TEAM-BASED REWARDS: CURRENT EMPIRICAL EVIDENCE AND DIRECTIONS FOR FUTURE RESEARCH

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ABSTRACT

As organizations increasingly adopt teams as primary work units, many are also adopting team-based rewards in which a portion of individual pay is contingent on measurable group performance. This chapter overviews the empirical research on team-based rewards, identifies factors related to their effectiveness in organizational settings, and suggests directions for future research. Reasons for using team rewards include supporting a team-based structure, fostering cooperation among team members and promoting team productivity, and overcoming limitations of larger group-based plans such as gainsharing. Possible limitations of team rewards concern their potential for inadvertently fostering perceived inequity within teams or competition between teams, and conflicting evidence regarding their role in enhancing group process and performance. A framework is presented which identifies four sets of variables related to the effectiveness of team-based rewards: (1) reward system characteristics including reward size, frequency of reward payout, and allocation method; (2) organization characteristics including culture, congruence of rewards, strategy and other subsystems, and structural characteristics; (3) team characteristics including type of team, task interdependence, team composition, stage of team development, and team size; and (4) individual characteristics including ability, need for achievement, and individualism-collectivism. Priorities for future research include an examination of optimum reward characteristics and the interaction of multiple reward practices, process-oriented research, an examination of the role of justice perceptions and affective reactions, the influence of team rewards on between-team behavior, and longitudinal studies of the effectiveness of team rewards.
Today’s organizations increasingly use teams as primary work units (Cohen & Bailey, in press; Guzzo & Dickson, 1996; Guzzo & Shea, 1992). In a 1990 survey of Fortune 1,000 companies, for example, 51 percent reported having more than 20 percent of employees in teams (Lawler, Mohrman, & Ledford, 1992). A 1993 follow-up survey found that this figure had increased to 68 percent (Lawler, Mohrman, & Ledford, 1995). The shift toward work teams comes during a larger paradigm change concerning the design of organizations and the properties of systems for managing performance (Hammer, 1990; Mohrman, Mohrman, & Lawler, 1992), including innovative reward systems. Among other new practices, organizations are adopting team rewards and incentives in which group members’ pay is at least partly contingent on measurable group performance.¹

In designing rewards for teams, practitioners can draw on several decades of empirical research on small groups (e.g., Bettenhausen, 1991; Cohen & Bailey, press; Guzzo & Shea, 1992). However, this research provides little specific guidance for designing rewards in team-based environments. Much of the research on team rewards has been conducted in laboratories under artificial conditions, and only a fraction of studies have examined intact work groups in their natural setting (McGrath, 1984). Despite the dearth of field research, organizations increasingly incorporate team-level incentives in their reward systems (Lawler, Mohrman, & Ledford, 1995). Current practice regarding team rewards has perhaps moved ahead of its basis in empirical research.

This paper overviews the empirical research on team-based rewards, identifies key factors in the effectiveness of team rewards, and suggests directions for future research. Specifically, the role of rewards in today’s organizational environment and the advantages and disadvantages of team-based rewards are explored. Current empirical research is reviewed with the goal of identifying whether the evidence supports current applications of team rewards. Next, attributes in the design of team reward systems that may influence their effectiveness are identified. Finally, priorities to guide future research are provided. Throughout this review the terms work groups, work teams, and small groups are used interchangeably to mean “interdependent collections of individuals who share responsibility for specific outcomes” (Sundstrom, DeMeuse, & Futrell, 1990, p. 120).

THE ROLE OF REWARDS

Compensation strategy is the “deliberate utilization of the pay system as an essential integrating mechanism through which the efforts of various subunits and individuals are directed toward the achievement of an organization’s strategic objectives” (Gomez-Mejia & Balkin, 1992). Reward systems in particular are key management tools that can contribute to a firm’s effectiveness by influencing individual and group behavior (Lawler & Cohen, 1992). For example, the structure and allocation of rewards may affect the motivation of individual team members

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(Lawler, 1981), interdependence and coordination within groups (Tjosvold, 1986), and quality of the group process that develops between group members (Shea & Guzzo, 1987a). The potential impact of rewards on group behavior is underscored by their inclusion in current models of work group effectiveness (Campion, Medsker, & Higgs, 1993; Gladstein, 1984; Hackman, 1990; Shea & Guzzo, 1987b; Sundstrom, DeMeuse, & Futterle, 1990). While such theoretical models identify rewards as critical antecedents of group effectiveness, they provide little guidance regarding the specific type of rewards that maximize particular outcomes in work groups (Magjuka & Baldwin, 1991).

In light of the increasing prevalence of teams, organizations face the challenge of determining how to pay and reward individuals in a team-based environment. Specifically, organizations are finding that individually based reward systems do not necessarily support a team-based approach to organizing work (Zingheim & Schuster, 1997). Increasingly, firms are turning to small group or team-based incentives and rewards (O'Dell, 1987), which include any arrangement for a group of employees to receive a variable award based on increased performance against a target (Gross, 1993). The use of team-based rewards represents one of the newest and fastest growing reward strategies (Nickel & O'Neal, 1990). A survey of 1,598 organizations by the American Productivity Center found that 14.8 percent had small group bonus systems to reward natural work groups or autonomous teams (O'Dell, 1989). More recent evidence suggests that the use of team-based rewards is on the rise. Lawler, Mohrman, and Ledford (1992) reported that 66 percent of the organizations surveyed in 1990 indicated an intent to increase the use of work group or team incentives. In terms of extent of coverage, from 1990 to 1993 the percentage of organizations using team-based pay plans which covered at least 20 percent of the workforce had increased from 22 to 31 percent, and the percentage covering over half of the workforce had increased from 12 to 17 percent (Lawler, Mohrman, & Ledford, 1995).

REASONS FOR ADOPTING TEAM-BASED REWARDS

Several factors have contributed to the growing popularity of team rewards. One reason is the growing interdependence between jobs (Johnson, 1993; Mohrman, Mohrman, & Lawler, 1992). Changes in the way work is organized, the flattening of organizations, and changing technology have created interdependencies between jobs and tasks which often makes it difficult to separate the contributions and performance of individual workers (Nickel & O'Neal, 1990; Patten, 1977). Research in related fields such as performance appraisal has shown that, in some cases, performance can be more accurately assessed by measuring the performance of larger units within an organization, rather than individual performance (e.g., Landy & Farr, 1983). Research has also demonstrated that it is extremely difficult for a supervisor to evaluate an employee’s performance without being influ-
enced by other employees within the group (Dobbins, Cardy, & Carson, 1991; Liden & Mitchell, 1983). Collectively, these findings suggest that when tasks are interdependent, performance may be more accurately and reliably measured at the group, rather than the individual, level (Gomez-Mejia & Balkin, 1992). Group-based rewards appear to be logical complements of performance measurement that focuses on multi-employee working units.

The increasing use of teams has also highlighted the need to foster cooperative team environments and provide a mechanism to influence the collective motivation of team members (Shamir, 1990). Reward contingencies have the potential to encourage either cooperation or competition among employees (Tjosvold, 1986). Applying rewards to teams as a whole is based on the assumption that team rewards will do something qualitatively different than individual rewards. Specifically, while the use of individual rewards has been shown to motivate and reinforce individual performance, team-based rewards may serve these purposes as well as trigger the occurrence of cooperative group-level behavior. These group-level behaviors are believed to be critical to the smooth functioning of the group as well as ultimately lead to organizational effectiveness (Deutsch, 1949; Tjosvold, 1986; Geber, 1995). At the same time, group rewards can be linked to the achievement of work group goals, thereby capitalizing on the motivational benefits of goal-setting (Lawler & Cohen, 1992).

Organizations have also moved toward team-based rewards to avoid some of the limitations of large group-level reward plans such as gainsharing. Small group incentives offer a more direct “line of sight” between performance and rewards than large group plans, and therefore may be more powerful motivators (Lawler, 1981; Vroom, 1964; Wilson, 1990). In addition, social loafing, the tendency for individuals to exert less effort when working in groups than when working individually, may be less likely to occur in the presence of small group rewards than in large group reward systems such as gainsharing. In an environment in which rewards are contingent on team performance, team members may feel that their contributions are more identifiable than under larger group incentive plans (Williams, Harkins, & Latane, 1981). This may increase their perceptions of responsibility or accountability to other team members, making social loafing less likely (cf. Pearce & Gregerson, 1991; Sheppard, 1993).

**POTENTIAL LIMITATIONS OF TEAM-BASED REWARDS**

While team-based rewards offer important advantages, researchers and practitioners have also identified potential drawbacks. Group incentive plans might reasonably be expected to offer some motivational potential for performance improvements, but only after a substantial “inferential leap” from the literature on motivation theory (Milkovich & Wigdor, 1991, p. 86). Specifically, several condi-
tions of goal-setting and expectancy theories are not well satisfied (e.g., that goals are perceived as achievable and that the link between performance and outcomes is clear). The major motivational shortcoming of group incentives is the difficulty an employee may have in seeing how his or her effort gets translated into the group performance measures on which rewards are based (Milovich & Wigdor, 1991). In addition, the use of team-based rewards may create the potential for motivational loss resulting from perceptions of inequity due to perceived free-riding of other team members and the use of an equality principle when allocating rewards, rather than an equity-based principle. In other words, high performers may feel inequitably treated when they are rewarded at the same level as poorer performers in the same group. Furthermore, although teams receiving small group incentives may suffer from social loafing less than under larger-group plans (e.g., gainsharing), team members are still more likely to loaf and free-ride under team-based plans than under individually based plans (Heneman & von Hippel, 1995).

