

Does Civil Service Reform Effect Behavior?
Linking Complaints, Alternative Personnel System, and Procedural Justice Perceptions

Ellen V. Rubin
Department of Public Administration and Policy
Rockefeller College of Public Affairs and Policy
State University of New York, University at Albany
314B Milne Hall
135 Washington Ave
Albany, NY 12222
518-442-5261
erubin@uamail.albany.edu

Dr. J. Edward Kellough
Department of Public Administration and Policy
School of Public and International Affairs
University of Georgia
204 Baldwin Hall
Athens, GA 30602
706-542-0488
kellough@uga.edu

Presented at the Public Management Research Conference
October 1-3, 2009
The Ohio State University

Does Civil Service Reform Effect Behavior?
Linking Complaints, Alternative Personnel System, and Procedural Justice Perceptions

Abstract

The current literature on civil service reform lacks any studies that examine how these reforms impact employee behavior. This is startling considering proponents of reform assume that changes will increase productivity, accountability, responsiveness, etc. The empirical analysis presented here links the presence of alternative personnel systems and perceptions of procedural justice in 2005 to the rates at which complaints were filed in 2006 in the federal government. Among the findings, alternative personnel systems decrease the rates of complaints filed in federal agencies. This is true regardless if the system is either fully implemented or authorized but not yet implemented. Additionally, indicators of procedural justice perceptions exhibit a curvilinear relationship with complaint rates; as perceptions of procedural fairness increase, the rate of complaints initially increases and then decreases.

Does Civil Service Reform Effect Behavior?
Linking Complaints, Alternative Personnel System, and Procedural Justice Perceptions

Research on civil service reform spans multiple decades and is divided into various themes. In conceptual pieces, scholars advocate in favor of various changes (Ingraham 2006; Maranto 1998) while others caution against it (Thompson 2006; Perry 1986). Another track examines changes in specific states (Nigro and Kellough 2000; Coggburn 2006; Bowman and West 2006; Battaglio and Condrey 2009) or federal agencies (Ricucci and Thompson 2008; Thompson and Rainey 2003), while others identify trends across the country (Hayes and Sowa 2006; Kellough and Selden 2003; Battaglio and Condrey 2006). Just two studies in this vast literature compare perceptions before and after the implementation of reforms (Pearce and Perry, 1983; Kellough and Nigro, 2002).

Despite this vast body of research, no study examines how civil service reforms impact actual behavior in the workplace. This is startling considering proponents of reform assume that changes will increase productivity, accountability, responsiveness, etc. Changes often include the elimination of workplace rules and procedural protections, despite the positive psychological value they have in the workplace (Blader and Tyler, 2003). Elimination of these rules may have unanticipated negative consequences for the public sector workforce in terms of procedural justice perceptions (Rubin, 2009). This paper aims to address this shortcoming in the research by studying the link between civil service reform, indicators of procedural justice perceptions, and behavior at the federal level, measured by the filing of complaints.

The empirical results discussed here make a significant contribution to the literature. By assessing the impact of perceptions and reforms in 2005 on behavior in 2006, it is the first analysis of the association between civil service reform and actual employee behavior. Among

the findings, alternative personnel systems decrease the rates of complaints filed in federal agencies. This is true regardless if the systems is either fully implemented or authorized but not yet implemented. Additionally, indicators of procedural justice perceptions exhibit a curvilinear relationship with complaint rates; as perceptions of procedural fairness increase, the rate of complaints initially increases and then decreases.

The paper proceeds by reviewing the literature on organizational change, and specifically the impact of civil service reforms. This is followed by a discussion of the association between procedural justice perceptions and behavior, including the filing of complaints. Next, the data, variables, and methods are identified, followed by analysis of the associations between the filing of complaints, alternative personnel systems, and procedural justice perceptions. Finally, the import of the results is considered.

Literature Review

To understand the association between the filing of complaints, civil service reforms, and procedural justice perceptions, two bodies of literature will be reviewed both to explain the associations between these relationships and existing research findings. To begin, it will be established that civil service reforms at the federal level are driven by expectations that changes to pay and classification systems aim to change employee behavior, and thus organizational performance. Given the assumption that civil service reforms are destabilizing to organizations, attention then turns to theory and research linking management, stability and organizational performance. Finally, procedural justice perceptions are defined and linked to behavior, including the filing of complaints.

Civil Service Reform and Organizational Change

Research on civil service reform is both broad and detailed, due in part to the significant amount of change happening at both the federal and state level. At the federal level, a significant amount of change has been seen in the last fifteen years, albeit largely stove-piped by agency. For example, in 1995, the Federal Aviation Administration was exempted from federal personnel rules relating to hiring, classification and pay, discipline and grievance rules, and labor relations because of the perception by political administrators that the traditional personnel rules inhibited the agency's ability to respond to the unique needs of the air traffic control system (U.S. General Accounting Office, 2003).

In 1998, the Internal Revenue Service was granted broad authority to change hiring, classification and pay, and performance management procedures, in addition to changes in organizational structure, in the aftermath of high-profile hearings detailing alleged abuse of taxpayers by collection agents (Thompson and Rainey, 2003). Furthermore, in the aftermath of the 9/11 attacks, Congress granted broad authorities to both the Department of Defense and the newly created Department of Homeland Security to redesign pay and classification, performance management, discipline and appeals systems, and labor relations rules. Rules for both of these systems were bogged down in the courts for multiple years, due in part to the contention that the proposed procedures violated due process requirements. Today, reforms at Homeland Security have been withdrawn, and unions representing employees at the Department of Defense are close to stopping the reforms in their tracks as well. However, if you sum the number of employees at Defense, Homeland Security, the Internal Revenue Service, and the Federal Aviation Administration, in 2006 fully 53 percent of the federal workforce was either in a newly reformed

system or anticipating significant changes to pay, classification, performance appraisal, and complaint systems.

Arguments in support of civil service reform fall into at least three categories: technical, political, and ideological (Nigro and Kellough 2006). Ideological arguments for personnel reforms assume that changing personnel rules and structures will lead to changed bureaucratic behavior. These normative arguments typically rest on the idea that practices from the private sector or market-driven mechanisms are superior techniques to those used under traditional merit systems, and will thus be more successful in improving performance and responsiveness. Examples of policies touted as more business- or market-oriented and able to change bureaucratic behavior include pay-for-performance schemes or a move to at-will employment. The arguments of new public management in the 1990s, and Clinton's National Performance Review in particular, similarly claimed that using performance measurement and linking personnel decisions to performance information was both consistent with the private sector and would change bureaucratic behavior to become more outcome- and customer service-oriented.

