Fair treatment, job involvement, and turnover intention of professional employees in government: the importance of organizational identification as a mediator

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Fair Treatment, Job Involvement, and Turnover Intention of Professional Employees in Government: The Importance of Organizational Identification as a Mediator

by

Shahidul Hassan

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Fair Treatment, Job Involvement, and Turnover Intention of Professional Employees in Government: The Importance of Organizational Identification as a Mediator

by

Shahidul Hassan

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Abstract

Although organizational justice is a critical issue for effectively managing employees in government agencies, it has been neglected in previous public management research. Further, the limited amount of research that has examined the consequences of organizational justice in government agencies did not clarify the underlying psychological process through which perceptions of organizational justice may influence public sector employees’ work attitudes and behaviors. Specifically, previous research did not examine any indirect effect that employees’ perceptions of organizational justice may have on their attitudes and behaviors in government agencies. To fill this gap, this dissertation examined the role of organizational identification as a mediator in the relationship between professional employees’ perceptions of procedural and distributive justice and their job involvement and turnover intention.

Based on the social identity perspective and group-oriented organizational justice theories, a causal path model was developed in this study. This research model was tested using structural equation modeling with data collected from 2164 employees from 12 divisions of a large state agency with a diverse and geographically dispersed workforce. The results indicated that perceptions of procedural and distributive justice were important predictors of professional employees’ job involvement and turnover intention. Additionally, organizational identification was found to have a close association with professional employees’ job involvement and turnover intention. The results of this study also showed that the effects of procedural and distributive justice on professional employees’ job involvement and turnover intention were mediated by their organizational identification. Implications of these findings with respect to developing effective human
resource management strategies for increasing public sector employees’ job involvement and reducing their turnover intention are discussed in detail.
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Chapter One: Introduction

Justice—a term that often is interchangeably used with fairness by social scientists—is a core value in all societies (Greenberg & Colquitt, 2005). Philosopher John Rawls (1971) referred to justice as the first virtue of social organizations. It is a fundamental concern in all social interactions. Everyone wants to be treated fairly, and with dignity and respect, in all spheres of social life. Therefore, justice can be considered to be a binding force in a society.

Organizational justice generally is conceptualized in terms of individuals’ perceptions of fairness in their workplace (Greenberg & Colquitt, 2005). Justice is a particularly important issue in organizations because it is a guiding principle for cooperative social actions in the workplace (Barnard, 1938). Employees care deeply about how they are treated in their workplaces, and their perceptions of organizational justice may largely influence the nature of their relationship with and feelings about their organizations (Folger & Cropanzano, 1998).

Organizational justice is a multidimensional construct (Colquitt, 2001). Perceptions of organizational justice include judgments about equity in the allocation of organizational rewards and resources (Adams, 1963, 1965; Homans, 1958, 1961), fairness in formal policies and procedures used in allocating those rewards and resources (Leventhal, 1980; Lind & Tyler, 1988), and the quality of interpersonal treatment that individuals receive from authorities during the implementation of those procedures (Bies, 2001; Bies & Moag, 1986). These three facets of fairness in organizations are termed distributive, procedural, and interactional justice, respectively. In recent years, some scholars have begun to subdivide interactional justice into two separate components—
interpersonal justice and informational justice (Bies, 2001; Colquitt, 2001; Greenberg, 1993a, 1993b). Interpersonal justice refers to the degree to which employees are treated with dignity and respect by authorities during the implementation of decisions (Bies, 2001). Informational justice focuses on the explanation or justification provided to employees by authorities about various decisions, and whether such justification is reasonable (Bies, 2001).

Organizational justice has received considerable attention in recent years from organizational researchers because of its proximal association with a variety of important work attitudes and behaviors (Colquitt et al., 2005b). Two recent meta-analyses (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng 2001) have found that perceptions of organizational justice have a strong association with employees’ job satisfaction, pay satisfaction, organizational commitment, trust in supervisor and management, evaluation of organizational authorities, turnover intention, withdrawal behavior, job performance, and organizational citizenship behaviors. Additionally, scholars continue to pay close attention to organizational justice because it provides a useful lens to study a variety of important management issues in organizations. Theories of organizational justice have been applied to study employees’ reactions about participation initiatives, dispute resolution programs, performance evaluation methods, compensation systems, employee selection processes, training implementation programs, and organizational merger and change (Colquitt, Greenberg, & Scott, 2005a).
The Importance of Fairness in Government Bureaucracies

The study of organizational justice is critical for the field of public administration (Rubin, 2009). Justice serves a normative function in government agencies by providing legitimacy to decisions made by government authorities. Legitimacy of government actions is an important issue in both classical and contemporary public administration scholarship (Mosher, 1968; Waldo, 1948). Legitimacy also was the core theme in Weber’s seminal discussion on rational-legal type bureaucracies (Weber, 1947). Individuals’ perception of legitimacy of government actions partly depends on their personal experiences with government authorities or street-level bureaucrats (Lipsky, 1980), when they seek various public services (e.g., security, legal, education, health, and social services). Fairness during those interactions can inform and convince individuals about the appropriateness of decisions made by government authorities and can influence them to accept and voluntarily comply with those decisions (see, for example, Tyler & Degoe, 1995; Tyler & Huo, 2002). Additionally, individuals are likely to evaluate government authorities favorably when they are treated fairly (Lens, 2009; Tyler, 2006). Moreover, fair treatment by government authorities sends important signals about social inclusion and citizenship. Specifically, it indicates positions and social worth of underprivileged groups in a society (Lens, 2009).

Organizational justice also is critical for effectively managing employees in government agencies. Fair treatment can reduce employees’ uncertainty about their managers’ trustworthiness and can influence employees to accept and comply with their managers’ decisions (Tyler & Lind, 1992). Fairness also provides predictability to employees about the rewards and resources they are likely to gain in the long term from
their organizations (Leventhal, Karuza, & Fry, 1980). Further, fair treatment provides employees with feedback about the extent to which their work efforts are valued by their organization, which in turn motivates them to engage in cooperative behaviors on behalf of their organizations (Tyler & Blader, 2000). Fairness also can increase employees’ work motivation through its influence on positive work-related emotions (Zapata-Phelan, Colquitt, Scott, & Livingston, 2009). Moreover, fairness can satisfy employees’ socio-emotional needs in the workplace (Colquitt, Greenberg, & Zapata-Phelan, 2005b), such as the need for control (Thibaut & Walker, 1975), self-esteem, and belonging (Lind & Tyler, 1988). Fairness also assists individuals to fulfill their moral and ethical obligations for others in the workplace (Colquitt et al., 2005b).

**Previous Research on Organizational Justice in Public Agencies**

Despite its relevance, organizational justice has been neglected in public management research (Rubin, 2009). A review of recent publications in key public administration journals\(^1\) yielded only five empirical studies with an explicit focus\(^2\) on the sources and consequences of organizational justice in public agencies (Bingham, Chesmore, Moon, & Napoli, 2000; Lens, 2009; Noblet & Rodwell, 2009; Rubin, 2009). Further, although organizational researchers already have engaged in considerable study of organizational justice, only a small amount of that work has been completed in public


\(^{2}\) There are several recent public sector studies that did not have an explicit focus on organizational justice but focused on general fairness-related issues in public organizations (see, for example, Battaglio & Condrey, 2009; Daley, 2007).
agency settings (Alexander & Ruderman, 1987). This apparent lack of attention is unfortunate given the importance of public organizations in society and the utility of organizational justice theories in studying many important management issues in public organizations.

The limited research that has been completed in the public sector setting has provided some evidence about the importance of justice for managing employees in government organizations. For example, Alexander and Ruderman (1987) found that federal government employees’ perceptions of distributive and procedural justice were strongly related to their job satisfaction, work stress, trust in and satisfaction with leadership, and turnover intention. Further, Kurland and Egan (1999) showed that perceptions of distributive and procedural justice were positively related to local government employees’ satisfaction with their supervisors. Additionally, Bingham and others (2000) conducted a field experiment to examine perceptions of procedural justice in two distinct conflict resolution processes—an outside neutral model and inside model— in the United States Postal Service (USPS). Participants of this study reported higher levels of procedural justice and satisfaction in the outside neutral model than in the inside model of mediation. More recently, Noblett and Rodwell (2009) conducted two field studies in public agencies in Australia and found that perceptions of distributive and procedural justice were positively related to employees’ intrinsic and extrinsic job satisfaction. In another recent study, Rubin (2009), using data from the 2002 Federal Human Capital Survey, showed that employees’ perception of procedural justice in the

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3 The outside neutral mediation process had an independent contractor playing the role of mediator and the inside model had a trained USPS employee as the mediator.
Department of Defense was positively related to their overall trust in management and satisfaction with the organization and negatively related to their turnover intentions.

Additionally, Lens (2009) recently conducted an ethnographic field study to investigate why welfare recipients in New York, who received notices for discontinuation or reduction in their public assistance, decided to appeal or not to appeal government decisions. This study found that welfare recipients’ decision to appeal was influenced by the interpersonal treatment they received from their case workers. Further, those who appealed considered the hearing process as fair when they had an opportunity to fully present their case, were treated politely and with respect, and perceived the hearing officer to be an impartial decision maker (Lens, 2009). This study provided important insights about the sources of citizens’ perceptions of procedural justice when they interact with government authorities.

Nevertheless, previous research that has focused on the consequences of organizational justice in public agencies has two major limitations. First, although these studies provided some empirical evidence about the significance of procedural and distributive justice in public organizations in terms of their close association with outcomes such as job satisfaction, trust in management, and turnover intention, they did not clarify the underlying psychological mechanism through which such perceptions might actually influence employees’ work attitudes (Alexander & Ruderman, 1987; Bingham et al., 2000; Kurland & Egan, 1999; Noblet & Rodwell, 2009; Rubin, 2009). More specifically, these studies failed to identify any variable that might mediate the effects of distributive and procedural justice on public sector employees’ work attitudes.
Second, most of these studies relied in a rather limited way on the theory and methods already established in the organizational justice literature.

**Scope of the Proposed Dissertation**

In an effort to fill these two gaps, this dissertation addresses the two following research questions:

1. Do perceptions of procedural and distributive justice motivate professional employees in government agencies to become more involved in their jobs and influence them to remain in their current organization?
2. What is the underlying psychological process through which procedural and distributive justice perceptions may lead to higher job involvement and lower turnover intention among professional employees in government agencies?

Group-oriented organizational justice theories such as the group value model (Lind & Tyler, 1988), the relational model of authority (Tyler & Lind, 1992), and the group engagement model (Tyler & Blader, 2000) together with a social identity perspective (Tajfel & Turner, 1979, 1986; Turner, 1985) provide a powerful lens for understanding the consequences of organizational justice in public organizations. These theoretical perspectives suggest that the workplace is a major source of individuals’ social identity. Further, these theories suggest that fair treatment conveys information that is important for employees to create and maintain a positive social identity. More specifically, fair treatment provides employees with feedback about the degree to which their work efforts are valued by their organizations. It also provides information to employees about their status and social standing in the organization. This positive
feedback, in turn, influences employees’ cooperative work attitudes and behaviors (Blader & Tyler, 2003a; Tyler & Blader, 2000, 2003). According to this perspective, organizational identification, that is, employees’ perception of oneness with or belongingness to the organization wherein individuals define themselves in terms of their membership (Ashforth & Mael, 1989), is expected to be a key mediator of the relationship between employees’ perceptions of organizational justice and their work attitudes. Therefore, this dissertation assessed the mediating role of organizational identification in the relationship between professional employees’ perceptions of distributive and procedural justice and their job involvement and turnover intention in a public sector setting.

This dissertation focused on professional employees’ job involvement for several important reasons. Over the past two decades, considerable pressure has been placed upon federal, state and local government agencies to change organizational processes and adopt management reform techniques popular in the private sector to make them more effective and responsive to citizens’ needs (Nigro & Kellough, 2008). These reform efforts, under the banner of performance improvements (Hays & Sowa, 2006), primarily focused on changing or eliminating onerous organizational procedures and increasing public sector employees’ job performance through various instrumental means (Condray & Battaglio, 2007; Selden, Ingraham, & Jacobson, 2001). Little effort, however, has been made to understand how public sector employees’ work motivation and performance could be enhanced through non-instrumental means such as strengthening their organizational identification by establishing fair human resource management policies and practices.
This dissertation focused on the role of organizational justice on professional employees’ job involvement because job involvement is a key driver of employees’ work motivation and goal-directed behaviors (Hackman & Lawler, 1971; Kahn, 1990; Lawler & Hall, 1970). Job involvement is considered an important factor in individuals’ personal growth and satisfaction in their workplace (Brown, 1996). Job involvement been equated with individuals’ job commitment (Morrow, 1993). Some scholars even have suggested that increasing job involvement might enhance organizational effectiveness by fully involving employees in their work and by making work a more meaningful and fulfilling experience (Lawler, 1992; Pfeffer, 1994). Further, previous research has shown that job involvement is an important predictor of employees’ in-role and extra-role performance (Diefendorff, Brown, Kamin, & Lord, 2002).

Although it is well known that employees’ perceptions of organizational justice are important sources of their work motivation (see, for example, Latham & Pinder, 2005; Zapata-Phelan et al., 2009), little effort has been made to understand how perceptions of procedural and distributive justice may positively influence professional employees’ involvement in their jobs government agencies. Moreover, previous research has not examined whether organizational identification mediates the effects of procedural and distributive justice on professional employees’ job involvement.

This dissertation examined the effects of procedural and distributive justice on professional employees’ turnover intention because of the strategic value of their intellectual capital in government agencies, as well as the significant direct and indirect costs involved in replacing skilled professional employees (Moynihan & Pandey, 2008). Public organizations need to compete with private companies in recruiting skilled
professional employees. With limited financial resources, public organizations face an even greater challenge in retaining them. Turnover of highly skilled professionals can have serious negative consequences for public organizations (Moynihan & Pandey, 2008). Past research has shown that turnover of skilled employees can negatively affect public organizations’ performance (Mierer & Hicklin, 2008). Additionally, when employees leave, public agencies lose sources of valuable institutional knowledge (Moynihan & Pandey, 2009). Moreover, with turnover, public agencies need to spend valuable resources on recruiting and training new employees that otherwise could be used for important public programs.

Instituting fair human resource management practices can be an effective mechanism for influencing professional employees to remain in their current public agencies. Several previous studies already have shown that perceptions of procedural and distributive justice are negatively related to public sector employees’ turnover intention (Alexander & Ruderman, 1987; Rubin, 2009). However, as noted earlier, this research did not identify any indirect effect that procedural and distributive justice may have in reducing professional employees’ turnover intention through increasing their organizational identification. This dissertation specifically was designed to explore those intermediate ties that have not been well articulated before. With the aid of group-oriented organizational justice theories (Lind & Tyler, 1988; Tyler & Lind, 1992; Tyler & Blader, 2000, 2003), this study demonstrated that, when professional employees in government agencies perceive that their work outcomes, as well as the administrative processes leading to the decisions about those outcomes, are fair, they more strongly identify with their organization. Moreover, this identification with the organization, in
turn, motivates professional employees to become more involved in their job and influences them to remain in their current organizations.

Chapter Summary

In summary, organizational justice refers to employees’ perception of fairness in the workplace. Fairness is an important issue in organizations because it is a guiding principle for cooperative social actions in the workplace. Employees care deeply about how they are treated in their workplaces, and their perceptions of organizational justice may largely influence the nature of their relationship with and feelings about their organizations. Although organizational justice is critical for effectively managing employees in government agencies, it has been neglected in previous public management research. Further, the limited amount of research that has examined the consequences of organizational justice in government agencies did not clarify the underlying psychological process through which perceptions of organizational justice may influence public sector employees’ work attitudes and behaviors. To fill this gap, this study examined the role of organizational identification as a mediator in the relationship between professional employees’ perceptions of procedural and distributive justice and their job involvement and turnover intention in a government work setting.
Chapter Two: A Review of Distributive and Procedural Justice

While distributive justice refers to fairness in the allocation of rewards and resources among employees in organizations, procedural justice refers to fairness in the formal policies and procedures used in making those allocation decisions (Greenberg, 1987). Perceptions of distributive and procedural justice are interrelated but distinct dimensions of the broader organizational justice construct (Colquitt, 2001). A thorough overview of the conceptual development of these two dimensions of organizational justice and issues related to their measurement are provided in this chapter.

What is Distributive Justice?

Distributive justice, otherwise known as fairness in the allocation of available resources, is an issue that has attracted widespread attention of philosophers and social scientists for hundreds of years. In the workplace, employees generally consider distribution of work-related rewards and resources to be fair when they are consistent with expected norms of allocation such as equity, equality, and need (Colquitt, 2001). Distributive justice is an important human resource management issue in organizations. Employees’ perception of distributive justice is closely associated with both productive and counterproductive work attitudes and behaviors (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). Previous research has shown that fairness in the allocation of rewards and resources is an important source of employees’ work motivation and performance (Greenberg & Leventhal, 1976), job satisfaction, organizational commitment, and organizational citizenship behaviors (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). Likewise, the perception of injustice in the allocation of rewards
and resources has been shown to be associated with employees’ dissatisfaction with their organization, withdrawal from their work, and counterproductive work behaviors (Cohen-Charash & Spector, 2001; Colquitt et al., 2001).

**Distributive Justice Theories**

Much of early organizational justice research focused on employees’ reactions to distributive justice in their workplace (Colquitt et al., 2005b). This research was advanced by a set of influential theoretical developments in the 1950s and 1960s including relative deprivation theory (Davis, 1959; Merton & Rossi, 1957; Stouffer, Suchman, DeVinney, Star, & Williams, 1949), social exchange theory (Blau, 1964; Homans, 1958, 1961) and equity theory (Adams, 1963, 1965). These theories also influenced the conceptual development of procedural justice in the mid 1970s when scholars began to realize limitations of distributive justice theories in explaining employees’ work attitudes and behaviors in organizations (Lind & Tyler, 1988).

**Relative Deprivation Theory**

Relative deprivation theory (Stouffer et al., 1949; Davis, 1959; Merton & Rossi, 1957) suggests that individuals do not make judgments about their socio-economic condition in absolute terms, but that they make such judgments by comparing their situation with others around them. Early research based on relative deprivation theory observed that individuals, even in favorable socio-economic condition, could feel dissatisfied, whereas individuals could be reasonably satisfied in conditions that generally would be considered poor (Colquitt et al., 2005b). For example, in a four-year study of attitudes of American troops in the Second World War, Stouffer and others (1949) asked
African-American soldiers stationed in the North and the South to indicate how fairly they were treated by police and on public buses, and how they felt about their adjustment into the Army. During this period, African Americans were better treated in the North than in the South, and the socio-economic disparity between African and European Americans was not as extreme in the North as it was in the South. However, Stouffer and others (1949) found that African Americans soldiers from the South were more satisfied with their condition than were their counterparts from the North. Stouffer and others (1949) explained such an unexpected finding by noting that, when African-American soldiers reported their levels of satisfaction, they compared their socio-economic condition with other African Americans living in the South but not with the African-American soldiers from the North.

Relative deprivation theory had a strong influence on early research on social movements and protest (Moore, 1978; Muller, 1979). It also was influential in the conceptual development of distributive justice in the field of social psychology. The idea of relative deprivation stimulated the view that social comparison might play an important role in individuals’ assessments of, and satisfaction with, social, political, and economic outcomes (Crosby, 1976, 1982; Folger, Rosenfield, & Robinson, 1983; Martin, 1981).

