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Does bureaucratic representation enhance overall organizational accountability in policing?

Seong C. Kang[1] | Ahrum Chang[2] | Brian N. Williams[3]

[1]Department of Government, New Mexico State University, Las Cruces, New Mexico, USA

[2]Department of Public Administration and Policy, University of Georgia, Athens, Georgia, USA

[3]Frank Batten School of Leadership and Public Policy, The University of Virginia, Charlottesville, Virginia, USA

Correspondence
Seong C. Kang, Department of Government, New Mexico State University, Breland Hall Room 337, Box 30001, Dept. 3BN, Las Cruces, NM 88003, USA.
Email: sckang@nmsu.edu

Abstract

Many representative bureaucracy studies examine outcomes in the context of passive and active representation, but relatively few have investigated the effects of passive representation on outcomes for the organization as a whole. To address this gap, we analyze data from a national law enforcement survey in the United States on formal citizen complaints regarding allegations of excessive use of physical force. This measure aligns with a three-dimensional accountability framework consisting of information, discussion, and consequences. The analysis finds that greater representation in lower-level leadership is positively associated with a higher percentage of sustained citizen allegations of use of force, while representation in upper leadership generates mixed findings. The results contribute to the literature by highlighting the differential effects of representation in multiple leadership positions and by providing implications for overall organizational accountability.

1 | INTRODUCTION

Recent Gallup Poll data, conducted May 3rd through 18th, 2021, reveal heightened racial concerns as a clear legacy of the death of George Floyd at the hands of the police. More than 10% of US adults have mentioned racism, race relations, and the lack of racial justice as one of the most important problems facing the United States. This figure is up from 4% earlier in 2020. Racism is a national issue that impacts individuals, communities, and institutions and as a result, continues to be an elevated concern for both White and Black Americans (Saad, 2021). When considering this problem in the context of policing, particularly its legacy of historic harms and disparate impacts on minority communities, this brings to the fore the need for effective, equitable, and intentional policies and practices that build public trust and that enhance organizational accountability.

Representative bureaucracy theory has been touted as an important pathway to ensure organizational accountability and effective discretion through the bureaucratic mirroring of the values and needs of constituent populations (Bishu & Kennedy, 2020; Meier & Smith, 1994; Pitts, 2007). Prior research argue that when the demographic composition of public organizations mirrors the disposition of their constituents, representation may produce outcomes directly linked to minority interests (Atkins et al., 2014; Pitts, 2007; Selden, 1997). Some have also found that representation improves outcomes for the interests of clients that bureaucrats do not directly serve (Atkins & Wilkins, 2013; Favero & Molina Jr, 2018), as well as outcomes for the overall organization (Andrews et al., 2014; Hong, 2016, 2017).

Although the literature has made significant advances with regards to policy outcomes for minorities, three empirical issues merit further research. First, most studies examine outcomes in the context of passive and active representation, but relatively few investigate the effects of passive representation on outcomes for the organization as a whole. It is necessary to distinguish between these two because representation is often viewed as a zero-sum game in which greater representation of minorities may be advocated at the expense of the interests of nonminorities (Meier, 2019; Mosher, 1982; Slack, 2001). Second, there is a lack of empirical research concerning the role of hierarchical differences in workforce representation and organizational outcomes. Aside from Andrews et al. (2014) and Hong (2020) who examine the differential effects of bureaucratic hierarchy on the benefits of representation, little empirical attention has been devoted to this issue. Third, there are substantial gaps concerning the extent to which representation enables the achievement of more substantive goals such as accountability (Kennedy, 2014). Although a recent study by Headley (2021) reveals that the presence of civilian review boards decreases police use of force when combined with minority representation, studies investigating the link between representation and accountability are relatively few due to the complexity of defining accountability as well as data limitations that render it difficult to devise appropriate measures (Brandsma & Schillemans, 2013).

We explore these questions in the context of law enforcement. In the United States, excessive use of force against minority citizens, especially African Americans, at the hands of the police has highlighted accountability as an important goal and has called for democratic ideals—including transparency and fairness—to be reflected in how police officers behave (Gilad & Dahan, 2020; Kahn et al., 2016). Citizen complaints, use of force, and police-involved deaths, among others, are examples of performance measures used to assess accountability and the exercise of discretion (Congressional Research Service, 2020). Some of these measures, however, suffer from measurement issues that reduce their validity with regards to accountability. For example, without additional information on whether an officer's action was formally justified or excessive, a simple decrease in citizen complaints or officer use of force incidents may fail to serve as valid measures of accountability.

For this purpose, we draw from a national law enforcement survey in the United States containing information on formal citizen complaints that are sustained. Sustained allegations align with Brandsma and Schillemans' (2013) three-step accountability process consisting of information, discussion, and consequences. Specifically, citizens provide *information* to a police department through a formal complaint process regarding allegations of officer misconduct (Walker & Archbold, 2018). Complaints undergo formal investigation, providing a forum for *discussion* into whether an officer's action was justified or excessive. In the *consequences* phase, depending on the outcome, the forum passes judgment on the officer in the form of exoneration or discipline. Sustained citizen complaints can be used to test the expectation that bureaucratic representation should be associated with greater overall organizational accountability.