In the last decade, the drumbeat for civil service reform shifted from an end in itself to being a means for more comprehensive transformation. In 2001, the General Accounting Office (GAO) placed governmentwide strategic human capital management on its bi-annual High Risk List and, in the same year, strategic human capital management was placed at the top of President Bush's Presidential Management Agenda.¹ Through the decade, GAO argued that systemic shifts in the country called for a "comprehensive review, reassessment, and reprioritization of what the government does, how it does business, and who does the government's business" (GAO 2002, 1). Accomplishing this requires a transformation of the

¹ The authors acknowledge that individuals have a variety of responses to the term "human capital." In this context GAO's High Risk List and the President's Management Agenda used these actual terms, so they are employed here.

culture within federal agencies, according to GAO, and civil service reform was touted as a key tool for driving that cultural change. Transformational cultural changes, such as those advocated by GAO and others, take significant periods of time and are destabilizing. This destabilization of institutional rules and structures is likely to have an impact on organizational performance. While the goal may be to improve long-term organizational performance, in the short-term performance is likely to suffer.

The body of work by O'Toole, Meier, and colleagues aims to document the impact of management on performance, including consideration of the impact of internal and external stability. Their model hypothesizes that organizational stability, managers' responses to changes in stability due to environmental shocks, and previous organizational performance influence current performance in non-linear and autoregressive ways (O'Toole and Meier 1999). Important for this discussion, environmental shocks include legislative changes to agency operations, and key management tasks center on response to change, the establishment of organizational incentives, and effective use of resources. Civil service reform can thus be viewed as an external shock to the system because it is imposed by the legislature.² The external imposition by Congress of the environmental shock, the civil service reform regime, necessitates internal changes to the pay and classification systems. These changes are intended to alter the incentive structure within the organization and thus change the performance of bureaucrats with the aim of improving organizational performance.

The relationship between stability, management, and performance varies depending on the theory one uses to explain the relationship (Boyne and Meier 2009). On one hand, stable organizations, such as rule-driven hierarchies, are seen as producing more efficient outcomes (O'Toole and Meier 1999; Boyne and Meier 2009). Alternatively, contingency theory claims

² Admittedly, sometimes civil service changes are sought by the agencies (i.e. FAA and DOD).

that performance is improved when an organization changes in response to environmental pressures (Boyne and Meier 2009). Research by O'Toole, Meier, and Boyne provides support for the former hypothesis. Specifically, an increase in organizational stability increases performance in Texas school districts (O'Toole and Meier 2003). Furthermore, organizations that respond to external changes by engaging in internal realignments are faced with decreasing performance (Boyne and Meier 2009). For the purposes of this effort, the lesson to draw from these research findings is that organizational change, such as that posed by civil service reform, is likely to impact performance negatively.

Recall that the dependent variable of interest in this study is the filing of complaints. It is important to acknowledge that using complaints is more appropriately viewed as an intermediate measure of performance, not a measure of programmatic outcomes.³ As a measure of intermediate performance, focusing on complaints may lead to difficult interpretations. Specifically, is an increasing rate of complaints an indicator of good or poor performance? On one hand, an increase in complaints could be viewed as a negative measure of performance, indicating that management is not treating employees fairly and is applying rules inconsistently. Alternatively, an increase in complaints could be considered positive performance, reflecting an environment that is welcoming, supportive, and responsive to employees voicing their concerns. To minimize this potential confusion the hypotheses are stated as:

H_{1a} The presence of alternative personnel systems will
 increase the rate at which complaints are filed.

H_{1b} The presence of alternative personnel systems will
 decrease the rate at which complaints are filed.

³ The term intermediate performance measures is used elsewhere to describe outcomes of human resources management systems (Donahue et al 2004).

Procedural Justice Perceptions

In addition to organizational changes such as the implementation of alternative personnel systems, other factors, including perceptions of fair treatment in the workplace, appear to influence the filing of formal complaints. Perceptions of procedural justice can be broadly defined as perceptions on the degree to which decisionmaking in the organization is viewed as fair (Rubin 2009, Lind and Tyler 1988, Leventhal 1980). Importantly these perceptions consider the rules themselves, how they are implemented, and the interpersonal treatment received during implementation (Blader and Tyler 2003). As a result, an organization can be following rules in a detail-oriented manner and still have a workplace that is characterized by low procedural justice perceptions (Scarlicki and Latham 1996).

Procedural justice scholars provide multiple theories describing how evaluations of procedural fairness transform into behavioral consequences. They are the fairness heuristic theories (Lind 2001, Leventhal 1980), the group value model (Lind and Tyler 1988), and the group engagement models (Tyler and Blader 2003; DeCremer and Tyler 2005). Individuals first assess the fairness of decisionmaking events. This is done using subjective justice rules or mental short-cuts. These subjective rules, termed fairness heuristics, enable the individual to identify their role in the group and the level of respect the group has for that individual (Lind 2001, Leventhal 1980). Next, the group value model illustrates that that this evaluation of respect within the group influences an individual's overall attitudes towards the organization such as long-term commitment and loyalty (Lind and Tyler 1988). For example, a perception of high respect will increase feelings of commitment and loyalty, whereas perceptions of low respect will minimize feelings of commitment and loyalty.

Finally, the relational model of authority (Tyler and Lind 1992) considers how procedural justice perceptions lead to cooperation with groups, while the group engagement model (Blader and Tyler 2003) evaluates why these perceptions influence cooperation. Fair decisionmaking procedures indicate that organizational leaders are fair, thus signaling to the individual that she is a valued member of the team, according to the group value model. Following from this, the relational model of authority suggests that this feeling of respect leads the individual to view the decisions of the leader as legitimate and promotes a willingness to carry out the requests of the organizations leaders (Tyler and Lind 1992). The group engagement model provides the last link in the causal chain. In light of fair treatment, we identify with the group and thus engage in cooperative behavior because the need for developing a social identity is a potent motivational force (Blader and Tyler 2003). Identity is the moderating variable because group status informs levels of self-esteem; high self-esteem restrains competitive self-interested behavior and motivates collaboration towards a common goal (DeCremer and Tyler, 2005; Tyler and Blader, 2003). To summarize, justice rules are used to make procedural justice evaluations; procedural justice evaluations influence levels of group commitment and loyalty; and justice-informed levels of commitment and loyalty motivate people to act jointly in support of the groups to which they belong.

Empirical research on the link between procedural justice perceptions and behavior is limited in both its quantity and quality. In particular, studies examining the filing of complaints or grievances traditionally examine the structure of the grievance system as the independent variable and the fairness perceptions associated with that particular structure as the dependent variable (e.g. Greenberg, 1990). It is only recently that scholars have considered how procedural justice perceptions, as an independent variable, are associated with the filing of grievances. One

difficulty in measuring complaint rates is that formal complaint statistics do not represent the total number of complaints within an organization because many are settled informally between individuals (Gordon and Fryxell, 1993) or through alternative dispute resolution procedures which are explicitly designed to reduce the number of issues that become formal complaints.

