How Microsoft Optimized Its Investment in People after the Dot-Com Era

Even after the dot-com bubble burst and layoffs became the order of the day, Microsoft faced the traditional challenge of attracting and retaining key talent. So the company embarked on a rigorous analysis of what rewards most attracted and kept loyal the kind of people they need. And then they weighed the costs of enhancing those rewards against the economic and other benefits of reduced turnover.

L. Allen Slade, Thomas O. Davenport, Darryl R. Roberts, and Samir Shah

In March 2001, Microsoft CEO Steve Ballmer made what seemed like a passing comment in an interview for *Fast Company* magazine. Asked about how to get 40,000 employees focused on a unified vision, he emphasized rewards as a mechanism for increasing commitment to the company and engagement in work. He also made what was, for Microsoft, an extraordinary statement about the relative importance of financial and nonfinancial rewards: "In the past few years, with the dot-com mania, some people left because they thought they could make a lot of money at a start-up. That has changed. We're back to doing better at recruiting and keeping the people we want. And we're spending much more time focusing on the quality of the job. We're thinking hard about how to keep jobs big and full of impact. That's the key: doing more than just fixating on compensation."

Since that interview, the problem of hiring and keeping great people has become even more complicated. The challenge has taken on increased urgency for managers as methods for quantifying the importance of intangible capital have improved. A few years ago, managers were shocked to learn that the hard and soft costs of turnover could add up to two or even three times the annual salary of a key executive or technical

* * *

L. Allen Slade, Ph.D., is managing principal of Slade & Associates, where he provides advice on management practices, employee morale, research and statistical analysis. Previously he was the director of people research at Microsoft. He can be reached at allen_slade@hotmail.com. **Thomas O. Davenport,** a principal in the San Francisco office of Towers Perrin and the author of *Human Capital: What It Is and Why People Invest It* (Jossey-Bass, 1999), provides counsel on human capital strategy, change management, and organization effectiveness to clients in a variety of industries. He can be reached at davenpt@towers.com. **Darryl R. Roberts** is a consultant with Towers Perrin in Irvine, California, where his major focus is helping clients use employee research to drive improvements in employee engagement and commitment, customer loyalty, and financial performance. He coauthored *Work Culture, Organizational Performance, and Business Success: Measurement and Management* (Quorum, 1998). He can be reached at roberda@towers.com. **Samir Shah** is a managing consultant in Towers Perrin's Tillinghast division in Washington, D.C. He specializes in the application of management science and operations research methods to general management decision making and financial risk management. He can be reached at shahsa@tillinghast.com.

 Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/npr.10052

contributor. For a company the size of Microsoft, a single percentage-point reduction in turnover can be worth as much as $25 million in avoided cost. At companies across geographies and industries, shock has turned to dismay as financial research has attached ever more accurate and convincing numbers to the value produced by the knowledge, skills, and talents of employees. Work by Baruch Lev at New York University's Stern School of Business, Mark Huselid at Rutgers, and others has shown that effective management of human capital significantly improves a company's market capitalization. Employee retention, once considered a problem for the human resource department, now keeps senior executives and board members awake at night (or it certainly should). And the retention challenge is compounded by the need for organizations to continue to hire talented employees even while they cut staff in some areas. In a Towers Perrin survey of large North American companies, almost three-quarters of the respondents said they must manage this bi-directional pipeline.

