ADVANCES IN MANAGEMENT ACCOUNTING

Edited by Laurie L. Burney and Mary A. Malina

ADVANCES IN MANAGEMENT ACCOUNTING

VOLUME 31
## CONTENTS

*List of Contributors* vii  
*Editorial Board* ix  
*Statement of Purpose* xi  
*Manuscript Form Guidelines* xiii  

**Introduction**  
*Laurie L. Burney and Mary A. Malina* xv

**Competitor Monitoring and Revenue Performance: Evidence from the Hospitality Industry**  
*James W. Hesford, Michael J. Turner, Nicolas Mangin, Charles R. Thomas Jr., and Kelly Hoffmann*  
1

**An Empirical Examination of Economic Determinants of Financial CEO Compensation: A Comparative Study on Pre- and Post-financial Crisis Periods**  
*Mahfuja Malik and Eunsup Daniel Shim*  
23

**Firm Performance Implications of Using Qualitative Criteria in CEO Bonus Contracts**  
*Ahmet C. Kurt and Nancy Chun Feng*  
55

**Performance-based Pay, Performance Monitoring, and Dishonest Behavior: The Plot Thickens**  
*Charles Bailey, Nicholas Fessler and Brian Laird*  
91

**The Role of Managerial Ability in Classification Shifting Using Discontinued Operations**  
*Christopher Skousen, Li Sun and Kean Wu*  
113

**Cash-to-cash (C2C) Length: Insights on Present and Future Profitability and Liquidity**  
*Binod Guragai, Paul D. Hutchison and M. Theodore Farris II*  
133
# LIST OF CONTRIBUTORS

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles Bailey</td>
<td>James Madison University, USA</td>
</tr>
<tr>
<td>Nancy Chun Feng</td>
<td>Suffolk University, USA</td>
</tr>
<tr>
<td>Nicholas Fessler</td>
<td>The University of Texas at Tyler, USA</td>
</tr>
<tr>
<td>Binod Guragai</td>
<td>Texas State University, USA</td>
</tr>
<tr>
<td>James W. Hesford</td>
<td>University of Lethbridge, Canada</td>
</tr>
<tr>
<td>Kelly Hoffmann</td>
<td>E&amp;Y, Germany</td>
</tr>
<tr>
<td>Paul D. Hutchison</td>
<td>University of North Texas, USA</td>
</tr>
<tr>
<td>Ahmet C. Kurt</td>
<td>Suffolk University, USA</td>
</tr>
<tr>
<td>Brian Laird</td>
<td>Arkansas State University, USA</td>
</tr>
<tr>
<td>Mahfuja Malik</td>
<td>Sacred Heart University, USA</td>
</tr>
<tr>
<td>Nicolas Mangin</td>
<td>University of Groningen, The Netherlands</td>
</tr>
<tr>
<td>Eunsup Daniel Shim</td>
<td>Sacred Heart University, USA</td>
</tr>
<tr>
<td>Christopher Skousen</td>
<td>Utah State University, USA</td>
</tr>
<tr>
<td>Li Sun</td>
<td>The University of Tulsa, USA</td>
</tr>
<tr>
<td>M. Theodore Farris II</td>
<td>University of North Texas, USA</td>
</tr>
<tr>
<td>Charles R. Thomas, Jr</td>
<td>Tarleton State University, USA</td>
</tr>
<tr>
<td>Michael J. Turner</td>
<td>The University of Queensland, Australia</td>
</tr>
<tr>
<td>Kean Wu</td>
<td>Rochester Institute of Technology, USA</td>
</tr>
</tbody>
</table>
PERFORMANCE-BASED PAY, PERFORMANCE MONITORING, AND DISHONEST BEHAVIOR: THE PLOT THICKENS

Charles Bailey, Nicholas Fessler and Brian Laird

ABSTRACT
The authors investigate the joint effects of two environmental variables, performance-based pay (PBP) and performance monitoring (PM), on behavioral dishonesty in a setting where the controls subsequently are absent. In a laboratory study using 88 participants in a $2 \times 2$ experimental design, simulating a work environment, the authors manipulate the presence of PBP and PM. Once the participants are accustomed to their assigned work environment and have completed contractual tasks unrelated to the dishonesty experiment, the authors allow them to privately roll dice to determine the size of a bonus gift card. Dishonesty levels are inferred from differences between treatment groups in the prizes claimed. The authors find an interaction effect, where inferred dishonesty in the performance-based-pay group is higher than the fixed-pay group when there is no PM, but lower when there is PM. Although theory and existing literature did not lead us to hypothesize these exact results, they offer important insights into a complex relationship. By jointly examining the effects of worker contracts and workplace monitoring on dishonesty, this research extends the understanding of the potential consequences of formal controls. As the workplace grows more complex, employers increasingly rely on information provided by frontline employees and managers. Thus, unintended effects of managerial controls on honesty are an important topic in the business literature.

Keywords: Performance-based pay; compensation; performance monitoring; internal controls; honesty; arousal theory
In order to improve efficiency and maintain a competitive advantage, firms are increasingly relying on information reported by frontline employees and managers (see Evans, Hannan, Krishnan, & Moser, 2001 for a discussion). Much of this information may affect the agent’s own performance evaluation or potential future compensation and promotion. Whether it is a manager who participates in the organizational budget setting process, employees who measure the quality of their department’s work, or employees who report their own compensated work time, the opportunities and incentives to be dishonest in the workplace are substantial. Moreover, in its Economic Crime Survey, PWC Global (2014) reported that 45% of all firms in the US have been victims of economic crime in the past two years. Misappropriation of firm assets by firm insiders is by far the largest type of economic crime at 44% of all incidents. In response to the persistent problem of workplace fraud, researchers and regulators often call for more research on how to prevent and detect such behavior (Murphy & Dacin, 2011). Since accountants play a key role in developing internal controls and safeguarding firm assets, it is imperative that they understand what motivates people to be dishonest so that they can better assess risks and implement preventive and detective measures (Wells, 2001).

