PERFORMANCE FEEDBACK IN ORGANIZATIONS: UNDERSTANDING FEEDBACK DYNAMICS

by

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(Under the Direction of Hal G. Rainey)

ABSTRACT

This dissertation is comprised of three individual chapters, each of which examines different types of feedback dynamics that occur within different organizations and different sectors. The first chapter explores the characteristics that determine an individual's preferences for performance feedback. This chapter uses ordered and multinomial logistic regression analyses to assess these relationships. The analyses indicate that there are distinct differences in feedback preferences and that age, the perceptual importance of feedback, organizational level, and educational background all contribute to an individual's feedback preferences. The second chapter focuses on individual perceptions of feedback processes and the feedback dynamics between supervisors and their employees. More specifically, this chapter analyzes individual perceptions about a variety of feedback processes and their potential effects on important outcomes, like employees remaining with their organization. Moreover, this chapter examines the perceptual differences that occur between supervisors and their employees. This chapter employs t tests and logistic regressions for the analysis. The findings indicate that supervisors report giving more feedback, and in different ways, than their

employees report receiving, and there is some evidence that they overestimate the effect their feedback has on their employees' performance. There is also a strong relationship between an individual's satisfaction with their professional development feedback and their desire to stay with their organization. The final chapter examines how public, private, and non-profit employees vary in their views in respect to fairness of performance appraisals, accuracy of performance appraisals, recognition of employees, productivity of discussions with their supervisor, different types of supervisory communications, and the provision of constructive performance feedback. This chapter utilizes t tests to compare the responses of employees in each sector. The analysis finds that public sector employees are more likely to agree that they understand the steps required to improve their performance rating and also receive constructive suggestions from their supervisor, but they are less likely to agree that managers communicate the goals and priorities of the organization and that they have enough information to do their job well. Additionally, public sector employees are less likely to believe that they are recognized for providing high quality products and services.

INDEX WORDS: feedback; communication; performance; supervisor roles and responsibilities, public and private sector comparison; organizational effectiveness; management

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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial

Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2015

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DEDICATION

This dissertation is dedicated to Kevin Doucette, whose confidence in me has never abated since the day we met, and to my parents, whose inspiring pursuit of excellence in higher education knows no bounds. I would not be the person or scholar I am today without your encouragement and support.

ACKNOWLEDGEMENTS

There are many people who have been instrumental in my path through graduate school and ultimately the completion of this dissertation. My chair, Hal Rainey, who has supported my interest in feedback from day one and whose own work inspired my own, has played a significant role in my development. David Bradford, who not only taught me the methods I needed for my analyses but also patiently served as a mentor has been extraordinary helpful every step of the way. Vicky Wilkins, who has been unconditionally supportive since the first day of graduate school and continues to serve as a role model for the type of faculty member and scholar I would like to become. Barry Bozeman and Larry O'Toole, who graciously offered to serve on my committee and challenged my ideas to help produce a better dissertation. Jennie Welch, a wonderful colleague and one of the best thought partners I have, who has pushed me to be a better, more productive scholar every day. Heather Rimes, a colleague who has always been a supportive sounding board. Finally, to Pat Haney and Phil Russo, without whom, I probably would not have attended graduate school. None of this would have been possible had the two of you not inspired me with your teaching and helped put me on this path.

Thanks also to all of my friends and family who have buoyed me through the sometimes turbulent waters of graduate school and dissertation writing, and who have definitely heard more about feedback than they probably would have ever wanted.

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INTRODUCTION

Feedback has long been considered a critical component of organizational success, affecting a number of important variables, such as employee performance, motivation, and job satisfaction (Herold & Greller, 1971). It is perhaps even more important today for public managers to effectively utilize feedback to maximize these characteristics, since public organizations are tasked with increasing expectations for efficiency and effectiveness in the face of dwindling budgets and a decreased workforce. Although managers often approach feedback with the best of intentions, it frequently ends with less than desirable results.

The importance of effective feedback is widely known, yet many employees continue to be dissatisfied with the feedback they receive. A recent Gallup poll, measuring employee engagement from 2010-2012, found that 70% of employees are not engaged at work, which is particularly problematic for those concerned with feedback, since nearly half of the questions that led to this result concerned the "quality, clarity, and frequency of feedback" (Nisen, 2015).

Google also recently noted the importance of communication and feedback for a successful organization. Results from their "Project Oxygen," which used quantitative analytics to identify the most important characteristics of good management, indicate that, above all else, their employees noted the capacity to "be a good coach" as the most important trait for their boss (Nisen, 2015). These coaching characteristics include the capacity to provide feedback and communicate effectively. A lack of communication,

they found, creates uncertainty for employees, and ultimately was shown to be the biggest drain on productivity (Nisen, 2015).

So, if we know feedback is so important, than why can't we get it right? Why can't supervisors provide efficient, effective, and timely feedback to their employees? The answer, like giving feedback itself, is not simple. It is easy to get it wrong and considerably more difficult to get it right. These analyses will delve into these issues and illustrate some of the obstacles associated with feedback.

This dissertation is comprised of three individual chapters, each of which examines different types of feedback dynamics that occur within different organizations and different sectors. The first chapter explores the characteristics that determine an individual's preferences for performance feedback. More specifically, it examines what characteristics determine an individual's preferences for the type of feedback they receive and the frequency with which they receive it. The second chapter is focused on individual perceptions of feedback processes and the feedback dynamics between supervisors and their employees. More specifically, this chapter analyzes individual perceptions about a variety of feedback processes and their potential effects on important outcomes, such as job satisfaction and continued employment with the organization. Moreover, this chapter examines the perceptual differences that occur about feedback processes between supervisors and their employees. The final chapter explores the differences in feedbackrelated issues between the public and private sectors. In particular, this chapter studies how public, private, and non-profit employees vary in their views in respect to fairness of performance appraisals, accuracy of performance appraisals, recognition of employees,

productivity of discussions with their supervisor, different types of supervisory communications, and the provision of constructive performance feedback.

While each of these chapters explores different aspects of feedback-related issues, they all examine questions under the umbrella of feedback dynamics. This dissertation will contribute to the generic management literature more broadly, but it will also contribute specifically to the public management literature, by exploring the ways in which feedback-related issues may differ among the sectors. There is a well-developed literature identifying the differences (and similarities) between the sectors and this research will add to that literature by providing another avenue of empirical research and identifying sector-specific reasons why we may see differences, or why, for other issues, we see no differences at all.

DATA

The primary data set used in these analyses was collected in 2013 by the author, as a graduate student at the University of Georgia, with Hal G. Rainey serving as the Principal Investigator for the project. The data was generated from a survey distributed to six different organizations, with 2,100 respondents. The survey was distributed either to each organization in its entirety, or to a random sample of the organization. When sampling was utilized, stratified sampling was employed to ensure that the survey was distributed to at least fifty percent of employees in each major organizational level. The organizations included a non-profit health care organization (72% response rate), a private construction company (83% response rate), a private insurance company (82% response rate), a private information technology company (73% response rate), a private law firm (76% response rate), and a District Attorney's office (92% response rate).

These organizations were chosen because they are very diverse in their mission, size, and geography. This diversity among organizations allows for a much broader comparison than would be possible if the organizations were all similarly oriented. The major limitation to this sample is size. Although the response rates are quite high from each organization, there are only six organizations included in the analysis. It is therefore possible that the results would be different with a larger sample that included more organizations.

In addition to the quantitative data source, this analysis will also use two qualitative sources. The first qualitative source comes from different types of interviews

conducted at the corporate headquarters of a large food manufacturing company in the Midwest. To understand perceptual differences in a more aggregated way by organizational level, focus groups were used with ten employees in each group. The first group was "entry level" employees, consisting of eight women and two men. Nine of the employees identified as Caucasian, one employee identified as Asian, and they ranged in age from 26 to 55 years old. The second group was "front line managers" who were the direct supervisors of the entry-level employees in the first group. Six of the participants in this group were men and four were women. All of the participants identified as Caucasian, ranging in age from 30 to 50 years old. The third group was "upper level managers," who were the direct supervisors of the front-line managers in the second group. Six of the participants in this group were women and four were men. Eight of the participants identified as Caucasian, one identified as Hispanic, and one identified as African American. The participants ranged from 33 to 52 years old. The fourth group was "directors" who were the direct supervisors of the upper level managers in the third group. Eight of the participants in this group were men and two were women. Nine of the participants identified as Caucasian and one identified as Asian, with ages ranging from 35 to 59 years old. Finally, the last group was "vice presidents" who were the direct supervisors of the directors in the fourth group and the highest level of management under the chief executive officer level. Five of the participants were women and five were men. All of the participants identified as Caucasian and ranged in age from 40 to 57 years old.

The second type of interview was a dyad interview with six pairs of supervisors and employees. These interviews were conducted to look at differences between specific

pairs of supervisors and subordinates. All participating pairs were considered to be functional relationships (i.e. no one was identified as a poor performer or identified any issue with their supervisor or subordinates). It would be expected to see perceptual differences in more dysfunctional relationships, so this was done to evaluate perceptual differences in a more positive environment. The supervisor and subordinate interviews were conducted separately. The pairings consisted of three female supervisor/subordinate pairs, two male supervisor/subordinate pairs, and one male supervisor/female subordinate pair. All participants identified as Caucasian and ranged in age from 24 to 56 years old. All interviews were recorded and then transcribed by the author.

This organization has formalized feedback processes for all employees, so it was of interest to examine whether or not there are differences in the type of perceptual gap that may occur in organizations where there is no formal feedback process. Consequently, interviews with production employees and their respective supervisors were organized at a Midwestern steel manufacturing company in which there is no formalized feedback process. The interviews mirrored the dyad interviews conducted at the food manufacturing organization and included employees at a variety of performance levels to evaluate whether or not an individual's performance level makes a difference in the type of breadth of perceptual gap that occurs. Each supervisor was asked to classify their employees as "low achieving," "average," and "above average" to ensure that each supervisor had one employee from each of these groups participating in the interviews. All of the supervisors are considered frontline managers, though their areas of responsibilities differ (shipping, production, or processing). There were a total of twenty people interviewed (five supervisors and fifteen employees), with nineteen males and one

female who all identified themselves as Caucasian, which is representative of the company's demographics. Thus, all of the supervisor and employee pairs were male/male except for one, which was male/female. These interviews were conducted during September of 2014 and were recorded and transcribed by the author.

For the public/private sector comparison, the analysis also uses data from the 2013 Federal Employee Viewpoint Survey. The United States Office of Personnel Management administers this survey annually to federal government employees to measure the perceptions of a variety of organizational characteristics. The survey was sent out to federal employees in 81 agencies, with 376,577 employees responding. For this analysis, the weighted data, which gives consideration to the respondent's demographic characteristics relative to the population, was used as it more accurately represents the views of the federal employee population.

CHAPTER ONE

UNDERSTANDING AND DIFFERENTIATING EMPLOYEE FEEDBACK $\mathsf{PREFERENCES}^1$

¹ Hodge, Meriem, and Hal G. Rainey. "Building More Effective Feedback: Understanding and Differentiating Employee Feedback Preferences." To be submitted.

ABSTRACT

Organizations continually strive to maximize their employees' performance, and feedback is one critically important tool organizations use to improve that performance. It is also an expensive and time-consuming tool, but despite many organization's best efforts, research has shown that feedback is often destructive, instead of productive. One reason for this result may be a misalignment between the type and frequency of feedback given to an individual and that individual's feedback preferences. An employee's feedback preferences can play a significant role in how that feedback is received and the extent to which it is effectively leveraged to improve performance. This analysis draws on survey data from 2,100 respondents in four different private sector organizations and one non-profit organization. The results indicate that there are distinct differences in feedback preferences and that age, the perceptual importance of feedback, organizational level, and level of education all contribute to an individual's feedback preferences.

INTRODUCTION

Feedback can be immensely powerful when effectively utilized, but it can also be ineffective or even destructive when it is poorly received. To provide effective feedback that is actually used by the employee to improve performance, it is essential for managers to understand how employees are receiving that feedback, because it is not the feedback itself that will result in improved performance, but the conversion of that feedback into action (Jawahar, 2010). A meta-analysis showed that in one-third of studies, feedback actually resulted in lower performance (Kluger and DeNisi, 1996), so understanding the effect that feedback will have on an employee is imperative. This is particularly true, given how expensive and time-consuming the feedback process is, with an estimated 825 million work hours devoted to preparing and conducting annual performance reviews each year in organizations world-wide (Stone & Heen, 2014). One way to develop effective feedback that actually improves performance then is to first understand an individual's feedback preferences in order to better anticipate and understand employee responses to feedback.

The literature has firmly established that feedback is critical for improving an individual's performance (Ilgen et. al, 1979; Podsakoff and Farh, 1989; Weick and Sutcliffe, 2001; Yeager et. al, 1985) and is positively connected to other important attributes like employee motivation and job satisfaction (Greller and Herold, 1975). Understanding the characteristics that affect an individual's feedback preferences, however, is an undeveloped area of research. In 1979, Ilgen et al. commented that one of the "most critical deficiencies" in the field of feedback research concerned individual perceptions of feedback, yet over 30 years later, there is still much that we do not know

about what determines an individual's feedback perceptions and how those perceptions translate into preferences.

There has been some empirical research demonstrating the role that mediating variables, such as an employee's trust in the feedback source, can play in the reception of feedback (Earley, 1986; Jablin, 1979), but that research is largely focused on individual perceptions of isolated feedback events, not on the underlying preferences that can dictate the way an individual perceives feedback. There has also been some progress made in our understanding of the personal traits (such as self-esteem) that affect an individual's perceptions of feedback (Ilgen et. al, 1979), but there has been minimal discussion of the characteristics that determine preferences about types, frequency, and other aspects of feedback. Understanding preferences is critical, because if feedback is intended to improve performance, then it is only as useful as the recipient who receives it. If an individual is overwhelmed by a flood of feedback, or frustrated by a drought of feedback, then it is likely that their performance will not improve or, even worse, will degrade.

This analysis helps to fill the gap in our understanding of the characteristics that determine feedback preferences. This chapter examines what characteristics determine an individual's preference for the quantity and type of feedback they receive. We expect to find that there are demographic characteristics such as age, and job characteristics, such as organizational level, that generate distinctions in individuals' feedback preferences.

To test this, a survey was distributed to employees in four private sector organizations and one non-profit organization, with a total of 2,100 respondents.

Multinomial logistic regressions were used for questions concerning feedback frequency and ordered logistic regressions were used for questions concerning feedback type.

Marginal effects were utilized to generate interpretable coefficients for both types of regressions. Ultimately, this study found that the characteristics that contribute to an individual's feedback preferences are age, the perceptual importance of feedback, organizational level, and level of education.

LITERATURE REVIEW

Feedback has long been considered a critical tool for improving individual performance (Ilgen et. al, 1979; Podsakoff and Farh, 1989; Weick and Sutcliffe, 2001; Yeager et. al, 1985) and is positively connected to other important attributes, such as employee motivation and job satisfaction (Greller and Herold, 1975). Previous work on feedback also shows that there are other performance-related areas in which feedback can have a significant impact on an individual. Feedback can increase the efficiency of goal attainment by reducing uncertainty and goal ambiguity and focusing an individual's efforts on the most important goals (Atkins & Wood, 2002). Feedback also enhances employee productivity by providing information to the employee about their success in achieving personal goals and their performance in relation to their peers (Harackiewicz & Larson, 1986). Ultimately feedback serves as an important information source, especially for jobs where the task itself does not provide information about the individual's performance.

Feedback is particularly difficult to analyze since the effects of feedback are confounded with so many other environmental, organizational, and personal characteristics (Ilgen et, al, 1979). Two people could be given the same type and frequencies of feedback, yet respond quite differently because of other traits that shape their perceptions and preferences. Thus, it would be useful to develop a better understanding about how particular characteristics affect an individual's preferences for both the type of feedback they receive and the frequency of that feedback. In practice, feedback figures prominently in performance evaluations, supervision, mentoring, coaching, and numerous other applications. People in organizations devote a very

significant amount of time and resources to the development and delivery of feedback. This makes it important to maximize the effectiveness of the feedback provided, and to avoid spending time on feedback that the recipient considers perfunctory, useless, or unfair. Critics may argue that some people may deem all feedback perfunctory or unhelpful, but as our analysis shows, that opinion is unjustified. The vast majority of respondents in this sample *do* want feedback, but respondents vary in both the type and quantity of feedback they prefer. Given this, our empirical case explores what characteristics drive an individual's feedback preferences.

The objective of this analysis is to determine what characteristics affect a respondent's preference for both the quantity and type of feedback they receive. There are many different facets of feedback that could elicit individual preferences, but two of the most prominent dimensions are the type of feedback that is given (ranging from negative to positive) and the frequency of that feedback (ranging from never to daily). Since, as others have noted (Pavett, 1983), the type of feedback and the *perception* of feedback frequency can have a dramatic impact on the individual's response to the feedback and their subsequent performance and motivation, it seems logical to first look at what characteristics drive individual preferences for those two dimensions. It is also important to distinguish between formal and informal feedback, because they can generate very different feedback processes. The delineation between formal and informal feedback is based on the degree to which the feedback is routinized and was articulated to respondents on the actual survey that is provided in the Appendix. The next section will explore the specific research questions and hypotheses based on these dimensions.

RESEARCH QUESTIONS & HYPOTHESES

In this study, the following research questions will be examined:

- What characteristics determine an individual's preference for informal feedback frequency?
- What characteristics determine an individual's preference for formal feedback frequency?
- What characteristics determine an individual's preference for feedback type?

 This chapter hypothesizes that organizational level, age, gender, and education will affect a respondent's feedback preferences. More specifically, the following hypotheses will be tested:

 H_1 : Organizational level and feedback frequency are inversely related.

This hypothesis is supported by research in the field of psychology that discusses the importance of feedback sources for the perceived credibility of the information. Individuals are more inclined to think that the feedback is considered most credible when it is given by people who have direct experience with their behavior and are in a position to evaluate that performance (Ilgen et. al, 1979), but people at higher organizational levels have fewer people who they perceive as capable of evaluating their performance (for vice presidents, it is often just the CEO). This reduction in the number of sources who could provide credible feedback may also result in a preference for less frequent feedback because there simply are fewer people who could provide feedback that would be considered valuable

 H_2 : Organizational level and only positive feedback are inversely related.

Much like age, experience can have an important affirming effect on a person's self-image and security in their position (Ilgen et. al, 1979). In the qualitative research, it was evident that employees in entry levels were much more likely to prefer positive feedback, which may be at least partially due to a self-image that is more easily affected by external sources. Conversely, employees at higher levels were much more likely to prefer feedback that is constructive, perhaps because they were less concerned with receiving positive external affirmations. Thus, employees in higher organizational levels are less likely to prefer only positive feedback.

 H_3 : Age and feedback frequency are inversely related.

Empirical evidence shows that older people tend to use feedback less than younger people, in part because they more often use their own past experience as a source of feedback rather than an external source (Ilgen et. al, 1979). Conversely, younger individuals may be more anxious about their performance and are more likely to want feedback (Atwater & Waldman, 1998). Thus, it would be reasonable to theorize that as individuals age, their decreasing interest in external feedback translates into a preference for less frequent feedback.

 H_4 : Age and only positive feedback are inversely related.

Although there is some evidence that older employees over-inflate their self-ratings in comparison to ratings by their peers or supervisors, which may make them more likely to reject negative feedback by others which is not aligned with their self-perception (Atwater & Waldman, 1998), it has also been shown that employees who feel more secure respond more positively to negative feedback (Ilgen et. al, 1979). Thus, if as

people age and have more experience they become more secure with themselves and their positions, it seems reasonable to conjecture that they would be less likely to prefer only affirmative feedback.

*H*₅: *Education and feedback frequency are inversely related.*

Education, like experience, may give individuals the sense that they are capable of providing themselves internal feedback, which may make them less inclined to want external sources of feedback. Education could also increase an individual's sense of security within their position, as they may feel more equipped to be successful, which may also decrease their desire to receive external feedback to help alleviate insecurity about their performance.

 H_6 : Education and constructive criticism are positively related.

Education can make people more conditioned to learning behaviors, so it would make sense to infer that individuals who have received more education would be more likely to be positively responsive to constructive criticism that is given to help them learn how to improve their performance. Being more receptive to learning and constructive feedback could then translate to a preference for constructive criticism that could help them learn how to improve their performance.

 H_7 : Female respondents and feedback frequency are positively related.

Research has shown that women are much more likely to be receptive to feedback than men, largely because they have a tendency to consider the information more valuable and modify their behavior when opportunities for improvement are identified (Atwater & Waldman, 1998). If women consider feedback more valuable and are more inclined to

use it to adjust their behavior, then it would seem logical that they would also prefer to receive feedback more frequently than their male counterparts.