THE MICROSOFT SITUATION

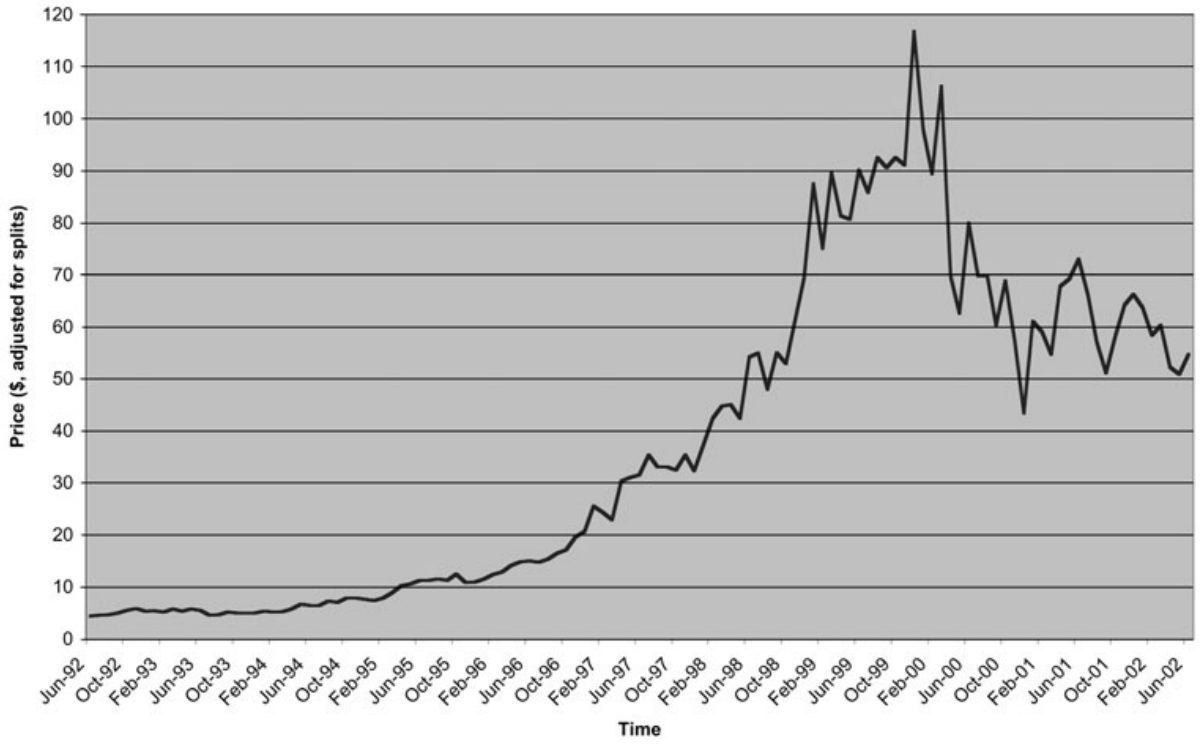
Microsoft's historical compensation philosophy featured conservative base salaries, relatively small incentive opportunities, generous benefits, and a broad-based stock program that created enormous wealth during the 1990s. As illustrated in **Exhibit 1**, Microsoft's share price increased from $4.38 in June 1992 to $116.75 in December 1999, a 27-fold gain. What a package Microsoft offered to employees and job candidates: cool company, leading-edge projects, charismatic leadership, and the opportunity to get rich. Microsoft's deal produced low turnover rates, outstanding business performance, and wealth for shareholders and employees alike.

This seemingly unassailable rewards portfolio came under fire, however, with the approach of the 21st century. The rising tide of sustained stock-market performance increased competitors' equity values just as it had Microsoft's. Increasing use of stock options as a foundation for compensation plans meant that other organizations could begin to entice people with the possibility of impressive financial gains. The proliferation of dot-com companies, however short-lived, introduced a new source of attractive job opportunities into the mix. Small companies, many of them technology start-ups, held out the promise of jobs with broad scopes of responsibility. Microsoft, which by 1999 was a $20 billion organization with 35,000 employees worldwide, couldn't always match these kinds of enriched job opportunities. When the stock market began to fall in 2000, the linchpin of Microsoft's total rewards package began to lose its attractiveness. The company became vulnerable to turnover of key people and sometimes had difficulty filling vacant slots with equally talented new employees.

When the stock market began to fall in 2000, the linchpin of Microsoft's total rewards package began to lose its attractiveness.

Faced with growing concern about the organization's ability to compete for critical employee talent, Microsoft's human resource group began to take action. It started by considering the merits of a comprehensive total rewards response to the recruiting and retention challenges. HR decided that for such a strategy to make sense, it would need to:

- Combine the full array of rewards important to employees.
- Give the organization effective weapons against companies that compete for Microsoft employees and candidates.
- Reflect the organization's status as an attractive, albeit maturing, company.
- Forge a clear link between rewards received and contribution made.
- Accommodate individual needs and personal values, but remain administratively practical.
- Support the organization's evolving business strategy, which would focus on Internet delivery and personalization.
- Ensure that the organization invested its reward dollars where they would produce the greatest benefit—that is, yield the highest possible employee commitment to the company and engagement in work.