The specific setting that we address is one in which an employee agent has the opportunity to be dishonest for personal gain, with no perceived possibility of detection or prevention by the existing control systems. For example, controls cannot prevent every form of dishonesty, such as asset misappropriation, concealment of important information, etc., that agents may commit. When an agent experiences an opportunity to behave unethically and remain undetected (by extant control systems), the control environment that the agent has been experiencing may continue to influence their choices, perhaps with unanticipated results. In our study, the agent’s opportunity for undesirable behavior occurs outside the immediate task environment for which they have been monitored and compensated, but as part of the continuing relationship with the experimenter/principal. An important feature of our study’s experimental design is that the agent’s individual (dis)honesty is not detectable, but the effects are inferred from mean differences between treatment groups.

Research indicates that environmental factors affect an individual’s decision to be dishonest in the workplace. When a person enters an environment, it is likely that they look for cues to inform their behavior (e.g., Coletti, Sedatole, & Towry, 2005; Messick, 1999). The environmental cues interact with personal preferences and past experiences to direct the individual’s behavior. Consequently, some suggest that organizational controls may entail implicit costs brought about by people’s unanticipated reactions to their work environment. For example, while variable compensation and bonus pay may increase effort (Bonner & Sprinkle, 2002), they may also influence how employees frame decisions, causing the agent to behave more self-interestedly and less cooperatively than if they were paid a fixed wage (Frederickson & Waller, 2005; Irlenbusch & Sliwka, 2005).
Similarly, while the agent may perceive workplace monitoring as a signal of strong control and order (Niehoff & Moorman, 1993), they also may see it as a signal of distrust, decreasing the level of cooperation (e.g., Falk & Kosfeld, 2006; Frey, 1993). Coletti et al. (2005) investigate this very issue in a collaborative work setting and dispute a large body of literature which suggests that control systems reduce trust; in their study, “control induces cooperation, which, in turn, positively affects trust” (p. 496).

Reactions to organizational controls are hard to predict, and Sprinkle (2003, p. 311) notes “research consistently documents that there are a number of individual, task, and environmental factors that interact with managerial accounting practices in determining their benefits for motivational and decision-making purposes.” Examining the effects and interactions of workplace controls experimentally, in a controlled environment, can provide important insights into how workers view and react to different environmental factors. Such insights may help managers, accountants and auditors assess risks and develop more effective internal controls.

In the current research we use a 2 × 2 experimental design to concurrently investigate the effects of two common workplace controls – performance-based pay (PBP) and performance monitoring (PM) – on behavioral dishonesty in a work environment. In this study, PBP is contrasted with fixed-pay, while PM is contrasted with no PM. We chose to focus on PBP and PM for two main reasons. First, past research suggests that PBP may affect workplace honesty by altering the decision frame of the agent (Frederickson & Waller, 2005), while PM may affect workplace honesty by sending a signal of distrust (Frey, 1993). Second, we follow the call of Christ, Emett, Summers, and Wood (2012) to investigate how various aspects of internal controls may interact with incentive compensation to affect workplace behavior.

Based on past literature, we hypothesize that exposing individuals to PBP and/or PM will affect the rates of dishonesty, as compared to not being exposed to PBP and/or PM (i.e., fixed-pay and no PM). The results indicate an interaction effect of PBP and PM on dishonesty, where dishonesty is highest for individuals exposed to PBP but no PM, lowest for individuals exposed to both PBP and PM, and in-between for the other two experimental conditions (fixed-pay/PM and fixed-pay/no PM).

We provide a possible explanation for the pattern of results based on arousal theory. When individuals are exposed to monetary incentives, they enter a state of heightened arousal that intensifies their focus on monetary rewards. Once in that state, their actual behavior depends upon their perception of being monitored. This theory is supported by an analysis using data from our exit survey. When individuals exposed to PBP perceive the monitoring environment to be weak, their level of dishonesty is higher than those receiving fixed-pay; but when they perceive the monitoring to be strong, they are less dishonest than those receiving fixed pay. For those not exposed to PBP, however, the perceptions of the monitoring environment had little effect on dishonesty.
Our finding – that in a PBP environment individuals tend to become more dishonest when they feel less monitored, as compared to individuals in a fixed-wage contract – adds to the current management accounting literature, as past research has been unclear about whether a corrupting effect exists for PBP. Our results suggest that this effect does exist, and we add to the literature by showing that this corrupting effect can be fully mitigated by causing an individual to feel monitored in their PBP environment.

These results have implications in many accounting and management domains. As firms continue to seek a balance between efficiency and adequate controls, workplace ethics are of increasing interest. Understanding how environmental factors interact with each other to affect employee decision making will help in designing more effective internal controls and contracts (Sprinkle, 2003). Also, by jointly examining the effects of worker contracts and workplace monitoring on dishonesty, this research responds to Christ et al.’s (2012) call to further develop our understanding of the potential consequences of formal controls. Finally, by testing dishonesty after acclimating the participants to their conditioned work environment, we extend the work of Tayler and Bloomfield (2011) by finding that the effects of task controls persist for some time after the controls are no longer present.

The rest of this paper is organized as follows: the second section expands on the theory and background, leading to our research hypotheses. The third section describes the research design, the fourth provides the results, and the final section gives the summary and conclusion.

THEORY AND HYPOTHESIS DEVELOPMENT

The theoretical basis of “optimal contracting” is agency theory, with its *homo economicus* model of purely self-interested behavior. Under this assumption, agents will, for example, take advantage of private information to maximize their own wealth to the disadvantage of the principal (posing the moral hazard problem). Under agency theory, a compensation package focuses on financial incentives (assumed to be virtually the agent’s sole interest), and uses additional controls such as monitoring. The intent is to capitalize upon, and at the same time defend against, the agent’s intense economic focus.

