Does goal setting matter? The impact of employee-level and organizational-level goal properties on public employees' perception of performance appraisal fairness

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Abstract

Purpose – This study examines the relationship between goal properties, both at the employee and organizational-level, and the perceived fairness of the performance appraisal system by federal employees.

Design/methodology/approach – We describe the theoretical framework regarding goals and employee perceptions of performance appraisal fairness. We then develop and test four hypotheses, exploring the relationships among variables using five years of the FEVS data. To strengthen the research design, we created an agency-level dataset, by calculating agency-level averages for all the covariates. Instead of examining 500,000 federal employees each year, we are examining 80 federal agencies. Creating a panel dataset at the agency level allows us to make stronger statements about causality than using cross-sectional data.

Findings – This study finds a significant positive relationship between goal setting factors and employees' perceived fairness of performance appraisals: perceived employee-level goal difficulty and perceived organizational-level goal specificity at the agency level. The study results show that certain control variables, such as intrinsic motivation, play important roles in predicting public employees' perceived fairness of performance appraisals. Federal employees who have a higher level of intrinsic motivation show a more positive perception toward performance appraisal fairness. The appropriate use of extrinsic rewards and intrinsic motivation, combined with effective goal setting strategies in public organizations, may enhance public employees' perceived fairness of performance appraisal systems.

Research limitations/implications – This study used the FEVS, necessitating the reduction of the sample size to agency level averages to create a panel dataset. Also, this study was limited to federal agencies in the United States, so research results may lack generalizability.

Originality/value – This paper fulfills an identified need to avoid cross-sectional research design and leverage longitudinal panel data.

Keywords Employee performance, Employee motivation, Goal ambiguity, Goal setting theory, Longitudinal research

Paper type Research paper

Introduction

One of the greatest challenges of performance management in the public sector is having both an effective performance appraisal system and one that is considered to be fair by employees (Fernandez and Rainey, 2006; Gabris and Ihrke, 2000; Kim and Rubianty, 2011). According to Roberts (2003), performance appraisal is one of the most complicated and disputed human resource management issues. Proponents of performance appraisal systems advocate for the systems' usefulness by arguing that negative effects of performance appraisals can be

overcome by ensuring employees' participation in the appraisal process (Murphy and Cleveland, 1995). On the other hand, critics argue that performance appraisals do not guarantee the accuracy of the measurement of an employee's work performance, which may lead to unintended consequences, such as incurring unnecessary competition and undermining work cooperation among public employees (Van Thiel and Leeuw, 2002). In this vein, Roberts and Reed (1996) suggest a goal-oriented performance appraisal system as one of the possible solutions, since effective goal setting is significantly related to employees' performance and satisfaction. In this study, we examine the impact of three goal setting factors on employee perceptions of performance appraisal fairness, and argue that goal setting theory may reconcile these two different perspectives.

The understanding of how employees perceive performance appraisal fairness is essential, because employees' perceptions of fairness lead to higher levels of acceptance than any other factors (Cho and Sai, 2013; Kim and Rubianty, 2011; Krats and Brown, 2013). Intuitively, a performance appraisal system will fail if the stakeholders do not accept and support it (Ikramullah *et al.*, 2011). Specifically, Roberts (2003) explains that employees are more likely to show a favorable attitude on performance appraisals if they perceive the appraisal process as fair and understand it clearly. Thus, researchers in the private sector have identified some of the main factors that affect employees' perceived fairness of performance appraisals (Krats and Brown, 2013). Several previous studies have found that the major influences on employees' perceived fairness of performance appraisals in the private sector are:

(1) Supervisor's performance appraisal style (Hopwood, 1972),

(2) Developmental performance appraisal purposes such as training needs and performance feedback (Youngcourt *et al.*, 2007),

(3) Nonfinancial performance appraisal tool (Lau and Moser, 2008), participation in goal setting process (Krats and Brown, 2013), appraisal processes (Cawley *et al.*, 1998),

(4) Goal achievement (Sholihin and Pike, 2013).