In addition, recent studies challenge the ability of team rewards to foster cooperation within teams, one of the most important reasons for adopting team-level rewards. In a field study involving 150 teams, Wageman (1995) found that the degree of task interdependence among group members was positively related to cooperation, helping, job satisfaction, and quality of group process, while the type of reward system (individual rewards, group rewards, or both) exerted no independent effects on these criteria. Moreover, teams receiving individually based rewards exhibited stronger norms promoting effort and higher internal motivation than groups receiving team-based or mixed rewards. No significant performance differences were detected between teams receiving individual and group rewards. In a laboratory study, Wageman and Baker (1997) found that task interdependence was related to several indicators of cooperation among team members but reward interdependence was unrelated to cooperative team behavior. However, reward and task interdependence did interact to produce higher levels of team performance. Taken together, these findings challenge the assumption that team-based rewards foster cooperation among team members. In addition, Mohrman, Mohrman, and Lawler (1992) have noted that even if group-level rewards and incentives do enhance group process, there is conflicting evidence on whether enhanced group process leads to higher performance. For instance, Gladstein (1984) found no direct or indirect effects of group process on group performance.

Team rewards may also foster competition between teams, leading to suboptimization of organizational goals (Mohrman, Mohrman, & Lawler, 1992). Specifically, rewards based on team performance may encourage teams to focus on their own performance at the expense of other teams’ performance (Mohrman, Mohrman, & Lawler, 1992). This may promote a reluctance on the part of teams to share information or assist other teams which may be especially problematic when the teams’ work is highly integrated with that of other teams in the organization (Gupta & Govinagarajan, 1986; Lawler & Cohen, 1992; Lawrence & Lorsch,
Together, these unintended outcomes may lead to suboptimization of organizational goals (Mohrman, Mohrman, & Lawler, 1992) and may promote counterproductive behaviors that may reduce overall organizational performance (Kay & Lerner, 1995).

These concerns call into question the taken-for-granted assumption that team-level rewards are a critical factor in group effectiveness. To better understand factors in the effectiveness of team-based rewards, the empirical research on team rewards was reviewed. Selected studies met two criteria. First, the study needed to involve small groups or teams. The treatment of groups includes work teams and group as well as groups created in laboratory settings, consisting of between three and 30 team members. Second, included studies measured the effects of team-level rewards. To be classified as a team-level reward, it was necessary that the performing unit upon which rewards were based was the work group or team (Patten, 1977). Examples include plans in which rewards are based on group productivity or other relevant criteria (e.g., efficiency, safety). Rewards include cash awards and cash equivalents (e.g., time off). Although other large group-based or unit-based reward plans exist (e.g., gainsharing), they are not included in this review. Similarly, studies examining the effects of group feedback or group goals without rewards contingent on group performance were not included (see Matsui, Kakuyama, & Onglatco, 1987; Weldon, Jehn, & Pradhan, 1991). Although results from early research are summarized, particular emphasis is given to more recent work (1985-1997) which has not been integrated into earlier reviews. A summary of recent empirical research is presented in Table 1.

**EMPIRICAL RESEARCH ON TEAM REWARDS**

In 1949 Deutsch proposed a theory of cooperation and competition in small groups in which the perceived compatibility of goals was believed to influence the social interaction among group members. Specifically, when outcomes contingent on group performance are distributed to group members equally (i.e., cooperatively), each group member has an incentive to work cooperatively. Conversely, when outcomes are distributed to group members based on individual effort (i.e., competitively), each member has an incentive to excel beyond the level of performance of fellow group members in order to obtain a larger share of the competitively distributed reward. Based on this reasoning, Deutsch (1949) suggested that for team members to work together effectively, their goals must be interdependent and compatible. Rewards play an important role in establishing a group’s goal structure which, in turn, can influence group outcomes. However, Deutsch believed a reward system can enhance team performance only if it produces a “win-win” situation in which all team members benefit if the team is successful (Deutsch, 1949).
<table>
<thead>
<tr>
<th>Table 1. Studies Included in the Literature Review (1985-1997)</th>
</tr>
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<tbody>
<tr>
<td><strong>Author(s) and date of study</strong></td>
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<tr>
<td>Laboratory-Based Evidence</td>
</tr>
<tr>
<td>Konovsky &amp; Podsakoff (1993)</td>
</tr>
<tr>
<td>• college students</td>
</tr>
<tr>
<td>Stoneman &amp; Dickinson (1989)</td>
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<tr>
<td>• college students</td>
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<tr>
<td>Wageman &amp; Baker (1997)</td>
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<tr>
<td>Field Evidence</td>
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<tr>
<td>• senior level state employees</td>
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<tr>
<td>Campion, Medsker, &amp; Higgs (1993)</td>
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<tr>
<td>• clerical work team</td>
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<tr>
<td>Campion, Papper, &amp; Medsker (1995)</td>
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<tr>
<td>• professional teams</td>
</tr>
</tbody>
</table>
Table 1. (Continued)

<table>
<thead>
<tr>
<th>Author(s) and date of study</th>
<th>Sample and Unit of analysis</th>
<th>Operationalization of the reward system</th>
<th>Major findings pertinent to team rewards</th>
</tr>
</thead>
</table>
| Gomez-Mejia & Balkin (1989) | 125/na                      | Individual versus team-based reward systems | • Individually-based rewards perceived less effective than team-based rewards.  
• Team-based reward systems predicted pay satisfaction, intent to stay with the organization, and self-report team effectiveness.  
• Team-based financial rewards did not explain unique variance in perceived effectiveness of employee involvement programs over and above information access, team heterogeneity, and team size. |
| Magiuka & Baldwin (1991)    | 1468/74                     | Percentage of total pay based on team-based rewards | • No consistent effect of pay for individual performance on group of individual performance measures.  
• Pay for individual performance related to perceptions of pay equity and trust.  
• Special group rewards influenced work group structuring and perceived supervisory feedback.  
• Combination of feedback, goal setting, and group incentives increased productivity 76% over baseline.  
• Group incentives which did not increase performance significantly over and above feedback and goals.  
• Outcome interdependence related to employee perception of customer service but not to an increase in team-level sales.  
• Introduction of the team bonus plan associated with a 28% increase in sales corporation-wide.  
• 13% of subjects reported that perceived rewards for group success contributed to the development of goal interdependence among team members. |
<p>| Mohrman, Mohrman, &amp; Lawler (1992) | 7,800/na                    | Perceptions of team-based special awards and pay for individual performance | |
| Pritchard, Jones, Roth, Stuebing, &amp; Ekeberg (1988) | 360/4-25                    | Group incentive (time off from work) | |
| Shea &amp; Guzzo (1987a)        | 39/na                       | Outcome interdependence (team bonus plan) | |
| Tjosvold (1988)             | 39/na                       | Perceived rewards for joint success | |</p>
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Design</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wageman (1995)</td>
<td>800+ / 152</td>
<td>Individual, group, hybrid</td>
<td>- No performance differences between groups receiving individual or group rewards.</td>
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<td></td>
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<td>- Type of reward was unrelated to cooperation, helping, job satisfaction, or quality of group process among team members.</td>
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<td></td>
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<td>- Productivity increased and remained high after the introduction of a group incentive structure.</td>
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<td>- No increase in labor costs or grievances associated with the introduction of a group incentive system.</td>
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<tr>
<td>Wagner, Rubin, &amp; Callahan (1988)</td>
<td>na</td>
<td>Group incentive plan</td>
<td>- 1034 employees (41 teams) were from the first firm; 444 employees (33 teams) were from the second firm.</td>
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<td></td>
<td>114</td>
<td></td>
<td>- 400 employees were from the first firm; 4500 were from the second firm; 2500 were from the third firm. Number of teams not reported.</td>
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Notes: *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. **The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. **The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. **The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. **The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. **The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na. *The first entry indicates total sample size, the second indicates the number of groups or units. Data unavailable or not applicable is indicated by na.
Deutsch's hypotheses promoted a large number of studies investigating cooperative versus competitive rewards on the behavior and performance of individuals working in teams. The vast majority of these studies were conducted in laboratory settings, utilizing tasks such as tower building, number counting, transferring marbles to a box, and puzzle solving. Most frequently, studies examined the effects of cooperative versus competitive reward distribution on team behavior and outcomes. These early studies were reviewed by Miller and Hamblin (1963), Johnson, Maruyama, Johnson, Nelson, and Skon (1981), and Cotton and Cook (1982).

In the first review of this research, Miller and Hamblin (1963) examined the role of reward allocation procedures on group performance in 24 studies. They concluded that the strength and direction of the effect of reward allocation procedures on group performance was influenced by the task interdependence among members. When task interdependence was high, rewards distributed equally resulted in greater productivity than when rewards were distributed competitively. The moderating effect of task interdependence was believed to concern the occurrence of blocking (i.e., withholding resources, failing to help others) versus producing (i.e., behaviors which contribute to the accomplishment of a group task) within a group. In a later review of 122 studies, Johnson, Maruyama, Johnson, Nelson, and Skon (1981) found cooperative reward structures were superior to competitive reward structures in promoting productivity in groups. A re-analysis of the same studies by Cotton and Cook (1982) concluded that neither cooperative nor competitive rewards are necessarily superior in promoting productivity; rather, situational characteristics such as task interdependence moderate the effect of group rewards on group effectiveness (e.g., Rosenbaum, Moore, Cotton, Cook, Hiester, Shoabar, & Gray, 1980). Taken together, these reviews provide evidence that under conditions of task interdependence, rewards distributed cooperatively are associated with higher productivity than rewards distributed competitively.

