

THE PRICE OF WINNING: WHEN INDIVIDUAL BONUSES BACKFIRE ON TEAMS

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ABSTRACT

Every manager faces a fundamental choice: should you reward your team for cooperating, or for competing? It's a high-stakes question. Team-based rewards can build a sense of unity but often invite some members to slack off. On the other hand, competitive, winner-take-all bonuses can light a fire under individuals but risk turning colleagues into rivals, leading to less help and even outright sabotage. This article dives into this dilemma, exploring how these forces play out, especially when teams are a mix of high-fliers and steady contributors. We look at the predictions from economic theory and then hold them up against the results of controlled lab experiments that mimic these workplace dynamics. The findings are surprising. Big bonuses don't always spark the extra effort you'd expect, and they certainly don't make up for the loss of helping hands. We also find that while people are reluctant to sabotage their teammates, they are also quick to stop offering help once competition enters the picture. For managers, the takeaway is clear: creating a balanced, mixed-skill team and focusing on more than just individual prizes is often the winning strategy.

**Keywords:** Personnel economics, incentive schemes, rank-order tournaments, sabotage, cooperation, helping behavior, team heterogeneity, superstar effect, organizational behavior, experimental economics, dual incentive problem.

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INTRODUCTION

The Manager's Dilemma: Competition vs. Cooperation

Walk into any office, and you'll feel a constant tension in the air—the tug-of-war between individual ambition and the need for teamwork. As a manager, your job is to harness both. You need your star players to strive for greatness, but you also need everyone to row in the same direction. This is the heart of the "dual incentive problem," a challenge that has kept managers up at night for decades [42]. How do you motivate people without accidentally breaking the very collaboration that makes a team work?

For years, two main philosophies have battled for dominance. The first champions a cooperative approach. It argues for team-based incentives, where everyone shares in the rewards of collective success [18]. The logic is simple: if we all win together, we'll all help each other. It's a powerful idea, but it has a well-known Achilles' heel: the "free-rider," who coasts on the efforts of others [1].

This leads to the second school of thought, which puts its faith in the power of competition. Pioneered in economic theory by Lazear and Rosen (1981), this approach uses "rank-order tournaments"—think promotions, sales contests, or "employee of the month" bonuses [40]. By creating a valuable prize that only the top performer can

win, you create a powerful incentive for everyone to give their all, even if you can't watch their every move [44]. It's a philosophy that has shaped corporate giants and fueled the "rank-and-yank" performance reviews of the past.

But this competitive approach comes with a dark side. When the pressure to win is high, the line between healthy competition and destructive behavior can blur. People may stop offering a helping hand to a struggling colleague [19]. Worse, they might be tempted to engage in "office politics" or even outright sabotage—actively working to undermine a rival to get ahead [11, 12]. These actions can poison a workplace culture and wipe out any gains you might have seen from increased individual effort [8, 20].

This balancing act gets even trickier when you consider that no two employees are the same. Your team is likely a mix of "superstars," solid contributors, and newcomers still learning the ropes [27]. How does a competitive bonus affect this diverse group? Does it inspire everyone to raise their game, or does it cause the average performers to give up, figuring they have no chance against the office superstar? [5]. And who should be helping whom? Is it better for a junior employee to assist a top performer, or for the star to spend time mentoring the novice?

Getting clear answers to these questions from the real world is incredibly hard. Companies don't build teams or

set salaries for the sake of a clean experiment. That's why, to get to the bottom of this, we turn to the world of controlled laboratory experiments. By creating miniature, simulated workplaces, researchers can carefully measure how people really behave when faced with these choices.

This article brings together these findings to tackle the big question: Do competitive bonuses actually ruin cooperation in teams with mixed abilities? We'll start by looking at what economic theory predicts, and then see how that stacks up against the often surprising reality of human behavior.