Although studies in public administration acknowledge the importance of employees' fairness perception on their performance appraisals, little is known about the key factors that affect employees' perceived fairness of performance appraisals in the public sector (e.g. Cho and Sai, 2013; Kim and Rubianty, 2011). Among the possible factors that influence employees' perceived fairness of performance appraisals, our study focuses on goal setting, and the properties of those goals, in the public sector. Related literature suggests that appraisals aim to manage and reward employees based on their performance (Cummings, 1973; Hutchison and Garstka, 2006). In this vein, Krats and Brown (2013) argue that a performance appraisal system must be designed to foster employees' work performance, and it should be in line with organizational goals (Merchant and Van der Stede, 2003; Otley, 1999). Specifically, Sholihin and Pike (2013) argue that well-specified goals signal to employees the basis on which they will be evaluated and also generate a positive employee perception of the fairness of their performance appraisals. In other words, goal clarity and specificity provide employees with their performance targets and enable employees to decide where they should focus their concentration and effort. Sholihin and Pike's (2013) study also indicates that specific goals contribute to a more accurate and objective performance appraisal process and is positively associated with perceived procedural fairness of performance appraisals in European private companies. Similarly, Krats and Brown's (2013) research finds that employees are more likely to perceive their performance appraisal as fair when a performance appraisal system allows employees to participate in the goal setting process.

In spite of the importance of effective goal setting on performance appraisal, little is known about how goal setting affects employees' perceived fairness of performance appraisals in

public organizations. It has long been understood that public organizations have more ambiguous goal properties in comparison to private organizations (Jung, 2014a, b; Perry and Rainey, 1988; Rainey and Jung, 2010). Thus, it is meaningful to examine how goal properties in public organizations affect employees' perceived fairness of performance appraisals.

This study examines the relationship between goal properties, both at the employee and organizational-level, and the perceived fairness of the performance appraisal system by federal employees. We begin by describing the theoretical framework regarding goals and employee perceptions of performance appraisal fairness. From that framework, we develop and test four hypotheses, exploring the relationships among variables using five years of the Federal Employee Viewpoint Survey (FEVS) data, which is conducted by the Office of Personnel Management (OPM). Then, a presentation of our analysis methodology and results is followed by a closing discussion of research findings and conclusions.

Theoretical framework and hypotheses
Significance of goal setting to employees' perceived fairness of performance appraisal
Figure 1 describes the conceptual framework for this study. Research has found that effective goal setting by an organization can positively affect employees' performance and work attitudes (Locke and Latham, 1991, 2006; Jung, 2014a, b; Rainey and Steinbauer, 1999; Taylor, 2013; Wright, 2007). Furthermore, Krats and Brown (2013) indicate that the process of linking goal setting to performance appraisal positively affects employees' acceptance and perceived credibility of the performance evaluation system (Landy *et al.*, 1978; Sholihin and Pike, 2013). This is because "goals provide employees with a means by which to evaluate their performance, allowing them to make adjustments when necessary, increasing their efforts as required, and ultimately persisting until they attain their goal" (Krats and Brown, 2013, p. 400).

Previous studies categorize goal setting-related factors into two aspects: goal content and goal-related attitudes (Vancouver and Schmitt, 1991; Wright, 2007). The first aspect, goal content, refers to "what is to be achieved," and its main concepts are goal specificity and goal difficulty (Bandura and Locke, 2003; Locke and Latham, 2002). The second aspect, goal-related job attitudes, includes both goal importance and goal commitment (Baron *et al.*, 1996;
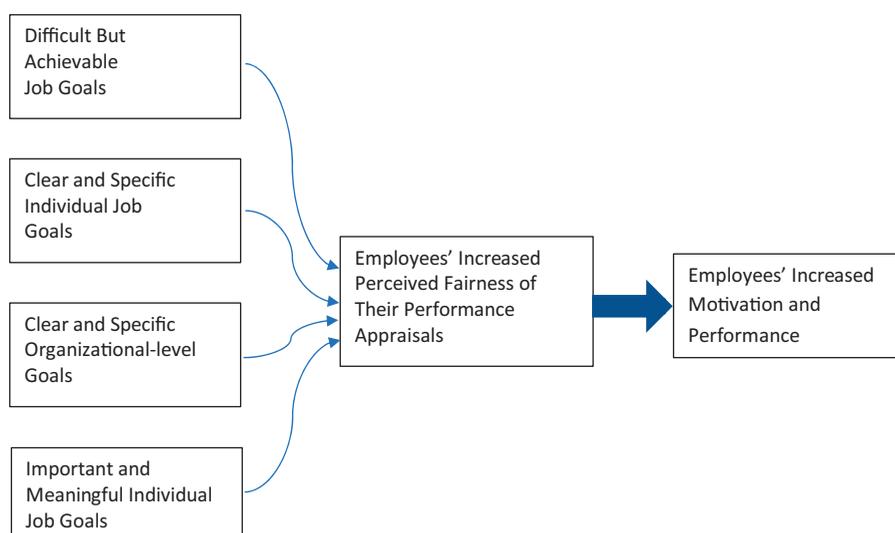

