How Status-Group Power Differentials Shape Age Discrimination within U.S. Federal Agencies:
Evidence from EEOC Formal Complaint Filings, 2010-2019

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Abstract

Age discrimination undermines both the caliber and performance of the U.S. federal government workforce, yet little is known about the nature of this problem. A theory is proposed, anchored in discrimination age-eligible employees (age 40 and over) representing a social identity group, to explain how status-group power differentials between supervisors and subordinates within U.S. federal agencies explain the organizational incidence of formal discrimination complaints. The theory predicts that the incidence of age discrimination formal complaints is *declining* in the share of supervisory personnel who are discrimination age-eligible, while *increasing* in the share of subordinate personnel members who belong to this group. Empirical support is obtained for these hypotheses using objective EEOC age discrimination formal complaint data for an unbalanced panel of 130 U.S. federal agencies between 2010-2019. The empirical evidence underscores the structural challenges to combatting ageism within the U.S. federal government workforce during an era of intergenerational personnel change.

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The U.S. federal government civilian workforce is 'greying' – as its ranks become increasingly populated by older employees during the past several decades (e.g., Buble 2019; Saldarini 2001; Vinik 2017). Despite concerns regarding an impending wave of potential retirements that threaten both organizational memory and continuity for many U.S. federal government functions, this has not come to pass. For example, 2018 Office of Personnel Management (OPM) statistics denote that the number of workers over 60 years of age (14%) is 80% greater than those under the age of 30 (7.8%), a trend that has only risen through time (Buble 2019). Against this backdrop of a 'greying' U.S. federal civilian workforce is the concomitant problem of age discrimination within U.S. federal government agencies. A larger share of older workers within organizations are found to be associated with a higher propensity of discriminatory behavior that is manifested through negative age-based stereotypes (Bayl-Smith and Griffin 2014: 595; Elliott 1995: 11; Kunze, Boehm, and Bruch 2011), limiting promotion opportunities for older workers (Cox and Nkoma 1992), and reducing human capital investments in older workers (Elliott 1995: 14-15). Age discrimination has negative repercussions for organizations, ranging from older employee's emotional detachment from the organization to hindering their ability to execute specific task functions associated with their positions (Bayl-Smith and Griffin 2014: 589).

This study offers a novel theoretical perspective to explain why some federal agencies confront a higher incidence of age discrimination than others. This theory is premised on status–group power differentials favoring supervisory (managers) personnel at the expense of subordinate (non-supervisory) counterparts, and its implications for employees based on the social identity characteristic of interest (i.e., age-eligible [40 years and over] federal government employees covered under age discrimination laws). Specifically, the theory posits that members of a social identity group subject to discrimination (i.e., discrimination age-eligible employees) residing in supervisory positions

are well-positioned to translate their own group interests into reducing the organizational-level incidence of age discrimination formal complaints[1], while the opposite transpires for discrimination age-eligible employees occupying subordinate positions. These opposing effects rest upon whether organizational members hold the requisite authority to shape outcomes. Although vulnerable age-eligible employees subject to discrimination laws may wish to reduce age discrimination problems within their organization, the ability to attain this goal crucially depends upon how authority is distributed within public organizations.

This logic is especially well suited for analyzing age discrimination formal complaints as an organizational–level problem that requires costly action for both complainants and U.S. federal agencies. Moreover, focusing on age discrimination overcomes a common limitation posed by analyzing other vulnerable social identity groups that often comprise a much smaller fraction of public organizations, and thus do not attain critical mass status that is often deemed critical for understanding how their interests are parlayed into desirable outcomes (Kanter 1977). Therefore, the empirical evidence obtained from this study is not susceptible to a potential observational equivalence problem between the empirical predictions of the proposed theory and the distinction as to whether a critical mass has been attained by supervisors, but not subordinate personnel.[2]

These propositions are empirically evaluated using an unbalanced, short panel of data on age discrimination formal complaints covering 130 U.S. federal agencies between

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[1] The evidence presented in this study can determine whether this necessary condition is sufficient for translating group interests into organizational outcomes (cf. Carroll, Wright, and Meier 2019).

[2] The empirical distributions of these measures for the sample of data analyzed in this study are as follows: *Proportion of 'Older' Supervisors:* Mean = 0.876, SD = 0.064, Min = 0.545, Max = 0.988; *Proportion of 'Older' Subordinates*: Mean = 0.684, SD = 0.090, Min = 0.356, Max = 0.939.

2010-2019. Statistical evidence uncovers robust empirical support that status-group power differentials between supervisory and subordinate agency personnel predict variations involving the organizational-level incidence of age discrimination in opposing ways. These findings suggest that, on a practical level, the inherent structural obstacles posed by these age discrimination problems are complicated by the intertwining of both status-group power differentials and intergenerational change within the U.S. federal civilian workforce. Addressing these problems requires not only greater awareness by young supervisors who do not share social identity with 'older' subordinates, but also a holistic approach that treats the issue of age discrimination throughout U.S. federal agencies as a matter of organizational justice. This study also has theoretical implications for the study of representative bureaucracy by suggesting that the differential capacities of social identity sub-groups within public organizations might be instructive for understanding variability in shaping the benefits or protections obtained by vulnerable clientele groups.

The paper proceeds as follows. Next, the nature of age discrimination among U.S. federal government employees is discussed. In the subsequent section, a theoretical logic of status-group power differentials is developed to understand variability involving the incidence of age discrimination formal complaints from employees of U.S. federal agencies. The data, variables, and methodology employed in this study followed by the empirical evidence are presented in successive sections. The study concludes by focusing on the importance of authority within organizations, and subsequently exploring its broader implications for the study of representative bureaucracy.

AGE DISCRIMINATION WITHIN THE U.S. FEDERAL WORKFORCE

The Age Discrimination in Employment Act (ADEA) of 1967 (*Pub. L. 90-202*) prohibits age discrimination against people who are age 40 or older in any aspect of employment, including hiring, layoffs, wages, work assignments, benefits, promotions, and termination of employment. Harassing a person just because of their biological age is also prohibited by law. Congress delineates the purposes of the ADEA as follows:

> "*It is therefore the purpose of this chapter to promote employment of older persons based on their ability rather than age; to prohibit arbitrary age discrimination in employment; to help employers and workers find ways of meeting problems arising from the impact of age on employment (29 U.S.C. § 621(b)).*"

Along with both the Equal Pay Act of 1963 and the Title VII of Civil Rights Act of 1964, the ADEA was enacted to construct the foundation of equality and fairness rooted in age and ability (EEOC 2018). In 1974, Congress extended ADEA protections to employees of federal, state and local governments (*Pub. L. No. 93-259, 88 Stat. 74*).

Although it has been nearly 50 years since the ADEA was adopted for the U.S. federal government workforce, age discrimination remains persistent within the U.S. federal workplace, a problem that has worsened with the "greying" demographics of government employees. The aging of the U.S. federal workforce is more apparent than that of the private sector. Due to baby boomers' late retirement in the federal workplace, coupled with millennials' relative preference for the private sector, the federal workforce is steadily becoming more dominated by older employees. Although employees 40 years of age or older represented approximately 55 percent of the U.S. civilian labor force in the fiscal year 2014, the same age group represented about 70 percent of the civilian federal workforce in that

same fiscal year (GAO 2016). Over the past 20 years, it is shown that the percentage of full-time federal employees over 55 has sharply risen, up approximately 83 percent, while the percentage of employees younger than 45 has declined (Vinik 2017).

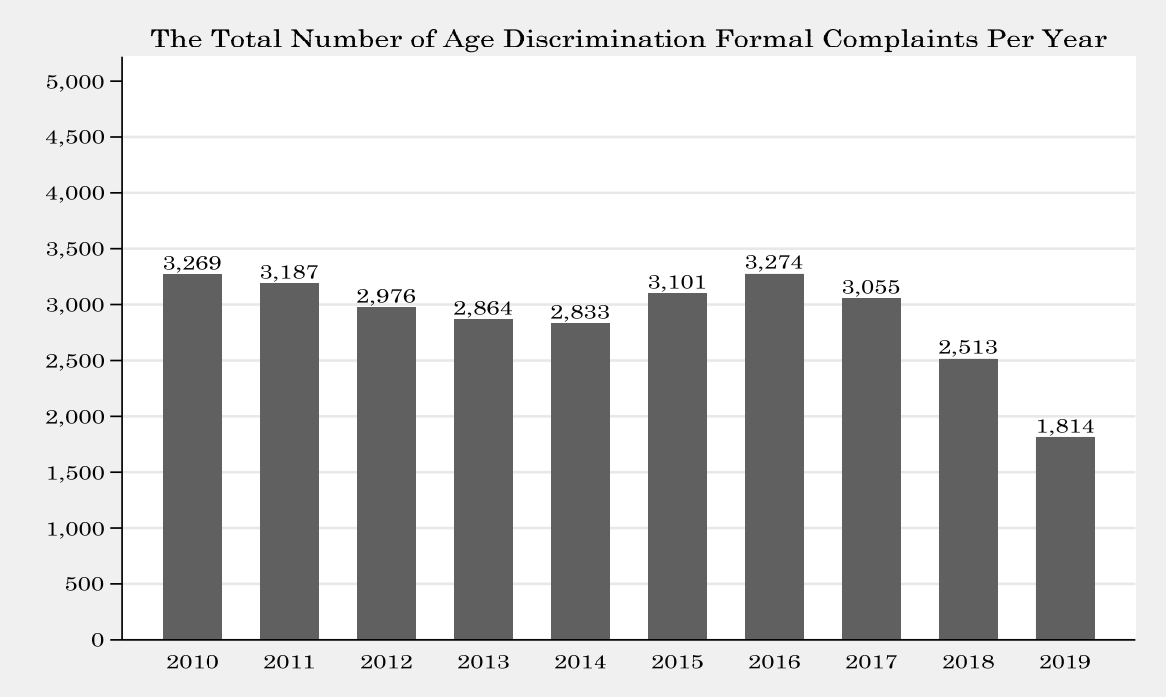
The volume of age discrimination formal complaints in U.S. federal agencies is nontrivial. Data covering this study's sample period in **Figure 1** display the sum of all age discrimination formal complaints from the sample of data between 2010-2019. These data offer a conservative portrait of age discrimination problems experienced within U.S. federal agencies since much discriminatory behavior goes unreported. The highest total volume of age discrimination formal complaints occurs in 2016 (3,274, with an agency mean of 34.83), while the lowest volume for a given year is 2019 (1,814, with an agency mean of 21.09).[3]

