

Evaluating Large Group Bonus Plans



Michael H. Schuster, Ph.D.
U.S. Coast Guard Academy



Dee Hoffman, Ph.D.
Competitive Human Resources
Strategies LLC

Large group bonus plans (LGBPs), often called gainsharing or variable pay plans, are organizational systems for rewarding individuals and groups of employees for improved productivity, cost reductions, quality and overall financial performance in the form of regular cash bonuses (Schuster 1987). (Occasionally, individual performance is factored into group reward systems.) It has been suggested LGBPs, like all compensation plans, need to be closely linked to company business and manufacturing/operating strategy, HR strategy, and compensation philosophy (Lawler 1990; Montemayor 1996).

Research on gainsharing, profit-sharing, large group bonus plans and similar compensation concepts has been actively pursued for the past 25 years. The research has shown that performance — productivity, quality, etc., improves (Gross 1998; Schuster 1983) and that employee attitudes toward the concept (Bullock and Tubbs 1990; Florkowski and Schuster 1992) and the organization (McGrath 1994) can be generally favorable.

Most of this research was unable to connect plan design, plan performance or employee outcomes to strategic organizational goals (Welbourne and Gomez-Mejia 1995). The importance of this question is noted by the increasing numbers of organizations deploying group pay for performance strategies and the number of employees who receive a portion of their compensation as variable or at risk (Hewitt 2005; Welbourne and Gomez-Mejia 1995). As the economy improves and labor

markets remain soft, the authors expect firms to enhance their utilization of these approaches.

In recent years, the use of LGBPs has ebbed and flowed, often parallel to the overall economy. When the economy has evolved out of recession, firms tend to be cautious about adding to their fixed payroll costs, while at the same time needing productivity and performance increases to meet increasing volume demands. The use of LGBPs increases. Once the economy reaches fuller capacity, employees prefer to receive, and employers are willing and able to provide, fixed increases along with additional performance incentives. As the cycle continues toward slow-down, volumes decline, performance improvements are more difficult to achieve and LGBPs decline in use. The most recent recession was deep enough to wipe out all but very modest compensation increases, while at the same time many LGBPs became dormant. Still, a recent study shows that 10 percent of organizations continue to use traditional gainsharing plans, while 59 percent use business incentives, which combine financial and/or operating metrics at an organization, business unit or plant level. An additional 15 percent of organizations utilized cash profit-sharing plans (Hewitt 2010).

This paper presents an evaluation process for ensuring strategic and HR alignment of LGBPs and utilizes results from two case studies. The authors seek to answer the following three questions:

- 1 | How can existing LGBPs be evaluated to ensure alignment with organizational and HR objectives?
- 2 | What process and design variables need to be in place to ensure ongoing alignment and success?
- 3 | What metrics can be used to assess LGBPs success from an organizational, HR and employee perspective?

This paper also explores the evaluation of existing plans, so as to sustain and enhance them. However, because these plans have been shown to be successful over an extended period of time, the authors' evaluation criteria and process offer guidance to those designing new plans or seeking to revitalize plans that may have become dormant.

OVERVIEW

LGBPs can be beneficial to organizations by increasing employee productivity, improving quality, raising employee loyalty and commitment to the firm, and more closely tying compensation costs to economic performance (Bullock and Tubbs 1990; Welbourne and Gomez-Mejia 1995). However, they cannot be installed without recognition of potential risks. These risks include the possibility of paying employees bonuses for a level of performance that could be achieved in the absence of rewards; issues of equity and fairness; and determination of the appropriate business, employee relations and financial settings (Schuster 1987). An even more critical risk is rewarding employees for meeting objectives that are

not well aligned with existing business and operating objectives and organization culture. Even when the initial design is strategically appropriate, strategic goals change and plan design should evolve. This separation of strategic fit between rewards and current organizational initiatives is the subject of this research.

Most LGBPs fall from strategic organization or HR alignment because the need to evaluate LGBPs and make modifications over time does not occur (Schuster et. al. 1994). LGBPs become less effective because they are not modified or redesigned to reflect current business and operating conditions. In other cases, the plans utilize measures and concepts that are dated and not in keeping with contemporary organizational strategies. Many organizations require an annual plan review and reauthorization as part of their normal process of compensation administration. However, this review can become perfunctory rather than evaluative (Schuster et al. 1994).

However, LGBPs can be effectively evaluated to ensure their strategic alignment and HR effectiveness (Welbourne and Gomez-Mejia 1995). Following are the results from two case studies that serve to illustrate key strategic alignment issues. The research sites are diverse — one is a white-collar organization and the other is a traditional manufacturing setting. Implications for future research are presented.

LGBP EVALUATION CRITERIA

Table 1 contains performance metrics to assess current plan effectiveness. Four categories of effectiveness metrics are suggested: 1. organization performance, 2. HR performance, 3. results to employees, and 4. a general view by management. Ultimately, if a bonus plan does not achieve some or all of these objectives, it would not be considered effective. Ineffective plans should be fixed or dropped; plans that are effective can be enhanced. The criteria suggested below provide good guidance on areas to improve alignment.

