



## **Forced Ranking: The Controversy Continues**

### **Introduction**

There is an explosion of interest in forced ranking of employees in corporations. Many businesses are exploring the possibility of enhancing their current performance management system by structuring this system with a forced ranking protocol. The interest in forced ranking arises out of a desire to enhance the development of, and reward possibilities for workforce, and to explore best management practices that are currently advocated by business leaders such as GE, American Express, Hewlett Packard, Conoco, Microsoft and Goldman Sachs<sup>i</sup>.

This paper offers a state of the art view of forced ranking as well as poses further questions that we believe should be addressed as any organization considers the viability of a forced ranking system. We have included findings from a review of recent literature that is germane to forced ranking, as well as appropriate case studies that may offer guidance in considering the practical implications of initiating forced ranking for any company.

### **The State of the Art of Forced Ranking and Current Controversies**

#### ***What Forced Ranking is***

In the most generic terms, forced ranking is any system or procedure in which individuals or groups<sup>ii</sup> are ranked against one another into a specific scheme.

The schemes used are diverse and include, but are not limited to:

- A “totem pole” approach in which individuals are ranked from one downward to include all people within that group.
- Quartiles, in which four cells are defined and people are force ranked (25% per cell) into cells one through four and then ranked further within each cell.
- Normal distributions in which people are forced into the bell curve of a normal distribution and designated by the percentage group that they represent, e.g. top 10%.

We will outline some of the advantages and disadvantages of these systems as we comment on criteria for grouping, ranking, and linking pay to performance.



### ***What Forced Ranking is not***

Forced ranking is neither a new nor a conceptually complex formula for managing performance within organizations.

Forced ranking can be applied to any performance review system that adequately allows for a sufficient differentiation between individuals' performance. Once the principles of the performance review system are defined and well practiced, managers and supervisors can then force rank the workforce according to the scheme designated for their organization or department.

It is important to distinguish between forced ranking and performance review criteria. Only competencies or other criteria of a performance review system can systematically judge the contributions of an individual to an organization. Forced ranking alone only designates that one person has been rated better at something than another person. In order to be effective, forced ranking must be based on criteria that are proven to contribute to the corporation. For this reason it is important that the principle of performance management, recognizing those things that contribute to the growth of the business, not be lost in the efforts of forced ranking. For instance, it is possible for the members of a group to be ranked against one another so that there is appropriate distinction between top, middle and bottom, but to have all members of the group performing at unsatisfactory levels as per the performance review criteria. Forced ranking on its own will not assess value and contribution to the organization. If a high ranking ends up measuring an employee's ability to score well on abstract criteria or doing poorly, but better than his peers at pleasing his supervisor without contributing directly to the success of the organization, then the forced ranking scheme will contribute little to the benefit of a company.

### ***A Surge in Popularity***

Currently some form of forced ranking is practiced in almost 20% of businesses, including some of America's most respected corporations<sup>iii</sup>. The popularity of forced ranking is on the rise for several reasons. With the economic downturn over the past year and a half, performance review systems have come under greater scrutiny as businesses review their workforce to find greater efficiencies. During periods of robust economic growth, as was experienced in the mid to late nineties, organizations tend to be less concerned about performance efficiencies and more likely to tolerate the under performing elements of a workforce. As the economy turns and there is less tolerance for bloat and inefficiencies, it becomes critical for organizations to simultaneously identify, retain and get the most from their top performers, while identifying and either developing or removing low performers. Leaders of corporations have seen the research and know



that one of the key elements separating businesses that perform on average versus those that perform at the top of their industry is the corporation's ability to bring on and retain the best people while moving low performers out of the organization.<sup>iv</sup> Pfeffer's research demonstrates that more than technology, patents or strategic position, the greatest competitive advantage comes to those companies that demonstrate the greatest ability to manage their human resources.<sup>v</sup>