 H_8 : Female respondents and constructive criticism are positively related.

There is some evidence that males receive more feedback in their childhood and become less sensitized to feedback as an adult, especially when that feedback counters their own self-perception in a negative way (Atwater & Waldman, 1998). Men are also more inclined to feel that acknowledging negative feedback is a sign of insecurity or weakness (Atwater & Waldman, 1998), which also may make them less likely to prefer constructive criticism.

 H_9 : Perceived importance of feedback and feedback frequency are positively related. If an individual values feedback and considers it important, then it is logical to presume that they will want feedback more frequently. Individuals who do not consider feedback important are less likely to want more feedback, since they do not consider it valuable.

VARIABLES

As previously and more extensively discussed in the main data section, the data comes from a survey distributed to employees in six different organizations. The dependent variables used in this study are formal feedback frequency, informal feedback frequency, and feedback type. For the feedback frequency variables, respondents were asked how often they would ideally like to receive formal and informal feedback. The responses were coded 1 (daily), 2 (weekly), 3 (monthly), 4 (quarterly), 5 (semi-annually), 6 (annually), and 7 (never). For the feedback type variable, respondents were asked what type(s) of feedback they would prefer to receive. The responses were coded 1 (only positive feedback), 2 (mostly positive feedback), 3 (equal amounts of positive feedback and constructive criticism), 4 (mostly constructive criticism), 5 (only constructive criticism), and 6 (no feedback).

The independent variables of interest in this chapter are organizational level (coded 1 to 4, with 4 representing the highest organizational level), gender, age, education, race, tolerance for ambiguity, and perceived importance of feedback. Gender is a dummy variable with 1 indicating a female respondent, age is a continuous variable, education is an ordered variable ranging from "Did not graduate from high school" to "Graduated from a graduate/professional school," and race was turned into three dummy variables (White, African-American, and Other Race). The frequencies for respondents that did not identify as either Caucasian or African-American were not sufficient for an analysis, so all other racial categories were collapsed into one variable, denoted as "Other Race." The tolerance for ambiguity variable is a scale comprised of three questions from Budner's tolerance for ambiguity scale: "A good job is one where what is to be done and

how it is done are always clear," "In the long run it is possible to get more done by tackling small, simple problems rather than large and complicated ones," and "It is more fun to tackle a complicated problem than to solve a simple one." The questions are all answered on a Likert scale, ranging from strongly agree to strongly disagree, and the first two questions are reverse coded so a higher score represents more tolerance for ambiguity. The responses to the three questions are averaged to represent an individual's tolerance for ambiguity. This variable will be included in the analysis as a control, since an individual's tolerance for ambiguity could affect feedback preferences and feedback can reduce ambiguity about a task or an individual's performance.

Finally, the perceived importance of feedback variable asks respondents to rate their agreement on a Likert scale ranging from strongly agree (1) to strongly disagree (5) to the statement "It is important for me to receive feedback about my performance." This variable is included because an individual's perception of the importance of feedback is likely to affect their feedback preferences. Interpersonal variation, as discussed earlier, can make identifying characteristics that drive preferences in the aggregate more difficult, so this variable is included to both capture and control for some of that interpersonal variance. If other variables of interest are significant, even when controlling for an individual's perception of the importance of feedback, then the finding has more of an implication for the development of a general typology. The descriptive statistics for all variables are listed in Table 1.1.

Table 1.1 Descriptive Statistics

Dependent Variables	Obs.	Mean	Std. Dev.	Min	Max
Ideal Formal Feedback					
Frequency	1973	3.917	1.386	1	7
Ideal Informal Feedback					
Frequency	1876	2.636	1.043	1	7
Ideal Feedback Type	2122	2.731	0.687	1	6
Independent Variables	·	·	<u> </u>	·	
Organizational Level	2144	2.378	1.302	1	4
Female	2109	0.598	0.49	0	1
Age	1937	41.424	11.749	20	76
Education	2146	4.131	1.299	1	6
Race	2151	4.015	0.598	1	5
Tolerance for Ambiguity	2005	2.483	0.542	1	4.333
Feedback Importance	2067	1.748	0.742	1	5

METHODS & MODELS

This chapter will use both multinomial and ordered logistic regressions for the analysis. A multinomial logistic regression is most appropriate for the hypotheses concerning feedback type, since the data is categorical in nature. An ordered logistic regression is most appropriate for the hypotheses concerning feedback frequency, since that data is ordered. Since the coefficients produced by the logistic regressions are not directly interpretable, marginal effects will be used to generate interpretable coefficients. The marginal effects produce the probabilities that the independent variable will produce a particular feedback type or feedback frequency preference. A positive coefficient indicates that the independent variable is more likely to fall into that outcome and a negative coefficient indicates that the independent variable is less likely to fall into that outcome.

Both the ordinal logistic regressions and the multinomial logistic regressions will be run separately for each company, since the company types (and corresponding organizational levels) are significantly different. For example, the vice president at a construction company and a partner at a law firm will share some characteristics, but the nature of their industries makes their work environments unique, so collapsing the groups may ignore inter-company variance that actually exists. Furthermore, the purpose of this chapter is to explore whether or not developing a general typology is possible and to do so there would need to be consistent findings, regardless of organizational type.

Using the methods outlined in this section and the variables discussed previously, three models will be run to test the outlined hypotheses. The first model, a multinomial

logistic regression, will test which characteristics predict an individual's preference for formal feedback frequency:

$$\Pr\left[Formal feedback freq = j \mid X_{ij}\right] = \frac{e^{\left(X_{ij} \underline{\beta} + \varepsilon_{ij}\right)}}{\displaystyle\sum_{j=1}^{J} e^{\left(X_{ij} \underline{\beta} + \varepsilon_{ij}\right)}}$$

Where X Contains the Following:

- Organizational Level
- Gender
- Age
- Education
- Race
- Tolerance for Ambiguity
- Perceived Importance of Feedback

The second model, a multinomial logistic regression, will test which characteristics predict an individual's preference for informal feedback frequency:

$$\Pr\left[Informalfeedbackfreq = j \mid X_{ij}\right] = \frac{e^{\left(X_{ij}\underline{\beta} + \varepsilon_{ij}\right)}}{\displaystyle\sum_{j=1}^{J} e^{\left(X_{ij}\underline{\beta} + \varepsilon_{ij}\right)}}$$

Where X Contains the Following:

- Organizational Level
- Gender
- Age
- Education
- Race
- Tolerance for Ambiguity
- Perceived Importance of Feedback

The third model, an ordered logistic regression, will test which characteristics predict an individual's preference for feedback type:

$$\Pr\left[Feedbacktype = j \mid X_{ij}\right] = \frac{e^{\left(X_{ij} \underline{\beta} + \varepsilon_{ij}\right)}}{\sum_{j=1}^{J} e^{\left(X_{ij} \underline{\beta} + \varepsilon_{ij}\right)}}$$

Where X Contains the Following:

- Organizational Level
- Gender
- Age
- Education
- Race
- Tolerance for Ambiguity
- Perceived Importance of Feedback

RESULTS

Perceptual Importance of Feedback

An individual's perception of the importance of feedback turned out to be, perhaps unsurprisingly, significant for their feedback preferences. Responses are coded strongly agree (1) to strongly disagree (5) so negative probabilities for more frequent feedback frequencies indicate that respondents who consider feedback less important are less likely to prefer frequent feedback. Similarly, positive probabilities for less frequent feedback indicate that respondents who perceive feedback as less important are more likely to prefer less frequent feedback (Tables 1.2 & 1.3). This positive relationship between an individual's perception of the importance of feedback and the quantity of feedback they prefer may not seem noteworthy, after all it is entirely logical for someone who does not highly value feedback to prefer less feedback, but it is an important point to consider. If a manager is giving feedback to improve performance and gives more feedback with the hope that it will in turn improve performance, but the employee does not consider feedback valuable and thus becomes frustrated with increased feedback, it may not have the intended result or, even worse, could have a negative effect on the employee's performance. This is not to say that managers should just refrain from giving feedback to employees that do not want feedback, because feedback is clearly important and necessary, but they should give serious consideration to the needs and preferences of their employees in order to maximize the effectiveness of the feedback.

Table 1.2 Marginal Effects for Ideal Formal Feedback Frequency (Feedback Importance)

Daily	Feed	lhack

Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	-0.0126***	0.0033	-3.81	0	1.6334
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	-0.0583***	0.0124	-4.69	0	1.6334
Private Construction	Feedback Imp.	-0.0226***	0.0069	-3.28	0.001	1.7688
Private Law Firm	Feedback Imp.	-0.0209*	0.0124	-1.69	0.092	1.7851
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	\mathbf{Z}	P>z	Mean
Nonprofit Health Care	Feedback Imp.	-0.0306***	0.0078	-3.91	0	1.6334
Private Construction	Feedback Imp.	-0.0705***	0.0145	-4.88	0	1.7688
Private Law Firm	Feedback Imp.	-0.0376**	0.0189	-1.99	0.047	1.7851
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	0.0403***	0.009	4.46	0	1.6334
Private Construction	Feedback Imp.	-0.1021***	0.0211	-4.83	0	1.7688
Private Law Firm	Feedback Imp.	-0.1093**	0.0451	-2.42	0.015	1.7851
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	0.0261***	0.006	4.35	0	1.6334
Private Construction	Feedback Imp.	0.0693***	0.0183	3.78	0	1.7688
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	0.0323***	0.0072	4.5	0	1.6334
Private Construction	Feedback Imp.	0.1179***	0.0223	5.29	0	1.7688
Private Law Firm	Feedback Imp.	0.173**	0.069	2.51	0.012	1.7851
No Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Feedback Imp.	0.0028**	0.0012	2.37	0.018	1.6334
Private Construction	Feedback Imp.	0.0081**	0.0037	2.18	0.03	1.7688

^{***}p<.01; **<.05; *p<.10

Table 1.3 Marginal Effects for Ideal Informal Feedback Frequency (Feedback Importance)

Daily Feedback

Nonprofit Health Care Feedback Imp. -0.0434*** 0.0089 -4.91 0 1.6363	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Construction Private Law Firm Feedback Imp. Feedback Imp. -0.0316*** -0.0599** 0.0024 -2.5 0.012 1.789 Weekly Feedback Private Law Firm Feedback Imp. Feedback Imp. -0.0599** 0.024 -2.5 0.012 1.789 Weekly Feedback Variable Marg. Effect Std. Err. Std. Err. Z P>Z Mean Nonprofit Health Care Private Construction Private Law Firm Feedback Imp. Feedback Imp. -0.1161*** 0.0277 -4.19 -4.1		Feedback Imp.	-0.0434***	0.0089	-4.91	0	1.6363
Private Law Firm Feedback Imp. -0.0599** 0.024 -2.5 0.012 1.789 Weekly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. -0.0803*** 0.0162 -4.95 0 1.6363 Private Construction Feedback Imp. -0.1161*** 0.0277 -4.19 0 1.768 Private Law Firm Feedback Imp. -0.2433*** 0.0755 -3.22 0.001 1.789 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0867*** 0.0226 3.84 0 1.768 Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0361***			-0.0316***	0.0088	-3.6	0	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Private Construction Private Law Firm Feedback Imp. -0.0803*** 0.0162 -4.95 0 1.6363 Private Law Firm Feedback Imp. -0.1161*** 0.0277 -4.19 0 1.768 Monthly Feedback Feedback Imp. -0.2433*** 0.0755 -3.22 0.001 1.789 Monthly Feedback Wariable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0729*** 0.0149 4.89 0 1.6363 Private Construction Feedback Imp. 0.0867*** 0.0226 3.84 0 1.768 Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Law Firm Feedback Imp. 0.0513***	Private Law Firm		-0.0599**	0.024	-2.5	0.012	1.789
Nonprofit Health Care Private Construction Private Construction Private Construction Private Law Firm Feedback Imp. Po.1161*** Peedback 0.0162 Private Construction Peedback Imp. Peedback Imp. Peedback Imp. Peedback Imp. Peedback 0.0161*** Peedback Imp. Peedback Imp. Peedback Imp. Peedback Imp. Private Construction Peedback Imp. Pee	Weekly Feedback	<u>*</u>					
Private Construction Private Law Firm Feedback Imp. Feedback Imp. -0.1161*** -0.2433*** 0.0277 -3.22 -4.19 0 1.768 1.768 Monthly Feedback Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Private Law Firm Feedback Imp. Preedback Imp. Preedback Imp. Private Law Firm 0.0867*** Private Construction Preedback Imp. Preedback Imp. Private Law Firm 0.0867*** Private Construction Preedback Imp. Preedback Imp. Private Construction Preedback Imp. Private Construction Preedback Imp. Private Construction Preedback Imp. Private Construction Preedback Imp. Private Law Firm Preedback Imp. Private Law Firm Preedback Imp. Private Construction Preedback Imp. Preedback Imp. Private Construction Preedback Im	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Law Firm Feedback Imp. -0.2433*** 0.0755 -3.22 0.001 1.789 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0729*** 0.0149 4.89 0 1.6363 Private Construction Feedback Imp. 0.0867*** 0.0226 3.84 0 1.768 Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Law Firm Feedback Imp. 0.01241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Law Firm	Nonprofit Health Care	Feedback Imp.	-0.0803***	0.0162	-4.95	0	1.6363
Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Private Construction Private Law Firm Feedback Imp. 0.0729*** 0.0149 4.89 0 1.6363 Private Construction Private Law Firm Feedback Imp. 0.0867*** 0.0226 3.84 0 1.768 Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Law Firm Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Semi-Annual Feedback Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Preedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0374*	Private Construction	Feedback Imp.	-0.1161***	0.0277	-4.19	0	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Private Construction Private Construction Private Law Firm Preedback Imp. Private Company Private Construction Preedback Imp. Private Construction Preedback Imp. Private Law Firm Preedback Imp. Private Construction Preedback Imp. Private Law Firm Preedback Imp. Private Law Firm Preedback Imp. Private Construction Preedback Imp. Preedback Imp. Private Construction Pr	Private Law Firm	Feedback Imp.	-0.2433***	0.0755	-3.22	0.001	1.789
Nonprofit Health Care Private Construction Private Construction Private Law Firm Preedback Imp. 0.0729*** 0.0226 3.84 0 1.768 0.0226 3.84 0 1.768 0.0226 3.84 0 1.768 0.0226 0.0514 2.32 0.02 1.789 0.022 0.0514 2.32 0.02 1.789 0.022 0.0514 2.32 0.02 1.789 0.022 0.0514 2.32 0.02 1.789 0.022 0.02 1.789 0.0514 2.32 0.02 1.789 0.022 0.02 1.789 0.0514 2.32 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.768 0.022 0.02 1.768 0.022 0.02 1.768 0.022 0.02 1.768 0.022 0.02 1.768 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.789 0.022 0.02 1.6363 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.002 1.789 0.0036 0.002 1.789 0.0036 0.002 1.789 0.005 1.789 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.004	Monthly Feedback						
Private Construction Feedback Imp. 0.0867*** 0.0226 3.84 0 1.768 Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Variable Marg. Effect Std. Err. z	Company	Variable		Std. Err.	Z	P>z	Mean
Private Law Firm Feedback Imp. 0.1192** 0.0514 2.32 0.02 1.789 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061*** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Variable Marg. Effect Std. Err. z<		Feedback Imp.	0.0729***	0.0149	4.89	0	1.6363
Quarterly Feedback Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Monprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 <td>Private Construction</td> <td>Feedback Imp.</td> <td>0.0867***</td> <td>0.0226</td> <td>3.84</td> <td>0</td> <td>1.768</td>	Private Construction	Feedback Imp.	0.0867***	0.0226	3.84	0	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Law Firm Feedback Imp. 0.0041** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Monprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 <td< td=""><td>Private Law Firm</td><td>Feedback Imp.</td><td>0.1192**</td><td>0.0514</td><td>2.32</td><td>0.02</td><td>1.789</td></td<>	Private Law Firm	Feedback Imp.	0.1192**	0.0514	2.32	0.02	1.789
Nonprofit Health Care Feedback Imp. 0.0361*** 0.0075 4.8 0 1.6363 Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055*** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036*<	Quarterly Feedback						
Private Construction Feedback Imp. 0.0513*** 0.0128 4.02 0 1.768 Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Law Firm Feedback Imp. 0.1241*** 0.0471 2.63 0.008 1.789 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Marg. Effect Std. Err. z P>	Nonprofit Health Care			0.0075	4.8	0	1.6363
Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Private Construction	Feedback Imp.	0.0513***	0.0128	4.02	0	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Private Law Firm	Feedback Imp.	0.1241***	0.0471	2.63	0.008	1.789
Nonprofit Health Care Feedback Imp. 0.0064*** 0.0021 3.06 0.002 1.6363 Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P≥z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Variable Marg. Effect Std. Err. z P>z Mean	Semi-Annual Feedback						
Private Construction Feedback Imp. 0.0061** 0.0029 2.06 0.039 1.768 Private Law Firm Feedback Imp. 0.0374* 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055**** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Law Firm Feedback Imp. $0.0374*$ 0.0195 1.92 0.055 1.789 Annual Feedback Company Variable Marg. Effect Std. Err. z $P>z$ Mean Nonprofit Health Care Feedback Imp. $0.0055****$ 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. $0.0036*$ 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. $0.0223*$ 0.0122 1.86 0.064 1.789 No Feedback Variable Marg. Effect Std. Err. z $P>z$ Mean	Nonprofit Health Care	Feedback Imp.		0.0021	3.06	0.002	1.6363
Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055*** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Private Construction	Feedback Imp.	0.0061**	0.0029	2.06	0.039	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Feedback Imp. 0.0055*** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Private Law Firm	Feedback Imp.	0.0374*	0.0195	1.92	0.055	1.789
Nonprofit Health Care Feedback Imp. 0.0055*** 0.0019 2.89 0.004 1.6363 Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 Variable Marg. Effect Std. Err. z P>z Mean	Annual Feedback						
Private Construction Feedback Imp. 0.0036* 0.0022 1.65 0.099 1.768 Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Law Firm Feedback Imp. 0.0223* 0.0122 1.86 0.064 1.789 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Nonprofit Health Care	Feedback Imp.	0.0055***	0.0019	2.89	0.004	1.6363
No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean	Private Construction	Feedback Imp.	0.0036*	0.0022	1.65	0.099	1.768
Company Variable Marg. Effect Std. Err. z P>z Mean	Private Law Firm	Feedback Imp.	0.0223*	0.0122	1.86	0.064	1.789
	No Feedback						
Nonprofit Health Care Feedback Imp. 0.003** 0.0013 2.26 0.024 1.6363	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
	Nonprofit Health Care	Feedback Imp.	0.003**	0.0013	2.26	0.024	1.6363

^{***}p<.01; **<.05; *p<.10

Age

Age turned out to be one of the most consistent findings in the analysis. In five of the six organizations, older respondents preferred less frequent feedback for formal and/or informal feedback than younger respondents, though the thresholds differed slightly between feedback types and between organizations. Although the frequency thresholds are slightly different between the organizations (see tables 1.4 and 1.5), these results confirm the hypothesis, demonstrating that older respondents are much more likely to prefer less feedback. This is an important consideration for managers who supervise employees in different age ranges, because employees may respond very differently to the same quantity of feedback. Providing an older employee with the same quantity of feedback as a younger employee may frustrate an older employee who views the feedback desired by an older employee may frustrate the younger employee who views the feedback as inadequate.

This is not to say that age is, or should be, the only consideration when giving feedback, but that age is a variable driving feedback preferences and efforts to reduce the gap between an employee's feedback preferences and the feedback they receive helps to foster a positive response by the employee.

Surprisingly, this analysis demonstrates that there is not a significant relationship between age and feedback type, so preferences for feedback type must be driven by other characteristics.