Past research suggests that effective LGBP should meet many (all) of the criteria outlined in Table 1 (Masternak 1997; Schuster 1987; Welbourne and Gomez-Mejia 1995). Table 2 contains a list of LGBP strategic, design and process variables and their definitions. Each of these has been shown to bear a relationship to plan success.

TABLE 1 LGBP Performance Metrics

Variable	
Performance Improvements	There should be measurable improvements in metrics such as productivity, quality, delivery, profitability, cycle time, etc.
Human Resources Performance	Commitment, engagement and attitudes would be expected to improve.
Result to Employees	Payouts (bonuses) to employees would be expected with higher levels of performance yielding better payouts.
General	A general view of management that the plan had helped the organization to succeed.

TABLE 2 LGBP Performance Metrics

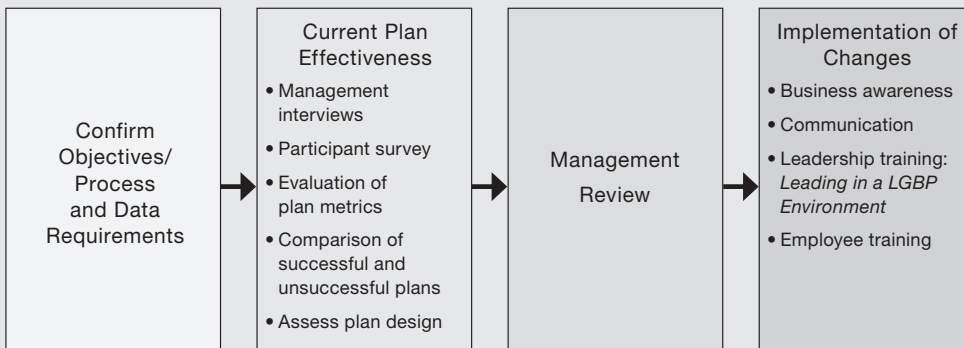
Variable	Definition
Business and Organization Alignment	Objectives and metrics are aligned with business, operating and HR strategy; business needs and processes (Montemayor 1996; Mangel and Useem 2000). For example, an organization that asserts that improved quality is a strategic objective would be expected to have an LGBP with at least one quality metric and that metric should reflect the organization's approach to quality.
Human Resources and Compensation Strategy	The plan should align to HR objectives such as culture, engagement, total compensation strategy, etc. The plan should not be used as a solution for an ineffective, inadequate or inequitable wage and salary program. Compensation strategy objectives aligned to business needs and consistent with total compensation should be a factor in plan design (Lawler 1990).
Achievable Rewards	The objectives of the plan are reasonable – not out of reach of the employees with some additional contribution or effort. The plan is motivating rather than demotivating (Masternak 1997).
Understandable	The plan is not overly complex and employees can understand what costs/metrics are in the plan, how it works, what is important and the performance targets (Schuster 1987).
Line of Sight	Employees know how what they do affects the plan metrics and have the business understanding to know how their actions affect the overall business (Gross 1998).
Knowledge of Performance	Employees receive feedback in a timely manner to know how they are doing on the plan metrics (Schuster et. al. 1994).
Employee Involvement	There are ways for employees to identify and solve problems and make improvements. Employees are also involved in managing the plan (Hatcher et al. 1991).
Administratively Simple	The plan is relatively simple to administer (Masternak 1987; Schuster 1994).
Actively Managed	There is ownership of the plan. It is managed to monitor results, communicate, train and adapt when needed to remain effective. An annual review is provided for in the plan design. (Masternak 1997; Schuster et al. 1994).
Management Support	The plan is a priority and supported by managers at all levels (Ruh et al. 1973; Schuster 1987).
Trust/Belief	There is a basic level of trust in the plan and credibility of the management and the LGBP administrative team, if one exists (Hanlon 1994).

EVALUATION PROCESS

A process for evaluating bonus plans is shown in Figure 1. One of the most important issues to consider is the degree of quality needed for the assessment to provide convincing and actionable recommendations to decision makers. A cursory analysis is likely to meet with considerable skepticism while a more rigorous analysis could be more time consuming and expensive.

The process begins by confirming management’s objectives for the evaluation and the data necessary to meet those objectives. Thereafter, current plan effectiveness can be determined by management and participant interviews, meetings and surveys, collection and analysis of plan metrics, and assessment of plan strategic goals and design features. Often a comparison can be made between successful

FIGURE 1 LGBP Evaluation Process



and less successful plans. Management then reviews this data with a view toward fixing or enhancing strategic alignment and plan effectiveness. Thereafter, plan changes (goals, design, metrics, etc.) can be implemented using business awareness, communications and leadership, and employee training.