While our analysis finds that lower-level representation is positively associated with accountability, we find that the results vary according to different leadership ranks. An increase in the percentage of Black first-line supervisors is associated with more sustained allegations, while an increase in Black intermediate supervisors and the presence of a Black chief executive are associated with fewer sustained allegations. These findings support prior studies that have found similar results regarding the differential impact of representation in multiple organizational ranks (Andrews et al., 2014; Hong, 2020; Meier, 1993). The results contribute to the literature by highlighting the

differential effects of representation in multiple leadership positions while also providing implications for overall organizational accountability.

2 | LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

2.1 | Representative bureaucracy theory

Representative bureaucracy theory is centered on the notion that public organizations are more likely to be responsive when bureaucrats mirror the composition of the communities they serve (Riccucci & Van Ryzin, 2017). Demographic representativeness is particularly important for street-level bureaucrats since they interact directly and frequently with the public, thereby serving as representatives of both the government and their communities (Lipsky, 2010). Since street-level bureaucrats retain a high level of discretion, their backgrounds are expected to influence their attitudes and behaviors (Meier, 1993). In turn, a representative workforce is more likely to enact policy outcomes that are responsive to minority citizens (Sowa & Selden, 2003). The literature has produced considerable evidence regarding the link between passive and active representation, which supposedly ameliorates the inequalities evident during citizen-state encounters (e.g., Bishu & Kennedy, 2020; Bradbury & Kellough, 2008; Meier, 1993; Meier & Stewart Jr, 1992; Mosher, 1982; Selden, 1997; Wilkins & Keiser, 2006). Moreover, recent scholarship argues that representation can also influence organizational outcomes without involving the direct actions of bureaucrats. Specifically, representation may affect the symbolic value of citizens, enhancing trust and legitimacy toward the bureaucracy (Headley et al., 2021; Theobald & Haider-Markel, 2009; Van Ryzin et al., 2017). In addition to shared demographic characteristics, shared circumstances and location may generate similar identities between bureaucrats and citizens, influencing the formers' willingness to serve their clients more favorably (Zamboni, 2020).

One issue for research is whether the link between passive and active representation for a particular group occurs at the expense of nonminorities or the public more broadly (Meier, 2019; Mosher, 1982). This trade-off reflects a zero-sum perspective in which limited resources result in competition and make it difficult to serve both specific and general interests, leading to "winners" and "losers" (Slack, 2001). Empirical research addressing this question is inconclusive in that Andrews et al. (2005) find that representation is largely associated with poor performance in the eyes of citizens, while others find an increase in overall performance benefiting both minorities and nonminorities (Andrews et al., 2014; Andrews & Miller, 2013; Hong, 2016; Lee, 2019; Meier et al., 1999; Riccucci et al., 2014). The evidence varies by context and the measure of performance used for assessing the effects of representation.

The logic behind how representation may enhance outcomes for both minorities and nonminorities can be described along two lines of arguments (Andrews et al., 2014; Hong, 2016). First, discussions that center on efficiency argue that bureaucracies which are more representative or diverse hire more capable employees because they minimize discrimination against minorities (Meier et al., 1999). Representation and diversity may enhance information and decision-making by tapping into a wider array of problem-solving approaches and resources (Pitts, 2007). The shortcoming is that there may be trade-offs with other values, such as between efficiency and equity, and that an increase in transaction costs may rather deter performance (Andrews et al., 2014).

Second, greater representation and diversity may change the way clientele interact with organizations (Meier, 1993). Based on the premise that a representative bureaucracy is more sensitive to clients' needs, this also changes the way that clients perceive the bureaucracy by developing greater trust in the organization and increasing their willingness to coproduce services. Subsequently, increased coproduction may benefit all parties by improving the level of client satisfaction with the organization as well as the quality and quantity of services provided (Riccucci et al., 2014; Theobald & Haider-Markel, 2009).

Although prior literature on representative bureaucracy has suggested that greater representation can provide benefits not only for minority groups but also for nonminorities (Andrews et al., 2014; Meier et al., 1999), the question remains largely underexplored empirically, particularly in relation to the goal of accountability. The next section explores this issue in the context of law enforcement and develops the hypotheses.

2.2 | Hypotheses

Police officers epitomize street-level bureaucrats who interact directly and frequently with citizens and who exercise substantial discretion over the allocation of benefits and sanctions (Lipsky, 2010; Walker, 1993). There are three sources of accountability for street-level bureaucrats; (1) formal hierarchical rules, (2) professional standards, and (3) informal social norms and expectations (Hupe & Hill, 2007). Police officers are accountable for abiding by protocols in the exercise of authority, sharing professional goals with their peers, and living up to the expectations of citizens. Yet a substantial amount of decisions are left in officers' discretionary spheres, resulting in a high degree of subjectivity in which officers decide who to stop, cite, or arrest and whose behavior to overlook. This is highly salient with respect to accountability because citizens have significantly less power or say over the decisions that arise during police–citizen interactions (Pires, 2011). The potential to use discretion in ways that are unsanctioned or excessive allows officers to elude accountability and abuse authority, particularly against vulnerable and disadvantaged groups (Mastrofski, 2004).