Table 1.4 Marginal Effects for Ideal Formal Feedback Frequency (Age)

Dail	'v Feed	'back
Dun	y 1 ccu	ouch

Company Variable Care Marg. Effect Care Std. Err. Zum. 2-2.5 P>z Mean Mean Mean Mean Mean Mean Mean Mean							
Care Age -0.0004** 0.0002 -2.25 0.023 41.0499 Weekly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0016** 0.0007 -2.4 0.017 41.0499 Private Construction Age -0.0005* 0.0003 -1.77 0.077 39.2204 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0052* 0.0028 -1.87 0.061 </td <td>Company</td> <td>Variable</td> <td>Marg. Effect</td> <td>Std. Err.</td> <td>Z</td> <td>P>z</td> <td>Mean</td>	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0016** 0.0007 -2.4 0.017 41.0499 Private Construction Age -0.0005* 0.0003 -1.77 0.077 39.2204 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0017* 0.0004 -2.25 0.025 41.0499 Private Construction Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Construction Age 0.0007** 0.0003 <t< td=""><td>-</td><td>Age</td><td>-0.0004**</td><td>0.0002</td><td>-2.25</td><td>0.025</td><td>41.0499</td></t<>	-	Age	-0.0004**	0.0002	-2.25	0.025	41.0499
Nonprofit Health Care Age -0.0016** 0.0007 -2.4 0.017 41.0499 Private Construction Age -0.0005* 0.0003 -1.77 0.077 39.2204 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0009** 0.0004 -2.25 0.025 41.0499 Private Construction Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std.	Weekly Feedback						
Care Age -0.0018** 0.0007 -2.4 0.017 41.0499 Private Construction Age -0.0005* 0.0003 -1.77 0.077 39.2204 Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Construction Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Monthly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0009** 0.0004 -2.25 0.025 41.0499 Private Construction Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0017* 0.0009 1.83 0.067		Age	-0.0016**	0.0007	-2.4	0.017	41.0499
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0009** 0.0004 -2.25 0.025 41.0499 Private Construction Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback	Private Construction	Age	-0.0005*	0.0003	-1.77	0.077	39.2204
Nonprofit Health Care	Monthly Feedback						
Care Age -0.0009** 0.0004 -2.25 0.025 41.0499 Private Construction Age -0.0017* 0.0009 -1.92 0.054 39.2204 Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std.	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Law Firm Age -0.0018* 0.0011 -1.67 0.095 39.7477 Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0015 1.95 0.051	_	Age	-0.0009**	0.0004	-2.25	0.025	41.0499
Quarterly Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Law Firm Age 0.0081608* 0.0047 1.75 0.08	Private Construction	Age	-0.0017*	0.0009	-1.92	0.054	39.2204
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0011** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.081608* 0.0047 1.75 0.08 48.8235 <td< td=""><td>Private Law Firm</td><td>Age</td><td>-0.0018*</td><td>0.0011</td><td>-1.67</td><td>0.095</td><td>39.7477</td></td<>	Private Law Firm	Age	-0.0018*	0.0011	-1.67	0.095	39.7477
Nonprofit Health Care	Quarterly Feedback						
Care Age 0.0011*** 0.0005 2.36 0.018 41.0499 Private Construction Age -0.0025* 0.0013 -1.92 0.055 39.2204 Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health	Company	Variable	Marg. Effect	Std. Err.	Z	$P>_Z$	Mean
Private Law Firm Age -0.0052* 0.0028 -1.87 0.061 39.7477 Semi-Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z	<u> </u>	Age	0.0011**	0.0005	2.36	0.018	41.0499
Semi-Annual Feedback Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 0.071 41.0499	Private Construction	Age	-0.0025*	0.0013	-1.92	0.055	39.2204
Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 1.8 0.071 41.0499	Private Law Firm	Age	-0.0052*	0.0028	-1.87	0.061	39.7477
Nonprofit Health Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 1.8 0.071 41.0499							
Care Age 0.0007** 0.0003 2.33 0.02 41.0499 Private Construction Age 0.0017* 0.0009 1.83 0.067 39.2204 Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0 1.8 0.071 41.0499	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Annual Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0 1.8 0.071 41.0499	-	Age	0.0007**	0.0003	2.33	0.02	41.0499
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 0.071 41.0499	Private Construction	Age	0.0017*	0.0009	1.83	0.067	39.2204
Nonprofit Health Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 0.071 41.0499	Annual Feedback						
Care Age 0.0009** 0.0004 2.36 0.018 41.0499 Private Construction Age 0.0029* 0.0015 1.95 0.051 39.2204 Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.001* 0.071 41.0499	Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Insurance Age .0081608* 0.0047 1.75 0.08 48.8235 Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.0001* 0.071 41.0499	_	Age	0.0009**	0.0004	2.36	0.018	41.0499
Private Law Firm Age 0.0082* 0.0044 1.86 0.063 39.7477 No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0.0001* 0.0071 41.0499	Private Construction	Age	0.0029*	0.0015	1.95	0.051	39.2204
No Feedback Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health Age 0.0001* 0 1.8 0.071 41.0499	Private Insurance	Age	.0081608*	0.0047	1.75	0.08	48.8235
Company Variable Marg. Effect Std. Err. z P>z Mean Nonprofit Health	Private Law Firm	Age	0.0082*	0.0044	1.86	0.063	39.7477
Nonprofit Health	No Feedback						
		Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
	1 1	Age	0.0001*	0	1.8	0.071	41.0499

^{***}p<.01; **<.05; *p<.10

Table 1.5 Marginal Effects for Ideal Informal Feedback Frequency (Age)

D ·1		11 1
Dail	reec	lback

Dully Treedback						
Company	Variable	Marg. Effect	Std. Err.	Z	$P>_Z$	Mean
Nonprofit Health Care	Age	-0.001**	0.0005	-2.21	0.027	40.8255
Private Construction	Age	-0.0017**	0.0006	-2.77	0.006	39.3227
Private Law Firm	Age	-0.0038**	0.0015	-2.55	0.011	39.9541
Private IT	Age	-0.0026*	0.0015	-1.81	0.07	41.3099
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	-0.0019**	0.0009	-2.2	0.028	40.8255
Private Construction	Age	-0.0061***	0.0021	-2.96	0.003	39.3227
Private Law Firm	Age	-0.0155***	0.0049	-3.17	0.002	39.9541
Private IT	Age	-0.0139**	0.0055	-2.5	0.012	41.3099
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	0.0018**	0.0008	2.2	0.028	40.8255
Private Construction	Age	0.0046***	0.0016	2.87	0.004	39.3227
Private Law Firm	Age	0.0076**	0.0033	2.32	0.02	39.9541
Private IT	Age	0.0071**	0.0035	2.03	0.042	41.3099
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	0.0009**	0.0004	2.18	0.029	40.8255
Private Construction	Age	0.0027***	0.001	2.85	0.004	39.3227
Private Law Firm	Age	0.0079***	0.003	2.66	0.008	39.9541
Private IT	Age	0.0066**	0.003	2.2	0.028	41.3099
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	0.0002*	0.0001	1.92	0.055	40.8255
Private Construction	Age	0.0003*	0.0002	1.84	0.066	39.3227
Private Law Firm	Age	0.0024*	0.0013	1.91	0.057	39.9541
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	0.0001*	0.0001	1.87	0.061	40.8255
Private Law Firm	Age	0.0014*	0.0008	1.79	0.073	39.9541
No Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Age	0.0001*	0	1.67	0.096	40.8255

***p<.01; **<.05; *p<.10

Organizational Level

Organizational level was not as consistent a finding as age, but two of the organizations showed a significant relationship between organizational level and formal feedback frequency. In the non-profit health care organization and the law firm, employees in higher organizational levels wanted less frequent feedback (Table 1.6). Although this finding was not consistent across all of the organizations, it is noteworthy that there were similar findings for respondents in two very different types of organizations and those respondents reacted similarly to the respondents in the qualitative analysis. The respondents did not, however, show a significant association between organizational level and feedback type. Although the findings are not consistent enough to suggest a general feedback typology based on organizational level, it does provide some support for the theory and is worthy of future research, which should include a wider range of organizational types.

Table 1.6 Marginal Effects for Ideal Formal Feedback Frequency (Org. Level)

Daily	reea	<i>hac</i>	K.

Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	-0.0024*	0.0014	-1.72	0.085	2.7141
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	-0.0112*	0.0063	-1.79	0.074	2.7141
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	-0.0059*	0.0034	-1.73	0.084	2.7141
Private Law Firm	Org. Level	-0.0289*	0.0157	-1.85	0.064	3.2056
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	0.0077*	0.0044	1.77	0.077	2.7141
Private Law Firm	Org. Level	-0.0842**	0.0389	-2.16	0.031	3.2056
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	0.005*	0.0028	1.77	0.078	2.7141
Private Law Firm	Org. Level	0.1334**	0.0575	2.32	0.02	3.2056
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Org. Level	0.0062*	0.0035	1.78	0.076	2.7141

***p<.01; **<.05; *p<.10

Gender

The findings for the effect of gender on feedback preferences are a bit more muddled. The hypotheses suggested that female respondents would be more likely to prefer more frequent feedback that is constructive in nature, but the analysis only demonstrated preferences for feedback frequency, not for feedback type. In the information technology company, female respondents were more likely to prefer weekly informal feedback (Table 1.7). However, in the non-profit health care organization, female respondents were less likely to prefer more frequent formal feedback (Table 1.7). Thus, there is no clear pattern for the relationship between gender and feedback

frequency, and no statistically significant relationship in this analysis between gender and feedback type.

Table 1.7 Marginal Effects for Ideal Formal Feedback Frequency (Gender)

Daily Feedback

Dully I ceaback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	-0.0186***	0.0063	-2.95	0.003	0.7513
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	-0.0793***	0.0224	-3.54	0	0.7513
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	-0.026***	0.0067	-3.88	0	0.7513
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0526***	0.0144	3.64	0	0.7513
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0311***	0.0082	3.81	0	0.7513
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0369***	0.0093	3.98	0	0.7513
No Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0032**	0.0014	2.28	0.022	0.7513

^{***}p<.01; **<.05; *p<.10

Table 1.8 Marginal Effects for Ideal Informal Feedback Frequency (Gender)

	 -	 	 	

Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	-0.0556***	0.0172	-3.23	0.001	0.75
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	-0.0824***	0.0205	-4.02	0	0.75
IT	Female	0.2171**	0.0946	2.3	0.022	0.4225
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0859***	0.0242	3.54	0	0.75
IT	Female	-0.1184*	0.0617	-1.92	0.055	0.4225
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0372***	0.0097	3.85	0	0.75
IT	Female	-0.1043**	0.0511	-2.04	0.041	0.4225
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0065***	0.0023	2.78	0.005	0.75
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.0055***	0.0021	2.64	0.008	0.75
No Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Female	0.003**	0.0014	2.14	0.032	0.75

^{***}p<.01; **<.05; *p<.10

Education

The education findings showed significant differentiation between formal and informal feedback. In the non-profit health care organization and the information technology company, more educated respondents showed a preference for less frequent formal feedback (Table 1.9), while in the construction company, more educated respondents showed a preference for more frequent informal feedback (Table 1.10). The disparity in findings, though across different companies, may reflect the different ways that people conceptualize formal and informal feedback. There was little evidence to support the idea that education is an important predictor for feedback preferences. Only the non-profit health care organization showed a significant effect for education on feedback type, with more educated employees being less likely to prefer only positive feedback.

Table 1.9 Marginal Effects for Ideal Formal Feedback Frequency (Education)

Daily Feedback

•						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	-0.0036**	0.0015	-2.35	0.019	4.0159
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	-0.0164**	0.0065	-2.51	0.012	4.0159
IT	Education	-0.0381*	0.0217	-1.75	0.079	4.1892
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	-0.0086**	0.0037	-2.37	0.018	4.0159
IT	Education	-0.0446*	0.0271	-1.65	0.1	4.1892
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	$P>_Z$	Mean
Nonprofit Health Care	Education	0.0113**	0.0046	2.47	0.013	4.0159
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	0.0074**	0.003	2.46	0.014	4.0159
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	0.0091**	0.0037	2.49	0.013	4.0159
IT	Education	0.054*	0.0306	1.77	0.078	4.1892
No Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	Education	0.0008*	0.0004	1.85	0.064	4.0159

^{***}p<.01; **<.05; *p<.10

Table 1.10 Marginal Effects for Ideal Informal Feedback Frequency (Education)

Daily Feedback

Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Construction	Education	0.0118**	0.0058	2.04	0.041	4.1173
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Construction	Education	0.0435**	0.0206	2.11	0.034	4.1173
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Construction	Education	-0.0325**	0.0157	-2.08	0.038	4.1173
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Private Construction	Education	-0.0192**	0.0092	-2.09	0.037	4.1173

^{***}p<.01; **<.05; *p<.10

Race

Although race was used as a control and not as a central variable of interest in this analysis, there is some indication that race may affect feedback preferences. In the nonprofit health care organization, the construction company, and the law firm, minority respondents were less likely to want frequent feedback (Table 1.11). There was also some evidence in both the construction company and the non-profit health care organization that minority respondents (in this case African American respondents) had a negative probability for only or mostly positive feedback, indicating that they are less likely to prefer receiving feedback that is only positive in nature.

Table 1.11 Marginal Effects for Ideal Informal Feedback Frequency (Race)

Daily Feedback

Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	African American	-0.0405***	0.0138	-2.94	0.003	0.1014
Private Construction	Other Race	-0.034***	0.0121	-2.81	0.005	0.056
Private Law Firm	Other Race	-0.042**	0.0197	-2.13	0.033	0.0183
Weekly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	African American	-0.0962**	0.0405	-2.38	0.018	0.1014
Private Construction	Other Race	-0.1686**	0.069	-2.44	0.015	0.056
Private Law Firm	Other Race	-0.2676*	0.1421	-1.88	0.06	0.0183
Monthly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	African American	0.0699***	0.0232	3.02	0.003	0.1014
Private Construction	Other Race	0.0788***	0.0182	4.33	0	0.056
Quarterly Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	African American	0.0463**	0.0216	2.15	0.032	0.1014
Private Construction	Other Race	0.1018*	0.0575	1.77	0.077	0.056
Semi-Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	$P>_Z$	Mean
Nonprofit Health Care	African American	0.0087*	0.0048	1.82	0.069	0.1014
Annual Feedback						
Company	Variable	Marg. Effect	Std. Err.	Z	P>z	Mean
Nonprofit Health Care	African American	0.0076*	0.0043	1.76	0.078	0.1014

^{***}p<.01; **<.05; *p<.10

DISCUSSION

The results of this analysis indicate that there is some support for a characteristic-driven typology for preferences for feedback frequency, but there is little support for a characteristic-driven typology for preferences for feedback type. Age was one of the most consistently significant variables across organizations for feedback frequency preferences, but the marginal effects for this variable were much smaller than other variables, such as race, gender, and educational level. Organizational level, although a consistent finding, also had fairly modest marginal effects. Although it could be argued that the marginal effects for the statistically significant variables in this analysis are relatively small, it would be expected for it to be difficult to ascertain similar findings across such different types of organizations, so consistent findings for these variables across organizations, regardless of the size of the marginal effects, is still quite significant.

One interesting finding that was not the focus of the analysis, but is worth discussing, is the significant difference in respondent's preferences for the quantity of formal and informal feedback they receive. In the feedback literature, feedback is usually collapsed into one category (or if divided, it is organized by negative and positive feedback), but, as this analysis suggests, there is a meaningful difference between the way people consider formal and informal feedback. Given the emphasis in both practice and research on formal feedback mechanisms, it is interesting to see that respondents preferred much more informal feedback, which is an area of research that has received much less attention.

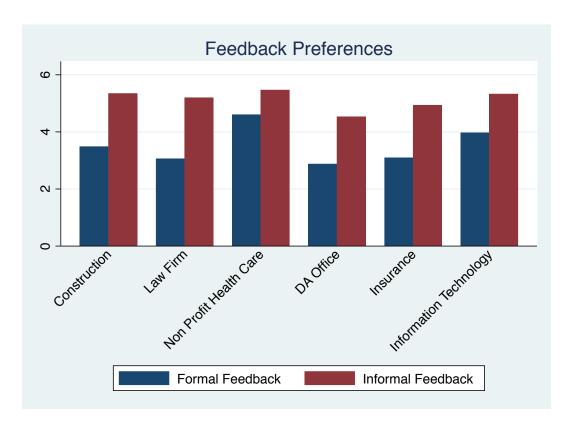


Figure 1.1 Informal and Formal Feedback Preferences

As the graph above demonstrates, respondents prefer receiving more informal feedback in every organization in the sample, yet research has not sought to fully understand the role that informal feedback can, and should, play in an organization. The management literature and virtually every management bookshelf is filled with books that discuss the best type of formal feedback to give or how often formal feedback should be given, but informal feedback is, as this analysis shows, important to employees and should be given more attention in future research.

Limitations

There are several limitations to this study that may affect the external validity of this research. Although the number of respondents is quite sizable, and there is significant variation in the type of organizations included, there are only five organizations included in the sample, so the results may be different in a sample that included other

organizations. Also, the data are from a single survey that was given to respondents one time, so it is subject to the natural limitations of a one-time approach; namely that survey responses can be influenced by the mood of the participant at the time they took the survey. Finally, although this analysis can determine relationships among variables, causality is precluded due to the cross-sectional nature of the research design.

CONCLUSION

Feedback is not an easy phenomenon to study; it is affected by many other personal and organizational characteristics that make predicting individual responses and preferences for feedback challenging to understand. However, it is critical for both individual and organizational performance and worthy of considerable research. While not conclusive, this study supports the idea that certain characteristics, such as age and organizational level, are likely to systematically affect an individual's preferences. If the goal of feedback is to help people learn so they can positively modify their behavior, then it is important to understand individual preferences, so feedback can be given in the most effective way possible. There is, of course, interpersonal variation, which can be particularly difficult to manage in large organizations, but the more that typologies can be developed based on shared characteristics, the closer we will be to developing effective feedback systems.

There should also be more consideration given to how informal feedback is being utilized. If, as this analysis suggests, individuals prefer to receive informal feedback much more frequently, then organizations and researchers should devote more time to understanding how informal feedback is being given and how it can be improved. Feedback may be a messy, complicated phenomenon, but it is critically important for the success of individuals and organizations, particularly during a time in which the demands for performance are ever increasing.

CHAPTER TWO

THE FEEDBACK GAP: UNDERSTANDING INDIVIDUAL FEEDBACK PERCEPTIONS AND PERCEPTUAL CONGRUENCE BETWEEN SUPERVISORS AND THEIR EMPLOYEES 2

² Hodge, Meriem. "The Feedback Gap: An Empirical Analysis of Supervisor & Subordinate Perceptions of the Feedback Process." To be submitted.

ABSTRACT

Feedback is frequently discussed in the management literature as an important component for success, at both the individual and organizational levels. An empirical analysis of mangers and their supervisees reveals that even supervisory relationships that are considered positive by both managers and their employees show considerable discrepancies in their perceptions of the feedback process. Supervisors report giving more feedback, and in different ways, than their employees report receiving, and there is some evidence that they overestimate the effect their feedback has on their employees' performance. These differences in the perception of the feedback being given and its utility have important implications for employee job satisfaction, performance, and retention. This is particularly true given that, as this analysis demonstrates, there is a strong relationship between an individual's satisfaction with their professional development feedback and their desire to stay with their organization. Bridging these gaps in the feedback process will help improve the performance of employees and reduce workforce turnover, ultimately increasing organizational efficiencies.

INTRODUCTION

Feedback is essential for employee development; providing critical information to help employees improve their performance and reach organizational goals (Silverman et al, 2005). Although much of the feedback literature has been focused on the more formal types of feedback that accompany performance appraisal processes, this analysis examines both formal and informal types of feedback and draws on research in the communication and psychology fields to specifically explore the nature of perceptual differences in the feedback process. In addition to merging prior feedback research with research on perceptual divergence, this paper utilizes both a quantitative analysis of five organizations, as well as a qualitative analysis of interviews with managers and their employees in two other organizations, to provide new insights into the role that feedback plays in organizations and the effects of perceptual differences on both managers and their employees.

This analysis assists in reducing the current deficiency in this area of research, providing a better understanding of individual perceptions of feedback and perceptual incongruence between the feedback giver and receiver. We expect to find that supervisors and their employees will report differences in the amount of feedback that is given, the method by which the feedback is communicated, and the effect that the feedback has on an individual's performance. It is also expected that employees that are more satisfied with the quantity of feedback they receive will have higher overall job satisfaction and employees who are more satisfied with the professional development feedback they are given will be less likely to leave their current organization.

To test this, a survey was distributed to employees in four private sector organizations and one non-profit organization, with a total of 2,100 respondents. T tests were used to compare responses for the perceptual divergence variables. Both ordered logistic regressions and logistic regressions were used to determine the effects of feedback quantity satisfaction and professional feedback satisfaction on overall job satisfaction and turnover intent, respectively. Marginal effects were utilized to generate interpretable coefficients for both types of regressions.

Ultimately, this study found that supervisors report giving more feedback than employees report receiving, and there is some evidence indicating that supervisors report giving feedback in different ways than their employees report receiving. There is also some substantiation for the idea that supervisors over-estimate the effect their feedback has on their employees' performance. Satisfaction with professional development feedback has a significant effect on an individual's desire to remain with their current organization, however; there is limited support for the relationship between satisfaction with the quantity of feedback received and overall job satisfaction. Finally, an organization with no formal feedback mechanisms showed much less perceptual divergence than one with semi-annual performance reviews.