Along with greying demographics of government employees, an increasingly multigenerational workplace makes U.S. federal government employees more vulnerable to age discrimination. With more senior employees delaying retirement either by their choice or necessity, government organizations have become increasingly multigenerational (Buble 2019; Vinik 2017). These changes are associated with greater intergenerational conflicts due to varying work values, leadership and teamwork preferences, career experiences, personalities, and technology-use differences (Carver and Candela 2008; Hillman 2014; Lyons and Kuron 2014; Zemke, Raines, and Filipczak 2013). Further complicating matters is that older workers have lost some of the power naturally accrued to them through both experience and seniority to younger colleagues since the latter possess the type of contemporary workplace skills required in the 21st century government workforce. Because of these human capital differences, "*the once 'natural' flow of resources, power, and*

[3] This sample consists of a total of 130 federal agencies, with the unit of analysis being organizational unit by administrative function (e.g., the USDA has ten (10) separate agency units).

responsibilities from older to younger arms has been dislocated." (Zemke, Raines, and Filipczak 2013: 9).

FIGURE 1



STATUS-GROUP POWER DIFFERENTIALS: DISPARATE CONSEQUENCES FOR AGE DISCRMINATION WITHIN U.S. FEDERAL AGENCIES

On a fundamental level, the extent to which the supervisors are willing to abdicate effective control of decisions to subordinates (i.e., real authority) is heavily conditioned by the subordinate's willingness to exercise such authority consistent with the goals of supervisors (Aghion and Tirole 1997). Besides possessing decision making rights (i.e., formal authority), supervisors retain control over decision making authority for administrative personnel matters, and hence subordinates are not afforded effective control over such decisions (i.e., real authority). Administrative officials in supervisory positions therefore exercise both formal and real authority in the Aghion and Tirole (1997) sense by

setting the parameters by which policy and management decisions are put into action (e.g., Keiser, Wilkins, Meier and Holland 2002; Wilkins and Keiser 2006). Herd and Moynihan (2018), for example, document how administrative burdens imposed on social program beneficiaries are largely generated not from the actions of street-level bureaucrats, but rather from the administrative choices made by supervisory officials seeking to implement policies produced from political processes. It is also natural to presume that both fair and legal treatment of administrative personnel within public organizations rests in the hands of supervisors who are responsible for evaluating subordinates, as well as shaping the terms of working conditions, terms of pay, promotion opportunities, and the like (Elliott 1995). Because subordinate personnel lack authority over such employment terms and conditions, they are exposed to unfair treatment within administrative organizations.

The power imbalance between supervisors and subordinates represents a status-group power differential that translates into higher status-group members of an organization having the capacity to influence outcomes for lower status group members. This occurs because status-group power differentials derive from members of the low-status group (subordinates) being more dependent upon high-status group members (supervisors) than the other way around (Emerson 1962). Supervisors routinely apportion worker-related benefits through the control of both time and resources of subordinates (Netemeyer, Maxham, and Lichtenstein 2010). These supervisor-subordinate relationships vary based upon self-identities from each employee-status group, and hence, have critical downstream implications for understanding the caliber of leadership-member exchanges (Jackson and Johnson 2012), as well as the treatment of subordinates (Farmer and Aguinis 2005).

Because not all social identity groups within an organization are equal, and status-group power differentials exist, achieving social equity in both the operations and execution of public administration is extremely difficult (e.g., Grissom and Keiser 2011; Guy 1984;

Kellough 1989; Kelly and Newman 2001; Lewis 1988; Meier 2019; Naff 1995; Riccucci and Van Ryzin 2017). Vulnerable social identity groups that enjoy a status-power advantage can leverage effective organizational outcomes that benefit their own group's interests (Rocsicgno, et al. 2007), especially when they comprise a larger share of positions holding authority within an organization that makes them less susceptible to unfair treatment. This transpires because the social identity of supervisors in relation to subordinates reflects an unequal distribution of authority within organizations. High-status groups (supervisors) are known to make favorable comparisons to legitimate their decisions (Tafjel and Turner 1986), including in the realm of age discrimination (e.g., Garstka, Hummert, and Branscombe 2005). Naturally, it becomes easier for an organization to develop more favorable conditions for older workers when supervisors comprise a larger share of such administrative employees. The first hypothesis associated with the consequences of status-group power differentials applied to age discrimination is as follows:

> **H1 (Supervisory Hypothesis)**: *The percentage of* ***supervisory*** *personnel 40 years of age and older will be* ***negatively*** *associated with the organizational incidence of age discrimination.*

H1 posits that greater authority held by members of a vulnerable social identity group (i.e., discrimination age-eligible employees) will be associated with reducing claims of unfair treatment for this group within an organization.

Such power imbalances between supervisors and subordinates will also cut in the opposite manner, thus making unfair treatment relating to age discrimination more commonplace throughout an organization corresponding with a rising share of subordinate members belonging to the vulnerable social identity group. This is because high-status group members will behave consistent with both expressing and justifying their own power at the expense of low-status group members (Gwinn, Judd, and Park 2013). It is natural to

infer that these asymmetries involving power imbalance between supervisors and subordinates will be exacerbated when introducing social identity to the equation. Members of a vulnerable social identity group who reside in positions lacking authority are adversely affected in the workplace environment (Roscigno, Lopez, and Hodson 2009). Yet such behaviors have 'spillover' consequences that may affect the treatment for all members of an organization (Presthus 1960). As a result, the linkage between the share of organizational members in subordinate positions susceptible to age discrimination and its formal incidence throughout the organization becomes inverted, whereby having a larger share of vulnerable employees within the organization yields worse treatment for all of its members. This yields a second hypothesis regarding the logical consequences for understanding how status-group power differentials shape age discrimination within administrative organizations:

> **H2 (Subordinate Hypothesis)**: *The percentage of* ***non-supervisory*** *personnel 40 years of age and older will be* ***positively*** *associated with the organizational incidence of age discrimination.*

H2 predicts that increasing the share of employees lacking formal authority who belong to the vulnerable social identity group will be associated with a higher incidence of unfair treatment within an organization.

Both hypotheses are evaluated in the context of analyzing aggregate formal complaints of age discrimination made within U.S. federal agencies. Specifically, a larger share of supervisory positions held by employees covered by age discrimination laws (i.e., 40 years of age and older) is predicted to be inversely associated with the incidence of age discrimination, while a larger share of 'older' subordinate agency employees will be associated with higher incidence rates of age discrimination. Next, the data, measures, and empirical strategy for evaluating these theoretical hypotheses are discussed.

DATA, MEASURES, AND EMPIRICAL STRATEGY

The sample of data used to evaluate the propositions generated from the organizational susceptibility logic consists of a short, unbalanced panel comprised of 130 U.S. federal agencies over a ten-year period. These agencies represent unique organizational units by administrative function that are available from the EEOC NO FEAR Act data reporting statistics. For example, the Department of Commerce has five sub-bureau offices appearing as separate agencies in our sample, while the Department of Education's statistics are for the entire agency. A full list of agencies available from EEOC NO FEAR reported statistics can be found in the **Appendix** document (***Appendix Table A-0***). Some agencies lack complete data for all ten years due to data availability of No FEAR Act (Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002) report or/and Federal Employee Viewpoint Survey (FEVS).[4] To address the possibility that the statistical results are not being driven by the shortest panels reflecting the most incomplete data, we perform sensitivity analysis in the **Appendix** document (***Appendix Table A-3***) that omits those agency panels where $T < 7$, thus dropping nearly 20% of the full sample. The core findings of interest are robust, while becoming more pronounced for this subsample of observations.

[4] The No FEAR Act requires that federal agencies post summary statistical data relating to equal employment opportunity complaints filed against them on their public websites. Agencies are also required to post data for the five previous fiscal years for comparison purpose. While some agencies post their historical data (dating back to more than five years) on their public website, others do not. 79.53% of these missing data are due to lack of FEVS availability, while 15.03% are due to the lack of a No FEAR report, and 5.44% is lacking both data sources.

