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Do Trustful Leadership, Organizational Justice, and Motivation Influence Whistle-Blowing Intention? Evidence From Federal Employees

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Abstract

Organizational and societal mechanisms that ensure whistle-blowing in the public sector are required. Although many studies have explored a set of whistle-blowing determinants, few have explored the relationship and role of individual and attitudinal factors in influencing whistle-blowing in the public sector. To close this gap, this study considers the theoretical lenses of social exchange and self-determination theories, proposing that trustful leadership and organizational justice are the most likely factors to predict whistle-blowing intention when it is mediated by public service motivation (PSM) and extrinsic motivation. Using the Merit Principles Survey 2010 by the U.S. Merit Systems Protection Board, the study tests a partial mediation model employing structural equation modeling. The results suggest that PSM and extrinsic motivation partially mediate the relationship of trust in leadership and organizational justice and whistle-blowing intention. Finally, the study's limitations and theoretical, empirical, and practical implications, as well as directions for future research, are discussed.

Keywords

whistle-blowing, trustful leadership, extrinsic motivation, public service motivation (PSM), organizational justice

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Introduction

Whistle-blowing is recognized as an important tool for preventing and detecting corruption and malpractice in governments. Disclosing organizational wrongdoings can salvage valuable resources, protect rights, lives, rule of law, and may prevent the recurrence of malfeasance in public services. In the United States, whistle-blowing has subjected government officials to indictment and investigation due to unethical behavior. Moreover, CEOs have been convicted of systematic and institutionalized accounting fraud and conspiracy (Kaplan & Schultz, 2007). Corruption and organizational malpractice, if they persist in the public sector, may shatter people's trust and confidence in the government. Certainly, the willingness of organizational insiders to blow the whistle is the most effective deterrent to unethical organizational behavior (Near & Miceli, 2008). In a 2010 survey of more than 40,000 federal employees, the Merit Systems Protection Board (MSPB) found that 11.1% had personally observed illegal or wasteful agency activities. Internally, 33.4% reported the wrongdoing to their immediate supervisor, 19.9% reported it to a higher supervisor, and 8.6% reported it to a higher level agency official. Externally, 7.8% reported the wrongdoing to an appropriate authority. Most respondents reported the wrongdoing to their family, friends, or coworkers, while 35.0% did not report it. Less than half of those who witnessed wrongdoing reported it to the proper authorities (McCarthy, 2012).

There are frequent calls to enhance organizational and societal mechanisms to encourage public-sector whistle-blowing. In the United States, various laws guarantee protection and encourage potential whistle-blowers, such as the False Claims Act of 1863 and several more. In November 2012, the Whistleblower Protection Enhancement Act was passed into law. It guarantees the protection of federal workers who report government corruption and wrongdoing. However, whistle-blowers are often regarded as "disloyal" for exposing sensitive agency information (Lavena, 2016). They experience retaliations or reprisals that may discourage them from coming forward.

Various organizational, personal, and situational factors affect employees' decisions to report wrongdoing. Organizational factors include management responsiveness and the organization's conduciveness to reporting (Keil, Tiwana, Sainsbury, & Sneha, 2010). Employees are more inclined to whistle-blow when organizational whistle-blowing policies and reporting mechanisms are clearly defined and observed (Keil et al., 2010). Personal factors include the perceived consequences: retaliation from the organization or one's coworkers and management reprisals. Personal factors also include an individual ethical assessment of the issue (Chiu, 2003); decisions about whistle-blowing can be predicted through religious ideals, values, or regard for the public interest. Situational factors such as the degree of wrongdoing, amount of money involved, offender, and weight of the evidence may influence an individual's decision to report wrongdoing (Brewer & Coleman Selden, 1998).

Although the importance of organizational, personal, and situational factors affecting whistle-blowing intention (WBI) has been acknowledged, few theoretical and empirical analyses have detailed the role of trustful leadership, organizational justice, and motivation in whistle-blowing. Previous studies explored the relationship between

mainstream leadership styles and whistle-blowing, but have been limited to ethical (see Bhal & Dadhich, 2011) and transformational leadership (see Caillier, 2015). Although scholars recognize leadership as an important driver of effectiveness in governmental organizations, the mechanisms by which trustful leadership quality in the government realm affects employees' WBI and behavior remain poorly understood. Trustful leadership is an important determinant of whistle-blowing, however, is given little attention. Although public administration scholars have recognized trust as a valuable resource in nurturing or curbing public employees' voluntary actions from both political and managerial perspectives, there is little empirical research probing the relationship between trustful leadership and WBIs and behaviors.

Moreover, despite the importance of organizational justice in predicting employee whistle-blowing, studies on such relationships are limited (Seifert, Sweeney, Joireman, & Thornton, 2010). Some studies examined the potential predictive role of organizational justice; for example, whistle-blowing research in an auditing context studied the effects of organizational justice climate in public-sector organizations and elucidated how to induce employees to engage in prosocial behavior.

Primarily, our study examines the salient mechanisms through which trustful leadership and organizational justice might affect employees' WBI in public-sector organizations, namely, public service motivation (PSM) and extrinsic motivation. We draw mainly on social exchange theory (SET) and self-determination theory (SDT) to explain why PSM and extrinsic motivation may act as mediators, or motivational factors, that explain the relationship between trustful leadership and organizational justice and WBI. Social exchange includes consecutive interactions that may generate obligations (Cropanzano & Mitchell, 2005). Social behavior in those interactions can be viewed as "an exchange of activity, tangible, or intangible, and more or less rewarding or costly, between at least two persons" (Homans, 1961, p. 13). In public-sector organizations, exchange relationships can be recognized through interactions between the organization, leaders, and employees. In the exchange process, resources may be material or nonmaterial, such as indications of approval and prestige (Bottom, Holloway, Miller, Mislin, & Whitford, 2006). Exchanges are based on organizational inducement or initiating actions summoning reciprocal or equivalent contributions or rewarding employee reactions (Mostafa, Gould-Williams, & Bottomley, 2015). In our study, trustful leadership and organizational justice is the triggering point for inducing an exchange process, while the employees' favorable attitude or dispositional response is the contribution. We assume that this organizational climate may stimulate WBI, as shown by the employees' altruistic and prosocial values, as well as the influence of goal-driven values on their behavior.

