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Baseball and Thoughts on Pay Dispersion in Teams

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Baseball and Thoughts on Pay Dispersion in Teams

Can baseball teach us lessons about how to pay teams of employees?

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I really like thinking about compensation, and I really like thinking about baseball. I love it when I can watch baseball and think about compensation. Some baseball teams pay relatively evenly across the team and others have wide dispersion (some players are paid at the league minimum and others are earning "superstar" rewards). There is research on whether teams with one of those strategies is relatively better off (in terms of, say, wins or profits) than the other, even after controlling for total payroll, players' quality and the like. It's fascinating and done in an industry where performance and productivity are measured well. But does it translate from the baseball field into the larger field in organizations?

Level, Mix and Dispersion

If you have read any number of my previous columns, you may have noticed that I have a mild obsession with trying to highlight that I feel it is at least as important to consider how we pay as it is to consider how much. Maybe I push this since there is so much other focus on the important issue of the level of pay, and the level of pay is certainly something that is straightforward and easily measured. But I think it is just as important to consider the mix of pay — should organizations include in pay plans bonuses, insurance, time off, child care, education expenses, a gym, flex time?

An additional issue is dispersion of pay in teams and organizations; in other words, how wide is the range of pay between the bottom and the top, and how does it cluster along that distribution? For most of this column, I'll leave aside all of the interesting group-based issues like individual-based versus team-based bonuses and will largely concentrate on one measure of pay: salary.

Is it better to pay all of the members of a team similar salaries (low dispersion) or should the range of salaries be wide (high dispersion), and does it matter and in which circumstances?

I first thought about this question seriously when I was a brand-new assistant professor at the University of Illinois. I remember thinking about my salary compared with that of one of my senior colleagues. He was earning twice what I was and I thought it wasn't quite right because his productivity (publications, teaching, university and professional service) seemed to me to be way more than twice mine. (See my July 2012 column "Paying Professors" for more about academic pay priorities.) Even though he was earning more than twice what I was earning, in my mind, he was either underpaid or I was overpaid.

Baseball and Team Pay

Lawrence DeBrock, Wallace Hendricks and Roger Koenker wrote an interesting paper about pay dispersion a few years ago ("Pay and Performance: The Impact of Salary Distribution on Firm-Level Outcomes in Baseball," *Journal of Sports Economics*, August 2004). The paper focuses on Major League Baseball and is very clever.

A great virtue of studying baseball — and perhaps one reason applied economists are attracted to the sport — is that so much is measured. Think about the performance of an academic and the things he/she is expected to do at work, including teaching, research and service. Measuring the quality of his/her activities in these three important areas is difficult, as it is in many real world jobs. To be sure, certain manufacturing jobs and sales jobs have quite clear and measurable objectives. But baseball is a gold mine of productivity data. We know things like hits, runs, batting average, on-base percentages, wins and losses, and even profits of teams. This is all wonderful for labor economists and sports nerds (I am both).

In their paper, DeBrock, Hendricks and Koenker try to determine if baseball teams that pay players relatively the same perform better or worse than teams that have more dispersion in pay. The paper does many interesting things in testing labor market theories with painstaking attention to detail in the data.

At the end of the day, we don't just want to know what the degree of dispersion in salaries is, but how the dispersion in salaries relates to performance, contribution or output, while controlling for varying quality of individual players and other team characteristics. To do this well is not easy and takes some clever thinking.

It turns out that even after controlling for overall team pay and other characteristics of teams and players, DeBrock, Hendricks and Koenker found that teams with more salary dispersion don't perform as well as those with less salary dispersion. That is, at least in Major League Baseball, teams with more similar salaries do better.

Can Lessons From Baseball Translate?

But can we directly translate lessons from the competitive baseball field into the field of competitive business? No, we probably can't do it directly. For one, the "production technology" in baseball may require that players work cohesively, and therefore a relatively equal set of player quality is more important than is the case in many other organizations or lines of business.

I recently heard a manager imply that he thought it inappropriate to have differences among the pay levels of a certain group of workers in his large work group. The only way it would be inappropriate, in my mind, is if they were all making equal contributions, which I doubt. But the judgment of appropriateness is not the point. The point is, even if team members' contributions differ (as was the case in the Major League Baseball study), is greater salary dispersion associated with weaker team performance (even after individual performance is controlled for, as was the case in the baseball study)?

Perhaps the most important lesson that organizations outside sports can learn from this work on baseball is that to really understand something, the analysis needs to be done carefully and credibly. If we want to learn something about HR practices, it is probably a good idea to get very good objective measures. This is, unfortunately, easier in baseball than in other businesses.

Whether the baseball results translate to other occupations is difficult to know. But, surely, the DeBrock, Hendricks and Koenker study is successful in motivating the validity of investigating further how pay dispersion and team output are connected across a greater variety of organizations.

And, go Red Sox.