Evaluations need to begin with consideration for the plan’s objectives. The plan should align to current and future strategic and operational objectives. Alignment is said to exist when organizational strategy, structure and systems facilitate the achievement of broadbased goals (e.g., Semler 1997). In the case of LGBPs, the philosophy, goals, metrics, targets, communications and supporting HR features should support and drive key strategic organizational HR goals.

Typical organizational strategic objectives might include cost reduction, quality and customer service, delivery, inventory, safety and environmental, and other performance-related goals. Plan metrics and design should be selected that are consistent with achieving these goals. HR objectives might include reaching a level of commitment and/or engagement, employee involvement, business awareness, maintaining union-free status, developing a partnership-like relationship (union settings), or achieving certain compensation goals such as total compensation levels. Corollary goals might include using the plan as an element in the organization’s approach to attraction and retention.

Thus, if enhanced quality is a strategic organizational objective, plan metrics should reflect not just quality, but should attempt to mirror the organization’s quality metric. A plan designed to drive productivity and quality has different objectives than one designed to provide pay equity or compensate for a reduction or freeze in compensation. Some organizations have not been clear as to the plan objectives. In other cases, objectives evolve over time. However, LGBPs may remain static.

METHODOLOGY

Two sites were identified for this study. The first case study involves a firm with an LGBP that is the back office processing unit for a large medical services company

(nonunion). The second site is a large unionized specialty chemical plant. Both sites are part of large, publicly traded companies. Both sites have substantial employee populations, but under the 1,000 that has traditionally been seen as an obstacle to bonus plan success (Schuster 1987). Each site had its LGBP for at least three years at the time of the study. Both sites had made a commitment to a high involvement approach to workplace management. Both sites have had consistent bonus payouts. Table 3 summarizes the characteristics of the sites. The sites were guaranteed complete confidentiality. Site No. 1 will be referred to as Data Processing, while Site No. 2 will be referred to as Chemical Manufacturing.

Interviews were conducted with management, supervisors and employees. A structured questionnaire, which included forced choice and open-ended questions, was utilized. Plan documents and records were also collected, along with performance data. Both sites offered access to both managers and employees. At Data Processing, 25 managers and 48 employees (13 percent) participated in the study. At Chemical Manufacturing, 90 employees (16 percent) participated. Employees were from all departments. Both open-ended focus group interviews and a 24-item forced choice questionnaire were used. Examples of survey questions follow.

TABLE 3 Research Site Characteristics

	Site No. 1 (Data Processing)		Site No. 2 (Chemical Manufacturing)	
Industry	Health-care information services		Manufacturing	
Work Conducted	Back office processing		Chemical processing	
Number/Type Plan Participants	550		625	
Representation Status	Nonunion		Union	
Year Plan Started	2002		2002	
Key Metrics	Expense to budget 25 individual department metrics mostly productivity and quality		Manufacturing expense per pound Environmental spills and release Customer satisfaction	
Annual Payout History	Y 1*	\$382 (one quarterly payout)	Y 1	\$739 per person (two quarterly payouts)
	Y 2	\$1,628 (four quarterly payouts)	Y 2	\$1,431 (three quarterly payouts)
	Y 3	\$1,569 (four quarterly payments)	Y 3	\$899 (one quarterly payout)
	Y 4	\$1,424 (four quarterly payouts)	Y 4	N/A
	Y5	\$1,569 (four quarterly payouts)	Y 5	N/A

*In Year one, the plan started in the fourth quarter.

TABLE 4 Summary of Findings

	Site No. 1: Data Processing	Site No. 2: Chemical Manufacturing
Criteria	Findings	Findings
Business and Organizational Alignment	<ul style="list-style-type: none"> • Business objectives include efficiency, cost reductions and working capital. Significant improvement shown. Objectives remain relevant. 	<ul style="list-style-type: none"> • Business objectives of cost and quality, but not delivery. The areas to be measured were aligned well with the company. However, the plan was volume sensitive and reflected the cyclical nature of business. • The costs of spills/customer complaints were undervalued in the plan.
Human Resources and Compensation Strategy	<ul style="list-style-type: none"> • Goals to drive/change attitudes and behavior; develop a sense of teamwork, and create opportunities for winners. Company surveys (2002, 2004) showed year-over-year improvement in these areas. • Currently, however, morale is on the decline due to a sense of inequity between managers and employees, and perception that plan was no longer viable. Qualitative results indicated a high level of concern among managers that upper level managers were receiving bonuses based on site performance while employees received no payouts for several quarters. There was some resentment between various departments who were not seen as contributing adequately to plan success. 	<ul style="list-style-type: none"> • Goals to improve union and employee relations and to develop employee involvement. There was a short strike. Qualitative reports, however, indicate the plan was helpful in softening the strike impact on union and employee relations during the strike period and afterward. The fact that the plan had survived three years, avoiding the “program of the month” death, contributed greatly to trust of the plan.
Achievable Rewards	<ul style="list-style-type: none"> • Departmental goals (the “share” measures) seen as achievable by managers and employees. • Site expense goals (the “gain” measures) seen as unattainable by employees, due to: impact of bringing in an additional business without adjustment of the expense of integrating them, ever-increasing difficulty of goals, and high percentage of expense measure consisted of employee wages. 	<ul style="list-style-type: none"> • In some quarters, volume sensitivity overwhelmed opportunity for payouts even in the presence of improvement. Employees felt they were unable to have an impact that could overcome the impact of low volume. • In other quarters, a high volume meant there were times when the plan paid out and employees and managers felt they have done nothing different to earn a bonus.
Understandable	<ul style="list-style-type: none"> • Many employees did not understand how the plan was funded. As a result, they were frustrated when departmental goals were achieved (the “share” measures) and yet there was no payout. Some managers were also confused about this. 	<ul style="list-style-type: none"> • Most employees (hourly and salaried) had only a very general understanding of the bonus plan. Salaried indicated a slightly higher level of knowledge. • To some extent this included many newer members of the bonus plan team as well.
Line of Sight	<ul style="list-style-type: none"> • Employees are very clear on how to affect their departmental measures. • Employees are unclear on how and whether they can affect the expense measure. Many did not know how their department contributed to the overall expense measures. • Many managers and employees were not sure what expenses were contained in the expense measures. 	<ul style="list-style-type: none"> • Volume seen as the primary driver and employees felt they could not affect it. • Some increase in awareness of what affects gainsharing.