We also draw on SDT, an encompassing theory of motivation that allows the investigation of social and contextual conditions that hasten or obstruct self-motivation and psychological development in organizations (Deci & Ryan, 1985). SDT allows the study of intrinsic motivation and the difference between autonomous motivation and controlled motivation. Gagné and Deci (2005) argued that autonomous motivation refers to intrinsic motivation wherein actors act on their own volition. Conversely, controlled motivation involves "acting with a sense of pressure, a sense

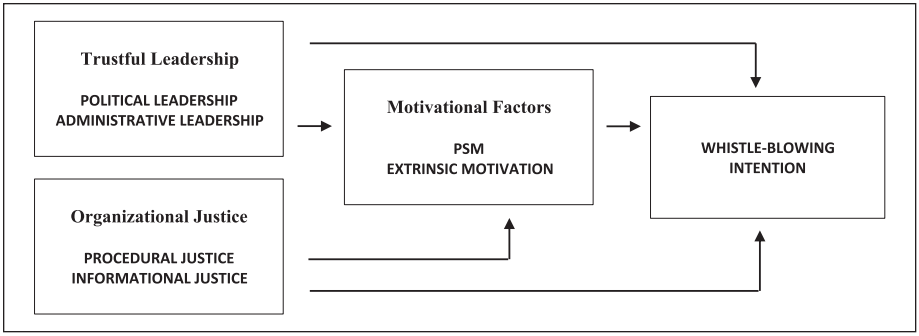


Figure 1. A conceptual model of trust in leadership, organizational justice, motivation, and whistle-blowing in the public sector.

of having to engage in actions." In this study, we assume that employees' PSM and propensity toward extrinsic motivation are dependent on how the organization develops an autonomous and/or controlled environment that encourages prosocial attitudes or behaviors.

Accordingly, we ask two questions: (a) How are trustful leadership and organizational justice associated with WBI? (b) Do PSM and extrinsic motivation mediate the relationship of trustful leadership, organizational justice, and WBI? To answer these, first, we present a literature review using SET as the primary theoretical lens for explaining the relationship of the independent variables and WBI. Then, we draw on both SET and SDT to explain the mediating role of PSM and extrinsic motivation. Second, we discuss the research methods and measurement of variables. Third, we present our findings and confirmatory factor analysis (CFA), structural equation modeling (SEM), and mediation analysis results. Last, we discuss the findings, study implications, study limitations, and future research paths (see Figure 1).

Literature Review

WBI

Near and Miceli (1985) defined whistle-blowing as "the organization members' disclosure of illegal, immoral, or illegitimate practices under the control of their employers, to parties who may be able to effect action" (p. 525). In the literature, whistle-blowing is characterized as a prosocial behavior (Treviño & Weaver, 2001) intended to benefit others or society at large. It is motivated by compassion, concern for others' rights and welfare, and selfish or practical concerns. Whistle-blowing is a voluntary, intentional act that involves personal and altruistic motives or the combination of individual social conscience and egoistic behavior (Monroe, 1994). Although whistle-blowing may be induced by personal motives, the end result typically benefits the public. Determining the ratio of selfish desire to altruistic behavior is arduous, but it can be argued that while a whistle-blower acting altruistically, there is a basic

motivation to stop organizational wrongdoing and an expectation of repercussions or retaliations from the organization (Dozier & Miceli, 1985).

Some studies on whistle-blowing have utilized intention as the operational variable given their limited ability to determine unethical conduct in the workplace (Chiu, 2003). Although prior studies may have successfully accessed actual whistle-blowers, information from intended whistle-blowers has been useful in examining the whistle-blowing process (Mesmer-Magnus & Viswesvaran, 2005). The theoretical propositions of the theory of reasoned action and theory of planned behavior (Ajzen, 1991) explicitly describe how intention predicts actual behavior. WBI denotes that the potential whistle-blower has observed a wrongdoing and intends to report it at some future time (Mesmer-Magnus & Viswesvaran, 2005). Conner and Armitage (1998) characterized intention as a "person's motivation in the sense of her or his conscious plan or decision to exert effort to enact the behavior" (p. 1430). The theory of planned behavior details the elements or motivations of a person's decision to behave in a certain way. In this theory, intention better predicts actual behavior than other seemingly related factors. Researchers tend to use indirect measures like whistle-blowing attitudes due to the difficulties inherent in whistle-blowing (Park & Blenkinsopp, 2009). However, attitudes are problematic measures. Park and Blenkinsopp (2009) found that positive attitudes toward whistle-blowing do not always translate into actual whistle-blowing.

There is a common belief that whistle-blowing is a moral and ethical responsibility that may be induced through positive social exchanges. SET involves a schema of give and take within a desirable inducement initiated by actors (Gould-Williams, 2007). Organizational inducements within a favorable and positive organizational climate, such as enhancing fairness and trustful leaders are more likely to encourage interactions or relationships based on mutual social exchange. Employees may then advance positive attitudes or dispositions toward whistle-blowing.

Trustful Leadership and WBI

The indispensable relationship between politics and administration in the public sector is signified by a unique leadership type—political and administrative leadership—that raises issues related to organizational responsibility and division of power (Wille, 2009). Public-sector leadership is unique because politics and governing bodies intersect and both political and administrative leaders supervise government affairs (Van Wart, 2005). Political leaders are perceived to represent political agendas, values, and interests, while administrative leaders are considered professional managers, the main machinery of the government, policy executors, and technical and administrative experts who act without bias (Wilson, 1999). Generally, political leaders are political designees focused on executing the president's agenda. Their positions are not permanent, but are rather coterminous with the appointing authority. Administrative leaders are professional line managers and nonpolitical heads of organizations (Van Wart, 2005).

Leadership is essential in determining employees' predisposition to reporting wrongdoing (Gundlach, Douglas, & Martinko, 2003). Confidence or trust in leaders is strongly linked to their job competence (Rosenthal, Moore, Montoya, & Maruskin, 2009). The

National Leadership Index 2009 listed important leadership qualities associated with confidence in leaders. They included trust, competence, working for the greater good, shared values, getting good results, and grasping people's needs and concerns. The study suggested that competence and trustworthiness are the strongest qualities of leaders correlated with confidence in leadership. Leadership competence is a collective description that may show a leader's job competencies (Van Wart, 2005). Consistent with the impression that trust in organizational leaders is an important determinant of positive attitudinal outcomes, one may also argue that when employees perceive political and administrative leaders' actions as fostering trustful relationships and work environments, they may be encouraged to respond with positive behavior. Trust in leaders/supervisors is an important factor for whistle-blowing (Hosmer, 1995). Gould-Williams and Davies (2005) argued that trust is essential in positive behavioral exchanges. When the employment relationship is viewed as a social exchange, positive and favorable managerial actions are understood to be voluntary, with the expectation that employees will reciprocate with good, beneficial behaviors. Taking into account organizational leaders' display of trustworthiness, credibility, and competence, leaders show a clear gesture of engaging in social exchanges with employees. The social exchange by leader and employee proposes a dyadic relationship and sees the exchange process as reciprocal, fair, and equitable. Prior studies (e.g., Bhal & Dadhich, 2011) found that high-quality social exchanges can make employees respond with extra-contractual behavior like whistle-blowing. In contrast, low-quality social exchange can encourage employees to only engage in contractual exchanges. Bahl and Dadhich also posited that with a high-quality relationship with leaders, employees may engage in whistle-blowing as an extra-role behavior. We posit that trustful political and administrative leadership, which is directly linked with confidence/trust in leaders, may initiate a social exchange process that motivates employees to disclose organizational wrongdoings. Therefore,

Hypothesis 1: Trustful political and administrative leadership is directly and positively related to WBI.