Three distinct data sources are leveraged in this study – EEOC age discrimination formal complaint data for explaining outcomes, OPM personnel data on various employment-based measures employed in this study, and FEVS data on self-reported measures used to construct a latent measure of employee perceptions of organizational justice and fairness (Choi and Rainey 2014; Choi 2017; Moon 2017). This latent measure accounts for the general discriminatory climate of administrative agencies that is not accounted for by reported formal discrimination complaints. Inclusion of this latent measure is crucial for controlling for potential confounding due to unreported incidences of age discrimination that are not directly observed.

Dependent Variable

To assess age discrimination within the U.S. federal government workforce, we focus on agency-level incidence of age discrimination formal complaints. These data are reported by agencies through the Equal Employment Opportunity Commission (EEOC).[5] The dependent variable of interest is measured as the total number of age discrimination formal complaints levied against agency i in year t. This measure is an event count variable that is a non-negative integer that is bounded from below at zero. The overall mean/median value is 32/11 formal complaints of age discrimination per agency-year, with a standard deviation of 72.51, with a minimum of zero cases (roughly 6.02% of the sample) and maximum value of 887 cases (Veterans Health Administration in 2010).

Although these data do not capture the full extent of age discrimination problems that takes place within government agencies, they nonetheless represent the most serious publicly known instances of age discrimination that are observable in practice. Further,

[5] These data are obtained from each agency's website. The full list of agency website data sources can be obtained from the authors.

these data are quite informative regarding the severity of age discrimination problems within U.S. federal agencies since these incidents represent the subset of reported complaints that cannot be resolved through recommended EEOC informal resolution processes such traditional counseling, alternative dispute resolution, or low visibility pre-investigatory settlements. Formal discrimination complaints trigger costly processes ranging from internal agency-level investigations to adjudication involving the EEOC, or possibly even the federal court system. When informal resolution methods are unsuccessful, complainants' willingness to file a formal complaint can result in retribution through assigned duties, performance evaluations, or loss of advancement opportunities. The agency incurs an expenditure of resources required to investigate, and possibly defend itself from legal action, which may ultimately damage an agency's reputation as a desirable workplace.

Status-Group Power Differential Covariates

The first primary covariate measuring passive representation, *Proportion of 'Older' Supervisors*, is measured as the ratio of supervisors age 40 and over (covered by EEOC age discrimination laws) to total supervisors within a given agency in a year. According to **H1 (Supervisory Hypothesis)**, this covariate should be inversely related to the incidence of age discrimination formal complaints. The second primary covariate, *Proportion of 'Older' Subordinates*, is measured as the ratio of non-supervisory personnel age 40 and over (covered by EEOC age discrimination laws) to total non-supervisory personnel within a given agency in a year. **H2 (Subordinate Hypothesis)** predicts that this covariate is positively associated with the incidence of age discrimination formal complaints. In a separate statistical model specification, the ratio of these two measures is employed to capture the relative balance of 'older' supervisory personnel to non-supervisory personnel

(*Ratio Proportion of 'Older' Supervisors to 'Older' Subordinates*).[6] This covariate should be negatively associated with the incidence of age discrimination formal complaints.

Control Covariates

The perceived discriminatory climate of an agency should have direct bearing on the severity of age discrimination problems encountered. Existing public administration research has focused on how organizational fairness improves job satisfaction to varying levels (Choi and Rainey 2014; Moon 2017), improves diversity and how it reduces the overall number of complaints within federal agencies (Choi 2017). We measure *Perceived Organizational Justice* as a latent factor score derived from a three-factor structural equation model premised on distributive justice, procedural justice, and interpersonal justice concepts derived from Federal Employee Viewpoint Survey (FEVS) survey instruments included in each wave during the sample period that taps into the latent level of employee perceived organizational justice reflected by each agency in a given year.[7] The agency-year mean value of the factor score is employed as the covariate of interest since the analysis focuses on age discrimination as an organizational-level problem. Employees perceptions of fair treatment through distributive, procedural, and interpersonal means should be inversely associated with the incidence of age discrimination formal complaints. The substance underlying this relationship is that a perceived lack of organizational fairness displayed by agencies will translate into an organizational environment where ageism is not only more common, but also make it more difficult for both the complainant

[6] This pair of separate covariates used to construct this measure are positively correlated at 0.529.

[7] Details of the FEVS survey instruments, composition of the structural equation model and its resulting estimates appear in the **Appendix** document (see section on ***Construction of the Latent Variable – Perceived Organizational Justice***).

and agency to amicably resolve disputes by foregoing the formal complaint process. Agencies whose employees perceive lower levels of perceived organizational justice are not only likely to obtain less goodwill from employees, but should also be less concerned about the harm accrued to its organizational reputation attributable to discrimination.

The statistical models also account for the possibility that the age discrimination formal complaints are influenced by the level of non-professional employees within an agency for a given year. This is captured by the measure, *Proportion of 'Older' Non-Professional Employees*, operationalized as the ratio of non-professional personnel age 40 and over (e.g., administrative, technical, clerical, other white collar, and blue collar) to the total employees within a given agency in a year. Increases in this covariate should be positively related to the incidence of age discrimination formal complaints since non-professionals, who have less knowledge or skills that are essential to perform tasks in the workplace, are more vulnerable to the age discrimination problem. In other words, 'older' non-professional employees are more likely to confront the unfounded assumption about age and ability, which was the primary basis for establishing the ADEA. The potential influence that staffing politicization may exert on the incidence of age discrimination formal complaints is also considered. *Staffing Politicization* is measured as the percentage of political appointees in supervisory positions within a given agency-year (Lewis 2008). The nature of this relationship is uncertain. Greater staffing politicization can result in a breakdown of professional norms among careerists by being associated with greater improper personnel behavior. Conversely, staffing politicization may reduce age discrimination by disrupting an insular climate predisposed to such problems.

Control variables are included in model specifications to account for the relative diversity of each agency in a given year based on gender (*Ratio of Women to Men Supervisors*) and racial and ethnic minority status (*Ratio of Minority to Non-Minority*

Supervisors). Based on recent research demonstrating a 'backlash' diversity effect incurred by women supervisors within U.S. federal agencies (Tinkler and Zhao 2020), each covariate should be positively associated with the incidence of age discrimination formal complaints since historically underrepresented social identity groups in supervisory positions should be both more susceptible to workplace discrimination problems. Accounting for these potential gender and racial/ethnicity effects ensures that these characteristics are not confounding the general supervisory effects of interest in this study. *Organizational Size* is measured as the natural logarithm of total agency employment (full-time and part-time) for a given agency-year. This covariate captures the 'scale' effect in predicting the incidence of age discrimination formal complaints, and hence should yield a positive coefficient since larger federal agencies should be more prone to age discrimination formal complaints. Finally, a series of year binary indicators are incorporated in these model specifications to account for common-agency variations involving the incidence of age discrimination formal complaints that vary across years among U.S. government employees.

Special methodological challenges are presented in the analysis of these data since the variables exhibit variation that is heavily cross-sectional dominant. **Table 1** displays the overall, between-agency, and within-agency descriptive statistics. Notwithstanding the year unit effects which exhibit no agency-level variation by construction, these statistics reveal that the ratio of between-agency variation to within-agency variation based on the standard deviation estimates ranging from a minimum of (*Perceived Organizational Justice* = 2.24) to a maximum of (*Organizational Size* = 21.46). Because of this issue, standard panel data modeling approaches are not most suitable for analyzing these data. Assuming the existence of sufficient within-agency variation for a subset of covariates, random effects coefficient estimates will tend to be biased and thus prone to Type I inferential errors, while fixed effect estimates will be highly inefficient (i.e., inflated standard errors) as the lack of

within-agency variation over time will make statistical inferences prone to Type II errors. These issues are addressed by implementing a generalized panel data model estimator which flexibly decomposes variation of the model's variables into three components: random agency-level effects, within-agency effects accounting for the agency/group demeaned relationship between $\left(Y_{it} - \bar{Y}_i\right)$ and $\left(X_{it} - \bar{X}_i\right)$, and also agency/group level mean between-effects assessing the relationship between $\bar{X}$ on $\bar{Y}$. The resulting random effects within-between (REWB) model overcomes the limitations of making stark bias-efficiency tradeoffs between the standard random and fixed effects models (see Bell and Jones 2015; Bell, Fairbrother, and Jones 2019 for technical details). The appropriate general estimating equation is of the form:

$$Y_{it} = \alpha + \delta_{k:WE}\left(X_{kit} - \bar{X}_{kt}\right) + \gamma_{k:BE}\,\bar{X}_i + \beta_l\, Z_{lit} + v_i + \varepsilon_{it} \qquad (1)$$

where the k vector of within-agency effect estimates $\left(\delta_{k:WE}\right)$ are given by the demeaned vector of covariates denoted as $\left(X_{k\,it} - \bar{X}_{kt}\right)$, the corresponding k vector of between-agency estimates $\left(\gamma_{k:BE}\right)$ reflecting grouped-agency mean effects $\left(\bar{X}_i\right)$, the l vector of random effect estimates for the non-decomposed variables lacking sufficient within-agency variation $\left(\beta_l\right)$ associated with this subset of covariates $\left(Z_{l\,it}\right)$, a random intercept term $\left(v_i\right)$, plus a residual disturbance term $\left(\varepsilon_{it}\right)$. Both the *Organizational Size* and year unit effect binary indicators are treated as non-decomposed covariates since they lack sufficient within-agency variation to exploit the REWB modeling approach. Due to the lack of within-agency temporal variation, the main focus is on analyzing the between-effects $\left(\gamma_{BE}\right)$ coefficients of primary interest to this study. Equation (1) is estimated within a generalized linear