Figure 1.
Schematic conceptual
framework

Jung, 2014a). Among the goal setting factors, this study focuses on goal specificity, goal difficulty and goal importance, and their impact on public employees' perceived fairness of performance appraisals.

Latham and Locke (1979) suggest that employees would be more satisfied with the performance appraisal process when they participate in the goal-setting process of the organization (Dipboye and de Pontbraind, 1981; Hutchison and Garstka, 2006; Ilgen *et al.*, 1979; Krats and Brown, 2013). Hutchison and Garstka (2006) explain that goal setting indicates organizational attention to employees' contributions and it also places value on employees' work performance (Latham and Locke, 1979). Previous studies have also found that, "goals that are specific, difficult at a reasonable level, and perceived as important can encourage organizational members to work harder and improve their performance" (Jung, 2014a, p. 211). From this overview, we expect that goal setting plays a key role in determining employees' perception of performance appraisal fairness. More specifically, we expect that a public organization's goals, as well as the attributes of the employees' individual-level goals, (i.e. goal specificity, goal difficulty and goal importance) will be positively related to the employees' perceived fairness of performance appraisals.

Factor 1: goal difficulty
An extensive line of research has emphasized a positive, linear relationship between goal difficulty and task performance (Locke, 1996; Locke and Latham, 2002; Mento *et al.*, 1987). Taylor (2013) indicates that "if employees are committed to the goals and possess the ability to achieve them, then the higher the goals, the harder they will work to meet them, and the higher their performance will be" (Locke, 1996; Mento *et al.*, 1987; Taylor, 2013, p. 456). According to social identity theory, employees perceive difficult assigned goals as a strong "psychological bond" with their supervisor and the organization (Jung, 2014a, p. 214). Similarly, Wright and Grant (2010) find that challenging and difficult goals provide employees with higher work attitudes such as public service motivation and a sense of accomplishment (Latham and Wexley, 1994; Taylor, 2013; Wright, 2007).

Correspondingly, McClelland's (1961) need for achievement theory shows that moderately difficult goals produce the highest level of effort, whereas either an extremely easy or extremely difficult goal brings about lower levels of effort. Although Locke and Latham (2002) suggest a positive, linear relationship between goal difficulty and work performance, they assume a goal difficulty level as achievable or reasonable rather than an impossible-to-achieve or an unreasonable goal. Earley and Lituchy (1991) and Wright (2001, 2004) suggest that a goal having a perceived achievable or reasonable level of difficulty can foster an individual's ability to complete tasks. Previous research substantiates the argument that as goals become more difficult and impossible-to-achieve, "employees are less likely driven behaviorally because expending any extra effort would be viewed as increasingly futile" (Wright, 2004, p. 62). Similarly, a study by Shalley and Oldham (1985) finds that an individual, who perceives their goal as unreasonable or impossible-to-achieve, shows low work motivation. Based on this overview, we posit that when public employees perceive their goal as difficult yet reasonable, they will be more likely to form a strong "psychological bond" with the organization, and thereby be more likely to perceive their performance as evaluated fairly.

> *H1.* Public employees' perception of the reasonableness (attainability) of difficult individual job goals is positively related to their perceived fairness of their performance appraisals.

