ABSTRACT

PRODUCTION AND INCENTIVES IN TEAMS

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The first chapter looks at the impact of uncertainty about the types of teammates and about the production process on effort decisions of agents. The model involves solving a moral hazard problem with generation of agents that overlap. The economy contains two types of agents, pyramid organizational structures, (heterogeneous or homogeneous) combination of manager-worker teams, and promotion and retirement reward structure that affects incentives. When cost of effort is low, “bad luck” in the production process is low, and proportion of low efficiency types are high, then this reduces the incentives for individuals to free ride on the efforts of the team.

The second chapter looks at the impact of cost of effort and price of workers on a firm’s choice toward team composition when worker types differ in efficiency levels. The production technology the firm employs require a team of two workers. The analysis tackles the idea of team composition under two scenarios; when a firm can hire the team from a pool of applicants and when a firm must organize an existing workforce of employees. Under the first scenario, if costs of effort for workers and hiring costs are sufficiently low, hiring only high efficiency types is optimal (homogeneous). As both these costs increase, the firm uses its resources to incentivize one (more expensive) high efficiency type to exert effort and fill the other position with cheap, low efficiency, labour (heterogeneous). Instead, if there is an existing workforce, most often heterogeneous teams are selected.

The third chapter analyzes a specific incentive scheme of firms to induce effort, overtime participation, that is not directly related to an individual’s contract; namely promotions. To find the causal effect of expected monetary incentives of a promotion on an individual’s overtime participation, the Arellano-Bond estimator is employed. The results indicate that there is a positive and significant impact of financial incentives from a promotion on

overtime participation for low hourly wage individuals. An increase in the expected monetary incentives of a promotion increases the likelihood an individual works more than the minimum regular work hours.