TABLE 1: Descriptive Statistics: Overall Variation, Between-Agency Variation, Within-Agency Variation

	Overall Variation				Between-Agency Variation				Within-Agency Variation			
	Mean	**S.D.**	**Min**	**Max**	**Mean**	**S.D.**	**Min**	**Max**	**Mean**	**S.D.**	**Min**	**Max**
The Number of Age Discrimination Formal Complaints	32.202	72.508	0	887	_____	64.703	0	561.625	_____	15.785	−98.422	357.578
Proportion of 'Older' Supervisors	0.876	0.064	0.545	0.988	_____	0.063	0.594	0.967	_____	0.024	0.647	1.019
Proportion of 'Older' Subordinates	0.684	0.090	0.356	0.939	_____	0.088	0.441	0.922	_____	0.025	0.552	0.825
Ratio of "Older' Supervisors to 'Older' Subordinates	1.299	0.162	0.738	2.501	_____	0.155	0.774	1.987	_____	0.062	1.041	1.813
Perceived Organizational Justice	0.075	0.169	−0.488	0.645	_____	0.154	−0.294	0.524	_____	0.069	−0.166	0.340
Proportion of 'Older' Non-Professional Employees	0.517	0.165	0.084	0.920	_____	0.164	0.091	0.912	_____	0.019	0.409	0.643
Staffing Politicization	0.022	0.052	0	0.546	_____	0.065	0	0.443	_____	0.012	−0.108	0.124
Ratio of Women to Men Supervisors	0.721	0.425	0.141	2.760	_____	0.409	0.159	2.121	_____	0.080	0.081	1.437
Ratio of Minority to Non-Minority Supervisors	0.581	1.002	0.045	9.030	_____	0.862	0.062	8.090	_____	0.099	−0.849	1.521
Organizational Size (Ln)	8.672	1.497	4.804	12.743	_____	1.632	4.804	12.635	_____	0.076	7.900	8.999

modeling (GLM) framework using a negative binomial distribution with a log link due to the zero-bounded event count nature of the dependent variable. The negative binomial regression distribution is preferred to the Poisson distribution in this application since the standard deviation (72.51) associated with age discrimination formal complaints exceeds the mean (32.20) of its sampling distribution. On a substantive level, it is reasonable to infer that the incidences of these cases within a given agency-year are not independent from one another as assumed in a Poisson model formulation. Rather, the willingness to pursue formal complaints of age discrimination within a given agency-year reflects positive contagion indicative of overdispersion specified in the Negative Binomial model.

EMPIRICAL FINDINGS

The REWB regression model estimates based on 897 agency-year observations appear in **Table 2**.[8] Unsurprisingly, the model estimates reveal that notable covariation in these data involve between-agency (group-mean) effects – i.e., average agency-level effects. For purposes of brevity, the interpretation of these statistical estimates focuses on the significant predictors which explain variations in the incidence of age discrimination formal complaints. These model specifications offer compelling empirical support for both **H1** and **H2** with respect to the between-agency relationships between the *Proportion of 'Older' Supervisors*, *Proportion of 'Older' Subordinates* (**Models 1** & **2**), as well as its ratio, *Ratio Proportion of 'Older' Supervisors to 'Older' Subordinates* (**Models 3** & **4**), and the mean agency incidence of age discrimination formal complaints. **Models 2** & **4** offer more conservative estimates since these models control for additional potential confounders.

[8] The Stata program code *xthybrid* (Schunk and Pareles 2017) was implemented for statistical estimation purposes to generate model estimated and inferences.

Besides the *Organizational Size* of agencies being positively associated with the overall incidence rate of formal age discrimination complaints accounting for scale effects, the latent aggregate level of *Perceived Organizational Justice*, composed of procedural, distributive, and interpersonal elements, is negatively associated with the incidence of age discrimination formal complaints.[9] An interdecile increase across agency means yields a 43.47% and 45.33% respective decline in the mean-agency incidence rate of age discrimination formal complaints in **Models 2** & **4**.[10] This offers convergent validity with respect to the measurement of the dependent variable that only accounts for reported incidents involving costly action from both parties. Further, a higher balance of women to men supervisory personnel across federal agencies is associated with a significant rise in the average agency complaint rates (**Models 2** & **4**). This finding at the organizational level is compatible with observed individual-level evidence from self-reported survey data analyzed by Tinkler and Zhao (2020) regarding a potential gendered supervisory 'backlash' effect of employee behavior that affects the overall incidence of age discrimination formal complaints between agencies. One possible explanation for this finding is that women supervisors might be more susceptible to age discrimination, net of the level of organizational justice reflected across U.S. federal agencies.[11]

Figure 2 lists the interdecile covariate increases involving relationships involving the between-agency covariates (marginal change from 10th percentile to 90th percentile values) and mean agency incidence rate of age discrimination formal complaints evaluating

[9] These effects are distinct from the gendered supervisory 'backlash' effect (correlation = 0.027).

[10] These interdecile marginal effect incidence rate ratios are computed as exp(coefficient − 1).

[11] Experimental evidence finds that women managers experience twice the negative effects from critical feedback administered to subordinates compared to men counterparts (Abel 2019).

TABLE 2: REWB Model Estimates (*Evaluating Status-Group Power Differentials*)

Covariates	Estimates	Model 1	Model 2	Model 3	Model 4
Proportion of 'Older' Supervisors **(H1)**	Within-Agency	−0.426	−0.664	_____	_____
		(1.087)	(1.160)		
	Between-Agency	−3.001***	−1.991*	_____	_____
		(0.802)	(0.786)		
Proportion of 'Older' Subordinates **(H2)**	Within-Agency	1.062	0.607	_____	_____
		(0.901)	(1.158)		
	Between-Agency	2.503***	1.610*	_____	_____
		(0.627)	(0.635)		
Ratio of "Older' Supervisors to 'Older' Subordinates	Within-Agency	_____	_____	−0.493	−0.380
				(0.349)	(0.416)
	Between-Agency	_____	_____	−1.154***	−0.799*
				(0.305)	(0.314)
Perceived Organizational Justice	Within-Agency	_____	0.089	_____	0.099
			(0.267)		(0.266)
	Between-Agency	_____	−1.521***	_____	−1.611***
			(0.321)		(0.313)
Proportion of 'Older' Non-Professional Employees	Within-Agency	_____	0.737	_____	0.442
			(1.464)		(1.010)
	Between-Agency	_____	0.152	_____	0.120
			(0.256)		(0.265)
Staffing Politicization	Within-Agency	_____	−1.060	_____	−1.065
			(1.508)		(1.507)
	Between-Agency	_____	−0.751	_____	−0.664
			(0.946)		(0.957)
Ratio of Women to Men Supervisors	Within-Agency	_____	0.148	_____	0.137
			(0.249)		(0.246)
	Between-Agency	_____	0.241**	_____	0.244**
			(0.090)		(0.092)
Ratio of Minority to Non-Minority Supervisors	Within-Agency	_____	−0.424***	_____	−0.416***
			(0.089)		(0.090)
	Between-Agency	_____	−0.037	_____	−0.039
			(0.056)		(0.059)
Organizational Size	Overall-Random	0.861***	0.840***	0.867***	0.844***
		(0.031)	(0.031)	(0.031)	(0.031)
BIC Model Fit Statistic		5643.677	5666.102	5632.632	5652.568
Year Unit Effects	Overall-Random		**YES**		

NOTE: Robust standard errors are clustered by agencies. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$.