Knowledge of Performance	<ul style="list-style-type: none"> • Most employees were very aware of the status of their department goal – the sources of the sharing percentage. • There was little knowledge of status of the expense measure – the source of the gain. This included the performance of the site, as well as the performance on expenses within departments. 	<ul style="list-style-type: none"> • Monthly/quarterly reports focused too much on numbers, offered too little in the way of analysis and information to highlight areas of success and areas for improvement. • Timing of monthly and quarterly communication slow and not well orchestrated.
Employee Involvement	<ul style="list-style-type: none"> • No employee involvement in managing the plan. • Numerous methods for employees to be involved in improving the business – a strength of this site. 	<ul style="list-style-type: none"> • Membership on joint team. Joint co-chairs, high-performance work organization (HPWO) philosophy at site. • Numerous ways for employees to become involved in the business.
Administratively Simple	<ul style="list-style-type: none"> • Plan is complex and difficult to administer and communicate in a meaningful manner. 	<ul style="list-style-type: none"> • Not an issue.
Actively Managed	<ul style="list-style-type: none"> • Initially plan was developed and managed by a few upper level managers who have left. No identified owner of the plan in place. Plan devolved into a financial and goal-reporting process. 	<ul style="list-style-type: none"> • Gainsharing team had initially managed very actively but over last year lost energy and effectiveness; still in place, not used well. • Team had excessive turnover in last three years, lost the knowledge base.
Management Support	<ul style="list-style-type: none"> • Managers do not communicate or use the plan to leverage performance to any significant degree. 	<ul style="list-style-type: none"> • Management is not actively supporting and promoting the plan. Their awareness level of it is relatively low, and they are not using it as an aid to business education and change.
Trust/Belief	<ul style="list-style-type: none"> • Lack of understanding of how the plan works was associated with a lack of trust in its achievability. 	<ul style="list-style-type: none"> • There was some suspicion voiced about the financial numbers in the plan, however most said they trusted the gainsharing team, particularly because it was joint.
Performance Improvements	<ul style="list-style-type: none"> • Sales doubled and working capital remained stable and expenses declined significantly. 	<ul style="list-style-type: none"> • Significant improvement in quality, customer satisfaction.
Human Resources Performance	<ul style="list-style-type: none"> • Commitment, engagement and improvement. Employees report the bonus plan was a motivator for improved performance. At the time of assessment, beginning to decline due to perceived inequity of plan and lack of payouts. 	<ul style="list-style-type: none"> • Interest in connection to the business. Seen as having a positive impact on how people work and the support of cooperation.
Result to Employees	<ul style="list-style-type: none"> • History of high payouts; however, no payouts within the last three quarters. 	<ul style="list-style-type: none"> • Payouts erratic and subject to volume fluctuations.
General	<ul style="list-style-type: none"> • Management primarily positive on the value of the LGBP to drive improvement. Middle level supervisors more favorable than high-level managers. Most agree plan not leveraged for optimal effectiveness. 	<ul style="list-style-type: none"> • Managers agree the bonus plan has had some positive impact on improvement efforts and that employees are more interested in the business. Feel plan measures need adjustment for quarterly fluctuation.

Question No. 1 and No. 2 are designed to determine if there is enough credible information for employees to take a leap of faith and get engaged in the rewards process.

1 | How much do you hear about critical business issues for your location? (understand, believe)

2 | How is trust today between employees and management?

Item No. 3 and No. 4 are designed to determine if there is opportunity to have impact on organization performance.