The dramatic number of reductions in force over the past year has also pointed out a need. The leadership of many businesses found that as they initiated significant workforce reductions in 2001 and 2002, they were not armed with the appropriate data by which to make decisions about layoffs. Specifically, their performance review systems had not been appropriately practiced and inflated scores left little means by which to systematically identify the lowest performers. Human resource and legal staff have spent a great deal of valuable time trying to consolidate criteria on which to base their layoff decisions, when this data should have been readily available. The inflated scores were a byproduct of a) cultures that were overly polite and avoidant of the potential conflict incurred from a manager giving a low score; b) managers and supervisors who were inadequately trained on delivering performance management feedback and scoring systems; and c) managers and supervisors who discounted the performance management systems because of their belief that the systems were overly abstract and too distant from the business goals.

At the other end of the spectrum, employee satisfaction surveys have registered many top performers as feeling unrecognized and inadequately distinguished from those in their ranks who are clearly not performing at the highest levels. A Hay Employee Attitudes Survey conducted at 335 companies worldwide found that 32% of employees agreed that poor performance is tolerated in their companies<sup>vi</sup>. The poorly applied performance review system proves to have the unfortunate double impact of jeopardizing the retention and motivation of top performers in an organization, while making it difficult to address the deficiencies in low performers or to move them out.

All of these factors have contributed to a climate of frustration around performance management and it is within this climate that Jack Welch has been conspicuous in the press this past year, championing the forced ranking at GE. Not surprisingly, the combination of these variables has led to a small explosion in interest in forced ranking. By applying forced ranking to the performance management systems in place, corporations are able to "force" managers to make difficult distinctions between their people and ameliorate some of the problems listed above. We will offer more comment in terms of the legal and cultural challenges to using forced ranking, but it is important to note which of the stated problems forced ranking can address and which it cannot. The larger cultural issues mentioned such as the polite avoidance of conflict (a serious dilemma for any business that relies on creativity or responsiveness to markets) and performance management criteria that are overly abstract or distant from business goals,



will only be masked rather than cured by forced ranking. To the extent that these are more core issues for a business, it can be inadequate and even counterproductive to move to a forced ranking system too quickly. A company will need to seriously consider such cultural issues before making a decision about adopting forced ranking.

Critics have countered the popularity of forced ranking by suggesting that it is a system that may help with some problems, but which creates many others. They note that while this system may work in a company like GE, there are few other companies that share GE's culture. According to this line of thinking, those businesses that believe that applying forced ranking to their workforce will bring them closer to the achievements of GE are in for a rude shock. Few organizations have the tolerance for the type of turnover that occurs in GE. Many people enter companies like GE or Goldman Sachs early in their careers with the expectation that they may only last a couple of years, but they are satisfied that the brief tenure spent in such organizations positions them well for work elsewhere. There are only a handful of companies that can attract the type of employee with this mindset and that will be able to aggressively move people out without demoralizing the workforce.

## **Risks**

Along with the greater application of forced ranking in the corporate workplace, cultural, performance and legal problems have emerged. The legal issues have taken the forefront of concern for most businesses and clearly it has been the reaction in the form of class action suits that has predominated in the press.

## ***Cultural Fit***

Companies that adopt forced ranking often underestimate the difficulty of fitting this system into their corporate culture. There is a belief that because this system has worked well at other top performing companies, applying the same program to their organization will cause their workforce to rise to the challenge. In fact, the opposite effect can occur when employees feel that they are being subjected to a system that is intended to increase competition among them, as well as demand a greater level of performance often with the assumed threat that they will be laid off if they rank poorly. If forced ranking is seen as arbitrary or overly political, it is likely to diminish employee performance. The introduction of forced ranking to a culture and the internal communications must emphasize performance and development rather than relative rankings.