Organizational Justice and WBI

Equity theory allows for grasping how employees determine fair treatment by managers and organizations, and the relationship among these perceptions of organizational justice (Cho & Sai, 2012). Equity theory frequently focuses on individual sensitivity to equity/inequity, or perceptions of organizational justice which refers an individual's beliefs about fair treatment by an organization and their attitude, and behavioral reaction to such perceived fairness (Ambrose, Seabright, & Schminke, 2002). Previous studies focused on the effect of fair treatment in the workplace on organizational effectiveness, but researchers have paid far less attention to indicators of whistle-blowing that might be significantly affected by perceptions of organizational fairness.

Organizational psychologists have examined procedural justice as a crucial dimension of organizational justice. Procedural justice means perceptions of fairness in formal decision-making processes regarding outcome distribution (Greenberg,

2006). There are two main reasons why procedural justice matters within an organization. First, individuals are concerned with the fairness of processes due to economic self-interest and identification within valued groups (Cropanzano & Ambrose, 2001). The self-interested view of procedural justice, called the instrumental model, proposes that individuals prefer controlling procedures that maximize their personal outcomes (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Underlying this is the idea that employees perceive procedural justice by predicting that the fair distribution of organizational outcomes in the short term leads to long-term equity of personal rewards in decision-making procedures (Crawshaw, Cropanzano, Bell, & Nadisic, 2013). In contrast to desirable economic benefits, the group values model claims that socio-emotional needs for belonging influence individual judgment regarding procedural justice (Crawshaw, van Dick, & Brodbeck, 2012). Lind and Tyler (1992) argued that individuals highly value long-term group relationships because a sense of group belongingness serves to determine and maintain social status and self-esteem. In such social groups, relational concerns about group-related identity are critical criteria of procedural justice (Tyler & Blader, 2003). This study posits that procedural justice would lead to more positive whistle-blowing attitudes and dispositions.

Informational justice means perceived fairness resulting from transparent and accurate communication about distributional outcomes by decision makers. For example, employees generally assume that sufficient information and explanations about decision making are directly linked to fair outcomes. More specifically, the delivery of necessary information and timely feedback from organizations conveys the impression to employees that the distribution of extrinsic rewards reflects their investment in organizational outcomes (Colquitt, 2001). Accordingly, this study expects that behavior by organizational decision-makers consistent with expressions of informational justice could increase perceived organizational justice as a whole. Informational justice would therefore nurture and facilitate whistle-blowing-friendly cultures and systems of open communication. Shared information should be a precondition toward realizing voluntary and moral organizational disclosure.

We argue that organizational justice factors are significantly associated with whistle-blowing, as it is often viewed as a moral obligation and ethical behavior (Murray, 2010). Organizational justice may impact whistle-blowing attitudes because it enhances employees' prosocial motives (Bass & Riggio, 2006), which are linked to WBI and behaviors. Moreover, from an *SET perspective*, the relationship between organizational justice and whistle-blowing can be explained. We assume that when employees perceive high organizational justice, it will increase the probability of WBI (Seifert et al., 2010). Therefore,

> **Hypothesis 2:** Procedural and informational justice are directly and positively related to WBI. That is, employees who report higher levels of procedural and informational justice in their organizations will be more likely to show positive WBI.

Trustful Leadership, Organizational Justice, and PSM

PSM is popular in organizational behavior and psychological literature and has become an important research area in public management. The idea of PSM revived the essence of public service ethics and public duty and is somewhat reflective of an intrinsic work motivation in the public sector (Park & Word, 2012). As Perry and Wise (1990) put it, PSM is an "individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations" (p. 368). PSM is an important public administration concept because it explains an individual's motivation to serve others and perform meaningful public service (Brewer & Coleman Selden, 1998). As a concept, PSM captures the beliefs, values, and attitudes that manifest as greater concern for the interests of the organization and public (Vandenabeele, 2009).

Linking trustful leadership and organizational justice with PSM, we refer to SET. PSM is a predisposition formed by a sociohistorical environment. PSM as an individual attitude toward serving and contributing to general welfare (Brewer, Ritz, & Vandenabeele, 2012) is also vulnerable to leadership influences. For example, leadership that is manifested as high managerial competence may lead to confidence and trust in leaders. From an SET perspective, we expect that the display of leadership trustworthiness may motivate employees to reciprocate by enhancing their commitment to serve the public. Therefore,

Hypothesis 3: Trustful leadership (political and administrative) is directly and positively related to PSM.

Likewise, organizational justice is the extent to which employees experience fair resource distribution, just decision making, and just treatment in the workplace (Cropanzano et al., 2001). Employing SET, organization justice values can reinforce employees' perceptions that leaders should be trusted and respected (Lind & Tyler, 1988), which in turn may solicit a positive and reciprocal response to fully commit themselves to public service. Furthermore, when employees feel that management is pursuing just and fair organizational practices, they may be more compassionate and dedicated to work for the welfare of society. Therefore,

Hypothesis 4: Organizational justice (procedural and informational) is directly and positively related to PSM.

Trustful Leadership, Organizational Justice, and Extrinsic Motivation

Park and Word (2012) denoted extrinsic motivation as that performance of a task due to some consideration like pay, reward, recognition or other tangible benefits. Extrinsically motivated employees engaged in an activity not for reasons inherent in them but for instrumental reasons (Vallerand & Ratelle, 2002). Despite its significance, people may behave positively not because they are intrinsically motivated, but rather because external factors prompt them to take action. According to Gagné and Deci (2005), extrinsic

motivation "requires an instrumentality between the activity and some separable consequences such as tangible or verbal rewards, so satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads" (p. 331). Compared with PSM, extrinsic motivation leads to a separable outcome and may direct an individual toward a controlled behavior due to reward expectations (Cho & Perry, 2012).