Accountability concerns the issue of ensuring that police officer behaviors are lawful and consistent with public expectations. Two fundamental considerations pertain to the control of discretion: *who* seeks to influence police discretion, and *what* police behavior matters (Mastrofski, 2004). Police use of physical force refers to the "amount of effort required by police to compel compliance by an unwilling subject" (International Association of Chiefs of Police, 2001). There is no universal set of rules that govern when and how much use of force should be exercised, and agency rules guiding use of force vary by state and locality. While use of force is considered necessary and permitted under certain circumstances such as self-defense or defense of others when enforcing the law, it is problematic when excessive or unsanctioned. The issue of *how* the police exercise discretion matters because when not delivered properly or legally, the legitimacy of the police as an institution is threatened (Terrill, 2001). This is closely linked to accountability because citizens, as the final recipients of police services, are concerned about the process of policing as much as the outcomes that those processes produce (Pires, 2011).

Among several ex post facto mechanisms to maintain or restore accountability, formal citizen complaints provide an avenue for citizens to file a complaint directly with a police department regarding a police–citizen encounter (Walker, 2007). Citizens' expectations about police conduct and behavior are reflected in citizen complaints, and this mechanism aligns with the three-step accountability model of *information*, *discussion*, and *consequences* by Brandsma and Schillemans (2013). Specifically, citizens provide *information* about their experience with an officer during a police–citizen interaction, and a forum conducts a *discussion* into whether an officer's action was justified or excessive. In the *consequences* phase, the forum renders judgment depending on whether the allegations are sustained or unfounded.

Noninvestigated citizen complaints suffer from measurement problems that may render them unreliable or invalid in terms of accountability (Terrill & McCluskey, 2002). Citizens may define misconduct more broadly than what an agency defines as wrongdoing even if an officer's behavior was bound by departmental rules and operating procedures. As an "allegation" of wrongdoing, some complaints may have less to do with improper police behavior and more to do with the fact that a citizen was not satisfied with an encounter. Citizens may also file unfounded complaints in retaliation for what one perceived to be unfair treatment (Lersch, 2002). However, dispositions or complaints that are sustained may serve as more valid measures of accountability, provide information regarding potential or actual problems of officer behavior, and be used to assess agency performance and devise appropriate solutions (Hickman & Piquero, 2009; Terrill & Ingram, 2016).

Since one of the goals of the *discussion* phase is to ensure that principals and agents share the same beliefs and that agents act in the same interests as those of principals (Brandsma & Schillemans, 2013), a more representative police workforce may function as a mechanism to promote the integrity of all officers, thereby benefiting not just minorities but the broader public (Hong, 2016, 2017). This may lead to a more general ethical work climate that encourages police organizations to address citizen complaints regarding police use of force in a more responsive way.

> Hypothesis 1: Bureaucratic representation is positively associated with overall accountability.

In addition to a general linear effect of overall representation on accountability, we discuss a nonlinear effect that may manifest differently depending on hierarchical differences in representation (Thompson, 1976). Given that employee attitudes and behaviors are also bound by organizational rules, representation may assert a differential effect on accountability depending on the stratification of minority officers. A chorus of voices has argued that increasing street-level minority representation can improve policy outcomes for minority groups. Street-level bureaucrats tend to be newer recruits and are more likely to possess attitudes that are consistent with their demographic characteristics rather than the organization's values (Meier, 1993). This echoes Thompson's (1976) assumption that line-level employees are more likely to provide active representation than upper management because those working at the frontlines have not been subject to long years of organizational socialization. Evidence also shows that street-level bureaucrats are more likely to serve as active representatives than upper-level bureaucrats (Andrews et al., 2014; Hong, 2020; Meier, 1993).

Meanwhile, empirical evidence concerning representation in upper-level positions is inconclusive. One might expect greater representation in upper-level positions to also promote greater accountability because higher ranking officers are often engaged in setting organizational rules and priorities that guide the activities of street-level officers (Choi et al., 2018; Hong, 2016; Keiser et al., 2002). However, Andrews et al. (2014) and Johnston and Houston (2018) find that increasing upper-level minority representation does not necessarily affect organizational outcomes. Hong (2020) finds that a greater degree of ethnic minorities in leadership positions in the police workforce asserts little impact on outcomes unless minority representation at the street-level is achieved. This does not necessarily entail that upper leadership exerts a negative influence, but rather the effects may decrease or become negligible under certain conditions related to agency characteristics, organizational socialization, or critical mass conditions (Meier, 1993; Nicholson-Crotty et al., 2017).

Although we acknowledge variations among individual officers within the same rank, it is likely that upper-level officers are more susceptible to influences stemming from institutional and organizational conditions, resulting in a decrease in the sharing of congruent values with their constituents. Coupled with the fact that the frequency of interacting directly with citizens and exercising discretion on the front lines decreases for upper-level bureaucrats compared to that of lower-level bureaucrats (Meier, 1993), such conditions may distinctively influence officer attitudes, in turn which may desensitize officers' congruent values with those of citizens and mitigate the effects of upper-level active representation. This leads us to expect an increase in greater accountability through lower-level positions rather than upper-level positions.

> Hypothesis 2: Bureaucratic representation is more likely to be positively associated with overall accountability through an increase in lower-level positions as opposed to upper-level positions.

