

## Research Article

# Evolution and egalitarianism: A behavioral account of managers' performance pay decisions

John D. Marvel\*

**Abstract:** I advance a behavioral account of managers' performance pay decisions that is grounded in evolutionary psychology. In doing so, I seek to explain a common organizational phenomenon — compression in employees' merit pay bonuses. My behavioral account puts forward two propositions. First, that compression in awards is a consequence of a fundamental human proclivity for egalitarianism. Second, that individual managers will differ in their preferences for egalitarianism: In any given organizational context, some managers will tend to be more egalitarian than other managers. Consistent with these propositions, I observe two clear patterns in how federal managers distribute performance pay awards to the group members they supervise. The first is a marked tendency for managers to give all group members awards of the same or similar size. The second is a considerable amount of between-manager variation in this tendency that cannot be explained by relevant group-level variables, such as group size and occupational diversity. To the extent feasible given my data, I probe whether my behavioral account does a better job explaining these patterns than plausible alternative explanations that are based in economics. One key implication of my theory and findings is that organizations cannot count on managers to aggressively differentiate between individual employees when they distribute performance pay awards. A second key implication is that organizations cannot rely on their managers to uniformly implement a given performance pay plan.

**Keywords:** Performance pay, Managerial decision-making, Egalitarianism, Managerial psychology, Evolutionary psychology

**Supplements:** [Open data](#)

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Compression in employee ratings and merit pay bonuses is common in organizations that rely on managers' subjective judgments to evaluate employee performance (Bol, 2011; Lazear, 1989; Jawahar & Williams, 1997; Moers, 2005; Prendergast & Topel, 1996; Kampkötter & Sliwka, 2018). When this is the case, variation in employee ratings/bonuses understates the true amount of variation in employee performance. There are a number of potential economic explanations for this phenomenon. One such explanation is that compression is efficiency-en-

hancing because it “suppresses unwanted uncooperative behavior” that aggressive employee-to-employee differentiation might induce (Lazear, 1989, 563). In this view, equality is a deliberate, rational strategy that managers use to minimize discord among group members (see also, e.g., Barber Simmering, 2002; Weinberger, 1998; Cropanza, Bowen, & Gilliland, 2007). Another economic explanation proposes that managers artificially compress employee ratings/bonuses because precise differentiation entails high information-gathering costs (e.g., Bol, 2011). In this view, the time and effort that managers must devote to making fine performance distinctions between employees are prohibitive. The premise of my paper is that evolutionary psychology

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\* Schar School of Policy & Government, George Mason University

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offers another, heretofore neglected explanation — namely, that compression is a consequence of a fundamental human proclivity for egalitarianism.

I use rich micro-data on front-line managers in federal agencies to test this premise against competing economic explanations. These managers supervise the members of formal work groups, and it is common for them to distribute monetary awards among the members of those groups. In adjudicating between economic and psychological explanations for ratings/bonus compression, I hope to provide a theoretically and empirically plausible behavioral account of managers' performance pay decisions. Additionally, I want to alert public administration audiences to the unique practical implications of such an account.

I advance two propositions. The first, noted above, is that managers tend, like all humans, to be favorably predisposed to egalitarianism. The second is that individual managers will differ in their preferences for egalitarianism: In any given organizational context, some managers will tend to be more egalitarian than other managers. Consistent with these propositions, I observe two clear patterns in how federal managers distribute performance pay awards to the group members they supervise. The first is a marked tendency for managers to give all group members awards of the same or similar size. The second is a considerable amount of between-manager variation in this tendency that cannot be explained by relevant group-level variables. To the extent feasible given my data, I probe whether my behavioral account does a better job explaining these patterns than plausible alternative explanations that are based in economics.

My behavioral account has unique practical implications for organizations whose performance pay systems entail managerial subjectivity. Whereas economic explanations offer hope that administrative and/or policy fixes might be found for awards compression, it is unclear what organizations could do to address a deeply embedded, thoroughly human impulse toward egalitarianism. If, for instance, overly aggressive individual differentiation were to bring about sub-optimal cooperation levels among group members, an organization could in principle use a mix of individual differentiation and group-based awards to more effectively incentivize cooperation (Crown & Rosse, 1995; Pearsall, Christian, & Ellis, 2010). Likewise, high information-gathering costs could be reduced through innovative approaches to

employee monitoring and performance measurement (Eisenhardt, 1989). By contrast, issues arising out of managerial psychology do not easily admit of administrative tweaks. A managerial predisposition to be egalitarian would suggest that organizations cannot rely on front-line supervisors to faithfully implement their performance pay systems if those systems call for aggressive differentiation. Similarly, between-manager variation in preferences for egalitarianism imply that organizations cannot rely on front-line supervisors to uniformly implement their performance pay systems.

My account also has particular relevance to the study of performance pay within public administration (for a review, see Perry, Engbers, & Jun, 2009). As Bellé (2015) notes, public administration scholars have tended to focus on three reasons why performance pay often fails to deliver on its promise in the public sector: (1) problems with technical design (Kessler and Purcell 1992; Marsden & Richardson 1994), (2) institutional characteristics of the public sector (e.g., pay transparency, budgetary and political constraints) that hamstringing performance pay's potential effectiveness (Miller & Whitford 2007; Riccucci & Thompson 2008), and (3) motivational differences between public and private sector employees (Weibel, Rost, & Osterloh, 2010). By contrast, a behavioral explanation for managers' performance pay decisions emphasizes how managerial psychology is a crucial component of performance pay's prospects for success in public (and private) organizations.

### **Proposition I: A Predisposition for Egalitarianism**

Theory and evidence suggest that humans are predisposed to egalitarianism. Evolutionary explanations for this predisposition emphasize that other-regarding preferences were conducive to cooperation and survival in early group life (see, e.g., Gaus, 2015). The human impulse toward egalitarianism appears to be universal, spanning time and cultures. As Gavrilets (2012) notes, the prevalence of egalitarianism in hunter-gatherer societies "suggests that it is an ancient, evolved human pattern" (14069). While there is considerable disagreement about the precise mechanisms underlying the human impulse toward egalitarianism (see, e.g., Fehr, Bernhard, & Rockenbach, 2008; Dawes, Christopher, Peter, Darren, Alan, Taru, Richard, Scott, James, & Martin, 2012), the idea that humans are in fact predisposed to be egalitarian is

widely accepted. Boehm, C., Barclay, H., Dentan, R., Dupre, M., Hill, J., Kent, S., Knauff, B., Otterbein, K., & Rayner, S. (1993), for instance, note that “‘Egalitarian society’ has become one of anthropology’s best-known sociopolitical types” (227). Gavrillets (2012) observes that “humans exhibit a strong egalitarian syndrome, i.e., the complex of cognitive perspectives, ethical principles, social norms, and individual and collective attitudes promoting equality” (14069). And Gaus (2015) emphasizes that a “recurring conclusion” of social scientific analyses of human behavior “is the fundamental egalitarianism of our species” (2).

