)	.01	.67 (.27)	.01
Self-assessment (including currently accredited agencies)			.57 (.52)	.27
Career	.01 (.01)	.17	.01 (.01)	.12
Intercept	−.38 (.25)	.12	−.71 (.49)	.15
Unit-level variance	.86 (.27)		.86 (.27)	
Cluster-level variance	.10 (.07)		.05 (.05)	
N	100		100	
R^2	.14		.20	
Adapted quadrature log likelihood	−140.81		−140.01	
AIC	295.63		296.01	

Note: Dependent variables are regression-based factor scores for sense of mission with a mean of 0 and standard deviation 1. Cells report coefficients, robust standard errors, and *p* values generated by two-level generalized linear models and adaptive quadrature. CALEA = Commission on Accreditation for Law Enforcement Agency; AIC = Akaike information criterion; SE = standard error.

Table 2. Effects of CALEA Accreditation on Functional Preferences.

	Model C		Model D	
Variable	Coefficient (robust *SE*)	*p*	Coefficient (robust *SE*)	*p*
Accreditation	.34 (.24)	.16	.10 (.28)	.71
Self-assessment (including currently accredited agencies)			.50 (.22)	.02
Career	.03 (.01)	.03	.03 (.01)	.02
Intercept	−.35 (.11)	.01	−.67 (.18)	.00
Unit-level variance	.90 (.09)		.91 (.10)	
Cluster-level variance	.00 (.01)		.01 (.01)	
N	100		100	
R^2	.04		.10	
Adapted quadrature log likelihood	−143.04		−142.23	
AIC	300.08		300.44	

Note: Dependent variables are regression-based factor scores for *functional preferences* with mean zero and standard deviation one. Cells report coefficients, robust standard errors, and p values generated by two-level generalized linear models and adaptive quadrature. CALEA = Commission on Accreditation for Law Enforcement Agency; AIC = Akaike information criterion; SE = standard error.

mission than those in agencies that are in the process of securing initial accreditation. Self-assessment status has a positive effect on officers' sense of mission, but we do not affirm Alternative Hypothesis 1 because the effect of self-assessment status alone is statistically weak.

Models C and D in Table 2 indicate that accreditation has very little independent effect on officers' reported functional preferences, so we cannot affirm Hypothesis 2. Self-assessment status (including both long-accredited agencies and those seeking initial accreditation) has a statistically significant, positive effect on functional preferences, which is consistent with Alternative Hypothesis 2. This result suggests that agencies in which

officers' functional preferences already align with CALEA's standards are more likely than others to pursue accreditation. To the extent that changes in street-level attitudes toward work occur in conjunction with accreditation, it is probably as a cause, not as an effect.

Discussion and Conclusion

Our analysis of CALEA suggests that accreditation affects police officers' attitudes toward the agencies in which they work. Officers in the CALEA-accredited agencies we selected believe that their departments handle challenges better, hold their officers to higher standards than others do. Officers in these accredited agencies also believe that their departments are committed to community-oriented policing, and so align with the CALEA's stated priorities.

At the same time, we find no evidence that accreditation shapes street-level bureaucrats' functional preferences. Officers in unaccredited police departments report somewhat less commitment to diversity, paperwork, and community-oriented policing than officers in CALEA-accredited agencies and agencies in the process of seeking accreditation. However, there is no discernible difference in functional preferences between officers in long-accredited agencies and those in agencies that are seeking accreditation for the first time. It is possible that our measures of functional preferences are inadequate. However, to the extent that officers in accredited and unaccredited agencies hold different functional preferences, our findings indicate that something besides accreditation must account for those differences. In this sense, accreditation may be more of a "certificate of accomplishment" than a "process for improvement" when it comes to officers' functional preferences (Widener 2005, 139).

The empirical findings reported here are strongly suggestive but hardly conclusive. The present study's nonrandom, quasi-experimental research design is at once its principal virtue its main drawback: the intentional sample of agencies helps us to isolate treatment effects but does not allow for parametric inferences outside of the six agencies in our sample. We cannot say with any confidence how much accreditation might affect attitudes in other police departments, much less in other kinds of public agencies. In light of our findings, a clear next step is to conduct similar analyses across a wider, more representative sample of agencies. Moreover, accreditation's symbolic or legitimizing functions may shape street-level officers in less observable ways. If this is the case, research designs that draw upon close observational data or interviews conducted at street level would capture aspects of accreditation that our simple survey has surely missed. Comparative qualitative research might help illuminate the ways that accreditation engages (or fails to engage) street-level bureaucrats. Finally, time series and other quasi-experimental designs that examine selected agencies before and after accreditation would secure greater leverage on the causal effects of accreditation.