3 | Employees here are involved in making improvements and finding better ways to do things.

4 | I am able to personally affect site performance (Quality/Costs/Rework).

Finally, Item No. 5 and No. 6 are designed to assess the perceived tie between performance and outcome.

5 | If performance here (Quality/Costs/ Rework) improves, I benefit financially.

6 | If performance here declines, I am harmed financially.

Data for both sites are combined and shown in Table 4. As with all case study research, this study's generalizability is limited by sample size and availability of data. Still, it represents the initiation of research that better links strategy and rewards.

CASE STUDY: SITE NO. 1 – DATA PROCESSING

Data Processing is the back office processing unit for a large medical services company. The site processes invoices, accounts payable and receivable, manages inventory and interfaces with customers. Customer interfaces include contract compliance, rebates, and billing and collections. Historically, most of its activity was in support of a single business unit. In recent years, Data Processing had acquired new business, both internal and external.

The site employs approximately 625 people in a variety of accounting, audit, analyst, data entry, inventory, account service, team leader, and management positions. Five hundred and fifty (550) participated in the gainsharing plan. The rest were in other incentive plans.

The LGBP was introduced shortly after new management arrived. At that time, management reported that Data Processing was considered inefficient, costly and unproductive. Employee morale was reported to be poor. The plan was used to drive/change attitudes and behavior, develop a sense of teamwork and create a "winning culture." The focus was on quality, cost reductions and working capital. Management designed the plan with no employee involvement in the design and management of the plan.

Business Strategy

As a service organization, Data Processing's business success hinges on enhancing quality and efficiency. Both quality and accuracy required the engagement of the

workforce. Additionally, while both accuracy and speed are important, so too is customer satisfaction. A strategic goal has been to acquire new business from both within and outside the company. The corporate parent had made a significant commitment to Six Sigma, which had been implemented at the site.

Plan Design and Implementation

The plan had evolved over the years. The most recent version was based on two components — expense savings to budget to fund the plan; and departmental and site metrics to determine how much of the gain employees receive. There was a \$2 million maximum placed on the pool. A potential maximum of 70 percent of gains (\$1.4 million) of this could be allocated (shared) with employees. The company retained any monies not paid out from the employee share.

The funding metric for the gainsharing pool was site performance to expense budget, i.e., if actual expense costs were less than budget, the savings realized were considered the gain. If costs were at or over the budget, there was no gain. The advantage to this measure was that it was easy to understand. However, the recognized disadvantage was that it was difficult for employees spread through 26 different departments to feel they could have a significant impact on one overall metric.

To create line of sight, department metrics were used to determine the portion of the gain available to employees. This approach to the “share” metrics was unique. In order to connect employees to the outcomes of the gainsharing plan, each department was asked to develop a gainsharing goal specific to them. Twenty-six department goals were identified. In taking this approach, added complexity was introduced.

Each goal achieved during a quarter increased the employee share 2.7 percent. If all 26 departmental goals were achieved in a quarter, then the employee share would be 70 percent of any gain and 30 percent of that gain would be retained by the company.

The initial plan was announced with great fanfare. The general manager’s enthusiasm was reported to be infectious. He explained it, and spoke frequently about it in quarterly meetings and vigorously promoted it by regular communication. T-shirts were distributed; bulletin boards were filled with information. Managers frequently communicated the results and celebrated successes.

The plan was initially managed and updated annually by the general manager and his staff. Some adjustments in the plan metrics goals were made annually based on changing business conditions. The general manager left during the third year. Thereafter, attention and focus on the plan began to decline. Subsequently, there were three general managers during the next two years. At the time of this study, there was no clearly designated owner(s) of the plan. The only evidence of plan administration was the quarterly calculation by the accounting department.

The plan had consistent payouts until the first quarter of year five, averaging

\$1,217 per employee. Table 3 shows the payouts for five years with the bonus plan. In year five, the plan did not pay out in the last three quarters and had only a modest payment in the first quarter. This occurred in spite of 20 to 24 departments having achieved their operational goals depending on quarters. This seems to have occurred because of the added expense of integrating the new business into the site, which incurred substantial and unbudgeted costs. Because gainsharing was funded from favorable variances to expense budget, no funding for payouts was available and no adjustments made to reflect the changed conditions.

Organization Performance

During the period covered by the bonus plan, Data Processing's performance improved significantly. Sales doubled, while expenses declined significantly. Expenses declined 23.3 percent over the four-year period of the study. Working capital remained stable in spite of increasing sales. There has been considerable emphasis on process improvement with Six Sigma being the tool of choice.

The research process included interviews with the leadership team and other managers with direct responsibility for the plan participants. Focus groups were conducted with plan participants. Both groups completed a 29-item gainsharing questionnaire. There was an examination of company records and documents.

