

Police Chief Turnover in Texas: An Exploratory Analysis of Peer-Evaluation Survey Data Pertinent to Police Performance and Turnover

Police Quarterly
2019, Vol. 22(4) 391–415
© The Author(s) 2019
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1098611119845664
journals.sagepub.com/home/pqx



Yudu Li¹  and Ben Brown¹

Abstract

Turnover of police chiefs is brisk, with the average tenure of a chief of police ranging from 4 to 6 years, but few scholars have examined factors which may impact police chief turnover. This study contributes to the literature on police chief turnover via an examination of the impact that two forms of performance—leadership performance and departmental performance—may have on police chief turnover. Analyzed herein are peer-evaluation survey data and administrative data obtained from the Law Enforcement Management Institute of Texas and the Texas Commission of Law Enforcement. Regression analyses of the data suggest that leadership and departmental performance are associated with turnover, with leadership performance having the larger impact. Time in office, being an external appointment/hire, and having been hired by a city mayor also proved to significantly affect turnover. The policy and personal life-choice implications of the data for police officials and policy makers are discussed, as are the methodological implications.

¹University of Texas Rio Grande Valley, Edinburg, TX, USA

Corresponding Author:

Yudu Li, Criminal Justice Department, ELABN 321, University of Texas Rio Grande Valley, 1201 W University Drive, Edinburg, TX 78539, USA.

Email: yudu.li@utrgv.edu

Keywords

law enforcement, police chief, leadership, turnover, performance

Introduction

Police work is arduous. Under relentless public scrutiny, the police must contend with a range of situations, inclusive of handling hostile and uncooperative individuals while adhering to procedural standards which respect the constitutional rights of the citizenry. Regardless of whether the situation involves an automobile accident, a burglary, a lost child, a found child, a traffic jam, a prowler, a protest, or a parade, the police will be alerted and required to respond (Fyfe, 2015; Manning, 1997; Remington, 1965). Handling such a motley array of incidents (and the people involved) can be emotionally, psychologically, and physically challenging. Further complicating matters, there are numerous organizational features of the job such as the rotating shifts, the modest income, and the limited potential for career advancement which exacerbate the plight of police personnel. All this takes a toll on the men and women who serve and protect the public as evidenced by ample empirical studies which indicate police officers experience more than their fair share of a number of work-related ailments such as depression, fatigue, hypertension, sleep disorders, stress, and obesity (Amendola et al., 2011; Charles et al., 2007; Gershon, Barocas, Canton, Li, & Vlahov, 2009; McWilliams & Hamilton, 2015; Vila, 2000; Vila, Morrison, & Kenney, 2002; Waters & Ussery, 2007).

It is thus no surprise that employee turnover in police departments is a significant issue (Doerner, 1995; Koper, 2004; Wareham, Smith, & Lambert, 2015). The high turnover rates within the criminal justice system are cause for concern among criminal justice executives and public policy makers. A high turnover rate may reduce employee morale, increase the workload on extant personnel, and result in inadequate staffing, all of which may negatively impact the quality of service an agency can provide. Another problem is the limited productivity of newly hired and inexperienced personnel (Kieckbusch, Price, & Theis, 2003; Lambert, 2006; Orrick, 2005). Then there are the economic costs associated with a high turnover rate, which are especially problematic for police departments. Recruitment efforts, screening and selecting new hires, and the provision of academy and field training are not cheap. This is not to suggest that turnover is inherently problematic, as any organization must be able to eliminate inadequately performing personnel, but the bottom line is that turnover within a police department comes at a considerable cost to the agency (Evans, Christopher, & Stoffel, 2000; Wareham, et al., 2015; Weisberg & Kirschenbaum, 1991).

Although turnover among police personnel has been well documented, less is known about turnover among chiefs of police. Research indicates that police chief turnover is brisk, with the average tenure of a chief of police ranging from roughly 4 to 6 years (King & Campbell, 2013; Peak & Glensor, 2002). The Chicago Police Department, for instance, was overseen by legendary police reformer O.W. Wilson from 1960 to 1967, but Wilson's 7-year term as superintendent of the Chicago Police Department has been unmatched in the half century since he retired (Fan, 2015). To provide another example, consider the Baltimore Police Department. When Commissioner Frederick H. Bealefeld III retired in 2012, the *Baltimore Sun* reported that Bealefeld's 5-year term of service as Commissioner of the Baltimore Police Department was "the longest tenure in Baltimore since Donald D. Pomerleau was chief from 1966 to 1981" (Hermann, Scharper, & Fenton, 2012, p. 1). From the time Bealefeld retired in 2012 to the present writing, the Baltimore Police Department has been overseen by a precipitous procession of four different commissioners (Oppel, 2018). The frequent fluctuations in police leadership in Baltimore and Chicago from the 1960s to the present are but a couple of examples of executive turnover in municipal law enforcement agencies. The point here is that the tenure of a police chief is often brief.

Beyond the fact that the typical term of service of a chief of police lasts no more than a few years, little is known about police chief turnover (Murdaugh, 2005; Rainguet, 1998). The dearth of empirical study of police chief turnover is lamentable, as the job of police chief is critical within a municipality. Numerous scholars have suggested that, compared with the leaders of other government agencies, police chiefs typically have higher social status and more power, with the decisions made by the chief of police impacting the overall quality of life in a city (Goldstein, 1977; Lewcock & Barba, 1988; Schafer, 2009). The Advisory Committee on the Police Function of the American Bar Association's Project on Standards for Criminal Justice went so far as to suggest that "the position of police chief should be recognized as being among the most important and most demanding positions in the hierarchy of government officials" (American Bar Association, 1974, Standard 1-7.4). As pointed out by Regoli, Crank, and Culbertson (1989), the chief of police is responsible not only for overseeing agency operations but also for establishing and influencing the philosophy and policies that shape the manner in which resources are allocated and services are provided (also see M. Brown, 1981; Wilson, 1968).

Further complicating matters, the chief of police must accommodate and cooperate with an array of local agencies (e.g., school district, county sheriff, municipal maintenance), politicians, and special interest groups, while simultaneously navigating the demands of state and federal agencies which may have some discretionary authority to allocate funding for and investigate or otherwise oversee police activities. The job of chief of police was aptly described by Witham and Watson (1983, pp. 72-74) as encompassing myriad complex roles

such as “diplomat-liaison,” “initiator of interactions,” and “manager of change” in the community. It is the joint position of the International City/County Management Association and Police Executive Research Forum that “the right police leader can make all the difference—not just in crisis situations, but in the daily trial of working closely with police officers to keep citizens safe” (Hansell & Wexler, 1999, p. viii). Whereas quality leadership may promote a stable and effective police department, mediocre or inadequate leadership may contribute to a variety of undesirable outcomes among the personnel such as absenteeism, attrition, corruption, dissatisfaction, and stress (Baker, 2010; Kappeler, Sluder, & Alpert, 1998; Punch, 2000; Schafer, 2009).