The particular culture and the needs of a workforce must be considered. A paternalistic or relationship oriented culture that has traditionally been soft on performance measurement cannot expect to be jumpstarted by applying forced ranking. Such an organization will do better to initially emphasize a dedication to recognizing top performers and offering as many people as possible the developmental opportunities to become top performers. As an organization introduces forced ranking, it is often better off using the first years to adjust the system according to the needs of the company and communicating that the rankings are to be used primarily, though not exclusively, to guide development opportunities. This allows an appropriate time for cultural acceptance of the system, after which it is considerably easier to begin to introduce specific compensation criteria associated with various rankings. The emphasis on development and performance also eases the acceptance of low performers being moved out of the company. A case in point is that of ICI Paints, which found that the employees in the bottom 20% of a forced ranking had a much higher percentage of voluntary terminations following frank feedback about their performance without any suggestion on the part of the company that those employees leave.

Even at companies that have employed forced rankings for years, there can often be significant problems with this ranking method. One HR professional at a major financial services company noted, “99.9% of our people hate our forced ranking program, including the leaders. They don’t understand it. They feel cheated. It destroys the whole performance management process of setting expectations, development planning, coaching, and ongoing assessment. Now when people think of performance management they only think of the forced ranking performance distribution and where they are going to end up. It’s akin to them studying to how to do well on the standardized test as opposed to how to actually learn the material.”

A final caution has to do with considering forced ranking versus best practices in management. Because forced ranking is a structure to ensure that the appropriate range of scores are applied to a group of employees at any given time, there is a compelling critique of forced ranking that recognizes the system as a band-aid applied to a more pervasive cultural problem of managers, who for one reason or another, are not doing their job. To the degree that any business ignores the deeper reasons for management’s avoidance of distinguishing between levels of performance, there is reason to believe that the corporation is less well off than it would be were it to investigate the causes of this cultural phenomenon and address them before or instead of using forced ranking.



## **Technical Considerations in Applying Forced Ranking**

### ***Grouping of Subjects***

Depending on the model used, grouping of subjects can be handled in different ways. In every scheme, an organization must decide who should be included in the forced ranking, whether it should include the entire workforce, only management or only above a specific level of management. Once the population is selected, a company must standardize the ranking by considering which strata, job levels, geographic areas, roles or titles to compare rankings. These decisions vary from company to company, and there is no formula for how best to include or exclude people from groups whose members will be ranked. In fact, one of the criticisms of forced ranking is that there is an argument that it is only reasonably applied to those who have very similar job descriptions. Unless one is comparing people across generalized competencies, such as leadership best practices, it can be very challenging to rank people who have different responsibilities against one another. One way around this is to force rank small workgroups. This offers the advantages of ranking while promoting collaboration, and also diminishes the likelihood of disparate impact. However, it is then possible for the efforts of an individual to be masked by a group that is performing at a higher or lower level than that individual.

As an example, the same financial institution noted earlier groups people by level and type of work. Everyone has a compensation band level. People are ranked within the band according to their function and are only compared within the same function (e.g. analysts in one specialty are only compared to other analysts in that same specialty). To adjust for people who are working in very different areas and being ranked against one another, a series of rating alignment meetings are held. Every business unit develops a rating alignment procedure and the managers get together to discuss the proposed rating criteria for their reports. The VPs get together to discuss the proposed rating criteria for their reports and this process goes on up the hierarchy. One of the very negative results of this process is that leaders will hide behind the performance distribution guidelines. For instance, a report will ask, "Why did I get a 3?" and be told by the leader that he should have received a 2 but that the rating alignment made his 2 into a three. Often the leader will go on to say something like, "The system is not fair" with the result that everyone blames the system.



### ***Methods of Forced Ranking***

Beginning with the most basic forced ranking formula, the totem pole scheme, any number of candidates can be ranked together. The population of the ranking starts at one and runs sequentially to the last member. This scheme can be applied to large populations of candidates and to very small ones. One of the advantages of the totem pole scheme is that it provides a means for applying forced ranking in smaller populations for which a normal distribution would be statistically unfeasible. For instance, in some smaller departments or units (with a population of less than 100) it is impossible to apply a normal distribution. It may also be inappropriate to group these candidates together with other candidates for comparison. In the unsophisticated and uncomplicated method of the totem pole scheme, the candidates can be ranked from the first to the last member of the department. Percentages (top, bottom and middle) can be determined and used to orient compensation, development possibilities and those people who may be moved out of the organization.