Factors 2 and 3: organizational-level and employee-level goal specificity
Goal specificity refers to "the extent to which an explicit goal exists to which problem-solving activities are directed" (Rossano and Reardon, 1999, p. 395). Previous studies address goal

ambiguity as one of the unique characteristics or pathologies in public organizations, although certain federal agencies (e.g. US Department of Veterans Affairs) have more clear and specific organizational goals, while US Department of State and US Department of Justice do not have easily measurable organizational goals. As Jung and Rainey (2011) note, public organizations are more likely to be confronted with ambiguous and conflicting goals due to the need for responding to diverse external actors' policy preferences (Cho and Perry, 2012; Chun and Rainey, 2005; Donahue, 2008; Jung and Rainey, 2011; Jung, 2014a).

Research in public administration indicates that organizational goal ambiguity impedes public employees' positive work attitudes and actions (e.g. public service ethos as well as intrinsic effort in their work), and in turn, may further reduce organizational performance as well as employee performance (Jung, 2014a; Scott and Pandey, 2005; Taylor, 2013; Wright and Grant, 2010). Therefore, researchers find that specific individual and organizational goals help inspire employees to perform the jobs assigned to them and make an effort to achieve those goals (Bandura, 1989; Weiss and Poderit, 1999; Wright et al., 2012). Although goals that are too specific may have external costs, Lee et al. (2010) argue that well-specified goals may inspire employees to incorporate individual job goals into their organizational identity. Correspondingly, employees may also consider their individual jobs more meaningful (Lau and Sholihin, 2005; Wright et al., 2012).

Study findings have shown how goal specificity affects employees' work attitudes and performance. Recent research by Jung (2014a) finds that if employees' perceive their goals as ambiguous, their work motivation decreases, while their turnover intention increases. Specifically, Wright (2007) finds that individual-level goal specificity, directly and indirectly, affects public employees' work motivation through its influence on employees' self-efficacy. Jung (2014a) also finds that well-specified goals reduce US public employees' turnover intention. Similarly, Latham and Kinne (1974) find that specific goals reduce employees' absenteeism.

Concerning the relationship between specific goals and performance, Locke and Latham (2002) explain that specific individual goals may reduce performance variation, although it does not directly raise performance. On the other hand, other studies have found that specific organizational goal setting contributes to organizational performance improvement (Smith et al., 1990). Jung indicates this is because if there are specific organizational goals, employees are more likely to pay attention to goal discussions and to be committed to those goals (Jung, 2014b).

According to Jung (2014b), previous goal setting research categorizes the unit of analysis for goal setting factors at the organizational level (Chun and Rainey, 2005; Jung, 2011), program level (Jung, 2014a, b) and individual level (Jung, 2014a; Pandey and Rainey, 2006; Pandey and Wright, 2006; Stazyk and Goerdel, 2011; Wright, 2007). However, our study simply divides goal specificity into employee-level goal specificity and organizational-level goal specificity. As Jung (2014b) notes, "setting clear targets for performance goals is a crucial motivator and guide for public managers who provide a sense of direction to employees as they work toward achieving the performance goals or implementing policies" (209). Based on this review, we expect that when public employees perceive their goals as specific, they are more likely to perceive their performance as being evaluated fairly and we also make the assumption that organizational-level goal specificity would be another aspect, which affects employees' perceived fairness of performance appraisals.

H2. Public employees' perception of the specificity of their individual-level job goals is positively related to their perceived fairness of their performance appraisals.

H3. Public employees' perception of the specificity of the organizational-level goals is positively related to their perceived fairness of their performance appraisals.

Factor 4: goal importance

Employees will put more effort on figuring out "an issue from multiple perspectives and searching for a solution using information from various sources" when they perceive their job goals are meaningful (Gilson and Shalley, 2004; Zhang and Bartol, 2010; cited in Taylor, 2013, p. 457). More specifically, Bandura (1986) suggest that if employees do not perceive their goal as meaningful, then it will undermine organizational productivity because the agency needs to spend additional resources on activities such as employee monitoring (cited in Taylor, 2013). A goal can have motivational attributes which lead to more positive work attitudes and behaviors (Eccles and Nohria, 1992; Mowday and Spencer, 1981; Steers and Mowday, 1977).