Sources: Yahoo Finance, Merrill Lynch

Exhibit 1. Microsoft Stock Price—June 1992 to June 2002

To achieve these goals, Microsoft needed a tool that would allow HR to do three things: determine the value employees attach to various financial and non-financial rewards; understand how those values vary across employee groups; and anticipate how employees would act given the availability of various reward combinations. Perhaps most important, Microsoft wanted a way to calculate the return on investment of different reward strategies. That is, the HR group wanted to weigh the cost of rewards against the savings produced by reduced employee turnover, and to identify the net financial return from a range of reward offerings. Microsoft found the necessary tool in Total Rewards Optimization (TRO).

Towers Perrin's TRO approach incorporates conjoint analysis, a sophisticated survey method drawn from market research science. Using the survey tool, an employee makes choices indicating the relative value he or she places on the range of financial and nonfinancial rewards that a company provides. These data tell an organization what employees really think about the full array of tangible and nontangible rewards people receive in exchange for their investment of skills, knowledge, talent, and energy. These rich data allow an analyst to construct the total rewards portfolio that has the greatest power to elicit employee commitment to the organization and engagement in work. TRO also employs information on reward costs and on the financial implications of such employee behaviors as reduced turnover or increased engagement in work. A flexible modeling technique uses the employee preference and financial data and enables an organization to analyze various reward portfolios. Using the modeling tool, a company can determine the costs and benefits associated with different combinations of rewards and determine how to allocate its budget to specific reward elements.

TOTAL REWARDS OPTIMIZATION—MICROSOFT'S APPROACH

Microsoft's HR group started with a well-informed but nevertheless general sense of how

employees valued different elements of the current reward portfolio. By the project's completion, the team had a fully functional analytical model that permitted them to determine how various reward portfolios would affect employee behavior. Project results also equipped HR to identify the net benefit (in ROI terms) of every different reward combination. The team accomplished these goals in four major steps.

Step 1: Define the total array of rewards. The process began with the establishment of a project team. The Microsoft core team comprised five members, representing the employee research, compensation, and finance functions. HR membership ensured that the recommendations would remain consistent with the organization's compensation, benefits, and human capital management philosophies. Team members from finance were responsible for ensuring that the team used accurate cost data and applied a quantitative analysis as rigorous as that applied to other major investment decisions. Microsoft also established an oversight group consisting of representatives from a variety of line functions. Ultimately, line managers would have major responsibility for implementing recommendations, especially those having to do with improved supervisor efforts to create engaging work and rich learning opportunities. Hence, line-manager participation was important to ensure that the analysis would produce practical recommendations.

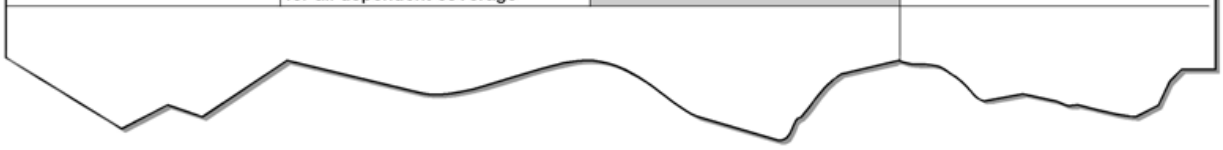
... TRO could indicate how rewards influence such critical behaviors as commitment to a company, involvement in work, or direct productivity.

In the first project step, the team developed hypotheses about the rewards that attract and retain employees. It's important to start with a broad view of rewards, reflecting the breadth of financial and nonfinancial elements that influence an employee's decision to stay with a company or quit. Rewards come from a range of categories, including pay, benefits, learning opportunities, career development, work environment, and manager effectiveness. Pay and benefits comprise such elements as base pay, incentives, bonuses, health and welfare benefits, and time off. These are typically well defined and offered to employees through formal programs. Rewards representing the other, "softer" categories must also be carefully defined. However, because most organizations don't attach financial value to rewards in these categories, coming up with definitions requires creativity. Ultimately, the team developed a tentative list of reward elements believed to have a strong effect on retention. TRO can focus on any employee behavior that has financial implications for an organization. For example, TRO could indicate how rewards influence such critical behaviors as commitment to a company, involvement in work, or direct productivity. Because employee turnover was the dominant issue on the minds of Microsoft managers and executives, however, the project team chose retention as the behavior to analyze.