Generally, when attempting to understand how procedural justice perceptions influence complaint rates, scholarship is long on theory and short on empirical testing. One explanation suggests that a justice culture or a culture of silence in the organization influences the rate of grievance filings. Employees with a fear of injustice are less likely to voice their concerns or file grievances (Shapiro and Kirkman, 1999). Likewise, silence can result from peer pressure to not raise various concerns to the attention of management in either a formal or informal manner (Milliken et al, 2003). A second claim suggests that the costs of filing a grievance serve as a disincentive. Costs can range from a general fear of reprisal (Rudman et al, 1995; Morrison and Milliken, 2000) to lower promotion rates and performance appraisal ratings, and higher rates of turnover for both the individual filing the grievances and the manager against whom the grievances are filed (Lewin, 1987).

Empirical results on the relationship between procedural justice perceptions and the filing of grievances are conflicting. Studies examining only the impact of voice on the rate of grievance filing found a negative relationship: as voice opportunities decreased, the filing of grievances increased (Gordon and Fryxell, 1993). Furthermore, violations of procedural justice expectations were the most frequently cited reasons for lodging a complaint in cases filed with a state department of labor (Youngblood et al, 1992). On the other hand, different studies find a decrease in procedural justice perceptions is associated with a decrease in the filing of complaints. During times of high anxiety due to organizational change, a decrease in perceived

voice opportunities was associated with the filing of fewer grievances (Shapiro and Kirkman, 2001). Likewise, when considering whether to file a sexual harassment complaint, reporting of the incident was associated with lower procedural justice perceptions (Rudman et al, 1995).

Before an individual files a complaint, such as an allegation of discriminatory behavior, retaliation, or a violation of the prohibited personnel practices, they must first perceive that an unjust event has occurred. Theory on the sociology of disputes suggests that once someone believes an unjust event has happened to them, the event is registered as a complaint or dispute if 1) blame can be placed on someone else for the situation and 2) the individual harmed believes something can be done to correct the situation (Felstiner, Abel, and Sarat, 1980).

Unfortunately, explanations regarding why this transition happens are inconsistent in terms of the impact of procedural justice perceptions. On one hand, it is suggested that employees file disputes when they believe one of the justice criteria have been violated (Youngblood, Trevino, and Favia, 1992). Another proposition suggests that employees who believe justice rules are being violated will stay silent because of the perception that the complaint receiver will not respond in a just or fair manner (Milliken, Morrison, and Hewlin, 2003). The tendency for silence may increase if the individual who has grounds for the complaint has less power in the organization than the alleged perpetrator (Rudman et al, 1995). Research findings are also conflicting. A decrease in procedural justice perceptions has been associated with an increase in filings of wrongful dismissal complaints (Youngblood et al, 1992). Alternatively, lower procedural justice perceptions have also been associated with a lower probability of filing of sexual harassment complaints (Rudman et al, 1995). In light of existing research, it is reasonable to expect any of three possible relationships between the filing of complaints and indicators of procedural justice perceptions : 1) a positive relationship because

people believe their concerns will be heard fairly, 2) a negative relationship because people believe they have been treated unfairly and want to protest treatment they believe is unjust, or 3) a curvilinear relationship in which an increase in procedural justice perceptions is first associated with an increase in the filing of complaints, followed by a decrease in complaints. Alternative hypotheses are proposed:

- H_{2a} As indicators of procedural justice perceptions increase, the filing of complaints will increase;
- H_{2b} As indicators of procedural justice perceptions increase, the filing of complaints will decrease; or
- H_{2c} As indicators of procedural justice perceptions increase, the filing of complaints will initially increase, but then decrease.

Data and Methods

To answer the research questions regarding the association between the filing of complaints, the presence of alternative personnel systems, and procedural justice perceptions, a number of data sources are used. The dependent variable, the number of complaints filed in the agency, is derived from reports mandated by the Notification and Federal Antidiscrimination and Retaliation Act of 2002 (No FEAR Act). The No FEAR Act requires agencies to report the number and types of formal complaints filed each year.⁴ The statute further mandates that annual summary data are posted going back five previous fiscal years (Congressional Research Service, 2004).⁵ Grievances reported in 2006 are operationalized as complaints filed per 1000 employees. The average number of complaints per 1000 employees filed in 2006 was 6.45, with

⁴ P.L. 107-174. May 15, 2002.

⁵ For example, see http://www.doi.gov/diversity/FY06_5yr_NPS.html.

a standard deviation of 4.221, and a minimum value of 1.29 and a maximum of 21.49. The agency with the lowest rate of complaints is Commerce-Other, while the agency with the highest complaint rate is Immigration and Customs Enforcement.

Dummy variables are developed to account for the presence of an alternative personnel system in 2005 (AltHR1) and to indicate an agency had statutory authority to implement reforms but has not yet done so in 2005 (AltHR2). For the purposes of this research, an alternative personnel system is defined as pay and classification systems that are different from those required by Title V. These were separated into different variables because employees may be more anxious about a system that is yet to be developed and implemented than they are about a system whose details are publicized. This increased uncertainty may lead individuals to file more complaints. A number of government sources were used to determine which agencies currently operate or held authority to implement alternative personnel systems in 2005 and are presented in table 1.

[Insert table 1 about here]

Alternative dispute resolution (ADR) procedures are designed to resolve complaints before they become formalized. The use of ADR is intended to resolve conflicts in a way that minimizes the administrative costs associated with traditional grievance systems while at the same time resolving issues in a less adversarial manner. Importantly, the presence and use of ADR opportunities is likely to change the number of complaints that are filed. Specifically, issues that are successfully resolved using ADR will not become formal complaints, leading to the following hypothesis:

H₃ The use of ADR will decrease the rate at which
 complaints are filed.

The independent variable on ADR usage is calculated based on government data different from the NoFEAR Act reports. In 1996, the Administrative Dispute Resolution Act was enacted to provide alternative means for resolving disputes among federal employees with the hopes that it would increase efficiency and reduce the use of the litigious formal complaint process.⁶ Each agency is required to have in place ADR policies for resolving various types of complaints. Supporting regulations require departments to file reports with the Equal Employment Opportunity Commission on the use of ADR.⁷

Agencies are required to report the ADR data at the department level, although some choose to report at the agency level. Importantly, data are available for all the agencies for which there are complaint data. ADR data at the department level were assigned to agencies according to the proportion of the department's staff located in the particular agency. For example, in 2006 HHS reported a total ADR usage of 134. Employees in the Indian Health Service make up 21 percent of the department's employees. Therefore, 21 percent of the 134 ADR uses were allocated to the Indian Health Service. Like the complaint data, this amount was then used to determine the use of ADR per 1000 employees, for the ease of interpretation. The average ADR usage per 100 employees was 2.93, with a standard deviation of 1.951, and a minimum value of 0.19 and a maximum of 9.16. ADR usage is highest at the Department of Housing and Urban Development and lowest at the Office of Personnel Management.