3 | DATA AND METHODS

To test the hypotheses, data are derived from the Law Enforcement Management and Administrative Statistics (LEMAS) surveys compiled by the United States Department of Justice Office of Justice Programs Bureau of Justice

Statistics. The surveys are available online through the Inter-university Consortium for Political and Social Research repository. For the purposes of analyses, we combine data from two different LEMAS surveys. First, the 2016 LEMAS core version collects general information about agency operations, personnel policies, weapons and armor policies, community policing initiatives, and other managerial initiatives. Data is collected from a nationally representative sample of general-purpose agencies such as local and county police departments, sheriffs' offices, and primary state police agencies. The survey was sent to 3499 general purpose law enforcement agencies, consisting of 2640 local and county police departments, 810 sheriffs' offices, and the 49 primary state police departments. Agencies employing 100 or more full-time equivalent (FTE) sworn personnel were to be included with certainty (self-representing), and smaller agencies were sampled from strata based on the number of FTE sworn officers and type of agency. The response rate for the overall survey was 80.1%, and responses came from 2135 local police departments, 600 sheriffs' offices, and 44 state law enforcement agencies. Second, we draw from the 2016 LEMAS Body-Worn Camera Supplement (BWCS) which contains data about body-worn camera policies and citizen complaints. Data were sent to 4976 eligible agencies, and 3928 agencies completed the survey for a response rate of 79%. The overall response rate for local police departments was 80%, 77% for sheriffs' offices, and 90% for primary state agencies. Originating Agency Identifer (ORI) codes were used to combine the LEMAS core and LEMAS-BWCS.

The unit of analysis is local-level police departments consisting of both municipal police departments and sheriffs' offices with over 10 FTE sworn officers. State level agencies are omitted because of limited powers compared to local agencies and the level of jurisdiction applies to the entire state. We supplement the LEMAS survey with data from the US Census Bureau and the Federal Bureau of Investigation's Uniform Crime Reports for the year 2016 to derive the socioeconomic and demographic control variables.

3.1 | Measures

The model utilizes four dependent variables. We include the rate of the total number of all types of citizen complaints which covers allegations of both verbal discourtesy and improper or excessive use of physical force. Next, we include the rate of the total number of citizen complaints involving allegations of excessive use of physical force only. A rate per officer is used to standardize the volume of annual citizen complaints across agencies. Due to the skewed nature of the two rate variables, the analysis uses log transformed variables to compress higher values and to correct for skewness in the data. Third, we include the percentage of total citizen allegations of excessive use of physical force to the total number of all citizen complaints. Finally, we include the percentage of sustained allegations by dividing the number of sustained allegations of excessive use of physical force to the number of all allegations of excessive use of physical force. While the first three measures conform to the *information* stage, sustained dispositions encompass the *discussion* and *consequences* stage, enabling a more valid measure of accountability.

The main independent variables for bureaucratic representation are measured according to the following. The 2016 LEMAS core contains data on the racial makeup of different personnel ranks, allowing us to categorize representation into different ranks. We include a binary nominal variable coded one for the presence of a Black chief executive (1 = yes; 0 = no). We include three additional continuous variables for the percentage of Black intermediate supervisors, the percentage of first-line supervisors, and the percentage of line-level officers.

Although the primary theoretical focus is on bureaucratic representation, to improve model specification we control for a set of variables that represent managerial initiatives to improve the quality of discretion exercised by officers (Mastrofski, 2004). Instead of an exhaustive list of managerial variables, we focus on factors that prior studies have identified as having an impact on police use of force and citizen complaints. First, administrative policies have been found to reduce the rate of police shootings and use of force as well as influence police behavior (Hickman & Piquero, 2009; White, 2007). The LEMAS core contains multiple survey items regarding documentation requirements on use of force. We use a polychoric technique to derive factor scores for these items. After identifying factors with Eigenvalues above 1, we sort through variables with factor loadings above 0.40. This produced a set

of three specific factor scores consisting of documentation required for use of less-lethal force weapons, documentation required for use of less-lethal force actions, and documentation required for the display of weapons such as a firearm or a taser.

Second, scholars have also explored the role of organizational professionalism on police use of force (Shjarback & White, 2016). Rigorous recruitment and hiring standards, education, and training have traditionally been identified as core features of a professional police department (White, 2008). We assume that professionalism should enhance accountability, although empirical findings of the impact of professionalism on police behavior is generally mixed (Kane & White, 2009; Lee et al., 2010; Smith, 2004; Willits & Nowacki, 2014). We include a binary nominal variable coded one for the presence of education requirements (1 = yes; 0 = no). We also include a continuous variable for the number of training hours that new officers received during their time at the academy.

Third, the adoption and deployment of technologies to utilize in the field may improve operational efficiency and outcomes for police officers (Chapman, 2018). While the police utilize a variety of equipment and innovations, empirical evidence concerning the overall effects of technology is mixed due to variations in the type of technology and performance measures (Koper et al., 2014). For this study, we only focus on body-worn cameras due to their potential to reduce excessive use of force during police–citizen encounters (White, 2014). We draw data from the LEMAS-BWCS to create a binary nominal variable coded 1 for the adoption of body-worn cameras (1 = yes; 0 = no).

