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The New Look in Supervision

The Trend Is Toward College Men

by

Kenneth Hopper, Management Consultant

Many corporations are increasing the percentage of college men they recruit for jobs as first-line supervisors or beginning, for the first time, to hire men with college backgrounds for these jobs. Why are they putting on men with generally higher expectations—and this obviously includes salary—than their previous first-line supervisors?

The answer is technology. In general, the higher the degree of technology in an industry and the more rapid the changes in the technology, the greater is the percentage of college-trained supervisors. In these industries the industrial environment is changing so fast, that like Alice and the Queen in "Through The Looking Glass," the supervisor has to keep running just to stand still. With exceptions in individual firms, we also find few college men in positions as first-line supervisors where there is a low degree of technology.

Yet in some industries with a high degree of technology, there are exceptions to the trend towards graduate foremen. In aircraft construction or maintenance you find few graduate foremen. Why? Aircraft construction and maintenance require the supervisor to

have years of practical knowledge in areas such as metal handling, drilling, welding conduits, etc. In metal working shops where much of the work is one-of-a-kind and the specifications are constantly changing, practical knowledge is also at a premium, and we find few companies employing as much as 30% graduate foremen—usually it's much less.

In what industries do we find the heaviest concentration of college-trained supervisors? Chemical, oil, soap and electronics. In the electronics industry some companies have a supervisory force of 100% college men. In chemicals, oil and soap the percentage often runs from 30-60%, although one major chemical company employs only a few graduate foremen.

Moreover, individual firms in other industries have comparable percentages. At Johnson and Johnson, for example, 90% of its first-line supervisors are college graduates.

One airline is in the process of building up a supervisory force with *both* practical and theoretical knowledge. It is currently working with an engineering college on a program under which students will spend alternative six-month periods on study and practical work.

Even in the textile industry, which traditionally employs no college supervisors, there are exceptions. One firm has a supervisory force that is 15-20% comprised of college graduates—it's also a firm with exceptionally high profit margins.

Statistics Scarce

The 1960 census, which contains the most recent figures for industry as a whole, showed that only five per cent of the first-line supervisors had a college degree; an additional nine per cent had attended college. But there is little doubt that the current percentages would be considerably higher.

We interviewed 45 companies that employed college graduates as foremen and found only one company that intended to abandon the practice. In this case the manufacturing process was so unpleasant that college men were unwilling to work continuously in the factory. On the other hand, the three companies with plans to increase the number of college graduates had determined on increases of from 11% to 60%, 17% to 55%, and 35% to 75%.

Two Technologies

When we say that technology is the number one reason why more companies are employing college-trained supervisors we mean it in a dual sense. Part of the story is a manufacturing technology so complex that it requires training at the college level to comprehend and deal with it. A second technology complements the first.

The entire range of information and computer technology makes it possible for the first-line supervisor—in many cases for the first time—to behave like a responsible manager. He solves production and scheduling problems on the spot, checks quality,

keeps budgets in line etc. In other words, technology creates problems which require a better educated man to comprehend them, but technology also equips that better educated man with the tools to solve them.

The Director of Industrial Relations of the DANA Corp. (Toledo), Lloyd Haney, captured the inter-relationship: "machines are more complicated; we are making a more complicated product which carries a warranty so that machining and production standards have gotten higher. The factory is no longer run with a piece of paper and pencil—we get schedules from the programmer and the supervisor has to be able to understand them . . . Replacements for jobs as first-line supervisors are likely to be exclusively engineers now being trained in our production work."

There are psychological factors, too. When you choose a college man to be a foreman he is more likely to behave as the manager of his department than the man who has been an hourly employee, and realizes he has no further to go. The college man, naturally concludes he's at the bottom of his personal promotional ladder, not the top. He will seek to prove his metal by innovating, keeping close to his budget, working to keep his men contented and productive, dealing effectively with functional departments, etc. The same factors of being mobile and promotable makes the college-trained foreman more active in welcoming and assisting change.

As a bonus, we see a good chance that in a mixed supervisory force these attitudes will become contagious

and spread to the non-college foremen. We have seen many old-time foremen develop feelings of paternal pride in their boys. The groups respected and learned from each other.

Other Advantages

Other convincing reasons exist for adding college men to your supervisory force. The foreman who regards himself as promotable is eager for training. He wants to understand statistical quality control, PERT, work simplification and other management control techniques. And his receptivity to training will affect the whole supervisory force's attitude toward learning.

Also, it's an advantage to have senior managers with first-line supervisory experience. They retain personal contact with many of the supervisors they knew "way back when." More important, when these senior managers make long-range plans, they do so with an intimate knowledge of inter-personal relationships and bottlenecks within the plant. Their plans, being more realistically based, are more likely to be successful.