Data from a separate employee survey show that employee attitudes toward the Data Processing company had improved from a prior, pre-bonus plan survey and were largely on par with the survey's Global High Performing Norm (GHP). Data Processing's results showed performance compared to the high performing group to be comparable in a wide variety of areas including business alignment, cooperation among departments, engagement, performance management and pay. It showed results above the average GHP norm in management/leadership, customer focus, and work and personal life balance.

Interview data showed that the majority of employees and managers acknowledged great strides in quality and performance over the past several years. Credit for improvements was given various sources. These include process improvement, increases in business and process understanding and employee awareness. Over three quarters of employees and managers also credited the bonus plan with a positive impact on Data Processing performance and on how people work. Increase in drive for efficiency and to keep expenses down were the types of impacts most mentioned.

CASE STUDY: SITE NO. 2 — CHEMICAL MANUFACTURING

Site No. 2 is a manufacturer of specialty chemicals for personal care and pharmaceuticals, represented by a large international union, employing 560 workers at the time of this study. Prior to the introduction of the LGBP, it was reported that

Chemical Manufacturing experienced difficulties with quality and productivity as well as costs. Both parties reported that labor issues culminated in contentious contract negotiations prior to plan introduction.

Business Strategy

The chemical business is driven by cost, quality and customer service. From an HR perspective, employee engagement and union-management cooperation are critical to achieving these goals. At the union's initiative, a labor-management partnership was proposed and accepted. A High Performance Work Organization (HPWO) model of teamwork was jointly introduced. New plant leadership was brought in as well. Continuous improvement processes, such as Six Sigma were subsequently implemented.

Plan Design and Administration

The bonus plan was designed, and subsequently managed, by a joint committee as part of the HPWO process. After introduction, the committee met monthly to analyze and communicate the results. It was to adapt the plan when warranted by business and organization conditions.

The plan contained the following components and measures. The gain was created by achieving results over the targeted goal or the baseline:

- **Manufacturing Expense Measure** — Based on the cost per pound produced.
- **Environmental Spills and Release** — A goal-based metric crediting or charging the plan with \$5,000 per spill under or above the targeted baseline.
- **Customer Satisfaction Measure** — Based on the number of complaints received from customers in the period. This measure credits the plan with \$2,700 per complaint reduced from the targeted baseline but also has a provision to charge the plan for “repeat complaints” (Same customer, same issue).
- **Sharing Matrix** — Based on a combination of First Pass Quality (FPQ) and the amount of High Demand Products (HDP) the employee share was determined with a range for the employee share between 40 percent and 60 percent.

Interviews were conducted with the HPWO steering committee, the bonus plan administrative team, accounting personnel, and salaried and hourly employees from diverse areas at the site.

Organization Performance

During the period covered by the bonus plan, Chemical Manufacturing performance improved significantly. When comparing the year prior to plan introduction with year three, environmental spills declined by 50 percent from six to three. Customer complaints declined by 40 percent from 267 to 159, while first pass quality increased from 94.5 percent to 96 percent. The cost per pound was compared to the movement in the Producers Price Index (USDL 2005) for the chemical industry for the past three years of the bonus plan. Chemical Manufacturing's

costs were -1.14 percent, -1.92 percent and 0.53 percent for the three plan years, respectively. However, the PPI Chemicals Index was 3.79 percent, 0.92 percent and 5.04 percent during the same period. Chemical Manufacturing was significantly better than the industry cost norm by 4.93 percent, 2.48 percent, and 4.51 percent, respectively.

Quarterly payouts have been somewhat erratic and subject to volume fluctuations within the quarter, although the measurements included in the plan have shown significant improvement. The total payout to employees for the 12 quarters since implementation is \$3,068.48 (average), with a payout to employees each year ranging from \$739-\$1431, and is shown in Table 4 above.

Employees at all levels acknowledged great strides and improvement in quality since plan introduction. The questionnaire and performance metrics support this belief.

Interview data suggest that credit for improvements is given various sources including an increase in process understanding, employee awareness, and efforts such as statistical process control, teams and problem solving with customers.

Questionnaire results indicate that employees and managers thought the LGBP had some positive impact. Supervisors said they receive more questions from employees and see some increase in employee awareness of actions that might affect the plan. It was suggested that the plan helped motivate employee involvement in improvement efforts. There were some specific instances cited where an effort to make improvements was linked to the plan (e.g., in the lab). There is significant awareness among employees that spills and releases adversely affect payouts and questions about what should count as a spill or release.

One of the strengths of Chemical Manufacturing has been its use of employee involvement mechanisms. There were numerous instances of improvement efforts reported whereby employees became involved in plant improvement processes. Rewards appear to have driven the direction for involvement efforts, although both union and management leaders believe more could be achieved. The high performance work system, combined with the sharing of gains, seems to have had a positive impact.

DISCUSSION AND CONCLUSIONS

Both sites realized performance gains and subsequent payouts to employees. Organizations that implement gainsharing plans typically experience improvement in organization performance, trust and cooperation, and employee connection with the business (Welbourne and Gomez-Mejia 1995). Data Processing had consistent payouts until the first quarter of year five, averaging \$1,217 per employee. Chemical Manufacturing had erratic payouts averaging \$1,023 per year. During the period covered by the bonus plans, both sites experienced substantial performance improvements using measures of sales growth, cost reduction, quality, customer service and environmental protection.

