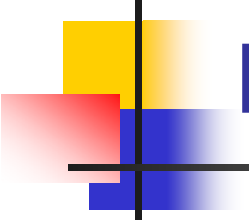




# Chapter 9 Promotions as Motivators (Part 2 of Notes)

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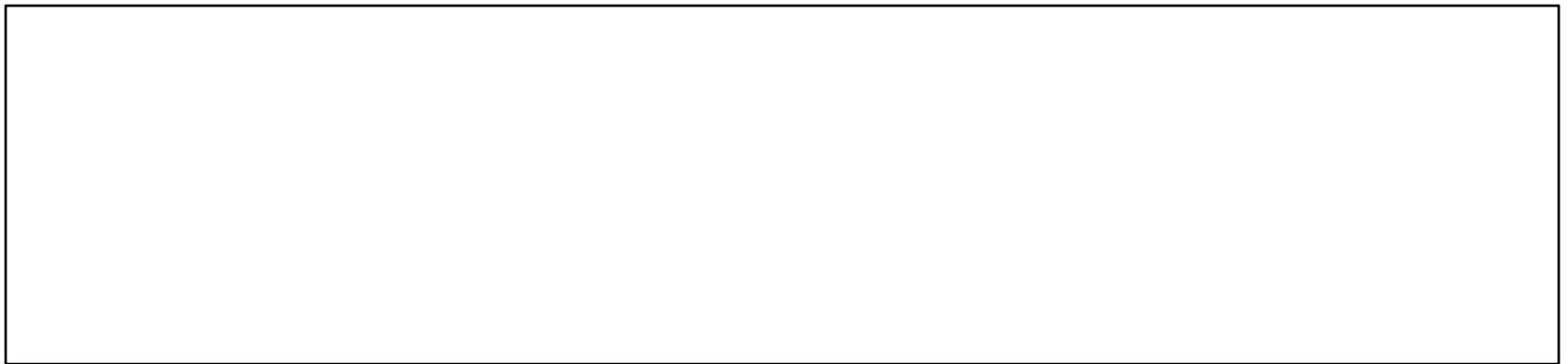
Julian Betts, Economics 136



## Questions 3) and 4) Setting right number of job levels and right pay hike for promotion to CEO

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- Can't answer either exactly but some rules of thumb:
- a) If decide to pay based on relative performance, then need to ensure that





## Getting the size of pay hikes “right”

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- Typically easier to get promotion in lower than in higher tiers
  - Example:  $\frac{1}{2}$  of factory floor workers might get promotion to better factory floor job but only  $\frac{1}{4}$  of those eventually become floor managers
  - ... and near the top maybe 15 vice presidents vying to become CEO
- Theory: Pay hikes should be bigger for riskier promotions. So should probably be big pay hike for move up to CEO

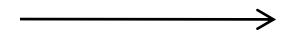
# Pay Hikes Rise with Seniority

Pay (\$)



Job Tier

Level of  
Responsibility

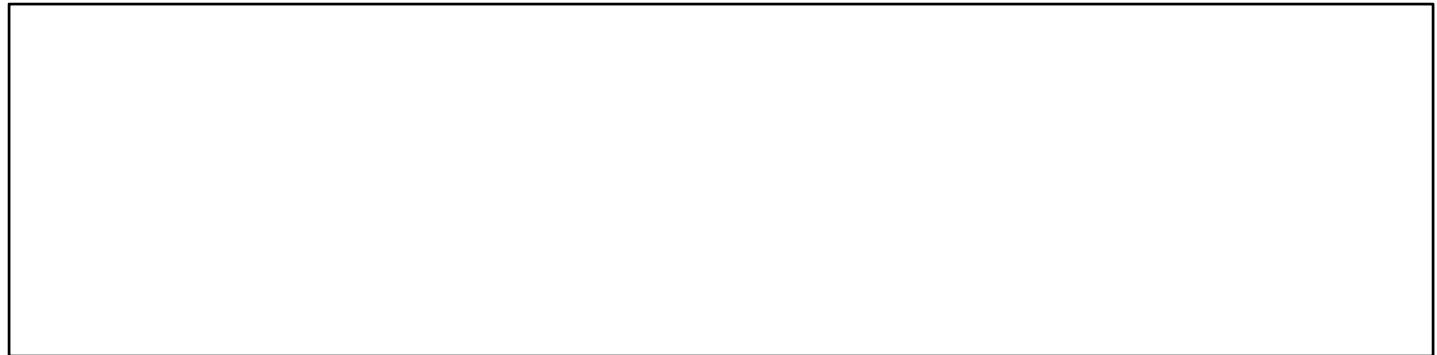




## b) A Second Reason for Large Pay Hikes in Higher Tiers

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- Part of incentive to work hard in lower tiers is prospect of promotion to higher tiers later in career.