Given the importance of the position of chief of police, the rapid turnover of police chiefs is a matter of concern. In his classic work on government, *Agenda, Alternation, and Public Policies*, Kingdon (1995) suggested that a high rate of executive change in a public organization might disrupt the operations of the organization and result in substantial financial costs to a community. With specific respect to policing, frequent change of a chief of police may lead to instability of policing policies and programs which, in turn, may generate chaos within the agency and compromise public security. Bowman’s (2009) analysis of survey data collected from over 100 police officers in an undisclosed department showed a significant relationship between leadership-member change, law enforcement officers’ turnover intent, and alternative job search behaviors. Consistent attrition of police chiefs may also shake public confidence in the ability of law enforcement to protect the community (Witham, 1985). Hence, research on police chiefs, inclusive of investigations into why police chiefs leave their positions, is important and there is a need for more research on police leadership. Such research may yield information of value not only to police executives but also to a variety of government officials, public policy makers, special interest groups, and others with a vested interest in public safety and the quality of life in their community (J. Brown, Cooper, & Kirkcaldy, 1996; Krimmel & Lindenmuth, 2001; Maguire, 2003; Moore, 2002; Murdaugh, 2005).

Current Research

Using data collected from recently appointed police chiefs in Texas, the effects of two forms of performance—leadership performance and departmental performance—on police chief turnover are examined herein. This study contributes to the extant body of research on police chief turnover which, unfortunately, is paltry. A search of multiple databases and the Internet yielded only a few empirical studies of police chief turnover (Murdaugh, 2005; Rainguet, 1998; Rainguet & Dodge, 2001).

Rainguet and Dodge (2001) utilized a life-history methodology and conducted in-depth interviews with 10 incumbent or former chiefs of police to assess police chief turnover. They found that police chief turnover was impacted

by numerous factors, inclusive of health and family matters, stress, political challenges, alternate career options, and an array of difficulties dealing with extant police personnel such as embedded corruption, officers drinking while on duty, and a general lack of discipline (also see Rainquet, 1998). Rainquet and Dodge's (2001) study was informative, yet was based on a small sample so the results may not be generalizable. Murdaugh (2005) surveyed incumbent police chiefs in Florida and queried them about the reasons their predecessors left office. Murdaugh (2005) found that police chief turnover was significantly impacted by a chief's relations with hiring officials, relations with local politicians, and relations with the media. Also worth mention, Murdaugh (2005) reported that a third of the police chiefs who had reportedly voluntarily resigned, "did so in lieu of being fired" (p. 103). This study contributes to the extant body of research via an examination of the impact of multiple variables on police chief turnover.

Assessing Police Performance: Challenges and Methodological Rationale

Assessing the performance of an agency and its leaders—regardless of whether it is a for-profit, non-profit, or public service organization—is not easy (Neely, 2004; Neely, Gregory, & Platts, 1995; Richard, Devinney, Yip, & Johnson, 2009). Assessing the performance of a police department and the chief of the department is no exception (Moore & Braga, 2004; Sparrow, 2015). Traditionally, the performance of a police department and its leadership have been measured via law enforcement outcomes such as crime rates, clearance rates, response time, and the number of calls for service, and several scholars have suggested that the tenure of a chief of police can be affected by such conventional measures of police efficacy (Alpert, Flynn, & Piquero, 2001; Blumstein, 1999; Moore & Braga, 2003). The fact that police leaders and their agencies have frequently been assessed based on law enforcement outcomes such as crime rates does not, however, mean such measures satisfactorily gauge of the efficacy of a police department or its chief. An adequate assessment of a police organization should incorporate numerous factors (Moore, 2002; Moore & Braga, 2004; Sparrow, 2015; Stephens, 1999).

A number of prominent policing scholars have suggested that traditional measures of police effectiveness such as crime rates and response time are inadequate because of the evolution of policing services and strategies, and the fact that law enforcement constitutes a small portion of police responsibilities, with the bulk of police resources being devoted to maintaining social order and providing civilian services (Goldstein, 1997; Kelling, 1992; Langworthy, 1999; Moore & Braga, 2003; Walker & Katz, 2008). Maguire (2003) suggested that measures of the performance of police organizations should be designed to

gauge not only the prevention and reduction of crime but also goals such as building lasting community relationships and assisting the community in solving problems. Moore and Braga (2003) asserted that “multi-dimensional performance spread from outcomes through outputs and activities to investments being made in the organization is probably the best way to conceptualize an effective performance measurement system” (p. 444). They also suggested some police performance indicators beyond traditional measures of criminal victimization, such as the reduction of fear of crime, the enhancement of feelings of personal security, and the increase of safety in public spaces.

Similar to the aforementioned studies which indicated that an assessment of a police agency should incorporate numerous factors, research indicates that evaluations of a police chief should be multidimensional (Krimmel & Lindenmuth, 2001; Sarver & Miller, 2014). As heretofore discussed, police leadership is a daunting task, as police leaders must meet the demands of a diverse set of superiors, subordinates, clients, and constituents, while addressing complex issues in a dynamic environment with circumstances they cannot directly influence, such as the degree to which citizens care about their neighborhood. Consequently, any assessment of police chief performance should address multiple factors. Vaughn (1989), for instance, suggested a police chief should be evaluated based on a variety of criteria such as the capacity to set and achieve goals and effective utilization of personnel and facilities. The Canadian Association of Police Governance (2018) developed a performance review for chiefs of police, wherein a police chief is evaluated based on multiple performance indicators such as communication ability, leadership strategy, management of infrastructure, financial management, and political astuteness.

In an effort to assess whether police chief turnover may be impacted by the performance of a police department and the performance of a police chief, this study utilizes peer-evaluation survey data obtained from recently appointed chiefs of police. The rationale underlying this methodological strategy is that police executives are experienced and accomplished professionals and thus capable of evaluating the performance of a police department and a police executive. In his pioneering participant observation study of policing impoverished communities, Bittner (1967) suggested that police peace keeping is a “practical skill”—by which Bittner was referring “to those methods of doing certain things, and the information that underlies the use of the methods, that *practitioners themselves* view as proper and efficient” (p. 701)—and that the persons best able to identify and assess police peace keeping skills were veteran police officers. Inherent in Bittner’s (1967) work is the notion that, whereas a layman was unable to adequately evaluate police work (e.g., whether a situation required police intervention, the manner in which a person was spoken to, whether an arrest was made), veteran police officers were capable of recognizing skill or the lack thereof in other police officers. The present methodological strategy is grounded on a similar notion: Namely, that police chiefs are qualified

to evaluate the performance of a police department and the (former) leader of a police department.

The use of peer evaluations from accomplished professionals has not been frequently utilized in studies of police executives, but is not without precedent. In a study of police chief turnover, Murdaugh (2005) surveyed incumbent police chiefs, suggesting that the value of surveying incumbent police chiefs is that "an incumbent chief is uniquely privy to both facts and rumors about a predecessor's performance while in office as well as facts and rumors regarding the reason that predecessor left office that others cannot know" (p. 56). To provide another example, Krimmel and Lindenmuth (2001) gathered data on police chief performance via surveys of municipal managers. Krimmel and Lindenmuth (2001) suggested that, owing to their experience and accomplishments in municipal governments, municipal managers were well suited to evaluate the performance of chiefs of police because, similar to city managers, police chiefs are managers of municipal agencies.