Recent laboratory research has continued to examine these issues (see Table 1), although much less frequently and yielding somewhat different conclusions. Stoneman and Dickinson (1989) compared the effects of individual and small group incentives on performance of an assembly task in a simulated work environment and found no differences in performance as a function of incentive type. In a laboratory study utilizing a tower-building task, Konovsky and Podsakoff (1993) found that incentives had no effect on productivity when the task was independent, but when the task was interdependent, individual incentives lowered group productivity. Group incentives had no effect on productivity, satisfaction, total number of blocks handled, or efficiency, but did influence the turn-taking measure: regardless of task interdependence, turn-taking occurred more frequently when the group incentive was present and the individual incentive was absent. Wageman and Baker (1997) found that reward interdependence did not directly influence team cooperation but reward and task interdependence did interact to produce higher levels of team performance.
Taken together, the results of these lab-based studies suggest that the link between team rewards and performance depends on several factors, particularly the task interdependence among team members. However, contextual factors operating in organizations make it difficult to generalize from laboratory research where conclusions are based on artificial tasks (e.g., adding numbers, building towers with blocks, sorting objects) in contrived settings (sitting in isolated booths) for brief periods of time. Clearly, laboratory conditions such as these are far removed from team conditions in organizations where complex and important tasks are undertaken, sometimes over prolonged periods of time. Relatedly, because of their short duration, lab studies fail to address the long-term effects of team-based rewards, a critical concern in organizational settings. For example, while team rewards may initially augment team performance, concerns over the fairness of equal division of rewards when contributions to the group’s performance are unequal, may decrease the effectiveness of team rewards over time.

Studies that have examined similar research hypotheses in field settings also appear in Table 1. In the past decade more studies were conducted in the field than in the lab. Gomez-Mejia and Balkin (1989) compared individual and aggregate compensation strategies (profit sharing, stock-related plans, and team bonuses) among research and development employees and concluded that team-based reward plans were generally superior to all other plans examined. In particular, team rewards were related to higher levels of pay satisfaction, higher ratings of project and individual performance, and reduced withdrawal cognitions among team members. Using an interrupted time-series design, Wagner, Rubin, and Callahan (1988) found significant increases in productivity after the introduction of a group incentive system in a nonmanagerial, unionized sample. In contrast, Pritchard and colleagues (1988) demonstrated that the addition of group incentives to a system that already included performance feedback and goal-setting, increased performance by only one percent. Likewise, team-based financial rewards did not explain unique variance in perceived effectiveness of team-based employee involvement programs beyond access to information, team heterogeneity, and team size (Maguika & Baldwin, 1991). In a qualitative field study of 39 health care workers, Tjosvold (1988) found that perceptions of rewards for group success was cited as a primary reason for the development of goal interdependence among team members by only 13 percent of subjects. In contrast, a sense of a shared purpose and common tasks were cited as primary reasons for the development of goal interdependence by 41 and 26 percent of subjects, respectively. As noted previously, Wageman (1995) found that the type of reward system used (individual rewards, group rewards, or both) exerted no independent effects on cooperation, helping, job satisfaction, and quality of group process among team members, and no differences in performance were found between teams receiving individual and group rewards. Similarly, Gladstein (1984) demonstrated that when teams were rewarded for their performance, they did not achieve higher levels of performance. In concert, the results of these field studies provide mixed support for the
effectiveness of team-based reward practices, as compared to individually based practices.

Several large-scale, survey-based studies have also examined perceived effectiveness of team-based rewards (O'Dell, 1987; Lawler, Mohrman, & Ledford, 1992, 1995). For example, a 1987 survey of the members of the American Productivity Center and the American Compensation Association revealed that 75 percent of organizations using team rewards indicate that the overall performance impact has been positive or very positive (O’Dell, 1987). Similarly, Lawler, Mohrman, and Ledford (1995) reported that work group incentives were rated as successful or very successful by 61 percent of the organizations using them. Taken together, the results of these surveys indicate that the majority of firms adopting team rewards are satisfied with these plans.

In summary, the field-based empirical evidence is limited and inconclusive. Results of several recent studies using rigorous methodologies have challenged the assumption that team rewards are related to team cooperation and enhanced team performance (e.g., Wageman, 1995). More importantly, the lack of consistency in the results of the field studies suggests that other contextual factors may be influencing the effectiveness of team rewards. While the survey-based research has yielded generally positive results, these studies are atheoretical and descriptive in nature and do not involve data analysis techniques. Moreover, the results of the survey-based research may not be representative of the population of organizations utilizing team-based rewards for two reasons: (1) firms with unfavorable results may have disbanded their plans, and (2) firms with unfavorable results may have chosen not to participate in the surveys. Thus, it is unclear the extent to which response bias may be distorting these survey results.

General Conclusions from the Research

Despite hundreds of studies examining group rewards, the conditions under which team rewards will be effective are unclear. Results in the laboratory are generally more supportive than those in the field, where the evidence is mixed. Across both lab and field studies, the majority of studies examined the use of individually versus team-based rewards without considering differences in implementation that may influence their effectiveness (i.e., How frequently should rewards be allocated? What is the optimal reward size?). This omission has left the practitioner with little guidance to aid in the design of team reward systems. In addition, little empirical attention has been given to questions of how and why team rewards should affect group functioning and under what circumstances they will be most effective.

To address the question of what characteristics of the reward system, organization, team, and individual may facilitate the effective implementation and success of small group incentives, we reviewed the theoretical and empirical literature
whose findings bear on this question. In so doing, key factors were identified that may be associated with the effectiveness of small group incentive systems.

**FACTORS INFLUENCING THE EFFECTIVENESS OF TEAM-BASED REWARDS**

In this section a framework is presented to illustrate the factors proposed to be related to the effectiveness of group-based incentive systems. The framework presented in Figure 1 is an exploratory attempt to integrate the diverse literatures that bear on the relationship between team-based rewards and group effectiveness. By integrating these literatures, we identify the critical conditions necessary for the effectiveness of team rewards. While the studies in Table 1 provided the domain for our review, they often did not provide specific recommendations for the design and implementation of team reward systems. As a result, it was often necessary to infer factors that would influence the effectiveness of team-based reward practices from these studies as well as from case studies, practitioner sources, and related literature. While many other variables may influence the effectiveness of team rewards, the literature suggests that those in Figure 1 may be among the most crit-

![Figure 1. Factors Influencing the Effectiveness of Team-based Rewards](image-url)
ical. Before discussing these characteristics, we first briefly review the criteria relevant to understanding the effectiveness of team-based rewards.

Effectiveness of Team-Based Rewards

As shown in Figure 1, we suggest that the effectiveness of team-based rewards depends on characteristics of the reward system, organization, team, and individual team members. Effectiveness is broadly defined as encompassing multiple levels of analysis: organization-level criteria such as productivity, turnover, and incentive system costs (e.g., O’Dell, 1987), group-level criteria such as team productivity and effectiveness (e.g., Konovsky & Podskoff, 1993), and individual-level criteria such as employee job satisfaction and commitment (e.g., Gomez-Mejia & Balkin, 1989). Depending on the goals of the organization, the effectiveness of team-based rewards may be evaluated against a combination of individual-, group-, and organization-level criteria. While it is beyond the scope of the present paper to delineate all of the possible criteria at all levels, it is important to recognize that team-based rewards may influence criteria at multiple levels and each factor delineated in Figure 1 may be more or less important in understanding effectiveness at different levels of analysis.

Reward Characteristics

The literature on motivation supports the view that extrinsic rewards such as pay can influence performance (Lawler, 1981; Vroom, 1964). Research has demonstrated that an effective pay system can increase the motivation of individuals to perform by as much as 40 percent (Nalbantian, 1987; Blinder, 1990). Despite the fact that pay can motivate higher levels of performance, in many cases it does not, especially in team-based organizations (Lawler, 1981). Efforts to design and implement reward systems to promote team effectiveness have often been unsuccessful (McGourty, 1994). These findings have led researchers and experts in the field of compensation to conclude that financial incentives can increase performance only when the system is designed properly (Guzzo, Jette, & Katzell 1985). Therefore, characteristics of the reward system can be expected to influence the effectiveness of team-based rewards. Key features of team reward systems include reward size, frequency of payout, and reward allocation procedures.

Reward Size

Research on individually based rewards has shown that reward size is correlated with pay satisfaction and motivation (Wagner, Rubin, & Callahan, 1988). Despite the increase in the number of firms adopting group-based compensation alternatives, there is surprisingly little research exploring the optimal reward size in
team-based reward plans. It is reasonable to expect that reward size and the amount of pay contingent on group performance will be associated with higher motivation and group performance. With larger amounts of pay contingent on group performance, it is in the group's interest to work cooperatively together to achieve higher bonuses. In fact, in a study of 665 gainsharing plans, Zenger and Marshall (1995) found that the incentive intensity of the plan (amount of pay contingent on performance) was positively related to group performance. Another study found similar results: plans with larger rewards resulted in greater performance improvements (Thornberg, 1992).