Social Exchange Theory

Social exchange theorists (Blau, 1964; Homans, 1958, 1961) built on the idea of relative deprivation and introduced the concept of distributive justice in social exchange processes. Homans (1958) suggested that, when individuals participate in an exchange
relationship, they develop normative expectations about future exchanges. More specifically, individuals generally expect their rewards from an exchange to be proportional to their investments (Homans, 1961). Whenever this expectation is fulfilled, individuals consider the exchange relation to be fair, and, whenever it is not fulfilled, they consider it to be unfair. Homans (1961) also noted that individuals involved in an exchange may differ in their judgments about distributive justice because of the social comparison process involved in making such judgments.

Like Homans (1958, 1961), Blau (1964) suggested that individuals’ satisfaction in an exchange relationship largely depends on the benefits they receive relative to their expectations. Blau (1964) also noted that expectations about a particular exchange relationship are influenced by individuals’ own past experience, as well their knowledge about others’ experiences in similar exchange relationships. Blau (1964) identified three different types of social exchange expectations—general, particular, and comparative. By general expectations, Blau (1964) referred to prevalent social standards and norms that prescribe just treatment of individuals in exchange relationships. This emphasis on social norms and standards was not present in Homans’ (1961) earlier discussion of distributive justice, and it later influenced research on procedural justice. Further, the idea of particular expectations refers to beliefs that an exchange partner will conform to acceptable codes of conduct and provide benefits that exceed benefits that could be obtained from other exchange partners (Blau, 1964). Additionally, comparative expectations are benefits that individuals expect to receive from exchange relationships in general so that they can compare costs and benefits of multiple exchange relationships.
(Blau, 1964). These three types of expectations together influence individuals’ perceptions of a fair exchange (Blau, 1964).

Adam’s Equity Theory

Equity theory (Adams, 1963, 1965) further developed social exchange theorists’ (Blau, 1964; Homans, 1958, 1961) ideas on distributive justice. Equity theory was highly influential and guided most early research on organizational justice (Colquitt et al., 2005b). In equity theory, distributive justice is conceptualized in terms of a perceived ratio of outcomes to inputs (Adams, 1965). Outcomes in this perspective include both economic and social benefits—“pay, rewards intrinsic to the job, satisfying supervision, seniority benefits, fringe benefits, job status and status symbols, and a variety of formally and informally sanctioned perquisites” (Adams, 1965: 278). Further, inputs include aspects such as “education, intelligence, experience, training, skill, seniority…” (Adams, 1965: 277).

Adams (1965) suggested that individuals make equity judgments by comparing their work outcomes to their work inputs and to the outcomes-inputs ratio of a corresponding other (e.g., a coworker). When individuals’ outcomes-inputs ratios are lower than the ratios of their corresponding other, they experience inequity distress, which in turn motivates them to restore equity behaviorally (e.g., by lowering job performance). Another key insight provided by equity theory is its prediction about those who benefit from inequity in social groups. Adams (1965) suggested that, because fairness is a fundamental social norm, even when a few individuals in a group are benefited from inequity, they feel a sense of guilt and try to restore equity by altering
their behaviors (e.g., by working harder or disassociating themselves from that group). A series of experimental studies conducted during the 1960s and 1970s provided empirical support for the arguments of equity theory (for a review, see Greenberg, 1982).

Limitations of Equity-based Distributive Justice Research

Current research on the consequences of distributive justice in organizations is guided mainly by equity theory. However, equity theory has some limitations in explaining employees’ reactions to fair or unfair treatment in workplace. Appreciation of these limitations began to emerge in the mid 1970s when researchers took a more proactive approach and shifted focus from employees’ reactions to distributive justice (or injustice) to conditions that lead to the selection of particular distributive justice rules in groups (Greenberg, 1987).

Leventhal and his associates (Greenberg & Leventhal, 1976; Leventhal, Michaels, & Sanford, 1972) conducted a number of laboratory experiments in which they manipulated concerns for justice to examine the effects on reward allocation decisions. Based on the results of that research, Leventhal (1976a, 1976b) suggested that individuals might use different reward allocation rules in different conditions, and that equity might not be an appropriate rule for allocating rewards in all situations. Further, Leventhal (1976a, 1976b, 1980) noted that equity was one of many rules that might be used to allocate rewards and resources in a group. Leventhal (1976a, 1976b) argued that the goals of interaction might be an important determinant of the selection of an appropriate distribution rule. Further, when a group’s primary goal is to enhance productivity, equity is the appropriate rule for allocating rewards (Leventhal, 1977a, 1976b). However, when
the primary concern is enhancing cooperation and harmony in a group, equality might be a more appropriate allocation rule than equity (Leventhal, 1976a, 1976b). Additionally, when personal welfare is the key concern, a need-based allocation rule might be more appropriate than either equity or equality (Leventhal, 1976a, 1976b). Leventhal (1976a, 1976b) cautioned against solely relying on the equity rule in allocating rewards in groups because it requires one to differentiate between group members, which could undermine interpersonal cooperation in groups. Similarly, Deutsch (1975) noted that equity might be an inappropriate resource allocation standard in non-economic social relations. Subsequent research has shown that reward and resource allocation decisions in organizations, indeed, are guided by multiple interaction goals and made using multiple criteria (Elliott & Meeker, 1986; Greenberg, 1978a, 1978b; Mannix, Neale, & Northcraft, 1995; Meindl, 1989).

Distributive Justice Measures

As noted earlier, previous research on distributive justice mainly has focused on individuals’ reactions to perceived equity or inequity in the allocation of rewards and resources in organizations. Equity-based measures of distributive justice are fairly consistent across field studies (Ambrose & Arnaud, 2005). Such measures typically include items that ask participants to assess fairness of particular outcomes (e.g., pay, promotion, workload, job assignment, and schedule) given their contributions (Colquitt, 2001; McFarlin & Sweeney, 1992; Niehoff & Moorman, 1993; Price & Meuller, 1986).

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4 Equality and equity are distinct allocation rules. With an equality-based allocation rule, resources are distributed equally among members in a group whereas, with in an equity-based allocation rule, resources are distributed based on members’ individual contributions/efforts.
Currently, three of the most commonly used measures of distributive justice were developed by Colquitt (2001), Niehoff and Moorman (1993) and Price and Mueller (1986). Items of these three distributive justice measures are shown in Table 2.1. Past research has reported a high level of reliability of these three measures in different contexts, with Cronbach alphas ranging from .75 to .95.

It is important to note that none of these three frequently used measures include any item that focuses on the social comparison process involved in making judgments about distributive justice in the workplace. Items of these three measures, instead, primarily focus on balance in employees’ outcomes-inputs ratio. A recent study conducted by Olkkonen and Lipponen (2009) tried to address this problem by including an additional item (“In my organization I am fairly rewarded with respect to the rewards received by others doing a similar job”) in Price and Mueller’s (1986) measure of distributive justice.

Additionally, a limited amount of distributive justice research has focused on individuals’ reactions to equality and need-based rewards and resource allocation norms. Field studies that have focused on individuals’ reactions to, or preferences for, equality and need-based allocation rules directly asked participants to assess fairness of the outcomes (Chen, 1995; Chiu, 1990; Giacobbe-Miller, Miller, & Victorov, 1998).
<table>
<thead>
<tr>
<th>Measures</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price and Mueller (1986)</td>
<td>1. To what extent are you fairly rewarded considering the responsibilities you have?</td>
</tr>
<tr>
<td></td>
<td>2. To what extent are you fairly rewarded taking into account the amount of education and training you have had?</td>
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<tr>
<td></td>
<td>3. To what extent are you fairly rewarded in view of the amount of experience you have?</td>
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<tr>
<td></td>
<td>4. To what extent are you fairly rewarded for the amount of effort you put forth?</td>
</tr>
<tr>
<td></td>
<td>5. To what extent are you fairly rewarded for the work you have done well?</td>
</tr>
<tr>
<td></td>
<td>6. To what extent are you fairly rewarded for the stresses and strains of your job?</td>
</tr>
<tr>
<td>Niehoff and Moorman (1993)</td>
<td>1. My work schedule is fair</td>
</tr>
<tr>
<td></td>
<td>2. I think that my level of pay is fair</td>
</tr>
<tr>
<td></td>
<td>3. I consider my workload to be quite fair</td>
</tr>
<tr>
<td></td>
<td>4. Overall, the rewards I receive are fair</td>
</tr>
<tr>
<td></td>
<td>5. I feel that my job responsibilities are fair</td>
</tr>
<tr>
<td>Colquitt et al. (2001)</td>
<td>1. To what extent does your outcome reflect the effort you have put into your work?</td>
</tr>
<tr>
<td></td>
<td>2. To what extent is your outcome appropriate for the work you have completed?</td>
</tr>
<tr>
<td></td>
<td>3. To what extent does your outcome reflect what you have contributed for the organization?</td>
</tr>
<tr>
<td></td>
<td>4. To what extent is your outcome justified, given your performance?</td>
</tr>
</tbody>
</table>
What is Procedural Justice?

Procedural justice, otherwise known as fairness in organizational decision-making processes, is an important determinant of employees’ cooperative attitudes and behaviors in the workplace (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). Perceptions of procedural justice are formed by the structural elements of decision-making processes, as well as by the interpersonal treatment that individuals receive during the implementation of those processes (Lind & Tyler, 1988; Tyler & Bies, 1990). Procedural justice can be categorized as both objective and subjective (Konovsky, 2000). Objective procedural justice refers to factual or actual justice; for example, one might examine the frequency with which a particular “procedure convicts the guilty and acquits the innocent” (Lind & Tyler, 1988: 19). Subjective procedural justice refers to perceptions of objective procedural justice (Konovsky, 2000). Most procedural justice research in organizations has focused on the subjective, rather than the objective, aspect of procedural justice (Lind & Tyler, 1988).

Konovsky (2000) suggested that procedural justice experience can be understood best in terms of its cognitive, affective, and behavioral aspects. The cognitive aspect of procedural justice experience refers to the mental calculations that individuals make about the fairness of decision-making processes (Konovsky, 2000). Most early work on procedural justice largely focused on the cognitive aspect of procedural justice (e.g., Thibaut & Walker, 1975; Leventhal, 1980; Leventhal, Karuza, & Fry, 1980; Lind & Tyler, 1988). The affective and behavioral aspects refer to individuals’ positive/negative emotional and behavioral reactions to their procedural justice experience (Konovsky,
Current procedural justice research primarily focuses on emotional and behavioral aspects of procedural justice experience in workplace.

**Procedural Justice Theories**

*Thibaut and Walker’s Work in Dispute Resolution*

As scholars began to realize limitations of equity-based explanations of the effects of fairness in organizations, a series of pioneering studies by John Thibaut, Laurens Walker and their associates in the mid 1970s in legal dispute resolution led to the conceptual development of procedural justice. Thibaut and Walker (1975) summarized initial findings of their experimental research in *Procedural Justice: A Psychological Analysis*. A key focus of this research was examining the effects of procedural variation in the perceptions of fairness on dispute resolution outcomes. In that effort, they compared individuals’ reactions to simulated dispute resolution procedures of two major Western legal systems—the adversary system used in the United States and Great Britain and the inquisitorial system used in France and other European countries. Procedures in these two systems vary in terms of the degree of control that disputants and the intervening third party (e.g., a judge) have in the development and presentation of evidence (i.e., process control) and the ability of the third party to determine the outcome (i.e., decision control). In the adversary system, a judge has control over the decision but not the development and presentation of evidence, whereas in the inquisitorial system a judge has control over both the decision and procedures.

One of the laboratory studies conducted by Walker, LaTour, Lind, and Thibaut (1974; Thibaut & Walker, 1975, Chapter 8) assessed whether procedural variation alone
could influence individuals’ perception of fairness of, and satisfaction with, adjudicatory procedures and outcomes. In this study, undergraduate students took part in a simulated business competition where they played roles of competing advertising companies (Walker et al., 1974). The participating student teams had an option for spying on the competing team to steal business ideas. Mock trials were held to resolve conflicts about alleged misconduct by a team (i.e., stealing ideas from their competitor), and the winner received a cash prize. In this mock trial, Walker and others (1974) manipulated the dispute resolution procedures (i.e., adversarial versus inquisitorial), outcome (i.e., innocent or guilty of spying) and actual guilt (i.e., whether a member of the team charged with spying actually spied or not). In the adversarial condition, the participants could choose an attorney from two law students who represented them in the mock trial. Additionally, in the inquisitorial condition, the judge instructed a single attorney to make arguments for both teams.

The dependent measures of this study were participants’ ratings of fairness of the hearing, the hearing procedure, and the verdict. The results showed significant main effects for both the procedures and outcomes, with participants preferring adversarial over inquisitorial procedures and were more satisfied with innocent versus guilty verdicts. However, the most important finding of this study was that participants’ ratings of fairness were higher for the adversarial procedures than for the inquisitorial procedures regardless of the outcome of the verdict. This finding was particularly important because it indicated that procedures alone could influence individuals’ perceptions of fairness. This finding also was important because it showed the limitations of social exchange theory (Homans, 1961; Blau, 1964) and equity theory (Adams, 1965), both of which
viewed outcomes, but not processes, to be the most important determinant of perceived fairness.

In another important laboratory study, Thibaut, Walker, LaTour and Houlden (1974; Thibaut & Walker, 1975, Chapter 8) asked participants involved in a hypothetical dispute to rate their preferences for using five different dispute resolution procedures. Participants in this study also were asked to rate the degree of control they perceived to have on each of these five dispute resolution procedures, as well as their perception of fairness of each procedure. The results of this study showed that participants strongly preferred the adversarial over the four other procedures. Further, participants considered the adversarial procedure to be fairer and to provide more control than the four other procedures (Thibaut et al., 1974). Results of later research by associates of Thibaut and Walker (Lind, Erickson, Friedland, & Dickenberger, 1978) with student participants from the United States, France, the United Kingdom, and West Germany also showed similar results. Based on these findings, Thibaut and Walker (1978) suggested that distribution of control is a key determinant of individuals’ perception of fairness in decision making. Further, Thibaut and Walker (1978) distinguished between two types of control—process and decision. Process control refers to the degree to which one has control over the development and presentation of evidence to resolve a dispute, whereas decision control refers to the degree to which one has control over the outcome. Thibaut and Walker (1975, 1978) asserted that procedures that provide individuals with high process control and assign decision control to a neutral third-party are perceived to be fairer than those procedures that place both process and decision control in the hands of decision makers.
This was a very important observation and shaped much subsequent research on procedural justice in organizations (Lind & Tyler, 1988).

*Leventhal’s Procedural Justice Rules*

While discussing the limitations of equity theory, Leventhal (1976b) noted that equity theory failed to address issues of procedural justice identified by Thibaut and Walker (1975). Leventhal (1980) revisited this issue in a later chapter where he argued that procedural aspects of the allocative process are important determinants of perceived fairness. Based on Thibaut and Walker’s (1975) earlier research on legal dispute resolution and Rawls’ (1971) philosophical analysis of social justice, Leventhal (1980: 30) defined procedural justice as “an individual’s perception of the fairness of procedural components of the social systems that regulate the allocative process.” Leventhal (1980) suggested that individuals develop procedural justice perceptions using a set of rules or criteria about the procedural components of reward allocation processes. He identified seven distinct categories of procedural components: (1) selection of agents (i.e., decision makers), (2) setting ground rules (i.e., defining and clarifying performance goals and expectations), (3) gathering information about prospective receivers of reward, (4) decision structure (i.e., how allocation decisions are made), (5) appeals (i.e., procedures for appeals by dissatisfied individuals), (6) safeguards (i.e., procedures to ensure decision makers act with integrity), and (7) change mechanisms (i.e., methods for changing procedures if they are inaccurate).

Leventhal (1980) suggested that individuals in any given situation might evaluate only a select set of these seven procedural components with a set of rules or criteria.
Leventhal (1980) identified six distinct rules or criteria (summarized below) and suggested that these rules were important determinants of individuals’ perceptions of procedural fairness. While identifying these rules, Leventhal (1980) acknowledged that these rules were speculative rather than based on empirical assessment. Further, Leventhal (1980) did not assign any particular weight to any these rules and suggested that individuals may selectively apply these rules depending on their situations.

1. **Consistency**: Procedures should be consistent across time and across individuals for them to be considered fair. The first part of the consistency rule requires that procedures are enacted in the same way each time they are used. Further, changes to procedures should be made carefully and, whenever changes are made, all parties who are affected by the changes should be notified. The second part of this rule requires equal treatment of all individuals who are affected by the procedures.

2. **Bias suppression**: Procedures should not be influenced by decision makers’ personal self-interests or beliefs. Leventhal (1980: 41) suggested that individuals are likely to perceive procedures as unfair when decision makers have a vested interest in a specific decision or have “blind allegiance to narrow preconceptions.”

3. **Accuracy of information**: Reward allocation decisions should be made using procedures that provide accurate information and informed opinions. Leventhal (1980: 41) suggested that procedural justice will be violated when performance evaluation uses “inappropriate information, or information provided by incompetent observers.” Therefore, gathering accurate information about
individuals’ contributions and keeping a careful record of such information is important to ensure procedural justice.

4. **Correctability**: Procedures should have provisions to modify or reverse decisions as necessary. Leventhal (1980) suggested that individuals’ perceptions of procedural justice will be enhanced when they have opportunity to appeal decisions and file grievances. Leventhal (1980) also noted that all other procedural justice rules are involved in the fulfillment of this rule.

5. **Representativeness**: Procedures must reflect the basic concerns, values, and outlooks of all individuals who are affected by the allocation decision. Leventhal (1980) defined the representation rule fairly broadly; it included both process control and decision control, as well as the representation of subgroups in the decision-making body (Lind, & Tyler, 1988). This rule might be particularly important when individuals evaluate fairness of the selection of decision makers (Leventhal, 1980). Leventhal (1980) suggested that individuals generally attribute greater fairness to procedures when they have control over those procedures. Leventhal (1980) also noted that the representativeness rule is important to ensure all relevant information is available to those who are affected by the decision.

6. **Ethicality**: Procedures should conform to moral and ethical standards. For example, procedures should not allow deception, invasion of privacy, or bribery.

Identification of these six justice rules made a significant contribution to subsequent research on procedural justice in organizations. However, it is important to note that, while identifying these rules, Leventhal (1980) considered concerns for distributive justice generally to be more salient than concerns for procedural justice.
Leventhal (1980) argued that procedures generally are very complex and difficult to understand and that individuals might show less concern for procedures when allocation outcomes match their own expectations. Further, Leventhal (1980) suggested that fairness generally has a minor influence on individuals’ attitudes and behaviors: “…an individual’s concern about fairness is only one motivational force among many that affect perception and behavior, and that it is often a weaker force than others. In many situations, most individuals probably give little thought to questions of fairness” (Leventhal, 1980: 47). However, Leventhal (1980) identified certain situations in which individuals may become concerned about procedural justice. For example, when individuals join a new organization, they are likely to be concerned about procedural justice. Additionally, during periods of organizational change, employees may experience a high level of uncertainty, and this, in turn, may heighten their attention to issues of fairness in decision-making processes (Leventhal et al., 1980).