In recent years, behavioral economists have challenged the descriptive validity of agency theory as well as its self-fulfilling nature in the business environment (e.g., Cohen & Holder-Webb, 2006; Stout, 2014). While not rejecting agency theory, economists have invoked a “preference for honesty” to explain why individuals do not always take maximum advantage of others when given the opportunity to do so with impunity. “But optimal contracting theory assumes such departures from the *homo economicus* model are relatively rare and random” (Stout, 2014, p. 537). Therefore, economic theory seems to treat such behavior as an anomaly, an exception to *homo economicus*, still explainable in economic utility terms.

Psychologists prefer a cognitive explanation and do not share the dismal assessment of economists.\(^3\) Mazar, Amir, and Ariely (2008) argue that individuals
are only honest enough to maintain their image of their own integrity, and Ariely (2012) summarizes the numerous studies that he and colleagues have conducted to demonstrate that humans are not *homo economicus*. For our study, however, the questions of interest concern whether two of the cornerstones of agency theory – PBP and PM – may have unintended effects on honest behavior. As Hannan, Rankin, and Towry (2006) comment, management control systems “need to be designed as ‘enablers’ of honest behavior . . ., not just as controllers and detectors of dishonest behavior” (pp. 928–929).

**The Effect of PBP on Honesty**

While extensive research exists on the effects of PBP on performance of various types of tasks, less is known about its effects on honesty. The research does, however, seem to consistently point toward a negative impact on ethical and honest behavior.

At the corporate executive level, Erickson, Hanlon, and Maydew (2006) did not find a link between executive equity incentives and accounting fraud. Denis, Hanouna, and Sarin (2006), however, find that executive stock options are positively associated with fraudulent activity. Johnson, Ryan, and Tian (2009), again at the executive level, find results consistent with Becker’s (1968) economic theory of crime, in which people are assumed to purely weigh the expected utility of the payoff against the expected disutility of detection and punishment. Harris and Bromiley (2007) extend the behavioral theory of the firm to incorporate the effect of incentives on financial misrepresentation, and they present empirical results confirming the positive relationship between stock options and financial misrepresentation.

Studies of honesty at the individual level employ experimental or survey methods. The laboratory study by Evans et al. (2001) was influential. Contrary to the prevailing agency theory assumption that preferences for honesty can be ignored, and contrary to studies that had found such preferences to be weak (e.g., Baiman & Lewis, 1989), Evans et al. (2001) find substantial honesty in managerial reporting. Also, still contrary to economic theory, they find little evidence that the level of honesty will decline as the payoff to lying increases. They do, however, find less honesty when the contract provided a smaller share of the total surplus to participants, suggesting how managers may react to perceived inequity.

Further with regard to equity, Matuszewski (2010) examines the effects of horizontal pay equity on the preference for honesty. She finds that increasing horizontal pay equity (the participant’s salary vs their peer’s salary) increases honesty – more so if the change is to increase their own pay rather than to decrease the peer’s pay.

Related research indicates that the type of contract the agent faces determines how they frame their decisions (e.g., Frederickson & Waller, 2005) or changes their psychological relationship with the principal (Fehr & Gächter, 2002; Harbring, 2010), and this psychological framing impacts the ethical behavior of individuals. Rankin, Schwartz, and Young, (2008) find that when a superior has
final authority on the budget, participants are more willing to make a false assertion of fact, a phenomenon the authors attribute to framing the situation as one of self-interested negotiation rather than an ethical matter.

In general, the research outlined above finds that contingent incentive-pay arrangements reduce honest behavior; several theories offer explanations why this might occur. A common claim is that contingent incentive-pay promotes greed and selfish behavior (e.g., Frey & Osterloh, 2005), and that something inherent in the pay-for-performance contract may fuel dishonesty. Pfeffer and Sutton (2006, p. 13) argue that pay-for-performance “drives ethical blindness.” Stout (2014) concludes that experimental gaming studies indicate

most people act as if they have at least two personalities (or, as an economist might put it, two “revealed preference functions”). One personality is purely selfish. When this personality dominates [triggered by incentive contracts], we maximize our personal payoffs without regard to how our choices affect others …. When our prosocial personality dominates, we take account of others’ interests, at least to some extent. (p. 545, emphasis in the original)

Irlenbusch and Sliwka (2005) find that incentive pay prompts individuals to focus more on their own payoffs and less on cooperation with the principal. This is consistent with a theory of decision making in social settings that Messick (1999, p. 13) describes, where one asks

“What kind of situation is this?” … When a new situation is encountered, a type of matching process is initiated in which cues from the current situation are matched against different episodes … [from past experience to determine] the “appropriate” interpretation of the situation.

As such, they are following a script or schema. Priming the individual to focus on extrinsic rewards might be considered the opposite of having them focus on a moral or ethical code, which Mazar et al. (2008) find to reduce dishonest behavior.

The pursuit of contingent rewards may increase effort and even job satisfaction, but if the interest of the agent and the principal diverge, the agent may tend to pursue their own interest more than if they worked for a fixed wage. Further, this frame of mind may carry over to the agent’s decision making on other aspects of the job, causing them to behave less cooperatively, and perhaps also less ethically.

Individuals generally are slow to change their personal norms. Tayler and Bloomfield (2011) find that environmental controls influence people’s perceptions of appropriate behaviors in their setting, and the effects persist even after the controls are changed. Thus, increased attention to extrinsic rewards, brought about by PBP, may carry over to affect honest behavior when an agent has the opportunity to benefit from being dishonest. We test this proposition by acclimating participants to PBP while they perform two tasks unrelated to the dishonesty experiment, and then testing their dishonesty by having them privately roll dice to determine the size of a bonus gift card. If PBP has a corrupting effect, we should expect to see that, all else equal, individuals acclimated to PBP will be dishonest at higher rates than individuals who are not acclimated to PBP. This leads to our first hypothesis:
HI. When individuals have an opportunity to benefit from dishonesty they believe to be undetectable, recent past exposure to PBP will increase the rate of dishonest behavior.