LITERATURE REVIEW

"To effectively communicate we must realize that we are all different in the way we perceive the world and use this understanding as a guide to our communication with others."

-Anthony Robbins

Effective communication has long been noted as a key component of successful management, particularly since prior studies have shown that supervisors spend one-third to two-thirds of their time communicating with their subordinates (Jablin, 1979).

However, as this quote underscores, understanding perceptual differences is a key component to maximizing the effectiveness of that communication. This is particularly true for feedback, since feedback is a frequent source of complaint among supervisors and their employees regarding their "communication relationship" (Jablin, 1979). Thus, this paper focuses on the feedback gap that stems from perceptual differences between managers and their employees about the feedback process and the extent to which satisfaction with feedback affects important outcomes like job satisfaction and employee retention.

Although feedback is received from a variety of sources: supervisors, peers, subordinates, clients, organizational leadership, and the job itself; for this study, the emphasis is on feedback received from direct supervisors. Although these other sources can provide valuable feedback, research has shown that individuals identify feedback from sources that are closer to them as more important than from sources that are considered more distant (Herold & Greller, 1971). Employees often place more significance on supervisory feedback because supervisors have control over many important consequences, including performance appraisals and promotions (Moss et al,

2003). Thus, by isolating the research to supervisory feedback the focus is on feedback that should inherently hold some value for employees and consequently be more likely to effect some type of change in performance, motivation, and job satisfaction.

The Feedback Gap

Although the term "feedback gap" has been used before in the literature, it has been used to describe a different type of gap than the one conceptualized in this chapter. Prior research identifies a "feedback gap" as a vacuum in constructive feedback that occurs when certain types of managers do not give feedback to poor performing employees, and in return, poor performing employees are not willing to ask for the necessary feedback (Moss & Sanchez, 2004). Moss and Sanchez contend that the gap occurs because managers are either uncomfortable with giving negative feedback or they fear that their employees will have a strong negative reaction to the feedback (Moss & Sanchez, 2004). Similarly, Van Fleet et al write that there are many barriers to managers giving negative feedback that can range from hurting an employee's feelings to the more extreme response of workplace violence (Van Fleet et. al). This reluctance to give feedback initiates a feedback void that is reinforced by the poor-performing employee, who may realize that they are performing poorly, but be reluctant to ask for feedback out of fear of risking their reputation or appearing incompetent (Moss & Sanchez, 2004). The authors contend that these fears can even cause employees to actively avoid their supervisors, or other scenarios, which may result in them receiving negative feedback (Moss & Sanchez, 2004).

While studying this type of feedback gap and, more generally, feedback deficiencies for poor performing employees is certainly a worthy line of inquiry and one

that is deserving of more research, there should also be research dedicated to understanding the type of feedback gap that leads to feedback deficiencies for high-performing employees, which in this analysis I would argue are caused by perceptual disparities between managers and their employees. Even high-performing employees can benefit from feedback to improve their performance. Feedback gaps can lead to inadequate professional development and decreased job satisfaction, which can in turn lead to higher employee turnover (Van Fleet et. al, 2005). This perceptual gap also reduces any likelihood for change, because the manager is not aware that the employee is discontent with the current feedback they are receiving. So, while improved feedback processes for poor-performing employees is certainly important for an organization's overall effectiveness and efficiency, achieving satisfactory feedback for high-performing employees is also critical to avoid decreases in job satisfaction and increases in employee turnover for some of the organization's most valuable employees.

Perceptual Congruence

Perceptual disparities are perhaps inevitable, since it is not the objective reality that an individual observes, but their subjective perception of that reality (Webber, 1986). While these differences may not be completely unavoidable, they must be better understood to help mitigate their potentially negative consequences. The idea of perceptual congruence has been discussed in a variety of academic fields and, although it has been examined through the much larger context of communication, it has important implications for supervisory feedback.

There has been a wide range of perceptual differences between supervisors and their subordinates established in the literature, including subordinate responsibilities,

subordinate job problems, subordinate authority, and attitudes toward each other among others (Hatfield & Huseman, 1982). Although some conclude that these perceptual differences are evidence of larger communication problems, I challenge the assertion that perceptual differences stem from some type of larger dysfunctional communication (Hatfield & Huseman, 1982). There are naturally occurring perceptual differences that can transpire, despite an otherwise functional communication relationship between a manager and his employee. For example, in previous studies of perceptual congruence, researchers found that managers "perceived the adequacy of their downward direction information to be much better than did their subordinates, the feedback receivers" (Hatfield & Huseman, 1982).

Furthermore, communication intensity and personality traits can also create perceptual differences. A supervisor's perception of the amount of feedback they give can be significantly affected by the total number of communications they receive (Webber, 1986). Supervisors who receive many communications may overestimate their interactions with specific employees, since they will consider the totality of their communications and not necessarily the communication specific to the particular employee. For example, a supervisor may communicate with each of his five employees once a week, so when asked, he may answer that he gives feedback to his employees every day when in reality, although he does communicate with an employee every day, each employee only received feedback once per week. This is likely to lead to a perceptual feedback gap, as the supervisor's perceptions are unknowingly affected by factors entirely unrelated to the feedback they give a specific employee. Additionally, research shows that supervisors "perceive more total time interacting with their

subordinates than the latter perceive," so it is likely that supervisors will claim that they give feedback more frequently than their employees *think* they give feedback.

Perceived personality types can also influence perceptions of feedback volume. What is particularly interesting about this is that we tend to make first impressions about personality stereotypes that then influence the way we perceive subsequent behavior (Webber, 1986). Essentially, our natural tendency to make initial assertions about people can create a long-standing perceptual gap if those perceptions do not accurately reflect reality. Managers who are perceived as more quick-acting are labeled as "active managers" and, regardless of their actual behavior, they are perceived by subordinates as initiating more interaction, because it fits with their supposed personality type (Webber, 1986). Similarly, managers who are perceived as more passive and inactive are thought to initiate less interaction, irrespective of their actual behavior, because that fits with the perceived personality type (Webber, 1986). What is particularly striking about this finding is how restrictive it can be for a manager whose personality does not necessarily reflect his behavior. Although these are generalities and behavior is clearly not entirely irrelevant, these stereotypes can play a role in a perceived feedback gap, regardless of whether or not that gap really exists.

Divergent perceptions about what should occur can also appear when supervisors and their employees have different expectations that may not be known to the other party. For example, every individual has a so-called "psychological contract" which consists of their beliefs about the "reciprocal obligations" between themselves and the organization (Lester et al, 2002). Since feedback occurs in virtually every organization, it would be logical then to conclude that supervisors and employees have expectations about the type

of quantity of feedback that should be given and received as part of this psychological contract. Because there are so many factors that help comprise a psychological contract, most notably explicit and implicit promises made by various people in the organization, "supervisors and subordinates are likely to perceive the extent of psychological fulfillment differently" (Lester et al, 2002). These types of contractual breaches can reduce job satisfaction, trust, and organizational commitment (Lester et al, 2002). This has direct consequences for feedback, since an employee may become frustrated when a new manager unknowingly does not live up to a previous manager's promise to provide professional development feedback or when some other type of perceptual difference occurs between a manager who believes he is fulfilling his responsibilities and an employee who feels that they are not receiving what they believe they were promised. Some of these may be intentional (a new manager may decide they do not want to dedicate their time to giving said feedback) but it is also likely that perceptual gaps occur unintentionally because one party is unaware of what feedback expectations the other person has.

RESEARCH QUESTIONS & HYPOTHESES

Research Questions

The central focus of this analysis is on understanding an individual's perceptions of the feedback process. In particular, I am interested in identifying areas where there is perceptual incongruence between employees and their supervisors. I am also concerned with understanding what effect feedback perceptions have on outcomes, such as job satisfaction and a desire to stay with their current organization. The following research questions will be explored:

- Is there a difference between the amount of feedback employees report receiving and the amount of feedback supervisors report giving?
- Is there a difference between the way employees report receiving feedback and the way supervisors report giving feedback?
- Is there a difference between the views of employees and their supervisors about the effect feedback has had on the employee's performance?
- Does satisfaction with the quantity of feedback an employee receives affect their job satisfaction?
- Does satisfaction with personal development feedback affect an employee's desire to leave their current organization?

Hypotheses

 H_1 : Supervisors will report giving more feedback than employees report receiving. As discussed earlier, supervisors may overstate the number of communications in comparison to what employees report receiving because they group together their communication with all employees. Further, the person receiving the feedback tends to be

more acutely aware of the feedback given and consequently is more aware of exactly how much feedback they are receiving. Thus it is logical to posit that supervisors will state that they give more feedback than their employees report receiving.

 H_2 : Supervisors will identify different methods for communicating feedback than their employees identify receiving.

Much like the quantity of feedback, the individual employee may be more aware of how they are receiving feedback than the method the supervisor recalls using to deliver the feedback. A supervisor may visit each employee's desk once a week, and with five or more employees, contend that they give at least half their feedback in person, but that individual employee may only see their supervisor once a week, so they will not identify a substantial portion of their feedback stemming from in-person conversations.

 H_3 : Supervisors will state that their feedback has had a more significant impact on their employees' performance than the employee believes it has had.

Supervisors may also tend to overstate the effect that their feedback has on their employees' performance. Although there are certainly cases where the supervisor feels they are giving excellent feedback that is just not being properly utilized, there is perhaps a greater likelihood that the supervisor will give feedback that they consider beneficial for an individual's performance, but is not received that way by the employee. It is natural to attribute one's success to their own behavior, so it would make sense for a supervisor to attribute an employee's improved performance to their managerial skills, including the feedback given to the employee. Conversely, the employee may attribute an improvement in performance to their own hard work and skill, regardless of their supervisor's feedback.

 H_4 : Satisfaction with the quantity of feedback an employee receives will be positively related to their job satisfaction.

Feedback can have a powerful impact on an individual, providing information about how well they are performing. Additionally, it can make an employee feel valued by their supervisor and their organization, and help them reach personal, as well as professional, goals. However, employees who feel they are not receiving enough feedback may feel frustrated or insecure about their performance. Research has shown that communication between supervisors and their employees is significantly correlated with job satisfaction (Hatfield & Huseman, 1982). Thus, it is reasonable to conjecture that an employee who is more satisfied with the quantity of feedback received will have higher job satisfaction.

 H_5 : Satisfaction with the personal development feedback an employee receives will be inversely related to their desire to leave their current organization.

Personal development is critical for any long-term career development, but it can sometimes get lost in everyday organizational needs. Annual performance reviews can often be focused on organizational needs, but not necessarily on the long-term needs of the organization. Thus, employees who are not receiving what they perceive to be adequate professional development feedback may look elsewhere for career opportunities.

VARIABLES

As previously and more comprehensively discussed in the main data section, the quantitative data comes from a survey distributed to employees in six different organizations and the qualitative data comes from interviews in two different types of manufacturing organizations. The two samples used in the analysis for the first hypothesis are generated from two survey questions: "How often do you give feedback to your direct reports? (i.e. the people you directly supervise)" and "How often do you receive feedback about your performance from your supervisor?" The possible responses for the first question were daily, weekly, several times a month, about once a month, less than once a month, and not applicable- I do not have direct reports (respondents in this last category were removed since this sample is for supervisors only). The possible responses for the second question were daily, weekly, several times a month, about once a month, less than once a month, and never.

The two samples used in the analysis for the second hypothesis come from the questions, "How do you give feedback to your direct reports?" and "I receive feedback about my performance," with the following potential responses: only orally, never written; mostly orally, sometimes written; equal amounts of oral and written feedback; mostly written, sometimes orally; and only written, never orally. Again, the question for supervisors included a not applicable response and those respondents were removed from the supervisory sample.

The two samples used in the analysis for the third hypothesis are derived from the questions, "In general, feedback that I have given to my direct reports (people I directly supervise) has had the following effect on their performance:" and "In general, the

feedback from my supervisor has had the following effect on my performance," with possible responses including: significantly positive effect, moderately positive effect, no effect, moderately negative effect, significantly negative effect, and non applicable- I do not receive feedback from my supervisor. Again, the supervisory question also included a not applicable option for those that do not have any supervisory responsibilities.

For the fourth hypothesis, the dependent variable consists of three survey questions, which comprise a job satisfaction scale, and are then averaged together to create an individual's job satisfaction score. The three questions are: "All in all I am satisfied with my job," "In general I don't like my job," and "In general I like working here." Since one of the questions is reverse coded, it will be re-coded so that a higher response will indicate greater job satisfaction. Responses to these questions were a Likert scale ranging from strongly agree (1) to strongly disagree (5). The key independent variable of interest is "How do you feel about the quantity of feedback you receive?" with responses including: I would like much more feedback, I would like a little more feedback, I like the quantity of feedback I receive, I would like a little less feedback, I would like much less feedback, and I never want feedback. Control variables include organizational level, gender, age, race, and educational level, all of which have been discussed extensively in the previous section.

Finally, the dependent variable for the fifth hypothesis is, "In the past year I have looked/am currently looking for another position outside of my company," with yes or no as potential responses. The independent variable of interest is "I feel that the feedback I am receiving about my performance is helping me to develop professionally," with a Likert response scale ranging from strongly agree (1) to strongly disagree (5). Control

variables include organizational level, gender, age, race, and educational level as detailed in the previous section. The descriptive statistics for each company is listed by variable in Tables 2.1-2.7.

Table 2.1 Descriptive Statistics: Perceptions of Feedback Frequency

Private Construction

Org Level	Summary of Feedback Frequency to Direct Report			
	Obs.	Mean	Std. Dev.	
1	173	2.636	1.808	
2	185	3.303	1.125	
3	69	3.406	1.062	
4	6	3.833	0.753	
	Summary of Feedback Frequency Received			
Org Level	Summary	of Feedback Fro	equency Received	
Org Level	Summary Obs.	of Feedback Fro	equency Received Std. Dev.	
Org Level			1 0	
Org Level	Obs.	Mean	Std. Dev.	
Org Level 1 2 3	Obs. 294	Mean 2.228	Std. Dev. 1.34	

Private Information Technology

111vate information reemology					
Org Level	Summary of Feedback Frequency to Direct Report				
	N	Mean	Std. Dev.		
1	8	4.75	2.375		
2	21	4.714	2.217		
3	68	5.368	1.908		
4	5	4.8	2.49		
5	12	4.083	1.676		
6	9	3.222	1.986		
Org Level	Summary of Feedback Frequency Received				
	N	Mean	Std. Dev.		
1	8	2.125	1.246		
2	20	3.4	1.501		
3	68	1.853	1.499		
4	5	2.4	1.949		
5	13	2.462	1.198		
6	9	1.444	1.878		

Table 2.2 Descriptive Statistics: Perceptions of Feedback Frequency, cont.

Private Insurance

Org Level	Summary	of Feedback Fre	equency to Direct Report
	Obs.	Mean	Std. Dev.
1	20	2.1	2.049
2	34	2.529	1.745
3	15	3.867	0.99
4	4	2.5	1.291
Org Level	Summary	of Feedback Fre	equency Received
	Ω 1	3.7	0.1 D
	Obs.	Mean	Std. Dev.
1	31	2.194	1.621
1 2			
1 2 3	31	2.194	1.621

Private Law Firm

Tilvate Daw Film			
Org Level	Summary	of Feedback Free	quency to Direct Report
	N	Mean	Std. Dev.
1	17	3.647	1.455
2	4	1.75	2.062
3	75	2.6	1.533
4	13	2.615	1.609
5	62	3.387	1.298
Org Level	Summary	of Feedback Free	quency Received
	N	Mean	Std. Dev.
1	17	2.765	1.3
2	4	1	0
3	85	2.835	1.232
4	16	1.938	1.481
5	62	2.032	1.547

Non-Profit Health Care

Tion Tront meant	Curt			
Org Level	Summary	of Feedback Fred	quency to Direct Report	
	Obs.	Mean	Std. Dev.	
1	344	3.317	1.493	
2	30	3.567	1.455	
3	318	3.45	1.419	
Org Level	Summary	Summary of Feedback Frequency Received		
	Obs.	Mean	Std. Dev.	
1	587	2.569	1.321	
2	60	2.433	1.454	
3	643	2.697	1.357	

Table 2.3 Descriptive Statistics: Perceptions of Feedback Method

Private Construction

Org Level	Summary of	Feedback Method	to Direct Report
	Obs.	Mean	Std. Dev.
1	95	2.032	0.856
2	175	2.046	0.595
3	68	2.235	0.522
4	5	2.2	0.447
Org Level	Summary of	Feedback Method	Received
	Obs.	Mean	Std. Dev.
1	285	2.432	0.872
2	186	2.435	0.906
3	68	2.265	1.031
4	7	1.571	0.787

Private Information Technology

I IIVate IIIIOI IIIati	on recm	iology	
Org Level	Summa	ry of Feedback Met	hod to Direct Report
	N	Mean	Std. Dev.
1	4	3	1.414
2	6	2.167	1.169
3	17	2.353	1.115
4	3	1.667	0.577
5	9	2.333	0.5
6	8	1.875	0.354
Org Level	Summa	ry of Feedback Met	hod Received
	N	Mean	Std. Dev.
1	8	1.75	0.707
2	18	2.611	0.916
3	58	1.862	0.963
4	5	1.4	0.548
5	11	1.272	0.467
6	9	1.111	0.333

Private Insurance

Org Level	Summary of	Feedback Method	l to Direct Report
-	Obs.	Mean	Std. Dev.
1	6	2.667	1.211
2	13	2.154	1.068
3	12	2.333	0.778
4	4	2.5	0.577
Org Level	Summary of	Feedback Method	l Received
	Obs.	Mean	Std. Dev.
1	31	2.774	1.055
2	68	2.662	0.891
3	17	2.529	1.007
4	4	1.75	0.957

Table 2.4 Descriptive Statistics: Perceptions of Feedback Method, cont.

Private Construction

Org Level	Summa	ry of Feedback Met	hod to Direct Reports
	N	Mean	Std. Dev.
1	16	2.5	0.73
2	2	2	0
3	54	2.333	0.824
4	11	2.636	0.809
5	56	2.268	0.618
Org Level	Summa	ry of Feedback Met	hod Received
	N	Mean	Std. Dev.
1	16	2.438	1.031
2	4	2.5	0.577
3	79	2.646	0.92
4	16	1.813	1.047
5	56	1.554	0.933

Non-Profit Health Care

Org Level	Summary of	Feedback Method	to Direct Report
	Obs.	Mean	Std. Dev.
1	228	2.465	0.945
2	19	2.211	0.918
3	210	2.529	0.881
Org Level	Summary of	Feedback Method	Received
	Obs.	Mean	Std. Dev.
1	534	2.567	0.942
2	56	2.446	0.933
3	597	2.437	0.879

Table 2.5 Descriptive Statistics: Perceptions of Feedback Effect on Performance

Private Construction

Org Level	Summary of	Performance Effe	ect (Supervisor)
	Obs.	Mean	Std. Dev.
1	102	4.01	0.652
2	179	4.14	0.578
3	67	4.313	0.499
4	6	4.167	0.408
Org Level	Summary of	Performance Effe	ect (Direct Report)
	Obs.	Mean	Std. Dev.
1	278	4.029	0.823
2	179	3.81	0.898
3	68	4.044	0.609
4	5	4	0

Private Information Technology

Org Level	Summa	ry of Performance E	Effect (Supervisor)
_	N	Mean	Std. Dev.
1	3	4	0
2	6	4.333	0.816
3	16	3.875	0.619
4	3	4.333	0.577
5	10	4.2	0.422
6	8	4.125	0.354
Org Level	Summa	ry of Performance E	Effect (Direct Report)
	N	Mean	Std. Dev.
1	7	4.286	0.488
2	15	4.133	0.64
3	46	3.978	0.954
4	5	4	0.548
5	11	3.272	1.191
6	6	3.5	0.837

Private Insurance

′		
Summary of	Performance Effe	ect (Supervisor)
Obs.	Mean	Std. Dev.
5	4.8	0.447
13	4	0.577
14	3.929	0.475
4	4	0
Summary of	Performance Effe	ect (DR)
Obs.	Mean	Std. Dev.
31	4.032	0.605
66	4.106	0.897
16	3.938	1.063
4	4.25	0.5
	Summary of Obs. 5 13 14 4 Summary of Obs. 31 66	Summary of Performance Effe Obs. Mean 5 4.8 13 4 14 3.929 4 4 Summary of Performance Effe Obs. Mean 31 4.032 66 4.106 16 3.938

Table 2.6 Descriptive Statistics: Perceptions of Feedback Effect on Performance, cont.