The team also realized that the only way to validate the accuracy of their hypotheses was to go directly to employees. To gather employee input, the project team convened some 20 focus groups involving a variety of employee populations and locations. The focus group meetings enabled the project team to validate some of its beliefs about what employees value and to modify others. Focus group information also helped in understanding the language employees use when they talk about what makes them want to come to work and keep working for Microsoft. The output of the focus groups was a reward matrix. (See **Exhibit 2** for an example of a partial reward matrix.) The Microsoft reward matrix contained 12 reward elements, each reflected at two or three different levels. The reward elements and levels shown in Exhibit 2 are expressed in terms similar to what a survey respondent would see on the conjoint survey.

Step 2: Determine how employees value rewards. Having developed the reward matrix, the team next set out to determine how employees value various combinations of these rewards. The reward matrix formed the basis for the conjoint trade-off survey that respondents would use to indicate what they value most and what exchanges they would be willing to make among rewards. Essentially, the conjoint approach allows survey respondents to indicate preferences for various packages of features for whatever is being analyzed—whether it's a product or a job.

Element	Level 1 (Low)	Level 2 (Medium)	Level 3 (High)
Annual Base Pay	No change in current annual base pay (with ongoing merit opportunity)	10% more than the current annual base pay (with ongoing merit opportunity)	20% more than current annual base pay (with ongoing merit opportunity)
Internal Job Market	No change in current internal job market practices (i.e., online career center, current transfer policy)	You may apply for other internal positions without manager's permission	Managers are allowed to actively recruit employees from other departments
Manager Effectiveness	No change in your manager's effectiveness	Organization invests to ensure that your manager is exceptional at delegating, motivating, being fair, and empowering	
Learning Opportunities	You negotiate training opportunities with your manager	Managers are held accountable for ensuring that employees receive at least 40 hours of formal training per year	Assurance of at least 60 hours of formal training per year, plus participation in a mentoring program
Health Care	You pay a total monthly health care premium between $25-$50 for all dependent coverage	No change to current health care program	You receive cash for waiving portions of health care coverage



Current reward level

Level not used

Note: This is a partial reward matrix. The rewards and levels shown here are similar, but not identical, to those analyzed by Microsoft.

Exhibit 2. Example of a Total Rewards Matrix

The survey presents the features in a way that requires the survey respondent to make trade-offs, giving up lower-valued elements for higher-valued ones. For example, consider how a potential car buyer might choose between two automobiles: an expensive two-seat sports car with fast acceleration and low gas mileage, or an economy sedan that is slower but roomier, more fuel-efficient, and less expensive. In total rewards terms, an employee might choose either a job with market-level base pay but a high incentive and aggressive development opportunities, or one with a higher base, lower incentive and a relatively stable future.

The survey gathered this information by requiring respondents to think about the various rewards they do (or might) receive: "Do you want a higher base or would you be willing to take a lower base with an aggressive bonus opportunity?" "Is having a great training program as important as an empowering manager, or not?" To get people to consider such tradeoffs, we used an adaptive, computerized survey delivered via the Internet. The survey software varies each question in response to the employee's prior answers. At the end of the survey, the employee has constructed his or her preferred reward package. The final part of the survey exercise requires the employee to indicate his or her likelihood of staying with the company for a specified period, given rewards at the levels contained in the preferred rewards package. In effect, employees respond to the question, "What will you do, given these rewards?" rather than "How much do you like these rewards?" In other words, the survey measures behavioral intentions rather than attitudes.

The conjoint analysis yielded a series of preference curves for each reward. **Exhibit 3** shows examples of preference curves for two rewards, base pay and learning opportunities. Interpreting the preference curves (which economists would refer to as utility curves) is straightforward. Note that employees clearly prefer level 2 of base pay (10 percent increase over the current level) over level 1; the upward-sloping first segment of the line illustrates this. The second segment of the line, which shows the