Including measures of community policing is also important due to the expectation that representation can be enhanced through strategies that encourage officers to interact more positively with citizens (Scheider et al., 2009). Greater willingness on the part of citizens to cooperate and coproduce is dependent upon agency efforts to build trust and legitimacy. Since policing has been especially challenging in minority communities, agencies may improve accountability through community policing alongside greater representation. The LEMAS core contains multiple survey items regarding community policing initiatives. Using a polychoric technique, we identified factors with Eigenvalues above 1 and extracted variables with factor loadings above 0.40. This generated a factor score representing different community policing initiatives. We include a separate binary variable coded one if community policing training is provided for new recruits (1 = yes; 0 = no).

Finally, we control for demographic and environmental variables. The analysis includes a variable for whether collective bargaining is authorized for full-time sworn officers (1 = yes; 0 = no) as studies discuss how unions may serve as a barrier to enhancing organizational reform and accountability (Walker, 2008). The model also includes the number of FTE sworn officers per capita to control for the internal capacity and resource availability of police organizations (Kovandzic & Sloan, 2002). The violent crime rate is included to control for greater exposure to incidents in which force may be deployed more often (Hickman & Piquero, 2009). The percent Black population and percent poverty are included as measures that have been found to be correlated with more violent police–citizen encounters (Shjarback & White, 2016). Finally, we control for population size to reflect the degree of urbanization and the level of difficulty and complexity of the policing environment (Felson & Eckert, 2018). Descriptive statistics for the variables and the correlation matrix are presented in Table 1 and Appendix Table A1, respectively.

4 | ANALYSIS AND RESULTS

We first explore the bivariate correlations of the relationship between representation and the four indicators of citizen complaints. The results in Column 1 indicate that representation at all levels within police departments are very weakly correlated with the rate of citizen complaints. In Columns 3 and 4, representation is also weakly correlated with the percentage of use of force allegations and percentage of sustained allegations. However, in Column 2, the percentage of Black intermediate supervisors and the percentage of Black first-line supervisors display a positive correlation, 0.302 and 0.321, respectively, with the rate of allegations of excessive use of force. Although a somewhat weakly moderate relationship, it suggests that greater representation is associated with filing more allegations of excessive use of force by all citizens (Table 2).

TABLE 1 Descriptive statistics

Variables	N	Mean	SD	Min	Max
Dependent					
Rate of total citizen complaints[a]	869	0.17	0.26	0	4.93
Rate of total allegations of excessive use of physical force[a]	859	0.02	0.04	0	0.59
Percentage of use of force allegations to total citizen complaints (%)	775	17.63	23.23	0	100
Percentage of *sustained* use of force allegations (%)	535	8.42	21.73	0	100
Independent					
Race of Chief Executive is Black (1 = yes; 0 = no)	1038	0.09	0.28	0	1
Percent Black, Intermediate supervisors (%)	1038	0.76	1.88	0	33.33
Percent Black, First-line supervisors (%)	1038	1.08	2.31	0	33.33
Percent Black, Line-level officers (%)	1038	6.03	9.31	0	100
Documentation use of force, less-lethal actions (factor)	1038	0.92	0.25	0	1.03
Documentation use of force, less-lethal weapons (factor)	1038	0.97	0.16	0.04	1.08
Documentation use of force, weapon display (factor)	1038	0.52	0.33	0	0.86
Educational requirements (1 = yes; 0 = no)	1038	0.22	0.41	0	1
Number training hours, academy	1038	744	325	10	5000
Adoption of body-worn cameras (1 = yes; 0 = no)	1038	0.54	0.50	0	1
Complaints filing through agency website (1 = yes; 0 = no)	1038	0.71	0.45	0	1
Community policing activities (factor)	1038	0.50	0.40	−0.3	1.17
Community policing training, recruits (1 = yes; 0 = no)	1038	0.79	0.41	0	1
Control					
Collective bargaining authorized (1 = yes; 0 = no)	1038	0.62	0.49	0	1
Full-time sworn officers per capita	1038	1.94	4.92	0	153.85
Violent crime rate	1038	13.32	11.36	0	141.64
Percent Black population (%)	1038	14.27	15.89	0	91.4
Percent poverty (%)	1038	16.38	7.37	0	42.4
Population size (in thousands)	1038	224	555	0.091	10,100

Source: Authors' tabulations based on the 2016 LEMAS core and 2016 LEMAS-BWCS.
[a]Rate per officer.

TABLE 2 Pearson correlation coefficients, select variables

Variables	(1) Citizen complaints, rate	(2) Allegations use of force, rate	(3) % Allegations use of force	(4) % Sustained
Race of Chief Executive is Black	0.035	0.053	−0.039	−0.025
Percent Black, Intermediate supervisor	0.086	0.302	−0.022	0.035
Percent Black, First-line supervisor	0.119	0.321	−0.037	0.071
Percent Black, Line-level officers	0.021	−0.031	−0.035	0.072

Source: Authors' tabulations based on the 2016 LEMAS core and 2016 LEMAS-BWCS.

For more in-depth explanatory analyses holding constant other factors, we conduct a cross-sectional multivariate analysis using ordinary least squares regression since the dependent variables are derived using either a rate per officer or a percentage. The results are presented in Table 3. To account for possible heteroscedasticity and multicollinearity, the models were estimated using robust standard errors, while variance inflation factor (VIF) tests showed that all of the independent variables retained a VIF of 10 or below (Jobson, 2012).