Social identity theory posits that employees may affirm their organizational affiliation identity by perceiving their organizational and individual goals as meaningful, which in turn, lead to more positive work attitudes (Buchanan, 1974; Weiss and Piderit, 1999; cited in Jung, 2014a). Specifically, Jung (2014a) suggests that if public employees view organizational goals and individual goals as important values for public service, they are more likely to integrate their goals into their organizational identity, leading to a positive perception of performance appraisal fairness. Based on this overview, this study posits a positive relationship between public employees' perception of goal importance and their perceived fairness of performance appraisals.

H4. Public employees' perception of the importance of their job goals is positively related to their perceived fairness of their performance appraisals.

Data and method

This study uses data from the Federal Employee Viewpoint Survey (FEVS) to examine the impact of goal properties at the employee-level and the organizational-level on public employees' perceived fairness of performance appraisals. The FEVS data contain survey items, such as federal employees' demographic characteristics, their perceived working conditions and other related work experiences. For the FEVS, the US Office of Personnel Management (OPM) administered the online survey.

Agency-level data

In this study, we leverage FEVS data from 2010, 2011, 2012, 2013 and 2014. To strengthen the research design, we create an agency-level dataset, by calculating agency-level averages for all the covariates. Instead of leveraging cross-sectional surveys across the different waves of the FEVS, we calculated the means for all the items at the agency level and stacked the agency-level observations for all the available years. By stacking, we aggregate all the individuals survey responses within an agency to create our averages. Instead of examining approximately 500,000 federal employees each year, we are examining 81 federal agencies (31 major agencies; others classified as small/independent agencies). By creating a panel dataset at the agency level, this allows us to make stronger statements about the possible causality than using cross-sectional data. Researchers such as Fernandez *et al.* (2015) and Wynen *et al.* (2015) have made a call to avoid cross-sectional research design and leverage longitudinal panel data. By creating an agency-level dataset by year, we have data on goal properties for all major federal agencies from 2010 to 2014; thereby allowing us to run a longitudinal study with agency and year fixed effects.

This study uses ordinary least squares (OLS) regression analysis to estimate the directions and magnitudes of the relationships between the independent variables (i.e. employee-level and organizational-level goal properties) and dependent variables (i.e. employees' perceived fairness of performance appraisals). The OLS model of this study consists of a function of employee-level and organizational-level goal properties and includes

an agency-level and year fixed effect to control for unobserved time-invariant agency and year characteristics.

Measures
Dependent Variable. The dependent variable of this study is federal employees' perceived fairness of performance appraisal, which was measured by a five-point Likert scale with two items: "My performance appraisal is a fair reflection of my performance," and "In my most recent performance appraisal, I understood what I had to do to be rated at different performance levels." The survey participants' responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alpha coefficient of these two items is 0.9114, suggesting that items are closely interrelated with each other (see Appendix). In our confirmatory factor analysis, we apply the standard linear scoring method, and to ease interpretation, we standardized these scores to be mean 0 and standard deviation 1.

Independent Variables. This study has four independent variables: employee-level goal difficulty, employee-level goal importance, employee-level goal specificity and organizational-level goal specificity. Given the results of reliability tests and factor analyses in combination with other possible questionnaire items, this study chooses the following questionnaire items to measure employee-level goal properties (goal difficulty, goal importance and goal specificity). For employee-level goal difficulty, a single questionnaire item was measured: "My workload is reasonable." For employee-level goal importance, a single questionnaire item was measured: "The work I do is important." For employee-level goal specificity, a single questionnaire item was measured: "I know how my work relates to the agency's goals and priorities."

For organizational-level goal specificity, four questionnaire items were examined: "Managers communicate the goals and priorities of the organization," "Managers review and evaluate the organization's progress toward meeting its goals and objectives," "Managers promote communication among different work units (e.g., about projects, goals, needed resources)" and "Managers support collaboration across work units to accomplish work objectives." The Cronbach's alpha coefficient of these four items is 0.97, suggesting that items are closely interrelated with each other (see Appendix). Similarly, to the confirmatory factor analysis for the dependent variable, we apply the standard linear scoring method, and to ease interpretation, we standardized these scores to be mean 0 and standard deviation 1.