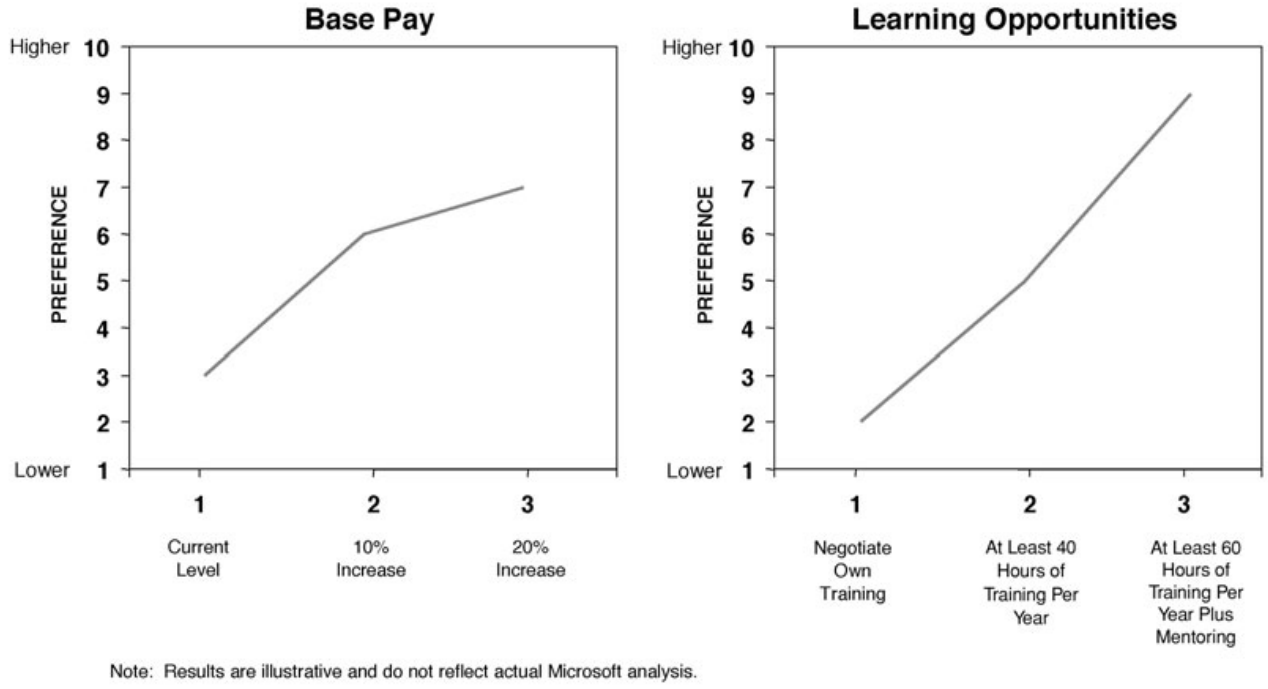


Exhibit 3. Sample Comparison of Two Preference Curves

degree to which employees prefer a 20 percent pay increase to a 10 percent gain, is significantly flatter, however. The flattening slope indicates that moving to 20 percent from 10 percent creates relatively little additional value, from the employees' perspective. We often see this kind of phenomenon with base pay; continuously adding pay increments generally yields diminishing returns in terms of employees' perceived value. In contrast, note the shape of the right-hand curve, which pertains to three levels of learning opportunities. Employees expressed a clear preference for level 2 of learning opportunities (mandatory 40 hours of training annually) over level 1. The line becomes even steeper between level 2 and level 3, however, indicating an increasing preference for moving to the third level (60 hours of training annually, plus a mentoring program). Again, this kind of finding is not atypical. Increases in developmental opportunities often generate significant additional value from the employee perspective.

Beyond these kinds of findings, the TRO analysis also allowed Microsoft to assess reward preferences for specific employee populations, as well as for the organization as a whole. For example, the HR group had a particular interest in knowing how employees in the sales and technology development functions valued different reward combinations. The team also studied variations in reward preferences among employees with different tenure levels and among high performers in all departments. TRO permits the user to analyze the reward valuations of any specific demographic group.

Useful as the preference data were, they gave only half the picture. They told Microsoft what employees value, with those values expressed in behavioral terms—that is, in terms of their likelihood of staying with Microsoft. To determine the financial implications of responding to employees' reward preferences, the project team needed to attach a financial value to employee turnover and to determine the cost of delivering various reward combinations. The team gathered these financial data in the next step of the project.

