

Do performance-based payment schemes make you work longer and harder?

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Many workers, particularly those in occupations with high status and pay, work long hours, sacrificing valuable leisure and family time. One possible explanation for this increased labor supply has been provided by tournament theory, which predicts that competition among employees for pay and promotions would induce greater effort on the job. In a recent article titled [“Does workplace competition increase labor supply? Evidence from a field experiment”](#) (National Bureau of Economic Research, Working Paper 25948, June 2019), economists Amalia R. Miller, Ragan Petrie, and Carmit Segal use a field experiment to test this prediction, finding strong evidence in its support.

The authors’ experiment involves undergraduate students tasked with performing computer-related work for a maximum of 40 minutes, with the exact time spent on the task (extensive margin) and the effort exerted per unit of time (intensive margin) left at the discretion of the students. The participants are divided into gender-balanced groups based on two payment schemes—a competitive scheme, in which workers are offered a bonus for superior effort and performance, and a noncompetitive scheme, in which they are paid a fixed wage without the opportunity to earn a bonus. The minimum time for performing the work is set to 10 minutes.

To control for unobserved variables and rule out alternative causal channels, the authors’ research design imposes a few additional constraints. First, the tasks and conditions involved in the experiment are the same for all participants, eliminating any technology-related variations in productivity. Second, none of the participants is told in advance about the possibility of receiving a performance-based pay, with the goal of ruling out worker self-selection in the competitive payment scheme. Third, all participants are informed about the nature of the work and its high importance to the employer, an approach aiming to account for motivational and commitment mechanisms that might boost labor supply.

The results from the experiment show that competitive incentives matter on both the extensive and intensive margins. Although about 58 percent of participants in the noncompetitive payment scheme worked longer than the minimum time allotted for the task, a third stopped working within seconds of that time and less than 10 percent met the 40-minute maximum. By contrast, in addition to putting more effort in their work, over half of those in the bonus group worked for 40 minutes, and less than one-fifth worked for the minimum time. Moreover, the costs (per unit of output) of providing a bonus were more than offset by the increase in labor supply, dropping by an estimated 30 percent. According to the authors, this result indicates that adopting bonuses and other competitive pay arrangements is an overall profitable strategy for employers.

Another interesting aspect of the experimental findings is related to gender differences. While men and women exerted similar amounts of effort in the group with fixed pay, men performed significantly better, on both the extensive and intensive margins, in the tournament with bonus pay. Although the authors are uncertain about the causes of this difference, they speculate that it may be due to women's inability or unwillingness to abandon home and family obligations. In line with this reasoning, they cite previous research indicating that such obligations have contributed to gender pay gaps and slower female promotion.