Non-instrumental Models of Procedural Justice

A fundamental question in the procedural justice scholarship is why individuals actually care about procedural justice. Early work by Thibaut and Walker (1975) and Leventhal (1980) had an instrumental view of procedural justice. This instrumental view was based on social exchange theory, which assumes that individuals largely are motivated to maximize personal gains (both economic and social) when they interact with others (Blau, 1964; Homans, 1958, 1961; Thibaut & Kelley, 1959). According to this perspective, individuals value procedural justice because it provides greater predictability and control over outcomes (Leventhal, 1980; Thibaut & Walker, 1975). Further,
instrumental models of procedural justice contend that favorability of outcomes is a key determinant of perceptions of procedural justice (Lind & Tyler, 1988). Procedural justice, according to this perspective, is important because it provides individuals with cues so that in the long-run they are more likely to gain economic and social rewards and resources from cooperative social exchanges (Colquitt et al., 2005b).

Lind and Tyler (1988) identified a number of limitations of the instrumental view of procedural justice. They argued that the instrumental approach could explain many, but not all, effects of procedural justice. For example, Thibaut and Walker (1975) and Leventhal (1980) suggested that process control is an important determinant of procedural justice because it provides individuals with greater control (indirect) over outcomes. However, a number of early empirical studies have found that process control increased individuals’ perceptions of procedural justice, even when it had little or no influence on outcomes (Lind, Kanfer, & Earley, 1990; Lind, Lissak, & Conlon, 1983; Tyler, 1987; Tyler, Rasinski, & Spodick, 1985). Findings from these studies indicated that the opportunity to voice concerns during decision-making processes has a value beyond its ability to influence decisions (Tyler & Blader, 2003). Additionally, Lind and Tyler (1988) argued that the instrumental approach of procedural justice is unable to explain how the quality of interpersonal relationships between individuals and decision makers may influence their perceptions of procedural justice.

The Relational Models of Procedural Justice

In their group value model, Lind and Tyler (1988) provided an alternative explanation for why individuals value procedural justice. The group value model
contends that individuals care about procedural justice because procedures convey important information about social status and standing in a group. More specifically, procedural justice provides individuals feedback about whether their efforts are respected in the group and whether they can take pride in group membership. This model is based on social identity theory, which argues that individuals rely on groups to provide them with identity-relevant information about themselves (Tajfel & Turner, 1979, 1986). The group value model assumes that individuals value group membership and that group identification is psychologically rewarding (Tyler, 1989). Further, group identification is important because individuals generally derive their self-concepts from their experiences as members of various social groups. The group value model asserts that procedures in groups are norms regarding treatment and decision making, and regulate much of the group’s social activities and processes (Lind & Tyler, 1988). From this perspective, individuals value procedural justice because it influences individuals’ view of themselves by providing them with important information about their status and self-worth in the group (Lind & Tyler, 1988).

The group value model of procedural justice was expanded into the relational model of authority (Tyler & Lind, 1992) to assess individuals’ experiences with the fairness of authorities in hierarchical settings. Both the group value model and the relational model of authority suggest that individuals make procedural justice judgments in relational terms (Blader & Tyler, 2003b; Tyler, 1989; Tyler, Degoey, & Smith, 1996). More specifically, individuals use criteria that provide them with information about the quality of their relationship with their groups (Blader & Tyler, 2003b). Research based on the group value model identified three distinct relational aspects of procedures—
neutrality in decision making, trustworthiness of the decision makers, and standing or status recognition (see, for example, Tyler, 1989; Tyler et al., 1996). Neutrality refers to the extent to which individuals feel that decisions in a group are made in an unbiased manner, use accurate information, and are not based on decision makers’ personal opinions and preferences. Neutrality of decision making is similar to Leventhal’s (1980) accuracy, bias suppression, consistency, and correctibility rules (Tyler, 1989). Trustworthiness of decision makers refers to the extent to which individuals can trust the motives of group authorities, that is, whether group authorities are benevolent, caring and concerned about the welfare of the group members. In addition, standing or status recognition refers to the quality of interpersonal treatment individuals receive in interaction with group authorities; it indicates whether individuals are treated with dignity and respect and is similar to Leventhal’s (1980) ethicality rule. A number of past studies showed that neutrality, trustworthiness, and standing, in addition to process control, are important predictors of individuals’ perceptions of procedural justice (Giacobbe-Miller et al., 1998; Lind, Tyler, & Hu, 1997; Smith, Tyler, Hu, Oritz, & Lind, 1997; Tyler, 1989, 1994; Tyler et al., 1996).

The Group Engagment Model

More recently, Tyler and Blader (2000, 2003) put forward the group engagement model in an attempt to link concerns for procedural justice with willingness to engage in cooperative behaviors in groups. The main argument of the group engagement model is that individuals engage in discretionary cooperative behaviors in groups because they receive feedback from those groups that helps them to create and maintain their social
identities (Tyler & Blader, 2003). Based on social identity theory (Tajfel & Turner, 1979, 1986), the group engagement model argues that individuals develop their social identity from their memberships in different groups and that developing and maintaining a positive social identity is a key motivator that drives individuals to engage in discretionary cooperative behaviors in groups (Tyler & Blader, 2000, 2003). Further, the group engagement model suggests that individuals rely on identity-relevant information from groups to decide whether or not to engage in cooperative behaviors (Tyler & Blader, 2000, 2003).

Such identity-relevant information emanates from individuals’ procedural justice experience in groups (Tyler & Blader, 2000, 2003). Similar to relational models of procedural justice, the group engagement model suggests that individuals value procedural justice because it communicates important information to them about their social status and standing in groups and helps them to develop and maintain a positive social identity. However, while relational models of procedural justice have focused on attitudinal reactions to individuals’ procedural justice experience, the group engagement model has focused primarily on the behavioral reactions to the procedural justice experience. Recently, two field studies conducted by Blader and Tyler (2009) provided empirical support for the group engagement model in organizations.

*Fairness Heuristic Theory*

In addition to the group-oriented models, fairness heuristic theory (Lind, 2001; Van den Bos, 2001a, 2001b; Van den Bos, Lind, & Wilke, 2001) has provided another non-instrumental view of procedural justice. Fairness heuristic theory was developed
based on the relational model of authority (Tyler & Lind, 1992), which viewed procedural justice as a key predictor of the legitimacy of authority figures in organizations. Fairness heuristic theory focuses on how procedural, distributive, and interactional justice function together to determine overall perceptions of organizational justice (Ambrose & Schiminke, 2009; Jones & Martens, 2009). Fairness heuristic theory suggests that individuals generally feel uncomfortable with authority relations because they provide opportunity for exploitation (Lind, 2001).

However, to obtain resources and psychological gains associated with group membership, individuals must sacrifice a certain level of control to authority figures in organizations (Lind, 2001). This problem of sacrificing control is identified as the fundamental social dilemma (Lind, 2001). Further, fairness heuristic theory suggests that to alleviate concerns about exploitation, individuals usually try to determine authority figures’ trustworthiness (Lind, 2001). However, in many situations, information about the authority figures’ trustworthiness is not readily available (Van den Bos, Wilke, & Lind, 1998). Thus, individuals rely on mental short-cuts or heuristics to make such judgments; that is, fairness heuristics serve as a proxy for authority figures’ trustworthiness (Konovosky, 2000). Laboratory studies provided early empirical support for propositions regarding fairness heuristic theory (see, for example, Lind, Kulik, Ambrose, & de Vera Park, 1993; Van den Bos, Vermunt, & Wilke, 1997; Van den Bos et al, 1998). More recently, field studies have found that employees’ overall perception of organizational justice formed by fairness heuristics influenced their perceived managerial support, job satisfaction, organizational commitment, and turnover intention (Ambrose & Schminke, 2009; Jones & Matrenes, 2009).
Summary of Procedural Justice Theories

It is apparent that both instrumental and non-instrumental theories agree about the importance of procedural justice in the workplace. However, these two approaches differ somewhat with respect to why individuals might feel concerned about procedural justice. The instrumental approaches assert that individuals care about procedural justice because it provides greater predictability and control over outcomes from cooperative social exchanges, whereas the non-instrumental approaches contend that individuals care about procedural justice because it helps them to develop and maintain a positive social identity. These two approaches also differ in terms of the mechanisms through which perceptions of procedural justice influence individuals’ attitudes and behaviors in organizations (i.e., social exchange versus social identity based explanations), an issue that will be discussed in detail in the next chapter. Another noteworthy difference between the two approaches regards the influence of quality of interpersonal treatment on procedural justice perceptions. Non-instrumental models of procedural justice (both the group value model and the group engagement model) consider the quality of interpersonal treatment to be an important determinant of procedural justice perceptions. However, in research based on the instrumental approach, interpersonal treatment is not considered to be determinant of procedural justice.\(^5\)

\(^5\) There still remains disagreement about the conceptual difference between procedural and interactional justice. Since this study will focus only on the effects of procedural and distributive justice, the relationship between procedural and interactional justice is not discussed in detail.
Procedural Justice Measures

Procedural justice has been measured in many ways in previous research. Researchers have relied on either a direct or an indirect measurement approach (Colquitt & Shaw, 2005). Items from direct measures of procedural justice explicitly ask about fairness of a particular decision-making process. For example, direct measures might include items such as “how fair are the procedures by which government benefits are distributed?” (Tyler & Caine, 1981) or “how fair are the procedures by which federal government decides the level of taxes each citizen will pay?” (Tyler et al., 1985). Alternatively, items from indirect measures of procedural justice do not explicitly ask how fair a particular procedure is; rather, they rely on the determinants of procedural justice (Colquitt & Shaw, 2005). A variety of indirect measures of procedural justice have been proposed over the years and, to a certain extent, such variability reflects the theoretical tradition from which they flow (Ambrose & Arnaud, 2005). A set of commonly used indirect measures were developed to assess employees’ procedural justice perceptions based on Leventhal’s (1980) six procedural justice rules—consistency, bias suppression, accuracy, correctability, representation and ethicality. These include measures developed by Folger and Konovsky (1989), Moorman (1991), and Colquitt (2001).

Direct measures of procedural justice predominantly are used in experimental design research, but they also are used in field studies. An example of two direct measures of procedural justice is shown in Table 2.1. Schiminke, Cropanzano, and Rupp (2002) examined the influence of organizational structure on employees’ perceptions of organizational justice. They measured procedural justice with six items that asked
respondents to assess fairness of processes by which decisions about their pay, promotions, professional development opportunities, work schedule, performance schedule, and benefits were made. Further, a number of studies used direct measures but did not focus on specific procedures. Rather, they focused on a global assessment of procedural justice. For example, in a recent study, Blader and Tyler (2009) used a five-item direct measure that asked participants to rate the overall fairness of procedures used in making decisions in their organizations.

Field studies of procedural justice generally rely on an indirect measurement approach. Folger and Konovsky (1989) developed a 26-item indirect measure of procedural justice based on the earlier work by Thibaut and Walker (1975) and Leventhal (1980). Items from this measure focused on employees’ perceived fairness of pay decisions made by their managers. Further, this measure included items that captured both structural and interpersonal aspects of procedural justice. Folger and Konovsky (1989) conducted a factor analysis of the 26 items, which resulted in 5 factors—feedback, planning, recourse, observation and an unnamed factor that was later dropped from the measure. A number of subsequent studies have used this measure to examine the consequences of procedural justice in organizations (Konovsky & Pugh, 1994; Lee, 1995; Skarlicki & Folger, 1997; Skarlicki & Latham, 1997; Weslowski & Mossholder, 1997).
Table 2.2 Examples of Direct Measures of Procedural Justice

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
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</thead>
<tbody>
<tr>
<td>Blader and Tyler (2009)</td>
<td>1. How would you rate the overall fairness with which issues and decisions that come up at work are handled?</td>
</tr>
<tr>
<td></td>
<td>2. Overall, how fair would you say decisions and processes are where you work?</td>
</tr>
<tr>
<td></td>
<td>3. How often do you feel that decisions are made in fair ways at your job?</td>
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<tr>
<td></td>
<td>4. Is there a general sense among employees that things are handled in fair ways where you work?</td>
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<tr>
<td></td>
<td>5. How much of an effort is made to be fair to employees when decisions are being made?</td>
</tr>
<tr>
<td>Schiminke et al. (2002)</td>
<td>1. The process by which my pay is decided is fair.</td>
</tr>
<tr>
<td></td>
<td>2. Promotions are decided in a way that is fair.</td>
</tr>
<tr>
<td></td>
<td>3. The procedures for determining who gets professional development opportunities are fair.</td>
</tr>
<tr>
<td></td>
<td>4. The policies for setting my work schedule are fair.</td>
</tr>
<tr>
<td></td>
<td>5. The procedures for doing my performance evaluations are fair.</td>
</tr>
<tr>
<td></td>
<td>6. The policies for determining my benefits package are fair.</td>
</tr>
</tbody>
</table>
Moorman (1991) developed a seven-item indirect measure that was based on Leventhal’s (1980) procedural justice rules. This measure included two items that captured Leventhal’s (1980) representation rule and three items (one each) that captured consistency, accuracy, and correctability rules. Further, this measure did not include any item for Leventhal’s (1980) bias suppression and ethicality rules; however, it included two items for justification of decisions. In a later study, Niehoff and Moorman (1993) updated this measure and included items for five of the six procedural justice rules (i.e., excluding ethicality). Confirmatory factor analyses conducted by Moorman (1991) and Niehoff and Moorman (1993) demonstrated adequate discriminant validity for this measure. Further, previous research consistently has reported high reliability for this measure in different research contexts (Colquitt & Shaw, 2005).

More recently, Colquitt (2001) developed and validated a four-dimensional measure of organizational justice that included seven items for procedural justice. This indirect measure captured Leventhal’s (1980) six procedural justice rules. Colquitt’s (2001) measure included two items for Leventhal’s (1980) representation rule: one for process control and the other for decision control. A confirmatory factor analysis conducted by Colquitt (2001) provided strong empirical support for this measure. A number of recent studies have used this measure to assess consequences of procedural justice in the workplace and reported a high level of internal reliability (Ambrose & Schiminke, 2009; Choi, 2008; Holtz & Harold, 2008; Spell & Arnold, 2007; Walumbwa, Capanzano, & Hartnell, 2009). Table 2.3 presents items of three most frequently used indirect measures of procedural justice developed by Folger and Konovsky (1989), Moorman (1991), and Colquitt (2001).
<table>
<thead>
<tr>
<th>Measures</th>
<th>Items</th>
</tr>
</thead>
</table>
| Colquitt (2001) | 1. Have those procedures been applied consistently?  
2. Have those procedures been based on accurate information?  
3. Have those procedures been free of bias?  
4. Have you been able to appeal the outcome arrived at by those procedures?  
5. Have you been able to express your views during those procedures?  
6. Have you had influence over the outcome arrived at by those procedures?  
7. Have those procedures upheld ethical and moral standards? |
| Moorman (1991)  | 1. Procedures are designed to generate standards so that decisions could be made with consistency.  
2. Procedures are designed to have all sides affected by the decision represented.  
3. Procedures are designed to hear the concerns of all sides affected by the decision  
4. Procedures are designed to collect accurate information necessary for making decisions.  
5. Procedures are designed to provide opportunities to appeal or challenge the decision  
6. Procedures are designed to provide useful feedback regarding the decision and its implementation  
7. Procedures are designed to allow for requests for clarification or additional information about the decision. |
Another set of indirect measures were developed to test the arguments of the group value model (Lind & Tyler, 1988) and the relational model of authority (Tyler & Lind, 1992). It included measures for three relational determinants of procedural justice—neutrality, trustworthiness, and standing—and process control (i.e., voice opportunity). In an empirical test of the group value model, Tyler (1994) reported results of two field studies that asked a sample of Chicago residents about their fairness experiences with government authorities. In the first study, neutrality was assessed with five items that focused on bias suppression, accuracy or factual decision making, and honesty. Further, trustworthiness was measured with two items that focused on the level of effort that decision makers displayed to remain fair. Standing also was assessed with two items that focused on politeness and respect for the respondents’ rights. The internal reliability scores of these three measures in the first study ranged from .79 to .88. In the second study, process control, neutrality, trustworthiness, and standing were assessed with a single item, five items, three items, and two items, respectively. The reliability scores these measures ranged from .71 to .86. In subsequent research, Tyler and his associates used different versions of these measures depending on the context and focus of their research (see, for example, Tyler & Degoey, 1995; Tyler et al., 1996; Lind et al., 1997; Blader & Tyler, 2000). A sample of items used by Tyler and Schuller (1990) to measure three relational determinants of procedural justice are shown in Table 2.4.
Table 2.4 Procedural Justice Measures in Relational Models (Tyler & Schuller, 1990)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control/Voice</td>
<td>1. How much opportunity were you given to describe your problems before any decisions were made about how to handle it?</td>
</tr>
<tr>
<td></td>
<td>2. How much influence did you have over the decisions made by your supervisor?</td>
</tr>
<tr>
<td>Neutrality</td>
<td>1. Did the methods used by your supervisor favor one person over another or were they equally fair to everyone?</td>
</tr>
<tr>
<td></td>
<td>2. Was your supervisor honest in what they said to you?</td>
</tr>
<tr>
<td></td>
<td>3. Did your supervisor do anything that you thought was dishonest or improper?</td>
</tr>
<tr>
<td></td>
<td>4. Did your supervisor get the information needed to make good decisions?</td>
</tr>
<tr>
<td></td>
<td>5. Did your supervisor try to bring the issues into the open so that they could be solved?</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>1. How much consideration did your supervisor give to your views when decisions were made about how to handle the problem?</td>
</tr>
<tr>
<td></td>
<td>2. How hard did your supervisor try to be fair to you?</td>
</tr>
<tr>
<td></td>
<td>3. How hard did your supervisor try to take account of your needs in the situation?</td>
</tr>
<tr>
<td>Standing</td>
<td>1. How politely were you treated?</td>
</tr>
<tr>
<td></td>
<td>2. How much concern was shown for your rights?</td>
</tr>
</tbody>
</table>
Selecting a Procedural Justice Measure

It is apparent that procedural justice has been measured in different ways in past research. This is somewhat problematic because it can lead to confusion about selecting an appropriate measure for a particular research investigation. However, Colquitt and Shaw (2005) provided a set of guidelines for selecting an appropriate procedural justice measure. They suggested that an important consideration in selecting between a direct and an indirect measure is whether procedural justice is exogenous or endogenous in the research model and that a direct measurement approach is preferable in field studies when procedural justice is an endogenous variable. However, Colquitt and Shaw (2005) identified a few situations where one might use an indirect measure in a field study in which procedural justice is an endogenous variable. This included a situation where only a subset of the six procedural justice rules that are theoretically relevant is included in the research. For example, Schminke, Ambrose, and Cropanzano (2000) examined the role of organizational structure on employees’ perceptions of organizational justice using an indirect measure that was based on Thibaut and Walker’s (1975) process and decision control and Leventhal’s (1980) consistency rule.

When procedural justice is an exogenous variable in a research model, one might rely on either a direct or an indirect measurement approach (Colquitt & Shaw, 2005). However, an indirect measurement approach would be preferable, because indirect measures generally have higher predictive validity than direct measures (Colquitt &

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6 Exogenous variables in a research model are the variables with no causal links (arrows) leading to them from other variables in the model. That is, exogenous variables have no explicit causes within a causal path model. In contrast, endogenous variables are the variables with causal links leading to them from other variables in the model. Endogenous variables have explicit causes within a causal path model.
Shaw, 2005). Further, indirect procedural justice measures generally provide more information about managerial implications than direct procedural justice measures (Colquitt & Shaw, 2005).