With regard to the proximity of extrinsic motivation to trustful leadership, we will refer to *process theory* to demonstrate that employees and leadership interactions may allow the formation of a highly motivated organizational setting (Rainey, 2009). A highly competent, trustful leader can influence employees' extrinsic motivation by displaying remarkable managerial qualities. Effective leaders understand the relation of organizational and behavioral factors and the mechanism that enhances employee motivation. An example is the effective implementation of pay and other extrinsic rewards to enhance job effort, performance, and satisfaction (Greene & Haywood, 2008). Employees may have high expectancy of extrinsic rewards when leaders are perceived as possessing high-quality leadership qualities. Therefore,

Hypothesis 5: Trustful leadership (political and administrative) is directly and positively related to extrinsic motivation.

In the same manner, organizational justice may influence employees' propensity toward extrinsic motivation. Procedural justice, for example, is an individual's impression of organizational equity. Equity theory discusses employees' tendency to compare efforts with other employees about their job, and then compare it with others about the extent of their job effort and rewards received (Park & Rainey, 2008). Organizational fairness creates a sound working environment; however, perceived inequality could be damaging to organization members' morale and commitment. Zhang (2008) found that the perception of fairness of the principal positively influences the honest reporting and undermines collusion. Furthermore, Zhang pointed out that communication between agents decreases their reporting honesty when the principal is perceived as unfair, but not when the principal is perceived as fair. When employees perceive that the organization fairly distributes resources, treats employees justly, and fosters a just and fair organizational climate, they may feel that the organization has high justice values. We may assume that employees will have high extrinsic motivation when they see that the organization observes just and fair practices in its operational system. Therefore,

Hypothesis 6: Organizational justice (procedural and informational) is directly and positively related to extrinsic motivation.

The Mediating Role of PSM and Extrinsic Motivation

Brewer and Coleman Selden (1998) and Near and Miceli (2008) found that PSM is significantly positively related to whistle-blowing. They confirmed that motivation to report wrongdoing derives from an intrinsic concern for the public

interest—a prosocial and intrinsic motive contained in PSM. Here, role identity, defined as "self-conceptions, self-referent cognitions, or self-definitions that people apply to themselves as a consequence of the structural role positions they occupy" (Hogg, Terry, & White, 1995, p. 256), comes into play. Role identity theory posits that that individuals are believed to have multiple identities, such as mentor, altruist, giver, and so on (Shamir, 1991). If an employee identified himself or herself as a giver, he or she will seek to maintain a prosocial identity and will take it as a guiding principle in life (Grant, Dutton, & Rosso, 2008). Moreover, if the employees derived satisfaction and fulfillment from roles connected with identity, it may lead their PSM to desirable prosocial attitudes or dispositions. Prosocial values are important antecedents to elevating attitudes toward reporting wrongdoing (Greene & Latting, 2004).

Now, drawing on SDT (Deci & Ryan, 1985), we will elaborate on the process wherein a prosocial behavior can be developed through an open and autonomous environment. The most self-determined individuals are intrinsically motivated people. Intrinsic motivation comes from within and often refers to concepts of spiritual recognition, selflessness or altruism, and prosocial attitudes. As SDT suggests, the more employees accept their working environments as autonomous, open, and flexible, the more intrinsically (affective and normative motives: more autonomous types of motivation) motivated they are and hence more involved with prosocial and ethical behaviors. We posit that the PSM items used in this study possess intrinsic factors (normative and affective motivation) in the U.S. bureaucracy, all of which on the same continuum. We assume that affective and normative motives are more likely to be autonomous, altruistic, internal, and voluntary and that those characteristics would foster such types of pro-organizational and positive organizational attitudes and behaviors as WBI. That is, we could expect that intrinsically motivated employees in the public sector are more likely to have high WBI. Therefore,

Hypothesis 7: PSM is directly and positively related to WBI.
Hypothesis 8: PSM mediates the relationship between (a) trustful leadership and (b) organizational justice and WBI.

Controlled motivation involves "acting with a sense of pressure" (Gagné & Deci, 2005). Extrinsic motivation depicts this kind of motivation as acting is influenced by an external goal. Considering the bureaucratic context, as well as importing SDT framework, we posit that rational motivation of the public employees should be similar to the construct of extrinsic or continuance motivation (based on an exchange between the employee and the management that is closely related to the concept of mutually transactional and utility maximizing behaviors). From an SDT viewpoint, we argue that rational motivation and affective/normative motivation are not on opposite sides, but posed at the same continuum—amotivation, extrinsic motivation, and intrinsic motivation. We operationalized rational motivation nested in the U.S. bureaucracy as extrinsic motivation or controlled types of motivation, which is grounded in the individual utility maximization, whereas normative and affective motivation are regarded as intrinsic motivation, or autonomous types of motivation. Extrinsic

motivation might be interpreted as one based more on self-interests, rational choices, extrinsic incentives, and dyadic exchange relationships. Hence, we interpreted the relationship between extrinsic motivation and WBI from an SDT perspective, such that extrinsically motivated or externally regulated employees are less likely to be voluntary, intrinsic, calculative, and accountable for their behaviors and hence less likely to possess intention to whistle-blowing. Therefore,

Hypothesis 9: Extrinsic motivation is directly and positively related to WBI.
Hypothesis 10: Extrinsic motivation mediates the relationship between (a) trustful leadership and (b) organizational justice and WBI.

Method

The data analyzed in this study were taken from the MSPB's 2010 Merit Principles Survey (MPS). The MSPB administered the survey to 71,790 federal employees from 18 departments and six independent federal agencies. A total of 42,020, or 58%, of the randomly drawn samples were valid. As an important precursor to WBI, we focused only on those who had observed wrongdoings. In the survey, respondents were asked, "During the last 12 months, did you personally observe or obtain direct evidence of one or more illegal or wasteful activities involving your agency?" The MSPB Report (2011) revealed that 11.1% of respondents answered "yes" and 88.9% answered "no." From this, we obtained an effective sample size of over 8,000.[1]

Exploratory factor analysis (EFA) with the Promax rotation technique was used to bring intercorrelated variables together under one general and underlying variable. We computed factor extraction (using eigenvalues greater than 1.0) and found composite factor scores for each of the identified constructs in the research model. The results showed that all latent variables were clearly defined by each underlying variable. Cronbach's alpha ranged from .771 to .958, which exceeded the required threshold of >.70 (Kline, 2005), validating the reliability of the measuring tool. Second, CFA was used to test and confirm the factor structure of the latent variables based on priori measurement models (Kline, 2005). CFA is capable of assessing psychometric properties for accepting models which may strengthen reliability and validity of factors. Results of CFA (i.e., covariance between factors, indicators loadings, indicator's measurement error) may indicate convergent and discriminant validity of constructs (Kline, 2005). Third, latent variable modeling through an SEM using AMOS was employed to measure the total, direct, indirect, and spurious effects in the hypothesized model. The estimation was based on a weighted least square parameter (Hox, Maas, & Brinkhuis, 2010) and maximum likelihood. Finally, the mediation analysis was performed employing the Preacher and Hayes (2004) bootstrapped technique with the coefficient associated with indirect path is denoted as $a \times b$, where a is the path coefficient from antecedent variables (i.e., trustful leadership and organizational justice) to mediating variables (i.e., PSM and extrinsic motivation), while b is the path labeled from mediating variables to WBI.