Our finding of no independent relationship between accreditation and functional preferences might suggest that accreditation is a mostly empty, self-congratulatory exercise. However, our findings suggest that accreditation helps articulate an organization's goals and expectations to street-level bureaucrats. If so, then accreditation might help public managers to build the sense of mission in an organization that Wilson (1989) and Kaufman (2006) described as critical to agency performance.

Authors' Note

Declaration of Conflicting Interests

Funding

Notes

1. The questionnaire included other items not analyzed as part of the present study, too; some of these items were stated in negative terms. For example, one statement read "There is an adversarial relationship between supervisors and rank-and-file officers in my agency."

2. Quoted from the official Commission on Accreditation for Law Enforcement Agencies (CALEA) Web site: http://www.calea.org/content/law-enforcement-program-benefits (accessed October 12, 2010).

3. Generalized linear latent and mixed model (GLLAMM) uses adaptive quadrature to integrate the latent variables and accommodates the complex survey design and cross-sectional data that we use here (Bertelli 2007; Rabe-Hesketh and Skrondal 2006). Rabe-Hesketh et al. (2005) show that adaptive quadrature offers an efficient solution to the problem of bias in hierarchical models where significant intergroup correlations exist, as in the present analysis. The present analysis uses GLLAMM's standard eight-point adaptive quadrature; tests of models using sixteen-point and thirty-point quadrature revealed no significant gains in log likelihood. The results of the GLLAMM procedure that we report here are remarkably robust with respect to estimation procedure. We estimated several similar models using different estimators, including ordinary least squares regression (OLS) with agency dummy variables with and without sampling weights, and clustered standard errors; OLS with finite-population corrections; and multilevel models with agency-level fixed effects estimates. All of these models yielded similar substantive results. However, the GLLAMM procedure offers the most efficient, unbiased estimates.

References

Abbott, Andrew. 1988. *The System of Professions*. Chicago, IL: University of Chicago Press.

Alpert, Geoffrey, and John MacDonald. 2001. Police use of force: An analysis of organizational characteristics. *Justice Quarterly* 18:393–409.

Bafumi, Joseph, and Andrew Gelman. 2006. Fitting multilevel models when predictors and group effects correlate. Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, IL.

Balla, Steven J. 2001. Interstate professional associations and the diffusion of policy innovations. *American Politics Research* 29:221–45.

Berkowitz, Leonard, and Bernard I. Levy. 1956. Pride in group performance and group-task motivation. *The Journal of Abnormal and Social Psychology* 53:300–306.

Bertelli, Anthony M. 2007. Determinants of Bureaucratic Turnover Intention: Evidence from the Department of the Treasury. *Journal of Public Administration Research and Theory 17*(2): 235–258.

Brehm, John, and Scott Gates. 1997. *Working, Shirking, and Sabotage: Bureaucratic Response to a Democratic Public*. Ann Arbor: The University of Michigan Press.

Brehm, John, and Scott Gates. 2008. *Teaching, Tasks, and Trust: Functions of the Public Executive*. New York, NY: Russell Sage Foundation.

Brint, Steven. 1994. *In an Age of Experts*. Princeton, NJ: Princeton University Press.

Burlingame, David, and Agnes L. Baro. 2005. Women's representation and status in law enforcement: Does CALEA involvement make a difference? *Criminal Justice Policy Review* 16:391–411.

Campbell, Donald T. and Julian C. Stanley. 1963. *Experimental and Quasi-Experimental Designs for Research.* Boston: Houghton-Mifflin.

Carter, David L., and Allen D. Sapp. 1994. Issues and perspectives of law enforcement and accreditation: A national study of police chiefs. *Journal of Criminal Justice* 22:195–204.

Commission on Accreditation for Law Enforcement Agencies (CALEA). 2006. *Standards for Law Enforcement Agencies*. Fairfax, VA: CALEA.