TABLE 3 OLS regression results, agencies with 10 full-time sworn officers and above

Variables	(1) Total citizen complaints rate	(2) Allegations use of force rate	(3) Percentage use of force	(4) Percentage sustained
Chief Executive, Black	0.195 (0.154)	0.061 (0.139)	0.032 (0.027)	−0.065 (0.030)**
Percent Black, Intermediate supervisors	−0.040 (0.030)	−0.101 (0.058)*	−0.009 (0.005)**	−0.025 (0.012)**
Percent Black, First-line supervisors	0.100 (0.039)***	0.102 (0.042)**	−0.002 (0.005)	0.024 (0.014)*
Percent Black, Line-level officers	−0.020 (0.011)*	−0.007 (0.006)	−0.001 (0.001)	0.000 (0.001)
Educational requirements	−0.040 (0.097)	−0.080 (0.103)	0.016 (0.016)	−0.014 (0.022)
Number training hours, academy (log)	−0.083 (0.098)	−0.019 (0.112)	−0.004 (0.015)	0.055 (0.025)**
Documentation use of force, less-lethal actions	−0.108 (0.157)	0.082 (0.205)	0.053 (0.025)	0.011 (0.041)
Documentation use of force, less-lethal weapons	−0.693 (0.354)**	−0.680 (0.419)*	0.027 (0.063)**	0.080 (0.075)
Documentation use of force, weapon display	0.086 (0.129)	0.017 (0.131)	−0.002 (0.023)	−0.014 (0.030)
Adoption of body-worn cameras	0.153 (0.087)*	0.132 (0.089)	−0.015 (0.014)	0.017 (0.020)
Filing complaints through agency website	0.220 (0.099)**	0.171 (0.097)*	−0.033 (0.018)*	0.021 (0.023)
Community policing activities	−0.122 (0.107)	0.045 (0.112)	−0.005 (0.018)	0.060 (0.024)***
Community policing training, recruits	0.030 (0.101)	−0.002 (0.115)	0.018 (0.018)	−0.012 (0.031)
Collective bargaining authorized	0.070 (0.099)	0.010 (0.104)	−0.005 (0.016)	−0.114 (0.030)***
Full-time sworn officers per capita (log)	0.067 (0.095)	−0.113 (0.115)	0.008 (0.016)	0.010 (0.016)
Violent crime rate (log)	0.171 (0.072)**	0.217 (0.083)***	0.032 (0.010)***	0.004 (0.016)
Percent Black population	0.129 (0.510)	−0.812 (0.500)*	0.050 (0.072)	0.008 (0.143)
Percent poverty	0.608 (0.687)	1.023 (0.831)	−0.006 (0.099)	0.246 (0.204)
Population size (log)	−0.098 (0.050)**	−0.141 (0.065)**	0.020 (0.008)***	−0.009 (0.012)
N	637	458	632	452
F-stat	3.32	2.38	3.50	1.83
R^2	0.09	0.10	0.07	0.11

*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

Column 1 estimates the total number of formal citizen complaints rate per officer that encompasses both verbal discourtesy and excessive use of physical force. The results show that the percentage of Black first-line supervisors is positively associated with citizen complaint rates ($\beta = 0.10$; $p < 0.01$), while the percentage of Black line-officers is negatively associated with citizen complaint rates ($\beta = -0.02$; $p < 0.10$). Representation seems to play a significant but mixed role on total citizen complaints. Examining the managerial variables, documentation required for the use of less-lethal weapons is negatively associated with citizen complaint rates. Technology reflected in the adoption of body-worn cameras and filing complaints through the agency website is positively associated with citizen complaint rates. Finally, violent crime is positively associated with higher citizen complaint rates, while population size is associated with lower citizen complaint rates.

Column 2 displays the estimates of the rate of the total number of citizen complaints regarding allegations of excessive use of physical force only. The percentage of Black intermediate supervisors is negatively associated with use of force complaints ($\beta = -0.101$; $p < 0.10$), while the percentage of Black first-line supervisors is positively associated with use of force complaints ($\beta = 0.102$; $p < 0.01$). This indicates that representation has a significant but mixed effect on the rate of allegations of use of force. Documentation required for the use of less-lethal weapons is negatively associated with use of force complaints, while technology reflected in the opportunity to file complaints online is positively associated with use of force complaints. The direction of influence for the violent crime rate and population is similar to Column 1, while the finding for the percentage of Black population is negatively associated with allegations of use of force.

Column 3 displays the estimates of the percentage of complaints regarding allegations of excessive use of physical force relative to total citizen complaints. The descriptive statistics show that allegations of excessive physical force constitute about 17% of the total volume of citizen complaints filed for our sample. The percentage of Black intermediate supervisors ($\beta = -0.009$; $p < 0.05$) is negatively associated with the percentage of complaint allegations consisting of excessive use of force. The results suggest that greater representation in upper-level positions may contribute to a reduction in the proportion of allegations pertaining to excessive use of physical force relative to all complaints. Meanwhile, documentation required for the use of less-lethal weapons is positively associated with use of force allegations, while the violent crime rate is positively associated with the percentage of force allegations.