Within economics and related disciplines, much of the contemporary evidence for human egalitarianism is based on findings from laboratory experiments that focus on individuals’ decision-making in economic games (e.g., Dawes, C., Fowler, Johnson, T., McElreath, R., & Smirnov, 2007; Fehr et al., 2008; Fowler, Johnson, & Smirnov, 2005; Johnson, Dawes, Fowler, McElreath, & Smirnov, 2009). Outside of economics, Tricomi et al. (2010) use functional magnetic resonance imaging (fMRI) to generate neural evidence that humans harbor deep preferences for egalitarian social outcomes. In a series of related fMRI studies, Fliessbach, Weber, Trautner, Dohmen, Sunde, Elger, & Falk (2007), Dawes et al. (2012), and Tabibnia, Satpute, & Lieberman (2008) produce similar findings. One contribution of my study is to examine whether professional managers in a field setting distribute performance pay awards in an egalitarian manner. If managers are in fact egalitarian in their distributions, this would suggest that organizations cannot rely on their managers to differentiate aggressively between employees when making performance pay decisions.

### **Proposition II: Variation in Managers’ Preferences for Egalitarianism**

When I say that managers’ preferences for egalitarianism will vary, I simply mean that some managers will give individual group members rewards of the same size, while other managers will give individual group members rewards of different sizes. Importantly, these between-manager differences will arise even when managers’ decisions are governed by the same performance pay system, and even when the groups that managers supervise are comparable in employee performance observability.

It is useful to view managers’ preferences for egalitarianism as exogenous — that is, as individual proclivities that managers bring with them into their organizations. In this view, managers’ preferences for egalitarianism are a given, that affects how performance pay monies are distributed by an organization’s managers. In the same way that individuals’ risk preferences, economic tastes, or personality characteristics vary, so too do individuals’ preferences for egalitarianism (see, e.g., Bartling, Fehr, Maréchal, & Schunk, 2009; Balafoutas, Kerschbamer, & Sutter, 2012; Erlei, 2008). This view of managerial preferences as exogenous, and therefore resistant to organizational and cultural socialization processes, is supported by evidence that individual differences in egalitarianism manifest early in life, stabilize during adolescence, and are in part genetically transmitted (Batrićević & Littvay, 2017; Funk, Smith, Alford, Hibbing, Eaton, Krueger, Eaves, & Hibbing, 2013; Sheehy-Skeffington & Thomsen, 2019).

A key implication of exogenous, between-person variation in preferences for egalitarianism is that organizations cannot expect their managers to administer performance pay in a uniform manner, even when managers lead groups that are quite similar. Instead, managers’ performance pay decisions should be expected to differ in the degree of their egalitarianism. While organizations may implement training programs in the hope of achieving between-manager consistency in the administration of performance pay, these programs will be unable to change managers’ underlying preferences for egalitarianism.

### **Data**

To adjudicate between my behavioral account and plausible competing explanations, I use data from the United States Office of Personnel Management’s (OPM) central personnel data file, an administratively maintained database that records all personnel actions that are taken on federal employees, including the receipt of performance pay awards. For the years 2000–2013, I have information about every instance in which a front-line supervisor has distributed group-based monetary awards to the group members that they supervise. Federal employees are typically assigned to work-groups that range in size from five to 20 employees; each of these groups has a formal supervisor who has considerable discretion when it comes to distributing performance pay awards. The legal authority for the distribution of

performance awards to federal employees is located in Title 5 (Chapter 45) of the United States Code. OPM prescribes regulations to guide the law's implementation; these regulations appear in Title 5 of the Code of Federal Regulations. In addition to prescribing formal regulations, OPM hosts workshops and training sessions for interested agencies, provides inter-agency "consulting" services on an ad-hoc basis, and promulgates informal guidance via its website. Importantly, neither the Code of Federal Regulations nor the informal guidance that OPM issues regarding group-based performance pay is specific about how exactly managers should distribute rewards, leaving it up to managers to do so in a manner that they feel is best. Managers are not required to distribute group-based awards, nor are they required to distribute them to a certain number of a group's members.

In total, I have data on 158,913 instances in which a front-line supervisor distributes performance pay awards to the members of the group they supervise. These 158,913 "distribution-instances" are the focus of my empirical analysis. For each of these distribution-instances, I know the size of the award each group member receives, and so I can measure the degree to which the awards given to individual group members are the same or different. (The mean award given to employees between 2000 - 2013 was \$570. On average, an award represented just over 1% of an employee's annual pay.) I also have data on employee salary, years of experience, occupation, and other factors that might influence managers' performance pay decisions. For instance, if the front-line supervisor of a workgroup located in the Department of Commerce distributed performance pay awards to five group members on May 16, 2009, that distribution-instance, along with relevant