The most well known forced ranking scheme is the normal distribution or bell curve. In this scheme, all candidates are forced into a normal distribution so that most of those scored fall under the “bell” of the curve, with top performers represented by one tail of the curve and low performers falling under the other tail. Within the normal distribution, different categories can be defined. For instance, GE separates its people along a scheme of Top 10% - Strong 15% - Highly Valued 50% - Borderline 15% - Least Effective 10%, while Sun Microsystems distributes people into categories defined by a scheme of 20% - 70% - 10%. Organizations are free to create as many or as few categories as they care to, and define the members within those categories as they see fit. For instance, GE is now famous for marking the top 15% as those deserving leadership development, while the bottom 10% are marked for being moved out of the organization.

Another variation on forced ranking is the quartile system where managers are forced to rank their reports into four quadrants. This system can have greater flexibility and is not held to the same distribution patterns as those ranked in a normal distribution. Like the totem pole ranking, this model also may be used in situations where the population is insufficient to support use of the normal distribution scheme. Within the quartiles, there are distinctions drawn of one employee as compared to the next, and often the bottom 5% of the lowest quadrant is targeted for being coached out of a company, while a certain percentage of those in the top quartile are selected for leadership opportunities.



## **Criteria for Ranking, and Correlation to Performance Reviews**

It is critical to distinguish the difference between forced ranking and performance review criteria. Forced ranking is successful only as a process to rank individuals who have already been evaluated based on a standardized set of competencies and performance criteria. One of the greatest dangers of any forced ranking system is that the rankings are based on judgments that are overly subjective, unclear or distant from the business goals of an organization. In short, forced ranking will only exacerbate problems stemming from an inadequate performance review system.

The criteria for any performance review system should be behaviorally anchored, clear and intuitively connected to the business strategy of the organization. These criteria are the opportunity for any organization to apply its values and cultural principals at the level of day-to-day practice. Once the criteria are adequately defined and endorsed from the top of the organization, managers and supervisors must be trained to learn how to apply the review in a fair and consistent way. As part of this process, the scores from all managers can be statistically analyzed to determine which managers are consistently inflating or constricting their scoring. This information can be fed back as part of a reasonable ongoing training.

There is also the problem of compliance with the criteria for ranking. It is not unusual for some divisions or business units to not buy in to the criteria. For example, investment banks are known for a culture in which all participants are considered “the best”. The high pressure, high stakes environment is one that fosters a culture where individuals think of themselves as exemplary and intolerant of anything approaching average performance. To force such a business unit to comply with the idea that it must identify certain members as average and low performers is to challenge and potentially destabilize a culture that makes it successful as a group. On top of this, business units like investment banking tend to have a great deal of clout given their overall performance and they can be very successful at ignoring demands from HR. A senior HR professional from one of the world’s largest investment banks reported that that bank was never successful at getting highly profitable divisions to comply with forced ranking.

An additional problem regarding compliance with criteria for ranking comes from the phenomenon described by one HR professional as “horse-trading.” Some companies require that their managers meet as a group and reach a consensus on each report’s ranking. A senior HR professional for a large financial services company reported that during their forced ranking meetings, there is a considerable amount of back room deal making whereby one manager may agree to support the ranking of an employee in exchange for that employee’s manager reciprocating in kind. This practice leads to employee anxiety over the integrity of the system and whether his/her manager has sufficient influence, or has prepared sufficiently, to secure a high ranking for him/her.



There is the further issue that this “gamesmanship” over the ratings becomes a considerable drain on the energies and focus that could otherwise be applied to business.