Step 3: Determine the cost of turnover and the price tag for rewards. The conjoint analysis

gave the project team the first key element of the information needed to forge a successful retention improvement strategy. However, relying only on the preference curves might lead a team to conclude that the way to improve retention is to give everyone the highest level of each reward. Doing this would, of course, maximize perceived value in employees' eyes. This strategy makes little sense, however, for any organization that faces constraints on the amount of money it can invest in employee rewards. Even cash-rich companies like Microsoft must keep constant vigilance over profitability and earnings per share. The team, therefore, needed two other elements to complete the analysis. One was a detailed understanding of the cost of turnover. The second was data on the cost to deliver the reward elements incorporated in the conjoint surveys. Ultimately, the team used the two sets of costs, along with the employee preference data, to determine the net benefit to the company of various reward strategies.

The Microsoft team used an aggressive approach to determine turnover cost, incorporating both hard and soft items.

Calculating the cost of turnover required delving into both explicit and implicit expenses incurred by the organization when an employee leaves. Turnover costs can vary widely, depending on the approach used to compile the cost information. A conservative estimate of turnover cost might include only such readily quantifiable elements as recruiter search fees, job advertising costs, referral bonuses, applicant travel expenses, and relocation costs. A broader look at the full cost of filling key jobs (which we advocate using) could incorporate additional factors, including:

- Production inefficiencies incurred while positions are vacant and while newly hired employees learn their jobs
- Costs associated with manager and recruiter time spent reviewing candidates
- Expenses incurred to train new employees
- Investments required for recruiting and company marketing events

The Microsoft team used an aggressive approach to determine turnover cost, incorporating both hard and soft items. With turnover cost data under its belt, the team proceeded to determine the second financial element of the total rewards optimization analysis: the cost to deliver the high, medium, and low levels of each reward element. The pay and benefit elements of the rewards portfolios lend themselves to relatively easy financial analysis. Most organizations have plenty of information on the cost to deliver these rewards to target populations. The nonfinancial rewards usually require more work to quantify, however. For example, consider the cost associated with levels of manager effectiveness. This reward often shows up as one of the key elements driving such employee behaviors as retention and engagement in work. To estimate the cost, organizations should consider the investment required for such factors as:

- Developing manager competency models, incorporating insightful definitions of the knowledge, skills, talents, and behaviors of strong managers
- Defining and applying enhanced procedures for assessing prospective managers during the hiring and promotion processes
- Developing comprehensive manager performance assessment and improvement tools
- Training managers, incorporating trainer time, program materials, and manager salaries during training courses
- Establishing a mentoring program in which executives coach and develop middle managers
- Moving managers across projects in units to broaden their experience

The Microsoft team adopted a fiscally conservative posture in its handling of reward costs, using relatively high estimates for reward-related investments. Collecting extensive cost data can seem like a daunting task, but the effort usually provides value beyond the TRO effort itself.

Reward Portfolio	Reward Levels	Incremental Cost	Annual Turnover	Turnover Cost Savings (1% = $2,000,000)	Net Benefits
A	Base Pay—Low (Current) Internal Job Market—Low (Current) Manager Effectiveness—Low (Current) Learning Opportunity—Low (Current) Health Care—Medium (Current)	$0	15%	$0	$0
B	Base Pay—Low (Current) Internal Job Market—High Manager Effectiveness—High Learning Opportunity—Low (Current) Health Care—Low	$0 $1,500,000 $2,000,000 $0 ($5,000,000) (1,500,000)	15%	$0	$1,500,000
C	Base Pay—Low (Current) Internal Job Market—High Manager Effectiveness—High Learning Opportunity—Medium Health Care—Low	$0 $1,500,000 $2,000,000 $1,500,000 ($5,000,000) $0	11%	$8,000,000	$8,000,000
D	Base Pay—Medium Internal Job Market—High Manager Effectiveness—High Learning Opportunity—High Health Care—Low	$7,000,000 $1,500,000 $2,000,000 $2,000,000 ($5,000,000) $7,500,000	8%	$14,000,000	$6,500,000

Note: The reward costs and turnover cost savings shown here are hypothetical. They do not reflect actual Microsoft experience.

Exhibit 4. Sample Analysis of Total Rewards Portfolios

For example, the cost collection efforts require the project team to consider how the company will ultimately implement programs like enhanced manager development. This information gives the team a head start in its planning.

Armed with the three required data elements—employee preference, turnover cost, and investment required for each reward element and level—team members were ready to complete their work. They moved on to the final step: the optimization analysis.