Finally, Column 4 displays the estimates of the percentage of allegations of excessive use of physical force that are sustained. From the descriptive statistics, about 8% of allegations are sustained relative to the total volume of use of force allegations that are filed. The findings provide significant but mixed results concerning the role of representation. The presence of a Black chief executive ($\beta = -0.065$; $p < 0.05$) and the percentage of Black intermediate supervisors ($\beta = -0.025$; $p < 0.05$) is negatively associated with the percentage of sustained allegations, while the percentage of first-line supervisors ($\beta = 0.024$; $p < 0.10$) is positively associated with the percentage of sustained allegations. Among other managerial variables, the number of academy training hours and community policing activities is positively associated with the percentage of sustained allegations, while the variable for collective bargaining is negatively associated with the percentage of sustained allegations.

5 | DISCUSSION

This study analyzes the relationship between bureaucratic representation in multiple ranks and citizen complaints. We examine four variants of citizen complaints which coincide with different phases of Brandsma and Schillemans's (2013) three-step accountability framework. The results suggest that greater representation may serve to improve accountability for the organization as a whole, although some of the findings require further investigation into the contrasting effects of representation in different leadership ranks. Specifically, we find that representation does not function in a linear manner.

Examining total citizen complaints, at first glance the association between the percentage of Black line-level officers and a decrease in total complaints may seem like a positive finding. However, representation in upper ranks

suggests otherwise. The percentage of Black first-line supervisors is associated with an increase in the filing of citizen complaints, while the results in Column 2 for allegations of force are similar. However, the percentage of Black intermediate supervisors is associated with a decrease in use of force allegations. Although it is difficult to ascertain the precise dynamics underlying the role of representation in different ranks because these coincide with the *information* stage of accountability, we argue that these findings may be a positive sign. A larger physical presence of black line-level officers in communities may generate greater benefits of representation by reducing the number of absolute complaints filed. However, as we see an increase in leadership positions, this could prompt citizens to have more confidence in the complaint filing process. Since one of the benefits of representation is to enhance police-community relations, such environments may be characteristic of higher rates of citizen complaints because residents are more comfortable reporting misconduct without fear of reprisal or retaliation (Lersch, 2002). This explanation is partially supported by the finding in Column 3 through the negative association between the percentage of Black intermediate supervisors and the proportion of allegations related to use of force. It is possible that symbolic representation might be in play in which community members favorably respond to law enforcement through an increase in bureaucratic representation (Riccucci et al., 2018). However, since we lack data on the racial breakdown of citizen complaints, it is difficult to derive a more solid explanation regarding the role of symbolic representation.

We turn to the results for sustained allegations which encompasses the *discussion* and *consequences* stage of accountability. While the percentage of sustained allegations increases with greater representation of Black first-line supervisors, the results are contrary for representation in upper leadership. The finding supports the hypothesis that accountability tends to be positively associated with lower-level rather than upper level positions, raising the need to address the underlying institutional and organizational context in which minorities are hired into such positions. Prior evidence found that representation is more salient for improving service effectiveness at line-level positions because there is greater street-level discretion compared to that of upper-level bureaucrats (Andrews et al., 2014; Hong, 2020). We surmise that upper level minority officers are more likely to be influenced by the institutional context such as agency characteristics (Dolan, 2004), organizational socialization (Wilkins & Williams, 2008), or critical mass conditions (Andrews & Miller, 2013; Meier, 1993; Nicholson-Crotty et al., 2017). Such elements may be more salient to those in leadership positions who have longer exposure to the process of socialization of organizational culture and norms. This may potentially limit the benefits of achieving accountability through representation in mid to upper level leadership.

Another explanation for the reduced benefits of representation in upper leadership positions may be attributable to different levels of bureaucratic discretion. In general, upper-level leadership is less likely to interact directly with citizens compared to those of front-line officers, suggesting that minority officers in leadership may have fewer opportunities to exercise discretion compared to that of street-level minority officers. Considering Hong's (2020) finding that representation among street-level officers is a necessary condition for producing the benefits of representation in upper leadership, our finding also expands the literature on the role of bureaucratic hierarchy. Studies may need to explore the notions of black officers and executives as "sacrificial lambs," mercenaries, and invisible personnel who lack substance and power to bring about meaningful change (Cooper, 1980), and who are considered virtual political weapons in a public relations campaign by those in power (Cashmore, 2013).

We acknowledge several methodological shortcomings with this study. First, there are limitations with relying on citizen complaints as an indicator of police misconduct. There are measurement issues with citizen complaints as a performance measure stemming from variations in agency recording and reporting practices, data entry errors, and vulnerability to manipulation (Hickman & Poore, 2016). Moreover, there may be discrepancies in responses according to different racial groups (Brunson, 2007). This is linked to a second limitation in that the 2016 LEMAS survey data do not break down citizen complaints according to different racial categories. While this does not constitute a major issue since this study focuses on the relationship between representation and overall outcomes, prior studies have pointed out issues of underreporting of officer misconduct. Reasons may include a lack of confidence in the police accountability process, complicated or intimidating complaint procedures, individuals with a history of criminal activity who may be hesitant to report misconduct, and fear of prosecution in the event that complaints are not

found to be sustained (Lersch, 2002). Underreporting may be exacerbated in minority communities, especially among African Americans who suffer from a long history of distrust and mistreatment by the police (Brunson, 2007).