Variables measuring procedural justice perceptions and other demographic traits are derived from the 2005 Merit Principles Survey, conducted by the Merit System Protection Board (MSPB). This periodic survey canvases federal employees to assess both levels of satisfaction and the degree to which employees perceive that merit principles are being upheld. As in

⁶ P.L. 104-320. Oct. 19, 1996.

⁷ For example, see <http://www.eeoc.gov/federal/adr/datatables/index.html>.

previous iterations of this survey, individuals were selected using a stratified random sampling technique, whereby selection was stratified by agency and management status. MSPB did not select the same proportion of individuals from each strata population. Selection probabilities ranged from 93 percent of managers at the Centers for Disease Control and Prevention to 7 percent of managers in the Executive Office of the U.S. Attorney, for example. As a result of the design and the different probabilities of selection, the authors developed survey weights, based on data provided by the MSPB and applied them in the empirical analysis. The weights represent the inverse of the probability of selection.⁸

A measure of procedural justice indicators was created using an additive index, following the work of Leventhal (1980) who proposed six criteria for measuring the concept. These six criteria are: voice, correctability, bias suppression, accuracy, ethicality, and consistency. The most frequently tested of those six justice rules is the concept of voice, which assesses the degree to which procedures provide individuals the opportunity to communicate their views, evidence, or arguments. Voice was originally presented to be composed of two parts: process control, where the individual can present evidence or opinions in support of their position, and decision control, in which the individual participates in the act of making the decision (Thibaut and Walker, 1978). Another variation of the concept of voice is termed the representativeness rule (Leventhal, 1980). Individuals evaluate whether the views and values of the group are represented in decisions and if decisionmaking is conducted in an inclusive, participative manner. For the remainder of this research program, the term voice will be used to refer to these overlapping concepts.

The remaining five justice rules, originally defined by Leventhal (1980) broadly consider the neutrality of the decisionmaking process and the decisionmakers, and safeguards that exist to

⁸ The authors are happy to provide these weights upon request.

protect individuals. First, individuals assess the consistency with which procedures are implemented across time and across people. Evaluations of consistency can occur during any part of a decisionmaking process. Second, the degree to which decisionmakers allow their personal interests to guide actions or the degree to which their bias is suppressed is considered. When decisionmakers are viewed as biased or working for personal ends, the decisionmaking procedure will be viewed as tainted and less fair. Third, evaluations of the fairness of procedure depend on the appropriateness and accuracy of the information used to make decisions. Part of the accuracy assessment includes an evaluation of the competence of the individuals providing the information, such as immediate supervisors commenting on job performance. Again, the use of information viewed as inaccurate or irrelevant will taint the decisionmaking process.

Fourth, procedural justice perceptions are further improved when opportunities exist to modify decisions, which Leventhal (1980) referred to as correctability. Appeal procedures can be either formal or informal, and individuals consider both the transparency of the rules of the appeal procedure and the ease with which a complaint can be made. Finally, ethicality of the procedure is evaluated against the individual's own sense of personal ethics. For example, intrusive or deceptive methods of gathering information may violate an individual's ethicality rule, and thus decrease procedural justice perceptions (Leventhal 1980). In total, the six justice rules are frequently referred to as the Leventhal criteria and are used throughout procedural justice research as indicators or determinants of justice perceptions. Overall, procedural justice perceptions generally improve when voice opportunities are available, when procedures are used consistently across individuals, when bias is minimized, when the information used to make the decision is accurate, when decisions can be appealed in some fashion, and when the procedural is viewed as ethical.

To construct the additive index of procedural justice indicators, which will be referred to as the Leventhal Index in the remainder of the paper, three items were selected from the survey for each of the six criterion (three items x six criteria = 18 survey questions in the index) (see table 2). Survey questions included in the additive Leventhal Index were selected based on their consistency with measures used by other scholars, primarily Colquitt (2001), Moorman (1991), and Folger and Konovsky (1989). The possible scores on the Leventhal Index range from 0 to 72, with a 72 indicating high perceptions of procedural justice. The governmentwide average of the Leventhal Index is 44.86 with a standard deviation of 2.382.

[Insert table 2 about here]

The reliability of the Leventhal Index was evaluated using Chronbach's alpha. As reported in table 2, the Cronbah's alpha across the 18 items in the Leventhal Index is 0.887. As an additional check on the reliability of the index, the Cronbach's alpha was also calculated for a random sample of 10 percent of the strata (11 of 114 strata). The Cronbach's alpha scores for the Leventhal Index across all eleven strata were within the range of 0.85 to 0.90. The consistent level of the Cronbach's alpha across multiple individual strata is a further indication of the measure's reliability.

The dependent variable, complaints per 1000 employees, is neither a continuous variable nor a categorical variable. By transforming the complaints total relative to agency population, it is also no longer a traditional count variable. An OLS model will be used to assess the relationship between the filing of complaints, the presence of alternative personnel systems, and procedural justice perceptions. Complaints, the Leventhal Index, and the use of ADR are transformed to their natural log for the ease of interpretation.

As noted above, the dependent variable, complaints per 1000 employees in 2006, is provided at the agency level in reports required by the No FEAR Act. This requires aggregating the 2005 MSPB survey data up to the agency level. As a result, each record in the data set for this analysis represents one agency. To accomplish the aggregation, the average Leventhal Index score was calculated for each agency. Demographic variables were converted into averages for pay and agency tenure. Additional controls account for the proportion of employees in the agency that are women, minorities, managers, located in a field office, union members, and have a bachelors degree or higher. Summary statistics for all variables included in the model are presented in table 3.