## **Communication**

It is difficult to overstate the need for accompanying a forced ranking system with a clear, strategic and thorough communication program. Given the negative press for forced ranking and the controversies inherent in the system, many people will approach forced ranking with preconceptions and concerns. A communication strategy will be most effective if it is rooted in data gathered from the workforce to be addressed. This allows the leadership of the organization to begin its initiative by proving responsive to the needs of the people who will be ranked. Organizations should start by surveying their workforce to uncover the issues that will support the introduction of forced ranking, as well as issues that may make it difficult for forced ranking to be accepted. An example of the latter point might be a corporate culture that has stressed collaboration, teamwork and the interdependence of individuals. The research so far has shown that forced ranking has a negative impact on teamwork<sup>vii</sup>. “It makes it very difficult for people to collaborate knowing that if they help this other person they are lowering their chances at the end of the year” noted one HR executive whose firm employs forced ranking. Such an organization will need to give careful consideration to how it frames and promotes forced ranking in its culture. Employee issues that can help an organization promote forced ranking are concern by top performers that they are not being recognized, concern that there are inadequate systems in place to identify developmental opportunities for employees and a feeling that low performers go unrecognized and are allowed to demoralize others in the workforce.

The message on forced ranking should be inclusive and in no way suggest that there will be groups that are protected from being ranked unless there are groups such as unionized workers, for whom it is unfeasible. It is particularly destructive when an organization excuses its top ranks from the process but enforces it lower down in the organization. Such a practice sends a loud message that forced ranking is in some way punitive and is not appropriate for the most successful people in the organization.

The process and implications of forced ranking should be stated and restated in several different formats to ensure that incorrect assumptions about the rankings are addressed. As an example of why this is so important, many people assume that a forced ranking system inherently is introduced to isolate the bottom 10% and immediately move them out of the company (rank and yank). In fact, this is true in only a minority of the applications of forced ranking. If a company does not intend to immediately move the bottom 10% out of the company (we would rarely recommend such a plan), then they need to be very explicit about that not being the condition, and inform the workforce about what it will mean to be ranked in the bottom 10%. The cost of not being clear about the implications for specific rankings can be, as one Fortune 50 company found,



that people assume that they are going to be fired. In this case, the company found itself with employees organizing a class action suit on the *assumption* that they were to be fired. Corporations need to be very clear about what actions (compensation, promotion, layoffs, development) will be correlated with what rankings, and in what time frame.

## **Linking Compensation, Pay and Performance**

By virtue of ensuring that there is a clear distinction between individuals, forced ranking has held out the promise of offering a more direct means of connecting pay to performance. Richard Brown of EDS has been credited with turning around that company in part by applying the quartile ranking system, and tying rank directly to compensation. In other cases, organizations have suffered from tying their ranking system too rigidly to compensation. When no discretionary judgment is left to managers, there is no way to distinguish between someone who is in the middle and on the rise as opposed to another person who is seen as average with little chance of growth. In such cases, the rigid compensation-ranking formula works against the best interests of a company.

A typical formula for aligning compensation with ratings is used by the financial institution that we have cited. In their case, the guidelines are quite rigid. Every business unit gets a goal rating (based on performance). The business' goal rating determines the percentage of its employees who can get a rating of 1 (e.g. 5-15% of the people can get a 1, 20-30% can get a 2 etc.). The allotted percentages can change from year to year.

A drawback for organizations that do not allow for greater flexibility in offering compensation has to do with the problem of collaboration. Even in a business that believes that it can afford to prioritize individual performance over an emphasis on collaboration, there are going to be projects or areas that will demand greater teamwork. In such instances, the leader of a team would have no way of rewarding the team for a collective effort, and he may spend extra time managing the internal competitiveness as team members try to maneuver for individual attention. A fine example comes from a software company bought by GE. Employees on one team were given high praise on their reviews, but their raises were average. It was explained that "of the 20 people on the team only seven can be given above average ranks, and since there are six team leaders who automatically get above average ranks, that leaves only one opening for a non-lead to be rated above average." Few of these talented individuals stayed with the company<sup>viii</sup>.