Another drawback is that our analysis is drawn from a cross-sectional dataset, which renders it difficult to draw any causal conclusions from the results. Although the LEMAS surveys are conducted periodically every 3 to 5 years, the questionnaires do not collect uniform data across multiple surveys. Data on citizen complaints are not available for each LEMAS iteration, while the 2016 iteration is the first to collect data on multiple leadership positions for different racial categories. Thus, the findings do not speak to causal relationships but rather are limited to examining associations between the variables. A related issue arising from cross-sectional analysis is the low R^2 values of the results which suggest that the models may not account for substantial variation in the dependent variable. As uniform data for multiple years becomes available, future research may be able to provide more robust causal interpretations as well as improve goodness of fit.

6 | CONCLUSION

The notion of democratic policing suggests that in addition to how the police produce public safety outcomes, citizens also have a voice with regards to how the police exercise discretion (Walker, 2007). Citizens are not only passive recipients of police services but constitute the fundamental basis for legitimacy. When use of force is not delivered properly or legally, accountability and legitimacy are called into question and the process in which law enforcement services are delivered requires scrutiny. Given that discretion allows officers to determine the level of benefits and sanctions that the public receives (Lipsky, 2010), a more representative and diverse workforce should generate attitudes and behaviors that align with the preferences of all community members.

Through our findings, we shed new light on the link between representation in multiple ranks and accountability. Operationalizing accountability by sustained allegations of police use of force, rather than relying on perceptual variables, enables us to comprehensively understand whether accountability is substantially enhanced from the perspective of both citizens and police organizations. The findings also provide implications for practice regarding how to set up future recruitment strategies in order to improve accountability. Citizen complaints comprise an important feedback mechanism about police processes. During a time of reimagining public safety and community well-being, it is important for police organizations to incorporate citizen perspectives into agency policies and activities in a productive manner. The need for citizen engagement to reform police policies and practices has caught the attention of local, state, and national politicians from across the United States. A growing number of state leaders have offered guidance and signed sweeping sets of laws that are designed to reform policing, including establishing and empowering civilian review boards to issue subpoenas and make binding disciplinary decisions. As responsive and accountable public administration is dependent upon the public, citizen evaluations are essential to assessing agency performance and serving as a roadmap to guide the training of future police employees. By employing use of force dispositions as one important indicator, law enforcement organizations can improve responsiveness to the people they serve and ensure accountability in policing. These efforts can address the heightened racial concerns in this post-George Floyd era of American policing.

CONFLICT OF INTEREST
The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT
Data sharing is not applicable to this article as no new data were created or analyzed in this study.

ORCID

Seong C. Kang https://orcid.org/0000-0002-8880-8551
Ahrum Chang https://orcid.org/0000-0002-3180-9609
Brian N. Williams https://orcid.org/0000-0002-6318-0921

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APPENDIX A

TABLE A1 Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Chief Executive, Black	1																	
2. % Black, Intermediate	0	1																
3. % Black, First-line	0.29	1	1															
4. % Black, Line-level	0.30	0.50	1	1														
5. Education	−0.04	−0.12	0	−0.09	1													
6. Training	0.06	−0.17	−0.09	−0.05	0	1												
7. Doc, less-lethal actions	0.00	0.04	0.03	0.01	0	−0.03	1											
8. Doc, less-lethal weapons	0.07	−0.03	0.07	0.06	0.01	0	0.10	1										
9. Doc, weapon display	−0.03	−0.03	−0.03	−0.04	0.01	−0.05	0	0.00	1									
10. Body-worn cameras	0.13	0.08	0.12	0.06	−0.06	−0.01	−0.03	0.16	−0.05	1								
11. Complaints, website	0.05	−0.02	0.02	0.00	−0.03	0.03	0.02	0.11	0	0.05	1							
12. CP activities	0.03	0.01	0.06	0.02	0.06	0.05	−0.01	0.14	0	0.07	0.11	1						
13. CP training, recruits	0.03	−0.01	0.03	0.01	0.04	0.07	0.08	0.13	−0.02	0	0.10	0.14	1					
14. Collective bargaining	−0.01	−0.22	−0.18	−0.12	0.21	0.29	0.02	−0.02	0.03	−0.15	−0.01	0	0.13	1				
15. FTS per capita (log)	0.14	0.17	0.19	0.23	0.00	0.07	−0.05	−0.18	0.01	0.04	−0.04	0.10	0	−0.02	1			
16. Violent crime (log)	0.18	0.18	0.27	0.31	−0.20	0.08	−0.09	0.20	−0.02	0.21	0.06	0.10	0.09	0	0.30	1		
17. % Black population	0.38	0.56	0.60	0.66	−0.16	−0.09	0.01	0.07	−0.05	0.12	−0.01	0.03	0.00	0	0.33	0.39	1	
18. % Poverty	0.19	0.21	0.28	0.31	−0.16	−0.07	−0.01	0.08	0.00	0.18	−0.02	0.07	0.04	−0.05	0	0.54	0.45	1
19. Population (log)	0.08	0.01	0.10	0.20	0.02	0.14	0.02	0.45	−0.13	0.10	0.12	0.11	0.05	0.07	−0.46	0	0.07	0.06