The Effect of PM on Honesty

As is the case for PBP, tension exists in the literature about the behavioral effects of PM, and of strong organizational controls in general.

We find several lines of research which suggest that individuals are averse to workplace monitoring. This aversion may lead to negative effects, such as less cooperation with the principal. Below we discuss three ideas derived from these lines of research.

First, research suggests that people often see PM and other workplace controls as signals of distrust, and look for opportunities to re-establish their autonomy (Spector, 1986). Falk and Kosfeld (2006) find that when principals place production hurdles on performance, the agents reduce their effort. The agents reveal, in a post-study questionnaire, that they viewed the hurdles as a signal of distrust and a limitation on their autonomy. Belot and Schröder (2013) reach a similar conclusion in an experiment wherein they hire participants for a job with several opportunities for deviant behavior (poor performance, tardiness, or theft). They find that increased monitoring on one measure (performance) leads to increased deviance in another measure (tardiness); they conclude that workers “retaliated” in some way for being monitored. Retaliation offers a motive for theft or dishonesty (e.g., Greenberg, 1990), and workers accustomed to being monitored may retaliate by acts such as asset misappropriation when they have the opportunity to do so undetected.

Second, evidence from the managerial accounting literature (e.g., Evans et al., 2001) suggests that agents often limit their dishonesty because of preferences for fairness, reciprocity, and honesty (Gibson, Tanner, & Wagner, 2012; Lundquist, Ellingsen, Gribbe, & Johannesson, 2007). However, Mazar et al. (2008) argue that individuals are only honest enough to maintain their image of their own integrity, which implies that each person has a threshold they avoid crossing. Closely monitored individuals may grow to see the external controls as the underlying reason for their honest behavior (Bem, 1967), crowding out their intrinsic preference for honesty (Deci, 1971; Frey & Oberholzer-Gee, 1997) and increasing their threshold for dishonest behavior. Thus, when the external control mechanism is removed after crowding-out intrinsic motivation, the incentive toward dishonesty may more likely prevail than if monitoring had never been introduced. If so, the more an individual feels monitored, the more likely they will be dishonest if an unmonitored opportunity arises.

Third, monitoring may facilitate rationalization, the cognitive process by which people convince themselves that a behavior does not violate their moral standards (Tsang, 2002; Murphy & Dacin, 2011). Rationalization involves a search for excuses for deviant behavior. Individuals may view monitoring as the disruption of a reciprocal trust relationship (Cialdini, 1996; Falk & Kosfeld, 2006; Frey, 1993), creating an excuse to rationalize deviant or dishonest behavior.
For instance, individuals in a monitored environment may come to see cheating as “fair game,” while those in a trusting (less monitored) environment may find it difficult to rationalize cheating.

Conversely, some research suggests that monitoring and control may increase collaboration (Coletti et al., 2005), increase conformity to norms (Tayler & Bloomfield, 2011), and increase self-awareness (Bateson, Nettle, & Roberts, 2006; Duval & Wicklund, 1972), thereby encouraging greater honesty and cooperation. In a field study, Niehoff and Moorman (1993) found that close monitoring by the supervisor positively affected the behavior of the employees because they felt that the workplace was fair and just. This finding is similar to that of Coletti et al. (2005), who find that strong controls increased cooperation among participants because individuals felt that the controls would limit opportunistic behavior by others.

Research in behavioral economics and psychology provides evidence that, when individuals are made more “self-aware” through monitoring or cues that someone is watching, they tend to act more honestly and pro-socially (Diener & Wallbom, 1976; Duval & Wicklund, 1972; Gibbons, 1990; Sewell, 1998). If these findings are generalizable, they imply that individuals tend to behave better when they know or feel that they are being watched. If the effects of controls and motivational priming persist even after the source is removed (Mazar et al., 2008; Tayler & Bloomfield, 2011), then the individual’s increased attention to monitoring may positively influence their ethical decision making even when the monitoring is removed, weakened, or not present.

In summary, monitoring may signal distrust, externalize the internal motivation to be honest, and facilitate the rationalization of deviant behavior. Alternatively, monitoring may invoke a sense of self-awareness and justice, leading to increased honest behavior. Acknowledging this tension in the literature, and the exploratory nature of the current study, we express our second hypothesis in null form:

\[ H2. \] When individuals have an opportunity to benefit from dishonesty they believe to be undetectable, recent exposure to PM will not affect the rate of dishonest behavior.

**Interaction Effects of Compensation Scheme and PM**

Given that an important motivation of the current study is to examine the effects of two environmental factors concurrently, consideration of the interactive effects of the factors is essential. That is, are the effects of PBP and PM completely independent of one another, allowing the principal to consider them in isolation, or does the effect of one depend on the presence of the other? The development of a substantive interaction hypothesis requires consideration of the following question: Under what circumstances would we expect the effect of PBP to depend on the level of PM (or vice versa)? In the current study, the following two scenarios have substantial potential to represent interactions:

**Scenario A:** Both PBP and PM promote unethical behavior. In this scenario, there are several possible combinations of their effect. For example, the two
effects could be additive (i.e., independent, with no interaction). Alternatively, either PBP or PM, in isolation, might be sufficient to promote a dishonest act in our experimental setting, so that adding either one to the other would cause little difference. Conversely, the effects might be super-additive or multiplicative, such that one causes little effect in isolation, but a “tipping point” is reached with the addition of the second factor. Finally, individuals might see PBP without PM as a signal of weak controls, increasing the rates of dishonest behavior, but see PBP with PM as a signal of strong controls, decreasing the rates of dishonest behavior.

Scenario B: PBP promotes unethical behavior, but PM does not (consistent with the weaker theoretical support we find regarding PM). In this scenario, the potential sustained effect of PM is that participants may still feel monitored; and this feeling of being monitored would have an effect only if the individual received PBP and the related influence to behave unethically.