Methodology

Data Source and Collection

Founded in 1989, the Law Enforcement Management Institute of Texas (LEMIT) sponsors research and provides continuing education and training to law enforcement executives in Texas. Since its inception, attendance has grown considerably. Whereas approximately 50 new police chiefs per year attended the training programs in the early 1990s, attendance has since tripled and increased to more than 150 police chiefs attending per year. Although much of the growth can probably be attributed to population growth in Texas and the concomitant increase in municipal law enforcement agencies, the increase in enrollment in the LEMIT programs may also have been impacted by the subject of the present research: namely, police chief turnover. The data analyzed herein were culled from surveys administered to recently appointed police chiefs who attended the New Chief Development Program (NCDP) and Texas Police Chief Leadership Series (TPCLS) offered by LEMIT. As per the Texas Education Code, Section 96.641, all newly appointed Texas police chiefs must attend the NCDP program within 2 years of the start date of their new appointment. The NCDP and TPCLS curricula focus on leadership and managerial matters such as the management of evidence and property storage facilities, the development of policies and procedures, team building, budgeting, and survival on the political battlefield.

Between March 2015 and March 2016, 208 surveys were administered, of which 175 were completed and returned (84.1% response rate). Owing to a variety of technical matters such as a respondent not being a chief of a municipal police agency, a respondent having been appointed chief of police due to the

death of a predecessor, or a respondent lacking a predecessor, data from 11 of the completed surveys were removed, resulting in a final sample of 164 police chiefs. The police chiefs surveyed were predominantly White (79.3%), with a minority being Black (2.4%) or Hispanic (15.9%). Only a single police chief surveyed self-identified as Asian. A large majority of the respondents were male (93.3%) and over a third had a baccalaureate or graduate degree (37.1%). The majority of the police chiefs surveyed were middle aged ($M = 48.66$ years, $SD = 8.84$ years) and had an average of about two decades of law enforcement experience ($M = 21.3$ years, $SD = 9.75$ years). Roughly half of the police chiefs surveyed (50.6%) had been promoted to the position from within the agency, with the other half (49.4%) having been hired from outside of the agency. At the time they completed the surveys, the respondents had been serving as chief for an average of about 9½ months ($M = 0.79$ years, $SD = 0.71$ years). There was no significance difference in the time of service as chief of police between the respondents who were appointed as police chief from within the agency ($M = 0.80$ years, $SD = 0.77$) and the respondents who were hired as police chief from outside of the agency ($M = 0.78$ years, $SD = 0.64$).

This study also incorporates (i) administrative LEMIT data pertinent to demographic characteristics of the program participants and (ii) administrative data from the Texas Commission of Law Enforcement (TCOLE). The TCOLE administrative data contain information such as the names, agencies, start dates, and end dates of police chiefs in Texas and were incorporated in this study as some of the participants (especially the chiefs hired from outside of their agencies) may not have been familiar with all the specific details about their predecessors' terms of office. The administrative LEMIT and TCOLE data are important supplements to the LEMIT survey data analyzed herein. Finally, information gathered from the Internet and direct contact (via phone or e-mail) with police agencies and municipal governments was obtained to further supplement the survey data and fill in the gaps in cases with missing data inclusive of, but not limited to, the career paths and reasons for departure of previous chiefs of police. For example, information about the appointment of a police chief in a small department was not provided by the respondent, nor was the information available in either of the two aforementioned administrative data sets. The researchers thus contacted the city directly via e-mail, and municipal officials responded and clarified that the police chief was appointed by the city council.

Dependent Variable

The dependent variable is the turnover of Texas police chiefs. The police chiefs surveyed were asked about the primary reason for the departure of the prior chief of police, with 14 response options having been provided (see Appendix A). The responses were collapsed into a dummy variable distinguishing between

involuntary turnover and voluntary turnover. Voluntary was coded as 0, and involuntary was coded as 1. Voluntary turnover included options such as the decision to accept a police chief position (perceived as preferable) with another city, to leave the profession for perceived better opportunity elsewhere, or retirement for individual health issues, family health issues, or other family issues. The other response options—such as being dismissed or fired, lack of administrative support from the city manager or mayor, political struggle with local policy makers, and unrealistic demands/expectations on the part of the city manager or mayor—were categorized as involuntary turnover. The question about the departure of the prior chief of police also included an open-ended response option wherein a respondent could specify a reason that was not listed. These responses were examined and categorized into one of the turnover groups. For example, a couple of respondents indicated their predecessors left because their contracts were not renewed. These cases were coded as involuntary turnover.

Independent Variables

The independent variables are composite measures of the leadership effectiveness of a police chief and the performance of a police department. For the first independent variable, leadership performance, survey respondents were asked to evaluate the performance of their predecessors on eight leadership indicators such as the motivation of employees and allocation of resources (see Appendix B). The questions about leadership efficacy utilized Likert response options and were coded with values ranging from 1 for *very ineffective* to 5 for *very effective*. For the second independent variable, department performance, survey respondents were asked to rate departmental performance indicators such as the apprehension of offenders, fair treatment of the citizenry, and police responsiveness to calls for service (see Appendix B). The response options and coding were the same as the heretofore described response options and coding of the responses to the queries about leadership.

As for the construction of the composite measures, the compatibility of ordinal (Likert-type) values and the validity of a composite measure have frequently been assessed with Pearson correlations, but several social scientists have suggested that Polychoric correlations are preferable to Pearson correlations for assessment of the association degrees and construct validity of composite variables (Holgado-Tello, Chacon-Moscoso, Barbero-Garcia, & Vila-Abad, 2010; Jarvis, MacKenzie, & Podsakoff, 2003). Stata v13 was used to gauge the construct validity of the two independent composite variables. The analysis outcome of the Polychoric correlation and the factor analysis of the survey items for the leadership effectiveness variable indicated that all the eight survey items can load onto a factor because all the eigenvalues are high and had positive loadings on one factor. Moreover, the uniqueness values of the eight items were

below the critical value of 0.6 which suggest this composite variable can be well explained by these items. Similar results were obtained for the departmental performance composite variable. The Polychoric correlation matrix indicated that all the eigenvalues were higher than 0.7 and had positive loadings on one factor.

Control Variables

Several control variables pertinent to the characteristics of the agency and community were included in the analyses. Political environment is a categorical variable. Data for the measure of the city's political environment were collected from respondents via a survey question which read as follows: "Please rate the stability of the city's political environment when the previous chief left office." Four response options were (a) unstable, (b) somewhat unstable, (c) somewhat stable, and (d) stable. These data were recoded into a dummy variable. Unstable, a combination of the first and the second answers was coded as 0. Stable, a combination of the third and the fourth answers, was coded as 1. The data for police department jurisdiction, also a categorical variable, were gathered via a question with three response options. Urban was coded as 0, suburban was coded as 1, and rural was coded as 2. Agency size, a continuous variable, is a measure of the number of sworn officers in an agency.