Measurement of Predictor Variables of Whistle-Blowing Intention

Trustful leadership. This variable is characterized by two dimensions, which were used as independent variables for this study. The items measuring trustful leadership were closely associated with the items used by Mayer, Davis, & Schoorman (1995) measuring trustworthiness of managers. Trustful political leadership (Cronbach's α = .952) was measured using a six-item scale that asked about the political leaders' management skills, their commitment to achieving the agency's mission, communication skills, respect, and his or her working relationship with senior executives. Trustful administrative leadership (Cronbach's α = .958) was also measured using a six-item scale that asked the respondents about the career senior leader's "management skills," "communication skills," "respect," and "mission."

Organizational justice. Procedural justice (Cronbach's α = .904) was measured using a six-item scale that asked respondents about their views on their organization's recruitment, prohibition of discrimination, and favoritism policies, as well as employees' protection against political coercion and arbitrary action. Informational justice (Cronbach's α = .862) was measured using a three-item scale that asked about the respondents' perceptions about performance feedback from their supervisor, the work itself, or from others.

Measurement of Mediating Variables

Extrinsic motivation (Cronbach's α = .889) was measured using a six-item scale that asked employees about their perception of external motivators (e.g., rewards). PSM (Cronbach's α = .771) was measured using a five-item scale modified from Perry's (1996) original. Previous studies generally employed this scale as it is consistent with public service values (Caillier, 2015).

Measurement of Whistle-Blowing Intention

WBI (Cronbach's α = .923) was measured using a five-item scale that asked employees about the likelihood they would report a specific wrongdoer, such as coworker, federal employee outside their work group, and contractor/vendor (see also Rothwell & Baldwin, 2006).

Missing Data Adjustments

We employed the Expectation-Maximization method to deal with missing values. This approach is an iterative method that is appropriate for imputing single values: It uses other variables to impute a value and accordingly verifies that the imputation is the most likely value for the variable through the iteration of the E (expectation) and M (maximization) steps (Dempster, Laird, & Rubin, 1977).

Findings and Results

CFA Results

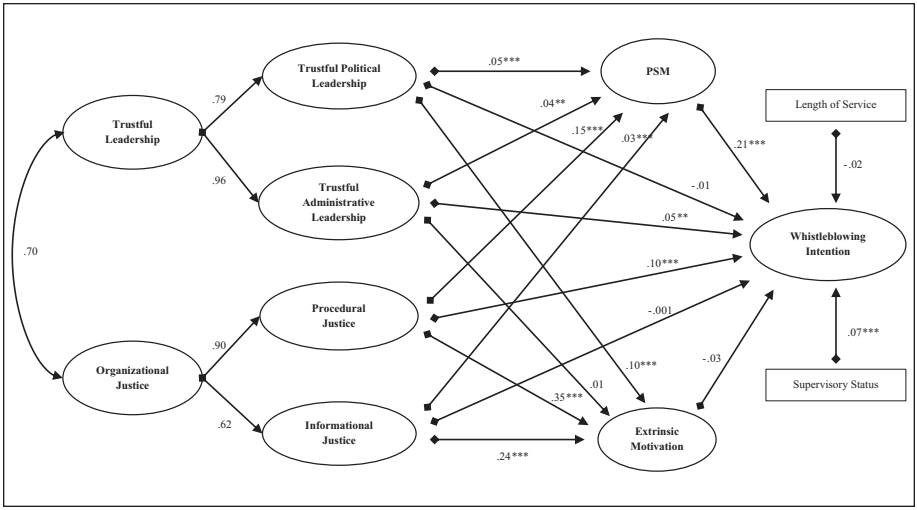
The results of CFA confirm the measurement model which includes first order factors of trustful leadership, organizational justice, PSM, extrinsic motivation, and WBI. The measurement model exhibited acceptable comparative fit index (CFI) = .92 (CFI < .95 is considered acceptable), excellent standardized root mean square residual (SRMR) = .05 (SRMR < .08 is considered excellent), and acceptable root mean square error approximation (RMSEA) = .06 (RMSEA > .06 is considered excellent; Hu & Bentler, 1999), with all significant standardized loadings at $p < .001$. For the latent constructs, the extracted composite reliability (CR) exceeded .70 (i.e., political leadership = .95, administrative leadership = .96, procedural justice = .91, informational justice = .88, PSM = .78, extrinsic motivation = .89, and WBI = .92) and average variance extracted (AVE) exceeded .50 (i.e., political leadership = .77, administrative leadership = .79, procedural justice = .62, informational justice = .72, PSM = .54, extrinsic motivation = .58, and WBI = .66) indicating high internal consistency. The discriminant validity was assessed by estimating the square root of the corresponding AVE of each construct—that is, political leadership = .88, administrative leadership = .89, procedural justice = .78, informational justice = .84, PSM = .64, extrinsic motivation = .76, and WBI = .81. The values exceeded the corresponding interconstruct correlations which achieved discriminant validity of constructs.

SEM Results

SEM was used to test the hypothesized relationships of the independent variables and WBI by determining the overall model fit and the estimates of all individual parameters. In SEM, at first models are often tested and modified through the same data to arrive at a perfect model. Modification Indices can be considered to improve the model (see Arbuckle, 2005). Except for the five-item scale of WBI, no other modification was made to the model. The statistical findings shown in the SEM suggested that the model fit the data. The model computed a model fit index composed of several indicators of fit: RMSEA < .08, CFI > .90, and normed fit index (NFI) > .90, suggesting a well-fitting model.