Another case involves an international producer of heavy industrial equipment. The culture of this organization was one in which people were rarely fired and compensation was much more tenure based than performance based. With little introduction and a poor communication strategy, this company installed forced ranking at one time throughout



the management level of the organization. Pay increases were directly and rigidly tied to the five forced ranking categories with significant increases going to those in the first and second buckets, and little to no increases going to those in the fourth and fifth buckets. Little was said about whether the company would invest in developing those in the lower ranks and the organization was vague about whether those ranked as fives would be eliminated. The debilitating effect on the workforce as well as the fertile ground for discrimination lawsuits seems easy to predict in such a scenario.

## **Alternative Models**

As described earlier in this report, forced rankings can be effective in certain situations, but must be applied carefully and with skill. It is our opinion that it is currently overly and improperly applied. The companies that benefit most from forced ranking tend to have cultures that are highly competitive and extremely results based. They also have performance rating systems in place that enable them to generate accurate ratings on which to rank their people. Depending on a company's culture and strategic goals there may be hybrid alternatives that would prove more valuable in managing and developing performance, including no rating and no ranking, and rating but no ranking. It is important to note that several well-respected corporations, such as Xerox and PepsiCo, have tried and rejected forced ranking. The HR professional from the financial services company that has been noted throughout this document reported that in the case of that company, several years of forced ranking have left people feeling resentful of the process and much less focused on development. People become concerned with how best to get a better ranking than the next person and this often has much more to do with political capital rather than performance.

One alternative model can be found at Bristol-Myers Squibb<sup>ix</sup> (BMS), which developed a no-rating, no-ranking system based on achieving company goals. BMS has worked to create a culture of accountability with a focus on what each employee can do better in the future, as opposed to what they should have done in the past. BMS found that its previous performance review conversations, which were tied to the merit pay increases the employee would receive, were ineffective. During their rating conversation, employees would tune out everything but what their increase would be. In its new model, BMS separated pay increases from performance reviews and eliminated ratings and forms completely. In place of the traditional performance review, BMS enacted ongoing "performance partnership" meetings between individuals and their managers. In this new culture employees are accountable for their own performance and are expected to actively seek feedback from their managers on an as needed basis. Managers are expected to provide ongoing coaching to their reports and are jointly accountable for their performance improvement. Managers are required to submit an annual summary of their partnership meetings to HR.



Another alternative program comes out of a leader in the food and beverage industry. In this organization, ratings are adjusted unit by unit to calibrate the ratings in relation to business unit performance. The emphasis in this case is a relation between the overall individual ratings in a business unit and the performance of that unit. The ratings are also broken down into two sectors: each employee is given a rating for business results and one for people results. Compensation is then based on a weighted measure of both ratings, with business results accounting for two-thirds of the score and people skills for one-third of the score. The benefits of this system are that it has an intuitive and transparent connection to business results. Further, it calls on managers to be appropriately trained in the performance review system and to be held accountable for using it accordingly, rather than be forced to use the whole spectrum of the rating scale as in forced ranking.

There is a host of other non-ranking and non-rating paradigms at work in corporate America and a thorough review of these is beyond the purview of this paper. Considering any of these alternatives in greater detail would be most fruitful once a company has a more detailed understanding of the cultural, management and business issues that it would like to impact. The above examples serve as examples of alternative systems that are proving to be successful for very performance driven companies.

## **Summary**

A company will need to consider the host of issues cited here in its process of deciding whether or not it will adopt a forced ranking process and if so, how it is best applied. Before the decision is made about forced ranking, we recommend that a company evaluate its current performance review systems and leadership development in greater depth to ensure that there are no potential conflicts that would arise from the application of a forced ranking system. It will also be important to review the overall business strategy and management practice to determine whether or not forced ranking is the appropriate change called for to meet the company's needs.