Some characteristics of the previous police chiefs were also included as control variables. As heretofore discussed, the data for these measures were obtained via a combination of sources. The LEMIT survey data were supplemented with LEMIT administrative data and TCOLE data and, where necessary, information obtained from additional individualized electronic and telephone inquiries. The length of time (number of years) the previous chief served is a continuous variable. Career path is a dichotomous variable. The data on career path were obtained from a question with eight response options, which were recoded into a dummy variable distinguishing between whether the prior chief had been hired/promoted from within the department or hired from outside of the department. Internal hire was coded as 0 and external hire was coded as 1. Appointment authority is a categorical variable. Appointment by city council was coded as 0, appointment by the mayor was coded as 1, and appointment by city manager was coded as 2.

Analyses and Findings

Descriptive Statistics

As shown in Table 1, descriptive analyses of the data indicate that slightly more than half of the respondents (51.8%) reported their predecessors had voluntarily vacated the position. Descriptive analyses also suggest that municipal leaders

Table 1. Descriptive Statistics: Categorical and Continuous Variables.

Categorical variables			
<i>Frequency distribution</i>			
	N	%	
Predecessor turnover			
Voluntary	85	51.8	
Involuntary	79	48.2	
Career path			
Internal hire	68	42.5	
External hire	92	57.5	
Hiring authority			
City council	93	58.2	
City manager	49	30.6	
Mayor	18	11.2	
Area/jurisdiction			
Urban	39	23.8	
Suburban	74	45.1	
Rural	51	31.1	
Area perceived stability			
Stable	115	70.1	
Unstable	49	29.9	
Continuous variables			
<i>Central tendency and variability</i>			
	Mean	SD	Range
Leadership performance	2.05	1.04	0–4.59
Departmental performance	2.34	1.04	0–4.26
Years of experience (predecessor)	5.78	4.97	0.25–27.0
Number of officers in agency	24.23	46.35	1–433

regularly hire police executives from outside the ranks of the local police agency. More than half of the previous police chiefs (57.5%) were external hires, while fewer than half (42.5%) were promoted to the position from within the ranks of the department. The hiring decision was most frequently made by a city council (58.2%), followed by city manager (30.6%), with a small minority (11.2%) of hires being made by the city mayor. The police chiefs surveyed oversaw agencies of myriad sizes. The number of officers employed by the agencies ranged from 1 to 433. The average number of officers in an agency was relatively small ($M=24.23$), but the range and the fact that the standard deviation ($SD=46.35$) was almost double the mean indicate there was considerable variation in the size of the departments. Almost half (45%) of the police chiefs served in suburban areas, with about a quarter (23.8%) serving in urban areas, and almost a third (31.1%) serving rural populations. A sizable majority

Table 2. Logistic Regression Analysis: Predictors of Involuntary Turnover.

Items	Model 1		Model 2		Model 3		Model 4	
	B (SE)	Exp (b)	B (SE)	Exp (b)	B (SE)	Exp (b)	B (SE)	Exp (b)
Leadership effectiveness	-.78 (.18)	.46***			-.47 (.24)	.63*	-.75 (.29)	.47**
Department performance					-.43 (.24)	.65	-.16 (.31)	.85
Chief years of experience			-.72 (.18)	.49***			-.09 (.04)	.92*
External hire							-.09 (.41)	.45*
Agency size							-.002 (.004)	.99
Appointment authority (reference: city council)								
Mayor							-1.85 (.64)	.16**
City manager							-.24(.46)	.79
Stability							.15 (.48)	1.16
Jurisdiction (reference: urban)								
Suburban							-.35 (.52)	.70
Rural							.21 (.49)	1.23
Constant	5.70		6.35		5.70		3.21	
Chi-square	21.49		19.49		23.49		37.62	
Prob > chi ²	.00		.00		.00		.00	
Pseudo R ²	.09		.08		.10		.18	
N	159		161		157		148	

Note. N varies between statistical models due to missing data.

* $p < .05$. ** $p < .01$. *** $p < .001$.

(70.1%) of the respondents viewed the municipalities they served as being politically stable. In short, the police chiefs surveyed were from a broad range of police departments.

The survey respondents' evaluations of the performance of their predecessors and the efficacy of departments they managed were not especially favorable. Descriptive analyses of the composite independent variables indicate that the police chiefs surveyed had varying opinions of the performance of their predecessors and prior performance of their agencies, tending toward viewing the performance of their predecessors and agencies as mediocre. Scores on the composite leadership efficacy measure ranged from 0 to 4.59, with a mean of 2.05 ($SD = 1.04$) and scores on the composite departmental performance measure ranged from 0 to 4.26, with a mean of 2.34 ($SD = 1.04$).

Regression Analyses

Because logistic regression is well suited for the analysis of dichotomous variables (DeMaris, 1995; Hosmer & Lemeshow, 2004), it was employed to assess the impact of the aforementioned variables on voluntary and involuntary police chief turnover. As shown in Table 2, in Model 1, turnover was regressed on leadership effectiveness. The results indicate that leadership efficacy had a negative and statistically significant association with turnover in the expected direction. Police chiefs who were rated as performing poorly were more likely than police chiefs who were rated as performing effectively to have left their positions involuntarily. In Model 2, turnover was regressed on departmental performance and, again, there was a negative and statistically significant relationship between the variables, indicating that poorly rated departmental performance was associated with involuntary police chief turnover. In Model 3, turnover was regressed on both aforementioned indicators of performance. The effects of leadership performance and departmental performance on turnover were similar, yet of the two performance measures only leadership performance proved statistically significant.

In the full model, Model 4, turnover was regressed on both measures of performance and the control variables. The results indicate that years of experience, having been hired by the mayor, and being hired from outside of the department had negative and statistically significant associations with turnover. Years of experience as a chief of police reduced the odds of involuntary turnover, with the negative B value ($-.09$) suggesting that the longer a person has served as chief of police, the less likely the person is to involuntarily vacate the position. The correlations between external hire and appointment by the mayor indicated that police chiefs who were appointed from outside the department and were appointed by city mayor were significantly less likely to leave the position involuntarily than police chiefs who were promoted from within the ranks of the department and police chiefs who were hired by a city council. Agency size, type of area served (i.e., jurisdiction), and political stability were not significantly

correlated with turnover. When the control variables were included in the analyses, the impact of leadership performance remained statistically significant. The odds ratio of .47 indicates that, with a one unit increase of the measure of leadership performance, the odds of the police chief being involuntarily removed decrease by 53%.

Discussion

Initially, the data suggest that effective police management is frequently recognized and rewarded. The findings that leadership performance was significantly correlated with turnover in all the models, with involuntarily turnover being more likely in situations involving poorly performing police chiefs, indicate that municipal leaders recognize and are reluctant to remove effective police leaders. It is important to emphasize the fact that the data on police leadership were collected from police chiefs rather than municipal executives, politicians, or the general public. The finding that poor leadership, as determined by veteran police executives, was associated with involuntary police chief turnover suggests there is some consensus between police executives and other municipal executives about what constitutes effective police leadership, and that municipal leaders are aware of and appreciate effective police executives.