Thus, interactions are inherent to the joint study of PBP and PM, and cannot be ignored. It is difficult to predict, however, whether a specific interaction will occur, and what form the interaction will take. In the absence of any strong theoretical support for a specific interaction effect, we express our inquiry as a research question:

RQ. What interaction effects exist between PBP and PM, with respect to the rate of dishonest behavior?

RESEARCH DESIGN

This study employed a $2 \times 2$ experimental design, in a computer lab at a large public university, as approved by the university’s Institutional Review Board. Each cell includes 22 participants, for a total of 88. A diverse group of volunteers were recruited, through the university email newsletter, flyers, and word of mouth, with the requirement that they be 18 years or older. Appendix 1 shows the demographic questionnaire that participants completed upon arrival, while Table 1 shows the demographic statistics by treatment group.

The PBP and PM treatments, described below, were implemented in a separate study by the same researchers, in the same laboratory, immediately preceding the current experiment. With respect to the current study, this preceding experiment served two important purposes: it ensured that the participants were thoroughly acclimated to the PBP/PM treatment combinations after roughly an hour in that environment, and it served as a distractor to avoid participants’ expecting an ethics-related experiment.

**Experimental Treatments**

As mentioned above, participants had been acclimated to a compensation condition and a monitoring condition during the immediately preceding experiment.

For the compensation condition, those in the PBP treatment were paid on a piecework basis, while those in the fixed-pay treatment were told beforehand that
Participants in the PBP condition did not learn their exact pay until after their decision to report honestly or dishonestly. There was no correlation between pay or performance on the tasks in the preceding experiment and the size of the gift card taken in the current experiment, and we are aware of no omitted variables that might have affected the results of the current study.

For the monitoring condition, they had been assigned to either a PM treatment or a no-PM treatment. Those experiencing the PM treatment saw a webcam at their workstation when they arrived, which appeared to focus on their work area (i.e., keyboard, papers, and computer screen). We chose electronic monitoring rather than human monitoring to ensure that the monitoring would be constant and equal for all participants, in all of the experimental sessions. A researcher and assistant sat at the back of the room in what was referred to as the monitoring station; individuals in this treatment were told, before receiving any task instructions, that their work habits would be monitored with cameras, and

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Fixed Pay</th>
<th>Performanced-based Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Monitoring</td>
<td>Electronic Monitoring</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>21.04</td>
<td>21.22</td>
</tr>
<tr>
<td>Business Student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Student</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Non-business Student</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>College Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Graduate</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Used Excel Before</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Perform Under Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

*Notes: Data obtained from the survey in Appendix 1. Two questions are omitted from this table, as no respondents were international students and 100% spoke English as their native language. The last two questions were relevant only to the experiment that preceded the current study. No correlations were found between the demographics and the independent or dependent variables for this study (α = 0.10, Bonferroni adjustment applied).*
that the researcher would be monitoring their performance from the monitoring station. Those in the no-PM condition (completely separated treatment groups) did not have a web-cam at their workstation, and the researcher quietly exited the room a few seconds after each task began and returned when time was up for each task. All other instructions were the same.

**Honesty Assessment Task**

We wanted a task that would allow participants an opportunity to misappropriate assets for profit without fear of detection, and which would be representative of a variety of such opportunities that workers experience. For example, it is reasonably common for employees to misstate expense reports, pilfer supplies, and otherwise misappropriate the organization’s assets (ACFE, 2016, p. 18).

The task we chose is as follows: after our participants were exposed to the treatments during the preceding work session and answered the exit questionnaire (Appendix 2), we offered them an unexpected bonus exercise, containing an opportunity for undetectable dishonesty. They were informed that they would receive a bonus restaurant gift card for their participation, and that the value of the card would be determined by a roll of dice. The researcher gave the participants a small solid canister containing two dice, telling them to place their hand over the canister, shake it, check their roll, and pass it to the next participant. If their roll showed either 10, 11, or 12 they would receive a $10 bonus gift card, but if they rolled any other number they would receive a $5 gift card. The canister set-up ensured that the roll was private and not visible to potential observers (nor to the camera that was used as the manipulation for PM); it is the same approach used in other studies of honesty in reporting (Shalvi, Dana, Handgraaf, & DeDreu, 2011; Fischbacher & Föllmi-Heusi, 2013; Ruffle & Tobol, 2014). Based on the private dice roll, they discreetly claimed their $5 or $10 gift card. No one could know which individuals were dishonest, but statistical inferences concerning the levels of cheating within and across each treatment combinations are possible, allowing both descriptive analyses and hypothesis tests.

**ANALYSIS OF RESULTS**

Our analysis follows three phases. First, we describe the data, assess the effectiveness of the experimental manipulations, and examine the data for possible confounding effects. Second, we statistically assess the levels of apparent dishonesty, overall and by treatment group, to describe the pattern of results. Third, we perform a logistic multiple regression to assess the main and interactive effects of the PBP and PM factors on dishonesty, followed by an analysis of simple effects in view of the interaction.

**Assessment of Treatment Effects and Potential Confounds**

The questionnaire administered immediately after participants had completed the previous session, and immediately before our honesty-assessment task, included questions to assess participants’ affective reactions to the two
experimental treatments (Appendix 1). Four of the questions are relevant to the treatment effects, and differences between treatment groups are highly significant in two-tailed t-tests, in the expected direction. Both question 1 (“I felt like I was monitored...”) and question 6 (“...I felt trusted...”) concern PM; when PM was present, the mean response to question 1 was higher ($p < 0.001$) and the mean response to question 6 was lower ($p = 0.005$). Regarding PBP, the mean responses to both question 2 (“I felt like my compensation ...was based on my performance...”) and question 9 (“As I performed the work tasks I thought about the compensation...”) were higher ($p < 0.001$) in the incentive-pay group. Given the subjective, affective nature of these responses, we cannot identify manipulation failures, but we eliminated 17 participations whose responses are towards the “wrong end” of the scales, and the analytical results were consistent with the full sample. Combined with the fact that our manipulations were extremely salient to participants, these mean differences add assurance that the manipulations were successful.