Colquitt and Shaw (2005) suggested that another important consideration in selecting a procedural justice measure is the theory that drives the research investigation. Some theories require using an indirect approach whereas others require a direct approach. For example, research based on the relational models of procedural justice generally have relied on an indirect approach to measure the three relational criteria—neutrality, trustworthiness, and standing (Tyler, 1989, 1994; Tyler et al., 1996; Lind et al., 1997). In contrast, research that is driven by the fairness heuristic theory (Lind, 2001, Van den Bos et al., 2001) usually has relied on a direct approach to measure procedural justice.

**Interrelations between Distributive and Procedural Justice**

Two meta-analyses concerning organizational justice have reported an average correlation of .57 between measures of distributive justice and procedural justice (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). The magnitude of this correlation clearly indicates distributive justice and procedural justice are closely related concepts. However, past research consistently has shown that they are conceptually and empirically distinct.

It has been shown in the past research that employees develop perceptions about distributive justice and procedural justice in different ways. For example, Greenberg (1986) relied on a critical incident approach and asked a sample of middle level managers to consider a particularly fair or unfair performance evaluation on their job and to identify
the most important factors that contributed to that evaluation. Responses from those managers then were grouped by a second sample using a Q-sort procedure and cross-validated by a third sample. The seven categories of experiences that emerged from that research then were used to develop survey items to assess the importance of each category. Greenberg (1986) conducted an exploratory factor analysis with responses from a field survey and found two factors. The first was a procedural justice factor that included five items that were similar to Thibaut and Walker’s (1975) concept of process control and Leventhal’s (1980) correctability, consistency, and accuracy rules. The second factor included two items that reflected employees’ concern for equity in performance evaluation (i.e., distributive justice).

Distributive justice and procedural justice also differ from each other in terms of their antecedents. Past research has indicated that a variety of organizational outcomes influence employees’ perceptions of distributive justice. These include pay, benefits, punishments, job security, job complexity, rewards intrinsic to the job, job status, and seniority benefits (Ambrose & Arnaud, 2005). In contrast, past research has shown that opportunity to voice one’s concerns during decision-making processes is an important antecedent of procedural justice (Lind & Tyler, 1988). Past research also has demonstrated that employees’ perceptions of procedural justice are influenced by consistency, accuracy, bias suppression, correctability, and ethicality of decision makers (Ambrose & Arnaud, 2005).

The difference between these two justice dimensions was further corroborated in early procedural justice research that showed that procedural justice could explain unique variance in employees’ work attitudes after controlling for the effects of distributive
Justice (Colquitt et al., 2005). For example, Tyler and Caine (1981) examined the effects of procedural justice and distributive justice on satisfaction with leadership in four studies (two experiments and two surveys). The first two studies conducted by Tyler and Caine (1981), one using role play and the other using retrospective accounts, showed that perceptions of procedural justice had unique effects on students’ satisfaction with their teachers after controlling for the effects of distributive justice. Similarly, the last two studies (one using role play and the other based on a field survey) of this research project demonstrated that procedural justice had unique effects on satisfaction with political leaders after controlling for the effect of outcome fairness (i.e., distributive justice).

In another important study, Alexander and Ruderman (1987) examined 2800 federal government employees’ perceptions of fairness about various work policies and outcomes. This study found that federal employees’ perceptions of procedural and distributive justice were significantly related to their job satisfaction, work stress, trust in and satisfaction with leadership, and turnover intention. However, one of the key outcomes of this study was that procedural justice accounted for significantly more variance than distributive justice in all outcome variables, except for turnover intention.

Several other studies conducted in the late 1980s and early 1990s demonstrated that distributive and procedural justice differ in terms of their relationships with organizational outcomes. Folger and Konovsky (1989) surveyed employees in a manufacturing plant to assess the effects of organizational justice in the context of pay raise decisions. They found that distributive justice accounted for more unique variance than procedural justice in employees’ satisfaction with their pay. Further, procedural justice was found to have a more salient effect than distributive justice on employees’
trust in their supervisor and their organizational commitment. In another study, McFarlin and Sweeney (1992) surveyed employees of a midwestern bank and found that distributive justice was a more important predictor of employees’ pay and job satisfaction than procedural justice, whereas procedural justice was a more important predictor of employees’ satisfaction with their supervisor and their organizational commitment. In a subsequent study, Sweeney and McFarlin (1993) surveyed a sample of engineers in a public utility company to examine differential effects of procedural and distributive justice. Using structural equation modeling, they compared alternative path models with procedural justice and distributive justice predicting pay satisfaction and organizational commitment. The best-fitting and most parsimonious model found in this study was the one in which distributive justice predicted pay satisfaction, while procedural justice predicted organizational commitment.

Additionally, the two meta-analyses (Cohen-Charash & Spector, 2001; Colquitt et al., 2001) have shown that procedural justice has strong associations with global attitudes toward the organization (e.g., trust in management and organizational commitment), whereas distributive justice has strong associations with attitudes about specific outcomes (e.g., pay satisfaction). Further, both of these meta-analyses have found that employees’ task performance and interpersonal citizenship behaviors (e.g., helping behaviors toward supervisors and coworkers) are more closely related to procedural justice perceptions than they are to distributive justice perceptions (Colquitt et al., 2001; Cohen-Charash & Spector, 2001). These findings clearly have demonstrated that distributive justice and procedural justice are conceptually and empirically distinct from each other.
Chapter Summary

Although distributive justice and procedural justice are interrelated concepts, they are both conceptually and empirically distinguishable. While distributive justice is conceptualized as fairness in the allocation of rewards and resources among employees in organizations, procedural justice is defined as fairness in the formal policies and procedures used in making those allocation decisions. Research on distributive justice in organizations generally is guided by equity theory, whereas research on procedural justice mostly is guided by the social exchange theory and the social identity perspective. Distributive justice measures generally focus on equity in the allocation of work-related rewards and resources among employees. Organizational researchers often rely on an indirect approach to measure procedural justice in the workplace. Further, indirect procedural justice measures typically focus on employees’ perceptions of accuracy, consistency, impartiality, correctability, representativeness and ethicality of procedures used in making decisions about reward and resource allocations in organizations.
Chapter Three: Research Framework

This chapter presents the conceptual framework used in this dissertation to examine how professional employees’ procedural and distributive justice experiences may influence their job involvement and turnover intention in government agencies. It provides a detailed overview of organizational identification and job involvement constructs. It also discusses the importance of organizational identification as a mediator in the relationship between professional employees’ perceptions of organizational justice and their job involvement and turnover intention. Finally, this chapter presents seven research hypotheses that were empirically tested in this dissertation.

A Social Identity-based Explanation of the Effects of Organizational Justice

A key question that this research tried to address is whether perceptions of distributive and procedural justice motivate professional employees to get more involved in their jobs and influence them to remain in their current organization. This study also tried to clarify the underlying process through which organizational justice perceptions might influence professional employees’ job involvement and turnover intention in a public agency setting. There are two competing theoretical perspectives that provide insights about how to address these research questions. The first perspective is based on social exchange theory (Blau, 1964), whereas the second one is based on social identity theory (Tajfel & Turner, 1979, 1986).

Social exchange theory suggests that individuals interact with others in a group with the goal of obtaining valuable resources (both material and social), and their cooperative attitudes and behaviors toward the group largely are shaped by the resources
that they gain from the group (Blau, 1964). According to this perspective, employees value fair treatment because it reduces uncertainty and provides predictability about the resources that they expect to receive from their organization. Further, this perspective asserts that fair treatment helps employees to develop high quality exchange relations with their organization (Lavelle, Rupp, & Brockner, 2007; Rupp & Cropanzano, 2002). Additionally, when employees develop positive exchange relations with their employing organization, they feel a sense of obligation to reciprocate and, consequently, engage in behaviors that are beneficial for the organization (Lavelle et al., 2007). From this perspective, perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986) is argued to be a key mediator of the relationship between perceptions of organizational justice and employees’ work attitudes and behaviors. This social exchange-based organizational justice model has received some empirical support in past research (Masterson, Lewis, Goldman, & Taylor, 2000; Moorman & Niehoff, 1998; Rupp & Cropanzano, 2002).

An alternative and perhaps more plausible explanation for the effects of organizational justice on employees’ work attitudes and behaviors is provided by the group-oriented organizational justice theories such as the group value model (Lind & Tyler, 1988), the relational model of authority (Tyler & Lind, 1992) and the more recent group engagement model (Blader & Tyler, 2003a; Tyler & Blader, 2000). As discussed in the previous chapter, these theoretical perspectives are rooted in the social identity perspective (Tajfel & Turner, 1979, 1986). They suggest that individuals enact group norms and help the group to achieve its collective goals through cooperative behaviors because the group is an important source of their social identity (Tyler & Blader, 2000,
2003). In addition, these theories assert that employees value fairness in the workplace because fair treatment conveys information that is important for them to create and maintain a positive social identity (Tyler & Blader, 2000, 2003). The group-oriented organizational justice theories argue that social exchange-based organizational justice models provide an incomplete view about why employees value fairness in organizations. Further, these theories argue that a concern for resources is only one of several reasons why individuals might engage in cooperative behaviors in groups and that often is a weaker form of motivation than enhancing self-esteem and maintaining a positive social identity (Tyler & Blader, 2000, 2003). Organizational identification from this perspective is the key mediator of the relationship between employees’ perceptions of organizational justice and their cooperative work attitudes and behaviors (Blader & Tyler, 2009). Recent research also has provided some empirical support for the social identity-based organizational justice model (see, for example, Olkonnen, & Lipponen, 2006; Tyler & Blader, 2000; Blader & Tyler, 2009; Walumbwa, Cropanzano, & Hartnell, 2009).

This research was guided largely by the group-oriented organizational justice theories because they provide a more comprehensive explanation of why and how professional employees’ perceptions of distributive justice and procedural justice might increase their job involvement and reduce their turnover intention in public organizations. Therefore, this study examined whether organizational identification mediates the effects of distributive justice and procedural justice on professional employees’ job involvement and turnover intention in a public sector setting.
What is Organizational Identification?

Organizational identification has been defined in many ways (Ashforth, Harrison, & Corley, 2008; Edwards, 2005; Riketta, 2005). Of the various definitions, one that frequently is mentioned in the current literature conceptualizes organizational identification as the perception of oneness with or belongingness to the organization, where individuals define themselves in terms of the organization of which they are a member (Ashforth & Mael, 1989). This definition has roots in the social identity perspective, which comprises theories of social identity (Tajfel, 1978; Tajfel & Turner, 1979, 1986) and self-categorization (Turner, 1985). Further, this definition differs substantially from earlier work (Brown, 1969; Hall, Schneider, & Nygren, 1970; O'Reilly & Chatman, 1986; Patchen, 1970) that had a relatively broad view of organizational identification and included concepts such as loyalty, solidarity, value congruence, goal congruence, a sense of belongingness, and identity-consistent behaviors.

The Social Identity Perspective

Research on organizational identification for the past two decades predominantly has been based on the social identity perspective (Tajfel, 1978; Tajfel & Turner, 1979, 1986). According to this perspective, the self-concept consists of two components: 1) a personal identity based on personality, individual traits, abilities and characteristics and 2) a number of social identities that are derived from individuals’ memberships in different social groups (Ashforth & Mael, 1989). Research on organizational identification primarily is concerned with the social rather than personal aspects of an
individual’s identity (Hogg, 2003; Hogg & Terry, 2001; Kreiner, Hollensbe, & Sheep, 2006; Pratt, 1998).

The social identity perspective suggests that a society comprises a set of discrete social groups (e.g., based on nationality, race, ethnicity, religion, work, and occupation) with different power and status relations with one another, and that individuals largely derive their social identity from the groups to which they belong (Tajfel & Turner, 1979). According to the social identity perspective, social identity is defined as “the individual’s knowledge that he belongs to certain social groups together with some emotional and value significance to him of the group membership” (Tajfel, 1972: 292). Further, identification is a socio-cognitive process (Hogg & Terry, 2001) through which individuals categorize themselves and others as members of particular groups because they need to simplify and make sense of the complex social world (Tajfel & Turner, 1979, 1986). Social categorization provides individuals with a means to clarify who they are (Turner, 1982, 1985) and, subsequently, guide their interactions, attitudes, and behavior towards members of their own and other groups (Hogg & Terry, 2001). Further, social identification is relational and comparative in nature—individuals often regard themselves in terms of their similarities with other members of their own group and differences from members of other groups (Tajfel & Turner, 1986).

The social identity perspective argues that the primary motive for individuals to identify with particular groups is to enhance their self-esteem (Tajfel & Turner, 1979). More specifically, the social identity perspective asserts that individuals have a strong need for a positive self-image and that they often try to enhance their self-image by identifying with particular groups that they feel serve a source for positive self-regard
(Hogg & Turner, 1985; Tajfel, 1978). Once individuals identify with a particular group, they often try to maintain positive social identity by comparing their in-group with out-groups on some value dimensions (Haslam & Ellemers, 2005). While making inter-group comparisons, individuals tend to accentuate or maximize inter-group differences on as many dimensions as possible (Hogg & Abrams, 1988). Further, individuals generally accentuate inter-group differences on dimensions that reflect favorably upon them (Turner, 1985). This selective differentiation increases positive distinctiveness of the in-group in comparison with the out-groups and provides individuals with a sense of enhanced self-worth and self-esteem (Hogg & Abrams, 1988). In addition, when identification with a group is strong, individuals tend to conform to that group’s norms and may even develop a negatively biased view of members of the out-group (e.g., in-group favoritism and stereotyping) in an effort to maintain a positive social identity. Strong identification also may lead to inter-group competition and, in certain situations, to inter-group conflict, even in the absence of incongruous values and goals (Tajfel & Turner, 1979, 1986).

In addition to self-enhancement, identification with a group assists individuals in maintaining a consistent view about themselves (Ashforth et al., 2008). Identification also helps individuals to fulfill some basic needs such as need for affiliation and psychological safety (Pratt, 1998). Further, identification reduces uncertainty about the social world (Hogg & Terry, 2000). Specifically, by enacting norms that are prototypical of the groups to which they belong, individuals can easily interact with others in unfamiliar and ambiguous situations (Hogg, 2000; Hogg & Terry, 2000). Hence, the process of identification creates a sense of order in individuals’ minds about the complex social
world and helps them to answer the question of “who they are” and to find their place in the society (Berger & Luckmann, 1971).

**Organization as a Source of Social Identity**

Past research has shown that an organization can be a primary source of an individual’s social identity (Hogg & Terry, 2001). Further, organizational identification has important implications for both employees and the organizations in which they work. For instance, identification with an organization helps individuals to maintain a consistent self-concept and enhance their collective self-esteem (Ashforth et al., 2008; Dutton, Dukerich, & Harquail, 1994). Additionally, when employees identify strongly with their organization, the differences between their personal identity and their organizational identity become blurred. Consequently, employees assimilate into their self-concepts the distinctive, central, and enduring attributes that define their organization (Dutton et al., 1994). Employees feel the successes and failures of their organization as their own, and they engage in behaviors that help the organization to achieve its goals (Ashforth & Mael, 1989; Ashforth et al., 2008). Past research also has shown that organizational identification is closely related to employees’ in-role and extra-role behaviors in organizations (see, for example, work by Rikketta, 2005).

**Situated versus Deep Structure Organizational Identification**

Organizational identification can take several forms. Rousseau (1998) identified two types: situated identification and deep structure identification. Situated identification is a sense of being part of a larger organizational entity. Rousseau (1998) noted that situational identification occurs when cues encourage a perception of shared interests
between individuals and the organization (“we” rather than “I”) and when these individuals perceive that their efforts make some sort of contribution to the organization. Rousseau (1998) termed this as an elemental form of identification and suggested that it can occur rather quickly. Situated identification is commonly captured in laboratory settings where situational cues induce temporary identification with social categories, but it dissipates as soon as the experiment ends (Ashforth et al., 2008). Deep structure identification has a more stable quality and greater impact on individuals than situated identification (Rousseau, 1998). Deep structure identification results in an enduring cognitive schema whereby employees’ relationship with their organization alters their view of themselves. Deep structure identification is grounded in a myriad of experiences that individuals have in their organizational life (Ashforth et al., 2008). In contemporary work settings, there are many barriers to deep structure identification. For example, lower tenure and frequent changes in an organization’s mission, goals, and reward systems can prevent employees from experiencing this depth of attachment (Rousseau, 1998).

**Dimensions of Organizational Identification**

Organizational identification is a multidimensional construct that consists of a cognitive and an evaluative component. This view is consistent with the core arguments put forward in social identity theory. For example, Tajfel (1982: 2) noted: “The two necessary components (of identification) are: a cognitive one, in the sense of awareness of membership; and an evaluative one, in the sense that this awareness is related to some value connotations.” The cognitive component captures the extent to which individuals’ organizational membership is self-defining and how they see themselves in relation to the
organization (Ashforth et al., 2008). In addition, the evaluative component encompasses the value that individuals attach to their organizational membership (Ashforth et al., 2008). Specifically, the evaluative component indicates the significance of organizational identification in terms of what individuals think and feel about their organizational membership (e.g., pride versus shame). It also is closely associated with individuals’ emotional reactions to their organizational membership; these emotional reactions can be both positive and negative (Dutton & Dukerich, 1991).

Much of past research on organizational identification focused on the effects of its cognitive component on employees’ work attitudes and behaviors. The evaluative component of organizational identification has received only limited attention in previous research (Blader & Tyler, 2009). However, this is quite surprising given that the impact of individuals’ social identity on their attitudes and behavior largely is determined by the extent to which that identity fosters personal and collective self-esteem and contributes positively to their self-image (Ashforth & Mael, 1989; Haslam, Powell, & Turner, 2000; Hogg & Abrams, 1990; Tajfel & Turner, 1979). Previous research also demonstrated that evaluation of a group’s status and social standing is directly linked to personal and collective self-esteem (Ellemers, Kortekaas, & Ouwerkerk, 1999; Smith & Tyler, 1997). Focusing on the evaluative component, therefore, appears critical for a better understanding of the impact of organizational identification on employees’ work attitudes and behaviors (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Blader & Tyler, 2009; Dutton et al., 1994).

This study focused on the role of the evaluative component of organizational identification—pride in organizational membership—in the relation between professional
employees’ perceptions of distributive justice and procedural justice and their job involvement and turnover intention. Pride in organizational membership refers to employees’ evaluation of the general worth and status of their employing organization (Blader & Tyler, 2009). Pride in group membership has roots in the social identity perspective (Tajfel, 1978, 1982). It is an intergroup evaluative judgment that directly captures the evaluative aspect of group identification (Blader & Tyler, 2009). While making such judgments, employees focus on their feelings about the prototypical norms and values that define their organization (Tyler, 2001). More specifically, employees pay attention to the values, beliefs and goals that they perceive as commonly held by themselves and their organization.

**Linkage between Organizational Identification and Organizational Commitment**

Although organizational identification appears similar to organizational commitment, they are conceptually distinct constructs. Allen and Meyer (1991) defined organizational commitment as individuals’ identification with, involvement in, and emotional attachment to their organization. From this definition, it may appear that organizational identification is part of organizational commitment. However, the former is rooted in employees’ definition of their self-concept whereas the latter is not (Ashforth et al., 2008; Ashforth & Mael, 1989). Another key difference between the two constructs is that the cognitive basis of organizational identification is not an essential element of organizational commitment. For example, Pratt (1998:178) noted: “Organizational commitment is often associated with, how happy or satisfied am I with my organization?
Organizational identification, by contrast, is concerned with the question: How do I perceive myself in relation to my organization?"