While clearly LGBPs are not the sole reason for improvement, their role in providing focus and motivation makes it a valuable tool to support organization improvement efforts. They do offer the opportunity to equitably share gains. A key issue still remains the strategic alignment. In the case of Data Processing, business growth and customer service became key priorities yet the LGBPs continued to focus on cost (expense to budget). While desiring engagement, the failure to keep the plan current with business changes resulted in no payouts and declining employee morale and support. From an HR perspective this plan would not be considered successful and would be a candidate for renewal.

Chemical Manufacturing's plan was better designed and maintained. The plant experienced well above industry levels of performance and made significant strides in improving customer service and reducing chemical spills.

One distinguishing difference was the limited employee involvement in Data Processing and the far more extensive employee involvement in Chemical Manufacturing. This was true for both plan design and ongoing administration. In the case of Data Processing there was no employee involvement in the design or administration. In the case of Chemical Manufacturing, it was extensive.

Both plans required updating to remain strategically current. However, the absence of both employee involvement and management commitment made this process less effective at Data Processing, whereas Chemical Manufacturing with strong union-management vigilance kept the plan effective.

There are significant lessons for future research. First, while good models for tying pay and performance are available, they are often not followed. The starting point is plan design aligned to business and HR strategy. Second, as one of capable reviewer pointed out, effective implementation is critical. Finally, evaluation and renewal are needed to ensure continuing success. Too often successful plans lose their effectiveness when not carefully examined on a periodic basis. Most plans require an annual review with a more in-depth evaluation at the three-to-five year point unless business circumstances or ineffectiveness require a more expeditious examination. ■

ABOUT THE AUTHORS

Michael Schuster, Ph.D. (mschrs@cox.net) is a management professor at the U.S. Coast Guard Academy and Professor Emeritus of Management and Human Resources at the Whitman School of Management, Syracuse University. He has served as managing partner at Competitive Human Resources Strategies LLC (CHRS), a management consulting firm specializing in gainsharing and alternative rewards. Schuster is a former Fulbright Scholar from the London School of Economics and also served as the founding Director of the Employment Studies Institute at Syracuse University. He has published numerous articles and has been a member of WorldatWork for more than 10 years.

Dee Hoffman, Ph.D. is a partner at Competitive Human Resource Strategies LLC. She previously worked as an internal organization development consultant with General Electric, with focus on employee involvement and self-regulating work teams, training and empowerment. She also worked for the State of California in the area of quality assurance. Hoffman is the co-author of a chapter of the book *Work Group Design* and has been a presenter at various conferences on team leadership and other similar topics. She received her Ph.D. in industrial-organizational psychology from the University of Tennessee and her master's degree in public administration from the University of San Francisco.