Private Law Firm

Org Level	Summai	ry of Performance E	ffect (Supervisor)
	N	Mean	Std. Dev.
1	17	4.236	0.437
2	2	4	1.414
3	56	3.964	0.466
4	13	4	0.707
5	59	4.034	0.524
	Summary of Performance Effect (DR)		
Org Level	Summai	ry of Performance E	ffect (DR)
Org Level	Summai N	ry of Performance E Mean	ffect (DR) Std. Dev.
Org Level		-	
Org Level	N	Mean	Std. Dev.
Org Level	N 16	Mean	Std. Dev. 0.512
1 2 3 4	N 16 4	Mean 4.563 4	Std. Dev. 0.512 0.816

Non-Profit Health Care

Org Level	Summary of Performance Effect (Supervisor)				
	Obs.	Mean	Std. Dev.		
1	199	4.136	0.802		
2	19	4.421	0.607		
3	197	4.192	0.791		
Org Level	Summary of	Performance Effe	ct (Direct Report)		
	Obs.	Mean	Std. Dev.		
1	501	4.283	0.862		
2	54	4.296	0.816		
3	581	4.287	0.872		

Table 2.7 Descriptive Statistics: Logit Analyses

Organization	Dependent Variable	Obs.	Mean	Std. Dev.
Private Construction	Job Satisfaction	543	4.104	0.717
Private Insurance	Job Satisfaction	120	4.172	0.694
Private IT Company	Job Satisfaction	103	4.152	0.726
Private Law Firm	Job Satisfaction	167	4.02	0.719
Non Profit Health				
Care	Job Satisfaction	1,145	4.331	0.717
Private Construction	Organizational Departure	542	1.786	0.411
Private Insurance	Organizational Departure	120	1.05	1.371
Private IT Company	Organizational Departure	102	0.431	0.498
Private Law Firm	Organizational Departure	168	0.208	0.407
Non Profit Health	_			
Care	Organizational Departure	1,144	0.178	0.383

METHODS & MODELS

The most appropriate methodology to use to test the first three hypotheses concerning perceptual differences is a two-sample t test with unequal variance and unequal size. The tests will be done individually for each company, to account for interorganizational differences, but each of the individual companies will have two different sample sizes and variances, since there is not a one to one ratio for supervisors and employees.

The t test tests for the null hypothesis (in this case no difference between the responses of supervisors and their corresponding employees). If there is no statistically significant difference between the sectors based on the p value, than we accept the null hypothesis. However, if there is a statistically significant difference, than we reject the null hypothesis and accept the alternative hypothesis.

Since the comparisons will only be available at the aggregated organizational level (i.e., managers at level two and their employees at level one), qualitative data for specific supervisor and employee pairs will also be used to help provide contextual information. Although this data was originally intended to be analyzed using coding in a qualitative software program, the very unique ways in which people talk about feedback limited the utility of coding. Thus, a narrative analysis was used, after examining the transcripts to highlight the themes employing representative quotations.

An ordered logistic regression is the most suitable method for the fourth hypothesis concerning the effect that feedback quantity satisfaction has on job satisfaction, because the dependent variable is a scale derived from Likert scale variables, which are ordered. Since the coefficients from the ordered logistic regression are not

directly interpretable, marginal effects are used to predict the probability that an individual's level of satisfaction with the quantity of feedback they receive will produce a particular level of job satisfaction.

Finally, I will use a logistic regression to measure the effect that an individual's satisfaction with the professional development feedback they receive has on their desire to leave their organization. A logistic regression is the most appropriate method for this test because the dependent variable is dichotomous. Again, marginal effects will be used to develop interpretable coefficients that predict the probability that an individual's level of satisfaction will result in their desire, or lack of desire, to look for employment opportunities outside of their current organization.

Using these methods, there will be five models run to test the identified hypotheses. The first three hypotheses will all use the same method (with the equation unchanged between the models except the variable in question). The general model that will be used for each of those tests is as follows:

$$H_0$$
: Mean₁ = Mean₂

 H_A : Mean₁ \neq Mean₂

$$t = \overline{X}_1 - \overline{X}_2$$

$$S\overline{X}_1 - \overline{X}_2$$

where

$$s_{\overline{X}_1 - \overline{X}_2} = \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}.$$

The t statistic, as shown in the equation above, equals the mean of the first population subtracted by the second population, then divided by the standard error of the means of each population. This occurs where the standard error of the mean of the first population

subtracted by the standard error of the mean of the second population equals the square root of the standard error of the first population squared and then divided by the size of population one plus the standard error of the second population squared and then divided by the size of population two.

The fourth hypothesis, using an ordered logistic regression, will test whether an individual's satisfaction with the amount of feedback they receive affects their job satisfaction:

$$\Pr\Big[JobSatisfaction = j \mid X_{ij}\Big] = \frac{e^{\left(X_{ij}\underline{\beta} + \varepsilon_{ij}\right)}}{\displaystyle\sum_{j=1}^{J} e^{\left(X_{ij}\underline{\beta} + \varepsilon_{ij}\right)}}$$

Where X Contains the Following:

- Satisfaction with Feedback Quantity
- Organizational Level
- Gender
- Age
- Education
- Race

Finally, the fifth hypothesis, using a logistic regression, will determine whether an individual's satisfaction with the professional development feedback they receive affects their desire to leave their current organization:

$$\Pr(y=1) = \frac{\exp\{x'_{j}\beta\}}{1 + \exp\{x'_{j}\beta\}}$$

Where X Contains the Following:

- Satisfaction with Professional Development Feedback
- Organizational Level
- Gender
- Age
- Education
- Race

RESULTS

Perceptions of Feedback Frequency

This is one of the most consistent findings in this analysis. As indicated in Table 2.8, all five of the organizations, one or more of the supervisory levels reported giving significantly more feedback than their employees reported receiving. This finding was also supported by the qualitative analysis at the food manufacturing company. In that organization, every supervisor reported giving more feedback to his or her subordinate than the subordinate reported receiving. The perceptual differences in feedback quantity ranged significantly in severity. The smallest perceptual gap reported was daily vs. weekly and the largest perceptual gap was daily vs. never. This latter case is particularly concerning as it occurred with two people who both agreed that they like and value each other and could talk to each other, yet see their feedback occurring very differently. The manager in this scenario emphasized how important feedback was to him and said "I give it daily, sometimes multiple times a day," while the employee said "I never receive feedback unless I ask for it."

Perhaps part of the cause of the discrepancy is different allocations for feedback sources: the supervisor may include all feedback occurrences, whether or not they initiated it, while the employee may only include those that the supervisor initiated. Although understanding the cause for this perceptual gap is beyond the scope of this analysis, it is an important finding for managers who want to maximize the effectiveness of the feedback they give their employees. The only organization in which a perceptual difference did not occur was the steel manufacturing organization, in which the

supervisors and their employees had remarkably similar responses for the amount of feedback they gave/received.

Table 2.8 T Test Results: Feedback Frequency

Private Construction Company (Feedback Frequency)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2***	1	185/294	3.303/2.228	9.447	< 0.0001
3***	2	69/190	3.406/1.905	9.625	< 0.0001
4***	3	25355	3.833/1.913	5.665	< 0.0008

Private Information Technology Company (Feedback

Frequency)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2***	1	21/8	4.714/2.125	3.957	0.0007
3***	2	68/20	5.368/3.4	4.828	< 0.0001
4*	3	24959	4.8/1.853	2.612	0.059
5	4	42343	4.083/2.4	1.688	0.142
6	5	42260	3.222/2.462	1.026	0.325

Private Insurance Company (Feedback

Frequency)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr(T)
2	1	34/31	2.529/2.194	0.953	0.344
3***	2	15/70	3.867/2.371	4.817	< 0.0001
4	3	42111	2.5/1.529	1.336	0.252

Private Law Firm (Feedback Frequency)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	42111	1.75/2.765	0.941	0.416
3***	2	75/4	2.6/1	9.039	< .0001
4	3	13/85	2.615/2.835	0.472	0.644
5***	4	62/16	3.387/1.938	3.575	0.0018

Non-Profit Health Care Org. (Feedback

Frequency)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2***	1	30/587	3.567/2.569	3.68	0.0009
3***	2	318/60	3.45/2.433	4.988	< 0.0001

***p<.01; **<.05; *p<.10

Perceptions of Feedback Method

This was not as strong a finding as feedback frequency, with only three of the organizations demonstrating a perceptual divergence in reported feedback methods (Table 2.9). In the private construction company and the private insurance company, supervisors reported giving more oral feedback than their employees reported receiving and in the private information technology company, supervisors reported giving more written feedback than their employees reported receiving. In the food manufacturing company, there was no difference in the general pattern (both groups said that written and oral feedback was given), but supervisors reported giving more oral feedback than their employees reported receiving. Supervisors stated that they gave oral feedback in person four to five days a week, while employees reported receiving this type of feedback one to three days a week. In the steel manufacturing company, both the supervisors and employees reported all feedback given via face-to-face oral communication.

Table 2.9 T Test Results: Feedback Method

Private Construction Company (Feedback Method)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2***	1	175/285	2.046/2.432	5.636	< 0.0001
3**	2	68/186	2.235/2.435	2.18	0.0304
4	3	24959	2.2/2.265	0.276	0.7908

Private Information Technology Company (Feedback Method)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	42163	2.167/1.75	0.774	0.464
3	2	17/18	2.353/2.611	0.746	0.462
4	3	21245	1.667/1.862	0.547	0.639
5**	4	42252	2.333/1.4	3.148	0.016
6***	5	42227	1.875/1.272	3.201	0.0056

Private Insurance Company (Feedback Method)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2*	1	13/31	2.154/2.774	1.763	0.0918
3	2	25173	2.333/2.662	1.32	0.205
4	3	42111	2.5/2.529	0.077	0.941

Private Law Firm (Feedback Method)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	42051	2/2.438	1.699	0.101
3	2	54/4	2.333/2.5	0.397	0.693
4	3	29160	2.636/2.646	0.038	0.971
5	4	56/16	2.268/1.813	1.658	0.115

Non-Profit Health Care Org. (Feedback Method)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	19/534	2.211/2.567	1.66	0.113
3	2	210/56	2.529/2.446	0.598	0.551

^{***}p<.01; **<.05; *p<.10

Perceptions of Feedback Effect on Performance

This was the least substantiated of the three variables concerning perceptual divergence. Only two of the organizations, the private construction company and the private information technology company, showed a statistically significant difference between the reported effects of supervisory feedback on performance (Table 2.10). In both organizations, the supervisors over-estimated the effect their feedback had on their employees, compared to what their employees reported. Similarly, in the food manufacturing company, three of the supervisors over-estimated their feedback effect (all supervisors said it had a highly significant effect, while the employees said it had a moderately significant or minimally significant effect), while three of the supervisors identified the same magnitude of effect as their employees (moderately significant effect). Finally, in the steel manufacturing company, the employees and supervisors did not note any perceptual difference, with some employees stating that the feedback they received had significantly affected their job performance, while others noted it had little to no impact and their respective supervisors mirrored these responses.

Table 2.10 T Test Results: Performance Effect

Private Construction Company (Performance Effect)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2*	1	179/278	4.14/4.029	1.692	0.0913
3***	2	67/179	4.313/3.81	5.547	< 0.0001
4	3	24990	4.167/4.044	0.675	0.521

Private Information Technology Company (Performance Effect)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	42162	4.333/4.286	0.1234	0.9052
3	2	16/15	3.875/4.133	1.14	0.264
4	3	16862	4.333/3.978	0.982	0.43
5	4	42282	4.2/4	0.7167	0.501
6*	5	42227	4.125/3.272	2.243	0.0446

Private Insurance Company (Performance Effect)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	13/31	4/4.032	0.165	0.87
3	2	14/66	3.929/4.106	1.052	0.3
4	3	42110	4/3.938	0.23	0.822

Private Law Firm (Performance Effect)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	42051	4/4.563	0.559	0.676
3	2	56/4	3.964/4	0.087	0.936
4	3	13/74	4/4.149	0.72	0.483
5	4	59/13	4.034/4	0.257	0.799

Non-Profit Health Care Org. (Performance Effect)

Supervisor Level	Direct Report Level	Obs.	Means	T Statistic	Pr (T)
2	1	19/501	4.421/4.283	0.955	0.351
3	2	197/54	4.192/4.296	0.835	0.406

***p<.01; **<.05; *p<.10

Marginal Effects for Satisfaction with Feedback Quantity & Job Satisfaction

There was only one organization in the quantitative analysis that demonstrated a relationship between satisfaction with formal feedback quantity and an individual's job satisfaction (Table 2.11) and two organizations that demonstrated a relationship for informal feedback quantity and job satisfaction (Table 2.12). In the non-profit organization and the private law firm, respondents who were more satisfied with the quantity of feedback they received, were also more satisfied with their jobs, but without more evidence of this phenomenon in other organizations, it may be attributed more to the particular group of employees in the non-profit organization and the law firm than to an organizational phenomenon. Likewise, in the food manufacturing company, the link between supervisory feedback satisfaction and overall job satisfaction was relatively weak. The employees in the dyad interview said their satisfaction with professional development feedback had a much more significant impact on their job satisfaction than their satisfaction with the quantity of feedback they received. The employees in the steelmanufacturing firm also indicated that there was not a strong relationship between their satisfaction with the quantity of feedback they received and their overall job satisfaction.

Table 2.11 Marginal Effects for Job Satisfaction (Formal Feedback)

Private Construction Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00033	0.00039	0.83	0.407	3.32051
Org. Level	0.00004	0.00024	0.02	0.984	1.63034
Female	-0.00006	0.00039	-0.16	0.874	0.299145
Age	-0.00005	0.00005	-0.95	0.343	39.6346
Minority	0.00072	0.00112	0.65	0.518	0.066239

Private Information Technology Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00679	0.00693	0.98	0.328	3.77011
Org. Level	0.00181	0.00221	0.82	0.411	3.21839
Female	-0.00374	0.00482	-0.78	0.438	0.42529
Age	0.00006	0.00016	0.04	0.97	41.4253
Minority	-0.00464	0.0054	-0.86	0.39	0.18391

Private Insurance Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00285	0.00348	0.82	0.413	3.18692
Org. Level	0.00174	0.00258	0.67	0.502	1.92523
Female	0.00476	0.00532	0.89	0.371	0.85981
Age	-0.00037	0.00038	-0.95	0.34	49.1308
Minority	-0.00482	0.00583	-0.83	0.408	0.02804

Private Law Firm

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.01071	0.00954	1.84	0.144	3.3209
Org. Level	0.00446	0.00374	1.06	0.369	3.46269
Female	-0.01389	0.008	-0.94	0.232	0.45522
Age**	-0.00164	0.00057	-1.62	0.047	40.1791
Minority	-0.01136	0.01017	-0.73	0.411	0.08955

Non-Profit Health Care Organization

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity**	0.00199	0.0009	2.2	0.028	3.47478
Org. Level	0.0002	0.00035	0.57	0.572	2.06825
Female	0.00019	0.00077	0.25	0.802	0.75668
Age*	-0.00007	0.00004	-1.85	0.064	41.0346
Minority	-0.00018	0.00066	-0.28	0.78	0.3729

^{***}p<.01; **<.05; *p<.10

Table 2.12 Marginal Effects for Job Satisfaction (Informal Feedback)

Private Construction Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00086	0.00089	0.97	0.333	3.67316
Org. Level	-0.00004	0.00024	-0.17	0.866	1.62987
Female	-0.00006	0.00038	-0.15	0.881	0.30087
Age	-0.00004	0.00004	-0.94	0.347	39.5844
Minority	0.00091	0.00127	0.72	0.473	0.0671

Private Information Technology Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00641	0.0062	0.97	0.333	3.79545
Org. Level	0.00132	0.00183	0.72	0.47	3.15909
Female	-0.00445	0.00539	-0.83	0.409	0.43182
Age	0.00003	0.00016	0.21	0.832	41.7273
Minority	-0.00457	0.00543	-0.84	0.399	0.18181

Private Insurance Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity	0.00211	0.00297	0.71	0.476	3.39815
Org. Level	0.00138	0.00244	0.57	0.571	1.92593
Female	0.00402	0.00497	0.81	0.418	0.86111
Age	-0.00033	0.00035	-0.93	0.354	49.4815
Minority	-0.00438	0.00594	-0.74	0.462	0.02778

Private Law Firm

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity*	0.01751	0.00954	1.84	0.066	3.76515
Org. Level	0.00395	0.00374	1.06	0.291	3.44697
Female	-0.00755	0.008	-0.94	0.345	0.45454
Age	-0.00092	0.00057	-1.62	0.105	40.1818
Minority	-0.00744	0.01017	-0.73	0.464	0.09091

Non-Profit Health Care Organization

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Feedback Quantity**	0.00251	0.00109	2.3	0.022	3.48673
Org. Level	0.00022	0.00036	0.6	0.549	2.07959
Female	0.00023	0.00078	0.29	0.77	0.75204
Age*	-0.00008	0.00004	-1.92	0.055	0.9367
Minority	0.00006	0.00068	0.09	0.927	0.36429

***p<.01; **<.05; *p<.10

Marginal Effects for Satisfaction with Performance Development Feedback & Desire To
Leave Current Organization

Private Construction Company

This analysis demonstrates that there is in fact a strong relationship between an individual's satisfaction with their professional development feedback and their desire to stay with their current organization. In four of the five organizations, employees who were more satisfied with both their formal and informal professional development feedback were less likely to want to leave their current organization (Tables 2.13 and 2.14).

This was also evidenced in the food manufacturing company, where there were significant differences in the perception of the professional development feedback that was given. All of the supervisors in the dyad interviews stated that they emphasize professional development as part of the feedback they give their employees, while the employees said that they were sorely lacking in professional development from their supervisors. Interestingly enough, this was also a common theme, with each of the supervisory focus groups (other than the vice presidents), claiming that they give professional development feedback, while also claiming that they do not receive adequate professional development feedback from their supervisors. This disconnect is particularly important, because as one employee commented "I want to stay here but it is frustrating because I don't know where I can go with this company or what skills I need to advance." Organizations reap significant rewards from retaining high-performing employees, so if good employees are leaving because of perceived inadequate professional development, it can become a costly problem.

The same perceptual disconnect did not occur in the steel manufacturing organization, but that is likely due to the fact that there is little upward mobility in each job category. To transition into a management position, employees would have to obtain a college degree, so professional development feedback would have little utility. Since there is less of a perceived need for professional development, employees are not expecting or desiring to receive this type of feedback, and managers are, consequently, not providing it.

In addition to satisfaction, there were other variables in the analysis, included as controls, which were statistically significant. Age was the most significant control variable, with older respondents in four of the organizations indicating that they were less likely to be looking for a position elsewhere. Organizational level was significant for three organizations, with employees in higher organizational levels indicating that they were less likely to leave their organization. Finally, gender and race were each significant in one organization, with female respondents and minority respondents in those organizations indicating that they were less likely to depart their current organization.

