# Understanding the Preferences and Productivity of Workers in the United States

**Researchers:**

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**Sector(s):** Firms, Labor Markets

**Location:** United States of America

**Sample:** 446 subjects

**Target group:** Workers

**Outcome of interest:** Employment Productivity

**Intervention type:** Monetary incentives Non-monetary incentives

**AEA RCT registration number:** AEARCTR-0000502

**Partner organization(s):** University of Chicago, Shirley Ryan AbilityLab (formerly Rehabilitation Institute of Chicago), Breakthrough Urban Ministries , Respond Now

Understanding workplace incentives and the motivations of workers is important for increasing workplace productivity and organizational efficiency. Many have suggested that employees are altruistic, willing to work harder when they believe that the amount of effort they exert in their job directly translates into value for their organization. Researchers conducted a randomized evaluation to measure the impact of different employee and employer payoffs on the productivity of workers hired to stuff envelopes for either one of several charities or for a grocery store. The results indicate that employees were more productive when compensated, in part, for the number of envelopes they completed. Furthermore, workers were more likely to exert effort when their work was of value to their employer but did not increase their effort when the value to their employer was greater. Workers did not change their effort in response to receiving a surprise increase or decrease in pay.

## Policy issue

What motivates workers to work hard? The incentive to earn money plays an important role, yet many jobs do not base pay on workers' productivity. Do workers feelings towards' their employers also play a role? Are they motivated by wanting to contribute to an organization, and does the specific value oftheir contribution matter? Understanding the role that workers' feelings towards their employers play in motivating workers is important for improving workplace productivity and organizational design.

## Context of the evaluation

Researchers hired workers for a one-time, six-hour task of stuffing envelopes for three local Chicago social service organizations and a grocery store through job listings posted on craigslist.com. The Becker Institute at the University of Chicago facilitated the temporary employment, and all work was paid for by the partnering charities. The workers who were hired varied in age. About 60 percent of the workers were unemployed, and just over half were female.




Workers handle mail in the United States.

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### Details of the intervention

Researchers conducted a randomized evaluation to measure the impact of different employee and employer payoffs on the productivity of the 446 workers. Workers completed this task across ten rounds, and each round was twenty minutes long. Researchers measured the number of envelopes prepared in each round and gave some of the participants a short debriefing survey at the end of the exercise.

The rounds differ in both the wage structure and the expected revenue for the employer. Researchers randomly assigned workers to complete the rounds in one of two orders, in order to separate the effect of the changes in wage structure and expected revenue from the effects of learning or tiredness over the course of the day.

At the beginning of the day, workers received a timeline listing one of three wage structures for each of the first eight rounds: i) $7 flat pay per round; ii) $3.50 flat pay, plus 10 cents per envelope stuffed; or iii) no flat pay, 20 cents per envelope stuffed. Each wage structure was designed to keep earnings constant for a worker of average productivity. Variations in the wage structure were designed to measure the impact of outcome-based pay.

At the beginning of each of the first eight rounds, workers were also informed of the expected revenue for the employer. These variations were intended to measure whether employee effort changes based on the value of the work to the employer. Workers were informed of four possible returns for the employer:

- *Training rounds* – These rounds were for quality assurance, but all envelopes would be discarded and would not result in any direct donations to the charity (two rounds).
- *Regular rounds* – Each envelope stuffed would return approximately $0.30 in donations to the charity (three rounds).
- *Donor rounds* – Due to a donor grant that matched every dollar raised, each envelope stuffed would return approximately $0.60 in donations to the charity (two rounds).
- *Firm round* – Each envelope stuffed would benefit a grocery store rather than a charity (one round).

For the 9th and 10th rounds, workers were randomly assigned to either receive the regular compensation of $7 flat pay per round or to receive one of three surprise increases or decreases in pay: i) a pay increase to $14 flat pay; ii) $7 flat pay plus a giftwrapped thermos worth $14; or iii) a pay cut to $3 flat pay.

## Results and policy lessons

Overall, the results suggest that workers exerted substantially more effort when their work was of value to their employer, but they were not sensitive to the size of the value to the employer. These results indicate that worker's feelings towards their employers did play an important role in motivating workers and may potentially substitute for other types of incentives, such as outcomes-based pay.

*Outcome-based pay*: Results indicate that workers were more likely to exert effort if they had outcome-based pay. Increasing the payment per envelope from 0 cents to 20 cents increased average output by four envelopes, from an average rate of 34 envelopes (a 12 percent increase). Conversely, when payment per envelope switched from 20 cents to 0 cents, average output decreased by four envelopes.

*Returns to the employer*: Workers were more productive during regular rounds, when their work was of value to the employer, compared to the training rounds, when their envelopes were discarded. Specifically, worker effort increased by 3.5 envelopes on average during regular rounds compared to 36.5 envelopes during the training rounds (a 10 percent increase). However, when compared to regular rounds, there were no significant increases in output during donor rounds, when every envelope was twice as valuable to the employer. This suggests that workers were more motivated when they knew that their employer valued their work, but this motivation did not change based on the size of that value.

In addition, employee effort was somewhat higher in the firm round, compared to the rounds for charities. This suggests that employees were willing to work at least as hard for the corporate employer as they were for the charities.

*Surprise Gifts*: Researchers did not find any significant effects of the "gifts"—surprise increases or decreases in pay—on worker productivity. Two possible explanations for this result are that the impact of such gifts may be smaller than expected, or that gifts may be more effective when introduced initially, as opposed to during an ongoing work relationship, as was the case in this instance.