Control Variables. This study needs to control for other possible variables that may influence employees' perceived fairness of performance appraisals. This study includes pay satisfaction and intrinsic motivation as control variables. Previous empirical studies find that pay satisfaction level is significantly and positively related to employees' fairness perception (Jawahar and Stone, 2011) as well as perceived work unit performance (Fernandez, 2008). Thus, this study considers an employee's perceived pay satisfaction as a control variable. Intrinsic motivation also needs to be controlled. An empirical study finds that US federal employees who have higher levels of intrinsic motivation show a skeptical response toward the effectiveness of performance appraisal system (Oh and Lewis, 2009). From this insight, this study considers a public employee's intrinsic motivation as a control variable that may affect perceived fairness of performance appraisals. For intrinsic motivation, two questionnaire items combined: "My work gives me a feeling of personal accomplishment." and "I like the kind of work I do." The Cronbach's alpha coefficient of these items is 0.85, suggesting that items are closely interrelated with each other (see Appendix).

Research findings
This study examines the following model, the impact of goal setting factors (i.e. employee-level goal difficulty, employee-level goal specificity and employee-level goal importance, and

organizational-level goal specificity) on perceived fairness of performance appraisals as a function of pay satisfaction (S) and intrinsic motivation (I) as shown in equation (1):

$$\text{Performance Appraisal Fairness}_{ij} = X_{ij}\beta + S_{ij}\theta + I_{ij}\alpha + Goal\ Setting_{ij}\alpha + \delta\ \gamma_j \qquad (1)$$

where i indexes agencies, and j years. This study also includes an agency and year fixed effect (γ_j) in all models. Additionally, we use robust standard errors to account for possible heteroskedasticity in the data.

In regards to the descriptive statistics, perceived fairness of performance appraisal is standardized with a mean of zero and standard deviation of 1. At the agency level, individual goal difficulty has a mean of 3.38, which is lower than both individual goal importance (4.10) and individual goal specificity averages (4.3) (see Table 1).

Table 2 presents regression results to predict federal employees' perceived fairness of performance appraisals. This study investigates the impacts of goal setting factors (i.e. employee-level goal properties and organizational-level goal specificity) on federal employees' perceived fairness of performance appraisal. In this model, this study finds a significant positive relationship between goal setting factors and employees' perceived fairness of performance appraisals: perceived employee-level goal difficulty $(\beta = 1.461)$ and perceived organizational-level goal specificity $(\beta = 0.210)$ at the agency level. This model includes both agency and year fixed effects. This means that US federal employees' perceived performance appraisal fairness level becomes more pronounced as their perception on each goal property (i.e. employee-level goal difficulty and organizational-level goal specificity) increases. Yet, we do not find a statistically significant relationship for employee-level goal importance and employee-level goal specificity; thus it appears that employee goal difficulty and organizational goal-specificity have a much more significant impact on perceived fairness. Among the goal properties, the result shows that the employee-level goal difficulty has the largest impact on federal employees' perceived fairness of performance appraisals.

Finally, our research results show that federal employees' demographic characteristics and their work attitudes played an important role in predicting their perceived fairness of performance appraisals. Older federal employees are less likely to perceive their performance appraisals as fair than younger employees. Minority survey respondents also reported less favorable view of performance appraisal fairness. Contrary to previous research findings (Oh and Lewis, 2009), federal employees who have higher levels of intrinsic motivation, show a favorable perception toward performance appraisal fairness.