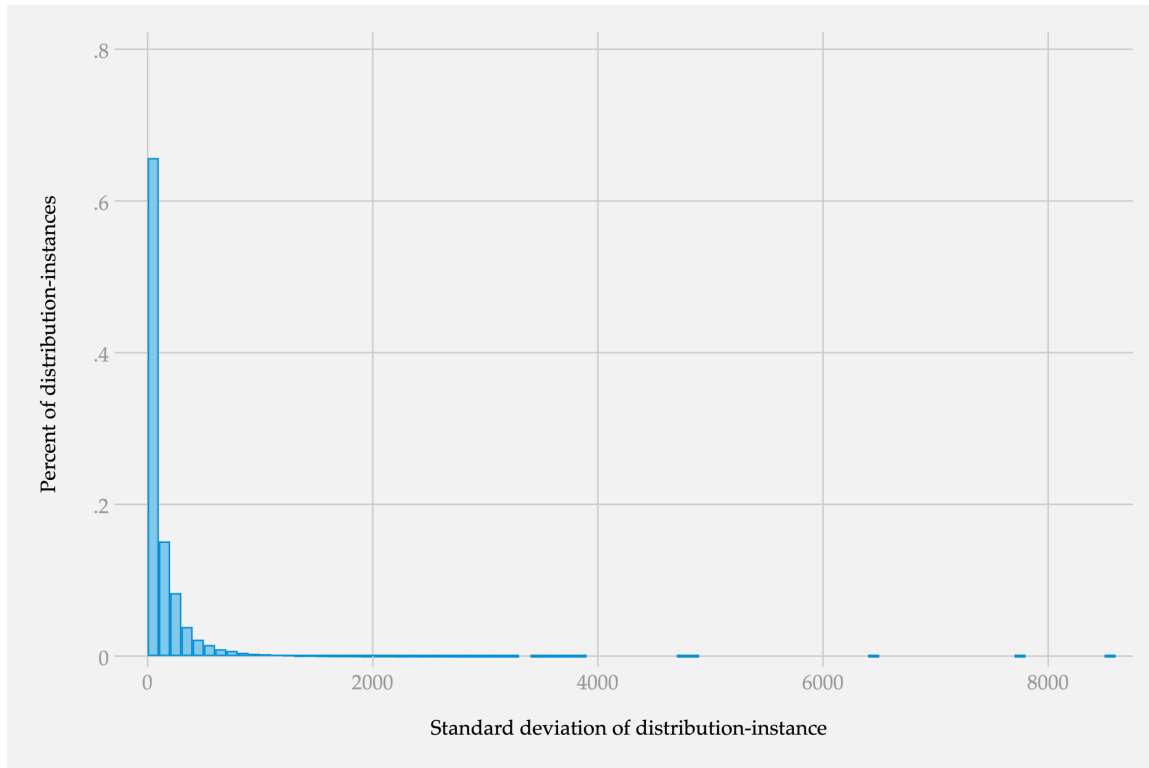
control data, can be incorporated into my analysis. Importantly, I know from the data that these distribution-instances are intended to reward employees for doing work over a particular time period in pursuit of a particular group goal. Each distribution-instance can therefore be viewed as an instance in which a manager makes a decision about how egalitarian to be in distributing rewards to individual group members.

### **Pattern I: High Incidence of Equality in Awards**

One way to examine the degree to which awards given to a group's members are compressed is to focus on the standard deviation of the awards. The lower the variation between individual group members' awards, the lower the standard deviation will be. A standard deviation of zero would indicate that a group's members are all receiving an award of the same size. Of the 158,913 distribution-instances in my data, 71,379 (44.9%) have a standard deviation of zero. *In nearly half of all distribution-instances, then, managers choose to give all of their group members awards of equal size.*

Figure 1 displays a histogram of my 158,913 distribution-instances' standard deviations. Much of the histogram's density is located at or very close to zero, with its remaining density spread over a long right tail. The histogram's bin width is 100, implying that close to 70% of all distribution-instances have a standard deviation between 0 and 100. The primary conclusion to draw from figure 1 is that differences between individual group members' awards are minimal. Put differently, the incidence of full within-group equality in awards is quite high.

**Figure 1**  
**Histogram of Variation in Distribution-instances. At Zero and Values Close to Zero, All Group Members are Receiving Awards of Equal or Similar Size.**



*Alternative explanations for equality in awards*

While evolutionary psychology provides a compelling theoretical explanation for the dramatic incidence of award compression I observe in my data, I do not have neural, experimental, or self-reported survey data on federal managers' egalitarian preferences, and so I cannot directly test this explanation. I can, though, use my data to rule out plausible alternative explanations that are based in economics.

*Alternative I: Equality is a strategy to reduce uncooperative behavior.* It is plausible that managers deliberately distribute equal awards to encourage comity and cooperation among the group members they supervise. In this view, any differentiation will be perceived by group members as unfair and is therefore liable to produce inefficient intra-group conflict (Husted & Folger, 2004; Dogan & Vecchio, 2001; Pfeffer & Langton, 1993). Consequently, rational managers

strategically compress awards to minimize this potential inefficiency (Cropanzano, Bowen, & Gilliland, 2007).

One way to probe this explanation is to examine whether awards compression is particularly pronounced under conditions that are especially vulnerable to intra-group conflict. Facing these conditions, we would expect rational managers to deploy strong equality to head off a heightened threat of conflict. One factor that theory suggests will amplify the potential for tension and conflict to arise in groups is demographic diversity (Tsui, Egan, & O'Reilly, 1992; Mannix & Neale, 2005; McPherson, Smith-Lovin, & Cook, 2001). This is thought to be the case because individuals are attracted to others who are, or who appear to be, like them. Homophilic tendencies are believed to be a deeply embedded component of human nature — as Kleinbaum, Stuart, & Tushman (2013) note, individuals harbor an “underlying psy-

chological preference to interact with others who are like themselves” (1317). Since race and gender are easily observable “surface-level” descriptors that individuals can (and do) use as heuristics to make judgments about likeness, they are important drivers of individuals’ homophilic impulses, both inside and outside of organizations (Mollica, Gray, & Trevino, 2003; Shrum, Cheek, & MacD, 1988). A key consequence of these impulses for demographically diverse groups is less cohesion and a higher chance of conflict (Jehn, Northcraft, & Neale, 1999).