While organizational identification is rooted in social identity theory and self-categorization theory, organizational commitment is rooted in social exchange theory. Recently, van Knippenberg and Sleebos (2006) examined the differences between organizational commitment and identification in terms of their linkage with perceived organizational support. Their analysis was based on a key conceptual difference—“self-definition versus social exchange”—between the two constructs suggested by Ashforth and Mael (1989). Van Knippenberg and Sleebos (2006) suggested that social exchange theory suggests that employees usually perceive themselves and the organization as psychologically separate entities, whereas identification implies that employees and the organization are one in the sense that the organization is incorporated in employees’ self-concept. Further, Van Knippenberg and Sleebos (2006) argued that organizational commitment hinges more than organizational identification on perceptions of the quality of the exchange relationship between employees and the organization and, therefore, perceived organizational support is expected to be more closely related to organizational commitment. While controlling organizational identification, organizational commitment was found to be positively related to perceived organizational support and job satisfaction whereas organizational identification was not related to these variables when controlling for organizational commitment. This finding provided some empirical support for the theoretical differences between the two constructs.

Another key difference between the two constructs is that organizational identification can lead to both positive and negative emotional experiences, whereas
organizational commitment largely results in positive emotional experiences (Ashforth et al., 2008; Dutton et al., 1994; Pratt, 1998). For example, in a study of organizational identification, Dutton and Dukerich (1991) found that, when media criticized the Port Authority’s image as a compassionate and humane organization, its members felt anger, frustration, and disappointment. In another recent study, Herrbach (2006) investigated the relationship between organizational commitment and identification and self-reported affect (i.e., behavioral inhibition and activation traits; positive and negative affective states). Through a longitudinal survey of engineers, Herrbach (2006) found that affective commitment was related to positive affect when controlling for affective traits and organizational identification. Further, this study found that organizational identification was related to negative affect when controlling for affective traits and commitment; however, the significant positive correlation between identification and positive affect disappeared when controlling for affective commitment.

Riketta (2005) conducted a comprehensive meta-analysis of organizational identification. The mean correlation between measures of organizational identification and organizational commitment found in this study was .78. Even though this indicates a large overlap between the two constructs (i.e., 61% of the variation in one construct can be explained by the other), organizational identification may have some uniqueness that is not measured by organizational commitment. Confirmatory factor analysis results from a number of recent past studies (Cole & Bruch, 2006; Gautam, van Dick, & Wagner, 2004; Herrbach, 2006; Mael & Tetrick, 1992; Van Knippenberg & Sleebos, 2006) showed that organizational identification and commitment are empirically separable
constructs, although the degree to which they are distinct partly depends on the particular measure being employed.

To summarize, organizational identification pertains to individuals defining themselves in terms of their membership with a particular organization, whereas organizational commitment is the extent of individuals’ association with an organization or to a course of action relevant to the benefit of that organization (Meyer, Becker, & Van Dick, 2006). Of course, both identification with and commitment to organizations are experienced as psychological states. For organizational identification, this psychological state includes an awareness of individuals’ shared characteristics with the organizations, an evaluation of these shared characteristics, and positive and/or negative feelings about their membership in the organization. For organizational commitment, this psychological state reflects the terms (e.g., maintaining organizational membership or working for the benefits of the organization) and bases (e.g., desire or obligation or perceived costs) of commitment (Meyer et al., 2006).

What is Job Involvement?

An important objective of this study was to examine whether professional employees’ perceptions of procedural and distributive justice positively influence their job involvement and whether organizational identification mediates the effects of procedural and distributive justice on professional employee’ job involvement. This research focused on the role of organizational justice on professional employees’ job involvement because it is an important factor in employees’ personal growth and satisfaction in their workplace (Brown, 1996). Further, increasing employees’ job
involvement in public agencies also is important because it may have a positive impact on organizational effectiveness by fully involving employees in their work and by making work a meaningful and fulfilling experience (Lawler, 1992; Pfeffer, 1994). Additionally, past research has shown that job involvement is an important predictor of employees’ in-role and extra-role performance (Diefendorff et al., 2002).

Lodahl and Kejner (1965) first introduced job involvement as an important work attitude more than 40 years ago. Since then, job involvement has been conceptualized in many ways over the years (Kanungo, 1982a, 1982b; Lawler & Hall, 1970; Paullay et al., 1994; Rabinowitz & Hall, 1977; Saleh & Hosek, 1976). Although a complete review of the job involvement literature is beyond the scope of this study, it is important to provide a precise conceptualization of this construct for the purpose of this research. Paullay and others (1994) conducted a critical review of the literature, identified inconsistencies in past conceptualizations and provided a clear definition of job involvement. They conceptualized job involvement as the degree to which individuals are cognitively preoccupied with, engaged in, and concerned with their present job (Paullay et al., 1994: 224). Fundamentally, job involvement is a cognitive state or belief about individuals’ psychological connection with their present job (Lawler & Hall, 1970). Job involvement is a multidimensional construct that consists of two components: the degree to which individuals (1) are involved in specific tasks that make up their jobs, and (2) find carrying out those tasks in their present job environment as engaging (Paullay et al., 1994). Both of these components are necessary for individuals to experience a high level of involvement in their present job.
Job involvement is both conceptually and empirically distinct from work centrality, which refers to the extent to which individuals view work as the main component of their life (Diefendorff et al., 2002). Work centrality is conceptually broader in scope than job involvement, as it reflects a belief about the importance of work in general in individuals’ lives as opposed to how immersed individuals are in their jobs in their present work setting. Additionally, job involvement is not the cognitive component of job satisfaction. Job involvement and job satisfaction are both conceptually and empirically distinguishable (Mathieu & Farr, 1991). Further, in a recent meta-analysis, Cooper-Hakim and Viswesvaran (2005) reported only a moderate correlation between job involvement and job satisfaction ($r = .28$).

**Research Hypotheses**

The anticipated patterns of relationships among the five variables in this study are shown in Figure 3.1. This study expected that professional employees’ perceptions of procedural justice would have a positive effect on their identification with their organization. According to the group-oriented organizational justice theories (Lind & Tyler, 1988; Tyler & Lind, 1992; Tyler & Blader, 2000, 2003), an important basis of employees’ evaluation of the status of their organizational membership is likely to be their perceptions of fairness in the policies and procedures used in making decisions within their organizations. The group-oriented organizational justice theories suggest that procedural justice provides individuals with feedback on which they rely to determine the nature of their relationship with their organization (Blader & Tyler, 2003a; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992). This feedback specifically indicates
Figure 3.1. Research Framework

- Procedural Justice
- Distributive Justice
- Organizational Identification
  - H1
  - H2
  - H5-H6
- Job Involvement
  - H3
- Turnover Intention
  - H4
  - H7
individuals’ social status and standing within the organization and whether they can
develop and maintain satisfying social identity based on their organizational membership
(Blader & Tyler, 2003a; Tyler & Blader, 2000). From this perspective, professional
employees’ pride in their organizational membership is expected to flow directly from
their perceptions of procedural justice. Past research also provided some empirical
support for this argument (Blader & Tyler, 2009; Tyler & Blader, 2000; Tyler & Degoey,
1995b); however, these studies did not focus on employees in a public sector setting. This
study, therefore, examined the following hypothesis:

**Hypothesis 1:** Procedural justice will have a positive effect on professional
employees’ organizational identification.

Another important basis of employees’ evaluation of the status of their
organizational membership is their perception of the extent to which work-related
rewards are allocated fairly in their organization (Blader & Tyler, 2009). Employees
generally expect that distribution of work-related rewards will be proportional to their
work efforts (Adams, 1963, 1965; Homans, 1958, 1961). Further, it is widely
acknowledged that equity in the allocation of rewards and resources is an important
source of employees’ work motivation (see, for example, work by Greenberg, 1982;
Latham & Pinder, 2005). However, there also is a growing body of research that indicates
that rewards and resources have symbolic value beyond their instrumental effects
(Furnham & Argyle, 1998; Jenkins, Mitra, Gupta, & Shaw, 1998; Porter, Bigley, &
Steers, 1996). The group engagement model suggests that distributive justice provides
information similar to that conveyed through procedural justice (Tyler & Blader, 2000,
2003). That is, equity in the allocation of organizational rewards and resources indicates to employees whether they can safely make identity-related investments in their organization (Blader & Tyler, 2009). Hence, distributive justice is likely to have a positive effect on professional employees’ organizational identification. Two recent field studies also demonstrated that distributive justice is positively related to organizational identification (Blader & Tyler, 2009; Olkkonen & Lipponen, 2006). Following the group engagement model and results of these two field studies, the present study examined the following hypothesis:

**Hypothesis 2:** Distributive justice will have a positive effect on professional employees’ organizational identification.

The present study anticipated that professional employees’ identification with their organization will have a positive influence on their involvement in their current jobs (see Figure 3.1). This hypothesis was formulated based on the assertions made from the social identity perspective. The social identity perspective suggests that, when individuals’ make status judgments about their group membership, they focus on their feelings about the prototypical characteristics that define that group (Tajfel, 1978, 1982). Further, positive evaluation of group membership increases individuals’ collective self-esteem and contributes positively to their self-concept (Ellemers et al., 1999; Smith & Tyler, 1997). Positive assessment of group membership, therefore, is likely to result in the blurring of differences between individuals’ personal and group identities (Hogg & Terry, 2001). Hence, pride in organizational membership may lead employees to act in prototypical ways, that is, in accordance with the group’s values, beliefs, norms and goals (Hogg & Terry, 2001). Following this perspective, one might argue that, when employees take pride in their
organizational membership, they are likely to internalize the goals and values of their organization as their own which, in turn, may motivate them to get more involved in this jobs (Daan Van Knippenberg, 2000). Experimental research has indicated that salience of group identification often induces members to view the group’s interests as their own and motivates them to exert effort on behalf of the group (Worchel, Rothgerberger, Day, Hart, & Butemeyer, 1998). Further, a recent meta-analysis study (Riketta, 2005) reported a moderate correlation \( (r = 0.61) \) between organizational identification and job involvement based on 16 previous studies. However, these studies focused primarily on the cognitive rather than the evaluative component of organizational identification. The present study, therefore, assessed whether professional employees’ pride in their organizational membership leads to higher levels of job involvement.

**Hypothesis 3:** Organizational identification will have a positive effect on professional employees’ job involvement.

The present study anticipated that professional employees’ pride in their organizational membership will influence them to remain in their current organizations. This proposition is based on core arguments put forward in social identity theory (Tajfel & Tuner, 1979, 1986). The social identity perspective suggests that identification is a socio-cognitive process in which individuals evaluate the status of their own group by comparing it with other groups on several value dimensions (Tajfel & Tuner, 1979, 1986). Favorable comparisons between the in-group and out-groups provide in-group members with a sense of prestige and positive social identity. In contrast, unfavorable comparisons between the in-group and out-groups provide in-group members with a sense of low prestige and negative social identity. Additionally, the social identity
perspective suggests that enhancing self-esteem is a fundamental human motivation (Hogg & Abrams, 1988; Tajfel & Turner, 1979, 1986; Turner, 1985). The need for positive self-esteem motivates individuals to enhance the image of their own group in comparison with other groups (Tajfel & Turner, 1979, 1986). Further, when a group lacks a positive image, its members might attempt to disassociate themselves cognitively from that group and seek membership in a higher status group. They also might adopt creative strategies to restore a positive group identity (Tajfel & Turner, 1979, 1986). From this perspective, when membership in an organization helps employees to develop and maintain a positive social identity, they are less likely to disassociate themselves from that organization. Therefore, an increase in organizational identification should lead to a decrease in turnover intention.

A number of previous studies have found empirical support for organizational identification as negatively associated with turnover intention (Abrams, Ando, & Hinkle, 1998; Mael & Ashforth, 1995; Moura, Abrams, Retter, Gunnersdottir, & Ando, 2009; Olkkonen & Lipponen, 2006). However, these studies primarily focused on the cognitive rather than the evaluative aspect of organizational identification. The evaluative aspect of organizational identification might be shown to have a stronger relationship with turnover intention than the cognitive aspect of organizational identification, because positive/negative group evaluation is closely related to individuals’ self-enhancement motive. Therefore, the following hypothesis was tested in this research:

**Hypothesis 4:** Organizational identification will have a negative effect on professional employees’ turnover intention.
As discussed earlier, group-oriented organizational justice theories suggest that employees’ cooperative attitudes and behaviors in workplace are greatly influenced by their identification with the organization (Tyler & Blader, 2000, 2003). Further, employees develop identification with their organization with feedback about the extent to which their work efforts are valued by their organization and their social status and standing in the organization (Tyler & Blader, 2000, 2003). Further, this identity-relevant information is hypothesized to originate from employees’ evaluations of procedural and distributive justice experienced in the organization (Tyler & Blader, 2000, 2003). Based on these assertions, this study anticipated that the effects of distributive justice and procedural justice on professional employees’ job involvement and turnover intention would be mediated by their pride in organizational membership. These relationships have not been thoroughly examined in previous research. In a recent study, Olkonnen and Lipponen (2006) surveyed 270 professional employees working in a Finish research institute and found the only existing empirical support for the mediating role of organizational identification in the relationship between organizational justice perceptions and turnover intention. Additionally, previous research has paid little attention to the role of procedural and distributive justice on professional employees’ job involvement. Neither has the role of organizational identification as a mediator in the relationship between perceptions of organizational justice and job involvement been investigated in previous research.

**Hypothesis 5**: The effects of procedural justice on professional employees’ job involvement and turnover intention will be mediated by their organizational identification.
**Hypothesis 6:** The effects of distributive justice on professional employees’ job involvement and turnover intention will be mediated by their organizational identification.

The final hypothesis that this study examined concerns the effect of job involvement on turnover intention. When employees in an organization find their work important, meaningful and intrinsically rewarding, they generally become highly engaged in their work. Additionally, when employees feel that they are highly engaged in their job, they are more likely to stay in that job and in that organization. Past research also consistently found a moderate relationship between job involvement and turnover intention. A meta-analysis of job involvement by Brown (1996) reported a significant correlation between job involvement and actual turnover, as well as between job involvement and turnover intention. Given these results, a similar pattern of connection was expected in the present study:

**Hypothesis 7:** Professional employees’ job involvement will have a negative effect on their turnover intention.

**Chapter Summary**

This chapter has asserted that the social identity perspective provides a powerful lens to understand the underlying psychological process through which professional employees’ perceptions of procedural and distributive justice may influence their job involvement and turnover intention in government. It provided a detailed review of the social identity perspective, as well as discussed the importance of organizational identification as a mediating variable in the relationship between professional employees’
perceptions of organizational justice and their job involvement and turnover intention. An overview of job involvement also was provided. Finally, based on the social identity perspective and the group engagement model, this chapter presented seven explicit research hypotheses that were empirically tested in the present study.
Chapter Four: Research Method

This chapter presents the research method that this study relied upon to test the seven hypotheses outlined in Chapter Three. The discussion of this chapter is organized in three parts. First, the study sample and the procedures are presented. Second, the measures that were used to test the research hypotheses of this study are reviewed. Finally, a brief discussion about the strategy that was used to analyze the data is offered.

Study Design and Sample

The seven hypotheses that are presented in Chapter Three were tested using data gathered from an organizational survey of all employees in geographically dispersed offices of a New York State government agency. Data were gathered through the design and use of a unique, eight-page survey to a population of 2614 employees in 2008. This survey was conducted as part of a long-term research project undertaken by the state agency with the goals of assessing and improving its work climate and increasing employees’ organizational identification and reducing turnover. Responsibility for internal distribution and collection of surveys was assigned to division managers of the state agency. Altogether, 2136 usable surveys were returned for an overall response rate of 82 percent; response rates by division ranged from a low of 70 percent to a high of 100 percent.

Because this study focused on the effects of professional employees’ perceptions of distributive and procedural justice on their organizational identification, job involvement, and turnover intention, only employees belonging to occupational groups classified as professional were included in the analysis. This included respondents who
identified themselves as technical and managerial employees and were at and above the salary grade 18 and below salary grade 27.\textsuperscript{7} Using these criteria, data from 764 professional employees were included in the analysis. The professional employees in this agency primarily were auditors, accountants, lawyers, and information technology specialists.

**Study Measures**

Respondents completed a 130-item survey designed in large part to examine employees’ perceptions of their work climate, job characteristics, and work attitudes. The survey included items to assess employees’ perceptions of distributive and procedural justice, as well as their organizational identification, job involvement and turnover intention. In addition to the variables that were relevant for the present study, data were collected for other agency, office and individual-level variables, the analysis of which is beyond the scope of this study. Most of the survey items were measured on a six-point (coded 1-6) strength of agreement (strongly disagree, generally disagree, disagree a little, agree a little, generally agree, and strongly agree) or a five-point (coded 0–4) frequency of occurrence (almost never/never, rarely, sometimes, often, and almost always/always) scale except for the items for distributive justice, which are discussed below.

**Distributive Justice**

The organizational survey included three items that specifically focused on perceptions of equity in the distribution of work-related rewards among the agency employees.

\textsuperscript{7} Employees at the salary grade level 27 and above in New York State agencies are considered to be senior managers/executives and were not included in the data analysis.
employees. These three items were measured on a six-point (coded 0-5) level of fairness scale (not fair at all to very fair). These three items were: “How fair and equitable do you consider career opportunities to be?”; “How fair and equitable do you consider training opportunities to be?”; and “How fair and equitable do you consider promotion examinations to be?”.

**Procedural Justice**

Following the guidelines provided by Colquitt and Shaw (2005) about selecting an appropriate measure for procedural justice, this study depended on an indirect approach to measure procedural justice. As mentioned in Chapter Two, items of an indirect measure do not explicitly focus on the fairness of a particular procedure (e.g., performance evaluation); instead, such items focus on one or more determinants of procedural justice, such as the Leventhal’s (1980) procedural justice rules. Six items of the organizational survey were used in this study to assess employees’ perceptions of procedural justice. These six items correspond with three of Leventhal’s (1980) six procedural justice rules: representation (i.e., voice opportunity), bias suppression, and ethicality. The two items of the survey that focused employees’ opportunity to voice their concerns (i.e., representation rule) in decision-making processes were: “Important decisions are made top-down without any consultation” (reverse coded); “Employees are encouraged to raise issues and concerns at work.” The two items of the survey that focused on bias suppression in decision-making processes were: “Personnel decisions are

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8 Psychometric properties of the five study measures including their reliabilities and validities are provided in detail in Chapter Five.
influenced by factors like ethnicity, age, or gender of employees” (reverse coded); “Assignments are given on the basis of favoritism without regard to merit” (reverse coded). Finally, the two items of the survey that focused on ethicality in decision-making processes were: “Employees are treated fairly in this organization”; and “Upper level managers are courteous and considerate of employees.”