As a preliminary step, we examined the data for potential confounding (internal validity threats) from extraneous variables. Our demographic data include gender, age, business-student status, and tiredness, all of which have been implicated in the literature as affecting ethical behavior. In our data, however, none of these variables are correlated with either the independent or the dependent variables in the study reported here ($\alpha = 0.10$, Bonferroni adjustment applied). Finally, these demographic variables do not alter the results reported below if included as covariates, so we do not discuss them further.

### Levels of Honesty Overall and by Treatment Group

The special dice in the experiment contained numbers such that the probability of an individual rolling a 10, 11, or 12, and winning a large ($10) gift card, was 0.1111. Since we know the number of large gift cards taken in each treatment group (noted as “$k$”), we can use the binomial test to calculate the probabilities that an observed outcome could occur naturally by chance. While not a direct examination of the hypotheses, these binomial tests have descriptive value concerning the inferred levels of dishonesty. In our sample of 88, if everyone were honest, we should expect $k$ to be close to 9.77. However, $k$ was equal to 28, where 31.82% of participants claimed to have rolled 10, 11, or 12 and took the larger gift card. The probability of this occurring ($k \geq 28$) is less than 0.0001. Thus, it is likely that the card choices reflect substantial dishonesty. Table 2 shows the numbers of $5 and $10 gift cards claimed in each treatment group, along with the results of the binomial tests discussed below.

Applying the binomial test within each of the four treatment groups indicates a high likelihood that dishonesty was prevalent in three of the four treatment cells. Each cell includes 22 participants, so the expected $k$ for each cell is 2.44. One-tailed binomial tests indicate that the only cell apparently passing the honesty test is the cell where both PBP and PM are present. In this cell we observe a $k$ of 2 (probability of $k \geq 2$ is 0.719). In the three other cells, participants claimed the larger cards in numbers unlikely to occur by chance ($p < 0.01$).
**Table 2.** Summary of Bonus Gift Cards Claimed by Treatment Group.

<table>
<thead>
<tr>
<th>Treatment: No PM and Fixed Pay</th>
<th>Gift Card</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>15</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>7</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Binomial Test:</td>
<td></td>
<td></td>
<td>$P(k \geq 7) = 0.0078$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment: No PM and PBP</th>
<th>Gift Card</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>11</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>11</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Binomial Test:</td>
<td></td>
<td></td>
<td>$P(k \geq 11) = 0.0001$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment: PM and Fixed Pay</th>
<th>Gift Card</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>14</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>8</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Binomial Test:</td>
<td></td>
<td></td>
<td>$P(k \geq 8) = 0.0017$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment: PM and PBP</th>
<th>Gift Card</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>20</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>2</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Binomial Test:</td>
<td></td>
<td></td>
<td>$P(k \geq 2) = 0.7184$</td>
</tr>
</tbody>
</table>

Notes: This table shows the number of large and small bonus gift cards taken by each treatment group. The probability of legitimately getting a large ($10) gift card by the dice roll was 0.111, and the probability of a small ($5) gift was 0.889. Below the descriptive statistics for each cell are the results of binomial tests, showing the probability (one-tailed) that this many or more $10 cards would be won by chance.

*Fig. 1* shows a plot of the honesty-assessment task results by cell, representing a clear interaction. This initial view of the results suggests that, when compared to flat pay, PBP in the absence of PM increases dishonesty, but PBP in the presence of PM decreases dishonesty. With reference to our discussion above, where we developed the research question about interactions, this seems to indicate that individuals might see PBP without PM as a signal of weak controls, increasing the rates of dishonest behavior, but see PBP with PM as a signal of strong controls, decreasing the rates of dishonest behavior.

**Combined Analysis**

An appropriate statistical model is a logistic regression of the treatment variables (presence of absence of PBP and PM) on the binary dependent variable of taking (or not taking) the larger gift card, the results of which appear in Table 3. As would be expected from the pattern seen in *Fig. 1*, the PBP × PM interaction is significant ($p = 0.019$). *Fig. 1* also shows that the average effects of both PBP
and PM across both levels of the other factor are small, as reflected in the non-significant main effects of PM and PBP. The simple effect of PM under the PBP condition (represented by the dashed line in Fig. 1), is significant (untabulated, Chi-square = 8.84, \( p = 0.003 \), two-tailed), but the simple effect in the fixed-pay condition is not significant (\( p = 0.75 \)).

Thus, the main-effect hypothesis regarding PBP (\( H1 \)) is not supported, while the null hypothesis concerning monitoring (\( H2 \)) is rejected contingent on pay scheme. Our research question, concerning “what interactions exist,” led us to consider explanations that may guide further research. We do find an interaction: a substantial effect of incentive pay increasing dishonest behavior in the absence of monitoring, but monitoring deterring dishonesty in the incentive-pay

**Table 3.** Logistic Regression of Effects of Treatment Variables on the Taking of a Large Gift Card.

<table>
<thead>
<tr>
<th></th>
<th>( B )</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>0.203</td>
<td>0.637</td>
<td>0.101</td>
<td>1</td>
<td>0.751</td>
</tr>
<tr>
<td>PBP</td>
<td>0.762</td>
<td>0.626</td>
<td>1.484</td>
<td>1</td>
<td>0.223</td>
</tr>
<tr>
<td>PM ( \times ) PBP</td>
<td>(-2.505)</td>
<td>1.067</td>
<td>5.516</td>
<td>1</td>
<td>0.019</td>
</tr>
<tr>
<td>Constant</td>
<td>(-0.762)</td>
<td>0.458</td>
<td>2.772</td>
<td>1</td>
<td>0.096</td>
</tr>
</tbody>
</table>

Nagelkerke \( R^2 = 0.148 \).