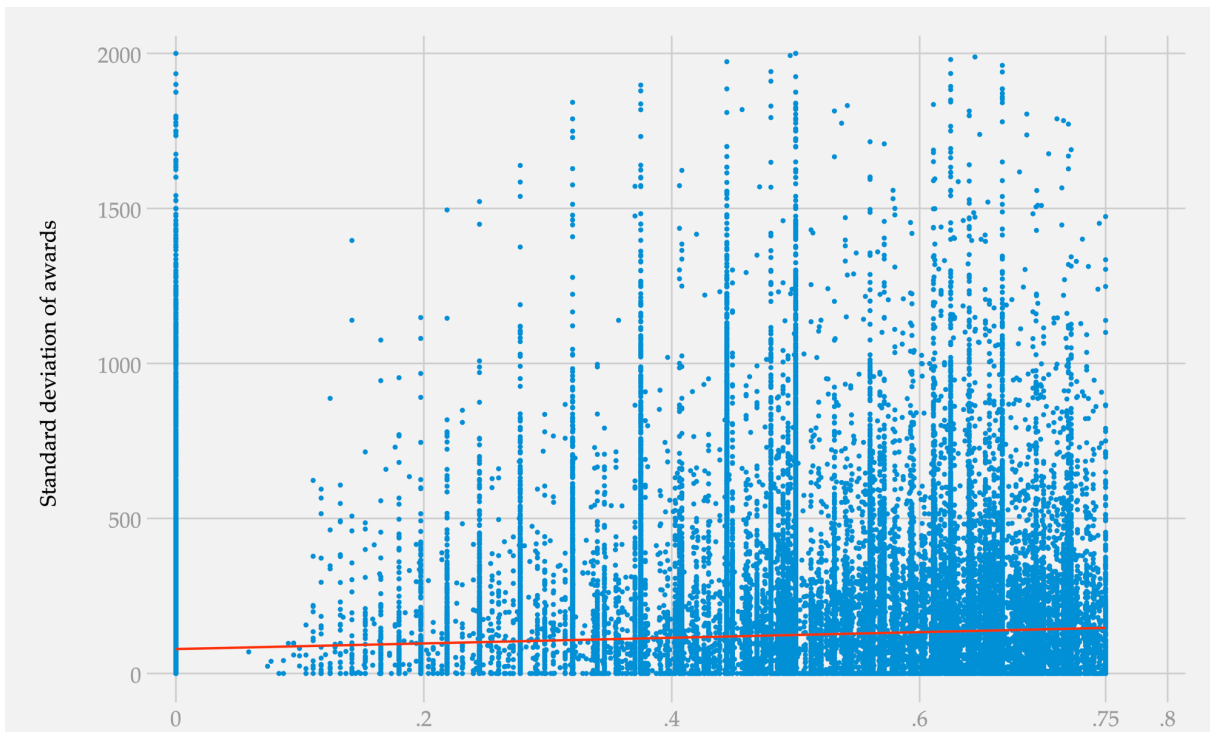
Below, figure 2 displays a scatter plot of distribution-instances’ standard deviations against the demographic diversity of the distribution-instances’ members. My data indicate whether an individual is a white male, a nonwhite male, a white female, or a nonwhite female. For each group, I use this indicator to calculate a Blau diversity score. These scores range from 0 (no diversity) to 0.75 (maximum possible diversity).

I note that variation in group awards is *positively* associated with group diversity. (This positive association is quite weak, with a correlation coeffi-

cient of 0.10.). It is not the case that managers tend to compress awards more as group diversity increases. Instead, managers tend to differentiate (slightly) more between group members as diversity increases. More basically, I note that there are many homogenous groups in which managers distribute fully equal awards and many heterogeneous groups in which managers differentiate aggressively between employees. The data are not consistent with the idea that managers of demographically diverse groups compress awards to preclude intra-group conflict.

It is important to note that these results cannot conclusively rule out the hypothesis that equality is a strategy to reduce uncooperative behavior. Group diversity is an imperfect, noisy proxy for intra-group conflict. Homogenous groups can experience conflict; conversely, heterogeneous groups can be smoothly functioning and collegial. It would therefore be useful to measure intra-group conflict more directly, perhaps using a behavioral indicator of conflict (e.g., frequency of intra-group disputes). Such a measure could differentiate between groups with the same levels of diversity.

**Figure 2**  
**Standard Deviation of Group Awards Plotted Against Group Diversity.**

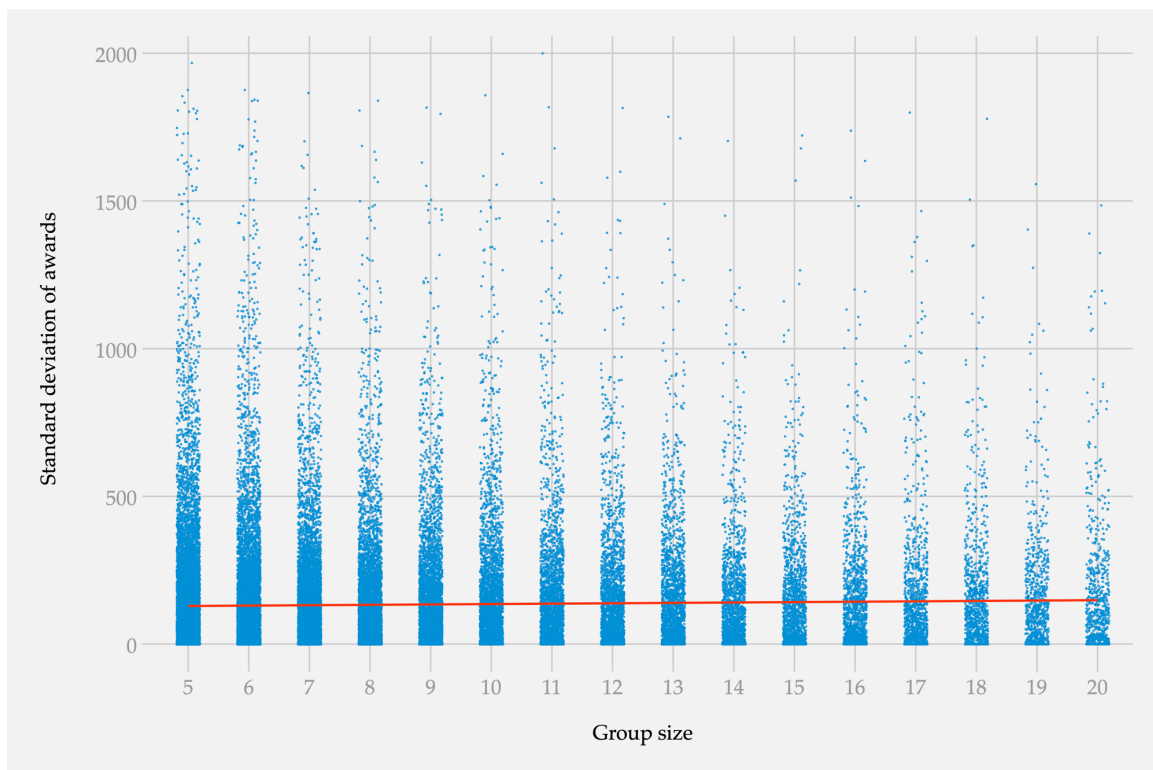


*Alternative II: Information-gathering costs are prohibitive.* Another alternative explanation for the high incidence of compression I observe is that aggressive differentiation between group members entails information-gathering costs that are prohibitive for managers (Alchian & Demsetz, 1972; Child, 1972; Eisenhardt, 1985; Hollensbe & Guthrie, 2000). These costs include the time and effort that managers must spend observing and formulating accurate, reliable evaluations of their subordinates' contributions to group performance. If managers find it inefficiently burdensome to do this, they may rationally choose to reduce information-gathering costs by distributing equal rewards.