Lawler (1981) has noted that there is no "magic formula" to determine how large a reward must be to influence motivation or performance. Existing research suggests that the actual amount needed varies substantially from individual to individual, may be a function of organizational and economic conditions, and may vary according to the total compensation received (Lawler, 1981). In general, the potential must exist for an individual to receive a noticeable increment in his or her pay. Between 1981 and 1985 the size of bonuses under team-based plans ranged from 10.3-12.2 percent of base pay across both goods and service sectors (O'Dell, 1987). Studies of merit pay have estimated that unless a merit raise is at least 6 to 7 percent of base pay, it will not significantly influence employee attitudes and behavior (Mitra, Gupta, & Jenkins, 1995; Peck, 1984). Others have suggested that individual incentive plans are motivational only if they enable an employee to earn around 30-35 percent over base pay (e.g., Patten, 1977).

Whether or not researchers can agree on the exact size of the reward needed to motivate individual employees, a more critical issue is the lack of research exploring this issue at the team level. The literature on reward size has almost exclusively focused on individual pay raise increases (Lawler & Jenkins, 1992), however, the size of the reward necessary under team-based plans may differ from that required in individual plans. For instance, team-based organizations may provide more non-monetary rewards (e.g., social relationships with team members) to team members and therefore require fewer financial incentives to be effective. In addition, non-monetary, recognition-based rewards (e.g., feedback, plaques) may be effective in team-based environments, although there is virtually no data addressing the effectiveness of these types of rewards (Lawler & Cohen, 1992). It is clear that research is needed at the group level to determine the appropriate size and type of rewards for team incentive systems.

Frequency of Payout

Another important reward characteristic is the frequency with which rewards are distributed. The importance of the temporal link between performance and outcomes has been a dominant theme in the literature on motivation (Vroom, 1964) and the effectiveness of pay systems (Lawler, 1981). The stronger and more
consistent the link between pay and performance, the more motivational the rewards (Goodman & Dean, 1982). Consequently, it is proposed that rewards should be distributed to group members frequently enough that the desired behaviors are reinforced. Despite the apparent need for a close temporal relationship between the behavior and the reward, estimates by the American Productivity Center indicate that rewards are typically distributed once a year to managerial, professional, and technical employees, with nontechnical and nonmanagerial workers receiving more frequent payouts (O'Dell, 1987). It seems evident that if small group incentives continue to be used in organizations, research is needed to examine the effects of varying payout frequency on motivation, performance, attitudes, and productivity in teams.

Reward Allocation Procedures: Equality versus Equity

Another critical reward characteristic is the allocation rule used to distribute rewards. Leventhal and his associates studied the conditions under which people proactively employ various justice norms (Greenberg & Leventhal, 1976) and identified two distinct allocation rules that may be used to distribute rewards: the equality norm (dividing the team’s reward equally regardless of differential contributions among members) and the equity norm (distributing the team’s reward proportional to the contributions of the individuals). According to Leventhal’s (1976) justice judgment model, individuals attempt to make fair allocation decisions by applying these allocation rules to the situations they confront. The choice of a preferred allocation strategy is often dictated by situational factors (Deutsch, 1975; Leventhal, 1976) with different norms of justice followed under different circumstances. For example, it has been shown that people believe social harmony is maintained through the use of equal reward allocation procedures, whereas performance is maximized by systems that allocate outcomes equitably (Deutsch, 1985). In other words, when the importance of maintaining solidarity or cohesion among group members is critical, the allocation procedure viewed as “fair” by group members may the use of an equality norm (Deutsch, 1975).

Early research and theory point to a practical dilemma: equal distribution of team rewards may foster cohesion and solidarity among team members yet differential allocation based on individual performance within the team may maximize team performance. Must organizations choose between performance and cohesion? Our answer is no for several reasons. First, as we will discuss in a later section, the preferred allocation method may vary as a function of the group’s stage of development with newly formed groups benefiting most from equal distribution and a shift toward a preference for more equitable distribution as the group matures. In addition, the distinction between equal and equitable reward distribution may be less critical in practice where reward systems overwhelmingly incorporate multiple components, some of which deliver equal rewards within the team, others that deliver rewards equitably. For example, an individual’s pay package
may include merit pay increases which reward individual effort, team-based bonuses in which rewards are allocated equally among team members, and gain-sharing based on the plant's productivity which may distribute rewards equally. In other words, pay systems can be designed to incorporate the motivational push of individually based rewards and the cooperation-enhancing benefits of team-based rewards such that no single reward component need to carry the weight of addressing all of the intended outcomes of the reward system.

In summary, existing research and theory on allocation procedures suggest that equitable versus equal distribution rules can influence the effectiveness of team reward systems such that equal distribution is more likely to foster group solidarity and cooperation in work teams while equitable distribution is likely to foster team productivity. In practice, a reward system can shift from equal to equitable distribution over time, and can include a mix of equal and equitable pay components to maximize its effectiveness.

Organizational Characteristics

Several features of organizations figure prominently in the design and potential effectiveness of team-based reward systems. These include organizational culture, congruence among organizational subsystems, and structural characteristics of the firm.

Organizational Culture

Organizational culture may play a critical role in the success of team-based reward programs. Organizational culture has been defined in many ways, including (1) consensus regarding how to conduct business, embodied in the organizations norms and values (Kotter & Heskett, 1992), (2) the individual interpretations of behavioral and physical manifestations unique to a particular organization (Martin, 1992), and (3) the artifacts, norms and values, and underlying assumptions shared by organizational members (Schein, 1990). While authors conceptualize culture slightly differently, all share a common focus on the importance of shared perceptions of organizational norms and values regarding appropriate behavior. An interest in organizational culture and its relationship to organizational functioning grew out of the realization that traditional models of organizations could not account for disparities between organizational goals and outcomes or between organizational strategy and implementation. In other words, organizational culture has been identified as an important factor in explaining difference in organizational effectiveness that cannot be accounted for by differences in structural characteristics of the firm (Pascale & Athos, 1981).

In a recent review of the literature on the impact of cultural values on employee resistance to teams, Kirkman and Shapiro (1997) argue that cultural values such as power distance (Hofstede, 1980), determinism (Kluckhohn &
Strodtbeck, 1961), and individualism (Hofstede, 1980) can influence the extent to which employees resist self-management and teams. At the organization level, research has shown that an organization’s culture can be a barrier to the success of organizational change efforts such as total quality management (Masters, 1996). The importance of a culture that supports a team-based incentive system has been strongly recommended in both the practitioner (e.g., Belcher, 1994; Morgenstern, 1995; Nickel & O’Neal, 1990) and academic (e.g., Bento & Ferreira, 1992) literatures. Experts in the field of compensation have noted that, “Whether employees like team incentives...depends on whether the reward system is congruent with the other management systems and the philosophy and culture of the organization” (Morgenstern, 1995, p. 43, italics added). Organizational culture is important because it provides employees a shared understanding of the behaviors that will be valued by the organization (Lundby, DeMatteo, & Rush, in press).

It could be argued that certain cultural values tend to support the use of team rewards. Most obvious, the extent to which the culture of an organization is collectivist versus individualistic is likely to determine how receptive employees are to reward practices based on team rather than individual performance. In a highly individualistic organizational culture, the introduction of teams and team-based compensation are likely to be faced with considerable resistance whereas team-based rewards are more likely to be embraced in organizations with collectivistic cultures (Kirkman & Shapiro, 1997). Similarly, Cameron and Freeman (1991) described four types of organizational culture based on the extent to which the organization is mechanistic versus organic and the relative emphasis on internal maintenance or external positioning. According to this perspective, an organization’s culture can be described as a hierarchy (focus on rules, order, and regulation), a clan (focus on cohesiveness, participation, and teamwork), an adhocracy (focus on entrepreneurship, creativity, and adaptability), or a market-oriented culture (focus on competitiveness and goal achievement). Based on these dimensions, it appears that the set of values expressed in a clan culture would be the most congruent with the philosophy underlying the use of team-based pay practices. On a more general level, cultural values of communication and information sharing and a commitment to developing employees may be important to the success of team-based rewards because team goals and expectations must be communicated to employees, achievements must be recognized, and feedback must be shared (Nickel & O’Neal, 1990).

**Congruence among Rewards, Strategy, and Subsystems**

Effectiveness of a pay system and its contribution to an organization’s performance may depend on its fit or congruence with organizational (Gomez-Mejia & Balkin, 1992; Lawler, 1990; Milkovich & Wigdor, 1991) and performance management (Geber, 1995) strategies. According to the literature on strategic compen-
sation, human resource strategies such as reward practices are an integral component of corporate strategy which ideally should support and reinforce the purpose of the organization (Lengnick-Hall & Lengnick-Hall, 1988; Milkovich, 1988). The fit between compensation strategy and organizational strategy contributes to a firm's performance by signaling and rewarding behaviors consistent with the organization's objectives (Milkovich, 1988) and/or by establishing congruence between the organization and its external environment (Montemayor, 1996).