Notes: PBP is coded 0 for fixed pay, 1 for incentive pay. PM is coded 0 for no PM, 1 for electronic monitoring.

The logistic regression predicts log-odds that convert to the proportions of $10 gift cards claimed by participants in each treatment group. For example, in the cell where PM = 1 and PBP = 1, Logit = \(-0.762 + 0.203 + 0.762 - 2.505 = -2.297 \). From this, the probability of choosing $10 gift card = \( 1/(1+e^{-2.297}) = 0.091 \), the proportion taken by that treatment group.
condition. Although theory and existing literature did not lead us to hypothesize these exact results, they offer important insights into what our research suggests is a complex relationship.

**DISCUSSION AND CONCLUSIONS**

In this study, we hypothesized that exposing individuals to PBP would increase the rate of dishonesty, when the individuals have the opportunity to be secretly dishonest. Our hypothesis follows the literature that suggests PBP changes the way individuals frame their decisions (Frederickson & Waller, 2005) and/or causes them to focus on extrinsic rewards, both of which could lead to less cooperation and higher rates of dishonesty.

With respect to the effects of PM on honesty, we find more tension in the literature. One body of literature suggests individuals are averse to being monitored (Falk & Kosfeld, 2006) and see PM as a signal of distrust (Frey, 1993), which could lead to less cooperation and higher rates of dishonesty. Conversely, a substantial body of research indicates that monitoring may increase collaboration (Coletti et al., 2005), increase conformity to norms (Tayler & Bloomfield, 2011), and increase self-awareness (Bateson et al., 2006; Duval & Wicklund, 1972), thereby encouraging greater honesty and cooperation. Contextual factors in the principal–agent relationship may cause monitoring to be framed positively or negatively, as indicated in Niehoff and Moorman’s (1993) finding that close monitoring by a supervisor positively affected the behavior of the employees because they felt that the workplace was fair and just.

Our results indicate that the compensation arrangement and monitoring environment are intertwined and their effects are interactive. We find that PBP results in substantial dishonesty in the absence of PM, but much less dishonesty in the presence of PM. This may help to explain some of the inconsistent results in the literature surrounding compensation, monitoring, and behavior, including behavioral honesty.

The interaction, depicted in Fig. 1, clearly indicates that PM is important in the presence of PBP. What makes the interpretation challenging, however, is that the lines cross (it is a disordinal interaction). In the fixed-pay condition, the inferred dishonesty (large cards taken) is not statistically different with and without PM, but is fairly high in either instance. Thus, the contrast in means seems to indicate that PBP leads to higher dishonesty when PM is absent but lower dishonesty (statistically zero in the experiment) when PM is present. As already noted, perhaps individuals see PBP without PM as a signal of weak controls, increasing the rates of dishonest behavior, but see PBP with PM as a signal of strong controls, decreasing the rates of dishonest behavior.

A further explanation for the pattern of results may lie in arousal theory (Hecht, Tafkov, & Towry, 2012; Humphreys & Revelle, 1984; Yerkes & Dodson, 1908). When individuals are exposed to monetary incentives, such as PBP, they enter a state of heightened arousal or stress (Bonner & Sprinkle, 2002, p. 320) that strengthens their focus on monetary rewards. Absent any other influences,
this arousal state leads to an increase in dishonesty. However, this inclination towards dishonesty is heavily tempered by the individual’s perception of being monitored. In such an aroused state, the individual may experience heightened suspicion and concern about detection, despite our efforts in the experiment to ensure the privacy of their dice roll. More research should be done to determine to what extent PBP arouses individuals, and to what extent arousal affects ethical behavior in the workplace.

Despite substantial literature streams concerning the adverse effects of monitoring and control, we did not find evidence that individuals retaliate for monitoring with dishonest behavior. We did find some evidence for the contrary, that when individuals in a PBP environment feel strongly monitored they become more honest, even in private decisions. This evidence is consistent with literature streams that suggest individuals tend to become more honest and self-aware in monitored environments (Bateson et al., 2006; Duval & Wicklund, 1972). Since individual perceptions of social norms seem to persist for some time (Taylor & Bloomfield, 2011), exposing individuals to monitoring may cause them to be more honest, even when the monitoring is removed or weakened. This finding may be of interest to those concerned with internal controls, since it suggests that monitoring controls may be effective even if they do not cover every aspect of a job design, as long as they are perceived as strong on some aspects. However, more research should be done to establish the links between an individual’s perception of their environment and their behavior. For instance, it may be possible to estimate or predict the rates of dishonesty for certain work environments based on the workers’ perceptions of the control strength.

Lastly, the results of this paper may serve as a caution to those who believe that PBP and strong incentives are a quick solution to many performance problems. We find that, absent other strong controls, PBP seems to arouse and prime the agent towards monetary rewards, causing them to become more dishonest. This finding is similar to other research that finds PBP leads to less cooperation (Irlenbusch & Sliwka, 2005). However, our results suggest that it is possible for PBP to offer employers the best of both worlds (performance improvements and high levels of cooperation) when combined with other strong controls, such as PM. This finding helps to explain why many successful companies use a mixture of PBP and PM in their internal control configuration (Ittner, Larcker, & Meyer, 2003; Simons, 1995).

Echoing Christ et al.’s (2012) call, we believe that many more interesting inquiries can be made into the effects of PBP, internal controls, and employee cooperation. However, since many interactions may occur (Sprinkle, 2003), some unexpectedly, we believe that researchers should continue to consider complex research designs which reflect the richness of a real work environment.

ACKNOWLEDGMENTS

We appreciate the help of research assistants Rebecca Taylor and Jaime Laird. The comments from Tim Fogarty and an anonymous reviewer for the 2016 Research Ethics Symposium at the AAA Annual Meeting were invaluable. Brian
Laird received support from Arkansas State University in the form of a summer research grant. The work also was supported in part by a grant from the Fogelman College of Business and Economics at the University of Memphis. This research support does not imply endorsement of the research results by either the Fogelman College or the University of Memphis.