We recommend that companies consider the following factors:

**Culture:** Gaining a comprehensive cultural survey of the organization, including a survey of employee satisfaction will be critical to making an informed decision about the appropriateness of forced ranking. This process will allow a company to make certain that a forced ranking system will not interfere with the desired outcomes for learning and development, compensation, promotion, team collaboration, retention and general morale. This survey would also serve as a benchmark by which to measure any changes that might occur within the general culture as a result of implementing forced ranking.

**Questions to be considered:**

- Aside from legal risks, what are the qualities in a company's culture that are likely to clash with the practice of forced ranking? For example:
  - A workforce that is not used to offering or receiving frank feedback about performance.
  - A culture that is trying to emphasize learning and development, i.e. admitting to gaps in knowledge or ability.
- Are there certain areas or populations for whom it will be more difficult than others?

**Communication:** If a significant change is to be undertaken with a performance review system, the leadership of the organization will need to begin designing a communication strategy before any implementation of the new system is begun. The cultural survey and employee satisfaction survey will provide critical data for organizing a communication strategy. From these surveys, the leadership of a business will understand areas of concern that exist within the workforce about performance review generally, and forced ranking specifically. Leadership can then apply this knowledge to address those concerns and formulate a series of communications that minimizes a disruption in the performance of its workforce.

Training is also part of the communication agenda. Ultimately, it is the managers and supervisors who participate in any forced ranking program who are the most immediate spokespeople for the program. If management feels uncomfortable with the program, or is unsure of how to implement forced ranking, it will blame the system on the leadership of the organization and undermine the system's effectiveness. Managers need to be briefed, trained and monitored in terms of how they are using the forced ranking system and what issues it may be raising for them.



**Calibration of Forced Ranking with Business Goals:** Ultimately any performance review system should do three things: 1) Convey the behaviors that are most likely to align what an individual or team does with what a business or business unit needs; 2) Measure individuals and or teams on those behaviors; 3) Provide the leadership of the organization with the data that it needs to make development, hiring, promotion, compensation and firing decisions. To the degree that forced ranking compromises any of these points, the company may want to consider other performance review systems. If a company believes strongly in a fostering a learning and development culture, then the company will have a difficult time pushing those goals while implementing forced ranking. The cases so far make a strong argument for people avoiding admission of developmental gaps for fear of being ranked lower.



## NOTES:

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- <sup>i</sup> Matthew Boyle, "Performance Reviews: Perilous Curves Ahead," *Business 2.0*. (2001).
- <sup>ii</sup> While we will refer to individuals in the use of forced ranking, the same schemes may be applied in almost all cases to small groups.
- <sup>iii</sup> Loren Gary, "The Controversial Practice of Forced Ranking," *Harvard Management Update* 6/10 (2001).
- <sup>iv</sup> Jim Collins, *Good to Great*, (New York: Harper Collins Publishing Co., 2001)
- <sup>v</sup> Jeffrey Pfeffer, *Competitive Advantage Through People*, (Boston: Harvard Business School Press, 1994)
- <sup>vi</sup> HayGroup, Working Paper: Achieving Outstanding Performance Through a "Culture of Dialogue" (HayGroup, 2002).
- <sup>vii</sup> Diana Kunde, "Linking Salary to Worker Tanking Rankles Some," *The Milwaukee Journal Sentinel*. (1999).
- <sup>viii</sup> Carol Hymowitz, "Readers Tell of Success, Failure of Performance Rating," *The Wall Street Journal*. (2001).
- <sup>ix</sup> Case Study: Bristol-Myers Squibb Unbundles Performance Evaluation, Emphasizes Separate Responsibilities Within Process, *Workforce Strategies*, Vol 20, No.1, pp.WS-1 – WS-3 (Jan. 28, 2002)