REFERENCES

- Arthur, J.B. and G.S. Jelf. 1999. "Effects of Gainsharing on Grievance Rates and Absenteeism Over Time." *Industrial and Labor Relations Review* 45: 488-506.
- Bullock, R. J. and M.E. Tubbs. 1990. "Case Meta-Analysis of Gainsharing Plans as Organization Development Interventions." *Journal of Applied Behavioral Science* 26: 383-404.
- Collins, D. 1995. "Death of a Gainsharing Plan: Power, Politics and Participatory Management." *Organizational Dynamics* 24: 23-38.
- Collins, D., L. Hatcher, and T.L. Ross. 1993. "Decision to Implement Gainsharing: Role of Work Climate, Expected Outcomes, and Union Status." *Personnel Psychology* 46: 77-105.
- Cook, T.D. and D.T. Campbell. 1976. "Design and Conduct of Quasi-Experiments and True Experiments in Field Settings." M.D. Dunnette (ed.) *Handbook of Industrial and Organizational Psychology*. Chicago: Rand McNally.
- Gomez-Mejia, L.R., T.M. Welbourne, and R.M. Wiseman. 2000. "Role of Risk Sharing and Risk Taking Under Gainsharing." *Academy of Management Review* 25: 492-507.
- Gowen, C.R. 1991. "Gainsharing Programs: An Overview of History and Research." *Journal of Organizational Behavior Management* 11: 77-99.
- Gowen, C.R. and S.A. Jennings. 1990. "Effects of Changes in Participation and Group Size on Gainsharing Success: A Case Study." *Journal of Organizational Behavior Management* 11: 147-169.
- Gross, S.E. and D. Duncan. 1998. "Gainsharing Plan Spurs Record Productivity and Payouts at Ameristeel." *Compensation and Benefits Review* 30: 46-50.
- Hanlon, S.C., D.G. Meyer, and R.R. Taylor. 1994. "Consequences of Gainsharing: A Field Experiment Revisited." *Group and Organization Management* 19: 87-111.
- Hatcher, L., T.L. Ross, and D. Collins. 1991. "Attributions for Participation and Nonparticipation in Gainsharing-Plan Involvement Systems." *Group and Organization Studies* 16: 25-43.
- Hewitt Associates LLC. 2010. "U.S. Salary Increase Survey Findings: 2010 and 2011."
- Holthausen, R.W., D.F. Larcker, and R.G. Sloan. 1995. "Annual Bonus Schemes and the Manipulation of Earnings." *Journal of Accounting and Economics* 19: 29-74.
- Howard, L.W. and T.W. Dougherty. 2004. "Alternative Reward Strategies and Employee Reactions." *Compensation and Benefits Review* 36: 41-51.
- Juras, P.E., J. Kaspin, and D.R. Martin. 1994. "Analysis of Gainsharing in a Health Care Setting." *Health Care Supervisor* 13: 44-60.
- Kim, D. 1999. "Determinants of the Survival of Gainsharing Programs." *Industrial and Labor Relations Review* 53: 21-42.
- Lawler, E.E. 1990. *Strategic Pay: Aligning Organizational Strategies and Pay Systems*. Elizabeth, New Jersey: Jossey-Bass.
- Mangel, R. and M. Useem. 2000. "Strategic Role of Gainsharing." *Journal of Labor Research* 21: 327-343.
- Masternak, R. 1997. "How to Make Gainsharing Successful: The Collective Experience of 17 Facilities." *Compensation and Benefits Review* 29: 43-52.
- McCain, L.J. and R. McCleary. 1979. "Statistical Analysis of the Simple Interrupted Time-Series Quasi-Experiment." T.D. Cook and D.T. Campbell (eds.) *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Chicago: Rand McNally.
- Montemayor, E.F. 2002. "Congruence Between Pay Policy and Competitive Strategy in High-Performing Firms." *Journal of Management* 22: 889-908.
- Reynolds, M. 2002. "Gainsharing: A Cost-Reduction Strategy That May Be Back" *Healthcare Financial Management* 56: 58-64.
- Ruh, R.A., R.L. Wallace, and C.F. Frost. 1973. "Management Attitudes and the Scanlon Plan." *Industrial Relations* 12: 282-288.
- Schuster, M. 1983. "Forty Years of Scanlon Plan Research: A Review of the Descriptive and Empirical Literature." *International Yearbook of Organizational Democracy* 1: 53-71.
- Schuster, M. 1984. "The Scanlon Plan: A Longitudinal Analysis." *Journal of Applied Behavioral Science* 20: 23-38.

- Schuster, M. 1986. "Gainsharing: The State of the Art." *Compensation and Benefits Management* 2: 285-290.
-
- Schuster, M. 1987. "Gainsharing: Do It Right the First Time." *Sloan Management Review* 28(2): 17-26.
-
- Schuster, M. 1989. "Innovative Compensation Systems." *National Commission on Workforce Quality and Labor Market Efficiency*. (U.S. Department of Labor), 1727-1773.
-
- Schuster, M. 1996. "Gainsharing: Design and Implementation Answers." *Target* 12: 9-18.
-
- Schuster, M. and G. Florkowski. 1992. "Support for Profit Sharing and Organizational Commitment: A Path Analysis." *Human Relations* 45(5): 507-523.
-
- Schuster, M. and C. Miller. 1984. "Implementing Gainsharing into a Quality Circles Environment." *Quality Circles Journal* 7(3): 8-16.
-
- Schuster, M. and C. Miller. 1995. "The Anatomy of a Failure: A Non-Recommended Application of Gainsharing and Its Predictable Effects on Productivity in a Public Sector Setting." *Public Administration Quarterly* 19(2): 217-242.
-
- Schuster, M., M. Montague, and J. Schuster. 1994. "Excellence in Gainsharing: From the Start to Renewal." *Journal for Quality and Participation* 17(3): 18-25.
-
- Schuster, M. and C. Miller. 1987. "Gainsharing Plans: A Comparative Analysis." *Organizational Dynamics* 16: 44-67.
-
- Schuster, M. 1985. "Models of Cooperation and Change in Union Settings." *Industrial Relations* 24(3): 382-394.
-
- Semler, S.W. 1997. "Systematic Agreement: A Theory of Organizational Alignment." *Human Resource Development Quarterly* 8:23-40.
-
- U.S. Department of Labor Bureau of Labor Statistics. 2005. *Producer Price Indexes and Percent Changes for Selected Commodity Groupings by Stage of Processing*. Washington, D.C.
-
- Welbourne, T.M. and L.R. Gomez-Mejia. 1995. "Gainsharing: A Critical Review and a Future Research Agenda." *Journal of Management* 21: 559-609.
-
- Zenger, T.R. and C.R. Marshall. 2000. "Determinants of Incentive Intensity in Group-Based Rewards." *Academy of Management Journal* 2: 149-163.
-