The Case Against College Foremen

Do we contend that companies who haven't hired a large percentage of college foremen are ignorant or ill-informed? Not quite. We believe that in many companies the case is overwhelming—the company is almost certain to get a return that will justify the greater investment.

In industries with a low and static technology and a slow growth rate, or a great need of practical knowledge, the case is not as clear. In this

context the numerous arguments against college-trained supervisors become more credible. The most persuasive is the absence of any correlation between a college degree and the leadership qualities necessary to manage workers. In fact, the hourly workers, especially those with a lot of seniority, may resent having a bunch of "whiz-kids" as bosses.

Graduates need more training than men up-from-the-ranks. They expect higher salaries. And a company that adds them to its supervisory force, may have to raise the salaries of its other supervisors.

Lastly, those who argue against college-trained foremen assert that the position handicaps a man from rising in the organization. Why? Because it gives the supervisor a narrow perspective which is inappropriate to positions of greater responsibility. To be promotable, he must shake the parochialism of his supervisory role.

Making the Most of College Foremen

We find the arguments against employing a substantial percentage of college-trained first-line supervisors, interesting, but generally not conclusive. The real problem with many companies who have failed to realize the potential of these college supervisors is that they have added them to the payroll, and then forgot about them.

Companies who make this investment must at the same time reorganize many of their management practices. What kinds of reorganization do we have in mind? The college-trained

foreman is an innovator who is anxious to make good by cutting costs. The basic motivation is there. But the company that wants him to do a real job of budget-trimming should provide him with the tools and a little extra incentive to do the job.

At Johnson and Johnson, for example, where the first-line supervisors are almost all college graduates, they get these tools to help them keep track of costs:

✓ Copies of their budget and standard cost estimates.

✓ Daily reports of material usage and a monthly summary.

✓ Weekly reports on labor and work performance as measured against the incentive plan.

✓ Monthly summary report of material, labor, efficiency, and all variable burden spending.

✓ Daily shift-by-shift reports on

ABOUT THE AUTHOR

Kenneth Hopper, the author of this article, has been a college graduate foreman himself. Later, he has acted as a management consultant, and in this role he has devoted much time to the preparation of training, communications and motivational programs for graduate foremen. Anyone who wishes to communicate further with Mr. Hopper on the subject of this article should write him care of The Executive's Bulletin, Room 900, 70 Fifth Avenue, New York, N.Y. 10011.

charge-backs.

✓ Special reports as needed.

So much for tools. A little extra incentive? We have in mind a chemical company which pays a conventional bonus to its foremen and hourly employees for keeping to their budgets. It also has an additional bonus tied to the amount by which the foreman reduces his future budget. The foreman who's innovative in his cost-cutting can earn a monthly bonus as high as 20% of his base salary.

The company with college-trained supervisors also needs to review its training, communication, and promotion procedures. The new supervisor has the talent and the interest to communicate and innovate. The management that wants to make the best use of his services should give him facilities to write and circulate reports freely, and it should enable him to communicate his ideas, not only to his immediate superior, but also to men further up the line.

To do justice to the creative and innovative part of his job, the new-look supervisor needs to be relieved of many routine chores. Some companies give the supervisor a production assistant; other companies—I.B.M. is one example—give him a clerk to help with his paperwork.

The name of the game is promotion. Nothing will motivate the college-trained supervisor more effectively than to see the abler of his peers moving up to more responsible management positions. And nothing will sour him faster than the realization that the promotional ladder by-passes the foreman. The company with college-

trained foremen must ensure that the abler among them can move up—and soon. We're talking in terms of two to four years, not 10.

Summary

We believe that the overall trend toward the employment of college-trained men as first-line supervisors will continue. However, the trend will continue to be selective among industries, and between companies.

Those companies with a low and static technology have much less need for the attitudes and aptitudes of the college-trained foreman. If the particular company is also stable or declining, there would be few promotional opportunities in manufacturing line management for the graduate foreman. That's one end of the spectrum.

The other end where, in general, the need for graduate foremen and their use have been the greatest is in companies with a complex and fast-changing technology and a rapid growth rate. Companies which combine these three but also demand supervisors with a lot of practical know-how should consider imitating the airline that set up a long-term program to equip its supervisors with both practical and theoretical knowledge.

Lastly, the company that changes its supervisory mix to include a substantial percentage of college-trained men must recognize that it has taken only a first step. The college-trained supervisor has the skills and the motivation to become an effective manager; it's up to the company to provide him with the tools and the setting in which he can be effective.