The finding that the length of service significantly affected turnover, with experienced police chiefs being less likely to be involuntarily removed than inexperienced police chiefs, lends additional support to the suggestion that effective police leadership and quality departmental performance are recognized and rewarded. It is reasonable to infer that years of service as a chief of police is indicative of quality leadership, with effective police executives retaining their positions for longer periods than ineffective police executives, and that the finding that years of experience as chief of police was significantly correlated with turnover may indicate that effective police leadership is recognized by municipal authorities. The suggestion that quality police leadership is recognized by municipal executives is further supported by the finding that hiring authority was correlated with turnover, with involuntary turnover being significantly less likely among police chiefs hired by a mayor than among those hired by a city council.

In terms of the policy implications of this study, the finding that involuntary turnover was less likely among police chiefs hired by mayors than chiefs hired by city councils indicates that the hiring of a chief of police should be attended to by municipal executives rather than a political board, such as a city council, especially when considered in light of the findings that quality leadership and departmental performance were also correlated with turnover. The data suggest that a single executive such as a city mayor may be better able to select a quality police chief who will not be involuntarily removed than is an elected group which is likely composed of individuals with differing (and possibly even contradictory) concerns and goals. Considering the negative consequences of

ineffective police leadership, a municipal policy which affords the authority to appoint the chief of police to the city mayor rather than a local political board (e.g., city council or board of aldermen) may be in the best interests of the public. Unfortunately, the data also suggest that a city mayor is unlikely to have the discretionary authority to select a new chief of police. The data suggest that a far greater percentage of police chiefs in Texas are selected by a city council (58.2%) or city manager (30.6%) than a mayor (11.2%).

Next, there is the finding that involuntary turnover among police chiefs is common, with almost half of the police chiefs surveyed indicating that their predecessor did not freely choose to vacate the position. Given that chiefs of police are political appointees and that such appointments come with no guaranteed term of office, this finding is of little value for policy development. Considering the distribution of power in a democratic society and the inherent value of a power structure characterized by checks and balances, it would be unreasonable to suggest that a municipal executive such as a mayor or city manager should lack the authority to remove a police chief, that the position of chief of police should come with a guaranteed term of office, or that police chiefs should have permanent tenure. Although the finding that involuntary police chief turnover is common lacks substantive policy implications, it has salient personal life-choice implications for aspiring police executives: Namely, that caution should be exercised when applying for and accepting the top job in a police department. The facts that roughly half of the survey respondents and their predecessors were external hires and that police chiefs who were brought in from outside the department were less likely to be removed from the position than chiefs who had been promoted from within the department suggest that aspiring police executives should consider leadership positions in outside police departments, but the finding that approximately half of the survey respondents accepted positions which had been involuntarily vacated suggests that aspiring police executives should also understand the personal and professional risks that accompany such a position.

Another finding worth brief discussion, albeit collateral to the focus of this study, is that most of the police chiefs surveyed were White males. The most recent figures available from the U.S. Census Bureau show that half (50.3%) of the Texas population is female and that the state populace is racially/ethnically diverse, with over half of Texas residents being members of a racial/ethnic minority group: namely, American Indian (1%), Asian (5%), Black (12.7%), or Hispanic (39.4%). The facts that a large majority (79.3%) of the police chiefs surveyed were White and almost all of them (93.3%) were male indicate that racial/ethnic minorities and women are considerably underrepresented among police executives in Texas and that law enforcement agencies need to enhance their efforts to recruit, retain, and provide advancement opportunities to women and racial/ethnic minorities.

Finally, there are the implications of this study for future assessment and research. Despite the fact that police executives have considerable experience

with evaluation of police officers and departmental performance, few scholars have turned to police executives as a source of data on law enforcement officer/executive performance or law enforcement agency performance. The findings that leadership performance (and, to a lesser extent, departmental performance), as gauged by police executives, proved to be significantly correlated with police chief turnover suggest that police executives may be capable of providing valid and valuable assessments of police executive performance and police agency performance. In short, this study indicates that police executives may be a largely untapped source of data on police leadership and agency performance. Not only might social scientists consider tapping police executives for data on police leadership and agency performance, government leaders might also consider police executives a source of information on police officer and agency performance.

For instance, rather than handle popular dissatisfaction with the police or allegations of police inefficacy via termination of the incumbent chief (a common tactic), municipal leaders might first consider contracting police executives from outside agencies as consultants to assess the performance of the police chief and the department as a whole. As heretofore discussed, the job of police chief is difficult and can be of critical importance to the welfare of a municipality or county (Regoli et al., 1989; Witham & Watson, 1983). Swift turnover among executive leadership can be detrimental to an agency and compromise the quality of service the agency can provide, yet police chief turnover is frequent with the average tenure of a chief of police being only a few years (Baker, 2010; Kappeler et al., 1998; King & Campbell, 2013; Peak & Glensor, 2002). Although termination of the chief of police may be a politically expedient means of handling popular unrest in the short term, over the long haul the frequent firing of the police chief may have numerous negative consequences.

This study suggests that external police executives may be a valuable resource which local leaders could consider drawing upon when confronted by problems with a law enforcement agency. It is conceivable that a functional department overseen by an effective police chief may be publicly castigated for issues over which the department has no control such as an increase in crime following an economic downturn or a surge of drug-related crime following the introduction of a new substance such as Oxycontin. Firing the chief of police in such a situation, though politically advantageous in the short term, may do more harm than good. This study suggests that, when faced with such a dilemma, local leaders might seek counsel from external police executives rather than terminating the incumbent police chief in the hopes that a new leader may magically make the community's problems disappear.

It must also be noted, however, that the use of peer-evaluation data is a novel methodological tactic which has not been widely accepted by criminal justice scholars or practitioners. Thus, the validity of the present data is an issue of concern. Given that roughly half of the police chiefs surveyed were hired from outside of the department and that the police chiefs surveyed had spent an

average of 9½ months serving as chief, it is unclear whether all the police chiefs surveyed were adequately aware of the capabilities (or lack thereof) of their predecessors and sufficiently understood the workings of the agencies they oversaw. As the police chiefs surveyed were seasoned veterans, having an average of more than two decades of law enforcement experience, it is possible that after several months of service as chiefs of police they had an adequate understanding of the performance of their predecessors and their agencies, but the present data do not permit for rigorous assessments of the validity of the survey respondents' knowledge of the efficacy of their predecessors and their agencies. It is also possible that the data were imbued by the survey respondents' awareness of whether their predecessors vacated the position voluntarily or involuntarily. It is conceivable that the knowledge of the circumstances surrounding their predecessors' departures influenced the respondents' perceptions of the past performance of their predecessors and the department as a whole, and that respondents who replaced a police chief who vacated the post voluntarily tended to rate their predecessor positively while respondents who replaced a police chief who vacated the post involuntarily tended to rate their predecessor negatively.