For example, relying on Porter’s typology (1980), research has found that firms adopting a cost leadership strategy tend to adopt HR practices that are results-oriented, hierarchical, and structured, whereas HR practices needed to execute the differentiation strategy effectively include high participation, incentive pay, and heavy use of training and development (Schuler, Galante, & Jackson, 1987). Similarly, in a study examining congruence between pay policy and competitive business strategy, Montemayor (1996) found that superior firm performance was associated with alignment between the firm’s pay policy and its strategy whereas inferior firm performance was associated with a lack of fit between pay and strategy. With respect to team rewards, researchers have argued that organizations which have replaced the individual with the group as the primary work unit should adopt team rewards to support this design of work and engender collaborative performance (Gomez-Mejia & Balkin, 1989; Snell & Dean, 1994).

Congruence among subsystems within the firm may also be critical. Reviews in the areas of performance appraisal and merit pay research and practice have found that the success or failure of a system may be influenced by the internal organizational context in which it is implemented (Milkovich & Wigdor, 1991). When incongruence exists among multiple systems within organizations, conflict may be created in which organizational members are unclear as to the desired behaviors. For example, if different systems in the organization (e.g., performance appraisal system and compensation system) suggest different desired behaviors (e.g., individual achievement versus group performance), performance may be sacrificed to the extent that employees receive conflicting feedback about what behavior is expected and valued by the organization (Bannister & Balkin, 1990). This may result in perceptions of role ambiguity, group conflict, and may contribute to lower levels of team effectiveness. In sum, compensation strategies such as group-based rewards are most likely to be effective when they are contingent on the overall strategy of the firm and are supported by various organizational subsystems (Milkovich, 1988).

Structural Characteristics

The success of team reward systems may also depend in part on structural characteristics of organizations that exist at the time of introduction. A basic requirement is, of course, the existence of a team-based organizational structure. Another key structural variable is the size of the organization. The literature on organiza-
tional theory suggests that the size of an organization is associated with increasingly complicated structures, greater specialization, and more mechanisms for coordination (e.g., Daft, 1995; Katz & Kahn, 1978). These features of larger organizations may create increasing complexity in designing and implementing systems. This suggests that small firms may be able to introduce and monitor team reward systems more effectively than larger firms.

Success may also depend on other organizational interventions introduced concurrently with team rewards. For example, some organizations have implemented team reward systems while simultaneously introducing other practices such as employee involvement, total quality management (TQM), or participative decision-making programs. These organizational interventions may either support or cripple the team reward program. For example, Lawler, Mohrman, and Ledford (1995) reported that the relationship between the use of performance-based reward practices (i.e., team-rewards, gainsharing) and performance outcomes was contingent on whether the firm had also adopted TQM. Specifically, firms reporting greater use of performance-based reward practices were more likely to perceive performance improvements when they were pursuing total quality management than when they had not implemented TQM.

Team Characteristics

Characteristics of the work group are also believed to impact the effectiveness of team reward systems. Among many potentially important features are within and between team task interdependence, team size, stage of group development, team type, team composition, and the measurability of team performance.

Task Interdependence

Task interdependence refers to the degree of task-driven interaction among group members (Shea & Guzzo, 1987b). An understanding of task interdependence is particularly critical when considering group rewards because of the influence of task interdependence on the appropriateness of alternative reward strategies. As interdependence among team members increases, contributions of individuals become more intertwined, making it difficult to separate accomplishments of individual team members. As a result, the use of team-based incentives may be more appropriate than individual incentives under conditions of high task interdependence because of the difficulty in isolating the individual contributions of team members (Nickel & O’Neal, 1990). Moreover, team incentives are particularly well suited in a highly interdependent environment because the rewards may act as a signaling device indicating the importance of positive group interaction, as well as reinforce those behaviors.

While task interdependence has been shown to directly influence outcomes such as helping, information sharing, and communication (e.g., Johnson, 1973;
Johnson & Johnson, 1989), some evidence suggests that teams with interdependent tasks exhibit higher performance when they receive group-based rather than individually based rewards (e.g., Miller & Hamblin, 1963; Wageman, 1995; Wageman & Baker, 1997). Several authors have proposed congruency models of team effectiveness based on the notion that if tasks and outcomes are congruent (i.e., independent task paired with individually based rewards or interdependent tasks paired with group-based rewards), team effectiveness will be maximized (e.g., Saavedra, Earley, & Van Dyne, 1993; Shea & Guzzo, 1987a; Tjosvold, 1986; Wageman & Baker, 1997). Overwhelmingly, research has supported this proposed interaction. Although most research examining the interaction between reward and task interdependence has been conducted in the lab, recent field research continues to support the earlier findings (e.g., Wageman, 1995). Thus, task interdependence appears to be closely linked to the success of team rewards.

Between-Team Interdependence

Another critical variable is the extent to which team performance is contingent on the performance of other teams in the organization or the level of integration across teams. Specifically, team-based rewards are more likely to be successful when the work of the team is relatively independent of other teams for two reasons. First, when work is designed so that teams must cooperate, rewards that reinforce individual team performance may increase competitive behavior across teams and decrease between-team cooperation. A team may become so focused on achieving its own goals that, rather than working with other teams, it may compete against other teams. Secondly, between-team interdependence may make team-level performance measurement difficult because the team’s performance may be a product of the influence of members from many teams. For these reasons, team-based rewards will be most effective when the work of teams is relatively independent.

Team Size

Team size has also been identified as a critical variable in understanding the effectiveness of reactions to team-based plans (Wilson, 1990; Lawler, 1981) primarily because of the influence of group size on the plan’s ability to motivate team members (Lawler, 1981). According to expectancy-based theories of motivation, rewards hold more motivational potential at lower levels of aggregation because employees more clearly see how their efforts translate into reward-producing outcomes (Vroom, 1964). As group size increases, individual performance is further removed from the amount of the reward, diminishing the line of sight between pay and performance. Thus, attaching incentives to the performance of smaller teams may increase perceptions of individual control over performance and hence, rewards (Zenger, 1995). Supporting this motivational explanation, Campbell
(1952) demonstrated that one of the major reasons for lower productivity in large
groups under group incentive plans is that workers do not perceive the relation
between pay and productivity as well as they do in smaller groups.

The prediction that team-based rewards will be more effective at lower levels of
aggregation represents another dilemma: if the line of sight between pay and per-
formance and, hence, the motivational potential of the reward, is greater as team
size diminishes, why not just use individually-based rewards? The answer lies in
the assumption that team rewards do something qualitatively different than indi-
vidual rewards. As mentioned previously, while the use of individual rewards may
motivate individuals to achieve higher levels of performance, team-based rewards
may serve this purpose as well as prompt team members to engage in cooperative
behavior and to think as a unit, rather than as competing individuals (Deutsch,
1949; Tjosvold, 1986; Geber, 1995). In other words, those advocating the use of
team rewards argue that the choice of team-based versus individually based
rewards may involve a tradeoff in which cooperation, helping, and information
sharing at the team level is gained at the expense of some motivation loss at the
individual level.

Stage of Group Development

Some small group theories suggest that groups exhibit developmental phases
during which members’ relationships and collective effectiveness evolve over
time (e.g., Tuckman & Jensen, 1977). If so, the effectiveness of a team reward sys-
tem may vary with the developmental progress of the group, and optimal incentive
characteristics may depend on these developmental factors. In other words, the
question may not be whether or not team incentives are effective but rather, how
can they be designed to maximize their effectiveness across different situations.
Current thinking on group development points to developmental shifts in internal
group dynamics that may be important to members’ responses to group-based
incentives. The widely cited model by Tuckman and Jensen (1977) and the more
recent model by Gersick (1988) are consistent with a group “learning curve”
(Argote, 1993) in which groups exhibit changes over time in internal processes,
task performance, and external relations (for a review, see Guzzo & Shea, 1992).

As groups develop over time, members may respond differently to group
bonuses. For example, members of new groups may be satisfied with an incentive
system that provides an equal distribution of rewards, at least until the group has
worked out its members’ roles and working relationships. As groups mature, how-
ever, members may notice differential contributions by individuals in the group,
and may want differential allocation of group rewards to reflect those contribu-
tions. In effect, group development may bring rise to a norm shift in the group
from one of equality to one of equity. Consistent with the idea that satisfaction
with incentives may vary with group development, Rothgerber, Worcobel, Day, and
Goodwin (1995) found that individual’s allocation preferences varied as a func-

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tion of the group's stage of development such that group members preferred giving themselves a greater portion of a group bonus as the group developed over time.

In sum, team-based rewards may only be effective to the extent that they can be tailored to address changing needs at different developmental stages. Unfortunately, most research on group incentives has not examined the effects of the stage of group development. While current research does not indicate the extent to which group development gives rise to shifts in the responses of team members, it may be wise to assume that an incentive system well suited for a newly formed team may not be optimal for a mature team.

Team Type

It has been proposed that the effectiveness of team-based rewards will be maximized when the pay and reward systems used are aligned with the team type. Team incentives are more likely to be effective for teams with clear, measurable output or goals such as project or self-managing work teams. Similarly, team incentives may be more effective for teams with permanent assignments and/or teams whose work will continue for longer periods of time (e.g., Ancona & Caldwell, 1992). In contrast, the utility of group incentives may decrease in teams with short life spans, as in parallel teams such as quality circles (Dumas, 1994) and advisory groups (Lawler & Cohen, 1992). Also, team rewards may be difficult to administer effectively in teams with frequent turnover. Research and development teams have also achieved favorable results following the implementation of team-based rewards (e.g., Gomez-Mejia & Balkin, 1989). In general, the more a team is self-contained, has stable membership, and has clear, measurable goals, the more likely team-based rewards will be effective (Lawler & Cohen, 1992).