**2. What Should Happen? A Look at the Theory**

Before diving into what people actually do, let's explore what a purely rational person should do. By building a simple model, we can create a baseline prediction for how people would behave if they were only motivated by maximizing their own paycheck. This gives us a benchmark to compare the real-world results against.

**2.1. The Basic Setup**

Imagine a team of employees, each with a different level of natural ability or productivity. Let's call them High-ability (H) and Low-ability (L) types. In any given project, each person can choose to spend their energy in a few ways. They can focus on their own tasks (we'll call this effort), or they can choose to interact with their teammates. This interaction can be positive, like lending a hand (helping), or negative, like intentionally hindering them (sabotage). All of these actions take time and

energy, so they come at a cost.

A key part of our model is that help is more powerful when given to a more skilled person. Think of a junior lawyer (L-type) doing research for a senior partner (H-type). That help frees up the partner to focus on high-value legal strategy, making the junior's help incredibly productive for the firm.

**2.2. How Incentives Change the Game**

Now, let's see what happens when we introduce two different ways of paying our team.

**A. The "All for One" Approach (Cooperative Pay)**

First, imagine a system where there are no individual bonuses. The team gets paid based on its total collective output, and everyone gets an equal slice of the pie. In this world, the theory is crystal clear: everyone should choose to help each other. Why? Because helping a teammate increases their output, which increases the team's total output, which in turn increases your own paycheck. Sabotage makes no sense at all—it would be like taking money out of your own pocket.

**B. The "Winner Takes All" Approach (Competitive Bonus)**

Now, let's add a twist. On top of the team-based pay, we introduce a juicy bonus that only goes to the person with the highest individual output. Think of it like a lottery where the more output you produce, the more tickets you get. Suddenly, the math changes completely. The predictions below paint a picture of a perfectly rational, calculating workforce.

Incentive Scheme	Predicted Individual Effort	Predicted Helping Behavior
<b>Cooperative Pay (No Bonus)</b>	Moderate	High (Helping is profitable)
<b>Moderate Bonus</b>	Increases	Decreases sharply
<b>High Bonus</b>	Increases further	Disappears; turns into <b>sabotage</b>

These predictions give us a clear, if cold, set of expectations. Now, let's see what happens when real people enter the equation.

**3. The Experiment: Putting Theory to the Test**

To see how real people grapple with these trade-offs, researchers designed a controlled laboratory experiment. This method allows us to isolate the effects of different pay schemes and team structures in a way that would be impossible in a real company.

**3.1. How It Worked**

The experiment, run using the z-Tree software [21], brought student volunteers into the lab. They were

randomly and anonymously placed into four-person teams, and these teams stayed the same throughout the session.

Each person was assigned an ability type, High (H) or Low (L), which determined how productive their effort was. To see how team makeup mattered, different sessions had different team compositions: some were all H-types (HHHH), some all L-types (LLLL), and some were a mix (like HHLL or HHLL).

The experiment unfolded in three 8-round blocks. In each round, participants had to decide how much effort to put into their own work and whether to help or sabotage each of their three teammates. The key variable was the pay structure, which changed from block to block:

- Block 1 (The Baseline): Everyone started with a purely cooperative system. Your pay was based only on the team's total output. No bonus, no competition.
- Blocks 2 & 3 (The Competition): In the next two blocks, a competitive bonus was introduced. In one block, it was a moderate bonus; in the other, a high bonus. The order was switched between sessions to make sure the timing didn't affect the results.

**3.2. What We Were Looking For (The Hypotheses)**

The experiment was designed to test a few key ideas:

- Hypothesis 1 (The Basic Theory): Will people behave like the rational model predicts? Will effort go up and help go down with a bonus?
- Hypothesis 2 (The Best Team Mix): Which team structure will be the most productive? The "competitive school" would bet on the all-star HHHH team, where the pressure to perform is highest. The "cooperative school" might predict that mixed teams, where people can help each other, would do better.