I probe this explanation by examining the relationship between group size and award equality.

Assuming that information-gathering costs increase with group size — more members mean more time and more effort given over to the monitoring and evaluation of employee performance — we would expect managers of larger groups to engage in greater compression of awards (Alchian & Demsetz, 1972; Child, 1972; Eisenhardt, 1985; Hollensbe & Guthrie, 2000). Figure 3 plots the standard deviation of distribution-instances' awards against group size. There is no discernible linear (or non-linear) association between group size and reward distributions' standard deviations. The scatter plot's best-fitting line — which does not fit the data well — is virtually horizontal. In small groups (e.g.,  $n = 5$ ), there are many instances of aggressive differentiation. And in large groups (e.g.,  $n = 20$ ), there are many instances of full or near full equality in awards.

**Figure 3**  
Standard Deviation of Group Awards Plotted against Group Size.



## Pattern II: Residual Between-Manager Variation in Compression

As I showed above, the overriding tendency of managers who are distributing monetary rewards is to be egalitarian. Still, there are many managers who do differentiate between group members, and among those managers there is considerable variation in distribution-instances' reward equality. I argued above that this between-manager variation is a manifestation of differences in managers' underlying preferences for egalitarianism.

### *Alternative explanations for between-manager variation in compression*

*Alternative I: Between-group variation in performance observability.* One way to probe whether this is in fact the case is to compare the dispersion of rewards given by managers of groups that are similar in performance observability. To do so, I cluster distribution-instances that are similar on the following dimensions: occupational diversity (measured using the Blau index), educational diversity (Blau), variation in group members' salaries (standard deviation), variation in members' lengths of group membership (standard deviation), and variation in members' lengths of federal service (standard deviation). I use k-means clustering to accomplish this, a common approach to partitioning observations into distinct groups (see, e.g., Everitt et al., 2011). I perform this clustering within agencies and within year, so that for each agency-year in my data, I obtain clusters of distribution-instances that closely resemble each other on dimensions that theory suggests are correlated with performance observability. (Rapkin & Luke (1993) note that "...cluster analysis identifies cases in a sample with similar scores on all variables of interest, and puts them together to form clusters, or subgroups of cases" (251). Here, I use a clustering algorithm that minimizes the Euclidean distance between observations on the variables noted above.)

In groups that are occupationally and educationally diverse, individual members will tend to do different tasks and exercise different skill sets. For instance, a group member with lower formal education may tend to do work that is more clerical in nature and more easily measurable than the work done by a group member with an economics PhD who is doing policy analysis. (There is considerable occupational

and educational diversity in federal work groups, and so this scenario is not uncommon.) Additionally, status characteristics theory suggests that occupational and educational diversity will also make it rhetorically easier for managers to justify giving different rewards to different group members (Humphreys & Berger, 1981). If challenged, managers can plausibly argue that a PhD economist is doing higher-skilled and more important work than a clerical worker, regardless of the real content of the economist's and clerk's contributions to the group. In occupationally and educationally diverse groups, then, we would expect managers to be less egalitarian in their reward distributions.

Since managers may peg reward sizes to individual group members' salaries, within-group variation in salary is a factor that may affect the degree of egalitarianism in distribution-instances. Managers' interpersonal relationships with group members likely evolve over time, and so variation in length of group membership accounts for the possibility that manager-employee relationships may affect how managers distribute rewards. Federal employees may accumulate government- and agency-specific human capital over time, and so variation in length of federal employment accounts for the possibility that experience and accumulated skill may influence reward distributions.

Figure 4 shows the intra-group dispersion of reward sizes for all distribution-instances that occurred in cabinet agencies (excepting the Department of Defense), the Environmental Protection Agency, and NASA, in 2013. Each dot is one distribution-instance. Within agencies and years, I divided distribution-instances into two clusters. These clusters are indicated by dot color. I show distribution-instances from cabinet agencies in 2013 because showing distribution-instances from more agencies and/or more years would overload my graph with dots. I note here that my findings do not differ if I examine other agencies or if I examine other years. Nor do my findings change if I divide distribution-instances into more clusters.