**Organizational Identification**

The present study focused on the role of the evaluative component of organizational identification as a mediator in the relationship between employees’ perceptions of organizational justice and their job involvement and turnover intention. Three items of the organizational survey specifically were designed to assess the evaluative component of employees’ organizational identification (i.e., pride in organizational membership). These three items are similar to items previously used by Tyler and Blader (2000) to measure pride in group membership. These three items were: “I am proud to tell others that I am part of this organization”; “I am embarrassed to say that I work in this organization” (reverse coded); and “I speak positively about this organization to outsiders.”

**Job Involvement**

Three items of the organizational survey were used in this study to measure employees’ job involvement. These three items primarily focused on the degree to which employees’ are engaged in their jobs, or find carrying out their jobs in the present work environment as engaging (Paullay et al., 1994). Recently, Shim and Rohrbaugh (forthcoming) and Ward and Park (2009) have used similar items to measure employees’
job involvement in public sector settings. These three items of the organizational survey were: “It is hard for me to get involved in my current job” (reverse coded); “Time seems to drag while I am on the job” (reverse coded); and “At the end of the day, I feel good about the work that I do here.”

**Turnover Intention**

Three items of the organizational survey were used in this study to measure employees’ turnover intention. These three items are similar to items previously used by Sager, Griffeth, and Hom (1998) to assess employees’ turnover intention. These three items were: “I would quit this organization tomorrow if it were possible”; “I plan to be working here three years from now” (reverse coded); and “I think about getting a different job outside this organization.”

**Control Variables**

In addition to the measurement of the variables suggested in the research model in Figure 3.1, certain demographic variables were included as controls in this study. Respondents of the agency survey were asked to indicate their gender, age, ethnicity, and their tenure in government, in their current agency, and in their current position.

**Data Analysis Strategy**

**Structural Equation Modeling**

The hypothesized relationships suggested among the study variables in Figure 3.1 were tested using structural equation modeling with AMOS 7.0. Structural equation modeling (SEM), also known as covariance analysis, is a powerful statistical technique
that subsumes traditional regression analysis, confirmatory factor analysis, and path analysis models and provides a way to specify and test causal relationships among latent factors (Kline, 1988). SEM examines the extent to which causal relationships predicted by a theoretical model are consistent with observed data. This typically is accomplished by comparing the implied covariance structure of the proposed causal model with the actual covariance structure of the observed data. Fit of the proposed causal model then is evaluated on the basis of how closely the implied and observed covariance structures align with one another.

The present study relied on SEM because it offers a number of advantages over traditional regression analysis to test the hypothesized relationships among the study variables. A key benefit of using SEM is that it allows the simultaneous analysis of causal relationships among latent factors that incorporates information about their measurement. Another important benefit is that SEM allows the testing of overall fit of a hypothesized causal model (e.g., the model shown in Figure 3.1) and the comparison of the fit statistics with the fit statistics of alternative structural models. It is superior to other methods at correcting for measurement errors, which increases the overall validity of a study’s findings (Schumacker & Lomax, 2004) and is useful for addressing issues of convergent and discriminant validity of the measures used in a study (Kline, 1998).

SEM generally involves two steps (Kline, 1998). In the first step, a theoretically-driven measurement model that specifies the relationship between observed and latent variables is developed. In the second step, this measurement model is combined with the structural model that specifies the causal relationships among the latent factors. Once this
is accomplished, the SEM allows researchers to test the fit of their causal model against alternative causal models.

A variety of summary statistics have been proposed over the years to assess the extent to which the implied and observed covariance structures align with one another (Hu & Bentler, 1995; Schumacker & Lomax, 2004). These can be classified into three different groups: absolute fit, parsimony fit, and relative fit indices. Absolute fit indices compare the implied and observed covariance matrices without regard to the number of paths in the model. Absolute fit indices are commonly used to assess fit of structural equation models; however, model fit associated with such indices can be improved by adding additional paths until the point at which a perfect fit is guaranteed. To solve this problem, parsimony fit indices include a penalty function for lack of parsimony as additional paths are added to the model. In addition, the relative fit indices compare fit of one model relative to another model. For example, the comparative fit index, one of the most commonly used relative fit indices, estimates how much better the hypothesized model is in comparison with the null model, which assumes that all of the variables are uncorrelated.

The current SEM literature recommends using multiple fit indices to assess the fit of the measurement and structural models (Hu & Bentler, 1995; Schumacker & Lomax, 2004). Following this guideline, this study relied on one measure of absolute fit—the chi-square test, one measure of parsimony fit—the root mean square error of approximation (RMSEA), and two measures of relative fit—the comparative fit index (CFI) and the non-normed fit index (NNFI/TLI). The chi-square statistic assesses the magnitude of discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1999).
RMSEA is an estimate of the discrepancy between the model and the data adjusting for degrees of freedom. The two relative fit indices—CFI and NNFI—measure the proportionate improvement in fit by comparing a target model with a more restricted, nested baseline model (Hu & Bentler, 1999).

**Missing Data Adjustment**

To assess the fit of the measurement and structural models, it is necessary to examine fit statistics. Many of these fit indices require complete data sets without missing information (e.g., SRMR). It often is difficult to meet this requirement in organizational research, especially when survey data are collected from respondents who may be unwilling or unable to respond to certain items (Schafer & Olsen, 1998). Also, respondents may be unable to complete sections of a survey due to lack of time or interest (Schafer & Olsen, 1998). When missing data are present, there are two alternatives available to researchers: delete all cases with missing values or replace missing values. Past research suggests that deleting all cases with missing values may introduce bias in results, especially when respondents who provide complete data are not representative of the entire sample (Bollen, 1989; Brown, 2005; Kelloway, 1998; Rubin, 1987). Therefore, it generally is preferable to replace missing values.

To replace missing data, this study relied on a case-by-case imputation method in which missing data for an item were replaced with the mean of the remaining items in the scale (Schafer & Graham, 2002). Although averaging available items may cause a slight underestimation of variances, it appeared to be a reasonable choice because all five study
measures had adequate reliability (Schafer & Graham, 2002). Before proceeding to analyses, data were screened to identify cases with missing values for one or more items. A total of 128 such cases were identified. For the four three-item measures (i.e., distributive justice, organizational identification, job involvement, and turnover intention), the missing value for a single item was replaced with the mean of the remaining two items and, when values for two or more items were missing, that case was not included in subsequent analysis. Additionally, for the six-item procedural justice measure, the missing value for a single item was replaced with the mean of the remaining five items. Further, when values for any two procedural justice items were missing, they were replaced with the mean of the remaining four items. The cases with missing values for three or more procedural justice items were not included in subsequent analyses. Altogether 36 cases were not included in subsequent analyses, and, after making adjustments for missing values, the data set contained a total of 728 cases.

Chapter Summary

This chapter provided a detailed outline of the method used to address the research questions and test the seven research hypotheses of this study. It discussed the study design, sample, and data collection procedures. It also presented the measures that were used to test the research hypotheses. In addition, this chapter discussed the data analysis strategy including the benefits and limitations of using structural equation

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9 A measure with a value of .70 or above is considered to have an acceptable level of reliability (Nunnally & Bernstein, 1994); Cronbach’s alphas for all five measures in this study exceeded this minimum threshold value. The psychometric properties of the study measures are discussed in more detail in Chapter Five. Nevertheless, a comparison of this case-by-case imputation method to the multiple imputation method (Rubin, 1987; Schafer & Graham, 2002) also was performed.
modeling in organizational research. Finally, the strategy used to make adjustment for missing data in this study was discussed in detail.
Chapter Five: Results

This chapter reports the results of data analysis discussed in Chapter Four. The discussion of this chapter is organized as following. First, demographic characteristics of the sample are reported. Second, results of univariate and bivariate analyses are presented. Third, psychometric properties of the five study measures are provided. Finally, results of the analyses using SEM to test the seven research hypotheses are discussed.

Sample Demographic Statistics

An overview of the demographic data for the sample is provided in Tables 5.1 and 5.2. A vast majority of the sample (86.5 percent) identified themselves as Caucasian/White (See Table 5.1). Approximately, 7 percent of the sample identified themselves as African American/Black, 5 percent identified themselves as Asian, and 2 percent identified themselves as Hispanic/Latino. Nearly half of the sample (45.4 percent) were females. Additionally, 85 percent of the sample identified themselves as technical employees and about 15 percent identified themselves as managers.

Participants were asked to provide information about their age and length of service. Responses indicated considerable variability. The age distribution of the sample ranged widely from 23 to 70 years with a mean of 44.2 years and a standard deviation of 10 years. The tenure of the sample in their current position also ranged widely from 1 to 34 years with a mean of 4.8 years and a standard deviation of 9.7 years. The tenure of the sample in their current organization ranged from 1 to 37 years with a mean of 10.7 years and a standard deviation of 8.6 years. The length of service of the sample in state
government ranged from 1 to 41 years with a mean of 9.3 years and a standard deviation of 5.1 years. All three tenure distributions were quite positively skewed.
Table 5.1 Sample Demographics and Organizational Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>4.7%</td>
</tr>
<tr>
<td>African American</td>
<td>6.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.6%</td>
</tr>
<tr>
<td>Native American</td>
<td>0.5%</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>86.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>45.4%</td>
</tr>
<tr>
<td>Male</td>
<td>54.6%</td>
</tr>
<tr>
<td><strong>Nature of Position</strong></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>85.1%</td>
</tr>
<tr>
<td>Managerial</td>
<td>14.9%</td>
</tr>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Age</td>
<td>23</td>
</tr>
<tr>
<td>Years in Current Position</td>
<td>1</td>
</tr>
<tr>
<td>Years in Agency</td>
<td>1</td>
</tr>
<tr>
<td>Years in State Government</td>
<td>1</td>
</tr>
</tbody>
</table>
Results of Univariate Analysis of the Measures

Table 5.3 reports the univariate statistics for the five measures used in the present study. The six-item procedural justice scale produced a mean of 24.68 and a standard deviation of 5.89. The distribution of the procedural justice scores ranged from a minimum value of 6 to a maximum value of 36. The three-item distributive justice scale had a mean of 11.77 and a standard deviation of 3.17. The distribution of the distributive justice scores ranged from a minimum value of 3 to a maximum value of 18. Both of the organizational justice measures were slightly negatively skewed with greater number of professional employees reporting relatively high levels of procedural and distributive justice.

The mean score for the three-item organizational identification scale was 15.28 with a standard deviation of 2.82. The distribution of the organizational identification scores ranged from a minimum value of 3 to a maximum value of 18. The organizational identification measure was negatively skewed with greater number of professional employees reporting a relatively high level of identification with their organization.

The three-item job involvement scale had a mean score of 13.76 and a standard deviation of 2.93. The distribution of the job involvement scores ranged from a minimum value of 4 to a maximum value of 18 and was somewhat negatively skewed. Additionally, the mean score for the three-item turnover intention scale was 7.30, with a standard deviation of 3.91. The distribution of the turnover intention scores ranged from a minimum value of 3 to a maximum value of 18. Additionally, the measure of turnover intention was slightly positively skewed with a greater number of professional employees reporting a relatively low level intention to leave their current organization.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Potential Scale Range</th>
<th>Midpoint</th>
<th>Observed Minimum Score</th>
<th>Observed Maximum Score</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice</td>
<td>6-36</td>
<td>19.5</td>
<td>6</td>
<td>36</td>
<td>24.68</td>
<td>5.89</td>
<td>-0.69</td>
<td>0.32</td>
</tr>
<tr>
<td>Distributive Justice</td>
<td>3-18</td>
<td>10.5</td>
<td>3</td>
<td>18</td>
<td>11.77</td>
<td>3.17</td>
<td>-0.54</td>
<td>-0.02</td>
</tr>
<tr>
<td>Organizational Identification</td>
<td>3-18</td>
<td>10.5</td>
<td>3</td>
<td>18</td>
<td>15.28</td>
<td>2.82</td>
<td>-1.52</td>
<td>2.78</td>
</tr>
<tr>
<td>Job Involvement</td>
<td>3-18</td>
<td>10.5</td>
<td>4</td>
<td>18</td>
<td>13.76</td>
<td>2.93</td>
<td>-0.58</td>
<td>0.23</td>
</tr>
<tr>
<td>Turnover Intention</td>
<td>3-18</td>
<td>10.5</td>
<td>3</td>
<td>18</td>
<td>7.37</td>
<td>3.90</td>
<td>0.83</td>
<td>-0.03</td>
</tr>
</tbody>
</table>
Overall, kurtosis values for all five measures were within acceptable limits.\textsuperscript{10} Although composite scores for all five measures were either positively or negatively skewed,\textsuperscript{11} the differences between the average scores and the scale midpoints were not large. Moreover, the standard deviations for all five measures were relatively high.

**Results of Bivariate Analysis of the Measures**

Table 5.4 shows the bivariate correlation matrix for the five study measures. All ten correlations among the five measures were moderate and statistically significant ($p<0.05$).\textsuperscript{12} The highest observed correlation was between job involvement and turnover intention ($r = -0.60$) and the lowest was between distributive justice and job involvement ($r = 0.37$). The median correlation between study measures was .50. This indicates that, on average, the variance typically shared between two measures was limited to one-quarter of the total variance, and no measure shared more than 36 percent of the variance with any other measure. Nevertheless, a considerable degree of interrelatedness between the study measures was expected with four hypothesized direct relationships, as well as the corresponding indirect relationships.

\textsuperscript{10} The kurtosis value for a normal distribution is zero. A positive kurtosis value indicates a somewhat peaked distribution and a negative kurtosis value indicates a somewhat flat distribution. Kurtosis values for none of the measures exceeded three in either a positive or negative direction, points beyond which attention should be paid.

\textsuperscript{11} The skewness for a normal distribution is zero. A skewness value that is substantially higher or lower than zero may require data transformation.

\textsuperscript{12} Correlation between the five study measures and respondents’ age, gender, and organizational tenure also were examined. This analysis indicated that the five study measures were weakly correlated with respondents’ age, gender, and organizational tenure. Thus, age, gender, and organizational tenure were not included in subsequent analyses.
Table 5.4 Bivariate Correlation Matrix and Reliabilities

<table>
<thead>
<tr>
<th>Measures</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Procedural Justice</td>
<td>(0.83)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Distributive Justice</td>
<td></td>
<td>0.59*</td>
<td>(0.74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Organizational Identification</td>
<td>0.59*</td>
<td>0.47*</td>
<td></td>
<td></td>
<td>(0.84)</td>
</tr>
<tr>
<td>4. Job Involvement</td>
<td>0.39*</td>
<td>0.37*</td>
<td>0.47*</td>
<td></td>
<td>(0.71)</td>
</tr>
<tr>
<td>5. Turnover Intention</td>
<td>-0.53*</td>
<td>-0.47*</td>
<td>-0.60*</td>
<td>-0.57*</td>
<td>(0.75)</td>
</tr>
</tbody>
</table>

Cronbach’s $\alpha$ for each measure is presented in parenthesis
Psychometric Properties of the Measures

Psychometric properties of the five measures were examined using SPSS 17.0 and AMOS 7.0. Cronbach’s alpha was used to assess the internal consistency of the five measures. Although there is no set standard about the minimum acceptable threshold value for Cronbach’s alpha, the prevailing norm is that a measure with a value of .70 or above is considered to have an acceptable level of reliability (Nunnally & Bernstein, 1994). Cronbach’s alphas for all five measures in this study exceeded this minimum threshold value (see Table 5.4). Appendix A provides the means, standard deviations, and inter-item correlations for the items in each measure.

The reliability coefficient for the three-item measure of distributive justice was .74. Item-total correlations for this measure were between 0.45 and 0.69, and the average inter-item correlations for each item with the other two items in the measure ranged from .33 to .64. Although analysis showed that excluding one of the three items (“How fair and equitable do you consider training opportunities to be?”) would slightly improve the value for Cronbach’s alpha (from 0.74 to 0.78), doing so would have negatively affected the content validity of the distributive justice measure.

The six-item procedural justice measure achieved an acceptable level of reliability. The value for Cronbach’s alpha for this measure was 0.83. Item-total correlations were between 0.48 and 0.69, and the average inter-item correlations for each item with the remaining five items in the measure were between 0.32 and 0.60. The results indicated that the reliability coefficient would decrease if any item were removed.

All three outcome measures also achieved an acceptable level of reliability. The Cronbach’s alpha value for the three-item organizational identification measure was 0.84,
with fairly high and uniform item-total correlations (from 0.64 to 0.74.). The average inter-item correlations for each separate item with the other two items in the measure ranged from 0.57 to 0.70. Analysis indicated that removing any item from this measure would decrease the value of the reliability coefficient.

The reliability coefficient for the three-item job involvement measure was 0.71. Item-total correlations for this measure were between 0.49 and 0.59, and the average inter-item correlations for each item with the other two items in the measure ranged from 0.37 to 0.49. The results indicated that the value of the reliability coefficient of this measure would drop if any item were removed.

The Cronbach’s alpha for the three-item measure of turnover intention was 0.75. Item-total correlations for this measure were between 0.49 and 0.67 and inter-item correlations for each item with the other two items ranged from 0.37 to 0.49. Although analysis indicated that removing one item (“I plan to be working here three years from now”) would marginally improve the value for Cronbach’s alpha (from 0.75 to 0.77), this item was retained so that one reverse-worded statement would be included.

**Confirmatory Factor Analysis Results**

Construct validities of the five measures were assessed with confirmatory factor analysis (CFA) using AMOS 7.0. Figure 5.1 shows standardized factor loadings (or regression weights) for items of the five constructs, as well as factor inter-correlations. Table 5.5 summarizes CFA results for the full measurement model. As shown in Figure 5.1, all of the scale items were found to have statistically significant factor loadings ($p < 0.05$) for their respective latent constructs ($\lambda_s = 0.54$ to 0.93 for distributive justice, $\lambda_s = 0.54$ to 0.78 for procedural justice, $\lambda_s = 0.70$ to 0.89 for organizational identification,
Figure 5.1 CFA Results for the Full Measurement Model
Table 5.5 Properties of the Full Measurement Model

<table>
<thead>
<tr>
<th>Constructs and Indicators</th>
<th>Standardized Factor Loadings (λ)</th>
<th>Indicator Reliability</th>
<th>Composite Reliability</th>
<th>Variance Extracted Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procedural Justice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper level managers are courteous to employees</td>
<td>0.70*</td>
<td>0.49</td>
<td></td>
<td>0.83</td>
</tr>
<tr>
<td>Employees are treated fairly</td>
<td>0.78*</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees are encouraged to raise issues and concerns at work</td>
<td>0.65*</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important decisions are made top down without any consultation (R)</td>
<td>0.60*</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel decisions are influenced by factors like ethnicity, age, or gender of employees (R)</td>
<td>0.54*</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignments are given on the basis of favoritism without regard to merit (R)</td>
<td>0.74*</td>
<td>0.55</td>
<td></td>
<td>0.77</td>
</tr>
<tr>
<td><strong>Distributive Fairness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How fair and equitable do you consider promotion examinations to be?</td>
<td>0.67*</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How fair and equitable do you consider career opportunities to be?</td>
<td>0.93*</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How fair and equitable do you consider training opportunities to be?</td>
<td>0.54*</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Identification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I speak positively about this organization to outsiders</td>
<td>0.79*</td>
<td>0.63</td>
<td></td>
<td>0.84</td>
</tr>
<tr>
<td>I am embarrassed to say that I work in this organization (R)</td>
<td>0.70*</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud to tell others that I am part of this organization</td>
<td>0.89*</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Job Involvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is hard for me to get very involved in my current job (R)</td>
<td>0.61*</td>
<td>0.37</td>
<td></td>
<td>0.71</td>
</tr>
<tr>
<td>At the end of the day, I feel good about the work I do in this organization</td>
<td>0.59*</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time seems to drag while I am on the job (R)</td>
<td>0.81*</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Turnover Intention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I plan to be working here three years from now (R)</td>
<td>0.56*</td>
<td>0.31</td>
<td></td>
<td>0.76</td>
</tr>
<tr>
<td>I would quit this organization tomorrow if it were possible</td>
<td>0.79*</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think about getting a different job outside this organization</td>
<td>0.79*</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Fit Statistics: \( \chi^2 \) (125) = 287.26, p < .05, CFI = 0.97, NNFI/TLI = 0.96 and RMSEA = 0.04

* p < .05
λs = 0.59 to 0.81 for job involvement, and λs = 0.56 to 0.79 for turnover intention). Additionally, all factor correlations were moderate and lower than the maximum threshold value of 0.85 typically necessary to show discriminant validity between two constructs (Kline, 2005). The highest observed factor correlation was 0.77 between organizational identification and turnover intention, and the lowest factor correlation was .46 between distributive justice and job involvement.