Discussion and conclusion

In recent years, employees' perceived fairness of performance appraisal has received scholarly attention in the public sector (Cho and Sai, 2013; Kim and Rubianty, 2011). This study has examined the main factors that may affect public employees' perceived fairness of

Variable	N	Mean	SD	Min	Max
Perceived fairness of performance appraisal	299	0.00	0.96	−2.84	2.97
Individual goal difficulty	299	3.38	0.29	2.27	4.27
Individual goal importance	299	4.10	0.19	3.33	4.71
Individual goal specificity	299	4.34	0.14	3.88	4.73
Organizational-level goal specificity	299	0.00	1.00	−4.21	3.06
Pay satisfaction	299	2.74	0.34	1.90	4.14
Intrinsic motivation	299	0.00	0.94	−2.47	3.85
Year	299	2011.73	1.43	2010.00	2014.00

Table 1.
Descriptive statistics

	Perceived fairness of PA
Employee-level goal difficulty	1.461***
	(0.387)
Employee-level goal importance	0.191
	(0.679)
Employee-level goal specificity	0.283
	(0.923)
Organizational-level goal specificity	0.210*
	(0.127)
Pay satisfaction	−0.0831
	(0.272)
Intrinsic motivation	0.298**
	(0.120)
Constant	−6.721*
	(3.777)
Agency fixed effect?	Yes
Year fixed effect?	Yes
Observations	299
Number of agencies	81
R-squared	0.556

Note(s): Robust standard errors in parentheses
***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

Table 2.
Predicting perceived fairness of performance appraisal using agency-level data

performance appraisals. As one of the key predictors that affect public employees' perceived fairness of performance appraisal, this study has focused on goal properties in US federal agencies. The study results show that goal-related properties among federal employees significantly and positively influence federal employees' perceived fairness of performance appraisals. These results correspond with previous research findings that an effective goal setting by an organization significantly affect employees' performance and work attitudes (Locke and Latham, 1991; Jung, 2014a, b; Rainey and Steinbauer, 1999; Taylor, 2013; Wright, 2001, 2004, 2007). Furthermore, the findings of this study confirm the previous research results that the process of linking goal setting to performance appraisal positively affects employees' performance appraisal acceptability (Krats and Brown, 2013; Landy *et al.*, 1978; Sholihin and Pike, 2013). But it should be noted, we did not find an impact for both individual goal importance and individual goal specificity.

The study findings provide important theoretical and practical implications. The relationship between two key concepts, goal properties and performance appraisal fairness, has received little empirical attention in public administration. This study also corresponds with a previous argument that "setting clear targets for performance goals is a crucial motivator and guide for public managers who provide a sense of direction to employees as they work toward achieving the performance goals or implementing policies" (Boyne and Chen, 2007; Heinrich, 2003; Khademian, 1995; cited in Jung, 2014b, p. 209) although some federal agencies' organizational goals (e.g. US Department of State and US Department of Justice) are intrinsically hard to define. For example, one study suggests that the role of goal setting would be different by aims of agency's mission such as distributive, redistributive, regulatory and constituent policy (see Jung and Rainey, 2011). In addition, the literature on management and public bureaucracy provide abundant examples of the dysfunction that can come from inappropriate goal setting (Jung and Rainey, 2011). Thus, future research should focus more on these practical issues: specifying organizational and individual goals appropriately and reasonably to embed them in each organization.

Furthermore, the study may contribute to goal setting theory by categorizing units of analysis for goal setting levels at the federal agencies. Previous goal setting studies subdivide goal setting level into three units: organizational level (Chun and Rainey, 2005; Jung, 2011), program level (Jung, 2014a, b) and individual level (Jung, 2014a; Pandey and Rainey, 2006; Pandey and Wright, 2006; Stazyk and Goerdel, 2011; Wright, 2007). In terms of individual-level goal setting, this study categorizes it into employee-level and organizational-level goal properties. Thus, the study implies that public employees' perceived fairness of performance appraisal will be different by goal setting maker, although measurement of all goal setting levels is still based on perceptions of the employee.

These research results show that certain control variables, such as intrinsic motivation, play important roles in predicting public employees' perceived fairness of performance appraisals. Federal employees who have a higher level of intrinsic motivation show a more positive perception toward performance appraisal fairness. In other words, the appropriate use of extrinsic rewards and intrinsic motivation, combined with effective goal setting strategies in public organizations, may enhance public employees' perceived fairness of performance appraisal systems. Thus, future research suggests a further investigation on the moderating role of reward policies for public employees in order to predict the relationship between goal setting and perceived fairness of performance appraisal in public organizations. At the same time, this study suggests that public organizations should focus more on effective goal setting for employees rather than other tangible employee rewards offered by other types of organizations.