Total and Direct Effects on WBI

Figure 2 shows the structural model with the standardized estimates and Table 1 summarizes the standardized path coefficients for each variable. First, we observed that trustful administrative leadership (.049, $p = .003$) significantly affected WBI. However, trustful political leadership (–.005, $p = .731$) did not provide a significance test for the regression parameter. Second, we found that procedural justice (.102, $p <. 001$) was positively and directly related to WBI. The path coefficient from informational justice (–.001, $p =.956$) to WBI was not significant. Finally, on the effects of motivation factors, the model revealed that PSM (.212, $p <.001$) positively and significantly affected WBI, while the coefficients of the paths from extrinsic motivation (–.030, $p = .056$) revealed a



Overall Fit Indexes of the SEM

Model	GFI	AGFI	SRMR	RFI	NFI	TLI	CFI	RMSEA
Suggested Cut-off Values	>.90	>.85	<.05	>.90	>.90	>.90	>.90	<.08
	.899	.881	.042	.923	.931	.926	.933	.060

Figure 2. SEM results.
Note. SEM = structural equation modeling; SRMR = standardized root mean square residual; CFI = comparative fit index; RMSEA = root mean square error approximation, NFI = normed fit index; goodness of fit index, GFI; adjusted goodness of fit index, AGFI; relative fit index, RFI; tucker lewis index, TLI.
*p < 0.05. **p < 0.01. ***p < 0.001.

negative and non-significant result. Trustful leadership and organizational justice explained 89% of the variance of PSM and 55% of the extrinsic motivation.

Mediation Analysis Results

To assess whether PSM and extrinsic motivation mediated the effects of trustful leadership and organizational justice on WBI, multiple regression analyses were conducted to estimate each component of the proposed mediation model. In the analyses, the percentile bootstrapping method was employed, 5,000 bootstrap samples utilized, and applied at the 95% confidence level. Given the large sample size, Type I errors were a serious concern. Fritz, Taylor, and MacKinnon (2012) noted that bias bootstrapping increases Type I errors. It is better to use percentile bootstrapping (Hayes & Scharkow, 2013). Table 2 summarizes these results.

Mediating effect of PSM. First, when mediating the relationship of trustful leadership and WBI, it was found that trustful political leadership was positively associated with PSM (β = .14, p = .001) and WBI (β = .08, p = .001). The results showed that

Table 1. SEM Results.

Independent and dependent variables			Estimate	*SE*	CR	*p*
Trustful Political Leadership	→	Extrinsic motivation	.099	.013	7.823	***
Trustful Administrative Leadership	→	Extrinsic motivation	.014	.015	.949	.343
Trustful Political Leadership	→	PSM	.045	.013	3.491	***
Trustful Administrative Leadership	→	PSM	.043	.015	2.856	.004
Trustful Political Leadership	→	Whistle-blowing Intention	–.005	.014	–.344	.731
Trustful Administrative Leadership	→	Whistle-blowing Intention	.049	.017	2.927	.003
Procedural Justice	→	PSM	.154	.013	11.968	***
Informational Justice	→	PSM	.029	.009	3.257	.001
Procedural Justice	→	Extrinsic Motivation	.346	.013	26.014	***
Informational Justice	→	Extrinsic Motivation	.237	.009	25.835	***
Informational Justice	→	Whistle-blowing Intention	–.001	.010	–.055	.956
Procedural Justice	→	Whistle-blowing Intention	.102	.015	6.671	***
Extrinsic Motivation	→	Whistle-blowing Intention	–.030	.016	–1.909	.056
PSM	→	Whistle-blowing Intention	.212	.016	12.920	***
Length of Service	→	Whistle-blowing Intention	–.019	.006	–7.421	.725
Supervisory Status	→	Whistle-blowing Intention	.070	.007	6.136	***

Note. SEM = structural equation modeling; CR = composite reliability; PSM = public service motivation.
*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

the mediating variable, PSM, was positively associated with WBI (β = .26, p = .001). The mediation analysis confirmed the mediating role of PSM in the relationship between trustful political leadership and WBI, β = .03, confidence interval (CI) = [.03, .04]. The results indicated that the direct effect of trustful political leadership on WBI was still significant (β = .12, p = .001), thus suggesting a partial mediation. Second, trustful administrative leadership was positively associated with PSM (β = .16, p = .001) and WBI (β = .10, p = .001). The results indicated that PSM mediated the relationship between administrative trustful administrative leadership and WBI (β = .14, CI = [.03, .05]). Furthermore, the direct effect of trustful administrative leadership on WBI remained significant (β = .14, p = .001), thus indicating a partial mediation. Third, procedural justice was found to be positively and significantly associated with PSM (β = .18 p = .001) and WBI (β = .14, p = .001). After testing for mediation, the results suggested that PSM mediated the relationship between procedural justice and WBI (β = .04, CI = [.03, .05]). Including PSM in the model, the direct effect of procedural justice on WBI was still significant, thus suggesting a partial mediation. Finally, informational justice was positively associated with PSM

Table 2. Verification of Mediating Effects (Bootstrapping Analysis).

Path					
X	Mediator	Y	β	Boot LLCI-Boot ULCI	Mediation
Trustful political leadership	PSM	WBI	.03	[.03, .04]	Partial
Trustful political leadership	Extrinsic	WBI	.02	[.02, .03]	Partial
Trustful administrative leadership	PSM	WBI	.04	[.03, .05]	Partial
Trustful administrative leadership	Extrinsic	WBI	.02	[.01, .03]	Partial
Procedural justice	PSM	WBI	.04	[.03, .05]	Partial
Procedural justice	Extrinsic	WBI	.002	[–.01, .02]	No mediation
Informational justice	PSM	WBI	.03	[.02, .03]	Partial
Informational justice	Extrinsic	WBI	.03	[.02, .04]	Partial

Note. LLCI = lower limit confidence interval; ULCI = upper limit confidence interval; PSM = public service motivation; WBI = whistle-blowing intention.

(β = .11, p = .001) and WBI (β = .06, p = .001). The results indicated that PSM mediated the relationship between informational justice and WBI (β = .03, CI = [.02, .03]). The direct effect of informational justice on WBI remained significant, thus suggesting a partial mediation.