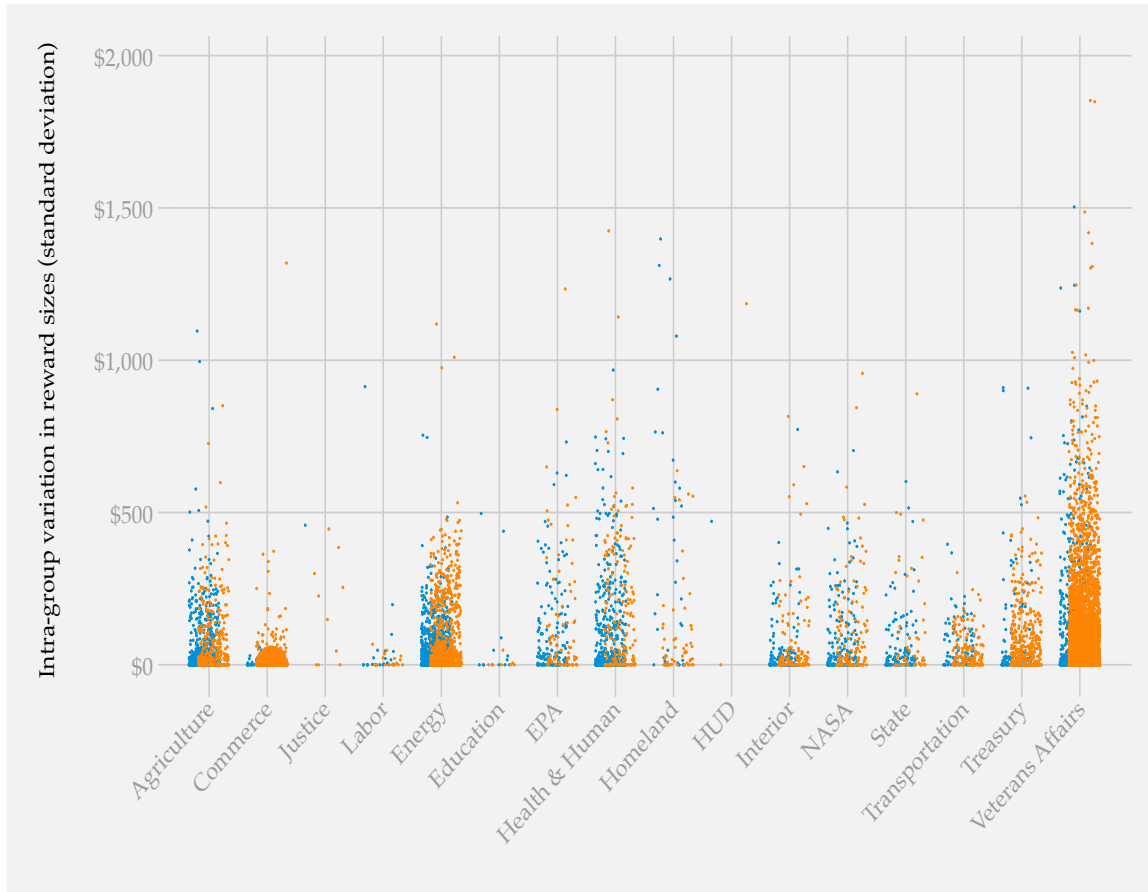
First, I note as I did above that many distribution-instances have a standard deviation of zero. Second, and notwithstanding the high frequency of zeroes, there is still a conspicuous amount of variation in how managers distribute rewards. For instance, within the Department of Agriculture, and within each cluster of distribution-instances that are



similar on the variables described above, there are marked differences in the intra-group dispersion of performance pay awards. The implication of these differences is that *managers working in the same agency, under the same formal performance pay systems, in the same year, and managing groups that are similar, frequently make reward distributions that vary in their egalitarianism*. In short, managers confronting similar managerial decisions about performance pay appear to be making decisions that are idiosyncratic.

Third, each agency's blue and orange dots commingle extensively, suggesting that there is little correlation between the variables I described above and managers' decisions about egalitarianism. If managers of dissimilar groups are making similar decisions about performance pay distributions, it is plausible that some underlying force is influencing those decisions. My argument is that this force is, at least in part, attributable to the human impulse toward egalitarianism.

**Figure 4**  
**Standard Deviation of Distribution-instances for Cabinet Agencies, by Cluster, 2013.**  
**Each Dot is One Distribution-instance. Clusters are Indicated by Dot Color.**

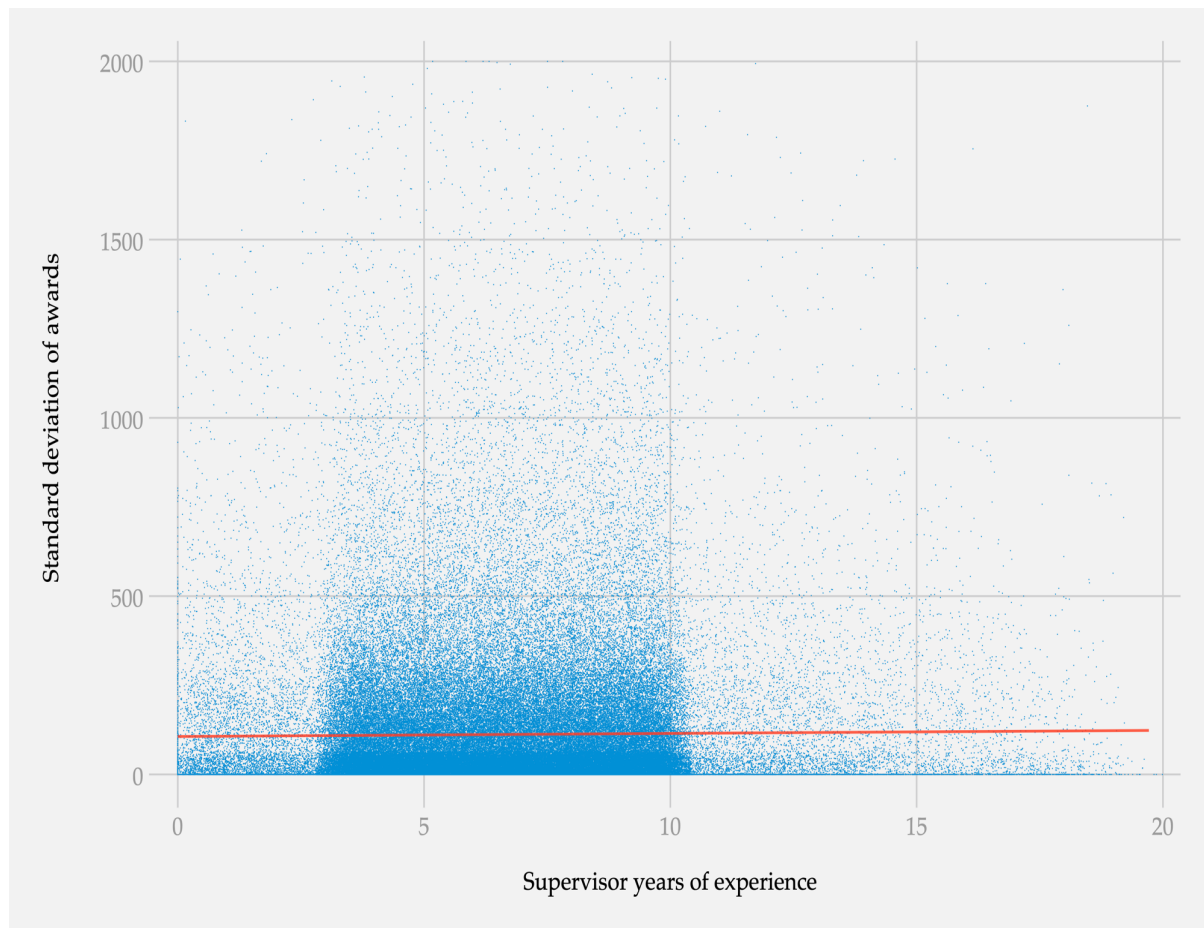


*Alternative II: Managerial learning drives between-manager variation.* Over time, supervisors may learn that certain approaches to personnel management are more effective than others, and they may adjust their strategies as a result (Lant, Milliken, & Batra, 1992; Bledow, Carette, Kühnel, & Bister, 2017). If supervisor experience was related to between-manager variation in awards compression, we could reasonably infer that a process of managerial learning partially explains this variation. By contrast, if supervisor experience was unrelated to compression, we could infer that managers' preferences for egalitarianism are exogenous to the organizations in which they work. In

this view, managers bring their preexisting preferences for egalitarianism with them into their organizations, and these preferences remain stable over time.