H1 and **H2** and their respective 95% confidence intervals. The **Model 2** estimates indicate that an interdecile rise (16.09%) in the mean-agency *Proportion of 'Older' Supervisors* reveals an estimated 27.42% decline in the mean-agency incidence rate of age discrimination formal complaints when controlling for a broader set of potential confounders (**Model 2**), while yielding a 45.26% rise in this incidence rate in response to an interdecile (23.19%) rise in the mean-agency *Proportion of 'Older' Subordinates* (**Model 2**).[12] This constitutes a difference between these interdecile estimate mean-agency marginal effects of 72.68% [− 27.42% − (+ 45.26)] for the mean-agency balance of supervisory to subordinate personnel covered by age discrimination laws.[13] Evaluating the relationship between the relative balance of supervisory to subordinate agency personnel in **Models 3** & **4** uncovers an empirical pattern compatible with **H1** and **H2**. Specifically, an interdecile increase in the mean-agency *Ratio Proportion of 'Older' Supervisors to 'Older' Subordinates* covariate (35.01%) in **Model 4** is associated with a 24.40% decline in the corresponding incidence rate for age discrimination formal complaint.[14] The reported statistical findings remain robust to the exclusion of the upper 1% of the empirical distribution of the dependent variable, as well as accounting for random slopes in the status-power group differential covariates of interest.[15]

These findings underscore the importance of supervisor-subordinate power group differentials for understanding variations involving age discrimination formal complaints issued by U.S. federal government employees. Specifically, vulnerable groups can effect

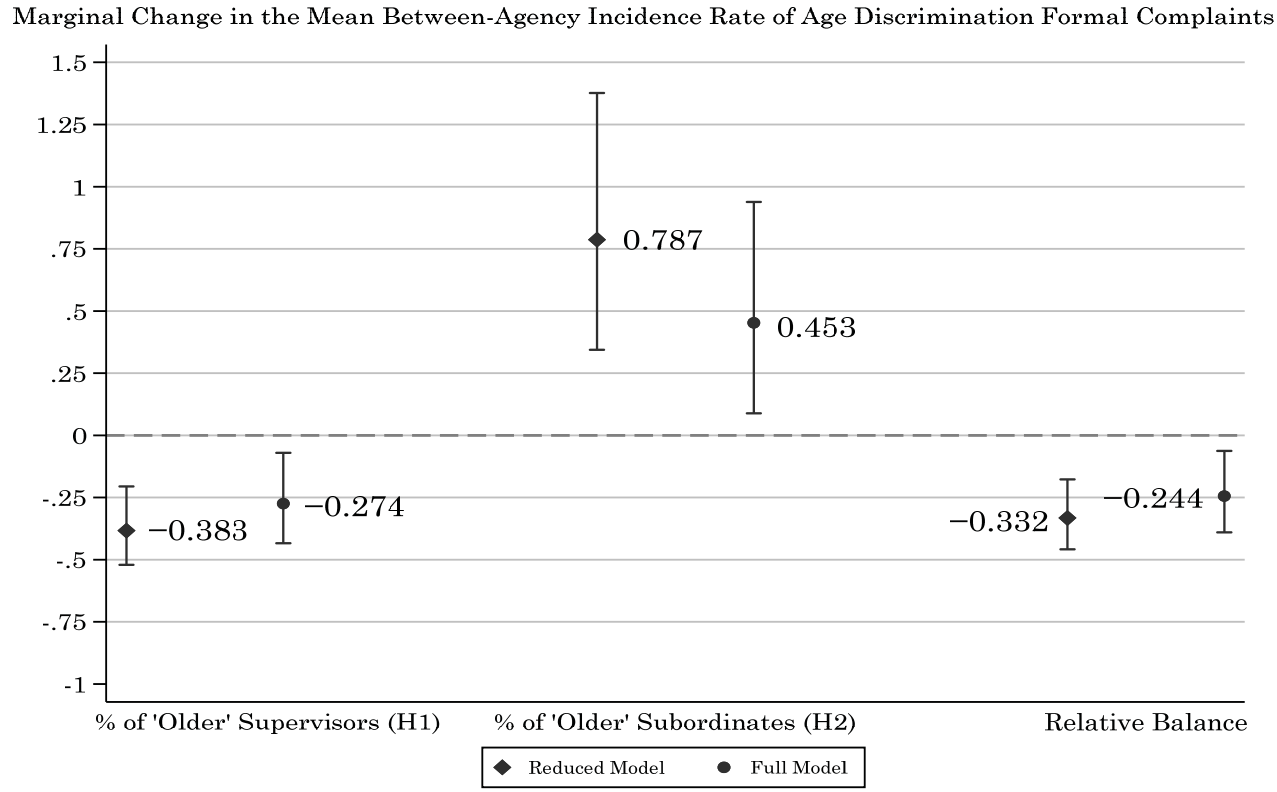
[12] These effect sizes are smaller than those generated by **Model 1** (38.30% and 78.81%, respectively).

[13] This effect size is smaller than the analogous one produced by **Model 1** (117.11%).

[14] This effect size is smaller than the analogous one produced by **Model 3** (33.24%).

[15] These statistical findings appear in the **Appendix** (**Tables A-1** & **A-2**).

FIGURE 2



positive change throughout an organization when they comprise a larger share of positions holding authority, while also representing a lower share of positions lacking authority. Unfortunately, increasing the share of vulnerable subordinate personnel lacking authority, as well as lowering the share of discrimination age-eligible supervisors, is associated with a higher incidence of formal discrimination complaints within an agency. Future research would benefit from examining whether more (less) hierarchical administrative structures exacerbate (mitigate) these status-power group differentials between supervisors and subordinates in terms of the treatment of vulnerable groups within public organizations.

DISCUSSION

Age discrimination is an organizational-level problem within the U.S. federal government workforce that represents one of the most critical challenges confronting public

administration during the 21st century. This study has sought to understand the precise conditions that both exacerbate or mitigate the occurrence of age discrimination within the U.S. federal civilian workforce. The key to understanding this problem lies with the central role that authority plays in understanding this problem – specifically, the distinction between formal authority held by supervisors and those subordinates lacking it. The distinction between those holding authority versus those who do not is a foundational aspect of organizations, where resulting power imbalances naturally transpire from how authority is differentially distributed across actors within an organization (Emerson 1962; Weber 1947). This study has sought to understand the consequences of these authority distinctions that affect both the functioning and climate of organizations. Robert V. Presthus's foundational treatise analyzing the nature of authority in organizations published in *PAR* over 60 years ago articulates how the distribution of authority is capable of shaping both formal and informal behavior throughout an organization (Presthus 1960: 88): "*The formal allocation of authority is also reinforced by various psychological inducements, including status symbols, rewards, and sanctions. Such differential allocations of status, income, and authority have important objectives and consequences other than as personal rewards for loyal and effective service. They provide a battery of cues or signals for the entire organization; they provide the framework for personal transactions; they communicate appropriate behavior and dramatize its consequences. In brief, such signals define and reinforce authority.*" These insights reveal how the possession of authority or lack thereof has consequences that affect the entire organization, and is not simply localized to organizational members who either have authority or lack such power.

Although this study has focused on the specific problem of age discrimination within U.S. federal agencies, its focus on status-group power differentials has broader implications for the study of public administration. Take representative bureaucracy, for example, a

research program that is premised on the idea that passive representation of a social identity group is a requisite condition for ensuring active representation of that group's interests. If, however, authority is distributed in a differential manner among members of the social identity group, then promise of active representation is highly contingent upon those members possessing authority within organizations (see Meier 2019: 52). The effectiveness of social equity efforts within public administration is highly contingent upon those social identity group members possessing favorable status-power positions within administrative organizations (e.g., Meier 1993). This issue is paramount for understanding not only the practice of enhancing social equity by public administrators (Riccucci and Van Ryzin 2017), but also related applications such as the career trajectories for historically vulnerable social identity groups within the government workforce (e.g., Guy 1984; Kelly and Newman 2001).

This study only scratches the surface of understanding how intergenerational conflicts may adversely impact internal operations within U.S. federal agencies. These challenges include valuing different performance priorities, with younger workers emphasizing task accomplishment and multi-tasking while older workers valuing quality outcomes and performance standards (Haeger and Lingham 2013), and also knowledge transfer problems between employees of different generations (Schmidt and Muehlfeld 2017). A multi-pronged strategy is necessary to overcome the combination of both intergenerational and status-power group differentials between supervisors and subordinates within U.S. federal agencies. First, efforts by younger supervisors that encourage shared perceptions of tasks and goals with older subordinate colleagues should be encouraged (Haeger and Lingham 2013). Second, a mix of cooperation and incentives targeted to older non-supervisory workers serving in subordinate positions hold promise for closing this intergenerational chasm (Charness and Villeval 2009). Finally, vigorous efforts

undertaken at improving organizational justice throughout federal agencies provides a critical environmental balm to mitigate these structural problems. These measures, and others seeking to improve fair treatment of the U.S. federal civilian workforce during a turbulent era of change and continuity in personnel, will be needed to address the dual challenges of intergenerational conflict, with the realities of the unequal distribution of authority within organizations, that can undermine the American administrative state during the 21st century.