Team Composition: Heterogeneity versus Homogeneity

The composition or mix of members' personality, ability, and other characteristics has figured prominently in research on small groups (e.g., Shaw, 1981). A key feature of composition, heterogeneity, has been linked with group performance. Galarza and Dipboye (1996) reported a meta-analysis in which group heterogeneity correlated positively with performance on creative and decision-making tasks, but correlated inversely with effectiveness on performance tasks like those found in production and service work. Team heterogeneity is important to the effectiveness of team rewards because of its potential connection with perceived inequity in teams. To the extent that team members differ on performance-relevant characteristics such as ability, the likelihood of differential individual contributions increases, and with it, the chance that some members will see their contributions as disproportionate, leading to lower levels of motivation and team performance (Albanese & Van Fleet, 1985). Even so, the relationship between team composi-
tion and effectiveness of team rewards has rarely been studied, despite its potential importance (Gerhart & Milkovich, 1992).

Measurability of Team Performance

As mentioned previously, one reason for adopting team-based reward systems is the inability to measure individual contributions in a highly interdependent environment (Nickel & O’Neal, 1990). Utilizing team-based rather than individually based rewards requires the ability to obtain objective, quantifiable measures of productivity and/or performance at the group level. This is particularly important in group-based plans where the boundary between individual and team performance is often ambiguous and must be managed carefully to avoid perceptions of inequity (Lawler, 1981). Similarly, it is important to ensure that the teams will be able to influence the criteria on which they will be evaluated (Lawler, 1981). This is also critical because if team members feel they are unable to influence the criteria on which they will be evaluated, or if the criteria are believed to be largely a function of conditions beyond the control of the team members such as factors in the external environment, acceptance of the incentive system and collective motivation may be adversely affected (cf. Lawler, 1981; Dobbins, Cardy, & Carson, 1991; Karau & Williams, 1993). As a result, team rewards may only be effective when clear indicators of the team’s performance exist and team members have influence over these indicators.

Individual Characteristics

There has been limited research examining how individual differences or team composition impact the effectiveness of reward systems (Gerhart & Milkovich, 1992). Certain characteristics of individuals may enhance the attractiveness of group-based incentives thus influencing their effectiveness. While many individual differences could account for reactions to group-based pay plans, three characteristics that may be paramount include ability, need for achievement, and individualism-collectivism.

Ability

Group members’ perceptions of their ability and/or contributions to the team’s output may be a critical variable in understanding differential reactions to team-based rewards (Hofmann & Salter, 1995). Several authors have cited concerns that the highest ability team member or top performer in a group will react negatively to group-based systems (e.g., Loher, Vancouver, & Czajka, 1994). Theoretical support for this concern can be found in the literature on equity theory. Allocating pay based on team performance may provoke perceptions of inequity for several reasons. In an organization using team-based rewards, an individual’s perfor-
Team Rewards

One potential problem is that its performance is based on his or her individual effort whereas the reward is based on the performance of the group as a whole. If an individual perceives that the inputs of other teammates vary, yet the rewards or outcomes are distributed equally, rewards may be perceived as unfair (cf. Adams, 1965). High ability team members may perceive that they are carrying the weight of less able group members while receiving equivalent rewards. According to the literature on free-riding, group members who feel they are over-contributing may reduce their contributions to the group to avoid being labeled a "sucker" (Albanese & Van Fleet, 1985; Sheppard, 1993), decreasing the overall effectiveness of the team reward system.

A study by Yamagishi (1988) demonstrated the role of ability in reactions to team-based reward practices. Students working in teams performed several trials of a task for which free-riding was a potential threat. At the beginning of each trial, subjects could choose to remain in the group and share equally the rewards of the trial with the other teammates, or leave the team and be subsequently rewarded solely for their individual performance. Results indicated that students whose contributions to the team were high were more likely to leave the group than students whose contributions were low. Similar conclusions were reached in a more recent study by Park, Ofori-Dankwa, and Bishop (1994) which demonstrated that functional and dysfunctional turnover was differentially related to incentive system characteristics. Low performing individuals were more likely to leave their organization under individual incentives whereas higher performing individuals were more likely to leave their organization under group incentives. These findings suggest that the use of team-based incentives may be related to higher levels of turnover among high ability employees.

The use of team-based reward practices may have additional dysfunctional consequences for the organization. Bretz and Judge (1994) found that individuals prefer working in environments in which their individual efforts and contributions are recognized and Cable and Judge (1994) reported that jobs in which pay plans have an individual rather than a group focus are significantly more attractive to job seekers. Cable and Judge (1994) also reported that individuals with high self-efficacy were more attracted to jobs with individually based incentive systems and less attracted to jobs with group-based plans than individuals with lower efficacy. Taken together, talented individuals with high self-efficacy may be dissatisfied in organizations utilizing group-based rewards, less attracted to firms utilizing team reward practices, and less likely to accept jobs in organizations using group-based pay systems.

Interestingly, while it appears as if team-based rewards may be associated with dissatisfaction and turnover among high ability employees at the individual level, predictions about the influence of ability at the team level may be qualitatively different and more complex. Specifically, previous research has consistently shown a positive relationship between the number of high ability members on a team and team performance (e.g., Futrell & Sundstrom, 1993, 1996; Kabanoff & O’Brien, 1979; Tziner & Eden, 1985). Given the relationship between ability and perfor-
mance, it could be argued that teams composed of more high ability people will be more accepting and satisfied with the use of team-based rewards because their higher levels of performance will undoubtedly translate into larger or more frequent rewards for those teams. In contrast, a team composed of low ability members may receive smaller or less frequent rewards due to lower levels of performance and, thus be less accepting of team-reward practices. Concerns over the fairness of reward distribution is likely to be highest in teams that are heterogeneous with respect to ability (i.e., some high and some low ability members) because the likelihood that high ability members will perceive free-riding is maximized.

Need for Achievement

As conceptualized by McClelland (1965, 1985), need for achievement reflects both a motive pattern and value or preference for certain types of tasks. As a motive pattern, need for achievement arouses individuals to seek out situations where he or she can gain a sense of accomplishment through individual effort. As a preference, need for achievement predicts cognitive choice in particular situations (e.g., compete with co-workers rather than cooperate). In addition, individuals with a high need for achievement are characterized by a competitive disposition and contest orientation toward reward allocation (Bretz, Ash, & Dreher, 1989; McClelland, 1965). These characteristics have implications for reactions to team bonuses, where individual contributions may be diffused and expectancies less clear and more complex (Karau & Williams, 1993). Not surprisingly, numerous studies have shown that individuals with a high need for achievement are attracted to jobs (Cable & Judge, 1994) and organizations (Turban & Keon, 1993) that offer individually based pay systems rather than group-based pay systems. Similarly, Steers and Braunstein (1976) found that individuals with a high need for achievement were more likely to choose a highly autonomous task, rather than an interdependent task. In addition, because need for achievement is associated with a competitive, contest orientation, there may be dysfunctional consequences as the number of team members who are high on need for achievement increases within a team. For example, Hogan, Raza, and Driskell (1988) found that on tasks requiring social interaction, teams with members who were high on achievement orientation were less likely to share information and provide each other guidance. This lack of cooperative behavior decreased overall team performance. This evidence suggests that team-based reward practices may be less effective in environments in which employees tend to have high levels of achievement orientation.

Individualism-Collectivism

With the movement to work teams, and subsequent efforts to foster cooperation and commitment to group goals, researchers are increasingly interested in discern-
ing the motivational bases of cooperative team behavior. An emerging body of research has identified individualism-collectivism (i.e., preference for working in teams) as an important individual difference variable in understanding reactions to group-based work (e.g., Deutsch, 1975; Eby & Dobbins, 1997; Wagner, 1995) and reward practices (Cable & Judge, 1994). Such a preference for team work is purported to exist on a continuum, from a highly individualistic orientation to a highly collectivistic orientation (Wagner & Moch, 1986). Collectivism is characterized by an orientation toward group goals, cooperation, intense attachment to and identification with the group, and concern for the group (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988) whereas individualists prefer to work alone and tend to value individual goals and autonomy (Wagner & Moch, 1986).

Based on these divergent orientations, team members characterized as individualists or collectivists may differ markedly in their satisfaction with team-based incentives, with collectivists showing more satisfaction with team-based pay plans than individualists (Bento & Ferreira, 1992). Specifically, because collectivists prefer to receive group-based recognition and do not enjoy being singled out among their peers, collectivists are more likely to prefer an equality-based reward system in which differentiation among team members is reduced (Hofstede, 1980). In contrast, individualists are more likely to prefer an equity-based reward systems in which rewards are based on individual performance, due to their desire for individual recognition (Kirman & Shapiro, 1997). In support of these hypotheses, Cable and Judge (1994) reported greater levels of fit between individual personality traits and compensation design factors; individualists were more attracted to individually based plans than were collectivists (Cable & Judge, 1994). There is also some evidence at the group level to support the importance of individualism-collectivism. Specifically, Eby and Dobbins (1997) found that as the number of collectivists on a team increased, so did the level of cooperative team behavior and team performance. To the extent that higher levels of performance are associated with achieving higher levels of team bonuses, teams comprised of collectivists may be more accepting of team-based reward practices. As the use of teams increase and organizations experiment with alternative reward strategies, the number of individualists and collectivists on a team may be an important factor influencing acceptance of group-based systems.