Below, figure 5 plots the standard deviation of group rewards against supervisor experience. There is no discernible linear (or nonlinear) relationship between supervisor experience and award differentiation in the figure's many distribution-instances. It does not appear to be the case that managers with many years of experience differentiate between group members more or less aggressively than managers with few years of experience.

**Figure 5**  
**Standard Deviation of Group Awards Plotted against Supervisor Years of Experience.**



## Conclusion: Limitations and Implications

The principal limitation of my analysis is that it cannot definitively rule out competing explanations for awards compression. Nor can my analysis provide definitive support for my own explanation. While my data are consistent with the propositions advanced in my behavioral account, and while my analyses cast doubt on select economic explanations, my account should be viewed as provisional until further research accumulates in this area. My data do not allow me to address all possible competing explanations for awards compression. For example, one alternative explanation for the high incidence of equality in awards is that front-line supervisors may worry that aggressive differentiation will attract scrutiny from higher-level managers. Another alternative explanation is that performance levels may not vary all that much between employees. If so, the high incidence of equality I observe would reflect low between-employee variation in performance and not a managerial proclivity for egalitarianism. (Given that considerable evidence of merit pay compression exists, and given evidence of non-trivial variation in federal employees' performance (Oh & Lewis, 2013), I am inclined to discount this possibility.)

One explanation for between-manager variation in awards compression, that I cannot test, is the possibility that some managers are more politically oriented than other managers and use performance pay to reward loyalty rather than good performance. Moreover, my data are not perfect and are unique to the federal government context, and so the economic explanations I am able to address herein may be vindicated with other data sets, in other contexts. Conversely, my behavioral account may have less explan-

atory power in other settings. I therefore view my behavioral account as a jumping off point for future research rather than as a conclusive statement of managerial decision-making. Promising areas for future analysis include the effects of award compression on employee turnover, top-level managers' responses to differences in front-line managers' egalitarianism, and organizational initiatives that might address these differences.

One key implication of my behavioral account of performance pay is that organizations cannot count on managers to aggressively differentiate between individual employees when they distribute performance pay awards. The managerial impulse toward egalitarianism will act as a considerable counterweight against a system based on aggressive differentiation. Regardless of the specific design details of their performance pay systems, organizations will inevitably have to grapple with this counterbalancing force.

A second key implication of my account is that organizations cannot rely on their corps of managers to uniformly implement a given performance pay plan. As my data suggest, there is considerable variation in managers' performance pay decisions, even among managers who work in the same agency and who supervise groups that are highly similar on dimensions that theory suggests are correlated with employee performance observability. If between-person differences in tastes for egalitarianism are the cause of this variation, organizations hoping for uniformity in implementation will have to contend with managers' idiosyncratic preferences. Together, the impulse toward egalitarianism and between-person variation in preferences for egalitarianism will inevitably complicate organizations' attempts to implement performance pay.

## References

- Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review*, 62(5), 777-795.
- Balafoutas, L., Kerschbamer, R., & Sutter, M. (2012). Distributional preferences and competitive behavior. *Journal of Economic Behavior & Organization*, 83(1), 125-135.
- Bartling, B., Fehr, E., Maréchal, M. A., & Schunk, D. (2009). Egalitarianism and competitiveness. *American Economic Review*, 99(2), 93-98.
- Barber, A. E. and Simmering, M. J. (2002). Understanding pay plan acceptance: The role of Distributive justice theory. *Human Resource Management Review*, 12(1):25-42.
- Batrićević, N., & Littvay, L. (2017). A genetic basis of economic egalitarianism. *Social Justice Research*, 30(4),