The results obtained from the CFA of the full measurement model were used to compute the composite reliability score for each construct using the formula offered by Hair, Anderson, Tatham, and Black (1998). Although composite reliability and Cronbach’s alpha are not the same statistic, they provide similar information and are interpreted similarly (Fornell & Larcker, 1981). A threshold value for acceptable construct reliability generally is 0.70. The composite reliabilities for all five factors were above the minimum threshold value: 0.77, 0.83, 0.84, 0.71, and 0.76 for distributive justice, procedural justice, organizational identification, job involvement, and turnover intention, respectively.

The results obtained from the CFA also were used to assess the amount of variance due to measurement error within each latent construct. Hair and others (1998) have provided the formula used here to calculate the variance extracted estimate for each factor. Although there is no set standard regarding the minimum acceptable value for the variance extracted estimate, a value of 50 percent or higher generally is desirable (Fornell & Larcker, 1981). As shown in Table 5.5, the variance extracted estimates for all five constructs were very close to or higher than the recommended 50 percent value (45 percent for procedural justice, 55 percent for distributive justice, 64 percent for
organizational identification, 46 percent for job involvement, and 52 percent for turnover intention).

To assess the fit of the measurement model, the present study relied on the prevailing standard in SEM literature that a reasonably good fit is indicated by CFI and NNFI/TLI values equal to .90 or above, as well as an RMSEA value equal to 0.08 or less (Hu & Bentler, 1995; Schumacker & Lomax, 2004). Three of the four fit indices indicated that the proposed measurement model provided a good fit to the data. The CFI for the full measurement model was 0.97 and the NNFI/TLI was 0.96. Both of these values were well above the minimum threshold that generally is necessary for a good fit. In addition, the RMSEA was 0.04, well below the maximum threshold value necessary for a satisfactory fit (i.e., 0.08). Only the maximum likelihood chi-square ($\chi^2$ (df = 125) = 287.26, $p<0.05$) was inconsistent with a good model fit. However, the lack of fit found by the chi-square test was not of particular concern because this index is sensitive to sample size, with larger samples inflating the chi-square and decreasing the likelihood of achieving a good model fit (James, Stanley, & Jeanne, 1982). Overall, these results provided strong empirical support for the validities of the five latent constructs.

Discriminant validity of the two predictor measures and the three outcome measures were assessed by conducting additional CFAs. To assess discriminant validity of the two predictor measures, a CFA was conducted in which distributive and procedural justice items were loaded in two separate factors. The chi-square statistic of this two-factor solution then was compared with that of a solution in which distributive and procedural justice items were loaded in a single factor (see Table 5.6). The difference between the chi-square statistics of these alternative models was found to be statistically
significant ($\Delta \chi^2(\text{df} = 1) = 189.76, p<0.05$). In addition, a comparison of the other fit indices indicated that the two-factor organizational justice solution (CFI = 0.97, NNFI/TLI = 0.95 and RMSEA = 0.06) provided a better fit to the data than the one-factor solution (CFI = 0.89, NNFI/TLI = 0.85 and RMSEA = 0.12).

A similar approach was adopted to assess discriminant validities of the three outcome measures. CFAs were conducted for each pair of outcome measures (i.e., between organizational identification and job involvement, between organizational identification and turnover intention, and between job involvement and turnover intention). Table 5.7 presents the results of these three sets of CFAs. As shown in Table 5.7, the difference in the chi-square statistics between alternative models (i.e., two-factor versus one-factor solution) was found to be statistically significant ($p<0.05$) for all three pairs of outcome measures. A comparison of other three fit indices also indicated that the three outcome measures were sufficiently distinct from one another.
Table 5.6 Fit Indices for the Discriminant Validity of the Predictor Measures

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2$(df)</th>
<th>$\Delta\chi^2$</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Factor Model</td>
<td>293.60(27)</td>
<td>---</td>
<td>0.89</td>
<td>0.85</td>
<td>0.12</td>
</tr>
<tr>
<td>Two Factor Model</td>
<td>103.84(26)</td>
<td>189.76*</td>
<td>0.97</td>
<td>0.95</td>
<td>0.06</td>
</tr>
</tbody>
</table>

*Indicates $\Delta\chi^2$ statistically significant at $p<.05$
Table 5.7 Fit Indices for the Discriminant Validity of the Outcome Measures

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2$(df)</th>
<th>$\Delta \chi^2$</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Identification and Job Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Factor Model</td>
<td>214.95 (9)</td>
<td>---</td>
<td>0.87</td>
<td>0.77</td>
<td>0.17</td>
</tr>
<tr>
<td>Two Factor Model</td>
<td>14.09 (8)</td>
<td>200.86*</td>
<td>1.00</td>
<td>0.99</td>
<td>0.03</td>
</tr>
<tr>
<td>Organizational Identification and Turnover Intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Factor Model</td>
<td>183.64(9)</td>
<td>---</td>
<td>0.91</td>
<td>0.84</td>
<td>0.17</td>
</tr>
<tr>
<td>Two Factor Model</td>
<td>35.19 (8)</td>
<td>148.45*</td>
<td>0.97</td>
<td>0.99</td>
<td>0.06</td>
</tr>
<tr>
<td>Job Involvement and Turnover Intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Factor Model</td>
<td>99.37 (9)</td>
<td>---</td>
<td>0.88</td>
<td>0.93</td>
<td>0.12</td>
</tr>
<tr>
<td>Two Factor Model</td>
<td>8.64 (8)</td>
<td>90.73*</td>
<td>1.00</td>
<td>1.00</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*Indicates $\Delta \chi^2$ statistically significant at $p<.05$
Tests of Research Hypotheses

The seven research hypotheses presented in Chapter Three were tested with SEM using AMOS 7.0. Figure 3.1 shown in Chapter Three depicts the hypothesized structural model that was tested. Similar to the measurement model, the overall fit of the proposed structural model was assessed using the four fit indices discussed in Chapter Four. Three of the four fit indices indicated that the proposed structural model provided good fit to the data. The CFI for the proposed structural model was 0.97 and the NNFI/TLI was 0.96. Both of these values were well above the minimum threshold that generally is necessary for a good model fit. In addition, the RMSEA was 0.05, well below the maximum threshold value necessary for a satisfactory fit (i.e., 0.08). Only the maximum likelihood chi-square ($\chi^2$ (df = 129) = 320.68, $p<0.05$) was inconsistent with a good model fit. However, as discussed earlier, the lack of fit found by the chi-square test was not of particular concern because this index is sensitive to sample size, with larger samples inflating the chi-square and decreasing the likelihood of achieving a good fit (James, Stanley, & Jeanne, 1982). Overall, these results provided strong empirical support for the proposed structural model.

Figure 5.2 presents summary results of the hypothesized structural model as standardized regression coefficients. However, as discussed earlier, the lack of fit found by the chi-square test was not of particular concern because this index is sensitive to sample size, with larger samples inflating the chi-square and decreasing the likelihood of achieving a good fit (James, Stanley, & Jeanne, 1982). Overall, these results provided strong empirical support for the proposed structural model.

Figure 5.2 presents summary results of the hypothesized structural model as standardized regression coefficients. The $t$-statistics for path coefficients for all of the direct relationships were statistically significant ($p<0.05$) and in the predicted direction, providing preliminary support for the research hypotheses. Hypothesis 1 predicted that procedural justice would have a positive effect on professional employees’ organizational

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14 Discrepancies in coefficients between this model and the model alternatively derived using the multiple imputation method to adjust for missing data were never greater than 0.02 nor was statistical significance of any of the path coefficients altered.
Figure 5.2 The Hypothesized Structural Model

![Diagram showing the hypothesized structural model with the following relationships:
- Procedural Justice to Organizational Identification with an arrow and a coefficient of 0.60*
- Organizational Identification to Job Involvement with an arrow and a coefficient of 0.66*
- Organizational Identification to Turnover Intention with an arrow and a coefficient of -0.42*
- Distributive Justice to Organizational Identification with an arrow and a coefficient of 0.18*
- Job Involvement to Turnover Intention with an arrow and a coefficient of -0.34*

The explained variances in the model are as follows:
- R² for Organizational Identification = 0.52
- R² for Job Involvement = 0.43
- R² for Turnover Intention = 0.74]
identification. As shown in Figure 5.2, professional employees’ perception of procedural justice was found to have a strong positive association with their organizational identification ($\beta = 0.60$, $p<0.05$). Hence, empirical support was found for Hypothesis 1. Hypothesis 2 expected that distributive justice would have a positive effect on professional employees’ organizational identification. The results of this study provided empirical support for this hypothesis. As shown in Figure 5.2, distributive justice was significantly linked to professional employees’ identification with their organization ($\beta=0.18$, $p<0.05$). In addition, when taken together, procedural and distributive perceptions explained about half of the variance in professional employees’ organizational identification.

Hypothesis 3 predicted that professional employees’ identification with their organization would have a positive effect on their job involvement. As anticipated, organizational identification was found to have a strong positive connection with professional employees’ job involvement ($\beta = 0.66$, $p<0.05$). Thus, empirical support for Hypothesis 3 was found.

Hypothesis 4 predicted that professional employees’ identification with their organization would have a negative effect on their turnover intention. The results of this study provided empirical support for Hypothesis 4. Greater organizational identification, as shown in Figure 5.2, was associated significantly with less intention among professional employees to leave their organization ($\beta = -0.34$, $p<0.05$).

Testing Hypotheses 5 and 6 required examining the role of organizational identification as a mediator in the relationship between professional employees’ perceptions of organizational justice and their job involvement and turnover intention.
Baron and Kenny (1986) provided a four step approach for establishing mediation in traditional regression analysis:

- First, the independent variable should have a significant direct effect on the dependent variable.
- Second, the independent variable also should have a significant direct effect on the mediating variable.
- Third, the mediating variable must be significantly related to the dependent variable when both the independent variable and mediating variable are predictors of the dependent variable.
- The coefficient relating the independent to the dependent variable in the regression model in which both the independent and the mediating variable are predictors of the dependent variable should be smaller than the regression coefficient relating the independent to the dependent variable (estimated in step one).

These four steps in SEM can be accomplished by estimating the direct and indirect path coefficients simultaneously (Brown, 1997). Hence, an additional structural model was run that incorporated both the direct and indirect paths to test the mediation effects specified in Hypotheses 5 and 6. Specifically, four additional direct paths (procedural justice $\rightarrow$ job involvement, distributive justice $\rightarrow$ job involvement, procedural justice $\rightarrow$ turnover intention, and distributive justice $\rightarrow$ turnover intention) were added to the original structural model as shown in Figure 5.3. To draw any conclusion about mediation effects, this study relied on AMOS’s effect decomposition breakdowns for each independent variable, a process in which the total effect of an independent variable
Figure 5.3 The Additional Structural Model for Mediation Analysis

- Procedural Justice
- Organizational Identification
- Job Involvement
- Distributive Justice
- Turnover Intention
on a dependent variable is divided into its indirect and direct effects (Brown, 1997). A significant indirect effect in the structural model indicates that a significant amount of the independent variables’ total effect on the dependent variable occurred through the mediating variable. Sobel’s Z statistic (1982) for each indirect path coefficient was calculated to determine whether the indirect effects were statistically significant. In addition, the significance (or non-significance) of the direct paths in the additional structural model was used as a basis to determine whether there was full versus partial mediation. The results of mediation analyses are shown in Figure 5.4. Table 5.8 presents the effect decomposition breakdowns for each independent variable.

Hypothesis 5 anticipated that the effects of procedural justice on professional employees’ job involvement and their turnover intention would be mediated by their organizational identification. The results of mediation analysis indicated that organizational identification fully mediated the effect of procedural justice on professional employees’ job involvement. As shown in Table 5.8, the coefficient for the indirect path connecting procedural justice with job involvement through organizational identification was significant (Sobel’s $Z = 6.58, p<0.05$), whereas the coefficient for the direct path was not significant (see Figure 5.4). In addition, organizational identification was found to partially mediate the effect of procedural justice on professional employees’ job involvement. As shown in Table 5.8, the coefficient for the indirect path connecting

\[ Z = \frac{a \times b}{\sqrt{b^2 \times s_a^2 + a^2 \times s_b^2}} \]

where $a =$ unstandardized regression coefficient for the association between the independent variable and the mediator, $b =$ unstandardized regression coefficient for the association between the mediator and dependent variable, $s_a =$ standard error of $a$, and $s_b =$ standard error of $b.$
Figure 5.4 Results of the Additional Structural Model for Mediation Analysis

Model Fit Statistics: CFI = .97, NNFI/TLI = .96, RMSEA = .04, $\chi^2$(df = 125) = 287.26, $p < .05$

*Standardized path coefficients significant at $p < .05$
Table 5.8 Coefficients for the Standardized Direct, Indirect and Total Effects

<table>
<thead>
<tr>
<th>Paths</th>
<th>Direct Effects</th>
<th>Indirect Effects</th>
<th>Total Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice → Organizational ID</td>
<td>0.60*</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → Organizational ID</td>
<td>0.16*</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>Procedural Justice → Job Involvement</td>
<td>0.02</td>
<td></td>
<td>0.34</td>
</tr>
<tr>
<td>Procedural Justice → Turnover Intention</td>
<td>-0.16*</td>
<td>-0.50</td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → Job Involvement</td>
<td>0.14*</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → Turnover Intention</td>
<td>-0.10*</td>
<td>-0.24</td>
<td></td>
</tr>
<tr>
<td>Organizational Identification → Turnover Intention</td>
<td>-0.33*</td>
<td>-0.57</td>
<td></td>
</tr>
<tr>
<td>Procedural Justice → organizational identification → Job Involvement</td>
<td>0.34* (6.58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedural Justice → organizational identification → Turnover Intention</td>
<td>-0.20* (4.65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → organizational identification → Job Involvement</td>
<td>0.09* (2.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → organizational identification → Turnover Intention</td>
<td>-0.05* (2.57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive Justice → Job Involvement → Turnover Intention</td>
<td>-0.06* (2.74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Identification → Job Involvement → Turnover Intention</td>
<td>-0.24* (5.90)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sobel’s Z statistics are shown in parenthesis next to the indirect effects

*p < .05
procedural justice with turnover intention through organizational identification was statistically significant (Sobel’s Z = 4.65, p<0.05). Procedural justice also was found to have a direct influence on professional employees’ intention to leave their organization (β= -0.16, p<0.05). These results provided empirical support for Hypothesis 5.

Hypothesis 6 predicted that organizational identification would mediate the effects of distributive justice on professional employees’ job involvement and turnover intention. As shown in Table 5.8, the coefficient for the indirect path from distributive justice to job involvement through organizational identification was statistically significant (Sobel’s Z = 2.80, p<0.05), as was the coefficient for the direct path from distributive justice to job involvement (β = 0.14, p<0.05). These results indicated that organizational identification partially mediated the effect of distributive justice on professional employees’ job involvement. Additionally, distributive justice indirectly influenced professional employees’ turnover intention through their organizational identification (Sobel’s Z = 2.57, p<0.05). As shown in Figure 5.4, distributive justice also was found to have a direct influence on employees’ turnover intention (β=-0.10, p<0.05). These results indicated that organizational identification partially mediated the effect of distributive justice on professional employees’ turnover intention. Thus, empirical support for Hypothesis 6 was found.

Hypothesis 7 anticipated that professional employees’ job involvement would have a negative influence on their intention to leave their organization. As shown in Figure 5.4, greater job involvement was found to have a strong negative association with professional employees’ turnover intention (β = -0.42, p<0.05). Therefore, empirical support for the final hypothesis also was found.
Besides finding support for the four anticipated indirect effects, organizational identification also was found to have an indirect influence (negative) on professional employees’ turnover intention through their job involvement (Sobel’s $Z = 5.90, p<0.05$). Further, distributive justice had a modest indirect effect (negative) on professional employees’ turnover intention through its positive influence on their job involvement (Sobel’s $Z = 2.74, p<0.05$).

**Chapter Summary**

This chapter presented the results of univariate, bivariate and multivariate analyses of this study. The results of univariate analyses indicated that skewness and kurtosis values for all five measures were within acceptable limits. In addition, although composite scores for all five measures were either positively or negatively skewed, the differences between the average scores and the scale midpoints were not large and the standard deviations were reasonably high. The results of bivariate analyses showed a moderate inter-correlation among the five study variables. The median correlation among the measures was .50 and no measures shared more than 36 percent variance with any other measure. Psychometric analyses indicated sufficient internal reliability for all five measures. In addition, the results of confirmatory factor analyses indicated that all five measures had adequate convergent and discriminant validity. The results of structural equation modeling provided empirical support for all seven research hypotheses. Professional employees’ perceptions of procedural and distributive justice were found to be important predictors of their organizational identification, job involvement and turnover intention. Organizational identification was found to have a close connection
with professional employees’ job involvement and turnover intention. Additionally, professional employees’ job involvement was found to have a strong negative association with their turnover intention. Finally, the structural equation modeling results indicated that the effects of procedural and distributive justice on professional employees’ job involvement and turnover intention were mediated by their organizational identification.
Chapter Six: Discussion and Conclusion

Although organizational justice is a critical issue for effectively managing employees in government agencies, it has received little attention in previous public management research. A thorough review of the literature conducted in this study indicated that the limited amount of research that has examined the consequences of organizational justice in public agencies did not clarify the underlying psychological processes through which perceptions of organizational justice may influence public sector employees’ work attitudes and behaviors (Alexander & Ruderman, 1987; Bingham et al., 2000; Kurland & Egan, 1999; Noblet & Rodwell, 2009; Rubin, 2009). More precisely, previous research has failed to examine any variable that might mediate the effects of organizational justice on employees’ work attitudes in government agencies. The present research specifically was undertaken to fill this gap. In that effort, this study examined the role of organizational identification as a mediator in the relationship between professional employees’ perceptions of distributive and procedural justice and their job involvement and turnover intention using data collected with an organizational survey from employees in a large state government agency. Additionally, with the aid of the group engagement model (Tyler & Blader, 2000, 2003) and the social identity perspective (Tajfel & Turner, 1979, 1986; Turner, 1985), a causal path model was developed and tested. The results of structural equation modeling presented in Chapter Five provided empirical support for this research model. All seven research hypotheses were empirically supported and the hypothesized direct and indirect relationships accounted for a substantial amount of variance in the three outcome measures. The
adjusted $R^2$s in the final structural model for organizational identification, job involvement and turnover intention were 51 percent, 43 percent and 74 percent, respectively.