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APPENDIX

How Status-Group Power Differentials Shape Age Discrimination within U.S. Federal Agencies:
Evidence from EEOC Formal Complaint Filings, 2010-2019

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1. ***TABLE A0*: Full List of Agencies Available from EEOC NO FEAR Statistics**

2. **FIGURE A-1: Confirmatory Factor Analyses Latent Factor Models Estimates [*Perceived Organizational Justice, Each FEVS, 2010-2019*]**

3. ***TABLE A-1*: *REWB Model Estimates* (Evaluating Status-Group Power Differentials [Omit Extreme Upper 1% of Age Discrimination Formal Complaints: N * T = 889])**

4. ***TABLE A-2*: *REWB Model Estimates* (Evaluating Status-Group Power Differentials [Random Slopes in the Status-Power Group Differential Covariates: N * T = 897])**

5. ***TABLE A-3*: *REWB Model Estimates* (Evaluating Status-Group Power Differentials [Removing Agency Panels with Too Few Observations (T < 7): N * T = 724])**

TABLE A-0. Full List of Agencies Available from EEOC NO FEAR Statistics

Agencies	*Sub-Agencies*
Agency for International Development	Defense Commissary Agency
Broadcasting Board of Governors (U.S. Agency for Global Media)	Defense Contract Audit Agency
Commodity Futures Trading Commission	Defense Contract Management Agency
Consumer Product Safety Commission	Defense Finance and Accounting Service
Corporation for National and Community Service	Defense Human Resources Activity
Court Services and Offender Supervision Agency for the DC	Defense Information Systems Agency
Department of Education	Defense Logistics Agency
Department of Energy	Defense Missile Defense Agency
Department of Housing and Urban Development	Defense Office of the Inspector General
	Defense Security Service
Department of State	Defense Threat Reduction Agency
Environmental Protection Agency	Defense TRICATRE Management Activity (Defense Health Agency)
Equal Employment Opportunity Commission	Defense Education Activity
Export-Import Bank of the US	Defense Department of the Air Force
Federal Communications Commission	Defense Department of the Army
Federal Election Commission	DefenseDepartment of the Navy
Federal Energy Regulatory Commission	AG-Agricultural Marketing Service
Federal Housing Finance Agency	AG-Agricultural Research Service
Federal Labor Relations Authority	AG-Animal&Plant Health Inspection Service
Federal Maritime Commission	AG-Farm Service Agency
Federal Trade Commission	AG-Food and Nutrition Service
General Services Administration	AG-Food Safety and Inspection Service
International Trade Commission	AG-Foreign Agricultural Service
Merit Systems Protection Board	AG-Forest Service
National Aeronautics and Space Administration	AG-National Agricultural Statistics Service
National Archives and Records Administration	AG-Natural Resources Conservation Service
National Credit Union Administration	AG-Office of the Chief Financial Officer
National Endowment for the Arts	AG-Risk Management Agency
National Endowment for the Humanities	Commerce-Bureau of Census
National Labor Relations Board	Commerce-International Trade Administration
National Science Foundation	Commerce-National Institute of STDs & Technology
National Transportation Safety Board	Commerce-National Oceanic & Atmospheric Admin
Nuclear Regulatory Commission	Commerce-U.S. Patent and Trademark Office
Office of Personnel Management	HHS-Administration for Children and Families
Pension Benefit Guaranty Corporation	HHS-Centers for Disease Control & Prevention
Railroad Retirement Board	HHS-Centers for Medicare & Medicaid Services
Securities and Exchange Commission	HHS-Food and Drug Administration
Selective Service System	HHS-Health Resources & Services Administration
Small Business Administration	HHS-Indian Health Service
Social Security Administration	HHS-National Institutes of Health
	HHS-Office of the Secretary
	HHS-Substance Abuse & Mental Health Services Administration
	DHS-Federal Emergency Management Agency
	DHS-Federal Law Enforcement Training Center
	DHS-Transportation Security Administration
	DHS-U.S. Citizenship & Immigration Services
	DHS-U.S. Coast Guard
	DHS-U.S. Customs and Border Protection
	DHS-U.S. Immigration & Customs Enforcement
	DHS-U.S. Secret Service

	Justice-Alcohol, Tobacco, Firearms & Explosives
	Justice-Bureau of Prisons
	Justice-Drug Enforcement Administration
	Justice-Executive Office for Immigration Review
	Justice-Executive Office for U.S. Attorneys
	Justice-Federal Bureau of Investigation
	Justice-Office of Justice Programs
	Justice-Offices, Boards, and Divisions
	Justice-U.S. Marshals Service
	Labor-Bureau of Labor Statistics
	Labor-Employment & Training Administration
	Labor-Wage and Hour Division
	Labor-Office of Workers Compensation Program
	Labor-Mine Safety & Health Administration
	Labor-Occupational Safety&Health Administration
	Interior-Bureau of Indian Affairs
	Interior-Bureau of Land Management
	Interior-Bureau of Reclamation
	Interior-Bureau of Surface Mining
	Interior-Fish and Wildlife Service
	Interior-Geological Survey
	Interior-National Park Service
	Interior-Office of The Secretary
	Treasury-Alcohol & Tobacco Tax & Trade Bureau
	Treasury-Bureau of Engraving and Printing
	Treasury-Bureau of the Public Debt
	Treasury-Departmental Offices
	Treasury-Financial Crimes Enforcement Network
	Treasury-Financial Management Service
	Treasury-Fiscal Service
	Treasury-Internal Revenue Service
	Treasury-Office of the Comptroller of the Currency
	Treasury-Office of the Inspector General
	Treasury-IG For Tax Administration
	Treasury-U. S. Mint
	Transportation-Federal Aviation Administration
	Transportation-Federal Highway Administration
	Transportation-Federal Motor Carriers Safety Administration
	Transportation-Federal Railroad Administration
	VA-National Cemetery Administration
	VA-Veterans Benefits Administration
	VA-Veterans Health Administration

Construction of the Latent Variable – Perceived Organizational Justice

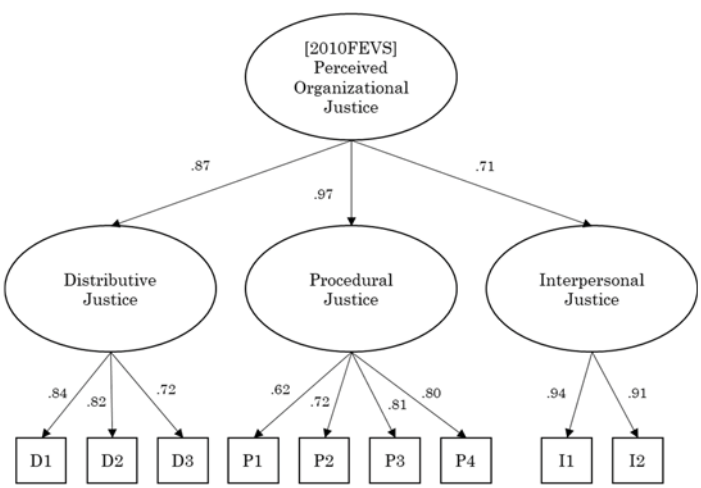
The latent factor score variable, *Perceived Organizational Justice*, is constructed to measure employees' average response of perceived organizational justice within the agency for the corresponding year observed in the sample employed for this study (2010-2019). This variable was measured using nine observable indicators from the Federal Employee Viewpoint Survey (FEVS), as follows: ***1. Distributive Justice***: (1a*) "Promotions in my work unit are based on merit"*; (1b) *"Promotions in my work unit are based on merit"*; (1c) *"Pay raises depend on how well employees perform their jobs"* ***2. Procedural Justice***: (2a) *"My performance appraisal is a fair reflection of my performance"*; (2b) "*I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.*"; (2c) "*Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated.*"; (2d) "*Prohibited Personnel Practices (for example, illegally discriminating for or against any employee/applicant, obstructing a person's right to compete for employment, knowingly violating veterans' preference requirements) are not tolerated.*"; and **3. *Interpersonal Justice*:** (3a) *"My supervisor/team leader listens to what I have to say"*; (3b) *"My supervisor/team leader treats me with respect."*

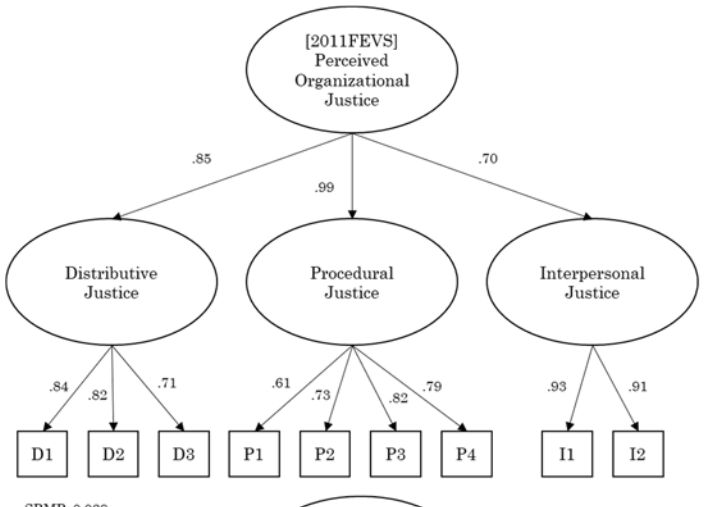
Higher order confirmatory factor analysis (CFA) was conducted to create the latent variable, *Perceived Organizational Justice*, and to test the model fit. Survey sample weights provided in the FEVS for each corresponding year were applied in the model to "*achieve the survey objective of making inferences regarding the perceptions of the population of Federal employees about workforce management in their analysis.*" (Office of Personnel Management (OPM) 2013: 22). OPM calculated sampling weights to adjust for the different probability of being selected to participate in the survey across agency and sub-agencies, and the bias resulting from sample size variation (OPM 2013). Therefore, by designating the sampling

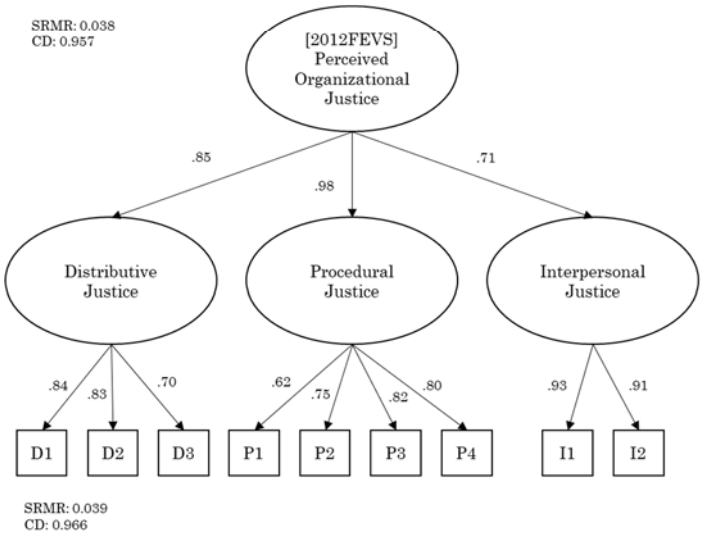
weight variable in the estimation of CFAs, this study explicitly incorporates the sampling weights and averaged individual responses to the agency-level construct *Perceived Organizational Justice*. The inclusion of these sampling weights is especially important for the purposes of this study since we are aggregating individual–level survey responses to the agency/organizational level.