Table 2.13 Marginal Effects for Turnover Intent (Formal Feedback)

Private Construction Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.10928	0.01692	-6.46	0	3.53896
Org. Level**	-0.05394	0.02649	-2.04	0.042	1.6342
Female	-0.02856	0.03469	-0.82	0.41	0.2987
Age***	-0.00478	0.00174	-2.74	0.006	39.7727
Minority*	0.17044	0.09053	1.88	0.06	0.06494

Private Information Technology Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.2299	0.07205	-3.19	0.001	3.20455
Org. Level	0.00532	0.04808	0.11	0.912	3.20455
Female	0.00163	0.12001	0.01	0.989	0.44318
Age	-0.00548	0.00567	-0.97	0.334	42.3295
Minority	-0.15486	0.17016	-0.91	0.363	0.17046

Private Insurance Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback	-0.01849	0.0561	-0.33	0.742	3.32407
Org. Level	0.01512	0.06742	0.22	0.823	1.91667
Female	0.00349	0.15602	0.02	0.982	0.86111
Age	0.00576	0.00497	1.16	0.246	49.25
Age Minority	0.23497	0.27133	0.87	0.386	0.02778

Private Law Firm

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback**	-0.11738	0.05066	-2.32	0.02	3.31343
Org. Level**	-0.06339	0.0314	-2.02	0.044	3.47761
Female	-0.0005	0.06786	-0.01	0.994	0.45522
Age***	-0.01036	0.00359	-2.88	0.004	40.3657
Minority**	-0.14354	0.06155	-2.33	0.02	0.08955

Non-Profit Health Care Organization

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.09126	0.01006	-9.07	0	3.81187
Org. Level	-0.00994	0.01151	-0.86	0.388	2.09155
Female**	-0.07288	0.03006	-2.42	0.015	0.75252
Age***	-0.00597	0.00098	-6.06	0	40.9396
Minority	0.0191	0.0221	-0.86	0.387	0.36318

^{***}p<.01; **<.05; *p<.10

Table 2.14 Marginal Effects for Turnover Intent (Informal Feedback)

Private Construction Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.10278	0.01722	-5.97	0	3.63596
Org. Level*	-0.0526	0.02709	-1.94	0.052	1.62719
Female	-0.03173	0.03463	-0.92	0.36	0.30482
Age**	-0.00409	0.00172	-2.38	0.017	39.8399
Minority*	0.15949	0.08916	1.79	0.074	0.0636

Private Information Technology Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.16803	0.06356	-2.64	0.008	3.40909
Org. Level	0.01001	0.04706	0.21	0.831	3.20455
Female	-0.01789	0.11624	-0.15	0.878	0.44318
Age	-0.00658	0.00568	-1.16	0.247	42.3295
Minority	-0.2116	0.15026	-1.41	0.159	0.17046

Private Insurance Company

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback	0.00587	0.05444	0.11	0.914	3.43119
Org. Level	0.02825	0.06623	0.43	0.67	1.92661
Female	0.01764	0.15845	0.11	0.911	0.86239
Age	0.0057	0.005	1.14	0.255	49.2844
Minority	0.213	0.27801	0.77	0.444	0.02752

Private Law Firm

Variable	Marg. Effect	Std. Error	z	P>z	Mean
Sat. w/ Prof. Dev. Feedback**	-0.11937	0.05089	-2.35	0.019	3.76515
Org. Level	-0.05499	0.03375	-1.63	0.201	3.46212
Female	0.02055	0.07164	0.29	0.774	0.45455
Age*	-0.00668	0.00393	-1.7	0.089	40.3712
Minority**	-0.13595	0.06876	-1.98	0.048	0.09091

Non-Profit Health Care Organization

Variable	Marg. Effect	Std. Error	Z	P>z	Mean
Sat. w/ Prof. Dev. Feedback***	-0.08399	0.0104	-8.08	0	3.81187
Org. Level	-0.00689	0.01202	-0.57	0.566	2.09155
Female**	-0.07336	0.03045	-2.41	0.016	0.75252
Age***	-0.00572	0.00103	-5.57	0	40.9396
Minority	-0.01621	0.02315	-0.7	0.484	0.36318

***p<.01; **<.05; *p<.10

DISCUSSION

One of the most striking findings in this analysis is the complete consistency between the responses of supervisors and their employees in the steel manufacturing company. It was this author's original estimation that in an organization that had no formal feedback mechanisms there would be great divergence in each party's view of the feedback process, because there was no mandatory time at which the supervisor and their employee had to have at least a basic level of communication about their performance. However, the opposite turned out to be true. Although it was entirely logical to posit that without at least an annual performance review to help supervisors and their employees essentially get on the same page in regards to performance, the food manufacturing company, in which there are semi-annual performance reviews, showed much more divergence.

Perhaps then these structured feedback sessions serve as a feedback "crutch" of sorts, with supervisors relying on them to offer opportunities to give feedback on the organizational timetable, rather than the needs of the individual employees. The supervisors in the steel manufacturing organization, which has no scheduled performance review, emphasized the importance of timely feedback and seemed remarkably in tune with the needs of each of their employees. They knew which employees needed more feedback and which employees preferred to be left alone, and likewise the employees acknowledged that their supervisors treated them as individuals and provided them with the quantity and type of feedback that they needed.

In contrast, the most frequently stated preference in the food manufacturing company was for more timely feedback. A typical comment from an employee was "I

want to know as soon as possible, so I don't hear it at a review six months later without a chance to correct it." In order to ensure that latent feedback did not occur, one employee indicated that he started scheduling monthly meetings with his supervisor, just to ensure that his supervisor was providing him with continuous feedback. Employees in lower levels of the organization said they wanted to receive feedback largely because they wanted to avoid being surprised on their performance appraisals, while employees in higher levels of the organization commented that they would want to receive feedback to avoid/limit costly mistakes.

While their reasoning is slightly different, it stems from the same basic desire to reduce any information asymmetry between themselves and the supervisors. In the case of an executive, information asymmetry can be financially costly, but for an entry-level worker who is caught off guard by a performance review, the potential personal loss in embarrassment, confusion, and frustration could be just as costly. This finding is not surprising given previous research, but it re-enforces the importance of informal feedback. Formal feedback mechanisms are both necessary and useful, but supervisors who only count on the mid-year or annual performance reviews that are widely used in organizations are overlooking the high utility associated with informal feedback to the detriment of their employees.

While it is of course possible that this difference in findings is related to these specific organizations or even the specific type of industries, the stark contrast between the symmetry found in the responses of those in the steel manufacturing company compared to the asymmetrical responses of the employees in the food manufacturing company is certainly interesting and worthy of future research.

Another prominent finding was the difference between the amount of feedback reported by supervisors and their respective employees. In every organization, supervisors reported giving more feedback than their employees reported receiving. This can be particularly problematic for employees who value feedback and want to receive frequent feedback. If they are paired with a manager who supervises many employees and is not particularly astute at discerning the feedback given to each employee, the employee may grow increasingly frustrated. The supervisor may consider all of his communications and have no idea that in reality he does not have frequent communications with each employee. This perceptual divergence, like any perceptual differences, is problematic for an effective supervisor/employee relationship and reducing these information asymmetries about the way each person perceives the process is essential for developing positive relationships and maximizing the effectiveness of the communication being given and received.

There was also some evidence that there are differences in the reported feedback method and the reported performance effects of the feedback. Although in only one organization supervisors over-estimated (in comparison to their employees) the effect that their feedback had on performance, this is an important facet to consider given that feedback is generally given with the intent to improve performance. If feedback is perceived as being very valuable by the supervisor, but not by the employee, than the feedback cannot be effective. Furthermore, if the supervisor attributes increases in performance to their own management skills (particularly their feedback), but the employee attributes it to their own performance, the growing disconnect could become problematic. It is important to note, however, that these questions asked about subjective

performance, so it would be interesting to see how this translates to more objective performance measures, such as the ratings given on an annual performance review.

Although there was little evidence that satisfaction with feedback quantity affected job satisfaction, there was substantial support for a relationship between satisfaction with professional development feedback and an individual's desire to stay with their current organization. There is also other evidence indicating that communication plays a significant role in employee turnover intent. In a recent survey of employees around the globe for their Talent 2020 analysis, the Deloitte Consulting Firm found that 66% of employees who planned to leave their organization felt that managers were not communicating effectively (Kwan et. al, 2012) Although they were not focused on feedback per se, but were examining communication more broadly, it further indicates the important role that effective communication plays in organizations.

This finding, in particular, has important ramifications, given the cost associated with employees leaving an organization. It may be because, as evidenced, employees report receiving much less feedback than their supervisors think they are giving, or it may be because the professional development feedback they receive does not have much utility. Regardless of the cause, this is a critical finding for organizations looking to increase their efficiency, decrease turnover, and retain high quality employees.

Limitations

There are several limitations to this study that may affect the external validity of this analysis. Although the number of respondents is quite sizable and there is significant variation in the type of organizations included, there are only five organizations included in the sample, so the results may be different in a sample that included other

organizations. Also, the data are from a single survey that was given to respondents one time, so it is subject to the natural limitations of a one-time approach; namely that survey responses can be influenced by the mood of the participant at the time they took the survey. Additionally, the data from the qualitative analysis comes from two organizations in two industries so the data may be reflective of the specific organization or the industry. Finally, although this analysis can determine relationships among variables, causality is precluded due to the cross-sectional nature of the research design.

CONCLUSION

Understanding perceptual divergence is critical for increasing the effectiveness of communication. It is evident from this analysis that there are significant differences in the way supervisors and their employees view different facets of the feedback process, and some can have significant ramifications for the employee and their organization. If successful employees do not feel they are receiving adequate professional development feedback, despite well-intentioned managers who may not realize there is a problem, those employees may leave, costing the organization a valuable employee and all the time and costs associated with hiring a new employee.

Similarly, supervisors may feel that they are adequately communicative, not realizing that they are considering all of their supervisory communications, not necessarily the feedback given to a particular individual. The difference in quantity reported was evident in all five organizations and is an indication that supervisors do tend to think they give more feedback than their employees believe they do. Although not as widely evidenced, the differences in reported feedback method and the effect on performance are also a cause for concern, since they demonstrate a pattern of continuing disconnect between the way supervisors and their employees view the feedback being given.

Finally, the significant difference in the degree of divergence between the perceptions of supervisors and employees in the food manufacturing company and the steel manufacturing company is quite interesting. Is this simply representative of these companies or types of positions, or is this representative of a larger pattern? Future research should look into the factors that exacerbate or minimize perceptual divergence

and in particular, the extent to which structured feedback mechanisms, such as annual performance reviews, play a role. If in fact, these organizationally-driven feedback sessions are serving as a feedback "crutch" that allows managers to tune out the individual feedback needs of their employees because they can rely on the company's feedback safety net, this is certainly a cause for concern. It is particularly important, given that 88% of companies have some type of formal review annually or semi-annually (Nisen, 2015), so if in fact these evaluations are a feedback "crutch", the effects are widespread. In addition to the potential latency associated with these reviews, performance evaluations also usually have higher stakes for managers, who must correlate performance with rankings (sometimes on a forced curve) and for employees, who know that this feedback is important for job outcomes, such as salary increases and promotions (Nisen, 2015). This can also make employees, who are anxious to hear about their performance evaluation, less receptive to feedback, particularly when it is critical (Nisen, 2015).

While I am not suggesting that we toss out performance evaluations completely, they need to stop being used as the annual or semi-annual opportunity to give someone praise or provide them with suggestions to improve their performance. These types of evaluations should be used in tandem with the daily and weekly informal feedback to provide employees with more timely information about their performance. To do this, however, will require that organizations adjust their current models and provide more training to managers about how to provide feedback and communicate with their employees. Performance evaluations are often strictly defined by the organization, but

informal feedback takes more understanding and finesse to be successful. The literature and those in practice would greatly benefit from more research in this area.

CHAPTER THREE

FEEDBACK PROCESSES IN THE PUBLIC, PRIVATE, AND NON-PROFIT SECTORS: WHAT'S THE DIFFERENCE?³

³ Hodge, Meriem. "Utilizing Feedback to Improve Employee and Organizational Performance." *Public Administration Times*. August 2013. Reprinted here with permission of publisher.

ABSTRACT

Research concerning differences among the public, private, and non-profit sectors has received substantial attention; however, one underdeveloped area for comparison is feedback-related processes. This study compares survey responses from 2,100 respondents in four private organizations, one public organization, and one non-profit organization to responses from federal government employees in the 2013 Federal Viewpoint survey. The analysis finds that public sector employees are more likely to agree that they understand the steps required to improve their performance rating and also receive constructive suggestions from their supervisor, but they are less likely to agree that managers communicate the goals and priorities of the organization and that they have enough information to do their job well. Additionally, public sector employees are less likely to believe that they are recognized for providing high quality products and services. These differences have important implications, particularly for public sector organizations striving to retain a high quality workforce.

INTRODUCTION

There is an absence of comparisons about feedback processes between the public and private sectors. Although there is a substantial amount of literature dedicated to understanding the differences between the sectors, feedback has not been a line of inquiry in that area of research. Since Golebiewski's article first noted the ways in which the public sector is systematically different from the private sector (1969), there has been an extensive amount of research dedicated to understanding these differences. A recent paper noted that there were at least 150 articles that examined differences in the dependent variable between the sectors (Rainey, 2014). Although many of the variables examined may have no bearing on the ways in which feedback processes may differ between the sectors, they do indicate that it is entirely reasonable to postulate that we would expect to see some type of difference between the sectors.

This analysis provides a new line of inquiry and extends our understanding about the ways in which the sectors do or do not differ; explores the extent to which the responses of federal government employees do or do not differ from employees in the private and non-profit sector; and also examines whether or not a non-federal public organization performs in the same manner as a federal agency. We expect to find that there are differences between the sectors, with the public sector performing better for more formalized feedback processes and the private sector performing better for more informal feedback processes.

To test this, a survey was distributed to employees in four private sector organizations, one non-profit organization, and one public organization, with a total of 2,100 respondents. T tests were used to determine whether or not there were significantly

Viewpoint Survey is used to measure employee perceptions about the extent to which "conditions characterizing successful organizations are present in their agencies," stronger agreement for the question (which in this case is signified by a lower mean) is indicative of greater performance (United States, Office of Personnel Management).

Ultimately, this study found that, overall, the non-profit organization had the greatest performance, the public sector outperformed the private sector in regards to information for performance improvements and constructive suggestions from supervisors, the private sector outperformed the public sector with respect to managerial communication of goals, employee recognition, and adequate information for the job, and the public sector organizations responded similarly to each other.

LITERATURE REVIEW

There is one area of research, in particular, which tangentially supports the idea that feedback processes will differ between the sectors: personnel-related issues. Hal G. Rainey, who has perhaps most fervently championed research in this area, has identified a number of important differences for personnel matters. One difference is the degree of personnel flexibility and red tape in public organizations. Empirical research showed that public managers report higher levels of red tape and have more constraints on personnelrelated issues, such as hiring and firing (Feeney & Rainey, 2010). These types of constraints may spill over into feedback practices, creating a more uniform process, that may result in less variance among individuals for some variables, such as feedback frequency, but it may also reduce a manager's capacity to effectively utilize informal feedback, because of the red tape involved in giving that feedback. The feedback may also not be helpful if the public sector manager views it as a perfunctory exercise that must be completed to stay in compliance with the rules (although this could also occur in the private sector with annual performance reviews). A more positive effect, however, may be more clarity or a greater sense of fairness about the performance feedback process, since there are likely more rules governing the process, particularly for formal performance appraisals.

Rainey also found that personnel procedures constrained public managers' ability to monetarily reward a high performer (1979). If monetary rewards are not available as an indicator of excellent performance, as they are often used in the private sector, then feedback could have even more importance in the public sector as a reference point for an individual's success and as recognition for outstanding performance. This is particularly

important in the civil service system, where the capacity to differentiate pay between employees at the same level is limited. Without bonuses or pay raises, employees must rely on feedback to understand how well they are performing. Related to this matter is the issue of monetary rewards in and of themselves. There is evidence that public sector employees are less motivated by monetary rewards than their private sector counterparts and more motivated by characteristics that comprise the "public sector ethos" (Moon, 2000), therefor feedback that emphasizes their valuable contribution to the organization at large, and society more broadly, may be more valued.

While there may be differences between the sectors, we may also expect to see some similarities for some feedback-related issues. Despite the commonly held assumption that public sector managers face goals that are much more complex and ambiguous than their private sector counterparts, this assumption has been refuted by nearly two decades of evidence, showing that public managers do not rate the clarity and measurability of their goals lower than the private sector (Rainey & Bozeman, 2000). Thus, public sector and private sector employees may not differ on their views about the importance of feedback for understanding their goals because there is not a significant difference in goal ambiguity between the sectors.

Ultimately, this literature supports the assertion that feedback processes in the public and private sectors may differ, but they may also have similarities. There is a significant amount of evidence indicating that we would expect to see differences, based on the many differences that have been found in personnel-related issues, but there are many nuances to the public-private research and this may turn out to be an area where we do not find the type of systematic differences we may expect.

RESEARCH QUESTIONS & HYPOTHESES

Research Questions

The primary interest in this analysis is to explore whether or not there are differences in the way employees in each sector perceive feedback-related issues. The broad research questions are based on the feedback-related questions on the federal viewpoint survey, since that was the instrument used to construct the public sector data set. The questions fall into four general categories: performance appraisals, employee recognition, supervisory communication, and managerial communication. The research questions are:

- Do public, private, and non-profit sector employees report different perceptions of the performance appraisal process?
- Do public, private, and non-profit sector employees describe different levels of employee recognition in their respective organizations?
- Do public, private, and non-profit sector employees relate different types of communicatory experiences with their respective supervisors?
- Do public, private, and non-profit sector employees identify different levels of managerial communication in their respective organizations?

Hypotheses

Based on the research questions listed above, the following specific hypotheses will be tested:

 H_1 : Public sector employees more strongly agree that performance appraisals are a fair reflection of their performance.

 H_2 : Public sector employees more strongly agree that they know what they need to do to be rated at a different level on their performance appraisal.

There is evidence indicating that federal employees report their performance appraisals as "fair and accurate" (Perry et al, 1989). There is also much more required transparency in the public sector because the process for performance evaluations and determining salaries in the public sector is governed by rules that are public. This is much different than a private law firm for example, in which the governing committee determines the performance appraisal and salaries for the partners in the firm in secrecy. This level of transparency could increase a feeling of fairness for public sector employees who clearly understand the process and could provide more information about what employees would need to do to improve their performance.

 H_3 . Private sector employees more strongly agree that they are recognized for providing high quality goods and services.

This transparency may also be a reason that federal employees are less likely to agree that they are rewarded for providing high quality products and services. There is research that discusses the importance of secrecy for the successful utilization of rewards such as merit pay (Perry et. al, 2009), so in organizations in which transparency is a priority, it may be more difficult to make a significant differentiation in rewards for employee performance. Monetary capacity is also a critical problem for rewards in the public sector, as there is

evidence that it is harder to monetarily reward a higher performer in the public sector (Rainey, 1979).

 H_4 : Non-profit sector employees more strongly agree that discussions with their supervisor are worthwhile.

 H_5 : Non-profit sector employees more strongly agree that their supervisor provides them with constructive suggestions to improve their performance.

The non-profit sector has dedicated considerable time and resources toward improving their management and performance (Light, 2004) so it would not be surprising to find that non-profits, as part of their strategy for improving performance, spend more time substantively talking to their employees about their performance and providing them with suggestions for improving their performance.

 H_6 : There is no difference between employee perceptions in each sector concerning whether or not their supervisor listens to what the employee has to say.

Although there are many differences between the sectors, there are some areas for which we find no difference at all. I would not anticipate finding a difference between the sectors about the degree to which employees report their supervisors actually listening to them, because this is much more likely to induce variance by the particular supervisor, not by a particular sector. Although there could be sector-related cultural differences that may include for example, listening to employees more in a particular sector, I would not expect to find a substantive difference between the sectors.

 H_7 : Public sector employees more strongly agree that managers communicate the goals and priorities of the organization.

One of the distinctive characteristics of the public sector is the frequency in leadership changes (leaders in the public sector are political appointments, so they generally have shorter terms), which can have a significant impact on an organization (Perry & Rainey,

1988). One way in which it may affect a public organization is more frequent communication about goals and priorities of the organization, since the more general goals may not change between leadership changes, but each leader is likely to have his or her own priorities. These in turn would need to be communicated by the managers in the organization to their employees.

 H_8 : There is no difference between employee perceptions in each sector regarding managerial promotion of communication between departments.

Much like the degree to which supervisors listen to their employees, I would expect the promotion of communication between departments to be attributed more to the particular manager than to a particular sector. The communication between departments could be much more dependent on the size of the organization than the sector it is in, with communication being more difficult in larger organizations.

 H_9 : Public sector employees are less likely to agree that they have enough information to do their job well.

Although the formalized nature of the public sector can be beneficial for performance feedback reviews, it may prove to be a hindrance for more informal feedback processes. Supervisors may be cautious having more casual conversations that include, for example, information for their employees that would be beneficial for them to do their jobs. This type of informal feedback is critical for an employee's understanding, but it may be made more difficult by the nature of the public sector.

VARIABLES

The variables for this analysis are derived from Federal Viewpoint survey questions. Each question is a Likert scale variable from 1 (strongly agree) to 5 (strongly disagree), so lower means indicate greater agreement with the question. The questions used in the Federal Viewpoint survey were included in the feedback survey in the same form to allow comparison. Respondents were asked to indicate their agreement or disagreement with the following statements: "My performance appraisal is a fair reflection of my performance," "In my most recent performance appraisal, I understood what I had to do to be rated at a different level," "Employees are recognized for providing high quality goods and services," "Discussions with my supervisor about my performance are worthwhile," "My supervisor provides me with constructive suggestions to improve my performance," "My supervisor listens to what I have to say," "Managers communicate the goals and priorities of the organization," "Managers promote communication among different work units," and "I have enough information to do my job well." The descriptive statistics for all variables are listed below in Table 3.1.