**Findings Consistent with Previous Research**

Consistent with the arguments put forward in the group engagement model (Tyler & Blader, 2000, 2003), this study found that professional employees who experienced high levels of procedural fairness strongly identified with their organization. Similarly, professional employees who reported that rewards in the workplace were fairly distributed showed a sense of identification with their organization, as well. These findings were consistent with results found in recent organizational justice research (see, for example, Blader & Tyler, 2009; Olkonnen & Lipponen, 2006). According to the group engagement model, fair treatment provides employees with feedback that they rely on to determine the quality of their relationship with their organization (Blader & Tyler, 2003a; Lind & Tyler, 1988; Tyler & Blader, 2000; Tyler & Lind, 1992). As indicated by the results of this study, professional employees in the agency heavily relied on their organizational fairness experiences to determine their social status and standing in the organization and, therefore, their procedural and distributive justice perceptions quite positively influenced their identification with their organization.

As discussed in Chapter Four, identification with an organization has been shown to increase individuals’ collective self-esteem, reduce differences between their own and organization’s identities, and influence their actions that are in accordance with the organization’s goals, values, and practices (Hogg & Terry, 2001). Thus, organizational
identification in this study was anticipated to have a positive influence on professional employees’ job involvement. Consistent with this perspective, organizational identification in this study was found to have a strong positive association with professional employees’ job involvement. This finding was in line with results reported in a recent meta-analysis (Riketta, 2005).

The social identity perspective suggests that identification is a socio-cognitive process in which individuals evaluate the status of their own group by comparing it with other groups on several value dimensions (Tajfel & Turner, 1979, 1986). Additionally, it has been argued that increasing self-esteem is a fundamental aspect of human motivation that leads individuals to enhance the image of their own group in comparison with other groups (Tajfel & Turner, 1979, 1986; Turner, 1985; Hogg & Abrams, 1988). Further, when a group lacks a positive image, its members may attempt to disassociate themselves cognitively from that group and seek membership in a higher status group (Hogg & Abrams, 1988). From this perspective, when membership in an organization helps professional employees in a government agency to develop and maintain a positive social identity, they are less likely to disassociate themselves from that organization. In line with this perspective, this study found that professional employees who strongly identified with their organization were more inclined to continue to work for their organization than those who weakly identified with their organization. A similar pattern of relationship has been reported in a number of previous studies that have examined the role of organizational identification on employees’ intention to stay in their organization (Abrams, Ando, & Hinkle, 1998; Mael & Ashforth, 1995; Moura, Abrams, Retter, Gunnersdottir, & Ando, 2009; Olkkonen & Lipponen, 2006).
Consistent with previous research, perceptions of organizational justice were found to be important predictors of turnover intention (Colquitt et al., 2001; Cohen-Charash & Spector, 2001). Professional employees who perceived organizational decision-making processes in the agency as fair were less likely to leave the agency. Similarly, professional employees who perceived the allocation of work rewards as fair were found to be more likely to continue to work in the state agency, as well. These findings were consistent with results found in several public sector studies that examined the role of organizational justice on federal employees’ turnover intention (Alexander & Ruderman, 1987; Rubin, 2009)

This study also found that the effects of procedural and distributive justice on professional employees’ turnover intention were partially mediated by their organizational identification. In an earlier study, Olkonnen and Lipponen (2006) reported similar results, but they focused primarily on the cognitive rather than the evaluative component of organizational identification. Nevertheless, the present findings are important because they provide support for the group engagement model in a government work setting. These findings suggest that professional employees’ intention to stay in a public agency is strongly influenced by the strength of their organizational identification, which largely is determined by fairness of the treatment they receive from that agency.

New Findings of the Study

In addition to confirming a number of previous findings, this study also found several new patterns in the association between the criteria and predictor variables. For instance, procedural justice in this study was found to have only an indirect effect on
professional employees’ job involvement through its influence on their organizational identification. As discussed in Chapter One and Chapter Four, job involvement is closely related to employees’ work motivation and, although procedural justice is known to be an important source of employees’ work motivation (Zapata-Phelan et al., 2009), little research has examined its role in increasing employees’ job involvement in public agencies. Further, previous research did not examine the role of organizational identification as a mediator of such a relationship.

This finding also was important because it provided valuable insight about how procedural justice may motivate professional employees’ in government agencies to become more involved in their jobs. Procedures in organizations reflect norms about treatment and decision making and regulate much of an organization’s social activities. Group-oriented organizational justice theories suggest that individuals value procedural fairness because it provides them with feedback about whether their efforts are respected by their organization (Lind & Tyler, 1988; Tyler & Lind, 1992). This feedback increases individuals’ sense of belongingness to and pride in their organization and influences their actions in a way that is in accordance with the organization’s goals, values, and norms. The results of this study suggest that professional employees in the agency, particularly those who experienced a high level procedural fairness and were very proud of their organizational membership, might have internalized some of the organization’s goals, values and norms as their own, which in turn might have motivated them to become more involved in their jobs.

The results of this study indicated that distributive justice had a direct positive effect on professional employees’ job involvement. This finding was anticipated because
previous research has shown that equity in the allocation of rewards is an important source of employees’ work motivation (Greenberg, 1982; Latham & Pinder, 2005). Distributive justice also was found to indirectly increase professional employees’ job involvement by increasing their identification with their organization. This finding suggests that distributive justice provides employees with information similar to that conveyed through procedural justice. That is, in addition to directly influencing employees’ work motivation, fairness in the allocation of work rewards indirectly motivates employees to become more involved in their jobs by signaling that they can safely make identity-related investments in their organization (Tyler & Blader, 2000).

Distributive justice in this study was found to have an indirect negative influence on professional employees’ turnover intention through its positive influence on job involvement. Although not previously documented, this finding was somewhat expected because distributive justice is known to be an important source of employees’ work motivation (Greenberg, 1982). Distributive justice also is known to be an important antecedent of employees’ turnover intention (Colquitt et al., 2001; Cohen-Charash & Spector, 2001).

Another new but expected finding of this study was that organizational identification indirectly reduced professional employees’ turnover intention through increasing their job involvement. Although this relationship was not formally hypothesized, it was implied in the structural path model tested in the present study. Further, this finding was anticipated because previous research has shown that organizational identification is an important predictor of both job involvement and
turnover intention (Riketta, 2005) and that job involvement is an important predictor of turnover intention (Brown, 1996).

**Limitations of This Study and Future Research Directions**

The present study had several noteworthy limitations. Organizational identification is a multidimensional construct that consists of a cognitive and evaluative component (Ashforth et al., 2008). As noted in Chapter Three, the cognitive component of organizational identification captures the extent to which individuals’ organizational membership is self-defining, or how individuals see themselves in relation to their employing organization. Additionally, the evaluative component of organizational identification encompasses the value that individuals attach to their organizational membership, that is, how they think and feel about their organizational membership. This study primarily focused on the evaluative aspect of organizational identification as a mediator in the relationship between professional employees’ perceptions of organizational justice and their work attitudes. As shown in past research, the cognitive aspect of organizational identification may play an important role in shaping employees’ cooperative attitudes in government agencies, as well (Riketta, 2005; Ashforth et al., 2008). A logical extension of the present study, therefore, would be to focus on both the cognitive and evaluative components of organizational identification while assessing the effects of organizational justice on public sector employees’ work attitudes.

Organizational justice also is a multidimensional construct consisting of procedural, distributive, and interactional justice (Colquitt, 2001). However, this dissertation only focused on how employees’ perceptions of procedural and distributive
justice influenced their organizational identification. It has been shown in past research that the quality of interpersonal treatment employees receive in their workplace (i.e., interactional justice) can influence acceptance and compliance with decisions made by organizational leaders (Tyler & Degoe, 1995; Tyler, Degoe, & Smith, 1996; Tyler & Lind, 1992). Further, just as in the consideration of procedural and distributive justice, interactional justice conveys important information to employees about their worth and social standing in the organization (Tyler & Blader, 2000, 2003). Hence, interactional justice also is likely to play an important role in the development of employees’ organizational identification. Future research, therefore, should examine how all three components of organizational justice influence professional employees’ organizational identification and work attitudes in government agencies.

The present study largely relied on the group engagement model (Tyler & Blader, 2000, 2003) to assess the underlying psychological processes through which professional employees’ perceptions of procedural and distributive justice influence their job involvement and turnover intention in government agencies. The group engagement model was formulated primarily to explain individuals’ cooperative behaviors in groups. However, the present study relied on this theory to explain professional employees’ work attitudes rather than work behaviors. Therefore, another logical extension of this research would be to examine the role of organizational justice and organizational identification on public sector employees’ in-role (e.g., task performance) and extra-role behaviors (e.g., organizational citizenship behaviors).

As indicated earlier in Chapter Four, there are two competing theories about how organizational justice perceptions may influence employees cooperative work attitudes
and behaviors in government agencies. The first perspective is based on social exchange theory (Blau, 1964), whereas the second one is based on social identity theory (Tajfel & Turner, 1979, 1986). This study relied on the second approach because social exchange theory provides a somewhat limited explanation about how perceptions of organizational justice may influence professional employees’ job involvement and turnover intention. Empirical support was found for the research model based on the group engagement model and the social identity perspective. However, it is important to note that a number of previous organizational justice studies guided by social exchange theory have found empirical support, as well (see, for example, Masterson, Lewis, Goldman, & Taylor, 2000; Moorman & Niehoff, 1998; Rupp & Cropanzano, 2002). Thus, it would be worthwhile to examine the mediating roles of both organizational identification and perceived organizational support in the relationship between public sector employees’ perceptions of organizational justice and their cooperative behaviors in a future study.

The design of this study had several other limitations, as well. To measure procedural justice, this study relied on an indirect measurement approach. The six-item procedural justice measure used in this study corresponded with three of the six procedural justice criteria identified by Leventhal (1980). These three procedural justice rules were voice opportunity, ethicality and bias suppression. However, the organizational survey did not include any item for the other three procedural justice criteria (i.e., consistency, accuracy and correctability). Therefore, future research should include items for all six procedural justice rules to fully assess employees’ perception of procedural justice in government agencies.
The present study relied on data collected from employees in one large state agency in New York. Although this organization was charged with diverse public responsibilities and was widely dispersed geographically, the results reported in this study may have somewhat limited generalizability. Hence, additional empirical tests using samples taken from a broader range of public organizations and geographic areas would provide more validity for the research model presented in this study.

The sole use of self-report measures was another noteworthy limitation of this study. Past research has shown that self reported data are vulnerable to social desirability bias. Additionally, the presence of common method bias, a statistical problem that masks true variance and inflates observed variance, in the results of this study cannot be fully ruled out because employees’ self-perceptions were used to assess both the criteria and predictor variables (Podsakoff & Organ, 1986; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Hence, caution should be taken while interpreting the strength of relationship among measures of organizational justice, organizational identification, job involvement and turnover intention. Future research could avoid this difficulty by using multiple methods and sources to collect data. For example, data for job involvement could be collected not only from the respondents but also from their supervisors and peers.

A final limitation of this study was that the data were cross-sectional. Although a temporal relationship was assumed in the structural path model, the data used to test this model were collected at a single point in time. Cross-sectional studies such as this one, of course, are unable to demonstrate causality. Thus, future research should examine the relationship between professional employees’ perceptions of organizational justice, their
organizational identification, job involvement and turnover using a longitudinal design to lend better support for the causal connections implied by the theoretical framework.

**Implications of the Study for Public Management Research and Practice**

The findings of the present study may be viewed as making important contributions to the research domain on employees’ work motivation in government agencies. As discussed in Chapter One, over the past two decades, considerable pressure has been placed upon government agencies to change organizational processes and adopt management reform techniques popular in the private sector to make them more effective and responsive to citizens’ needs (Nigro & Kellough, 2008). These reform efforts, under the banner of performance improvements (Hays & Sowa, 2006), have primarily focused on changing or eliminating onerous organizational procedures and increasing public sector employees’ job performance through various instrumental means (Condrey & Battaglio, 2007; Selden, Ingraham, & Jacobson, 2001). Little effort, however, has been made to understand how public sector employees’ job performance could be enhanced through non-instrumental means. Using goal setting theory (Locke & Latham, 1990), a limited amount research has examined how the interrelations between organizational and job characteristics motivate public sector employees to exert efforts to achieve their organizations’ goals (see, for example, Wright, 2004, 2007). However, this and other related public management research (see, for example, Moynihan & Pandey, 2007; Ward & Park, 2009) has paid little attention to role of organizational justice and organizational identification on public sector employees’ job involvement and turnover intention. The present public sector study, therefore, was rather unique in its focus on a
psychological mechanism through which perceptions of organizational justice may motivate public sector employees’ to become more involved in their jobs and influence them to stay in their current organization.

The present study also offered practical insight about how to increase professional employees’ job involvement and lessen their turnover intentions in government agencies. Public organizations generally need to compete with their private sector counterparts in recruiting highly skilled professional employees. With limited financial resources, public organizations face an even larger challenge in identifying effective ways to motivate skilled professionals and convincing them to remain with their organization. The results of this study indicated that fostering organizational identification would be an effective strategy to increase professional employees’ job involvement and their intention to stay in their organizations. The results of this study also indicated specific ways to enhance public sector employees’ organizational identification. Specifically, to foster employees’ organizational identification, public organizations should place a greater effort in institutionalizing fair decision-making processes. Managers in public agencies can play an active role in establishing a fair work climate by making reward and resource allocations decisions in an impartial manner. Managers can also increase their subordinates’ perception of fairness by providing them with greater opportunities to voice their concerns about organizational and job-related decisions. Further, managers in public agencies should always try to be considerate to their subordinates and treat them with dignity and respect while implementing organizational policies and procedures. As shown in this and in previous organizational justice research, fair treatment provides a symbolic message to professional employees about the extent to which their work efforts
are valued by their organization and this, in turn, increases their organizational identification, job involvement and intention to continue to work for their organization.

The results of this study indicated that distributive justice also plays an important role in enhancing professional employees’ organizational identification and job involvement and reducing their turnover intention. Public agencies, therefore, should pay greater attention to developing specific human resource policies that ensure equitable distribution of rewards and resources among employees (e.g., a performance-based reward scheme). However, any such initiative needs to be implemented with great care and guidance. Distributing rewards and resources among employees’ based on their efforts is likely to have a positive impact on their individual performance (Greenberg, 1982; Latham & Pinder, 2005). However, relying on the equity principle alone may not be adequate for increasing an organization’s performance, because it requires one to differentiate between organizational members which could undermine harmony and interpersonal cooperation in work groups (Leventhal, 1976b).

Conclusion

Justice is a fundamental value in all societies. Everyone wants to be treated fairly, and with dignity and respect in all spheres of social life. Justice serves a normative function in public bureaucracies by providing legitimacy to decisions made by government authorities and influencing individuals to accept and comply with those decisions. Fair treatment by government authorities also sends an important signal about social inclusion and citizenship, that is, it indicates positions and social worth of underprivileged groups in a society (Lens, 2009). In government work settings,
Organizational justice is particularly important because it serves as a guiding principle to employees about whether to engage in cooperative behaviors for the benefit of their organization. As shown in this study, employees in government agencies deeply care about how they are treated in their workplace and their perceptions of organizational justice greatly influence the nature of their relationship with, and their feelings about, their organization. Hence, employees’ perceptions of organizational justice expectedly were found in this study to have strong associations with their organizational identification, job involvement and turnover intention. On the whole, these findings suggest that identifying and establishing fair human resource policies and procedures is critical to increasing public sector employees’ motivation to become more involved in their jobs and to encourage their continuing work within their organization.
References


Van den Bos, K. (2001a). Fairness heuristic theory: Assessing the information to which people are reacting has a pivotal role in understanding organizational justice. In S.
Gilliland, D. Steiner & D. Skarlicki (Eds.), *Theoretical and Cultural Perspectives on Organizational Justice* (pp. 63-84). Greenwich, CT: Information Age.


Appendix A: Inter-item Correlations for the Study Measures

Procedural Justice

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Upper level managers are courteous to employees</td>
<td>4.52</td>
<td>1.34</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Employees are treated fairly</td>
<td>4.38</td>
<td>1.25</td>
<td>0.56*</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Employees are encouraged to raise issues and concerns at work</td>
<td>4.16</td>
<td>1.27</td>
<td>0.47*</td>
<td>0.49*</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Important decisions are made top down without any consultation (R)</td>
<td>2.92</td>
<td>1.24</td>
<td>0.43*</td>
<td>0.46*</td>
<td>0.44*</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>5. Personnel decisions are influenced by factors like ethnicity, age, or gender of employees (R)</td>
<td>4.64</td>
<td>1.51</td>
<td>0.35*</td>
<td>0.40*</td>
<td>0.33*</td>
<td>0.32*</td>
<td>--</td>
</tr>
<tr>
<td>6. Assignments are given on the basis of favoritism without regard to merit (R)</td>
<td>4.05</td>
<td>1.45</td>
<td>0.49*</td>
<td>0.60*</td>
<td>0.42*</td>
<td>0.24*</td>
<td>0.45*</td>
</tr>
</tbody>
</table>

*p<0.05
## Distributive Justice

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How fair and equitable do you consider promotion examinations to be?</td>
<td>3.44</td>
<td>1.42</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2. How fair and equitable do you consider career opportunities to be?</td>
<td>3.72</td>
<td>1.28</td>
<td>0.64*</td>
<td>--</td>
</tr>
<tr>
<td>3. How fair and equitable do you consider training opportunities to be?</td>
<td>4.61</td>
<td>1.22</td>
<td>0.33*</td>
<td>0.49*</td>
</tr>
</tbody>
</table>

*p < 0.05
### Organizational Identification

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I speak positively about this organization to outsiders</td>
<td>4.98</td>
<td>1.15</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2. I am embarrassed to say that I work in this organization (R)</td>
<td>5.45</td>
<td>1.00</td>
<td>0.57*</td>
<td>--</td>
</tr>
<tr>
<td>3. I am proud to tell others that I am part of this organization</td>
<td>4.85</td>
<td>1.10</td>
<td>0.70*</td>
<td>0.61*</td>
</tr>
</tbody>
</table>

*p < 0.05
## Job Involvement

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is hard for me to get very involved in my current job (R)</td>
<td>4.81</td>
<td>1.33</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2. At the end of the day, I feel good about the work I do in this organization</td>
<td>4.62</td>
<td>1.10</td>
<td>0.49*</td>
<td>--</td>
</tr>
<tr>
<td>3. Time seems to drag while I am on the job (R)</td>
<td>4.33</td>
<td>1.26</td>
<td>0.37*</td>
<td>0.48*</td>
</tr>
</tbody>
</table>

*p < 0.05
## Turnover Intention

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I plan to be working here three years from now (R)</td>
<td>2.31</td>
<td>1.59</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2. I would quit this organization tomorrow if it were possible</td>
<td>2.34</td>
<td>1.64</td>
<td>0.40*</td>
<td>--</td>
</tr>
<tr>
<td>3. I think about getting a different job outside this organization</td>
<td>2.71</td>
<td>1.55</td>
<td>0.49*</td>
<td>0.62*</td>
</tr>
</tbody>
</table>

*p < 0.05