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# Firing threats: Incentive effects and impression management ☆

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ABSTRACT

We study the effect of firing threats in a virtual workplace that reproduces features of existing organizations. We show that organizations in which bosses can fire up to one third of their workforce produce twice as much as organizations for which firing is not possible. Firing threats sharply decrease on-the-job leisure. Nevertheless, organizations endowed with firing threats underperformed those using individual incentives. In the presence of firing threats, employees engage in impression management activities to be seen as hard-working individuals in line with our model. Finally, production levels dropped substantially when the threat of being fired was removed, whereas on-the-job leisure surged.



## 1. Introduction

In settings in which employers are unable to provide individual incentives to workers, the threat of being fired becomes an essential feature of an employment contract (Becker and Stigler, 1974; Klein and Leffler, 1981; Shapiro and Stiglitz, 1984; MacLeod and Malcomson, 1989). At the empirical level, researchers have attempted to assess the effectiveness of firing threats by studying employment protection legislation. For example, Ichino and Riphahn (2005) study absenteeism levels of the workers of an Italian bank before and after a probationary period. The authors report an increase in the level of absenteeism after the probationary period suggesting a negative incentive effect of employment protection. Similarly, Riphahn (2004) shows a negative relationship between employment protection and the level of absenteeism of German workers. Recently, Jacob (2013) reports a 10% decrease in absenteeism levels after principals were allowed more flexibility in firing teachers in the public schools system in Chicago. Interestingly, Jacob (2013) distinguishes incentive and selection effects of the newly implemented policy, and shows the prevalence of selection over incentive effects. These studies provide field evidence that restricting dismissal policies is likely to foster absenteeism which could in turn reduce workers' performance.

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In this paper, we propose a different approach by assessing the impact of firing threats in a laboratory environment in which we directly assess the incentive effects of firing threats. In addition to obtaining direct measures of productivity and shirking behavior, the laboratory setting allows us to control for possible confounding factors such as firm size, industry structure, job characteristics, demand shocks, and organizational design.

Our aim is to complement previous research by measuring directly workers' effort, productivity and shirking behavior and assess the magnitude of incentive effects which were found to be modest in the field (Jacob, 2013). To that end, we study firing threats within a virtual workplace that reproduces features of existing organizations such as real effort tasks, real-time monitoring, on-the-job leisure (Internet browsing) and chatting (Corgnet et al., forthcoming).[1] We study organizations in which bosses are endowed with a real-time monitoring technology so as to assess the work of their nine employees in each of the five periods of the experiment. In addition, we gave organizational members access to an electronic chat room to exchange messages during the experiment.

We consider three types of incentive structures. In all cases subjects received the same fixed wage at the beginning of each period regardless of pending work productivity. Under the fixed wage treatment employees received no further incentives, while under firing threats they could be fired. Under individual incentives employees could not be fired and each employee was rewarded the entire income generated by his or her individual production on the work task. In the fixed wage and firing threats treatments the boss kept all the income generated by all members of the organization. Under firing threats, the boss was also given the option to dismiss one employee at the end of each of periods 2, 3, and 4.[2] Bosses saved on labor costs after firing employees as they would not have to continue to pay their fixed wages. Subjects who made it to the start of the last period without being fired found themselves with de facto tenure for that final production period.

Our analysis relates to the seminal work of Brown et al. (2004) which studies a repeated principal-agent model à la Fehr et al. (1993) in which there is an excess supply of agents. In this setting, principals and agents can sign one-period contracts which specify a fixed payment from the principal to the agent and a desired but non-enforceable level of transfer from the agent to the principal. A crucial difference with the original setting of Fehr et al. (1993) is that the authors allow for reputational concerns and long-term contracts by keeping subjects' identification numbers constant across periods. The authors find that principals and agents were willing to develop long-term relationships which in turn resulted in high levels of transfers. The findings in Brown et al. (2004) are in line with the disciplining version of the efficiency wage hypothesis according to which a combination of high wages and threat of dismissal leads to high levels of effort.

In a recent experimental study, Falk et al. (2011) extend the work of Brown et al. (2004) by introducing barriers to dismissals. The authors show that dismissal barriers tend to deter principals from building long-term relationships with agents. This is the case because agents' transfers are significantly reduced when the threat of being dismissed by the principal is eliminated. Note that in Brown et al. (2004) and in Falk et al. (2011) dismissals occur either because the principal signs a one-period contract with another agent or because the agent quits. Even though this contractual design constitutes a privileged setting for studying relational contracts and dismissal barriers, it cannot isolate the effect of firing threats from the effect of quitting. In the present study, we abstract away from career concerns and labor markets and focus on the impact of firing threats on organizational behavior.

Outside the laboratory, a number of studies using archival data have documented pervasive incentive effects by comparing work performance under hourly wages and piece rates (e.g. Lazear, 2000; Shearer, 2004). Also, recent research using data from a large US firm during the 2008 recession suggests that the intensification of firing threats during the economic downturn may explain the increase in productivity and work effort during the period (Lazear et al., 2013). In contrast to previous research, we study firing threats in a laboratory environment in which we can directly control for the intensity of firing threats as well as observe managers' firing decisions. In our setting, we assess the effect of different incentive schemes on workers' behavior inside firms. This includes the analysis of work effort, on-the-job leisure and workplace communication in addition to standard measures of work performance such as productivity.

We found that organizations in which bosses were allowed to fire their employees produced twice as much as organizations which only relied on the payment of fixed wages. This was the case even though by the end of the experiment organizations which could fire employees were about 30% smaller than those that could not. Firing threats also decreased Internet usage and chatting activities by 77.7% in those periods in which the threat of being fired was present. Remarkably, firing threats reduced leisure activities and increased production levels for both low- and high-ability workers. Nevertheless, the incentive effect of firing threats was not as compelling as those of individual incentives, as organizations endowed with individual incentives outperformed those endowed with firing threats by 43.3%. Also, the implementation of firing threats required significantly more monitoring effort (12.5% of managers' time) than the implementation of individual incentives (only 2.5% of managers' time) making it a less appealing option for managers. Interestingly, leisure activities were as low in the presence of firing threats as they were under individual incentives. As a result, the difference in workers' production levels between the two treatments was due to a discrepancy in productivity levels rather than to a difference in working time. These findings suggest that in the presence of firing threats, employees were willing to signal themselves as hard-

[1] This experimental platform was built in line with previous research introducing real-effort experiments in the study of labor issues (e.g. Dickinson, 1999; Van Dijk et al., 2001).

[2] Workers could not be rehired by the boss in the rest of the experiment.