

Lessons in Compensation Design from the Farm

More research is showing that part-time employment in high school is valuable for successful workforce entry later in life.

For me, picking cucumbers in 10-week stretches for five consecutive, hot Western Massachusetts summers as a teen ended up teaching me some basic fundamentals of how strategy, industry and institutions matter for effective compensation design.

When I teach managers or professional master's students about compensation, one of the first questions I ask is how many in the room have been professional cucumber pickers? With that audience, as you can imagine, this experience is unique to me. While in grades seven through 11, I worked summers picking cucumbers at the Kelley Farm in Hadley, Mass. When asked how to design compensation for this job, the practitioners in my audience typically assume designing compensation for cucumber pickers is about as easy as it comes. They are eager to offer a solution — piece rate, paid per cucumber, etc. But they're wrong. Why did they get it wrong? They violated a basic fundamental of compensation design — don't design a compensation plan before *really* understanding the business. Relative product *value*, production *process* and organizational context matter critically. Few who offered suggestions of pay schemes knew or asked what makes one cucumber more valuable than another, how cucumbers are picked and what technology is used.

How to Pay?

Paying cucumber pickers the traditional piece rate, per cucumber or pound, would pay for performance since those who pick more would be rewarded for their higher-quantity-



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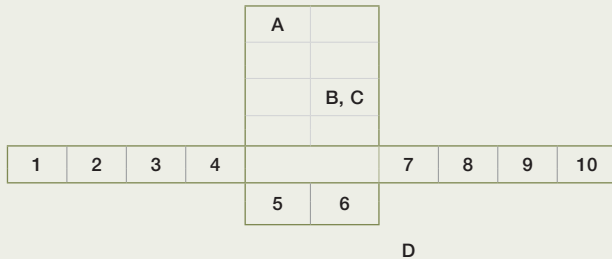
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Figure 1 | Aerial Sketch of Cucumber Picking Machine



Adapted from Kevin F. Hallock's, "Pay: Why People Earn What They Earn and What You Can Do To Make More," forthcoming by Cambridge University Press.

producing efforts. It turns out, however, that paying piece rate could lead to disaster. Paying per cucumber could result in pickers picking lots of small cucumbers that would only be appropriate for the limited minicucumber market. On the other end of the size spectrum, paying per pound would incent workers to let the cucumbers grow and grow and pull out 2.5 pounders, which are big, heavy and lower-margin. (Large cucumbers can only be used for relish, and the world only needs so much relish.)

Most cucumber pickers in Western Massachusetts are paid by the hour. Why?

How Cucumber Pickers Pick

Cucumber pickers lie down on a mattress pulled by a truck and hang their arms in the vines searching for cucumbers to pick and then toss up into a bucket or (on more sophisticated machines) onto a tiny conveyor belt. Consider Figure 1, a schematic of an aerial view of a cucumber-picking machine. There are 14 employees on this old truck with "wings." One (A) drives the machine, two (B and C) empty buckets full of cucumbers into 50-lb. bags and 10 (people 1-10) pick the cucumbers. The best pickers are placed at points No. 1 and No. 10 since they cover the edges and can help No. 2 and No. 9, who are typically the weakest pickers. An additional employee (D) will routinely walk behind the machine to monitor the quality of the picking. If she finds missed cucumbers of appropriate quality behind any of employees 1-10, she will take note of this poor performance.

At the peak of the season, it was not uncommon for this highly labor-intensive system of 14 people to pick 8 tons of cucumbers in a single day.

Real-Life Observations Proven By Research

The business logic (or profit-maximizing rationale, as academic economists would call it) for paying hourly wages instead of piece rate for cucumber picking is articulated in important

academic articles including Edward Lazear's "Salaries and Piece Rates" ("Journal of Political Economy" 1986) and Bengt Holmstrom's and Paul Milgrom's "Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design" ("Journal of Law, Economics, & Organization" January 1991). The principal-agent problem is the term applied to the employer-employee relationship of one person — the principal — having something he/she wants accomplished (cucumbers picked for sale) and another — the agent — being hired to do it. Compensation is the mechanism that connects these two by considering risk and rewarding work. Holmstrom and Milgrom, for example, demonstrate that "if volume of output is easy to measure but the quality is not, then a system of piece rates for output may lead agents to increase the volume of output at the expense of quality." This is exactly the cucumber-picking scenario, and why the smart Massachusetts farmers I worked for all those summers ago were (exactly what the academics' model predicts) "paying fixed wages even when good, objective output measures are available and agents are highly responsive to incentive pay."

Know the Business

Clearly this is a simple and modest example, but it highlights the fact that details of the business matter a lot, and not just for cucumber picking. Holmstrom and Milgrom, for example, apply their work to the controversial topic of performance incentives for teachers where, for educating children as with picking cucumbers, the employee's "single task has several dimensions to it."

Knowing the details of the business is an ever-moving target, which makes compensation design continually exciting. As measures of performance improve and/or the company's strategy evolves, compensation schemes need to keep up. Had the summer of 1983 seen the market price for 2-lb. cucumbers skyrocket, I would bet that Kelley Farm would have been paying some form of piece rate, and I would have been able to spot a 2-lb. cucumber from 10 paces away. **W**

Editor's note This column is adapted from Kevin F. Hallock's, "Pay: Why People Earn What They Earn and What You Can Do To Make More," forthcoming by Cambridge University Press.



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