[Insert table 3 about here]

Using individual level survey data and organizational complaint rates poses an additional challenge. Primarily, complaint data are not available for 6 out of the 57 organizational units specified in the survey, requiring the researchers to combine some organizational units.⁹ For example, the Centers for Disease Control and Prevention (CDCP) did not post cumulative 2006 data; complaint data are only available for the first two quarters of 2006. The Department of Health and Human Services (HHS) reports departmentwide complaint activity. Using this report

⁹ The agencies included in the analysis are: Agriculture - Food Safety and Inspection Service; Agriculture - Forest Service; Agriculture - Natural Resources Conservation Service; Agriculture - Other; Air Force; Army (includes Army Corps of Engineers); Commerce - National Institute of Standards and Technology; Commerce - National Oceanic and Atmospheric Administration; Commerce - Patent and Trademark Office; Commerce - Other; Defense Contract Management Agency; Defense Finance and Accounting Service; Defense Logistics Agency; Energy; Education; Environmental Protection Agency; Federal Deposit Insurance Corporation; General Services Administration; Indian Health Service; National Institutes of Health; Health and Human Services - Other (includes Centers for Disease Control and Protection); Immigration and Customs Enforcement; Federal Emergency Management Agency; U.S. Secret Service; U.S. Coast Guard; Transportation Security Administration; Homeland Security - Other (includes Customs and Border Protection); Housing and Urban Development; Bureau of Land Management; Indian Affairs; National Parks Service; Interior - Other; Alcohol, Tobacco, Firearms, and Explosives; Bureau of Prisons; Drug Enforcement Administration; Executive Office of the US Attorney; Justice - Other; Labor; National Aeronautics and Space Administration; Navy (includes Marine Corps); Office of Personnel Management; Social Security Administration; State Department; Federal Aviation Administration; Transportation - Other; Internal Revenue Service; Office of the Comptroller of the Currency; Treasury - Other; Veterans Benefits Administration; Veterans Health Administration; and Veterans Affairs - Other.

and complete No Fear Act reports from other HHS components, complaint data from the HHS-Other unit include CDCP complaints. CDCP data from the survey were combined with the HHS-Other survey data for the purposes of analysis.

Findings

The data employed in this analysis are intended to help us understand the relationship between complaints filed in 2006, and the presence of alternative personnel systems and procedural justice perceptions in 2005.¹⁰ The analysis will begin by analyzing correlations and differences of means, and then reviewing the results of the OLS model.

Table 4 presents the correlations between our key variables of interest: complaints, alternative personnel systems, the Leventhal Index, and ADR usage. Importantly, a decrease in the Leventhal Index is associated with a 0.309 decrease in the complaints filed per 1000 employees. Neither alternative personnel system variable exhibits a significant correlation with complaints. However, agencies with alternative systems authorized exhibit lower scores on the Leventhal Index, providing some support for the argument that the pending changes increase employee skepticism. The lack of a relationship between the complaints filed and ADR usage suggests that the presence of ADR does not impact the rate at which complaints are filed. This finding is curious because ADR programs are specifically intended to reduce the number of formal complaints filed. In addition to these associations, the variables were also correlated with the demographic characteristics of the agencies. No demographic variable exhibited a significant correlation with complaints. The Leventhal Index increase as agency tenure increases, as pay increases, and as the proportion of employees with a bachelors degree increases. However, a larger proportion of minorities is associated with lower average Leventhal Index Scores.

¹⁰ Recall that an agency is designated as having an alternative personnel system if it had implemented or had the authority to design pay and classification systems different than that found in Title V.

[Insert table 4 about here]

According to the results of the OLS model presented in table 5, variance in complaints is associated with both alternative personnel systems and fairness perceptions. Agencies with alternative personnel systems implemented in 2005 experienced a rate of formal complaints in 2006 that was 41.7 percent lower than other agencies, all else being equal. Likewise, agencies that had not yet implemented alternative personnel systems in 2005, but had the authority to do so, had complaints rates in 2006 that were 56.2 percent lower than other agencies.¹¹ Clearly, something about the alternative personnel systems, the anticipation of such a system, or the characteristics of organizations with this authority is shifting the regression line downward.

[Insert table 5 about here]

The signs on the Leventhal Index and the squared term indicate that it has a diminishing effect on the filing of complaints (see figure 1). As the Leventhal Index increases, i.e. as perceptions of procedural fairness increase, the rate of complaints initially increases and then decreases. The upward sloping portion of the curve can be attributed to employee faith in the complaints system. Said another way, as perceptions of fairness increase, the initial increase in complaints may be due to employees having more faith in the system to review their concerns in a fair and balanced manner. After the tipping point, employee perceptions of fairness are pervasive to such a degree that they may not have much worth complaining over. The significance of the squared term suggests a more sophisticated relationship than has been tested in previous studies and may help to explain conflicting findings.

[Insert figure 1 about here]

Despite the hypotheses and the intention behind the program, use of ADR does not appear to influence the rate at which complains are filed, either negatively or positively.

¹¹ Note that this relationship is significant at the 0.10 level.

Although this is consistent with the results of the correlations, it raises questions about the effectiveness of ADR programs. Among the demographic variables, only salary is significant, but only at the 0.10 level. Although critics often claim that federal unions make the work environment more confrontational, complaints are not impacted with an increase in the rate of union membership.

Discussion

These findings are important for both public personnel and procedural justice scholars. Over the last decade, a significant amount of research described personnel reform efforts at all level of governments. None examine the relationship between alternative personnel systems and actual behavior. Instead, these studies examine perceptions of the success of the reforms or broader organizational attitudes that are not specific to the reform. Furthermore, only two studies examine changes between perceptions in one time period and perceptions in a later stroke (Pearce and Perry, 1983; Kellough and Nigro, 2002). Linking reform to actual behavior is a significant step forward for public personnel scholars interest in reform efforts. Likewise, the findings that alternative personnel systems decrease the filing of complaints should give pause to those who are wholly critical of the changes.

A number of explanations may account for the differences between agencies with and without alternative personnel systems. First, one could argue that a self-selection bias exists – namely, agencies with alternative personnel systems are systematically different in other ways that are not captured in the model. In terms of procedural justice indicators, this would not be an appropriate assumption. Of the highest performing agencies on the Leventhal Index, neither NASA nor the Office of the Comptroller of the Currency has an alternative personnel system

under the definition used here. Furthermore, the lowest performing agencies on the Leventhal Index all have either an alternative personnel system authorized or implemented.

A second reason for the negative relationship may be that the implementation of new personnel systems is often accompanied with a significant amount of training for both managers and line employees. It is possible that the training is leading to better management, and therefore, reducing the activities that lead to complaints. From a pessimistic point of view, the negative relationship could indicate that the cultures in organizations with alternative personnel systems suppress the filing of complaints, through perceived threats of retaliation, for example. Still another option is that the new systems provide opportunities for addressing problems before they would enter the ADR or formal complaint system. For example, many agencies with alternative performance appraisal systems have internal review committees that assess the distribution of performance ratings to identify problems, such as a gender or ethnicity imbalance in the distribution of the ratings, so that they can be corrected before performance ratings are finalized.

The presence of a quadratic relationship between the filing of complaints and the Leventhal Index is important in a number of respects. Linking procedural justice indicators and behavior has not previously been examined in a field setting. Furthermore, quadratic relationships do not appear to have been tested in published research findings, which may be the reason behind the conflicting findings in existing studies. Assessing this relationship is relatively easy; it does not require the gathering of additional data or the lengthening of existing surveys. Second, it illustrates that the relationship between procedural justice indicators and behavior is more complex than previously thought. The challenge for managers is to find out what policies and activities can keep procedural justice perceptions above that tipping point so that employees

will file fewer complaints. Importantly, the curve indicates that those with low justice perceptions, who may have reasonable, actionable complaints, are not making the issues known to management. As a result, inappropriate rules and inappropriate treatment are not being challenged, limiting accountability.