The measure of the dependent variable, police chief turnover, is also of concern because the reasons for turnover examined (see Appendix A) are not mutually exclusive. Rainguet and Dodge's (2001) qualitative study of police chief turnover indicated that the decision to vacate the office of chief of police is often influenced by myriad issues. Specifically, Rainguet and Dodge (2001) reported that the former police chiefs they interviewed gave "several reasons for their departures, including health, frustration, weariness, political pressures, and new job opportunities" (p. 284). The present data on police chief turnover were obtained from a survey question which required a respondent to select one reason the prior chief had left office, which was then coded as voluntary (e.g., retirement) or involuntary (e.g., political battle with city council)—methodological and analytic tactics which preclude the examination of many important nuances.

For instance, the decision by a police chief to retire may be influenced by multiple factors such as a lack of support from the city mayor, a political battle with the city council, or personal health issues. In this study, if a survey respondent indicated the main reason for the departure of the prior police chief was retirement, the turnover was simply categorized as voluntary. There may have been an underlying reason or reasons the police chief opted to retire (e.g., political battles with the city council)—reasons which, if selected as the main reason for the departure, would have resulted in the turnover being categorized as involuntary rather than voluntary—but as the survey question required a respondent to select a single reason for the departure of the prior police chief, the data do not allow for a thorough examination of the multivariate nature of executive turnover.

In addition, the data do not allow for disentangling and independently evaluating the various components and effects of experience, leadership ability, departmental output, political environment, and the list goes on. As heretofore discussed,

leadership performance and departmental performance proved to significantly impact turnover in Models 1 and 2, respectively. In Model 3, the impact of leadership performance and departmental performance on turnover was similar, yet the impact of departmental performance did not quite prove statistically significant using conventional confidence levels. A plausible explanation for these findings is that there are interactions buried within the data which cannot be teased out. Given the symbiosis between leadership efficacy and organizational efficacy, it is uncertain whether one category of efficacy can be adequately measured independently of the other. Concisely stated, the methodology employed in this study is novel and the validity of the data is subject to question.

Conclusion

Despite the importance of quality police leadership and the problem of rapid turnover of police chiefs, few scholars have assessed police chief turnover. This study contributes to the meager body of empirical literature on the subject. The present findings are consistent with and expand upon previous research which suggested police chief turnover may be influenced by numerous variables (Murdaugh, 2005; Rainguet, 1998; Rainguet & Dodge, 2001). In particular, this research indicates that leadership performance, departmental performance, career path (i.e., internal or external hire), hiring authority (i.e., city council, city manager, or mayor), and years of experience are associated with involuntary turnover of police chiefs. However, the bulk of the data analyzed herein are peer-evaluation data. As this methodological tactic has not been commonly utilized in studies of police leadership and organizational performance, the validity of the data is subject to question. The statistically significant impact of the measures of executive leadership and departmental performance on voluntary and involuntary police chief turnover indicate peer-evaluation data may be valid, but further research is necessary.

One means of assessing the validity of peer-evaluation data would be to examine the consistency between peer evaluations of executive and organizational performance and other measures of executive and organizational performance. To evaluate and understand the performance of police officers, executives, and agencies, and whether such performance may be affected by individual characteristics (e.g., gender, level of education) or organizational particulars and practices (e.g., in-service training, civilian review), scholars have examined numerous types of data. In addition to conventional analyses of law enforcement outcomes such as arrests and reported crimes (Connell, Miggans, & McGloin, 2008; National Academies of Sciences, Engineering, and Medicine, 2018; Zhao, Scheider, & Thurman, 2003), scholars have examined a variety of indicators of police performance. To provide a few examples, researchers have gathered and analyzed data on complaints and lawsuits filed against the police (Cao & Huang, 2000; Kappeler, Sapp, & Carter, 1992; Worrall, 1998), data pertinent to racial/ethnic

profiling (Alpert, Dunham, & Smith, 2007; Gaines, 2006; Smith & Petrocelli, 2001), and data on public confidence in the police (Li, Ren, & Luo, 2016; Miller & Davis, 2008; Tyler, 2005). Future scholars interested in gauging the validity of peer-evaluation data might consider analyzing the correlations between peer evaluations of police agencies and public confidence in the agencies or some other indicator of agency performance.

This is not to suggest such a task would be easy. A study of even a small number of police agencies, perhaps a dozen, which involved the collection and comparative analysis of peer-evaluation data and one or more additional performance indicators would be difficult. Nonetheless, the effort should prove worthwhile. Although gauging the efficacy of a police executive or agency is arduous, it is important to strive toward a better understanding of police leadership and agency performance (Moore, 2002; Moore & Braga, 2003, 2004). The present finding that leadership and departmental performance, as determined by police executives, are significantly correlated with involuntary and voluntary turnover suggests there may be a rudimentary accord among municipal executives and police executives as to what constitutes quality police leadership and organizational performance, but additional verification is needed. Hopefully, this study will serve as an example of the value of research on police executive turnover, and the peer-evaluation methodology employed herein will encourage future scholars to explore the potential of unconventional research methods.

Appendix A

Turnover (dependent variable)

Survey question: Which of the following was the main reason that your predecessor left his/her police chief position (please mark only one response, the one that best describes the reason the previous chief left his/her position).

Survey response options:

- Taking a perceived better police-chief position with another city
 - Leaving the profession for perceived better opportunities elsewhere
 - Retirement
 - Labor struggle and votes of no confidence
 - Health difficulties (physical, emotional, or psychological)
 - Family health or family issues
 - Directly dismissed or fired
 - Demoted to a lower rank
 - Lack of administrative support from the city manager or mayor
 - Unrealistic expectation on the part of the city manager or mayor
-

(continued)

Continued

Turnover (dependent variable)

- Political struggle with the policymaking body such as city council
 - Alleged or proven wrongdoing/criminal conduct
 - Difficulties with media sources
 - A community event or series involving the department
 - Other (please specify) _____
-

Appendix B

Leadership performance (independent variable)

Survey questions/categories: Please rate the performance of your predecessor in the following areas? (Please select one response for each item).

- Motivating and encouraging employees
- Directing the work of employees
- Passing important information to employees
- Answering questions from employees
- Initiating changes in the police department
- Allocating appropriate human resources to tasks
- Distributing monies, equipment, and materials to priority tasks
- Exercising authority to reach agreements

Survey response options: (1) Very Ineffective, (2) Ineffective, (3) Neutral, (4) Effective, and (5) Very Effective

Department performance (independent variable)

Survey questions/categories: Please rate the performance of your department under the leadership of the previous chief. (Please circle one response for each area).