Table 3.1 Descriptive Statistics

Org.	Dependent Variable	Obs.	Mean	Std. Dev.	Min	Max
Private Construction	Fairness of Performance Appraisal	500	2.327	0.972	1	5
Private Insurance	Fairness of Performance Appraisal	120	2.2	0.826	1	5
Private IT Company	Fairness of Performance Appraisal	115	2.696	0.975	1	5
Private Law Firm	Fairness of Performance Appraisal	178	2.309	0.729	1	5
Non Profit Health Care	Fairness of Performance Appraisal	1,224	2.033	0.999	1	5
Public DA Office	Fairness of Performance Appraisal	32	2.219	0.906	1	5
FedView Sample	Fairness of Performance Appraisal	369,528	2.308		1	5
Private Construction	Understood Steps for Performance Improvement	546	2.786	1.028	1	5
Private Insurance	Understood Steps for Performance Improvement	120	2.592	0.804	1	5
Private IT Company	Understood Steps for Performance Improvement	107	3.15	0.888	1	5
Private Law Firm	Understood Steps for Performance Improvement	168	2.97	0.912	1	5
Non Profit Health Care	Understood Steps for Performance Improvement	1,160	2.215	0.988	1	5
Public DA Office	Understood Steps for Performance Improvement	32	2.531	0.879	1	5
FedView Sample	Understood Steps for Performance Improvement	366,770	2.314		1	5
Private Construction	Employee Recognition for High Quality Perf.	542	2.304	0.871	1	5
Private Insurance	Employee Recognition for High Quality Perf.	120	2.5	0.944	1	5
Private IT Company	Employee Recognition for High Quality Perf.	104	2.644	0.944	1	5
Private Law Firm	Employee Recognition for High Quality Perf.	169	2.03	0.782	1	5
Non Profit Health Care	Employee Recognition for High Quality Perf.	1,151	2.091	0.942	1	5
Public DA Office	Employee Recognition for High Quality Perf.	32	2.563	0.982	1	5
FedView Sample	Employee Recognition for High Quality Perf.	360,183	2.85		1	5
Private Construction	Worthwhile Discussions with Supervisor	546	2.271	0.9	1	5
Private Insurance	Worthwhile Discussions with Supervisor	122	2.303	0.802	1	5
Private IT Company	Worthwhile Discussions with Supervisor	114	2.395	1.036	1	5
Private Law Firm	Worthwhile Discussions with Supervisor	171	2.298	0.804	1	5
Non Profit Health Care	Worthwhile Discussions with Supervisor	1,195	2.007	0.947	1	5
Public DA Office	Worthwhile Discussions with Supervisor	32	2.219	0.751	1	5
FedView Sample	Worthwhile Discussions with Supervisor	360,838	2.417		1	5
Private Construction	Constructive Suggestions from Supervisor	549	2.546	0.959	1	5
Private Insurance	Constructive Suggestions from Supervisor	122	2.443	0.919	1	5
Private IT Company	Constructive Suggestions from Supervisor	116	2.629	1.108	1	5
Private Law Firm	Constructive Suggestions from Supervisor	173	2.647	0.894	1	5
Non Profit Health Care	Constructive Suggestions from Supervisor	1,194	2.059	0.935	1	5
Public DA Office	Constructive Suggestions from Supervisor	32	2.344	0.971	1	5
FedView Sample	Constructive Suggestions from Supervisor	363,407	2.443		1	5

Table 3.2 Descriptive Statistics, cont.

Private Construction	Supervisor Listens to Employee	551	2.067	0.907	1	5
Private Insurance	te Insurance Supervisor Listens to Employee		2.041	0.991	1	5
Private IT Company	Supervisor Listens to Employee	116	2	1.013	1	5
Private Law Firm	Supervisor Listens to Employee	179	1.994	0.725	1	5
Non Profit Health Care	Supervisor Listens to Employee	1,226	1.794	0.953	1	5
Public DA Office	Supervisor Listens to Employee	32	1.938	0.948	1	5
FedView Sample	Supervisor Listens to Employee	365,387	2.098		1	5
Private Construction	Managers Communicate Goals & Priorities	544	2.228	0.812	1	5
Private Insurance	Managers Communicate Goals & Priorities	121	2.256	0.736	1	5
Private IT Company	Managers Communicate Goals & Priorities	115	2.617	1.097	1	5
Private Law Firm	Managers Communicate Goals & Priorities	171	2.427	0.86	1	5
Non Profit Health Care	Managers Communicate Goals & Priorities	1,194	1.915	0.918	1	5
Public DA Office	Managers Communicate Goals & Priorities	31	2.452	0.961	1	5
FedView Sample	Managers Communicate Goals & Priorities	357,806	2.629		1	5
Private Construction	Managers Promote Communication	544	2.498	0.928	1	5
Private Insurance	Managers Promote Communication	121	2.612	1.003	1	5
Private IT Company	Managers Promote Communication	107	2.804	1.103	1	5
Private Law Firm	Managers Promote Communication	169	2.692	0.926	1	5
Non Profit Health Care	Managers Promote Communication	1,163	2.231	1.043	1	5
Public DA Office	Managers Promote Communication	32	2.656	1.004	1	5
FedView Sample	Managers Promote Communication	350,863	2.692		1	5
Private Construction	I Have Enough Information To Do My Job Well	545	2.161	0.795	1	5
Private Insurance	I Have Enough Information To Do My Job Well	120	1.933	0.796	1	5
Private IT Company	I Have Enough Information To Do My Job Well	105	2.219	0.82	1	5
Private Law Firm	I Have Enough Information To Do My Job Well	166	2.09	0.677	1	5
Non Profit Health Care	I Have Enough Information To Do My Job Well	1,147	1.827	0.82	1	5
Public DA Office	I Have Enough Information To Do My Job Well	32	1.781	0.491	1	5
FedView Sample	I Have Enough Information To Do My Job Well	372,941	2.306		1	5

METHODS & MODELS

This chapter will use two sample t tests with unequal variance and unequal size for the analysis. T tests are the most appropriate method because the difference between the means in each sample for a categorical variable will be examined. Although there are other methods to compare variables between samples, the significant difference in the sizes between the samples (over 300,000 in the federal sample and over 2,000 in the study sample) makes those methods inappropriate to use for this analysis.

Specifically, the t test will test for the null hypothesis (in this case no difference between the sectors for the variable in question). If there is no statistically significant difference between the sectors based on the p value, than we accept the null hypothesis. However, if there is a statistically significant difference, than we reject the null hypothesis and accept the alternative hypothesis.

Using the proposed methods and the variables discussed in the previous section, there will be nine models run to test the identified hypotheses. Since all nine of the models use the same method (and the equation is unchanged between the models except the variable in question) I will list the general model that will be used for each of the tests below:

 H_0 : Mean₁ = Mean₂

 H_A : Mean₁ \neq Mean₂

$$t = \overline{\underline{X}_1 - \overline{X}_2}$$

$$S\overline{X}_1 - \overline{X}_2$$

where

$$s_{\overline{X}_1 - \overline{X}_2} = \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}.$$

The t statistic, as shown in the equation above, equals the mean of the first population subtracted by the second population, then divided by the standard error of the means of each population. This occurs where the standard error of the mean of the first population subtracted by the standard error of the mean of the second population equals the square root of the standard error of the first population squared and then divided by the size of population one plus the standard error of the second population squared and then divided by the size of population two.

RESULTS

My Performance Appraisal is a Fair Reflection of My Performance

Despite some prior evidence indicating that we may expect to find a difference in the way that public sector and private sector employees perceive the fairness of performance evaluations, there was no statistically significant difference between employees in this analysis, as seen in Table 3.3. There was, however, a difference between employee perceptions in the non-profit organization and the public sector; the non-profit organization's employees more strongly agreed that their performance appraisals were fair than did their public sector counterparts. The lack of differentiation between the private and public sectors may indicate that perceptions of fairness are less affected by organizational design and are more a derivation of employee's experiences with their individual supervisors. Perhaps the formalized rules found in the public sector, which ostensibly reduce the black box nature of performance evaluations, do not increase an individual's sense of fairness because that perception is still affected by their own views about how well they performed, how capable their supervisor is of adequately evaluating them, and a host of other individual factors.

Table 3.3 T Test Results for Sector Comparison: Fairness of Performance Appraisals⁴

Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal	550	2.327	0.041	0.972	0.642
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal	120	2.2	0.075	0.826	0.155
Private Information Technology Comp	any				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal***	115	2.696	0.091	0.975	0
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal	178	2.309	0.055	0.729	0.986
Non-Profit Health Care Organization					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal***	1224	2.033	0.029	0.999	0
Public District Attorney's Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Fair Performance Appraisal	32	2.219	0.16	0.906	0.582
***** 01. ** 05. ** 10	•	•			

***p<.01; **<.05; *p<.10

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⁴ Compared to FedView mean of 2.308 (Lower mean indicates stronger agreement)

In My Most Recent Performance Appraisal, I Understood What I Had to Do to Be Rated at a Different Level

Unlike the variable concerning the fairness of performance appraisals, this variable demonstrated a significant difference between the private and public sectors, with the public sector outperforming the private sector (Table 3.4). Although the more formalized performance appraisal process found in the public sector may not systematically increase an individual's sense of fairness, it may be the reason we see differentiation for this aspect of the performance appraisal process. The more formalized process may improve their understanding of the necessary steps for improvement, because the required skills and the metrics for evaluation are required to be clear and transparent. This does not, of course, mean that there is no variation between supervisors' capacity to articulate the ways in which an individual can improve their performance, but a formalized and transparent evaluation process ensures that even with a substandard non-communicatory supervisor, an employee can have at least a basic understanding of the areas in which they need to improve to be rated at a different level. It should also be noted that, like the previous variable, the non-profit organization outperformed both the private and public sectors.

Table 3.4 T Test Results for Sector Comparison: Understood Steps for Performance Improvement⁵

Trivate Construction Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement***	546	2.786	0.044	1.028	0
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement***	120	2.592	0.073	0.804	0
Private Information Technology Con	трапу				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement***	107	3.15	0.086	0.888	0
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement***	168	2.97	0.07	0.912	0
Non-Profit Health Care Organization	on				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement***	1160	2.215	0.029	0.988	0.001
Public District Attorney's Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Understood Steps for					
Performance Improvement	32	2.531	0.155	0.879	0.172
***** < 01. ** < 05. ** < 10					

^{***}p<.01; **<.05; *p<.10

⁵ Compared to FedView mean of 2.314 (Lower mean indicates stronger agreement)

Employees Are Recognized for Providing High Quality Products and Services

Employee recognition also proved to be an area of distinction, though in this case the private sector outperformed the public sector (Table 3.5). The non-profit organization also had higher ratings than the public sector, but unlike the previous two variables, the non-profit mean was more comparable to the means found in the private sector organizations. This could potentially indicate that the public sector's increased constraints for providing monetary rewards for outstanding performance are, in fact, reducing employees' belief that they are recognized for a high quality performance. This is particularly likely given that the organization whose employees most strongly agreed that they were recognized for performance was the private law firm, which in many ways is designed to provide monetary rewards for performance, as law partners earn their annual bonuses based on their contribution to the firm. It is also possible that the ways in which employees are recognized for performance in the public sector is not aligned with the ways they prefer to be appreciated. There has been some evidence, as was discussed in the previous section, that public sector employees are less motivated by monetary rewards, so if the focus is on generating traditional monetary rewards whenever possible, the lower satisfaction in the public sector could be a result of a mismatch between how employees want to be recognized and how they are being recognized by their agencies.

Table 3.5 T Test Results for Sector Comparison: Recognition for High Quality Products/Services⁶

Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
542	2.304	0.037	0.871	0
Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
120	2.5	0.086	0.944	0
отрапу				
Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
104	2.644	0.0926	0.944	0.028
Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
169	2.03	0.06	0.782	0
ion				
Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
1151	2.091	0.028	0.942	0
Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
32	2.563	0.174	0.982	0.101
	Obs. 120 Ompany Obs. 104 Obs. 169 ion Obs. 1151 Obs.	542 2.304 Obs. Mean 120 2.5 ompany Obs. Mean 104 2.644 Obs. Mean 169 2.03 ion Obs. Mean 1151 2.091 Obs. Mean	542 2.304 0.037 Obs. Mean Std. Error 120 2.5 0.086 ompany Obs. Mean Std. Error 104 2.644 0.0926 Obs. Mean Std. Error 169 2.03 0.06 ion Obs. Mean Std. Error 1151 2.091 0.028 Obs. Mean Std. Error 105. Mean Std. Error	542 2.304 0.037 0.871 Obs. Mean Std. Error Std. Dev. 120 2.5 0.086 0.944 ompany Obs. Mean Std. Error Std. Dev. 104 2.644 0.0926 0.944 Obs. Mean Std. Error Std. Dev. 169 2.03 0.06 0.782 ion Obs. Mean Std. Error Std. Dev. 1151 2.091 0.028 0.942 Obs. Mean Std. Error Std. Dev.

^{***}p<.01; **<.05; *p<.10

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⁶ Compared to FedView mean of 2.85 (Lower mean indicates stronger agreement)

Discussions With My Supervisor Are Worthwhile

Two private sector organizations (the construction company and law firm) and the non-profit organization showed a statistically significant difference in employee responses for this variable, but there was not a sector-consistent differentiation, indicating that this outcome may be agency (and supervisor) specific, instead of sector-specific (Table 3.6). This is perhaps not surprising, given that both the public and private sector literature indicate that there are frequently issues related to the quality of supervisory communication. The increased satisfaction for employees in the non-profit organization for this variable and the previous variables may be a function of the increasing efforts in the non-profit sector to improve their organization, as discussed earlier, or it may be reflective of efforts made in this particular organization to improve these feedback-related issues.

Table 3.6 T Test Results for Sector Comparison: Worthwhile Discussions with Supervisor⁷

1 Tivate Constituetion Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr (T < t)
Worthwhile Supervisor					
Discussions***	546	2.271	0.039	0.9	0
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Worthwhile Supervisor Discussions	122	2.303	0.073	0.802	0.119
Private Information Technology Company	y				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Worthwhile Supervisor Discussions	114	2.395	0.097	1.036	0.819
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Worthwhile Supervisor Discussions*	171	2.298	0.061	0.804	0.055
Non-Profit Health Care Organization					<u> </u>
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Worthwhile Supervisor					
Discussions***	1195	2.067	0.027	0.947	0
Public District Attorney's Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Worthwhile Supervisor Discussions	32	2.219	0.133	0.751	0.145
No. 10 1 No. 10 10 10 10 10 10 10 10 10 10 10 10 10					

^{***}p<.01; **<.05; *p<.10

⁷ Compared to FedView mean of 2.417 (Lower mean indicates stronger agreement)

My Supervisor Provides Me With Constructive Suggestions To Improve My Performance

For this variable, the public sector out-performed three private sector organizations, and the non-profit organization, continuing its trend, showed higher ratings than all of the other organizations (Table 3.7). This result is not surprising, given that this variable is an extension of the area in which the public sector has been shown to be the most effective in this study; understanding steps to improve performance ratings.

Although the public sector did not have higher ratings compared to every organization, this does indicate that this is again an area in which the public sector may be more successful.

Table 3.7 T Test Results for Sector Comparison: Constructive Suggestions from Supervisors 8

1 Tivate Constituenton Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Constructive Suggestions**	549	2.546	0.041	0.959	0.011
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Constructive Suggestions	122	2.443	0.083	0.919	0.996
Private Information Technology Co	отрапу				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Constructive Suggestions*	116	2.629	0.103	1.108	0.073
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	$Pr(T \leq t)$
Constructive Suggestions***	173	2.647	0.068	0.894	0.003
Non-Profit Health Care Organizati	on				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Constructive Suggestions***	1194	2.059	0.027	0.935	0
Public District Attorney's Office	·	·	•	·	
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Constructive Suggestions	32	2.344	0.172	0.971	0.567
 		·	·	·	·

^{***}p<.01; **<.05; *p<.10

⁸ Compared to FedView mean of 2.443 (Lower mean indicates stronger agreement)

My Supervisor Listens to What I Have to Say

Although the non-profit organization did prove to be significantly different from the private and public organizations, the lack of differentiation between the latter two sectors indicates that this variable is likely driven by the individual supervisor, regardless of sector (Table 3.8). Although it would have been possible to find differences in organizations in a particular sector, as is seen in the non-profit sector, because there was an increased emphasis on equipping supervisors with necessary skills, such as the capacity to listen, it appears that, at least in this analysis, this is not an area of distinction for the public and private sectors.

Table 3.8 T Test Results for Sector Comparison: Supervisor Listens to Employees⁹

Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Supervisor Listens	551	2.067	0.039	0.907	0.425
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Supervisor Listens	122	2.041	0.09	0.991	0.526
Private Information Technology	Company				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Supervisor Listens	116	2	0.094	1.013	0.3
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Supervisor Listens*	178	1.994	0.054	0.725	0.058
Non-Profit Health Care Organiz	ation				·
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Supervisor Listens***	1226	1.794	0.027	0.953	0
Public District Attorney's					
Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	$\Pr\left(T < \mid t \mid\right)$
Supervisor Listens	32	1.938	0.168	0.948	0.346
*** < 01. ** < 05. * < 10					

^{***}p<.01; **<.05; *p<.10

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⁹ Compared to FedView mean of 2.098 (Lower mean indicates stronger agreement)

Managers Communicate the Goals and Priorities of the Organization

Despite the research, discussed earlier, which found that the public sector does not suffer from more goal ambiguity, and the hypothesis, which purported that an increase in leadership turnover may actually increase communication about goals, public sector respondents were less likely to agree that managers communicate the goals and priorities of the organization (Table 3.9). Although we cannot definitively know what causes the sector distinction, it is possible that the frequent rotation of politically appointed leaders may actually have the opposite effect. It may, in fact, lead to confusion about the goals and priorities of the organization and/or may make it more difficult for public managers to communicate the goals than would be the case for a manager in a private organization, which operates in a more stable, constant environment.

Table 3.9 T Test Results for Sector Comparison: Managers Communicate Goals & Priorities¹⁰

1 rivate Construction Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Comm. G&P***	544	2.228	0.035	0.812	0
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	$Pr(T \leq t)$
Managers Comm. G&P***	121	2.256	0.067	0.736	0
Private Information Technology (Company				
Variable	Obs.	Mean	Std. Error	Std. Dev.	$Pr(T \leq t)$
Managers Comm. G&P	115	2.617	0.102	1.097	0.909
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	$Pr(T \leq t)$
Managers Comm. G&P***	171	2.427	0.0658	0.86	0.003
Non-Profit Health Care Organiza	tion				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Comm. G&P***	1194	1.915	0.027	0.918	0
Public District Attorney's Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	$\Pr\left(T < \mid t\mid\right)$
Managers Comm. G&P	31	2.452	0.173	0.961	0.312

^{***}p<.01; **<.05; *p<.10

¹⁰ Compared to FedView mean of 2.629 (Lower mean indicates stronger agreement)

Managers Promote Communication Among Different Work Units

Although one private sector organization had higher ratings than the public sector, there was no difference found for the other organizations (excluding the non-profit) indicating that, as suggested earlier, the ways in which managers promote communication are more a function of the particular manager than a reflection of the broader set of organizations in the respective sector (Table 3.10). Much like an individual supervisor's capacity or effort to listen to their employees will vary dramatically, so too will the extent to which an individual manager prioritizes or has the capacity to promote communication, regardless of the sector in which they operate.

Table 3.10 T Test Results for Sector Comparison: Managers Promote Communication¹¹

1 Tivate Constituent Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.***	544	2.498	0.04	0.928	0
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.	121	2.612	0.091	1.003	0.38
Private Information Technology Comp	oany				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.	107	2.804	0.107	1.103	0.297
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.	169	2.692	0.071	0.926	0.997
Non-Profit Health Care Organization					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.***	1163	2.231	0.031	1.04	0
Public District Attorney's Office					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Managers Promote Comm.	32	2.656	0.177	1.004	0.842
***** < 01. ** < 05. ** < 10					

^{***}p<.01; **<.05; *p<.10

¹¹ Compared to FedView mean of 2.692 (Lower mean indicates stronger agreement)

I Have Enough Information To Do My Job Well

This variable turned out to be another area in which the public sector struggled, and also was the only variable in which there was any measurable difference between the responses of federal employees and the district attorney's office (Table 3.11). Although it is possible that this is an area where the public sector does not have alignment (unlike the other eight variables), it is also quite possible that the differentiation is due to the specific nature of the public organization used for comparison, particularly given that the district attorney's office so significantly out-performed all of the other organizations. District attorney's offices heavily rely on information to do their job of prosecuting individuals accused of crimes, so they may be more likely to agree with this question because information is so vital to their capacity to do their jobs. As has been true with the other questions, the non-profit sector organization continued to out-perform the public and private sector organizations (with the exception of the district attorney's office).