- 408-437.
- Bellé, N. (2015). Performance-related pay and the crowding out of motivation in the public sector: A randomized field experiment. *Public Administration Review*, 75(2), 230-241.
- Bledow, R., Carette, B., Kühnel, J., & Bister, D. (2017). Learning from others' failures: The effectiveness of failure stories for managerial learning. *Academy of Management Learning & Education*, 16(1), 39-53.
- Bol, J. C. (2011). The determinants and performance effects of managers' performance evaluation biases. *The Accounting Review*, 86(5), 1549-1575.
- Boehm, C., Barclay, H. B., Dentan, R. K., Dupre, M. C., Hill, J. D., Kent, S., Knauff, B.M., Otterbein, K.F., & Rayner, S. (1993). Egalitarian behavior and reverse dominance hierarchy [and comments and reply]. *Current Anthropology*, 34(3), 227-254.
- Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. *Academy of Management Perspectives*, 21(4), 34-48.
- Crown, D. F., & Rosse, J. G. (1995). Yours, mine, and ours: Facilitating group productivity through the integration of individual and group goals. *Organizational Behavior and Human Decision Processes*, 64(2), 138-150.
- Dawes, C. T., Fowler, J. H., Johnson, T., McElreath, R., & Smirnov, O. (2007). Egalitarian motives in humans. *Nature*, 446(7137), 794-796.
- Dawes, Christopher T., Peter John Loewen, Darren Schreiber, Alan N. Simmons, Taru Flagan, Richard McElreath, Scott E. Bokemper, James H. Fowler, and Martin P. Paulus. (2012). Neural basis of egalitarian behavior. *Proceedings of the National Academy of Sciences* 109(17), 6479-6483.
- Dogan, K. and Vecchio, R. P. (2001). Managing envy and jealousy in the workplace. *Compensation & Benefits Review*, 33(2):57-64.
- Eisenhardt, K. M. (1985). Control: Organizational and economic approaches. *Management Science*, 31(2), 134-149.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57-74.
- Erlei, M. (2008). Heterogeneous social preferences. *Journal of Economic Behavior & Organization*, 65(3-4), 436-457.
- Fehr, E., Bernhard, H., & Rockenbach, B. (2008). Egalitarianism in young children. *Nature*, 454(7208), 1079.
- Fliessbach, K., Weber, B., Trautner, P., Dohmen, T., Sunde, U., Elger, C. E., & Falk, A. (2007). Social comparison affects reward-related brain activity in the human ventral striatum. *Science*, 318(5854), 1305-1308.
- Fowler, J. H., Johnson, T., & Smirnov, O. (2005). Human behaviour: Egalitarian motive and altruistic punishment. *Nature*, 433(7021), 433.
- Funk, C.L., Smith, K.B., Alford, J.R., Hibbing, M.V., Eaton, N.R., Krueger, R.F., Eaves, L.J. and Hibbing, J.R. (2013). Genetic and environmental transmission of political orientations. *Political Psychology*, 34(6), 805-819.
- Gaus, G. (2015). The egalitarian species. *Social Philosophy and Policy*, 31(2), 1-27.
- Gavrilets, S. (2012). On the evolutionary origins of the egalitarian syndrome. *Proceedings of the National Academy of Sciences*, 109(35), 14069-14074.
- Hollensbe, E. C., & Guthrie, J. P. (2000). Group pay-for-performance plans: The role of spontaneous goal setting. *Academy of Management Review*, 25(4), 864-872.
- Humphreys, P. and Berger, J. (1981). Theoretical consequences of the status characteristics formulation. *American Journal of Sociology*, 86(5):953-983.
- Husted, B. W. and Folger, R. (2004). Fairness and transaction costs: The contribution of organizational justice theory to an integrative model of economic organization. *Organization Science*, 15(6):719-729.
- Jawahar, I. M., & Williams, C. R. (1997). Where all the children are above average: The performance appraisal purpose effect. *Personnel Psychology*, 50(4), 905-925.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Administrative Science Quarterly*, 44(4), 741-763.
- Johnson, T., Dawes, C. T., Fowler, J. H., McElreath, R., & Smirnov, O. (2009). The role of egalitarian motives in altruistic punishment. *Economics Letters*, 102(3), 192-194.
- Kampkötter, P., & Sliwka, D. (2018). More dispersion, higher bonuses? On differentiation in subjective performance evaluations. *Journal of Labor Economics*, 36(2), 511-549.
- Kessler, I., and Purcell, J. (1992). Performance related pay: Objectives and application. *Human Resource Management Journal* 2(3): 16-33.
- Kleinbaum, A. M., Stuart, T. E., and Tushman, M. L. (2013). Discretion within constraint: Homophily and structure in a formal organization. *Organization Science*, 24(5):1316-1336.
- Lant, T. K., Milliken, F. J., & Batra, B. (1992). The role of managerial learning and interpretation in strategic persistence and reorientation: An empirical exploration. *Strategic Management Journal*, 13(8), 585-608.
- Lazear, E. P. (1989). Pay equality and industrial politics. *Journal of Political Economy*, 97(3), 561-580.
- Mannix, E. and Neale, M. A. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, 6(2):31-55.
- Marsden, D., and Richardson, R. (1994). Performing for pay? The effects of "merit pay" on motivation in a public service. *British Journal of Industrial Relations* 32(2): 243-61.
- McPherson, M., Smith-Lovin, L., and Cook, J. M. (2001).

- Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27(1):415–444.
- Miller, G.J., and Whitford, A.B. (2007). The principal's moral hazard: Constraints on the use of incentives in hierarchy. *Journal of Public Administration Research and Theory* 17(2): 213–33.
- Moers, F. (2005). Discretion and bias in performance evaluation: The impact of diversity and subjectivity. *Accounting, Organizations and Society*, 30(1), 67–80.
- Mollica, K. A., Gray, B., and Trevino, L. K. (2003). Racial homophily and its persistence in newcomers' social networks. *Organization Science*, 14(2):123–136.
- Oh, S. S., & Lewis, G. B. (2013). Performance ratings and career advancement in the US Federal Civil Service. *Public Management Review*, 15(5): 740–761.
- Pearsall, M. J., Christian, M. S., & Ellis, A. P. (2010). Motivating interdependent teams: Individual rewards, shared rewards, or something in between?. *Journal of Applied Psychology*, 95(1), 183–191.
- Perry, J. L., Engbers, T. A., & Jun, S. Y. (2009). Back to the future? Performance-related pay, empirical research, and the perils of persistence. *Public Administration Review*, 69(1), 39–51.
- Pfeffer, J. and Langton, N. (1993). The effect of wage dispersion on satisfaction, productivity, and working collaboratively: Evidence from college and university faculty. *Administrative Science Quarterly*, 38(3), 382–407.
- Prendergast, C., & Topel, R. H. (1996). Favoritism in organizations. *Journal of Political Economy*, 104(5), 958–978.
- Rapkin, B. D., & Luke, D. A. (1993). Cluster analysis in community research: Epistemology and practice. *American Journal of Community Psychology*, 21(2), 247–277.
- Riccucci, N. M., & Thompson, F. J. (2008). The new public management, homeland security, and the politics of civil service reform. *Public Administration Review*, 68(5), 877–890.
- Sheehy-Skeffington, J., & Thomsen, L. (2019). Egalitarianism: Psychological and socio-ecological foundations. *Current Opinion in Psychology*, 32, 146–152.
- Shrum, W., Cheek Jr, N. H., and MacD, S. (1988). Friendship in school: Gender and racial homophily. *Sociology of Education*, 61(4):227–239.
- Tabibnia, G., Satpute, A. B., & Lieberman, M. D. (2008). The sunny side of fairness: Preference for fairness activates reward circuitry (and disregarding unfairness activates self-control circuitry). *Psychological Science*, 19(4), 339–347.
- Tricomi, E., Rangel, A., Camerer, C. F., & O'Doherty, J.P. (2010). Neural evidence for inequality-averse social preferences. *Nature*, 463(7284), 1089–1091.
- Tsui, A. S., Egan, T. D., and O'Reilly III, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37(4):549–579.
- Weibel, A, Rost, K. and Osterloh, M. (2010). Pay for Performance in the public sector—benefits and (Hidden) costs. *Journal of Public Administration Research and Theory* 20(2): 387–412.
- Weinberger, T. E. (1998). A method for determining the equitable allocation of team-based pay: Rewarding members of a cross-functional account team. *Compensation and Benefits Management*, 14(4), 18–26.