- Deterrence and prevention of crime
- Apprehension of offenders
- Responsiveness to calls for service
- Citizen/visitor feeling of security
- Fair treatment of citizens

Survey response options: (1) Very Ineffective, (2) Ineffective, (3) Neutral, (4) Effective, and (5) Very Effective

Declaration of Conflicting Interests

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

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Yudu Li  <https://orcid.org/0000-0001-8942-6216>

References

- Alpert, G. P., Dunham, R. G., & Smith, M. R. (2007). Investigating racial profiling by the Miami-Dade Police Department: A multimethod approach. *Criminology & Public Policy*, 6, 25–56.
- Alpert, G. P., Flynn, D., & Piquero, A. R. (2001). Effective community policing performance measures. *Justice Research and Policy*, 3(2), 79–94.
- Amendola, K. L., Weisburd, D., Hamilton, E. E., Jones, G., Slipka, M. H., Anneke, S., Jon Ortiz, C. & Tarkghen, E. (2011). *The impact of shift length in policing on performance, health, quality of life, sleep, fatigue, and extra-duty employment*. Washington, DC: The Police Foundation.
- American Bar Association. (1974). *American bar association project on standards for criminal justice, advisory committee on the police function: Standards relating to the urban police function*. New York, NY: Institute of Judicial Administration. Retrieved from https://www.americanbar.org/groups/criminal_justice/publications/criminal_justice_section_archive/crimjust_standards_urbanpolice/
- Baker, T. E. (2010). *Effective police leadership: Moving beyond management*. Flushing, NY: Looseleaf Law Publications.
- Bittner, E. (1967). The police on skid-row: A study of peace keeping. *American Sociological Review*, 32, 699–715.
- Blumstein, A. (1999). Measuring what matters in policing. In R. H. Langworthy (Ed.), *Measuring what matters: Proceedings from the Policing Research Institute Meetings (NCJ 170610)* (pp. 5–10). Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Bowman, M. D. (2009). A test of direct and partially mediated relationships between leader member exchange, job embeddedness, turnover intentions, and job search behaviors in a southern police department (Doctoral dissertation). (Available from ProQuest Dissertations and Theses database, UMI No. 3371500).
- Brown, J., Cooper, C., & Kirkcaldy, B. (1996). Occupational stress among senior police officers. *British Journal of Psychology*, 87, 31–41.
- Brown, M. (1981). *Working the street*. New York, NY: Russell Sage.
- Canadian Association of Police Governance. (2018). *Chief of police annual performance review*. Ottawa, Ontario: Author. Retrieved from <http://capg.ca/wp-content/uploads/2013/11/Chief-of-Police-Annual-Performance-Review.pdf>

- Cao, L. & Huang, B. (2000). Determinants of citizen complaints against police abuse of power. *Journal of Criminal Justice*, 28, 203–213.
- Charles, L. E., Burchfiel, C. M., Fekedulegn, D., Andrew, M. E., Violanti, J. M., & Vila, B. (2007). Obesity and sleep: The Buffalo Police health study. *Policing: An International Journal of Police Strategies and Management*, 30, 203–214.
- Connell, N. M., Miggans, K. & McGloin, J. M. (2008). Can a community policing initiative reduce serious crime? A local evaluation. *Police Quarterly*, 11, 127–150.
- DeMaris, A. (1995). A tutorial in logistic regression. *Journal of Marriage and the Family*, 57, 956–968.
- Doerner, W. G. (1995). Officer retention patterns: An affirmative action concern for police agencies? *American Journal of Police*, 14, 197–210.
- Evans, R., Christopher, T., & Stoffel, T. (2000). Managing employee absenteeism and turnover for competitive advantage. In A. Travaglione & V. Marshall (Eds.), *Human Resource Strategies: An Applied Approach* (272–309). Melbourne, Australia: McGraw-Hill.
- Fan, A. (2015, December 18). Many superintendents have tried to reform the Chicago police. DNAInfo.com. Retrieved from <https://www.dnainfo.com/chicago/20151218/downtown/many-superintendents-have-tried-reform-chicago-police-timeline/>
- Fyfe, J. J. (2015). The split-second syndrome and other determinants of police violence. In R. G. Dunham & G. P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (7th ed., pp. 517–531). Long Grove, IL: Waveland Press.
- Gaines, L. K. (2006). An analysis of traffic stop data in Riverside, California. *Police Quarterly*, 9, 210–233.
- Gershon, R. R. M., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, 36, 275–289.
- Goldstein, H. (1977). *Policing a free society*. Cambridge, MA: Ballinger.
- Hansell, W., & Wexler, C. (1999). "Introduction." In International City/County Management Association and Police Executive Research Forum (Eds.), *Selecting a police chief: A handbook for local government* (pp. vii–viii). Washington, DC: International City/County Management Association and Police Executive Research Forum. Retrieved from https://icma.org/sites/default/files/308762_E-42370.pdf
- Hermann, P., Scharper, J., & Fenton, J. (2012, May 3). Baltimore Police Commissioner Bealefeld resigns. *Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/breaking/bs-md-ci-bealefeld-resigns-20120503-story.html>
- Holgado-Tello, F. P., Chacón-Moscoso, S., Barbero-García, I., & Vila-Abad, E. (2010). Polychoric versus Pearson correlations in exploratory and confirmatory factor analysis of ordinal variables. *Quality & Quantity*, 44, 153–166.
- Hosmer, D. W., & Lemeshow, S. (2004). *Applied logistic regression*. Hoboken, NJ: John Wiley & Sons, Inc.
- Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30, 199–218.
- Kappeler, V. E., Sapp, A. D., & Carter, D. L. (1992). Police officer higher education, citizen complaints and departmental rule violations. *American Journal of Police*, 11, 37–54.

- Kappeler, V. E., Sluder, R. D., & Alpert, G. (1998). *Forces of deviance: Understanding the dark side of policing* (2nd ed.). Long Grove, IL: Waveland Press.
- Kelling, G. L. (1992). Toward new images of policing: Herman Goldstein's problem-oriented policing. *Law & Social Inquiry, 17*, 539–559.
- Kieckbusch, R., Price, W., & Theis, J. (2003). Turnover predictors: Causes of employee turnover in sheriff-operated jails. *Criminal Justice Studies, 16*, 67–76.
- King, W. R., & Campbell, B. (2013). *The Texas Chiefs of Police Wave I report*. Huntsville, TX: Sam Houston State University, Law Enforcement Management Institute of Texas.
- Kingdon, J. W. (1995). *Agenda, alternation, and public policies*. New York, NY: HarperCollins Publishers.
- Koper, C. S. (2004). *Hiring and keeping police officers (NCJ 202289)*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Krimmel, J. T., & Lindenmuth, P. (2001). Police chief performance and leadership styles. *Police Quarterly, 4*, 469–483.
- Lambert, E. G. (2006). I want to leave: A test of a model of turnover intent among correctional staff. *Applied Psychology in Criminal Justice, 2*, 57–83.
- Langworthy, R. H. (1999). Measuring what matters: A policing research institute. In R. H. Langworthy (Ed.), *Measuring what matters: Proceedings from the Policing Research Institute Meetings (NCJ 170610)* (pp. 1–4). Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Lewcock, T. F., & Barba, O. J. (1988). Managers and police chiefs: Friend or foes? *Public Management, 70*, 2–4.
- Li, Y., Ren, L., & Luo, F. (2016). Is bad stronger than good? The impact of police-citizen encounters on public satisfaction with police. *Policing: An International Journal of Police Strategies & Management, 39*, 109–126.
- Maguire, E. R. (2003). Measuring the performance of law enforcement agencies: Part 1. *CALEA Update Magazine, 84*, 1–30.
- Manning, P. K. (1997). *Police work: The social organization of policing* (2nd ed.). Prospect Heights, IL: Waveland Press.
- McWilliams, S., & Hamilton, I. (2015, May). BLUE: Starting the conversation about officer stress and depression. *The Police Chief, 82*(5), 22–25.
- Miller, J., & Davis, R. C. (2008). Unpacking public attitudes to the police: Contrasting perceptions of misconduct with traditional measures of satisfaction. *International Journal of Police Science and Management, 10*, 9–22.
- Moore, M. H. (2002). *Recognizing value in policing: The challenge of measuring police performance*. Washington, DC: Police Executive Research Forum.
- Moore, M. H., & Braga, A. A. (2003). Measuring and improving police performance: The lessons of Compstat and its progeny. *Policing: An International Journal of Police Strategies and Management, 26*, 439–453.
- Moore, M. H., & Braga, A. A. (2004). Police performance measurement: A normative framework. *Criminal Justice Ethics, 23*, 3–19.
- Murdaugh, J. T. (2005). *Succession and the police chief: An examination of the nature of turnover among Florida police chiefs* (Doctoral dissertation, Florida State University, 2005). Retrieved from <http://diginole.lib.fsu.edu/islandora/object/fsu:180415/datastream/PDF/view>