Mediating effect of extrinsic motivation. The results on the mediating analysis of extrinsic motivation on the relation of antecedent variables and outcome variables revealed that, first, trustful political leadership was positively associated with extrinsic motivation (β = .36, p = .001) and WBI (β = .09, p = .001). The findings confirmed the mediating role of extrinsic motivation on the relationship of trustful political leadership and WBI (β = .03, CI = [.03, .04]); the direct effect of trustful political leadership on WBI remained significant, suggesting a partial mediation. Second, trustful administrative leadership was positively related to extrinsic motivation (β = .40, p = .001) and WBI (β = .12, p = .001), suggesting that extrinsic motivation mediated the relationship of trustful administrative leadership and WBI (β = .02, CI = [.01, .03]). Furthermore, including extrinsic motivation in the model, the direct effect of trustful administrative leadership was still significant, suggesting a partial mediation. Third, extrinsic motivation did not mediate the relationship between procedural justice and WBI (β = .002, CI = [–.01, .02]). Finally, informational justice mediated the relationship between informational justice and WBI (β = .03, CI = [.02, .04]). The direct effect of informational justice on WBI (β = .09, p = .001) was significant, indicating a partial mediation.

Discussion

The public sector faces the tremendous challenge of advancing a more participatory, collaborative, and open government. These concepts, which define the principle of democracy, require an effective, efficient government founded on trust, transparency, and accountability. Although the government has to engage citizens to promote full participation in government affairs, the issue of credibility and daunting corruption

undermines people's trust and demoralizes civil servants. Whistle-blowers play a crucial role in rebuilding ethically and morally upright public governance, suggesting that employees remain critical in the fight against government corruption (Miceli, Near, & Dworkin, 2008). Various governments have tried to enhance WBI and behavior among their employees. Nonetheless, the complexity and dynamism of government organizations create several opportunities to promote whistle-blowing yet unexplored.

The positive (trustful) leadership may play a critical role in promoting whistle-blowing behavior. The leader-member exchange (LMX) theory offers a strong mechanism that good leadership practices may enhance the quality of relationship between an employee and his or her manager. The employee's perception of their manager's leadership style and behavior influence their work attitude and the propensity to engage in an extra-contractual behavior, for example, whistle-blowing (Ugaddan & Park, 2017). When leaders display good and effective leadership behaviors, such as ethical and/or transformational leadership, manager and employee are able to foster a quality relationship based on mutual trust and respect (Graen & Uhl-Bien, 1995). Although there are available legal and organizational mechanisms that encourages whistle-blowing, it is important to develop effective and good leadership behaviors that may convey trustful relationship conducive for divulging wrongdoings in the organization.

We analyzed the relationship of trustful leadership, organizational justice, and motivational factors with regard to WBI, and ascertained salient mechanisms through which trustful leadership and organizational justice might affect public-sector WBI through PSM and extrinsic motivation. The research model and structural relations were tested using the MPS 2010. The EFA, reliability analysis, and CFA results confirmed that the proposed structural model fit the data well.

First, we found that trustful administrative leadership was significantly associated with WBI, while no significant results from trustful political leadership. This implies that the high social exchange occurring between administrative leaders and employees may predict intention of an employee to engage on whistle-blowing. Bahl and Dadhich (2011) suggested that it is the interpersonal relationship between the leaders and subordinates that may encourage whistle-blowing in organizations. Administrative leaders are professional line managers and nonpolitical head of the organization (Van Wart, 2003) that freely allows them to have personal interactions with the employees. We assume that the absence of relationship of trustful political leadership and WBI might be because of the perception that they represent political values and tends to act with bias or political motives (Wille, 2009). There is low WBI if the interaction between leaders and subordinates is weak and tainted with doubt. Intimidating hierarchies in the organization suppress whistle-blowing behavior.

Second, the results revealed that procedural justice is significantly and positively associated with WBI. Conversely, informational justice was not significantly associated with WBI. These findings contribute important insights into the role organizational justice plays in boosting employees' WBI. Previous studies have contended that contextual conditions are important determinants of organizational whistle-blowing (Vadera, Aguilera, & Caza, 2009). Our results indicated that organizational fairness may increase the likelihood of whistle-blowing. This implies that employees must

perceive high impartiality, consistent procedures and policies, and management that supports and exerts effort to address wrongdoing.

Finally, supporting SDT, the hypotheses testing results revealed that for PSM were all supported; while for extrinsic motivation, only the relationship with trustful administrative leadership. This showed that employees with a higher level of PSM positively affect WBI and mediate the relationship among variables largely than extrinsically motivated employees. This confirms previous studies' results on positive outcomes for employees with a higher level of PSM; for example, higher job satisfaction, higher performance ratings, and more positive attitudes (Rainey, 2009) as compared with extrinsically motivated employees (see Park, 2012). Moreover, whistle-blowing, a prosocial behavior, is positively influenced by employees with more PSM (Brewer & Coleman Selden, 1998). Along this line, there is a need to develop and acculturate a sense of duty and self-sacrifice among employees to fully maximize individual PSM values. Moreover, organizations should work to increase employee PSM by integrating prosocial or public service values into public-sector management (Paarlberg & Perry, 2007). For example, Paarlberg and Perry suggested some strategies such as integrating PSM into human resource (HR) processes, specifically the person-organization fit perspective in the recruitment process. They also suggested incorporating an effective "socialization to public service" for newcomers that will emphasize values that match the organizational vision and objectives. The socialization process must focus on demonstrating "public service goals through the design of public and the delivery of public services" (Paarlberg & Perry, 2007, p. 5). Finally, the possibility of integrating PSM as a criterion for appraisal systems would enhance internal consistency in the HR process (Paarlberg & Perry, 2007). Nontask related behaviors must be given attention, such as prosocial behaviors in performance appraisal systems, which may boost PSM for organization members (Viswesvaran & Ones, 2000). Park (2012) suggested organizations establish intrinsic motivation incentives and increase the intrinsic reward expectancy of employees to build trust in organizations. This could address instances where external motivations overcrowd and undermine intrinsic motivations (Park & Rainey, 2012).

Implications for Theory and Practice

In an effort to encourage employees to disclose wrongdoings, government have passed laws and adopted various organizational mechanisms to protect whistle-blowers. Although government efforts have notable successes, potential whistle-blowers often face discrimination and retaliation that might discourage them to disclose wrongdoing. Determining the mechanism through which leadership and organizational justice affect whistle-blowing is important in the growing discourse of ethical organization and human resource management (HRM). The study contributes to the literature and provides a mechanism through which employee motivation can intervene in predicting WBI, such as PSM and extrinsic motivation. The findings here suggest that legal and organizational measures are still insufficient which may require an organizational climate conducive for employees to whistle-blow within the organization. First, the implication is that leaders may lessen retaliation and encourage employees to whistle-blow when they practice trustful leadership through their daily behaviors and interaction with employees.