- Hypothesis 3 (The Effect of Pressure): Will increasing the competitive pressure (by raising the bonus or adding more H-types) lead to a surge in output that goes beyond what the basic theory predicts?

- Hypothesis 4 & 5 (Effort vs. Help): When the pressure is on, what gives? Will people become hyper-competitive and pour all their energy into effort? Or will the non-competitive spirit win out, leading them to withhold help and resort to sabotage?

With this setup, the stage was set for a fascinating showdown between economic theory and human nature.

**4. The Results: When Theory Meets Reality**

When the data from the experiment came in, it told a fascinating story, revealing a sharp contrast between how rational models predict people should act and how they actually behave. The table below gives a high-level summary of the showdown between prediction and reality.

<b>Subject</b>	<b>The Prediction (Based on Theory)</b>	<b>The Reality (What People Actually Did)</b>
<b>Effort</b>	Effort should steadily increase as the bonus gets bigger.	Effort was <i>lower</i> than predicted when the bonus was highest.
<b>Helping</b>	People should stop helping as soon as a bonus is introduced.	Correct. Helping behavior vanished almost immediately.
<b>Sabotage</b>	With a high bonus, sabotage should be widespread.	Incorrect. People were strongly reluctant to sabotage others.
<b>Total Output</b>	Total output should stay the same regardless of the bonus.	Output was <i>highest with no bonus</i> and dropped with competition.
<b>Best Team</b>	The theory is neutral, but competition fans would pick all-star teams.	Balanced, mixed-skill teams consistently performed the best.

**4.1. A Quick Look at the Findings**

Right away, it was clear that human behavior is more complicated than the standard theory suggests.

- **Effort:** With little or no competition, people actually worked harder than the model predicted. But when the bonus was highest, they surprisingly put in less effort than predicted.

- **Help and Sabotage:** People were stingy with their help, offering less than the model predicted even when it was in their financial interest. But the most striking finding was about sabotage. When the bonus was huge and the model predicted rampant backstabbing, people refused to do it. There seems to be a powerful, built-in resistance to actively harming a colleague.

- **The Bottom Line (Total Output):** Because of these

competing effects, teams were more productive than predicted when working cooperatively, but less productive than predicted once a competitive bonus was on the table.

**4.2. Finding the Dream Team: The Power of Balance**

One of the most practical questions for any manager is how to build the most effective team. The experiment tested different combinations of High and Low-ability workers. The results were clear and flew in the face of the idea that packing a team with superstars is the best strategy.

Team Structure	No Bonus	Moderate Bonus	High Bonus
<b>Homogeneous</b> (HHHH + LLLL)	803	627	765
<b>Asymmetric</b> (HHHL + HLLL)	751	610	615
<b>Balanced</b> (HHLL + HHLL)	<b>937</b>	<b>727</b>	<b>829</b>

Finding 1: Balanced, mixed-ability teams (like two H-types and two L-types) are the most effective.

These balanced teams consistently outperformed the other setups. The all-star (HHHH) teams suffered from intense internal competition that killed helping, while the all-L-type (LLLL) teams seemed to suffer from discouragement. The balanced team appears to hit a sweet spot, maintaining enough competitive fire to keep people trying, but not so much that it destroys all semblance of teamwork. The data below shows the average total output for different team structures.

**4.3. What Happens When You Turn Up the Heat?**

The next step was to see how people reacted as the competitive pressure mounted.

Finding 2: Making the stakes higher doesn't make teams better. In fact, it can make them worse.

This was a major blow to the pro-competition argument. As the tables show, the biggest positive surprise in output came when there was no bonus at all. Introducing a moderate bonus actually pushed performance below the predicted level. Simply adding more high-ability workers to a team also made things worse relative to the theoretical benchmark. The data suggests that instead of rising to the occasion, teams tend to buckle under increasing competitive pressure.

Finding 3: People don't become hyper-competitive monsters; they just get tired.