Commission on Accreditation for Law Enforcement Agencies (CALEA). 2012. Client database. Accessed September 2012. http://www.calea.org/content/calea-client-database.

Dekmar, Louis. 2012. Message from the chair. *CALEA Update Magazine*, 108 January.

Gelman, Andrew. 2006. Multilevel (hierarchical) modeling: What it can and cannot do. *Technometrics* 48:432–35.

Giblin, Matthew. 2006. Structural elaboration and institutional isomorphism: The case of crime

analysis units. *Policing: An International Journal of Police Strategies and Management* 29:643–64.

Gingerich, Terry E., and Gregory D. Russell. 2006. Accreditation and community policing: Are they neutral, hostile, or synergistic? An empirical test among street cops and management cops. *Justice Policy Journal* 3:1–28.

Harrison, David A., Daniel A. Newman, and Philip L. Roth. 2006. How important are job attitudes? Meta-Analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal* 49:305–325.

Hausman, Jerry A., and William E. Taylor. 1981. Panel data and unobservable individual effects. *Econometrica* 49:1377–98.

Kaufman, Herbert. 2006 (1960). *The Forest Ranger: A Study in Administrative Behavior*. Washington, DC: Resources for the Future.

Kreps, Gary L. 1990. *Organizational Communication: Theory and Practice*. New York, NY: Longman.

Lipsky, Michael. 1980. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Service*. New York, NY: Russell Sage Foundation.

Mastrofski, Stephen D. 1986. Police agency accreditation: The prospects of reform. *American Journal of Police* 5:45–81.

McCabe, Kimberly A., and Robin G. Fajardo. 2001. Law enforcement accreditation: A national comparison of accredited vs. nonaccredited agencies. *Journal of Criminal Justice* 29:127–31.

Miller, Peter. 1992. Accounting and objectivity: The invention of calculating selves and calculable spaces. *Annals of Scholarship* 9:61–86.

Mosher, Frederick C. 1968. *Democracy and the Public Service*. New York, NY: Oxford University Press.

Mundlak, Yair. 1978. On the pooling of time series and cross section data. *Econometrica* 46:69–85.

Rabe-Hesketh, Sophia, and Anders Skrondal. 2006. Multilevel modeling of complex survey data. *Journal of the Royal Statistical Society* 169:805–27.

Rabe-Hesketh, Sophia, Anders Skrondal, and Andrew Pickles. 2002. Reliable estimation of generalized linear mixed models using adaptive quadrature. *The Stata Journal* 2:1–21.

Rabe-Hesketh, Sophia, Anders Skrondal, and Andrew Pickles. 2005. Maximum likelihood estimation of limited and discrete dependent variable models with nested random effects. *Journal of Econometrics* 128:301–23.

Simon, Herbert A. 1997. *Administrative Behavior*, 4th ed. New York, NY: Simon and Schuster.

Sklansky, David. 2008. *Democracy and the Police*. Stanford: Stanford University Press.

Slaughter, Stephen. 2008. Using accreditation to navigate organizational change. *CALEA Update Magazine* 97 (June).

Strang, David, and John W. Meyer. 1993. Institutional conditions for diffusion. *Theory and Society* 22:487–511.

Teodoro, Manuel P. 2010. Contingent professionalism: Bureaucratic mobility and adoption of water conservation rates. *Journal of Public Administration Research and Theory* 20: 439–459.

Weinstein, Matthew A. 2007. Trying to keep up with the Joneses: A study of peer diffusion by american public research universities. PhD diss. University of Pittsburgh, PA.

Widener, Murray C. 2005. C.A.L.E.A. accreditation: Is it a process which enhances performance or merely a certificate of achievement? DPA diss. University of Alabama, AL.

Wilson, James Q. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

Wolman, Harold, and Ed Page. 2002. Policy transfer among local governments: An information –theory approach. *Governance* 15:477–501.

Author Biographies

Adam G. Hughes is a graduate student in the Department of Politics at the University of Virginia. His research interests include street-level governance, agency accreditation, public opinion, and survey methodology.

Manuel P. Teodoro is an assistant professor of political science at Colgate University. His current research focuses on environmental policy, bureaucratic politics, innovation in government, and the role of agency heads in the policy process.