“Diversity and Productivity in Production Teams”

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To research the impact of diversity on overall productivity in a California garment factory, our team of Olin researchers began with two key working hypotheses:

**Hypothesis 1**  
Demographic diversity harms team productivity.

**Hypothesis 2**  
Skill diversity among team members increases productivity.

What they discovered challenged their hypotheses and offers useful insights on the inner workings of diverse teams.

The Koret garment factory in Napa, California, allowed the researchers to track worker productivity before and after team formation over a three-year period. The labor force was composed of half Hispanic seamstresses, with the rest of the seamstresses representing a variety of ethnicities. Initially, the workers sewed independently, getting paid a piece rate for the garments they finished. The research team was able to determine the individual worker’s pre-team productivity based upon their wages.

During the scope of the experiment, the factory switched from individual work to module production. Modules are teams of six to seven workers who are cross-trained and have autonomy over a variety of production decisions like the pace of work. The workers were allowed to form their own groups and were paid a group piece rate for their finished garments.

Nickerson, Hamilton, and Owan examined the way the employees formed their teams. Overall, workers opted not to segregate themselves demographically. There were only two to three teams composed exclusively of Hispanic employees; the rest were a mix of Hispanic and workers of other ethnicities.

Previous research published in Gary Becker’s *Economics of Discrimination* would suggest that the more homogeneous a team is, the easier it will be to communicate, and the more efficient the team will be. According to Becker and others, demographic diversity may hurt a team’s overall productivity.

In this case, Nickerson, Hamilton, and Owan found there was some evidence that all-Hispanic teams perform better than the other teams (when controlling for ability). However, over the course of the study, those teams changed and added non-Hispanic workers.

To the surprise of the research team, the productivity of the new team did not drop, suggesting demographic diversity may not be as important as initially hypothesized. The research also suggests that age diversity has only a marginal bearing on the team’s overall productivity.

The most eye-opening finding was that diversity of ability trumps everything. When the employees formed their teams, they chose teammates with different skill levels, perhaps to take advantage of learning opportunities within the team. This strategy appears to have paid off. The research shows teams of workers with varying skill levels performed better than homogenously skilled workers. This finding suggests there is mutual learning and sharing of tasks within the team. The most skilled employees coached the less skilled employees to perform at a higher level. Over time, the productivity of these teams increased to the level of the team’s highest skilled worker.

The authors suggest that diversity is not just a social concern; it can drive the profits and productivity of an organization. But when it comes to productivity, it’s the type of diversity that matters.

Diversity seems to have little effect on turnover costs. The more successful and productive a team is, the more likely it is to stick together. In the case of this factory, the teams composed of employees with diverse skills were more productive, and stayed together longer. When controlling for ability, demographically diverse teams were no more likely to break apart than homogenous teams, showing workers did not prefer to be segregated.

**Key Takeaways for Managers**

- Teams can be more productive than individuals, if they are made up of individuals with complementary skill sets.
- The ability of the best person on the team can drive the productivity of the team.
- If you plan to implement teams in the workplace, let your workers form them and give them a team incentive plan.
- If management directs team formation, think about the distribution of ability. Create teams with a good mix of worker skills.