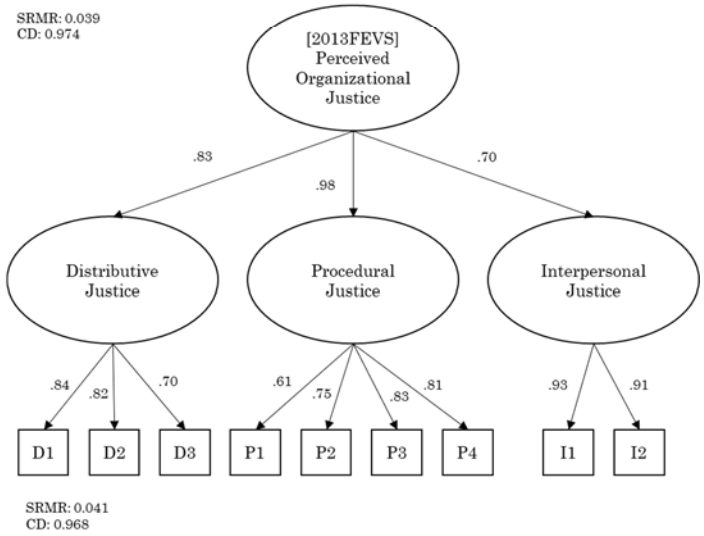
After creating the latent variable, the SEM model was evaluated to determine if model fit was adequate. The model fit was analyzed by investigating through both the standardized root mean square (SRMR) and the coefficient of determination (CD) statistics which happen to be the only goodness-of-fit statistics generated when sample weights are used in statistical estimation. The SRMR is an absolute fit index that represents the average of the standardized residuals between the observed and predicted correlation matrices (Chen 2007). This goodness of fit statistic is interpreted as the indicator of a good fit when SRMR produces a value lower than 0.05 (Kline 2011; Hu and Bentler 1999). Regarding the CD statistics (the coefficient of determination statistics), a value of 1 implies a perfect fit, and a higher value of CD indicates a better fit of the model. The range of CD for the measurement model in 2010-2019 surveys was from .957 to .974. The goodness of fit indices suggested that the proposed one-factor structure of *Perceived Organizational Justice* has a good fit. In order to have convergent validity of the measure, Kline (2011: 116) posits that all indicators to measure latent variables should "have relatively high standardized factor loadings on that factor," and suggests 0.70 as the critical value. The results of CFA showed that high proportions of variance in survey items, between 0.61 and 0.94, are accounted for by the theoretically hypothesized construct, providing moderate support for the convergent validity (see **Figure A-1** below). The diagnostic test results indicate that the measurement model employed to capture perceived organizational justice in U.S. federal agencies provides valid estimates of the latent variable *Perceived Organizational Justice*.

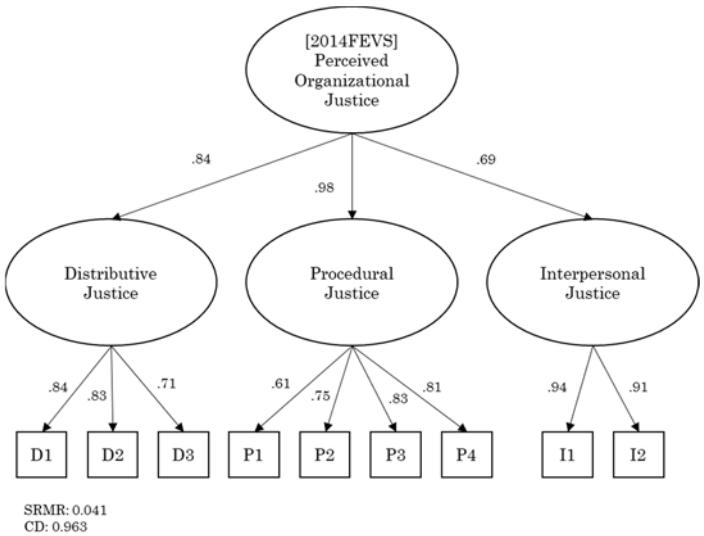
FIGURE A-1: Confirmatory Factor Analyses Latent Factor Models Estimates
[*Perceived Organizational Justice: Each FEVS, 2010-2019*]