Table 3.11 T Test Results for Sector Comparison: Adequate Job Information¹²

Trivate Construction Company	/				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Adequate Job Info***	545	2.161	0.034	0.795	0
Private Insurance Company					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Adequate Job Info***	120	1.933	0.073	0.796	0
Private Information Technolog	gy Compar	ıy			
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Adequate Job Info	105	2.219	0.08	0.82	0.28
Private Law Firm					
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Adequate Job Info***	166	2.09	0.053	0.677	0
Non-Profit Health Care Organ	ization				
Variable	Obs.	Mean	Std. Error	Std. Dev.	Pr(T < t)
Adequate Job Info***	1147	1.827	0.024	0.82	0
Public District Attorney's Office	ce				
Variable	Obs.	Mean	Std. Error	Std. Dev.	$Pr(T \leq t)$
Adequate Job Info***	32	1.781	0.087	0.491	0
districts 0.4 districts 0.5 districts					

***p<.01; **<.05; *p<.10

12 Compared to FedView mean of 2.306 (Lower mean indicates stronger agreement)

DISCUSSION

One of the most striking findings in this analysis, given that the focus is on understanding sector differentiation, is that the responses of the employees in the district attorney's office were not measurably different from the responses of federal government employees, except for the question that asked respondents whether or not they had enough information to do their job well. Much of the research in the public-private sector emphasizes the distinctive nature of the public sector, regardless of level, location, and mission; a point that is also supported by this study. A Midwestern district attorney's office with only forty employees has very little in common with, for example, a federal agency like the GAO, that has thousands of employees and a very different mission, yet we find similar responses for almost all of these feedback-related issues that we don't find in comparisons with the private sector and non-profit organizations. This re-enforces the idea that there are commonalities shared by public sector organizations, regardless of whether or not those organizations share other common characteristics. We should continue to increase our understanding of these differences, fostering practices that highlight positive differences for the public sector, while looking for ways to help better address issues in which the public sector does not perform as well.

Another area of distinction was the exceptionally high ratings generated by the employees in the non-profit organization. Although this analysis is limited to one non-profit organization, and thus may simply be reflective of that particular organization and not the non-profit sector more broadly, it is still interesting to note how exceptionally well the organization performed in comparison to all of the other organizations in the

sample. It would be interesting and informative to see whether or not this trend would continue if this study were replicated with a larger sample of non-profit organizations.

The area in which the public sector was most successful concerns communication for performance improvements. The public sector outperformed the private sector for all of the organizations when asked if they understood the steps necessary to improve their performance rating, and outperformed two of the private sector organizations when asked if their supervisor provides respondents with constructive suggestions for improvement. It is quite possible that this success is derived from the public sector's more formalized process that has components (including discussing improvement areas) that are mandatory in a performance evaluation. That requirement could also then translate more generally into supervisors providing constructive suggestions even during nonperformance evaluation periods. However, it could also be at least partially derived from continuing efforts made by the Office of Performance Management (OPM) to increase awareness about performance issues and provide more training for managers to improve performance. This also positively indicates that perhaps in the public sector, performance appraisals are viewed less as a perfunctory exercise and more as an opportunity to provide meaningful feedback to the recipient.

Although federal employees viewed aspects of the more formal feedback processes favorably, the survey showed that there are some opportunities for improvement with informal feedback processes. In this analysis, federal employees were less likely than their private sector counterparts to agree that they had enough information to do their job well. This indicates that while the federal government has excelled at the more formalized feedback processes, such as providing information about how to

improve an individual's performance ratings, it would be beneficial to provide more attention to the informal processes that are so critical for information sharing. Much of what an employee learns about their job and the organization occurs (or we expect it to occur) outside of the annual performance evaluation process. Thus the daily, weekly and monthly conversations employees are having with their supervisors about what they should be doing in their position, what their goals should be, and what the goals of the organization are, are heard in these more informal feedback situations.

The other areas in which the public sector was much less successful were employee recognition, and management's communication of the goals and priorities of the organization. The first is perhaps not surprising, given the more extensive monetary constraints the public sector operates under and the sometimes conflicting research discussing what rewards would be most enticing to public employees. Some argue that the monetary restraints are not particularly problematic, because monetary rewards are not that meaningful to public employees anyway, so perhaps it is not a lack of bonuses that are reducing feelings of recognition, but instead a mismatch between the way recognition is conceptualized by public sector agencies and the ways in which employees most want to be recognized for their performance. Either way, this outcome is problematic, as it is important for employees to be recognized for outstanding performance and this analysis indicates that public sector employees feel systematically less recognized than their private sector counterparts. Managerial communication of goals and priorities also appears to be an area in need of improvement. Although the research does not support the assertion that public sector organizations have less goal clarity, which may make communicating goals difficult, there does appear to be some

support, at least in this analysis, for the assertion that managers in the public sector are not as effective at communicating the organization's goals and priorities to their employees. Whether this is due to confusion about conflicting goals, the relatively frequent turnover in politically appointed leadership, or simply less emphasis on the communication of goals, it is certainly an area in which progress can be made.

Finally, there were areas in which this study did not find systematic differences between the sectors: the fairness of performance appraisals, the degree to which discussions with your supervisor are worthwhile, the extent to which employees feel their supervisor listens to them, and the promotion of communication among different work units by the organization's management. Although there are areas in which there are clear differences between the sectors, it is perhaps not surprising that there are some questions for which there are no measurable differences, given that organizations are ultimately comprised of people who behave differently or similarly based on their own needs, wants, preferences, training, and capacities. For these variables, it appears that it is individual variance, and not organizational sector, that determines an individual's response to the questions.

Limitations

There are some limitations to this analysis that may affect the external validity of this study. Although the number of respondents is quite sizable and there is significant variation in the type of organizations included, there are only six organizations in the sample, so the results may be different in a sample that included other organizations. Also, the data are from a single survey that was given to respondents one time, so it is subject to the natural limitations of a one-time approach; namely that survey responses

can be influenced by the mood of the participant at the time they took the survey.

Additionally, although the federal viewpoint data is representative of the federal government, the data only represents employee viewpoints from one particular year.

Finally, although this analysis can determine relationships among variables, causality is precluded due to the cross-sectional nature of the research design.

CONCLUSION

This chapter indicates that despite the contention made by some that there are no meaningful differences between the sectors, sector differences are alive and well. While there are some areas in which the nature of public organizations can be beneficial to the feedback process (understanding steps for improvement), there are also areas where the public sector, unfortunately, lags behind its private and non-profit counterparts. In particular, more attention should be paid to the discontent felt by public sector employees about their recognition (or lack thereof) for outstanding performance. This data was collected during 2013, when federal employees had three years of pay freezes, so this may reflect frustration about stagnant pay regardless of performance, or as discussed earlier, perhaps public sector employees want to receive recognition in other ways and public sector agencies need to find other, more satisfying, ways to acknowledge their employees' performance.

Additionally, it could be useful to examine the extent to which managers feel comfortable with their understanding of their respective organization's goals and priorities and their capacity to communicate those goals. It is vitally important that employees understand their agency's goals, particularly in the dynamic context of the public sector, where goals are not stagnant. Utilizing informal feedback processes, which occur much more frequently than formal feedback processes, to communicate those evolving goals can help to ensure that employees understand what their organization is trying to achieve and how their position can help lead to the achievement of those goals.

Similarly, it is critical that employees have adequate information to do their job well. Informal feedback can also be helpful for ensuring that employees have timely

information, eliminating a lag effect, with feedback only communicated during performance reviews. If employees feel that they do not have the information they need to do their job effectively, then both individual and organizational performance are likely to suffer.

This chapter also illuminates another recurring theme in much of the organizational literature; that regardless of organizational type, sector, size, and location, people are people and there will be some areas in which the variances are driven by differences in the people, not the places they work. Supervisors and their employees in every sector struggle with similar issues; some managers communicate better than others, some supervisors listen better than others, and some employees find some supervisors more helpful than others. A greater understanding of these areas is also important, as it would be inefficient to spend time trying to understand how a particular sector or organizational design led to these outcomes, when in reality they were caused by the natural variances that occur among employees. Feedback-related processes are vital for organizations and it is imperative that the public sector gets it right. While this analysis demonstrates that the public sector is by no means adrift at sea in the feedback expanse, there are certainly improvements that can be made, and it is my hope that future research will continue to explore these ideas and offer more suggestions for ways to improve these outcomes.

Effective feedback is certainly not an organizational panacea, but having effective strategies for both formal and informal feedback can dramatically affect an employee's experience within an organization. Although many supervisors may think that they are providing adequate and effective feedback, these results indicate that there

are areas of feedback, such as organizational goals and information about the job, which could be more successfully communicated. Effective feedback can assist an agency in moving forward by ensuring that performance criteria are well-defined, employees have adequate information to do their jobs, agency goals are clear, and employees are recognized, for their performance. For the federal government to recruit and retain talented employees, these issues, particularly the role that informal feedback plays, need to be more fully understood and utilized.

CONCLUSION

The three chapters in this dissertation addressed different aspects of the feedback process, but each of them illuminate the complexity and importance of performance feedback. Chapter One focused primarily on the individual, improving our understanding of the characteristics that determine an employee's preferences for the feedback they receive. Chapter Two extended our understanding of the feedback dynamics that occur between supervisors and their employees, demonstrating the perceptual disparity that can arise, despite the best of intentions. Finally, Chapter Three explored the ways in which the sectors differ in respect to the feedback process.

The findings from Chapter One indicated that there are distinct characteristics that drive our feedback preferences. Improving our understanding of how these characteristics impact an individual's preferences will aid in our efforts to improve the efficiency and effectiveness of the feedback process. While there may inevitably be some degree of mismatch between the feedback given by supervisors and the preferences of their employees, reducing that disparity is critical for maximizing the effectiveness of the feedback that is provided, and minimizing the time and effort associated with delivering feedback.

The findings from Chapter Two suggested that there are perceptual disparities that exist between supervisors and their employees, including the amount of feedback being given, and the way in which it is given. The results also showed that an employee's satisfaction with their professional development feedback plays a critical role in their

desire to remain with their current organization. Finally, the qualitative analysis indicated that annual performance reviews, frequently used by organizations, might actually be having a negative effect on the delivery of timely, effective feedback by postponing its delivery and associating it with high stakes job outcomes. Although the results from two organizations are by no means conclusive, it is an important finding in need of more research, given the widespread use of these types of feedback mechanisms.

The results from Chapter Three showed that there are ways in which employees perceive the feedback process differently in different sectors. Employees in the public sector felt that they understood the steps necessary to improve their performance ratings, and received constructive suggestions from their supervisors, but they stated that they did not have enough information to do their job well, and were less likely to receive recognition for outstanding performance in comparison to the responses from their private sector counterparts. The one public sector organization in this sample also showed complete symmetry with the federal government organizations for eight of the nine questions, further providing evidence for the notion that public sector organizations do share similarities that are distinctly different from the other sectors.

Although there are strong findings in these analyses, they are by no means conclusive. The limited nature of the sample reduces the capacity for generalizing more broadly, but nevertheless these results do indicate that there are important facets of the feedback process that are in need of more research, the results of which would greatly benefit the millions of supervisors tasked with providing feedback to their employees.

Much as the field of Public Administration has dismissed Frederick Taylor's idea that there is "one best way" to achieve tasks, we must also discard the notion that there is one best way to give feedback, or one type of feedback system that will serve as the antidote to providing efficient, effective feedback. Instead, we must work to increase our understanding of the complexities associated with feedback and to improve our awareness of the ways in which feedback holds more, or less, utility for the employees who receive it. There is no easy solution to maximizing the efficiency and effectiveness of feedback; like feedback itself, this research will require a more nuanced approach that untangles the complicated web of feedback dimensions. Hopefully, this dissertation will be one of many research endeavors aimed at increasing our understanding of this essential component of organizations everywhere.

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APPENDIX

SURVEY INSTRUMENT

- 1. What is your gender?
 - a. Male
 - b. Female
- 2. What is your current age?
- 3. What is your highest level of formal education?
 - a. Attended high school but did not graduate
 - b. High school graduate
 - c. Attended college but did not graduate from a 4 year college
 - d. Graduated from a 4 year college
 - e. Attended but did not graduate from graduate or professional school
 - f. Graduated from a graduate or professional school
- 4. What is your racial identification?
 - a. American Indian or Alaska Native
 - b. Asian
 - c. Black or African American
 - d. White
 - e. Other
 - f. Prefer not to say
- 5. Are you of Hispanic, Latino, or Spanish origin?
 - a. No, I am not of Hispanic, Latino, or Spanish origin
 - b. Yes, I am of Hispanic, Latino, or Spanish origin
- 6. In what organizational level is your current position?
- 7. In what department is your current position?

For the following questions, consider feedback to be the following: Feedback is any form of communication (written or oral) in which you receive information about your performance on any work-related activity either formally (such as annual performance evaluations) or informally (such as daily, weekly comments).

Strongly						
Agree	Agro	ee Nei	ther Agree/ Disagree	Disagre	e Stror Disag	
d. Ab e. Lea f. No 11. Do you red a. On b. On	veral time out once ss than or of Applica ceive feed ly on a for ally on an impleted)	nce a monable- I do nable- I do nable- I do nable de la decimal, scheinformal, and informal informal de la decimal decimal decimal decimal decimal decimal de la decimal	th not supervis ut your perf eduled basis unscheduled formally	Formance: s (i.e. annual d basis (i.e. a		,
12. Ideally, 1 V	Daily	Weekly	Monthly	Quarterly	Semi-	Annuall
					Annually	
Formal Feedback						

- 14. Ideally, I would like:
 - a. Feedback that only focuses on positive reinforcement
 - b. Feedback that mostly focuses on positive reinforcement with some constructive criticism
 - c. Feedback that is equally divided between positive reinforcement and constructive criticism
 - d. Feedback that mostly focuses on constructive criticism with some positive reinforcement
 - e. Feedback that only focuses on constructive criticism.
 - f. I never want feedback
- 15. I do not perform repetitive activities in my job.

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

16. I feel that I would be more efficient at my job if I received more timely information about the work I am doing

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

17. My supervisor listens to what I have to say

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

18. My performance appraisal is a fair reflection of my performance

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

19. It has been hard for me to get very involved in my current job

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

20. I ask my supervisor if I am meeting all of my job requirements

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

21. Top management displays a high level of trust in the organization's employees

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

22.	supervise) has a. Signifi b. Moder c. No eff d. Moder e. Signifi	had the follow cantly positive ately positive e ect ately negative cantly negative	effect effect	formance:	I directly			
23.	There is an ui	nderstandable s	sequence of events that	can be followed	ed in doing my			
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
24.	My supervisor performance.	provides me v	with constructive sugge	estions to impro	ove my			
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
25.	All in all I am	satisfied with	my job.					
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
	26. I feel my company: a. Strongly supports performance- related feedback b. Supports performance- related feedback c. Is neutral to performance-related feedback d. Does not support performance- related feedback e. Strongly does not support performance- related feedback 27. Employees in this organization are afraid to take risks.							
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
28.	Discussions w	ith my supervi	sor about my performa	ance are worthy	vhile.			
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			

Strongly Agree	Agree	Neitl Disa	her Agree/ gree	Disa	agree		ongly agree
. Managers	communicate	e the goals a	and priorities of	of the or	ganizatio	on.	
Strongly Agree	Agree	Neitl Disa	her Agree/ gree	Disa	agree		ongly agree
. From watc	hing my sup	ervisor I ca	n tell how wel	l I am p	erformin	ng my j	ob.
Strongly Agree	Agree	Neitl Disa	her Agree/ gree	Disa	agree		ongly agree
. My superv	isor gives me	e micro-ma	naging feedba	ck that i	s not use	eful to	me.
a. On b. Mo	eedback about ly orally, never estly orally, s	ver written ometimes w					
d. Mo e. On . It is import	ostly written, ly written, ne	sometimes ever orally receive fee Neitl	edback about i	my perf	ormance	Stro	ongly agree
d. Mo e. On t. It is import Strongly Agree	ostly written, ly written, no tant for me to Agree	sometimes ever orally preceive fee Neith Disa	orally edback about the Agree/	my perfo Disa	agree	Stro Disa	ongly agree
d. Mo e. On t. It is import Strongly Agree	ostly written, ly written, no tant for me to Agree	sometimes ever orally preceive fee Neith Disa	orally edback about the Agree/ gree	my perfo Disa s as an e	agree	Stro Disa	agree Strongly
d. Mo e. On Strongly Agree The feedba	Agree Strongly	sometimes ever orally preceive fee Neith Disa helps me cl	edback about ther Agree/gree arify my goals	my perfo Disa s as an e	agree employee	Stro Disa	agree Strongly
d. Moe. On It is import Strongly Agree The feedba	Agree Strongly	sometimes ever orally preceive fee Neith Disa helps me cl	edback about ther Agree/gree arify my goals	my perfo Disa s as an e	agree employee	Stro Disa	
d. Mo e. On the strongly Agree The feedback Formal Feedback Informal Feedback	Agree Strongly Agree	sometimes ever orally o receive fee Neith Disa helps me cl	edback about ther Agree/gree arify my goals	Disa s as an e	agree employee Disagre	Stro Disa	Strongly Disagree

37.	. I ask my supe	rvisor how I an	n doing					
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
38.	. In general, I d	on't like my jo	b.					
*	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
39.	39. A good job is one where what is to be done and how it is done are always clear.							
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
40.			ick that I have received f I had received it earli		al process			
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
	a. Only of b. Mostly c. Equal d. Mostly e. Only we f. Not ap	orally, never winder orally, sometic amounts of orally written, some written, never opplicable- I do never opplica	mes written l and written feedback times orally		to do to be			
12.	-	erent performa		ood what I had	10 40 10 00			
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			
43.	. Managers pro	mote communi	cation among different	t work units.				
44.	Strongly Agree . Time seems to	Agree o drag while I a	Neither Agree/ Disagree am on the job.	Disagree	Strongly Disagree			
*	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree			

a. Writtb. Oralc. Orald. Both	ten communicati communicati	on in person nunication and oral cor	and e-mails)	
46. What best do a. Feed b. Feed c. Feed d. Feed 47. In the long r	escribes your back about m back about m back about m back about m	response to receiving f y work always hurts m y work often hurts my y work sometimes hurt y work never hurts my ble to get more done by plicated ones.	y feelings feelings as my feelings feelings	simple problems
Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree
C	are recognized	d for providing high qu	ality products ar	C
Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree
b. More c. Only d. A co e. Only	my direct super than one super my peers mbination of my direct rep	pervisor pervisor supervisor(s) and peers		

- g. A combination of peers and direct reports
 h. A combination of supervisor(s), peers, and direct reports
- 50. The formal pay structures and rules make it hard to reward a good employee here.

Strongly	Agree	Neither Agree/	Disagree	Strongly
Agree		Disagree		Disagree

51. How do you feel about the quantity of feedback you receive	51.	How do	vou feel	about the	quantity of	feedback	vou receive?
--	-----	--------	----------	-----------	-------------	----------	--------------

	I would like much more feedback	I would like a little more feedback	I like the quantity of feedback I receive	I would like a little less feedback	I would like much less feedback	I never want feedback
Formal						
Feedback						
Informal						
Feedback						

52. I	n general	I	like	wor	king	here.
-------	-----------	---	------	-----	------	-------

Strongly	Agree	Neither Agree/	Disagree	Strongly	
Agree		Disagree		Disagree	

53. Top management in this organization is afraid to take risks.

					-
Strongly	Agree	Neither Agree/	Disagree	Strongly	
Agree	_	Disagree		Disagree	

54. My job offers a great deal of flexibility.

Strongly	Agree	Neither Agree/	Disagree	Strongly	
Agree		Disagree		Disagree	

55. I feel that the feedback I am receiving about my performance is helping me to develop professionally.

	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Formal Feedback					
Informal Feedback					

56. In general,	, the feedback from r	ny supervisor	has had the foll	lowing effect	on my
performan	ice:				

- a. Significantly positive effect
- b. Moderately positive effect
- c. No effect
- d. Moderately negative effect
- e. Significantly negative effect
- f. Not applicable, I do not receive feedback from my supervisor
- 57. How many people have you given feedback to in the past 6 months?
 - a. 0
 - b. 1-5
 - c. 6-10
 - d. 11-15
 - e. More than 15
- 58. I have enough information to do my job well.

_					-
Strongly	Agree	Neither Agree/	Disagree	Strongly	
Agree	_	Disagree	_	Disagree	

59. In the past year I have looked/am currently looking for another position outside of my company.

Strongly	Agree	Neither Agree/	Disagree	Strongly	
Agree	_	Disagree	_	Disagree	

- 60. In my organization, employees have the opportunity to give anonymous feedback.
 - a. On a scheduled basis (i.e. annual surveys)
 - b. On an unscheduled basis (i.e. anonymous e-mail accounts)
 - c. On both a scheduled and unscheduled basis
 - d. I am not able to give anonymous feedback
 - e. I do not know whether or not you can give anonymous feedback in my organization.