Additional areas for future research may also further examine the degree of employee participation and the nature of the performance feedback process. In terms of participation, this entails such factors as participation in developing the performance dimensions assessed. This study was unable to do so directly due to the limitations of the questions in the dataset. The importance of participatory development of metrics and objectives, and the demonstrated efficacy of self-appraisal, in addition to difficulty level and specificity, have been developed by Roberts (1992, 1995). His earlier research has also indicated that additional factors such as the specificity, behavioral nature, timeliness and the credibility of the source are indicative of quality of the performance feedback process which is vital in performance appraisal system perceived fairness (Roberts, 1992, 1995). The interaction of all of these factors would be useful in providing a more detailed roadmap for practitioners in dealing with the complex issues of employee motivation and retention. With all of that being said, one of the referees pointed out that specific and difficult goals, like performance measurement in general, can produce negative outcomes including an excessive focus on the measured aspects (quantity) while reducing the emphasis on important non-measured elements of job behavior and performance such as quality. Maintaining proper balance is essential.

This study has several limitations, both theoretical and methodological. First, this study is based on goal setting theory, which includes goal difficulty, goal importance and goal specificity. Although this study chose those variables as goal setting factors, those variables may not fully capture the accurate concepts of goal setting. Thus, further studies may need to develop a more accurate proxy for perceived goal setting factors. Second, this study used Federal Employee Viewpoint Survey (FEVS), so to create a panel dataset, we had to dramatically reduce the sample size to agency-level averages. Though it does not directly address the fairness issue of performance appraisal, a recent study by Femi (2013) indicates that employees' perception of performance appraisal may be an important antecedent of organizational goal setting rather than a consequence of organizational goal setting. In this vein, this study cannot rule out the possibility of the endogeneity issue. However, this study focuses more on empirical issues to validate and test goal setting theories. Finally, this study is also limited in terms of generalizing the research findings, because it is limited to the analysis of federal agencies in the US Public employees' perceived fairness of performance

appraisals and perceived goal properties will be different by state and local government employees as well as country-by-country.

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Appendix

Dependent Variable	
Perceived Fairness of Performance Appraisal (Cronbach's $\alpha = 0.91$)	My performance appraisal is a fair reflection of my performance In my most recent performance appraisal, I understood what I had to do to be rated at different performance levels (for example, Fully Successful, Outstanding)
Independent Variables	
Individual-level Goal Difficulty	My workload is reasonable
Individual-level Goal Importance	The work I do is important
Individual-level Goal Specificity	I know how my work relates to the agency's goals and priorities
Organizational-level Goal Specificity (Cronbach's $\alpha = 0.97$)	Managers communicate the goals and priorities of the organization Managers review and evaluate the organization's progress toward meeting its goals and objectives Managers promote communication among different work units (for example, about projects, goals, needed resources) Managers support collaboration across work units to accomplish work objectives
Control Variables	
Pay Satisfaction	Pay raises depend on how well employees perform their jobs
Intrinsic Motivation (Cronbach's $\alpha = 0.85$)	My work gives me a feeling of personal accomplishment I like the kind of work I do
Turnover Intention	Are you considering leaving your organization within the next year, and if so, why? [A] No [B] Yes, to take another job within the Federal Government [C] Yes, to take another job outside the Federal Government [D] Yes, other
Age (Under $40 = 0$, 40 or older $= 1$)	What is your age group? [A] Under 40/[B] 40 or older
Tenure (10 or fewer years $= 0$, 11 or more years $= 1$)	How long have you been with the Federal Government (excluding military service)? [A] 10 or fewer years/[B] 11 or more years
Gender ($0 =$ female, $1 =$ male)	Are you: [A] Male/[B] Female
Minority ($0 =$ Non-minority, $1 =$ minority)	[1] Minority [2] Non-minority

Table A1.
Measurement items for
all variables

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