- National Academies of Sciences, Engineering, and Medicine. (2018). *Proactive policing: Effects on crime and communities*. Washington, DC: The National Academies Press.
- Neely, A. (Ed.). (2004). *Business performance measurement: Theory and practice*. Cambridge, England: Cambridge University Press.
- Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design: A literature review and research agenda. *International Journal of Operations & Production Management*, 15, 80–116.
- Oppel, R. A. (2018, May 15). Baltimore police commissioner quits: Third to go in 3 years. *New York Times*. Retrieved from <https://www.nytimes.com/2018/05/15/us/baltimore-police-commissioner-darryl-de-sousa.html>
- Orrick, D. (2005). Police turnover. *The Police Chief*, 72(9), 100–103.
- Peak, K. J., & Glensor, R. W. (2002). *Community policing and problem solving: Strategies and practices*. Upper Saddle River, NJ: Prentice Hall.
- Punch, M. (2000). Police corruption and its prevention. *European Journal on Criminal Policy and Research*, 8, 301–324.
- Rainguet, F. W. (1998). *Turnover in the public sector executive position of chief of police: An exploratory study of Colorado police chiefs*. (Doctoral dissertation, University of Colorado at Denver, 1998). Dissertation Abstracts International. UMI Number 9921408.
- Rainguet, F. W., & Dodge, M. (2001). The problems of police chiefs: An examination of the issues in tenure and turnover. *Police Quarterly*, 4, 268–288.
- Regoli, R. M., Crank, J. P., & Culbertson, R. G. (1989). The consequences of professionalism among police chiefs. *Justice Quarterly*, 6, 47–67.
- Remington, F. J. (1965). The role of the police in a democratic society. *Journal of Criminal Law and Criminology*, 56, 361–365.
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35, 718–804.
- Sarver, M. B., & Miller, H. (2014). Police chief leadership: Styles and effectiveness. *Policing: An International Journal of Police Strategies & Management*, 37, 126–143.
- Schafer, J. A. (2009). Developing effective leadership in policing: Perils, pitfalls, and paths forward. *Policing: An International Journal of Police Strategies & Management*, 32, 238–260.
- Smith, M. R., & Petrocelli, M. (2001). Racial profiling? A multivariate analysis of police traffic stop data. *Police Quarterly*, 4, 4–27.
- Sparrow, M. K. (2015). *Measuring performance in a modern police organization (Executive Session on Policing and Public Safety)*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Stephens, D. W. (1999). Measuring what matters. In R. H. Langworthy (Ed.), *Measuring what matters: Proceedings from the Policing Research Institute Meetings (NCJ 170610)* (pp. 55–64). Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Tyler, T. R. (2005). Policing in Black and White: Ethnic group differences in trust and confidence in the police. *Police Quarterly*, 8, 322–342.
- Vaughn, J. R. (1989). *How to rate your police chief*. Washington, DC: Police Executive Research Forum.

- Vila, B. (2000). *Tired cops: The importance of managing police fatigue*. Washington, DC: Police Executive Research Forum.
- Vila, B., Morrison, G. B., & Kenney, D. (2002). Improving shift schedule and work-hour policies and practices to increase police officer performance, health, and safety. *Police Quarterly*, 5, 4–24.
- Walker, S., & Katz, C. (2008). *The police in America: An introduction*. New York, NY: McGraw-Hill Education.
- Wareham, J., Smith, B. W., & Lambert, E. G. (2015). Rates and patterns of law enforcement turnover: A research note. *Criminal Justice Policy Review*, 26, 345–370.
- Waters, J. A., & Ussery, W. (2007). Police stress: History, contributing factors, symptoms, and interventions. *Policing: An International Journal of Police Strategies and Management*, 30, 169–188.
- Weisberg, J., & Kirschenbaum, A. (1991). Employee turnover intentions: Implications from a national sample. *International Journal of Human Resource Management*, 2(3), 359–375.
- Wilson, J. Q. (1968). *Varieties of police behavior*. New York, NY: Atheneum.
- Witham, D. C. (1985). *The American law enforcement chief executive: A management profile*. Washington, DC: Police Executive Research Forum.
- Witham, D. C., & Watson, P. J. (1983). The role of the law enforcement executive. *Journal of Police Science and Administration*, 11, 69–75.
- Worrall, J. L. (1998). Administrative determinants of civil liability lawsuits against municipal police departments: An exploratory analysis. *Crime & Delinquency*, 44, 295–313.
- Zhao, J. S., Scheider, M. C. & Thurman, Q. (2003). A national evaluation of the Cops grant on police productivity (arrests) 1995-1999. *Police Quarterly*, 6, 387–409.

Author Biographies

Yudu Li is an assistant professor in the Criminal Justice Department at the University of Texas Rio Grande Valley where he teaches courses on law enforcement, criminology, research method, and statistics. His areas of interest include law enforcement, criminology, comparative criminology, court and sentencing, and the death penalty. His previous research has been published in a number of journals such as *Policing: An International Journal of Police Strategies and Management*; *Psychology, Crime & Law*; and *International Journal of Offender Therapy and Comparative Criminology*.

Ben Brown is a professor in the Criminal Justice Department at the University of Texas Rio Grande Valley where he teaches courses on juvenile justice, law enforcement, and research methods. His previous research has been published in a number of journals such as *Contemporary Justice Review*, *International Journal of Comparative and Applied Criminal Justice*, and *Journal of Interpersonal Violence*.