Step 4: Define the optimum total rewards investment. **Exhibit 4** aggregates the three data sets. The second column (reward levels) shows the components for four hypothetical reward portfolios (A, B, C, and D). Reward cost data of the type the Microsoft team developed through the processes described above appear in the third column. The turnover results and related turnover cost savings are in the fourth and fifth columns, respectively. The far right column, net benefits, shows the financial gain from reducing turnover, net of the increased or decreased cost for each portfolio. In this illustrative scenario, turnover is currently 15 percent. Shifting the reward portfolio from the current package (portfolio A) to portfolio B keeps turnover at the same level, but saves the company $1,500,000. The savings come from balancing investments to improve the internal job market and manager effectiveness against reduced cost for an expensive but less-preferred reward (health care). Portfolio C produces a net benefit by keeping reward costs at the current level, but improving perceived value so much that turnover drops by 4 percentage points. An $8 million savings in turnover cost results. Finally, portfolio D represents a sizable incremental investment in rewards ($7.5 million more than the current investment), but yields dramatic savings from reduced turnover ($14 million, as turnover drops from 15 to 8 percent). Portfolio D thus yields a net benefit of $6.5 million.

Using portfolio optimization tools, the project team created a curve called the total rewards efficient frontier. A generalized example of an efficient frontier curve appears in **Exhibit 5**. The horizontal axis represents the change in reward investment from switching from the current

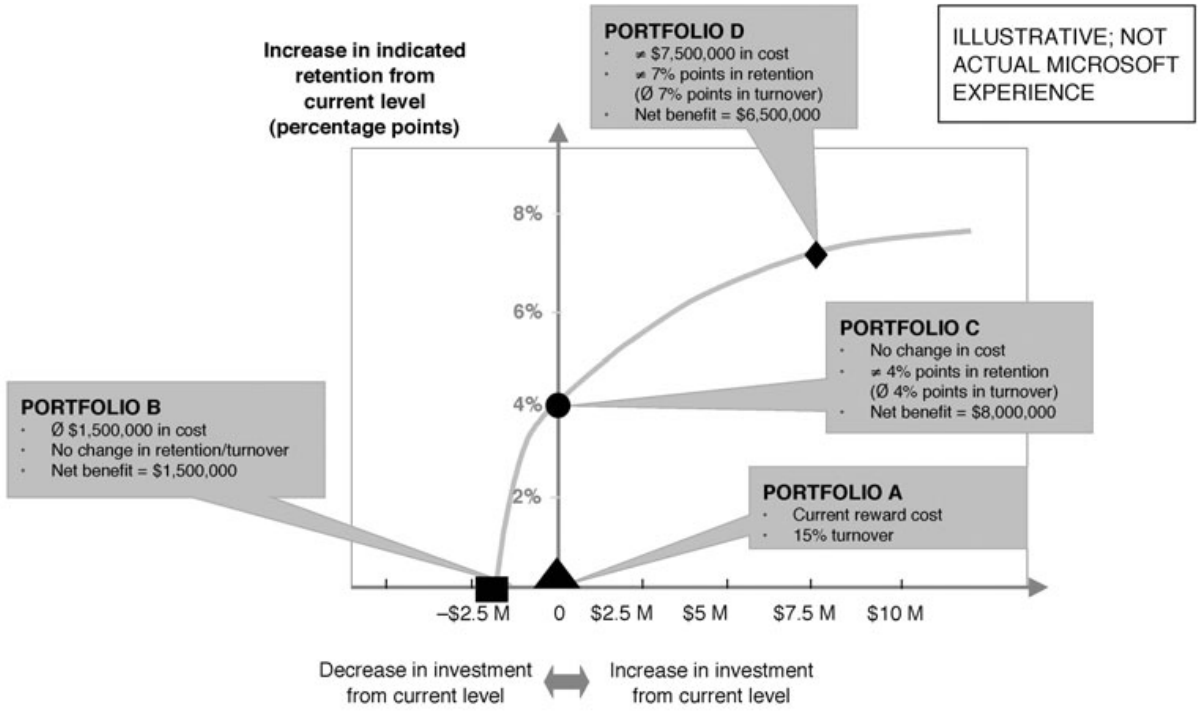


Exhibit 5. A Total Rewards Efficient Frontier

reward package (A) to a different one (B, C, or D). The vertical axis illustrates the corresponding changes in turnover (shown as percentage-point increases in retention). In our example, packages B, C, and D lie on the curve. They represent optimal reward packages; at the investment levels reflected in these portfolios, there is no better way for the company to spend its money to achieve a given retention goal. The current reward profile (A) lies inside the efficient frontier. The company could achieve the same turnover level and spend less money (by offering portfolio B) or improve retention at no incremental cost (portfolio C). Hence, we know that A is not an optimal reward portfolio.