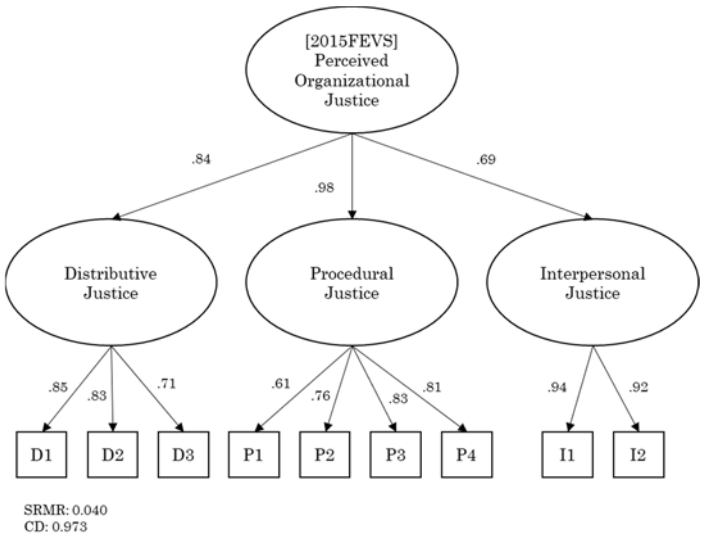


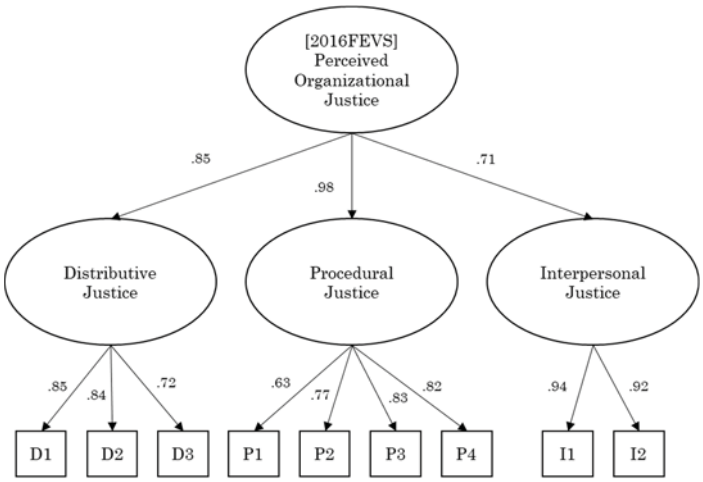




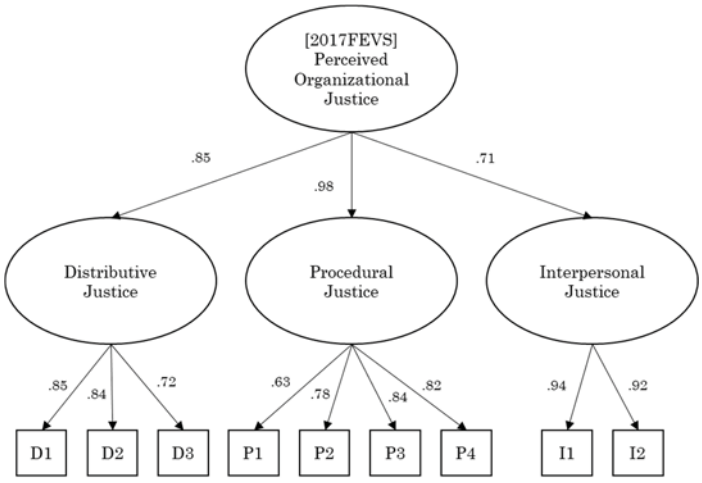








SRMR: 0.038
CD: 0.972



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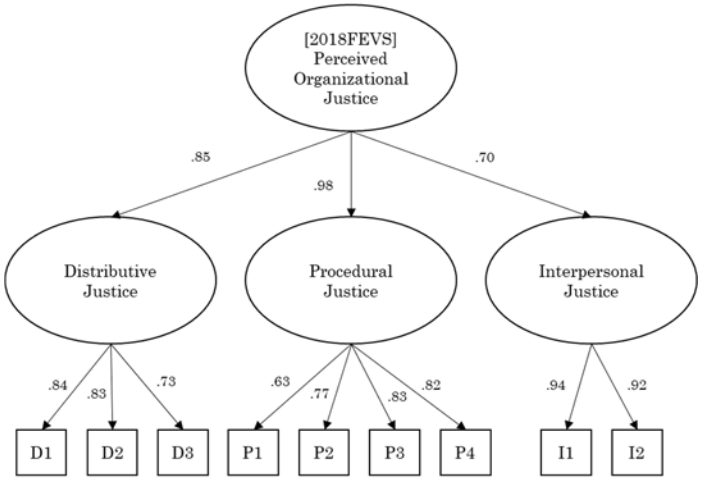
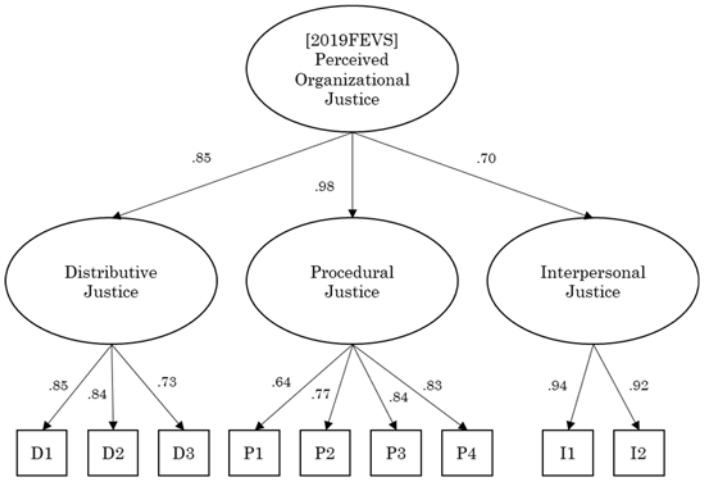


SRMR: 0.041
CD: 0.966



SRMR: 0.041
CD: 0.966

TABLE A-1: REWB Model Estimates (*Evaluating Status-Group Power Differentials*)
[*Omit Extreme Upper 1% of Age Discrimination Formal Complaints: N * T = 889*]

Covariates	Coefficient Estimates	Model 1	Model 2	Model 3	Model 4
Proportion of 'Older' Supervisors **(H1)**	Within-Agency	−0.490	−0.758	_____	_____
		(1.101)	(1.182)		
	Between-Agency	−2.987***	−1.991*	_____	_____
		(0.806)	(0.787)		
Proportion of 'Older' Subordinates **(H2)**	Within-Agency	0.974	0.589	_____	_____
		(0.911)	(1.164)		
	Between-Agency	2.460***	1.568*	_____	_____
		(0.629)	(0.637)		
Ratio of "Older' Supervisors to 'Older' Subordinates	Within-Agency	_____	_____	−0.459	−0.395
				(0.351)	(0.421)
	Between-Agency	_____	_____	−1.134***	−0.782*
				(0.306)	(0.315)
Perceived Organizational Justice	Within-Agency	_____	−0.031	_____	−0.020
			(0.266)		(0.266)
	Between-Agency	_____	−1.498***	_____	−1.592***
			(0.323)		(0.313)
Proportion of 'Older' Non-Professional Employees	Within-Agency	_____	0.601	_____	0.216
			(1.492)		(1.020)
	Between-Agency	_____	0.179	_____	0.141
			(0.254)		(0.264)
		_____		_____	
Staffing Politicization	Within-Agency	_____	−1.055	_____	−1.052
			(1.542)		(1.539)
	Between-Agency	_____	−0.760	_____	−0.667
			(0.949)		(0.959)
Ratio of Women to Men Supervisors	Within-Agency	_____	0.186	_____	0.171
			(0.251)		(0.248)
	Between-Agency	_____	0.234**	_____	0.239**
			(0.090)		(0.093)
		_____		_____	
Ratio of Minority to Non-Minority Supervisors	Within-Agency	_____	−0.434***	_____	−0.425***
			(0.088)		(0.090)
	Between-Agency	_____	−0.035	_____	−0.037
			(0.056)		(0.059)
Organizational Size	Random	0.854***	0.835***	0.861***	0.841***
		(0.032)	(0.033)	(0.032)	(0.033)
BIC Model Fit Statistic		5537.162	5559.622	5525.995	5546.297
Year Unit Effects	Random			**YES**	

NOTE: Robust standard errors are clustered by agencies. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$.

TABLE A-2: REWB Model Estimates (*Evaluating Status-Group Power Differentials*)
[*Random Slopes in the Status-Power Group Differential Covariates: N * T = 897*]

Covariates	Coefficient Estimates	Model 1	Model 2	Model 3	Model 4
Proportion of 'Older' Supervisors ***(H1)***	Within-Agency	−0.932	−1.307		
		(1.178)	(1.191)		
	Between-Agency	−2.863***	−1.816*		
		(0.814)	(0.798)		
Proportion of 'Older' Subordinates ***(H2)***	Within-Agency	0.854	−0.496		
		(0.955)	(1.224)		
	Between-Agency	2.480***	1.540*		
		(0.637)	(0.649)		
Ratio of "Older' Supervisors to 'Older" Subordinates	Within-Agency			−0.573	−0.489
				(0.462)	(0.551)
	Between-Agency			−1.186***	−0.823**
				(0.310)	(0.313)
Perceived Organizational Justice	Within-Agency		0.080		0.173
			(0.227)		(0.234)
	Between-Agency		−1.527***		−1.602***
			(0.321)		(0.311)
Proportion of 'Older' Non-Professional Employees	Within-Agency		2.302		0.390
			(1.678)		(1.222)
	Between-Agency		0.181		0.131
			(0.258)		(0.264)
Staffing Politicization	Within-Agency		−1.090		−1.228
			(1.470)		(1.400)
	Between-Agency		−0.722		−0.628
			(0.967)		(0.968)
Ratio of Women to Men Supervisors	Within-Agency		0.155		0.069
			(0.272)		(0.245)
	Between-Agency		0.247**		0.244**
			(0.091)		(0.093)
Ratio of Minority to Non-Minority Supervisors	Within-Agency		−0.474***		−0.422***
			(0.071)		(0.078)
	Between-Agency		−0.038		−0.038
			(0.055)		(0.060)
Organizational Size	Random	0.871***	0.850***	0.878***	0.854***
		(0.031)	(0.031)	(0.031)	(0.031)
BIC Model Fit Statistic		5625.017	5642.589	5602.081	5621.915
Year Unit Effects	Random		**YES**		

NOTE: Robust standard errors are clustered by agencies. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$.

TABLE A-3: REWB Model Estimates (*Evaluating Status-Group Power Differentials*)
[*Removing Agency Panels with Too Few Observations: N * T = 724*]

Covariates	Coefficient Estimates	Model 1	Model 2	Model 3	Model 4
Proportion of 'Older' Supervisors ***(H1)***	Within-Agency	−0.120	−0.205		
		(1.165)	(1.209)		
	Between-Agency	−5.070***	−3.583***		
		(0.968)	(0.992)		
Proportion of 'Older' Subordinates ***(H2)***	Within-Agency	0.796	−1.376		
		(0 .943)	(1.117)		
	Between-Agency	2.714***	1.932**		
		(0.654)	(0.720)		
Ratio of "Older' Supervisors to 'Older" Subordinates	Within-Agency			−0.441	−0.450
				(0.360)	(0.440)
	Between-Agency			−1.174***	−0.929**
				(0.303)	(0.329)
Perceived Organizational Justice	Within-Agency		0.152		0.161
			(0.273)		(0.272)
	Between-Agency		−1.344***		−1.631***
			(0.353)		(0.357)
Proportion of 'Older' Non-Professional Employees	Within-Agency		−0.687		−0.115
			(1.454)		(1.021)
	Between-Agency		0.153		0.009
			(0.266)		(0.297)
Staffing Politicization	Within-Agency		−1.637		−1.716
			(1.660)		(1.676)
	Between-Agency		1.596		1.678*
			(0.828)		(0.786)
Ratio of Women to Men Supervisors	Within-Agency		0.217		0.243
			(0.263)		(0.261)
	Between-Agency		0.149		0.186
			(0.086)		(0.095)
Ratio of Minority to Non-Minority Supervisors	Within-Agency		−0.376***		−0.374***
			(0.105)		(0.100)
	Between-Agency		−0.041		−0.050
			(0.051)		(0.057)
Organizational Size	Random	0. 786***	0.790***	0.819***	0.811***
		(0.037)	(0.038)	(0.038)	(0.037)
BIC Model Fit Statistic		4815.539	4846.08	4813.241	4837.544
Year Unit Effects	Random		**YES**		

NOTE: Robust standard errors are clustered by agencies. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$.