While the relationship between team composition and the effectiveness of team-based rewards is unclear, the possibility exists that team-based rewards may not be effective for all types of employees.

**PRIORITIES FOR RESEARCH**

A major purpose of this paper was to provide the researcher and practitioner with a summary of the empirical evidence on the effectiveness of team-based rewards. In general, the existing research provides only a limited basis for conclusions
about the effectiveness of team-based rewards and a broad range of research questions still plague the literature. In the next section several avenues for future research are presented. Rather than list the many hypotheses that could be explored, broad research needs are identified which cut across many of the issues raised in the present review.

Optimum Reward Characteristics:
Size, Frequency, and Allocation Method

Characteristics of the reward system such as the optimum reward size and frequency of reward payouts are critical areas in need of research since these variables have the potential to directly affect employee motivation and attitudes, group outcomes, and, ultimately, the success of team-based plans. While research has explored these issues with respect to individually based pay plans, virtually no research has examined these same variables for team-based plans. These issues are not only important for research but also for the practitioner struggling with the design and implementation of team-based rewards.

Other research questions concern the basis and method of allocating rewards within teams. The key issue is whether rewards should be distributed among team members based on an equal principle or an equity principle and the consequences of the allocation method selected. As mentioned previously, research by Greenberg and Leventhal (1976) suggests that reward allocation procedures may influence individual motivation, team cohesion, and team performance. Specifically, while rewards distributed equally to group members may foster group harmony and cohesion, rewards distributed equitably may lead to higher levels of individual motivation and performance (e.g., Greenberg & Leventhal, 1976; Heneman, Greenberger, & Strasser, 1988). Welbourne and Cable (1995) also addressed the role of allocation method in a conceptual model of the effects of team incentives on pay satisfaction based on predictions from identity theory (Burke, 1991). According to this model, group incentives influence outcomes by increasing the salience of different work-related roles. For example, group bonuses distributed equally may result in employees' referring to their organizational or team membership as the most salient role. In contrast, when rewards are distributed equitably, the most salient role should be the personal role of job holder. Welbourne and Cable (1995) contend that the activation of different roles will dictate whether employees will be satisfied with different aspects of their pay. In two, quasi-experimental field studies some support was found for these hypotheses.

Another question is the impact of reward characteristics in relative terms. In other words, what is the size of the impact of team-based rewards on various criteria as compared to task characteristics, team composition, other human resource practices (e.g., peer feedback), or organizational structure or climate? Although some research has explored these types of questions (e.g., Pritchard et al, 1988; Wageman, 1996), it is still not clear whether team-based rewards provide incre-
mental benefits beyond other organizational conditions and practices. This is a particularly difficult question. Due to the number of factors operating simultaneously in many organizations (e.g., employee participation, workplace redesign), existing research often does not allow us to separate the effects of group-based plans on performance from the effects of many other contextual conditions usually associated with the design and implementation of group incentive plans (cf. Dobbins, Cardy, & Carson, 1991). Consequently, even when positive effects are noted, it is often difficult to say that group plans caused those performance changes or specify how they did so.

Effects of Multiple Reward Practices

Research on team rewards has tended to adopt an “either-or” approach focusing on individually or group-based rewards separately but not in combination (for exceptions, see Rosenbaum et al., 1980; Wagemen, 1995). Perhaps a more appropriate question concerns the most effective combination of reward strategies to best meet the often conflicting goals in today’s organizational environments (Lawler & Cohen, 1992). In other words, how can multiple reward practices be used to reinforce and encourage high levels of individual performance and, at the same time, foster teamwork among individuals?

In most organizational settings, group-based rewards are implemented as a supplement to existing compensation systems. As reward systems become increasingly sophisticated, an important issue is the optimal combination of incentives such as individually based merit pay, skill-based pay, team-based incentives, and large group incentives (cf. Lawler & Cohen, 1992). There is virtually no research examining the optimal distribution of pay across these pay elements, including the relative size of the team reward component. Researchers have suggested that rather than choosing either individual- or group-based incentives, a combination of the two incentive strategies may be more effective in motivating performance at the individual level and cooperation at the team level (Heneman & von Hippel, 1995; Pearce & Ravlin, 1987). Work teams may perform most effectively, for example, under a two-tiered incentive system that includes an equal bonus for all group members and additional bonuses for the “most valuable players” thereby incorporating the potential benefits of both equal and equitable reward allocation methods. It has also been recommended that the appropriate balance between team-based and organization-based rewards (i.e., profit sharing, ESOP’s) should depend on the degree of interdependence between the team and other organizational units (Lawler & Cohen, 1992), although there is little research exploring this issue. In sum, research examining how different reward strategies interact to influence different criteria (i.e., motivation, cooperation, team performance, organizational performance) would have great theoretical and practical value.
The Role of Justice

We feel that one of the most promising areas for future research involves examining the effects of team-based reward practices on perceptions of procedural and distributive justice. Organizations have adopted team rewards with little consideration of the possibility that employees may not perceive group-based reward practices as fair. While research has examined perceptions of justice as a function of individual pay contingencies (e.g., Greenberg, 1990), considerations of justice have been virtually unexplored in the literature on team-based rewards. This is an important omission in the literature given that the majority of the research is based on brief interactions among subjects in a laboratory setting. It is unclear what the longer-term effects of perceived unfairness on team morale and effectiveness may be. Examining perceptions of justice in the context of team-based pay plans seems especially important given that perceptions of inequity among team members may develop due to varying ability levels and contributions among team members, differing expectations among team members with regard to acceptable standards of performance, potential social loafing and free-riding in team settings, and the administrative complexity of implementing team-based rewards. Research on individual pay practices has consistently shown that individuals respond negatively through reduced effort, withdrawal, or even sabotage, to perceptions of unfairness in their pay. It is reasonable to assume that perceived unfairness under group-based plans will also provoke behavioral effects that will negatively influence cooperative team behavior and, ultimately, team performance.

Although virtually no research has examined justice in team reward plans, some authors have suggested that perceptions of fairness are critical to the successful implementation of group-based pay plans (e.g., Hofmann & Salter, 1995). We are aware of only two empirical studies examining the relationship between team rewards and justice perceptions. In a recent lab study, Hofmann and Salter (1995) examined perceptions of distributive justice as a function of task interdependence, reward interdependence, and the ability of one’s teammates. Results supported a three-way interaction such that whether or not reward and task interdependence resulted in perceptions of fairness was contingent on the perceived ability of the other members of the team. For example, when the task was independent and the team received a group-based bonus, perceptions of fairness were highest when the individuals were paired with comparably skilled members. These findings suggest that the perceived “fairness” of team pay may be quite complex and may be a function of a variety of factors, including perceptions of the team’s ability. In a recent field study involving 57 teams, DeMatteo (1997) found a significant relationship between justice perceptions (both procedural and distributive) and satisfaction with team rewards.

Perceptions of procedural and distributive justice may be related to the extent to which team members engage in cooperative behavior, one of the primary reasons for implementing team-based rewards. Research has suggested that a lack of dis-
tributive justice is a significant contributor to conflict among team members (for a review, see Kabatoff, 1991) and may result in lower levels of citizenship behavior (Organ, 1988a). According to Organ (1988b), altering one’s level of organizational citizenship behavior (OCB) is a viable response to inequity because citizenship behavior is discretionary and lies outside formal role requirements. In support of this suggestion, Scholl, Cooper, and McKenna (1987) reported that perceptions of pay inequity were correlated with extra-role behavior. Similar relationships have been shown with respect to procedural justice. For instance, Konovsky and Folger (1991) reported a positive relationship between procedural justice and altruism and Moorman (1991) found that perceptions of procedural justice were associated with four out of the five dimensions of OCB. Moreover, recent meta-analytic results have confirmed the critical role of procedural justice perceptions in understanding the correlates of OCB. Manogaran and Conlan (1995) reported that procedural justice had the highest true score correlation with OCB, as compared to other antecedents such as job satisfaction, organizational commitment, distributive justice, and conscientiousness.

Based on this literature, the use of team rewards may directly influence justice perceptions but, more importantly, justice perceptions may also mediate relationships between reward plan characteristics (e.g., reward size, method of allocation) and both reactions to team-based rewards and cooperative team behavior. The dearth of research on this topic suggests the need to develop and test hypotheses regarding the role of justice in the effectiveness of team-based rewards.

Process-oriented Research

We have identified many variables potentially related to the successful implementation of team-based rewards. Future research needs to develop theoretically based models of the process by which team-based rewards influence team and, ultimately, organizational effectiveness. The literature on team-based rewards suggests two alternative, but not mutually exclusive, models of the effects of team rewards on group outcomes: reward system characteristics may have direct effects on group-level outcomes; alternatively, reward systems may operate indirectly through a number of psychological processes. Research by Saavedra, Earley, and Van Dyne (1993) and literature on employee stock ownership plans (Pierce, Rubenfeld, & Morgan, 1991) suggests that team rewards are unlikely to operate directly or independently on group-level outcomes. Rather, there may be a number of psychological processes that are affected by the reward system itself and mediate the consequences of the rewards.