Knowing the shape and position of the efficient frontier allows an organization to define several retention strategies:

- Maintain the current level of investment, but reallocate that investment to emphasize the rewards that employees value most and, thereby, generate savings by reducing the turnover rate (portfolio C).
- Maintain the current level of turnover, but reduce the total investment in rewards by reallocating that investment to rewards that employees value most (portfolio B).
- Develop the highest-retention rewards package. Management needs only to determine how much incremental investment it is willing to make, find that point on the horizontal axis, and then read off the curve the projected retention improvement. Portfolio D represents such a point.

The adaptive conjoint survey also permits an organization to ask additional questions concerning employee attitudes and perceptions about topics other than reward values. Microsoft took advantage of this feature to gather information about the delivery of certain key rewards. For instance, the team included a series of questions soliciting information from sales representatives about their relative preferences for incentives based on team or individual performance, and regional or customer-account metrics.

INSIGHTS GAINED LEAD TO A TOTAL REWARD STRATEGY

At the end of the process, the Microsoft team formulated a total rewards strategy to address the organization's retention concerns. The team found that employees expressed surprisingly similar reward preferences across job groups, salary levels, and tenure categories. High-potential employees, however, expressed a particularly strong preference for stock options, incentive opportunities, and sabbaticals, and a base-pay preference about equal to that of average performers. Using the findings from the TRO project, the team has recommended such actions as increased investment in manager effectiveness, elimination of barriers to intraorganization transfers, and expansion of the company's leave of absence opportunities. The HR group continues to use the TRO modeling capability to answer reward-related questions from senior management and provide data for continuing dialogue on reward strategy issues.

... the most important byproduct of the process was the way it raised the sophistication of human capital analysis to a level commensurate with its importance in the organization.

Members of the team also discovered that first-line managers in local work groups deliver much of what people value most from their work. The analysis reinforced the importance of reward elements in nonfinancial categories like job mobility and learning opportunities. The HR representatives on the team considered this finding both challenging and encouraging, for it meant that highly engineered, one-dimensional programs would likely do little to reduce turnover. They also concluded that they needed to work closely with business units to help individual supervisors and managers define and deliver the rewards portfolio that would have the greatest commitment-increasing power for key employees. Total rewards optimization helped the team answer the question: "What must managers in this organization do to build commitment among the people who have the most valuable human capital?"

The analytical process itself was valuable beyond the quantitative results produced. In particular, the opportunity to forge close working bonds among the HR, finance, and line representatives created and reinforced relationships that continued after the completion of the project. The team members came to realize that they would need cross-organizational cooperation (from their own units as well as from functions like line operations, training and development, information systems, and organizational development) to further refine and deliver the desired reward elements. In effect, the process of gathering and analyzing total rewards information constituted the first step in breaking down organizational stovepipes that could hinder reward definition and delivery. The skills that team members developed in navigating their organizations and breaching organizational boundaries will stand them in good stead as they continue with implementation.

Perhaps the most important byproduct of the process was the way it raised the sophistication of human capital analysis to a level commensurate with its importance in the organization. The team's approach and the results produced sent a message to senior management: No longer was the use of advanced quantitative tools reserved for software product design or financial portfolio management.

Does this mean that total rewards optimization provides a magic formula for solving a challenging problem like retention? Certainly not. As the analyses demonstrated, successful retention depends far too much on actions taken by individual managers to be amenable to an easy diagnosis or a quick cure.

Nevertheless, this approach does a better job than any other we know of to help organizations understand and respond to employees' valuations of total rewards. Consequently, its use should not be limited to dealing with retention issues. Any challenge that calls for an understanding of what makes people want to invest discretionary effort in a job—in other words, any business challenge in which human capital productivity is critical—deserves the kind of thoughtful analysis that goes directly to the heart of the relationship between company and individual. ■