Retaliation may be lessened and may create ethical organization if leaders are capable and competent of communicating organizational vision, foster open communication and trustful relationship, accomplish positive results, instill pride, and always in touch with the organizational and personal needs of the employees (Caillier, 2015). Political and administrative leaders should exert efforts to enhance leadership capacity, develop trust, and create an impression of trustworthiness. A regular leadership development mentorship programs designed to enhance leadership quality, ethical values, and specific skills on handling whistle-blowing in organization may help leaders manage potential whistle-blowers in a favorable organizational environment.

Second, management must adopt whistle-blowing policies and procedure that allow anonymous reporting and ensure protection of the identity of the whistle-blower. For example, protected internal disclosure to a designated body through electronic whistle-blowing platform (i.e., e-Whistleblowing System) can be established as a mechanism to facilitate reporting of misconduct or illegal behavior within an organization. The e-Whistleblowing system must be consistent with existing regulatory policies with a clear, fair, and reasonable reporting process. Potential whistle-blowers may utilize online reporting system if they perceive that the management display strong management support, and show willingness to address any reported wrongdoing.

Third, PSM and WBI share public values in common. The fact that PSM, which is a core part of public values, had a direct effect and plays a mediating role in predicting WBI, managers must employ strategies to enhance and activate employee's PSM (Park & Rainey, 2008). For example, PSM can be enhanced by creating autonomy in the workplace by fostering creativity, encouraging consultative and/or group decision making, and offering continuous training programs to develop their knowledge, skills, and abilities. Thus, we expect that it is essential that HR managers design and implement the effective PSM development programs which could eventually contribute to generating more ethical cultures and systems.

Last, from a strategic HRM perspective, this study also emphasizes the importance of adopting procedural mechanisms that translate extrinsic motivations to intrinsic motivations as suggested by SDT. Specific policy actions or strategic and managerial techniques can influence tactical internalization in the self-determination continuum. Moreover, in the process or development of individual motivation, leadership is crucial. Different types of leadership can facilitate or diminish PSM depending on whether they satisfy the need for autonomy, competence, and relatedness (Gagné & Deci, 2005). For example, "intrinsic motivation incentives," "intrinsic reward expectancy," or "autonomous and flexible work conditions" can improve and increase intrinsic motivation and encourage WBI and behavior. These strategic means of motivation can address the overcrowding of extrinsic motivations that may undermine intrinsic motivation while also promoting intrinsic motivations by enhancing employees' managerial autonomy.

Limitations and Future Research

Although this study provides meaningful suggestions through empirical analyses, it has some limitations. Relying solely on MSPB survey data may have affected the reliability and generalizability of the findings. Although the data came from a large pool

of respondents, "common method bias" and social desirability might not have been fully eliminated. Additional research should be conducted to bolster these findings and further explore the characteristics of public-sector whistle-blowing and the predictors that significantly impact WBI and behavior. The organizational justice factors used in this study were upper level organizational variables. If it is conceived at the "person" level, variance bias and atomistic fallacy can occur. Thus, it is necessary to apply a multilevel data-based hierarchical linear model that is hierarchically nested in both personal and organizational dimensions. Further research on the antecedent-mediator-whistleblowing model is required to overcome these shortcomings by using panel data, comparative and quasi-experimental research designs, and time-series research designs, as well as by obtaining more objective indicators.

Future researchers could explore the relationship between leadership and specific whistle-blowing factors such as organizational support, identity protection, complaint success, perceived benefits, emotional cost, and management responsiveness. Finally, because we employed quantitative research methods, further studies should expand the findings by performing an in-depth qualitative study on this topic. For example, an inductive approach with in-depth interviews and grounded theory methodology should be applied, and scales for WBI should be developed.

Appendix

Merit Principles Survey 2010: Selected Representative Survey Items.

***Political Leadership Quality* (six items, Cronbach's α = .952)**
Political senior executives in my organization . . .
a. . . . have good management skills.
b. . . . work hard to fulfill the mission of the agency.
c. . . . communicate well.
d. . . . work well with other career senior executives.
e. . . . respect the career staff.
f. . . . respect the merit process when making hiring decisions.

***Administrative Leadership Quality* (six items, Cronbach's α = .958)**
Career senior executives in my organization . . .
a. . . . have good management skills.
b. . . . work hard to fulfill the mission of the agency.
c. . . . communicate well.
d. . . . work well with other career senior executives.
e. . . . respect the career staff.
f. . . . respect the merit process when making hiring decisions.

***Procedural Justice* (six items, Cronbach's α = .904)**
a. My organization protects employees against reprisal for exercising a grievance, complaint, or appeal right.
b. My organization takes steps to rectify prohibited discrimination.
c. My organization treats employees fairly.
d. My organization does not engage in favoritism.
e. My organization protects employees from political coercion.
f. My organization has made it clear that it prohibits discrimination based on a person's sexual orientation.

(continued)

Appendix (continued)

Informational Justice **(three items, Cronbach's α = .862)**
a. I receive information about my job performance and the effectiveness of my efforts, either directly from the work itself or from others.
b. My supervisor provides constructive feedback on my job performance.
c. My supervisor provides timely feedback on my job performance.

Public Service Motivation (PSM) **(five items, Cronbach's α = .771)**
a. Meaningful public service is important to me.
b. I am not afraid to go to bat for the rights of others even if it means I will be ridiculed.
c. I am prepared to make enormous sacrifices for the good of the agency.
d. I am often reminded by daily events about how dependent we are on one another.
e. Making a difference in society means more to me than personal achievements.

Extrinsic Motivation **(six items, Cronbach's α = .889)**
In my work unit, the better I perform on the job . . .
a. . . . the greater my job security.
b. . . . the higher my awards and bonus.
c. . . . the greater my opportunity for advancement.
d. . . . the more I am granted informal perks (not including training opportunities).
e. . . . the more I am forgiven for my small mistakes.
f. . . . the better my training and development opportunities.

Whistle-blowing Intention **(six items, Cronbach's α = .923)**
How likely would you be to "blow the whistle" when the wrongdoer is:
a. A high-level supervisor B
b. A coworker (in your work group) C
c. A federal employee outside your work group D
A contractor or vendor E

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Note

1. It is hard to assume intention by those who did not observe any wrongdoing. Thus, our study focused only on those who had observed wrongdoing. WB_14 of the survey items provided that "During the last 12 months, did you personally observe or obtain direct evidence of one or more illegal or wasteful activities involving your agency?" (Note: Do not answer "yes" if you only heard about the activity in the media or heard about it as rumor.) Thus, we created a new data set from the MPS 2010 that captured all the necessary variables in the study considering only those who answered "Yes" on item WB_14.

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