Perceived Goal Interdependence

Theorists have focused on perceptions of goal interdependence among team members as a possible mediator of the effects of team rewards on group outcomes.
The ability of team rewards to foster team cooperation may depend on the extent to which individual team members believe their goals are intertwined, especially since team members may have other significant independent goals which may detract from their willingness to assist the team (i.e., desire for individual advancement or recognition). According to Tjosvold’s goal linkage theory (Tjosvold, 1984, 1986, 1988), three possible types of goal linkage exist among team members: cooperative, competitive, and independent goal linkage. Goal linkage develops as an outgrowth of both objective interdependence within the group (task design and reward structure) and subjective perceptions of interdependence, which in turn may lead to desirable team behavior (e.g., fair distribution of work and rewards, sharing of resources), attitudes (e.g., perceptions of supportive relationships), and values (e.g., shared vision). Attaching financial incentives to the team’s performance in an interdependent environment may increase the salience of the group’s goal and the perceived instrumentality of goal achievement which may, in turn, influence cooperative team behavior and performance. If so, the subjective perception of goal interdependence may be critical to understanding the relationship between team rewards and cooperative team behavior.

**Goal Commitment**

Alternatively, team-based rewards may enhance the attractiveness of attaining group goals and build goal commitment among team members in team settings (cf. Hollenbeck & Klein, 1987). Group goal commitment refers to an attachment by team members to the team’s goals and a determination to reach those goals (Weldon & Weingart, 1988). Previous research has delineated characteristics of the situation which may influence the attractiveness of group goal attainment including identification with the group, group efficacy, and expectations of goal attainment. Allocating rewards based on the teams’ performance may enhance the attractiveness of goal accomplishment and, thus, augment goal commitment among team members. In a study of individually based pay practices, Wright (1989) found that goal commitment mediated the relationship between incentive type (piece rate, hourly rate, and performance-based) and performance. In other words, team-based rewards may influence goal commitment which may contribute to higher levels of team productivity.

**Collective Work Motivation**

Another possibility is that team-based rewards influence team performance through their effects on collective work motivation. Theoretical developments in the area of collective work motivation (see Karau & Williams, 1993; Shamir, 1990) suggest an expectancy-based process to explain how team rewards may motivate individuals to contribute to the collective good of their groups. Accord-
ing to Shamir (1990), three qualitatively different types of collectivistic work motivation exist, one of which is calculative in nature and derives from the belief that rewards or sanctions will follow from group performance. Group rewards may influence motivation and effort without necessarily influencing team cooperation. Rather, higher levels of productivity may be achieved due to greater calculative motivation and effort on the part of each team member. In essence, if incentives are tied to group performance, employees will be motivated to assist the group in achieving high performance to maximize their personal gain. According to this explanation, other factors (i.e., collectivistic orientation, social norms, or internalized values; Shamir, 1990) may influence other outcomes such as the extent to which team members engage in helping behavior.

Role of Affective Reactions: Satisfaction with Team-based Rewards

Another notable omission in the research on team-based rewards is the mediating role of affective reactions. Given the number of organizations that have been unsuccessful in their experimentation with team rewards (Dumaine, 1994), it is evident that changes in the reward system alone do not guarantee effective group performance. Whether or not rewards based on team performance promote team cooperation and effectiveness may depend on whether team members are satisfied with team-based rewards. The importance of employee reactions to their compensation is evidenced by the large body of empirical research on pay satisfaction (see Heneman, 1985; Lawler, 1981; Miceli & Lane, 1991; Schwab & Wallace, 1974 for reviews of this literature) which links affective reactions to pay to variables such as organizational turnover (Motowidlo, 1983) job satisfaction (Lawler, 1981), and absenteeism (Heneman, 1985).

In sum, there are many potential mechanisms through which team-based rewards may influence team effectiveness, yet there is virtually no research directly examining these issues. While some research has moved in this direction (e.g., DeMatteo, 1997; Saavedra, Early, & Van Dyne, 1993; Wageman, 1995), many questions remain unanswered. It seems clear that theoretically based models of the effects of team rewards need to be developed. We feel this is a critical next step in understanding the effectiveness of team-based reward practices.

Need for Longitudinal Research

The effects of many of the variables identified in this review may vary over time. For example, reward size and payout frequency, stage of group development, level of task interdependence, and congruence with other organizational subsystems can be expected to change over time and may influence the effectiveness of team rewards. As a result, longitudinal research is needed, including how reward contingencies may need to be altered to adapt to changing contextual conditions. For instance, whether the plan has a mechanism to deal with the “novelty”
problem may be an important characteristic (Goodman & Dean, 1982). New incentive systems typically have a high level of novelty that subsequently diminishes over time as individuals adapt to the level of the reward. As a result, rewards may lose their motivational pull over time and be perceived as less valuable to team members (Lawler, 1981). Accordingly, practitioners have suggested that small group incentive systems be flexible enough to accommodate the need for changing reward amounts over time. While virtually no research has examined why team incentive plans are disbanded, one of the reasons frequently cited is the inability of the plan to adapt to changing organizational conditions. As organizations continue to evolve, human resource systems need to be updated to reflect these changes, and reward systems in particular may need to be re-calibrated over time to accommodate new organizational conditions and ensure that the plan continues to meet its goals (Geber, 1995; Lawler & Cohen, 1992).

Consequences of Team-based Rewards: Effects on Between-team Behavior

As mentioned previously, rewards based on team performance may encourage teams to focus on their own performance at the expense of the performance of other teams in the organization (Lublin, 1995; Mohrman, Mohrman, & Lawler, 1992). This may promote a reluctance on the part of teams to share information or assist other teams and may be especially problematic in organizations where the work of different teams is interdependent (Lawler & Cohen, 1992). Despite the potential consequences for organizational effectiveness, the influence of rewarding teams based on their performance on the level of cooperative behavior across teams remains unexplored.

Free-riding, Social Loafing, and Team Incentives

One of the most troubling features of group-based rewards is the possibility that some team members will be seen as free-riding. Despite this potential, no research has specifically addressed the influence of perceived social loafing or free-riding on reactions to team-based rewards. It is reasonable to hypothesize that perceptions of social loafing or free-riding will lead to feelings of inequity and dissatisfaction among team members when members with different contributions to the team's performance receive equal bonuses. Research could also explore the effects of variables such as group size on the relationship between team rewards and productivity loss in groups arising from social loafing. Research on social loafing has consistently found a positive relationship between loafing behavior and group size (Karau & Williams, 1993). As a result, team rewards may be most effective in small teams where individual contribution to the group's collective effort are more identifiable and individual contributions are more easily monitored by other team members (Welbourne & Gomez-Mejia, 1995).
Sensitivity to Levels of Analysis

Due to the inherent complexity of research on teams, levels of analysis issues deserve considerable attention (cf. Ostroff, 1993). Specifically, given the organizational context of team reward systems, reactions to, and effects of, team-based rewards should be considered from multiple levels of analysis. It is strongly recommended that variables are operationalized, measured, evaluated, and interpreted at the appropriate level of analysis (James, 1982). In other words, researchers must be careful to avoid making inferences from data collected at one level (i.e., individual) to another level (i.e., the group). Cross-level hypotheses may also be meaningful in this context. As suggested in our review, it may be possible that group- and organization-level variables may impact individual reactions to team-based incentives or that variables within one level may moderate the effects of reward characteristics on variables at another level. For example, team characteristics such as task interdependence may influence individual-level outcomes such as satisfaction with team-based incentives as well as group-level outcomes such as team cooperation and performance. Moreover, the effects of team-based rewards on cooperative group behavior may depend, in part, on characteristics of the organizational climate.

Conclusions

The movement toward team-based approaches to organizing work has resulted in experimentation with alternative human resource practices to support team-based organizational structures. Rewards contingent upon team, rather than individual, performance represent one such practice. We have identified some of the key variables in the effectiveness of team-based reward systems, among the many that deserve attention. Current applications of this alternative reward strategy far exceed our knowledge base. While we attempted to provide a broad examination of the major issues related to the use of work team and small group reward systems, we have only alluded to the process by which these effects may occur. Finally, we have not considered all variables that could potentially influence the effectiveness of team rewards, such as the presence of unions (Cooke, 1994). Unaddressed, yet pivotal questions remain.

Understanding the effectiveness of team rewards is critical considering that organizations spend as much as half of their operating budget on payroll related expenses (Lawler & Cohen, 1992; Mitra, Gupta, & Jenkins, 1995), the potentially powerful role of rewards in shaping behavior in organizations, and evidence that the use of team-based rewards will continue to increase (Lawler, Mohrman, & Ledford, 1995). For these and other reasons (e.g., legal concerns), decisions regarding compensation should not be taken lightly. The issue may not be whether to use team or individual rewards but how to design team-rewards in a way to
maximize the desired outcomes. It is time for research to catch up with practice and begin exploring the effectiveness of this emerging alternative reward system.

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NOTES

1. We use the terms incentives and rewards interchangeably, recognizing they have slightly different meanings in practice. Specifically, rewards are typically given after successful performance while incentives are inducements offered in advance and are intended to cause increases in performance (Patten, 1977).

2. While all group-based pay plans share several critical features, they are hypothesized to exert different motivational effects. The interested reader is referred to recent reviews of the gainsharing (e.g., Graham-Moore & Ross, 1990; Welbourne & Gomez-Mejia, 1995), profit sharing (e.g., Florkowski & Schuster, 1992; Hammer, 1990), and employee stock ownership plan (e.g., Klein, 1987; Pierce, Rubenfeld, & Morgan, 1991) literature.

REFERENCES


Team Rewards