ADR usage provided additional interesting results. The distinct lack of a relationship between the use of ADR and the filing of complaints is both surprising and troubling. ADR is designed as a mechanism for confronting disputes so that they do not become formal complaints. To accomplish the goals set out in legislation, there should be a negative relationship between the use of ADR and complaints. Despite this, the sign on the coefficients for ADR was positive, although insignificant. Agencies are required to file both the complaint data and the ADR data with the Equal Employment Opportunity Commission. Clearly, more detailed research can be done to evaluate the impact of ADR on the filing of complaints. The results here indicate that ADR may not be as effective as hoped.

These findings are important for a range of reasons. Critics of civil service reforms would predict that workplace conflict generally, and the filing of complaints specifically, would increase with the introduction of alternative systems. Such a hypothesis is not supported by the findings here. Additionally, the presence of a curvilinear relationship between the filing of complaints and procedural justice indicators suggests the relationship is more complex than scholars have previously theorized.

Table 1
Sources of Alternative Personnel System Indicators

Alternative Personnel System Implemented	Alternative Personnel System Authorized	Agency	Source
X		Air Force	Congressional Research Service (2005, 2008)
X		Army (includes Army Corps of Engineers)	Congressional Research Service (2005, 2008)
X		Commerce – National Institutes of Standards and Technology	U.S. Office of Personnel Management (2007b)
X		Commerce – National Oceanic and Atmospheric Administration	U.S. Office of Personnel Management (2005)
X		Commerce – Other	U.S. Office of Personnel Management (2005)
X		Defense – Defense Contract Management Agency	Congressional Research Service (2005, 2008)
	X	Defense – Defense Finance and Accounting Service	Congressional Research Service (2005, 2008)
	X	Defense – Defense Logistics Agency	Congressional Research Service (2005, 2008)
X		Federal Deposit Insurance Corporation	U.S. Office of Personnel Management (2007b)
	X	Homeland Security – Other (includes Customs and Border Protection)	U.S. Office of Personnel Management (2007a)
X		Homeland Security – Transportation Security Administration	U.S. Office of Personnel Management (2007b)
	X	Homeland Security – U.S. Coast Guard	U.S. Office of Personnel Management (2007a)
	X	Homeland Security –U.S. Secret Service	U.S. Office of Personnel Management (2007a)
X		Navy (includes Marine Corps)	Congressional Research Service (2005, 2008)

Table 1 cont.

Implemented	Authorized	Agency	Source
X		Transportation – Federal Aviation Administration	U.S. Office of Personnel Management (2007b)
X		Treasury – Internal Revenue Service	U.S. Office of Personnel Management (2007b)
X		Veterans Affairs – Veterans Health Administration	Congressional Budget Office (2004)

Table 2
 Survey Items Used for the Leventhal Index

Leventhal Index Cronbach's $\alpha = 0.887$	
Voice	<p>Q2b I am able to openly express concerns at work.</p> <p>Q33c I trust my supervisor to listen fairly to my concerns.</p> <p>Q35j I am comfortable discussing workplace conflicts with my supervisor.</p> <p>All responses: 5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree</p>
Consistency	<p>Q22b In the past two years, to what extent do you believe you have been treated fairly regarding awards?</p> <p>Q22d In the past two years, to what extent do you believe you have been treated fairly regarding performance appraisals?</p> <p>Q22g In the past two years, to what extent do you believe you have been treated fairly regarding pay?</p> <p>All responses: 5 great extent, 4 moderate extent, 3 don't know, 2 minimal extent, 1 no extent</p>
Accuracy	<p>Q5g In my work unit, performance ratings accurately reflect job performance.</p> <p>Q5h Recognition and rewards are based on performance in my work unit.</p> <p>Q13 Objective measures are used to evaluate my performance.</p> <p>All responses: 5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree</p>

Table 2 cont.

Correctability

- Q31a I trust third party investigative or adjudicatory agencies (such as the OSC, EEOC, FLRA, MSPB) to respond appropriately to complaints.
- Q31b I believe that the current employment grievance system, if I had occasion to use it, would be fair.
- Q31c I believe that the current employment appeals system, if I had occasion to use it, would be fair.

All responses: 5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree

Ethicality

- Q2a I am treated with respect at work.
- Q33f I trust my supervisor to act with integrity.
- Q34e I trust managers above my immediate supervisor to act with integrity.

All responses: 5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree

Bias Suppression

- Q33g I trust my supervisor to refrain from favoritism.

5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree

- Q34f I trust managers above my immediate supervisor to refrain from favoritism.

5 strongly agree, 4 agree, 3 neither, 2 disagree, 1 strongly disagree

- Bias A summation of Q25, Q26, and Q27, which asked respondents to indicate if they perceived they were discriminated against, if they experienced a prohibited personnel action, or if they perceived retaliation.

5: no bias perceived

4: one type of bias perceived

3: two types of bias perceived

2: three types of bias perceived

1: four or more types of bias perceived

Table 3
Descriptive Statistics

	Obs	Mean or Proportion	Std. Dev.	Min	Max
Complaints per 1000	51	6.537	4.221	1.294	21.487
ADR per 1000	51	2.926	1.951	0.190	9.160
Leventhal Index	51	44.861	2.382	36.640	49.273
Agency Tenure	51	14.525	2.745	3.001	19.218
Pay (1000s of \$)	51	76.540	13.250	43.992	96.984
Managers	51	0.150	0.060	0.083	0.328
Field Office	51	0.758	0.190	0.128	0.959
Union Dues	51	0.170	0.138	0.000	0.511
Minorities	51	0.281	0.127	0.135	0.777
Women	51	0.437	0.128	0.255	0.729
Bachelors degree or higher	51	0.626	0.140	0.349	0.898

Table 4
Correlations

	Complaints per 1000 Employees	Alternative Personnel System Implemented	Alternative Personnel System Authorized	Leventhal Index	ADR usage per 1000 Employees
Complaints	1.000				
Alternative Personnel System Implemented	-0.239	1.000			
Alternative Personnel System Authorized	0.039	-0.239	1.000		
Leventhal Index	-0.3094*	0.103	-0.2882*	1.000	
ADR	0.190	-0.082	0.6197*	-0.210	1.000

*indicates significant at 0.05 or higher.