NOTES

1. Several cases in the recent past have shown that lower level employee/managers often hide quality problems from superiors, often leading to economic losses and, sometimes, injury. For one notable case, see http://www.nbcnews.com/id/21905430/ns/business-autos/t/whistleblower-toyota-gm-plant-hid-defects/.

2. This feature protects the anonymity of all participants, including those who may have chosen to behave dishonestly.

3. Salterio and Webb (2006) observe, Indeed, economists expect to find that nearly everyone is willing to lie [in one-time, anonymous interactions with no monitoring or accountability]. Even with these conditions in place, experimental evidence shows that up to 35 percent of participants consistently tell the truth […]. Conversely, social psychologists, sociologists, and philosophers, many of whom believe that people are inherently honest, are disappointed to find that only a small fraction of people (less than 10 percent) report that they will be honest in all situations. (p. 920)

4. For example, Alan Greenspan, former Chairman of the Federal Reserve Board, in his semiannual monetary policy report to Congress on July 16, 2002, speculated about the causes of the accounting frauds as follows: “An infectious greed seemed to grip much of our business community […]. The incentives they created overcame the good judgment of too many corporate managers.” The transcript of this meeting can be seen at http://www.federalreserve.gov/boarddocs/hh/2002/july/testimony.htm.

5. We do not view our current study as “performance spillover,” which Hecht et al. (2012, p. 564) characterize as “the influence of partial incentives on rewarded task performance [spilling] over to positively influence unrewarded task performance as well” (emphasis added). We do not see the unintended negative effects of reward systems as fitting that model.

6. Bem’s (1967) self-perception theory posits that often individuals form attitudes and thoughts to conform with their behavior, not the other way around. In a sense, we become like an observer, looking for causes of our own behavior.

7. The excluded scenarios involve a null effect of PBP. In that case, regardless of the effect of PM, we do not see how PBP could interact as a mediator or moderator of PM.

8. All participants performed two experimental tasks, unrelated to ethics, in the preceding experiment. They performed an algorithmic clerical task for 30 minutes, and a word-association puzzle task for 30 minutes. There was no significant correlation between the performance on the clerical and puzzle tasks in the preceding experiment and the size of the gift card chosen in the current experiment, and no known reason why performing the preceding tasks might have affected the outcomes of the current study.

9. The PBP participants received slightly less ($15.34) than the average of $16 that we had anticipated, but they were unaware of the other group’s compensation and apparently were satisfied. On the Exit Questionnaire (completed before learning about the bonus cards), PBP participants agreed more strongly than fixed-pay participants ($p = 0.012$) with the statement “At a later date, I would like to do these tasks again for the same compensation.”

10. Individual dishonesty was undetectable, but we could make statistical inferences about the treatment groups.
11. Each workstation had two small envelopes at the back of the computer tower. One envelope was labeled $5 and the other $10. Both were face down so that the labels were not visible prior to the honesty test.

12. The significance of the interaction in logistic regression drops from 0.019 to 0.053. The binomial tests (Table 2) are significant at p-values comparable to the full sample, as are the tests of simple effects reported below.

13. Participants were recruited for pay, and thus interested in the information we gave them about the pay scheme. Second, the monitored participants saw a camera aimed at their work station and told they would be monitored, while the unmonitored group was given no indication of monitoring, and the experimenter left the room.

14. One die had only the numerals 1, 3, and 5, each appearing twice on opposite faces; the other had only 2, 4, and 6, each appearing twice. We made no assertion to participants about the nature of the dice, and the gift card was an unpromised bonus. Thus, we determined that it was not necessary to debrief them that the probability of winning the larger card was 0.1111 instead of the 0.1667 probability associated with standard dice.

15. Recall that our study’s dependent variable of dishonest behavior involved the opportunity for participants to take a larger gift card despite a private dice roll that warranted a smaller gift card.

16. Recall that participants had completed the tasks that allowed monitoring by the camera, and had no reason to believe the camera could have captured the secret roll of dice inside the canister. Nonetheless, the feeling of being monitored surely persisted. As noted above, the debriefing item “I felt like I was monitored …” produced a mean response was 5.75 (SD 2.66) in the monitored condition, and 2.18 (SD 1.77) in the non-monitored condition, a difference significant at p < 0.001.

REFERENCES


APPENDIX 1: DEMOGRAPHICS QUESTIONNAIRE
CIRCLE APPROPRIATE RESPONSES

1) I am: Male  Female
2) My age is ________.
3) I consider myself to be primarily…
   a) An international student  Not an international student
   b) A business student  Not a business student
   c) An undergraduate student  A graduate student
4) I am more tired today than I usually am: Yes  No
5) I have used MS Excel (spreadsheet) for common tasks or projects: Yes  No
6) English is my native language: Yes  No
7) I perform well under pressure: Yes  No
APPENDIX 2: QUESTIONNAIRE AFTER COMPLETING PRELIMINARY TASKS

With 1 being “I completely disagree” and 10 being “I completely agree,” circle the number that best describes your agreement with the statement.

1) I felt like I was monitored, or being watched closely, while I performed my work tasks.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

2) I felt like my compensation, or pay, was based on my performance for my work tasks.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

3) I enjoyed the data-correction task, where I corrected the invoices in the spreadsheet.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

4) I enjoyed the word-association task, where I solved for the word using the clues.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

5) When I performed my work tasks I felt nervous, pressure to perform, or distracted.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

6) When I performed my work tasks I felt trusted, free to work at any pace, and relaxed.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

7) I feel like the compensation, or pay, for each task was fair for the work I performed.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

8) The work I performed made me more tired than I normally feel during the day.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

9) As I performed the work tasks I thought about the compensation I was earning.
   Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree

10) At a later date, I would like to do these tasks again for the same compensation.
    Disagree --- 1 2 3 4 5 6 7 8 9 10 --- Agree