This is perhaps the most counter-intuitive result. When the bonus was at its highest, people didn't redouble their efforts as the competitive school would predict. Instead, their effort levels fell significantly below what the rational model said they should be. It seems that faced with the prospect of an exhausting, all-out war for the prize, many participants chose to pull back, perhaps deciding the cost of victory was just too high.

Finding 4: Competition is a killer of cooperation, but people draw the line at sabotage.

This result gets to the heart of the human element.

- **Help Dries Up:** The moment a bonus was introduced, helping behavior withered. It seems the mere presence of individual competition is enough to make people keep their knowledge and assistance to themselves.

- **Sabotage is a Taboo:** Even when it was the most profitable strategy, people overwhelmingly avoided sabotaging their teammates. This suggests a strong social norm or moral code at work. People may not go out of their way to help a rival, but they are deeply reluctant to actively harm them.

In short, competition acts like a switch. It turns off the impulse to help, but thankfully, it doesn't automatically turn on the impulse to harm.

**5. The Takeaway: A New Way to Think About Team Motivation**

So, do competitive bonuses ruin cooperation in diverse teams? The evidence from this research points to a clear, if nuanced, answer: yes, they often do. The dream of a perfectly tuned system that boosts individual effort without harming teamwork appears to be just that—a dream.

The findings deliver a significant challenge to the traditional "competitive school of thought." Far from unleashing a new wave of productivity, introducing individual bonuses often led to worse performance than a simple, cooperative pay structure. The idea that people will respond to pressure by becoming hyper-competitive effort machines simply wasn't supported by the evidence.

When the stakes were highest, people seemed to retreat from the all-out conflict the models predicted, choosing less effort and dramatically less sabotage.

This reveals something fundamental about human nature in the workplace. We seem to have a behavioral "brake" that stops us from engaging in the most destructive forms of competition. At the same time, we have a deep-seated reluctance to offer costly help, especially when a rival might benefit. The result is that when you introduce competition, you don't necessarily get a warzone. Instead, you often get a collection of individuals working in isolation. Cooperation vanishes.

#### What This Means for Managers:

These findings aren't just academic; they have direct, actionable implications for anyone leading a team.

1. **If You Need Teamwork, Don't Lead with Winner-Take-All Bonuses:** If your team's success depends on people sharing ideas, helping each other out, and working together, a purely competitive bonus system is a dangerous gamble. It will almost certainly kill the helping behaviors you rely on, and it may not even give you the boost in individual effort you were hoping for.

2. **Build Balanced Teams:** Forget the idea of creating an "A-team" of all your top performers. The evidence strongly suggests that balanced teams, with a healthy mix of skill levels, are the most robust. This structure seems to prevent both the burnout of intense competition and the discouragement of being the lone person struggling to keep up.

3. **Recognize That Money Isn't Everything:** Incentives have their limits. The experiment showed that when the prize was highest, effort was lower than predicted. When helping was most valuable, it was also lower than predicted. This is a powerful reminder that people are driven by more than just their next paycheck. Intrinsic motivation, a sense of fairness, and a positive team culture are powerful forces. Investing in team cohesion might yield better results than designing an ever-more-complex bonus scheme.

4. **Explore the Middle Ground:** The results hint that the best solution may lie in hybrid models that reward both individual achievement and team success. Finding a way to recognize star performers without making their colleagues feel like rivals is the key.

#### Where Do We Go From Here?

This research, like all good research, opens up new questions. The findings come from a controlled lab, and the dynamics of a real office, with its long-term relationships and complex social codes, are bound to be even richer. More research in real-world companies is needed to see how these principles hold up.

But the conclusion for now is clear. Reaching for a competitive bonus to motivate your team is a high-risk move. The potential upside is often an illusion, while the

downside—a team that no longer functions as a team—is all too real. The wisest managers will proceed with caution, remembering that an incentive designed to create a single winner can easily make everyone lose.

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