Table 5
Complaints Model (log-log OLS)

AltHR1	-0.417**
	[0.188]
AltHR2	-0.562*
	[0.278]
ln Leventhal Index	316.190**
	[140.194]
ln Leventhal Index Squared	-42.243**
	[18.512]
ln ADR per 1000 employees	0.148
	[0.118]
Agency Tenure	-0.06
	[0.040]
Salary	0.014*
	[0.008]
Managers	1.264
	[1.246]
Field Office	0.32
	[0.549]
Union Dues	0.725
	[0.582]
Minorities	-0.079
	[0.689]
Women	-0.428
	[0.720]
Bachelors Degree or Higher	-0.771
	[0.848]
Observations	51
Adjusted R-squared	0.30

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

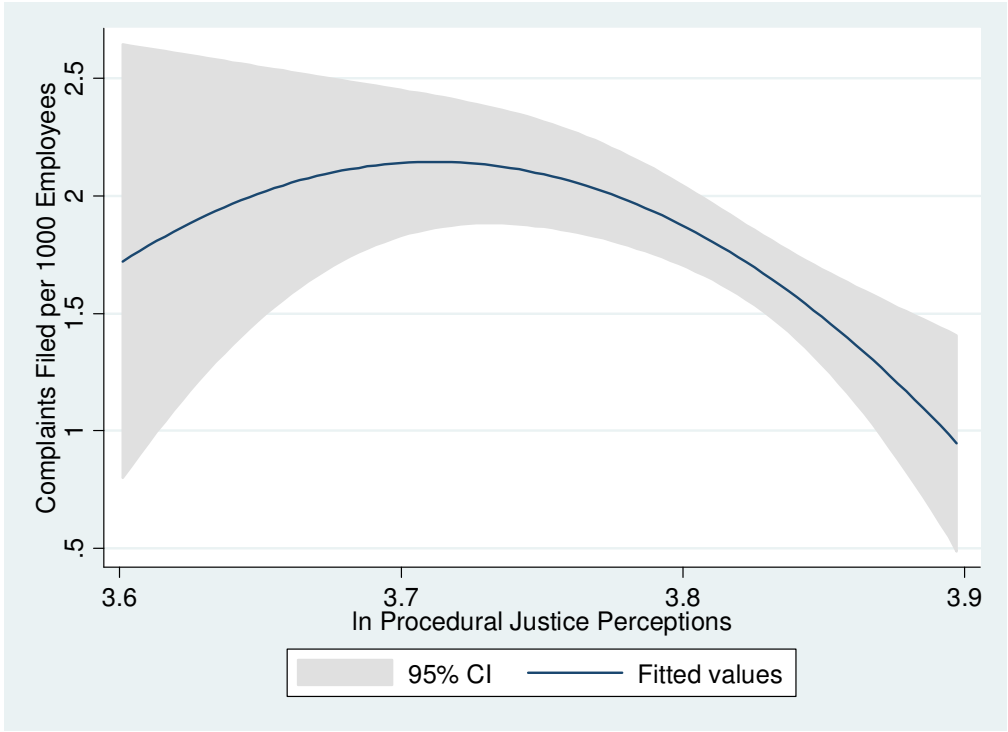


Figure 1
Quadratic Relationship between Complaints and the Leventhal Index

Bibliography

- Battaglio, P. & Condrey, S. (2009). Reforming Public Management: Analyzing the Impact of Public Service Reform on Organizational and Managerial Trust. *Journal of Public Administration Research and Theory*, advanced access.
- Battaglio, P. & Condrey, S. (2006). Civil Service Reform: Examining State and Local Cases. *Review of Public Personnel Administration*, 26(2), 118.
- Blader, S. L., & Tyler, T. R. (2003). A Four-Component Model of Procedural Justice: Defining the Meaning of a "Fair" Process. *Personality and Social Psychology Review*, 29(6), 747-758.
- Bowman, J. & West, J. (2006). Ending Civil Service Protections in Florida Government: Experiences in State Agencies. *Review of Public Personnel Administration*, 26(2), 139-157.
- Boyne, G. & Meier, K. (2009). Environmental Turbulence, Organizational Stability, and Public Service Performance. *Administration and Society*, 40(8), 799.
- Coggburn, J. (2006). At-Will Employment in Government: Insights from the State of Texas. *Review of Public Personnel Administration*, 26(2), 158-177.
- Colquitt, J. A. (2001). On the Dimensionality of Organizational Justice: A Construct Validation of a Measure. *Journal of Applied Psychology*, 86(3), 386-400.
- Congressional Budget Office (2004). *S. 2484 Department of Veterans Affairs Health Care Personnel Enhancement Act of 2004*. Washington, D.C.: U.S. Government Printing Office.
- Congressional Research Service (2004). *Legal Overview of P.L. 107-174, the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002* (Order Code RS21778). Washington, D.C.: U.S. Government Printing Office.
- Congressional Research Service (2005). *DOD's National Security Personnel System: Provisions of Law and Implementation Plans* (Order Code RL31954). Washington, D.C.: U.S. Government Printing Office.
- Congressional Research Service (2008). *Pay-for-Performance: The National Security Personnel System* (Order Code RL34673). Washington, D.C.: U.S. Government Printing Office.
- DeCremer, D., & Tyler, T. R. (2005). Managing Group Behavior: The Interplay Between Procedural Fairness, Self, and Cooperation. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 37, pp. 151-218). New York: Academic Press.
- Donahue, Amy K., Willow S. Jacobson, Mark D. Robbins, Ellen V. Rubin, and Sally C. Selden. 2004. Management and Performance Outcomes in State Government. in Patricia W. Ingraham and Laurence E. Lynn, Jr., eds., *The Art of Governance: Analyzing Management and Administration*. Washington, D.C.: Georgetown University Press, pp. 124-151.
- Felstiner, W., Abel, R., & Sarat, A. (1980). The Emergence and Transformation of Disputes: Naming, Blaming, Claiming. *Law and Society Review*, 15(3), 631-654.
- Folger, R., & Konovsky, M. A. (1989). Effects of Procedural and Distributive Justice on Reactions to Pay Raise Decisions. *Academy of Management Journal*, 32(1), 115-130.
- Gordon, M. E., & Fryxell, G. (1993). The role of interpersonal justice in organizational grievance systems. In R. Cropanzano (Ed.), *Justice in the Workplace: Approaching Fairness in Human Resource Management* (pp. 231-256). Hillsdale, NJ: Lawrence Elbaum Associates.

- Greenberg, J. (1990). Organizational Justice: Yesterday, Today, and Tomorrow. *Journal of Management*, 16(2), 399-432.
- Hays, S., & Sowa, J. (2006). A Broader Look at the “Accountability” Movement: Some Grim Realities in State Civil Service Systems. *Review of Public Personnel Administration*, 26(2), 102-117.
- Ingraham, P. (2006). Building Bridges Over Troubled Waters: Merit as a Guide. *Public Administration Review*, 66(4), 486-495.
- Kellough, J. E., & Nigro, L. G. (2002). Pay for Performance in Georgia State Government: Employee Perspectives on GeorgiaGain After 5 Years. *Review of Public Personnel Administration*, 22, 146-166.
- Kellough, J.E. & Selden, S. (2003). The Reinvention of Public Personnel Administration: An Analysis of the Diffusion of Personnel Management Reforms in the States. *Public Administration Review*, 63(2), 165-176.
- Lewin, D. (1987). Dispute Resolution in the Nonunion Firm: A Theoretical and Empirical Analysis. *The Journal of Conflict Resolution*, 31(3), 465-502.
- Leventhal, G. (1980). What Should be Done with Equity Theory? New Approaches to the Study of Fairness in Social Relationships. In K. Gergen, M. Greenbers & R. Willis (Eds.), *Social Exchange: Advances in Theory and Research* (pp. 27-55). New York: Plenum Press.
- Lind, E. A. (2001). Fairness Heuristic Theory: Justice Judgments as Pivotal Cognitions in Organizational Relations. In J. Greenberg & R. Cropanzano (Eds.), *Advances in Organizational Justice* (pp. 56-88). Palo Alto, CA: Stanford University Press.
- Lind, E. A., & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice*. New York: Plenum Press.
- Maranto, R., 1998. “Thinking the Unthinkable In Public Administration: A Case for Spoils in the Federal Bureaucracy.” *Administration and Society*, 29/6: 623-642.
- Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An Exploratory Study of Employee Silence: Issues that Employees Don't Communicate Upward and Why. *Journal of Management Studies*, 40(6), 1453-1476.
- Moorman, R. H. (1991). Relationship Between Organizational Justice and Organizational Citizenship Behaviors: Do Fairness Perceptions Influence Employee Citizenship? *Journal of Applied Psychology*, 76(6), 845-855.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational Silence: A Barrier to Change and Development in a Pluralistic World. *Academy of Management Review*, 25(4), 706-725.
- Nigro, L. G. & Kellough, J. E. (2006). Dramatic Reform in the Public Service: At-Will Employment and the Creation of a New Public Workforce. *Journal of Public Administration Research and Theory*, 16(3), 447-466.
- Nigro, L. G. & Kellough, J. E. (2006). The States and civil Service Reform: Some Lessons Learned and Future Prospects. In Kellough and Nigro (Eds.), *Civil Service Reform in the States: Personnel Policy and Politics at the Subnational Level*. SUNY Press: Albany, NY.
- Nigro, L. G. & Kellough, J. E. (2000). Civil Service Reform in Georgia: Going to the Edge? *Review of Public Personnel Administration*, 20(4), 41.
- O'Toole Jr, L. J., & Meier, K. J. (1999). Modeling the Impact of Public Management: Implications of Structural Context. *Journal of Public Administration Research and Theory*, 9(4), 505.

- O'Toole Jr, L. J., & Meier, K. J. (2003). Plus ça Change: Public Management, Personnel Stability, and Organizational Performance. *Journal of Public Administration Research and Theory*, 13(1), 43.
- Pearce, & Perry (1983). Federal Merit Pay: A Longitudinal Analysis. *Public Administrative Review*, 43, 315-325.
- Perry, J. (1986). Merit Pay in the Public Sector: The Case for a Failure of Theory. *Review of Public Personnel Administration*, 86(7), 57.
- Riccucci, N. & Thompson, F. (2008). New Public Management, Homeland Security, and the Politics of Civil Service Reform. *Public Administration Review*, 68(5), 877.
- Rubin, E. (2009). The Role of Procedural Justice in Public Personnel Management: Empirical Results From the Department of Defense. *Journal of Public Administration Research & Theory*, 19, 125-143.
- Rudman, L., Borgida, E., & Robertson, B. (1995). Suffering in Silence: Procedural Justice Versus Gender Socialization Issues in University Sexual Harassment Grievance Procedures. *Basic and Applied Social Psychology*, 17(4), 519-541.
- Shapiro, D. L., & Kirkman, B. L. (1999). Employees' Reaction to the Change to Work Teams: The Influence of "Anticipatory" Injustice. *Journal of Organizational Change Management*, 12(1), 51-66.
- Shapiro, D. & Kirkman, B. (2001). Anticipatory Injustice: The Consequences of Expecting Injustice in the Workplace. In Greenberg, J. and R. Cropanzano (Eds), *Advances in Organizational Justice*, p. 152-178. Stanford, CA: Stanford University Press.
- Skarlicki, D. P., & Latham, G. P. (1996). Increasing Citizenship Behavior Within a Labor Union: A Test of Organizational Justice Theory. *Journal of Applied Psychology*, 81(2), 161-169.
- Thibaut, J., & Walker, L. (1978). A Theory of Procedure. *California Law Review*, 66, 541-566.
- Thompson, J. (2006). The Federal Civil Service: The Demise of an Institution. *Public Administration Review*, 66(4), 496-503.
- Thompson, J., & Rainey, H. (2003). *Modernizing Human Capital Management in the Federal Government: The IRS Model*. Washington, D.C.: IBM Endowment for the Business of Government.
- Tyler, T. R., & Blader, S. L. (2003). The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior. *Personality and Social Psychology Review*, 7(4), 349-361.
- Tyler, T. R., & Lind, E. A. (1992). A Relational Model of Authority in Groups. *Advances in Experimental Social Psychology*, 25, 115-191.
- U.S. General Accounting Office (2002). *Managing for Results: Using Strategic Human Capital Management to Drive Transformational Change* (GAO-02-940T). Washington, D.C.: U.S. Government Printing Office.
- U.S. General Accounting Office (2003). *Human Capital Management: FAA's Reform Effort Requires a More Strategic Approach* (GAO-03-156). Washington, D.C.: U.S. Government Printing Office.
- U.S. Office of Personnel Management (2005). *Alternative Personnel Systems In Practice and a Guide to the Future* Washington, D.C.: U.S. Government Printing Office.
- U.S. Office of Personnel Management (2007a). *Creating a Foundation for the 21st Century Workforce: An Assessment of the Implementation of the Department of Homeland Security Alternative Personnel System* Washington, D.C.: U.S. Government Printing Office.

- U.S. Office of Personnel Management (2007b). *Alternative Personnel Systems in the Federal Government: A Status Report on Demonstration Projects and Other Performance-Based Pay Systems* Washington, D.C.: U.S. Government Printing Office.
- Youngblood, S., Trevino, L., & Favia, M. (1992). Reactions to Unjust Dismissal and Third Party Dispute Resolution: A Justice Framework. *Employee Responsibilities and Rights Journal*, 5(4), 283-307.