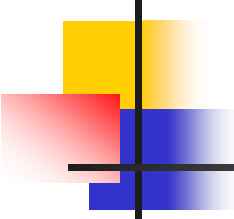




## c) If heterogeneous work force then create many job tiers

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- Also, don't load most pay hikes asymmetrically into top tiers
- Explanation for both rules:
  - Want worker productivity to be similar within each job tier. If not, then some workers give up because they don't think they can compete to get to the next level
- See p. 241 for evidence on how tournaments work in practice



## 5) What are the advantages/disadvantages of promotion tournaments and piece rates?

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- Advantages of tournaments:
  - 1) If hard to measure workers' absolute level of productivity but easy to rank workers' output, then use tournaments
    - Examples:
  - 2) If some of the variability in workers' output, or in supervisor's *perceptions* of worker output, is correlated across workers, then tournaments may be better than piece rates



# Why Correlated Productivity Shocks Encourage Tournaments: Insurance for Risk Averse Workers

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- Tournaments remove this variability, insuring workers against wages changing for reasons beyond their control
- Example: Suppose all salespeople working in a given region suffer random variations in sales due to state of economy





## Other Examples of How Tournaments Can Reduce Risk to Workers

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- If managers vary in their probability of recommending workers of the same quality for promotion firm can give all managers the same \$ to distribute
  - Insurance against having an overly tough manager



## Examples of how tournaments can reduce risk to workers (continued)

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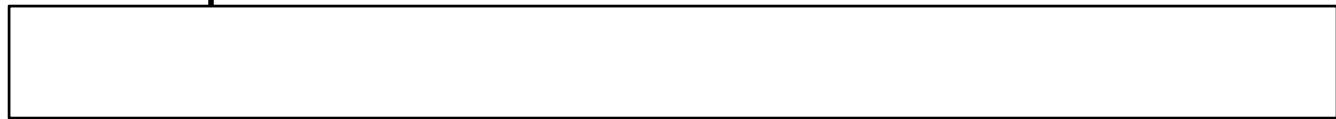
- John Abowd paper: Evidence that CEP pay in part based on firm's performance relative to other firms in the industry.
  - Partly removes from CEO's wages variability related to shocks to industry profitability

# Two Potential Problems with Tournaments



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- 1) Collusion among workers
  - Can decrease incentive effects
  - Less likely to happen if
    - Large number of competitors and/or
    - Not all competitors know each other
- 2) Piece rates encourage workers to cooperate and share ideas; tournaments do the opposite





## 6) Should firm promote from within or hire from outside?

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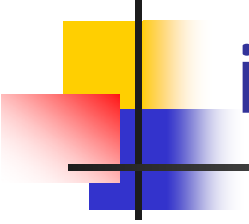
- Two reasons to hire from outside:
  - 1) IF believe outside candidates much better at job
  - 2) IF lots of internal collusion, hiring outside candidate, or *threatening* to do so, can decrease collusion internally
    - (Collusion becomes a much bigger issue if....



## 6) Should firm promote from within or hire from outside? (Continued)

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- Two reasons to promote from within:
  - 1) Firm-specific human capital
  - 2) Opening up competition to outsiders decreases insiders' chances of being promoted, reducing effort



## Example of second point: (hiring from outside reduces incentives for insiders)

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- Suppose you are competing against one internal competitor for a promotion. You each have identical productivity except for a random shock to your productivity. You both have a 50:50 chance of having a high vs. low shock.
  - So, there are four equally likely outcomes (HH, LL, HL and LH) and only with HL will you win: a  $\frac{1}{4}$  chance of winning



## Exercise

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- Prove that if you are also competing with one external competitor, who like the two of you internal competitors has same average productivity and a 50:50 chance of a high/low random productivity shock, that your chances of winning drop to  $1/8$ .

# Implications of External Competition for the Wage Hike Associated with Promotion

- Mathematically, external competition decreases incentive to work hard because  $g(0)$  falls as tournament becomes riskier
- Solution: Increase  $W_1 - W_2$
- But only a partial solution if workers highly risk averse:

