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WorldatWork Journal strives to:

- Advance the theory, knowledge and practice of total rewards management.
- Contribute to business-strategy development that leads to superior organizational performance.
- Provide an outlet for scholarly total rewards writing and research.

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06 Using Best-Worst Scaling To Address Below-Market Salary Rates
By Theodore E. Weinberger
Compensation practitioners are often tasked with formulating a strategy to optimally assign limited salary increase dollars to below-market salary rates. This article proposes a method to enable those practitioners to determine the preferences of company leaders in developing a market-deficit reduction strategy.

16 Cash Balance Pension Plans
By John G. Kilgour, Ph.D., California State University, East Bay
This article examines the spectacular growth of hybrid cash balance pension plans and their evolution from plans converted from traditional defined benefit plans sponsored by large employers to plans started anew or attached to existing defined contribution plans by small and midsize employers.
Performance Measurement for Incentive Pay Plans
By Matthew Kleger and Adam Kahle, Korn Ferry Hay Group
Determining effective performance measures and measurement approaches can be a challenge for both short and long term incentive design because of each company’s unique set of facts and circumstances. This excerpt about performance measurement for incentive pay plans is from the third edition of “Understanding Executive Compensation & Governance: A Practical Guide,” which addresses different performance approaches, thresholds, target and maximum performance levels used for goal-setting and more.

Optimal Mix of Financial and Nonfinancial Rewards: Enhancing Sales Performance
By Pankaj M. Madhani, Ph.D., ICFAI Business School
This research provides an approach to a salesperson’s profitability index that can predict future sales performance and link that performance to the rewards practices of sales organizations.

Published Research in Total Rewards
The collection and analysis of survey data does not inexorably lead to the “right” salary increase decisions. Compensation practitioners devote much activity to obtaining survey data on the market rates of company jobs and comparing those rates with employees’ salaries. Simple dollar and percentage differentials are computed between the corresponding rates. Often, negative differentials of varying magnitude are identified between employee salary rates and the market referent (e.g., median) rates across given jobs. Factoring in the company’s desired competitive posture, compensation practitioners endeavor to implement salary adjustments to reduce the market deficits. Unfortunately, budgets may limit the ability to raise employee salaries to the intended market alignment in a single program cycle. The decision then becomes a compromise in which the dedicated budget dollars are either used to partially close the salary-market rate gap across all negative differential cases or that deficit is eliminated in certain job categories.
Compensation practitioners must formulate a market deficit reduction strategy to ensure the optimal assignment of salary increase dollars. This strategy involves the use of various heuristics to account for differences across cases in terms of the: extent of the negative differentials; relative importance of the jobs to the company; and relative contributions of the incumbents in the jobs. These heuristics signal priorities that are rarely made explicit and may actually be operating at a subconscious level. A method is required to help guide company decision makers in arriving at the appropriate compromise in determining salary adjustments to reduce market deficits. This article proposes a method to enable compensation practitioners to scale the deficit-reduction preferences of these decision makers in formulating a strategy.

THE ADMINISTRATION OF SALARY ADJUSTMENTS

Compensation practitioners use various mechanisms to satisfy the market-competitiveness criterion for managing employee salary adjustments. A formal salary structure is still a common device for the rate placement of new hires and regulation of employee rate progression. Typically, a structure is developed by market pricing the salary rates of benchmark jobs, assigning jobs with similar market rates to the same pay grades, and then creating ranges (minimum, midpoint, maximum rates) for the grades consistent with the company’s preferred competitive positioning (e.g., market median). The ranges allow for moderate variance, within grades, with regard to market-rate difference between jobs and salary-rate differences between job incumbents. Compensation practitioners periodically monitor market movement and adjust the range rates of grades based on survey data analysis.

A salary structure should primarily facilitate the ongoing administration of the company salary practice aligned with the competitiveness criterion. However, some procedure is necessary to handle incumbent rate deviations, either at inception or later due to market disruption. With the installment of a new structure, compensation practitioners may encounter incumbent salary rates that fall below range minimums. These “green circle” cases are usually resolved through a single rate adjustment that eliminates the gap or a succession of smaller increases that gradually reduces it. An abrupt market disruption to an existing structure could also occur with a technological innovation or change in government regulations. Such a disruption may create “hot jobs” (e.g., data scientist) that require specialized skills. The salary rates of employees in a hot job may suddenly be bid up in the market and surpass the original pay grade (Sever, Stoskopf, and Feinstein 2015). The compensation practitioner might subsequently detect a negative market differential for the job in a later salary program cycle after survey data capture the disruption.
COMPLEXITIES OF DEFICIT REDUCTION

A major objective for any salary program is to attract and retain key talent of sufficient quantity and quality. The market rates for jobs are a product of labor supply and demand. In theory, departures from market equilibrium in salary rates affect the likelihood of turnover. Other factors held constant, salary rates greater than market medians will make the company less susceptible to external talent raids while below-market rates will have the opposite effect. Compensation practitioners strive to maintain salary rates within competitive parameters. When salary rates fall below some lower bound of market competitiveness, increase adjustments are required to shrink the deficits.

Formulating a market-deficit reduction strategy is a complex process. There is much uncertainty about how employees will respond when their salaries are less than the market referent rates for their jobs. Whether employees will seek higher-paying jobs depends on such factors as individual differences, personal circumstances and the nature of the work content and context. It stands to reason that those employees with a propensity for risk taking, a strong appetite for material consumption or dissatisfaction with their work tasks or immediate supervision will be inclined to entertain a higher salary offer from another company. Obviously, it is difficult for the compensation practitioner to predict each employee’s “elasticity of market responsiveness” and what offer amount from a prospective talent raider would constitute the tipping point for leaving. Moreover, despite the fact that survey data are now more widely available, an employee may still have incomplete knowledge of the market price for a job.

Interpretation of survey data for jobs further complicates the formulation of a market-deficit reduction strategy. Although the market median is commonly used to assess the competitiveness of salaries, there is a tendency to oversimplify. In reality, the market referent for each job is not defined by some solitary data point (i.e., survey average), but rather a multitude of rates, which has a specific distributional property, across the population of survey participants. Different benchmark jobs in salary surveys have market rate distributions that have greater or lesser variance and skewness. For instance, a 15% negative differential for one job with a narrow market rate distribution may be an extreme deviation (i.e., outlier), but be well within competitive tolerance for another job with a wide market rate distribution. The same percentage differential between employee salary and market median rates for different jobs may have disparate implications for retaining key talent. Therefore, using a uniform percentage to reduce negative differentials in salary rates ignores the differences in the configuration of market rates between jobs.

DEFICIT REDUCTION HEURISTICS

Compensation practitioners often resort to basic heuristics (i.e., rules of thumb) in proposing an approach for reducing negative market differentials in the salary rates of employees. These heuristics are used to select which salary rates are to
be adjusted, and by how much. One obvious heuristic is the size of the deficit. The greater the percentage of the negative differential, the more likely the salary rate will be increased and by a relatively large amount. The aim is to perform “compensation triage” by dispensing increase adjustments to those employees with salary rates that have the greatest competitive shortfall. A variation of this heuristic is to specify a generalized threshold (floor) for an acceptable level of a negative differential (e.g., 5% below market referent) and then to focus incremental spending on those salary rates. A priority would be to increase any salary rate to that threshold.

Other deficit reduction heuristics involve company decision maker discernment. In particular, below-market salary rates may be increased because of perceived threats of losing workers to competitors. Here, anecdotal reports of the salary practices within an industry, as well as having employees leave to higher-paying competitors, could fuel aggressive salary treatment to reduce deficits. This is a preemptive approach because it calls for channeling salary dollars to employees who seem to be likely targets for talent poachers. A more deliberate heuristic would include a systematic workforce evaluation and determination of those employees whom the company most wants to retain and upping their salary rates to reduce negative market differentials. Such expenditures would be justified by the expected positive economic return from the future job performance of these employees.

In fact, a market-deficit reduction heuristic may not reflect the strategy of company decision makers. Although straightforward, a deficit reduction heuristic is unlikely to validate the intended trade-offs in responding to a specific combination of negative market differentials across employee salary rates. For example, company decision makers could be confronted with the following scenario: Employee A is in a job perceived to be pivotal to achieving business objectives, yet presents only a marginal rate deficit; Employee B is in a job perceived to be only peripheral to the company’s mission, but has a pronounced rate deficit; Employee C is in a job perceived to be of moderate strategic value, and has a moderate rate deficit, but is seen as a future superstar performer. How should the company distribute its finite salary increase dollars and what implications will it have for any non-recipient employees who also have below-market salary rates? Company decision makers consider and implicitly weight various factors in fashioning their deficit-reduction schemes. Such schemes are not easily articulated and may not crystallize into a coherent solution. Ideally, the compensation practitioner would be able to deploy some technique to elicit and scale the relative preferences of company decision makers for reducing the below-market salary rates among a group of employees.

**BEST-WORST SCALING**

Best-worst scaling (Louviere et al. 2015) is advanced as a way for compensation practitioners to help formulate a market-deficit reduction strategy. Best-worst scaling (BWS) allows for the calibration of decision makers’ preferences for increasing the
salary rates of employees with negative market differentials. BWS is predicated on
the notion that decision makers, when shown subsets of market-deficit cases (i.e.,
multiple employees with salary rates with negative market differentials), can readily
identify the most (best) and least (worst) deserving options for targeted redress.
The outcome reveals the underlying, subjective scaling of the decision maker's
market-deficit reduction strategy. In other words, BWS measures the company’s
tacit intent for distributing incremental salary dollars to given employees, of given
amounts, to reduce or eliminate negative differentials.

The initiation of a BWS-based study to formulate a market-deficit reduction
strategy involves designing and administering a questionnaire. Construction of
the BWS questionnaire includes determining the employees with below-market
referent salary rates and the dollar size of each deficit. These cases (i.e., objects)
are to be placed on a continuum of prospective market-deficit reduction. Next,
a balanced incomplete block (experimental) design (BIBD) is used to delineate
comparison subsets (blocks) of a fixed number of cases for inclusion as separate
questionnaire items. Comparison subsets consist of three to five candidate cases.
The aim of BIBD is to ensure that each candidate case appears as an item alterna-
tive in the questionnaire an equal number of times, and is embedded with different
combinations of other candidate cases as comparison subsets in a nonredundant
manner. The BWS questionnaire is customized to extract a series of preference
choices, across subsets of candidate cases, for adjusting salary rates to reduce
negative market differentials. The company decision maker responds to each item
by making discrete choices in selecting the single most- and least-deserving cases,
as options from each candidate subset, for spending incremental salary dollars to
reduce deficit rates.

The analysis of survey response data yields results that can be translated into a
market-deficit reduction strategy. This strategy could be manifest as "budget shares"
of salary increase dollars to reduce or eliminate negative market differentials.
A simple counts analysis of the decision maker's deficit-reduction preferences can
be readily produced from BWS responses. This involves recording the number
of times each candidate case is selected as the most and the least important (i.e.,
deserving of deficit reduction) across the questionnaire items, and then subtracting
the latter from the former. The case with the largest positive difference score
warrants the largest salary adjustment, with lesser amounts to be spent on cases
with smaller positive difference scores, and little or no redress for those with
neutral and negative difference scores.

A more sophisticated statistical model, based on multinomial logit analysis, may
be fit to the questionnaire response data to estimate BWS utility scores for allo-
cating incremental salary budget dollars. The BWS utility scores derived for the
candidate cases provide a foundation for a more precise distribution of the special
salary budget. Specifically, the deficit reduction strategy might restrict the salary
increases to only those cases with positive BWS utility scores. Then, the budget
shares are the proportional allocation of salary increase dollars across the eligible employees based on their relative positive BWS utility scores.

**SIMULATION**

A simulation was performed to demonstrate the use of BWS in formulating a market-deficit reduction strategy. A theological college, Guiding Word Academy (GWA), had obtained survey data and performed a market competitiveness analysis on the salaries of its academic and administrative positions. Based on this analysis, the HR director identified 10 employees with salary rates that exhibited a deficit of at least 10% from the market median rate of their positions. (See Figure 1.) After the GWA board approved a budget for deficit reduction, the HR director sought the president's input in deciding how to distribute the incremental salary dollars.

In formulating a market-deficient reduction strategy, the HR director administered a BWS questionnaire to the president. The questionnaire consisted of 10 items with a most important/least important response format. The items featured combinations of five employee cases with negative differentials by dollar amount and percentage (in a BIBD). For each item, the president was instructed to consider the five negative differential cases presented and choose the one most important, and the one least important, for deficit reduction. (See Figure 2 on page 12.) The HR director then analyzed the responses to ascertain the president's preference for allocating the special budget dollars.

A counts analysis indicated a distinct ordinal preference for the market-deficit reduction of the negative differential cases. In particular, the president's top priority

---

**FIGURE 1 Identifying Positions With Market Deficit**

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Salary Rate</th>
<th>Market Median Rate</th>
<th>Diff. $</th>
<th>Diff. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH SUPPORT SPECIALIST</td>
<td>$22,881</td>
<td>$42,996.17</td>
<td>($20,115.17)</td>
<td>-46.8%</td>
</tr>
<tr>
<td>VP, ACADEMIC AFFAIRS</td>
<td>$86,776</td>
<td>$138,486.10</td>
<td>($51,710.10)</td>
<td>-37.3%</td>
</tr>
<tr>
<td>DIRECTOR, MEDIA PRODUCTION &amp; TECHNOLOGY</td>
<td>$48,300</td>
<td>$75,200.47</td>
<td>($26,900.47)</td>
<td>-35.8%</td>
</tr>
<tr>
<td>BURSAR</td>
<td>$31,201</td>
<td>$47,812.10</td>
<td>($16,611.10)</td>
<td>-34.7%</td>
</tr>
<tr>
<td>EVENTS COORDINATOR</td>
<td>$29,121</td>
<td>$40,619.95</td>
<td>($11,498.95)</td>
<td>-28.3%</td>
</tr>
<tr>
<td>UNDERGRADUATE DEAN</td>
<td>$61,467</td>
<td>$80,434.37</td>
<td>($18,967.37)</td>
<td>-23.6%</td>
</tr>
<tr>
<td>ASSISTANT REGISTRAR</td>
<td>$29,121</td>
<td>$36,510.34</td>
<td>($7,389.34)</td>
<td>-20.2%</td>
</tr>
<tr>
<td>ASSISTANT LIBRARIAN</td>
<td>$27,041</td>
<td>$32,335.92</td>
<td>($5,294.92)</td>
<td>-16.4%</td>
</tr>
<tr>
<td>LOGISTICS MANAGER</td>
<td>$35,000</td>
<td>$40,041.94</td>
<td>($5,041.94)</td>
<td>-12.6%</td>
</tr>
<tr>
<td>VP, REGULATORY COMPLIANCE</td>
<td>$72,392</td>
<td>$82,296.72</td>
<td>($9,904.72)</td>
<td>-12.0%</td>
</tr>
</tbody>
</table>

$443,300 $173,434.08
was to spend special salary budget dollars to reduce the market deficit for the vice president of academic affairs. This case was chosen as “most important” in each of the five items in which it appeared in different combinations with other cases. Conversely, deficit reduction for the assistant librarian was shown to be the lowest priority and was selected as “least important” in every item it appeared. Finally, the director of media production and technology and the technical support specialist split the other five “most important” selections; the assistant registrar, logistics manager and undergraduate dean were nonselections; and the vice president of regulatory compliance, bursar and events coordinator split the other five “least important” selections. The counts and ordinal ranks of market-deficit reduction for the 10 cases by the president are shown in Table 1.

A logit analysis of the BWS questionnaire response data produced a set of utility scores of the president’s preferences. Although correlated with the ordinal ranking from the counts output, these case utility scores – converted to a zero-centered interval scale – reflect the comparative strength (i.e., relative preference for deficit reduction) of the other cases chosen as most or least important, or not, for each item (Orme 2009). For instance, interpretation of the logit results shows that the president’s relative utility for market-deficit reduction between the director of media production and technology and technical support specialist cases is smaller than that inferred from their rank order difference though the counts analysis. (See Table 2 for the zero-centered interval scores.)

The BWS outcome signaled the emphasis placed each negative differential case for improving the market competitiveness of the overall GWA salary practice. Clearly, it shows the president attached primacy for deficit reduction to those cases with the largest negative differential percentages. However, beyond this apparent reduction heuristic, one may infer a secondary theme from the pattern of zero-centered interval scores. Specifically, the president seemed disposed to slanting
<table>
<thead>
<tr>
<th>Negative Differential Cases</th>
<th>Times Selected Best (&quot;Most Important&quot;)</th>
<th>Times Selected Worst (&quot;Least Important&quot;)</th>
<th>Counts (Best-Worst)</th>
<th>MDRS Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP, Academic Affairs (-$51,710.10; -37.3%)</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Dir. Media Prod. &amp; Tech. (-$26,900.47; -35.8%)</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Technical Support Specialist (-$20,115.17; -46.8%)</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Assistant Registrar (-$7,389.34; -20.2%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Logistics Manager (-$5,041.94; -12.6%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Undergraduate Dean (-$18,967.37; -23.6%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>VP, Regulatory Compliance (-$9,904.72; -12.0%)</td>
<td>0</td>
<td>1</td>
<td>-1</td>
<td>7.5</td>
</tr>
<tr>
<td>Bursar (-$16,611.10; -34.7%)</td>
<td>0</td>
<td>1</td>
<td>-1</td>
<td>7.5</td>
</tr>
<tr>
<td>Events Coordinator (-$11,498.95; -28.3%)</td>
<td>0</td>
<td>3</td>
<td>-3</td>
<td>9</td>
</tr>
<tr>
<td>Assistant Librarian (-$5,294.92; -16.4%)</td>
<td>0</td>
<td>5</td>
<td>-5</td>
<td>10</td>
</tr>
</tbody>
</table>

**TABLE 2 Zero-Centered Interval Scores**

<table>
<thead>
<tr>
<th>Negative Differential Cases</th>
<th>Zero-Centered Interval Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP, Academic Affairs (-$51,710.10; -37.3%)</td>
<td>47.54</td>
</tr>
<tr>
<td>Dir. Media Prod. &amp; Tech. (-$26,900.47; -35.8%)</td>
<td>26.42</td>
</tr>
<tr>
<td>Technical Support Specialist (-$20,115.17; -46.8%)</td>
<td>26.37</td>
</tr>
<tr>
<td>Assistant Registrar (-$7,389.34; -20.2%)</td>
<td>5.64</td>
</tr>
<tr>
<td>Logistics Manager (-$5,041.94; -12.6%)</td>
<td>4.63</td>
</tr>
<tr>
<td>Undergraduate Dean (-$18,967.37; -23.6%)</td>
<td>3.35</td>
</tr>
<tr>
<td>Bursar (-$16,611.10; -34.7%)</td>
<td>-13.23</td>
</tr>
<tr>
<td>VP, Regulatory Compliance (-$9,904.72; -12.0%)</td>
<td>-14.79</td>
</tr>
<tr>
<td>Events Coordinator (-$11,498.95; -28.3%)</td>
<td>-33.47</td>
</tr>
<tr>
<td>Assistant Librarian (-$5,294.92; -16.4%)</td>
<td>-52.46</td>
</tr>
</tbody>
</table>
remedial salary rate adjustments toward some cases with smaller negative differentials (e.g., logistics manager) than other cases with larger negative differentials (e.g., bursar). The president apparently perceived the academic-specific positions to be somewhat more insulated from general labor market forces and, therefore, less in need of competitive salary rates to promote employee retention.

The BWS outcome led to a market-deficit reduction strategy. The HR director limited salary dollars budgeted for deficit reduction to only the six negative differential cases with positive zero-centered interval scores. Budget share percentages were created by dividing the zero-centered interval score of each case by the sum of the scores for this subgroup (i.e., vice president of academic affairs: 47.54/113.94 = 41.7%). Finally, the budget share percentages were applied to the amount approved for deficit reduction (i.e., $44,300, as 10% of aggregate salary dollars across the subgroup cases) to increase the current salary rates of each subgroup case. The distribution of special budget dollars reduced the negative differential percentages either to a substantial extent, as for the technical support specialist (i.e., from -46.8% to -22.9%), or just marginally, as for the undergraduate dean (i.e., from -23.6% to -22.0%). (See Table 3.)

HELPING DISCOVER WHAT DECISION MAKERS REALLY WANT TO DO

Increasingly, compensation practitioners are being challenged to furnish company executives with support for making pay decisions. One form of support would enable executives to discover, before decision making, their subliminal or

<table>
<thead>
<tr>
<th>Negative Differential Case Subgroup for Deficit Reduction Budget Eligibility</th>
<th>Zero-Centered Interval Score</th>
<th>Current Salary</th>
<th>Budget Share %</th>
<th>Salary Increase $*</th>
<th>New Salary Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP, Academic Affairs (-$51,710.10; -37.3%)</td>
<td>47.54</td>
<td>$86,776</td>
<td>41.7%</td>
<td>$18,482.69</td>
<td>$105,258.69</td>
</tr>
<tr>
<td>Dir. Media Prod. &amp; Tech. (-$26,900.47; -35.8%)</td>
<td>26.42</td>
<td>$48,300</td>
<td>23.2%</td>
<td>$10,272.03</td>
<td>$58,572.03</td>
</tr>
<tr>
<td>Technical Support Specialist (-$20,115.17; -46.8%)</td>
<td>26.37</td>
<td>$22,881</td>
<td>23.1%</td>
<td>$10,251.21</td>
<td>$33,132.21</td>
</tr>
<tr>
<td>Assistant Registrar (-$7,389.34; -20.2%)</td>
<td>5.64</td>
<td>$29,121</td>
<td>5.0%</td>
<td>$2,192.89</td>
<td>$31,313.89</td>
</tr>
<tr>
<td>Logistics Manager (-$5,041.94; -12.6%)</td>
<td>4.63</td>
<td>$35,000</td>
<td>4.1%</td>
<td>$1,799.78</td>
<td>$36,799.78</td>
</tr>
<tr>
<td>Undergraduate Dean (-$18,967.37; -23.6%)</td>
<td>3.35</td>
<td>$61,467</td>
<td>2.9%</td>
<td>$1,301.40</td>
<td>$62,768.40</td>
</tr>
<tr>
<td></td>
<td>113.94</td>
<td></td>
<td></td>
<td>$44,300.00</td>
<td></td>
</tr>
</tbody>
</table>

* Budget of $44,300 (10% of salary rates for all cases)
rudimentary preferences for transforming pay information into pay interventions. The introduction of BWS to determine the market-deficit reduction priorities of executives suits this purpose. In the absence of an evident strategy, the compensation practitioner can adopt such self-revelatory methods as BWS to have executives indirectly divulge how they wish to distribute salary increase dollars. The use of BWS is consistent with the adaption of data-analytic techniques prevalent in market research (e.g., conjoint analysis) to the compensation field.

The pursuit of a market-deficit reduction strategy should be viewed as a resource allocation exercise in which scarce salary increase dollars are allotted, with some discrimination, to employees. Although BWS output is suggestive of a de facto deficit reduction strategy, the fundamental motivation of the company decision maker in prioritizing salary increase expenditures will not be made transparent. Ideally, such a strategy recognizes differences in the performance and tenure of employees, the relative centrality of the jobs to the company’s financial interests and the size of the negative differentials. However, nothing precludes the influence of institutional politics or personal bias on strategy formulation.

However a deficit-reduction strategy materializes, it does not emerge in a vacuum but rather from the choices made within a context for judging the impact of each negative market differential for current or future business effectiveness. For instance, if the loss of an employee would likely disrupt a work operation, it may be worth a large salary adjustment to keep the competitive edge the worker provides. Still, the advantage gained from reducing market deficits to the salary rates of some employees may be offset by the adverse reactions of those denied. Much depends on differences in the market sensitivities of employees within and between jobs, and the perceived procedural and distributive justice of the salary actions taken (Folger and Konovsky 1989).

**AUTHOR**

Theodore E. Weinberger (tedweinberger@outlook.com) was previously the director, compensation services for Insperity Inc. He has more than 30 years of experience in compensation, including the linkage of pay to business strategy, sales and executive pay design, and providing outsourced compensation services. Prior to joining Insperity, he was a senior manager of compensation business services for Convergys, and held senior-level positions with several consulting firms. Weinberger received a bachelor’s degree in psychology from Kent State University and a master’s degree in industrial relations from the University of Wisconsin.

**REFERENCES**


Pension plans are classified as either defined benefit (DB) or defined contribution (DC). In a DB plan, the participant (employee) accrues a right to pension benefits based on years of participation, a pension factor or multiplier (say 1.5%) and some measure of final income (typically the last three or highest three consecutive years of service). In the private sector, the retirement plan is funded by employer contributions to a trust fund and the earnings on invested assets. The sponsor (employer) is required to fund those promised benefits. If asset values decline, the employer must increase its contributions. Thus, the employer bears the investment risk.

In a defined contribution pension plan, the sponsor is only required to make its contribution. DC plans are by definition always fully funded. The participant has investment control of the accumulated funds in his/her account. Typically, the benefit (the balance in the account) is paid as a lump sum upon retirement or separation (usually at the plan’s normal retirement age). The investment and other risks are borne by the participant and beneficiary (surviving spouse).
Hybrid cash balance (CB) plans are defined benefit plans because they do not have individual accounts controlled by the participant. Any plan that is not a DC plan is classified as a DB plan.

This article examines the spectacular growth of hybrid cash balance pension plans and their evolution from plans converted from traditional DB plans sponsored by large employers to plans started anew or attached to an existing DC plan by small and midsize employers.

BACKGROUND

The contours of retirement income plans in the private sector have changed dramatically in the past three decades. As reported in Table 1, the massive shift from traditional DB to DC (mainly 401[k]) plans began in the mid-1980s and continues today. In 1985, there were 170,172 DB plans with 28.9 million active participants. By 2014, there were 44,869 DB plans with only 14.5 million active participants. During the same period, DC plans grew from 461,963 to 640,334 and their active participants from 33.2 million to 75.4 million.

As dramatic as these data are, they tell only part of the story. As indicated in Table 2 on page 18, among the 23,399 DB pension plans insured by the Pension Benefit Guaranty Corp. (PBGC) in 2013, 4,814 were hybrid (almost all cash balance) plans. That is 20.6%, up from 3.7% in 2001. Even more telling is

<table>
<thead>
<tr>
<th>Number of Private Sector Pension Plans, Participants and Active Participants, Selected Years 1980 - 2014 (participants in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER of PLANS</strong></td>
</tr>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>1985</td>
</tr>
<tr>
<td>1990</td>
</tr>
<tr>
<td>1995</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>2010</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2014</td>
</tr>
</tbody>
</table>

that of the 31.9 million participants in PBGC-insured plans, 12.8 million (40.3\%) were in hybrid plans.

Table 1 on page 17 and Table 2 below are not comparable. The PBGC does not insure church plans, including church-affiliated hospitals and schools, or the plans of professional service employers (medical and dental practices, law firms and accounting firms) with fewer than 25 participants. That is important. As will be developed later, most of the growth in cash balance plans in recent years has been by small professional service employers.

The transformation of the retirement income system of the United States from primarily defined benefit to defined contribution has been monumental. An important parallel development has been the rise of hybrid cash balance plans within the DB category. The decline in traditional DB plans has been even greater than depicted in Table 1 on page 17.

### TABLE 2 Total Defined Benefit and Hybrid Pension Plans and Participants, 2001-2013 (participants in thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Defined Benefit Plans</th>
<th>Hybrid Plans</th>
<th>Percent of Total Plans*</th>
<th>Total Defined Benefit Plan Participants</th>
<th>Hybrid Plan Participants</th>
<th>Percent of Total Participants</th>
<th>Participants per Hybrid Plan*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>32,954</td>
<td>1,227</td>
<td>3.7</td>
<td>34,342</td>
<td>7,034</td>
<td>20.5</td>
<td>5,733</td>
</tr>
<tr>
<td>2002</td>
<td>31,299</td>
<td>1,308</td>
<td>4.2</td>
<td>34,248</td>
<td>7,915</td>
<td>23.1</td>
<td>6,051</td>
</tr>
<tr>
<td>2003</td>
<td>30,611</td>
<td>1,541</td>
<td>5.0</td>
<td>34,407</td>
<td>8,475</td>
<td>24.6</td>
<td>5,500</td>
</tr>
<tr>
<td>2004</td>
<td>30,148</td>
<td>1,756</td>
<td>5.8</td>
<td>34,523</td>
<td>9,993</td>
<td>28.9</td>
<td>5,691</td>
</tr>
<tr>
<td>2005</td>
<td>29,605</td>
<td>1,944</td>
<td>6.6</td>
<td>34,232</td>
<td>10,333</td>
<td>30.2</td>
<td>5,315</td>
</tr>
<tr>
<td>2006</td>
<td>28,926</td>
<td>2,166</td>
<td>7.3</td>
<td>33,933</td>
<td>10,326</td>
<td>30.4</td>
<td>4,767</td>
</tr>
<tr>
<td>2007</td>
<td>29,256</td>
<td>2,439</td>
<td>8.3</td>
<td>33,892</td>
<td>10,921</td>
<td>32.2</td>
<td>4,478</td>
</tr>
<tr>
<td>2008</td>
<td>28,876</td>
<td>3,396</td>
<td>11.8</td>
<td>33,888</td>
<td>10,687</td>
<td>31.5</td>
<td>3,147</td>
</tr>
<tr>
<td>2009</td>
<td>27,797</td>
<td>3,357</td>
<td>12.1</td>
<td>33,833</td>
<td>11,602</td>
<td>34.3</td>
<td>3,456</td>
</tr>
<tr>
<td>2010</td>
<td>26,377</td>
<td>3,606</td>
<td>13.7</td>
<td>33,447</td>
<td>12,490</td>
<td>37.3</td>
<td>3,464</td>
</tr>
<tr>
<td>2011</td>
<td>25,607</td>
<td>3,996</td>
<td>15.6</td>
<td>33,388</td>
<td>12,642</td>
<td>37.9</td>
<td>3,164</td>
</tr>
<tr>
<td>2012</td>
<td>24,215</td>
<td>4,334</td>
<td>17.9</td>
<td>32,516</td>
<td>12,469</td>
<td>38.3</td>
<td>2,877</td>
</tr>
<tr>
<td>2013</td>
<td>23,399</td>
<td>4,814</td>
<td>20.6</td>
<td>31,900</td>
<td>12,843</td>
<td>40.3</td>
<td>2,668</td>
</tr>
</tbody>
</table>

* calculated by author.
PENSION LAW
The Employee Retirement Income Security Act of 1974 (ERISA) and its companion provisions in the Internal Revenue Code (IRC or Code) govern private-sector (non-church) employer-sponsored pension (and welfare) plans. ERISA was primarily aimed at what are now called traditional defined benefit pension plans. It set minimum standards for participation, vesting, accrual, funding, reporting and disclosure and fiduciary responsibility. No employer is required to sponsor a pension plan. But if it does, the plan must comply with the increasingly stringent requirements of ERISA and Internal Revenue Code (IRC).

ERISA also created the Pension Benefit Guaranty Corp. to insure the vested benefits of DB pension plans. When a single-employer DB plan fails, the PBGC “trustees” the plan, acquires its remaining assets and, within limits, pays its benefit obligations to participants and beneficiaries. Multiemployer (collectively bargained) plans are treated differently. All cash balance plans are single-employer plans.

ERISA has been amended many times over the years, mainly in the direction of promoting pension-plan solvency by strengthening funding requirements, reducing amortization periods for unfunded liabilities and greatly increasing PBGC insurance premiums paid by DB plan sponsors. Hybrid DB pension plans emerged after the enactment of ERISA.

The Pension Protection Act of 2006 (PPA) affirmed that hybrid plans are lawful and clarified and expanded upon the interest crediting rate (ICR) requirements and addressed other questions and problems concerning CB plans. The IRS issued regulations under the PPA in 2010 and again in 2014.

Once contributions have been placed in a pension trust, those funds and earnings on invested assets are protected from claims by creditors in bankruptcy proceedings or alienation, other than from a qualified domestic relations order (QDRO). In addition to protecting the pension benefits of participants, this protection can be of great value to the owners of small businesses.

CASH BALANCE PLANS
Hybrid cash balance pension plans emerged about 1985. They combine features of defined benefit and defined contribution plans. The employer establishes a hypothetical account for each eligible employee and assigns to it an annual pay credit. The employer also guarantees a rate of interest on those funds known as an interest credit. Until 2006, the interest crediting rate was almost always the 30-year Treasury bond rate. The PPA of 2006 and the 2010 and 2014 regulations have greatly liberalized the ICR rules.

There are no actual funds in the hypothetical accounts. They are a bookkeeping device used to keep track of the participant’s entitlement. The actual funds are pooled and invested by the sponsor. As with any DB pension plan, the actuaries estimate the cost of the accrued benefit obligations based on a number of demographic and economic assumptions, convert that to present value using a discount
rate and compare that to plan assets. This funded status as measured by the funded ratio (assets ÷ liabilities) drives the employer’s annual required contribution (ARC) recently renamed the actuarially determined contribution (ADC) since the ARC is not really required in most cases.

An important difference between a traditional DB plan and a cash balance plan is that in a CB plan, the pension benefit is the balance in the participant’s hypothetical account. Thus, CB plan benefits are based on the participants’ career average earnings with the employer rather than on some measure of his/her final average salary, as in a traditional DB plan. Participants are less protected from preretirement inflation and other risks in a CB plan.

Since cash balance plans are DB plans, they are required to offer the participant a lifetime annuity and, if married, a joint and survivor option. However, many CB plans allow the participant (with the consent of spouse) to take the benefit as a lump-sum distribution.

As with any DB pension plan, the sponsor must pay PBGC insurance premiums, which have increased greatly in recent years. For 2017, there is a flat premium of $69 per participant plus $34 per $1,000 of unfunded pension liability capped at $517 multiplied by the number of plan participants (up from $31 and $9, respectively, in 2007). The flat rate premium is scheduled to be $80 in 2019. This is one of the reasons why many large employers have moved out of CB plans and into DC plans (discussed later). Since the PBGC does not cover DB plans with fewer than 25 active participants, this is not a concern for most small sponsors of CB plans.

From the perspective of the participant, a CB plan works like a DC plan with the added advantage of PBGC benefit insurance protection if the plan has 25 or more participants. To the employer, cash balance plans have the advantage of limiting pension costs to the pay credit amount and guaranteeing the ICR. However, if plan assets are invested conservatively, or if the ICR is the actual return on investment (as now allowed), the investment risk should be minimal.

**PENSION EQUITY PLANS**

A second type of hybrid pension plan that emerged about 1993 is called the pension equity plan (PEP). In a PEP, the participant accrues credits each year (often referred to as points or percentages) that are totaled at retirement and applied to his/her final average income. The annual credits accrued each year may vary with age, years of service or a combination thereof. This arrangement allows “back loading,” which rewards and encourages long service and protects participants from preretirement price inflation.

As with CB plans, PEP contributions are pooled and invested by the sponsor. The employer’s required contribution is based on the plan’s funded status. Since PEPs are defined benefit plans, they too must provide a retirement benefit in the
form of a lifetime annuity. They may also offer a lump-sum distribution option (Bureau of Labor Statistics 2003).

Cash balance plans have an average income benefit formula while PEP benefits are based on final income, which makes them more costly and risky to the employer. That may be why so few of them have been adopted.

PEPs are much less common than cash balance plans and less is known about them. The IRS has provided little guidance on PEPs, which may in turn be because of their limited number. PEPs are presumably included in hybrid plans by the PBGC (See Table 2 on page 18).

The Bureau of Labor Statistics (BLS) reports that the percentage of pension plan participants in PEPs in 1997 and 2002 was 1% and in 2012, 4%. However, BLS cautions against using these data to suggest a trend (Wiatrowski 2015). While technically interesting, PEPs will continue to be of minor importance compared to CB plans.

**CB PLANS SPONSORED BY FORTUNE 500 COMPANIES**

Cash balance plans have been adopted in two waves. The first CB plan was approved by DOL in 1985 when the Bank of America converted its traditional DB plan to a CB plan. Numerous large employers did the same in the years that followed.

Table 3 on page 22 captures the pension plan experience of the Fortune 500 companies from 1998 through 2015. In 1998, they sponsored 292 DB plans, of which 246 were traditional DB plans and 46 were hybrids. By 2015, the Fortune 500 companies sponsored a total of only 99 DB plans, 24 of which were traditional DB plans and 75 were hybrids.

Also, Table 3 displays the number of hybrid conversions per year by Fortune 500 companies. Note the pause in conversion activity from 2004 through 2006. It then resumed after the passage of the PPA and the resolution of the three implementation problems (described later).

During the 17-year period, there were a total of 61 hybrid conversions by Fortune 500 companies. That comes to an average of 3.6 per year. The number of hybrids sponsored by Fortune 500 companies peaked in 2003 at 108 and had declined to 75 plans by 2015. As the number of hybrid plans declined, their percentage of total DB plans increased from 15.8% in 1998 to 75.8% in 2015. That was due to the marked decline in the total number of DB plans.

Meanwhile, during the 17-year period, the number of Fortune 500 companies that sponsored only a DC plan went from 200 in 1998 to 401 in 2015. For many large employers, hybrid cash balance plans were a step in the transition from the increasingly expensive and high-risk traditional DB plans to the less costly and far less risky DC plans. This trend will continue. Not only will existing Fortune 500 companies continue to shift from hybrid CB plans to DC plans, but new and recent additions to the Fortune 500 list will continue to shun both traditional DB and hybrid CB plans in favor of the more employer-friendly 401(k) plans.
On average among Fortune 500 companies, employees (defined as salaried new hires) received retirement benefits worth 9.7% of salary at companies with cash balance plans compared to 5.6% with a DC-only plan. Among the DC-only sponsors, employer contributions varied from an average of 4.5% of pay for companies that had always been DC-only to 6.6% for those that had converted from a traditional DB plan (Mcfarland 2016).

Since there were no regulations specific to hybrids, many of the early adopters of cash balance plans took advantage of the situation at the expense of their employees. The conversion problems included “wear away,” charges of age discrimination and “whipsawing.”

**Table 3: Pension Experience among Fortune 500 Companies, 1998 - 2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Defined Benefit Plans</th>
<th>Traditional Defined Benefit Plans</th>
<th>Traditional DB Plans as a % of Total DB Plans</th>
<th>Number of Hybrid Conversions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>292</td>
<td>246</td>
<td>84.2</td>
<td>4</td>
</tr>
<tr>
<td>1999</td>
<td>289</td>
<td>231</td>
<td>79.9</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
<td>286</td>
<td>222</td>
<td>77.6</td>
<td>1</td>
</tr>
<tr>
<td>2001</td>
<td>283</td>
<td>200</td>
<td>70.7</td>
<td>8</td>
</tr>
<tr>
<td>2002</td>
<td>280</td>
<td>182</td>
<td>65.0</td>
<td>7</td>
</tr>
<tr>
<td>2003</td>
<td>271</td>
<td>163</td>
<td>60.1</td>
<td>6</td>
</tr>
<tr>
<td>2004</td>
<td>259</td>
<td>153</td>
<td>59.1</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>242</td>
<td>138</td>
<td>57.0</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>222</td>
<td>122</td>
<td>55.0</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>197</td>
<td>102</td>
<td>51.8</td>
<td>5</td>
</tr>
<tr>
<td>2008</td>
<td>182</td>
<td>85</td>
<td>46.7</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>167</td>
<td>72</td>
<td>43.1</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>149</td>
<td>55</td>
<td>36.9</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>138</td>
<td>49</td>
<td>35.5</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>123</td>
<td>40</td>
<td>32.5</td>
<td>2</td>
</tr>
<tr>
<td>2013</td>
<td>115</td>
<td>33</td>
<td>28.7</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>104</td>
<td>25</td>
<td>24.0</td>
<td>4</td>
</tr>
<tr>
<td>2015</td>
<td>99</td>
<td>24</td>
<td>24.2</td>
<td>1</td>
</tr>
</tbody>
</table>

*Before 2008 plans do not sum to 500 because a number of today’s Fortune 500 companies did not exist.

Note: Traditional DB plans and Hybrid plans are subsets of Total Defined Benefit Plans.

WEAR AWAY

When moving from a traditional DB pension plan to a cash balance plan, many early sponsors converted the present value of the projected benefit obligation of the DB plan into the opening balance in the CB plan. If that proved greater than the amount called for under the CB plan, the participant's account would not be granted pay credits until the beginning balance caught up with what was called for under the CB plan. This was unfair to older long-service employees.

ERISA's anti-takeaway rule prohibits an employer from reducing or eliminating pension benefits once earned. However, there was no rule against delaying benefit accruals under a new plan.

<table>
<thead>
<tr>
<th>Hybrid Plans</th>
<th>Hybrid Plans as a % of Total DB Plans</th>
<th>Defined Contribution Plans Only</th>
<th>DC Plans as a % of Total Plans</th>
<th>Total Plans *</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>15.8</td>
<td>200</td>
<td>40.7</td>
<td>492</td>
</tr>
<tr>
<td>58</td>
<td>20.1</td>
<td>206</td>
<td>41.6</td>
<td>495</td>
</tr>
<tr>
<td>64</td>
<td>22.4</td>
<td>209</td>
<td>42.2</td>
<td>495</td>
</tr>
<tr>
<td>83</td>
<td>29.3</td>
<td>213</td>
<td>42.9</td>
<td>496</td>
</tr>
<tr>
<td>98</td>
<td>35.0</td>
<td>217</td>
<td>43.7</td>
<td>497</td>
</tr>
<tr>
<td>108</td>
<td>39.9</td>
<td>226</td>
<td>45.5</td>
<td>497</td>
</tr>
<tr>
<td>106</td>
<td>40.9</td>
<td>238</td>
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<td>104</td>
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<td>256</td>
<td>51.4</td>
<td>498</td>
</tr>
<tr>
<td>100</td>
<td>45.0</td>
<td>277</td>
<td>55.5</td>
<td>499</td>
</tr>
<tr>
<td>95</td>
<td>48.2</td>
<td>302</td>
<td>60.5</td>
<td>499</td>
</tr>
<tr>
<td>97</td>
<td>53.3</td>
<td>318</td>
<td>63.6</td>
<td>500</td>
</tr>
<tr>
<td>95</td>
<td>56.9</td>
<td>333</td>
<td>66.6</td>
<td>500</td>
</tr>
<tr>
<td>94</td>
<td>63.1</td>
<td>351</td>
<td>70.2</td>
<td>500</td>
</tr>
<tr>
<td>89</td>
<td>64.5</td>
<td>362</td>
<td>72.4</td>
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</tr>
<tr>
<td>83</td>
<td>67.5</td>
<td>377</td>
<td>75.4</td>
<td>500</td>
</tr>
<tr>
<td>82</td>
<td>71.3</td>
<td>385</td>
<td>77.0</td>
<td>500</td>
</tr>
<tr>
<td>79</td>
<td>76.0</td>
<td>396</td>
<td>79.2</td>
<td>500</td>
</tr>
<tr>
<td>75</td>
<td>75.8</td>
<td>401</td>
<td>80.2</td>
<td>500</td>
</tr>
</tbody>
</table>

*Before 2008 plans do not sum to 500 because a number of today’s Fortune 500 companies did not exist.

Note: Traditional DB plans and Hybrid plans are subsets of Total Defined Benefit Plans.
The PPA of 2006 addressed the wear-away problem by requiring an “A + B" approach. In order to comply with the anti-takeaway rule, a participant’s hypothetical account balance must not be less than (A) the present value of the benefits accrued under the old DB plan plus (B) the benefits accrued under the new cash balance plan. The A+B rule ended the wear-away problem prospectively for plans converted after June 29, 2005. Plans converted earlier remained subject to court rulings under prior law (Reich 2013).

**AGE DISCRIMINATION**

Another complaint about cash balance plans was that they discriminated against older employees. The contention was that giving the same pay credit to all eligible participants discriminated against older employees because they had fewer work years remaining for the contribution to grow. Hence the pension benefit that resulted was less.

In a 2003 decision (Cooper v. IBM), the District Court for Southern Illinois held that IBM’s Personal Pension Plan, and by extension all cash balance plans, discriminated against older workers and were all therefore unlawful. That was a bombshell! IBM appealed.

Three years later (August 2006), the 7th Circuit Court of Appeals disagreed with the District Court decision and held that replacing a pension formula that discriminated in favor of older long-service workers (in traditional DB plans) with one that was age neutral and not discriminatory. Congress agreed with the 7th Circuit’s reasoning when it passed the PPA of 2006. CB plans were saved.

**WHIPSAW**

A third complaint about the early CB plan conversions came from employers. It was termed whipsaw and involved the way lump-sum distributions were calculated. The value of a lump-sum distribution of a traditional DB pension plan is the present value of the projected benefit to which the participant is entitled at normal retirement age (NRA) calculated using the interest rate and mortality assumptions of IRC section 417(e).

When a lump-sum distribution for a CB plan was calculated in the same way, whipsawing occurred if the value of the lump sum calculated under section 417(e) was greater than the balance in the CB hypothetical account. The whipsaw effect was to the considerable advantage of the retiring participant at the cost of the plan sponsor. In one case, a hypothetical account balance of $150,000 turned into a lump-sum distribution of $219,554 (Reich 2013).

This problem was solved when the PPA of 2006 simply required that CB plan lump-sum distributions equal the hypothetical account balance. That ended the whipsaw problem.
CB PLANS SPONSORED BY SMALLER EMPLOYERS

There are many more small and midsize employers than there are Fortune 500 companies and they were far less likely to have sponsored traditional DB plans that could be amended into cash balance plans. Small and midsize employers entered the CB plan market later and for different reasons. It took the resolution of the problems discussed earlier and the passage of the PPA of 2006 to create the conditions that allowed the adoption of CB plans by small and midsize employers to take off.

Table 4 exhibits the CB plan experience for all plans, plans with 100 or more participants and plans with fewer than 100 participants for the period 2004 through 2013. During the period, the number of CB plans more than quadrupled from 2,965 to 13,023 while the number of active participants declined slightly. The average number of active participants per plan declined from 1,699 to 372.

The number of CB plans with 100 or more participants grew from 1,039 to 1,330 while the number of active participants declined from 9.8 million to 4.7 million and the average number of active participants per plan declined from 9,403 to 3,548. The number of plans with fewer than 100 participants grew from 1,926 to 11,693 while the number of active participants grew from 33,000 to 123,000 and the number of participants per plan declined from 17 to 11.

All of this reflects a seismic shift in the sponsorship of cash balance plans away from a small number of large employers to a large number of smaller employers. Most of the Fortune 500 companies that had converted their traditional DB plans into CB plans shifted again to DC-only plans in the years leading up to and following the passage of the PPA of 2006 (See Table 3 on page 22). Meanwhile, as depicted in Table 4 on page 26, many small and midsize employers, which had seldom sponsored traditional DB pension plans before, began adopting CB plans. This shift in the sponsorship of cash balance plans is attributable to three developments: (1) clarification of the legal status of CB plans; (2) significant liberalization of the ICR options permitted; and (3) the coupling of CB plans with 401(k) and profit-sharing plans.

CLARIFICATION OF CB PLAN LEGAL STATUS

When the 7th Circuit overruled the District Court in Cooper v. IBM in 2006, it removed a lot of uncertainty as to whether cash balance plans were legal. Congress affirmed that they were when the Pension Protection Act of 2006 unequivocally sanctioned cash balance plans.

INTEREST CREDITING RATE

Cash balance plans must specify an interest crediting rate in their plan document. The ICR may not exceed the market rate of return. Before 2006, almost all CB plans used the fairly stable 30-year Treasury bond rate. In 2010, the IRS issued final and
proposed regulations under the PPA. And in 2014, it issued final regulations that pretty much agreed with the 2010 proposals.

It is now possible for a CB plan sponsor to choose an ICR from a list of alternatives. They include: (1) a specified rate as high as 6%; (2) various government bond-based indices with permitted margins; (3) any of three corporate bond (yield curve) segments under IRC section 417(e)(1); (4) certain annuity contract rates; (5) rates of return designated by registered investment companies (mutual funds) that are not more volatile than the S&P 500 or the Russell 2000 index; and (6) the actual rate of return (ARR) on plan assets (Lofgren 2014).

The last alternative, the ARR on invested assets, eliminates most overfunding and underfunding issues. However, choosing an ICR that is different from one of the safe harbor rates can create new compliance testing issues (Kravitz 2010). In general, sponsors of large CB plans have favored the ARR approach while smaller plans have adopted a safe harbor approach that does not require passing the nondiscrimination tests (See Table 5 on page 27).

We know little about what is happening in the cash balance plan area other than aggregate numbers published by DOL and PBGC. Fortunately, Kravitz, an actuarial and consulting firm that specializes in CB plan design, began publishing its annual “Cash Balance Research Report” in 2010.
As reported in Table 5, among Kravitz-client sponsors (all plans), more than 80% of CB plans used the 30-year Treasury bond rate in 2012. By 2015, that had dropped to 16.7% while the use of a fixed rate grew from 16.0% to 56.2%. The next most popular category of ICR (all plans) was the 30-year Treasury rate, with or without a floor. The combined rate for all Kravitz plans declined from 81.2% in 2012 to 37.1% in 2015. Use of the actual rate of return is not extensive among all plans although it grew from 2.4% to 6.7% over the three-year period. Thus, among all Kravitz-designed CB plans, the fixed rate of return and the actual rate of return ICRs increased while those based on the 30-year Treasury rate declined.

### Table 5 Percent Distribution of ICRs Chosen by Kravitz Client CB Plan Sponsors

<table>
<thead>
<tr>
<th>Plans</th>
<th>Active Participants</th>
<th>Active Participants Per Plan*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,926</td>
<td>33</td>
<td>17</td>
</tr>
<tr>
<td>2,027</td>
<td>35</td>
<td>17</td>
</tr>
<tr>
<td>2,819</td>
<td>47</td>
<td>17</td>
</tr>
<tr>
<td>3,608</td>
<td>54</td>
<td>15</td>
</tr>
<tr>
<td>4,304</td>
<td>54</td>
<td>13</td>
</tr>
<tr>
<td>5,337</td>
<td>79</td>
<td>15</td>
</tr>
<tr>
<td>6,371</td>
<td>92</td>
<td>14</td>
</tr>
<tr>
<td>7,147</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>8,106</td>
<td>111</td>
<td>14</td>
</tr>
<tr>
<td>9,793</td>
<td>130</td>
<td>13</td>
</tr>
<tr>
<td>11,693</td>
<td>123</td>
<td>11</td>
</tr>
</tbody>
</table>

*calculated by author.

The experience of the large plans was quite different. The percentage of plans using a fixed rate of return declined from 19.0% to 16.7% from 2014 to 2015 while the use of 30-year Treasury rates also declined. Interestingly though, the percentage of large plans using the actual rate of return increased from 28.6% to 33.3% during the two-year period.

A word of caution is in order. Kravitz is an important player in the CB plan design market but it is not known how typical it is. In 2015, there were a projected 15,178 CB plans, 672 (3.6%) of which were sponsored by Kravitz clients (Tables 5 and 8). Moreover, this is not a random sample. It may be that Kravitz appeals to certain types of clients or that it prefers a particular plan structure and advises its clients in that direction. There is also only four years of data for all plans and two years of data for large plans. Having said that, Kravitz’s annual “National Cash Balance Research Reports” are the only source of detailed information on CB plans in the public domain (that the author knows of) and they provide an important perspective.

**Nondiscrimination Testing**

ERISA and the Code prohibit discrimination in qualified pension plans in favor of highly compensated employees (HCE). An HCE is any employee who is paid $120,000 or more (in 2017) or owns 5% or more of the company during the current or prior plan year. A sponsor of a pension plan must demonstrate that the plan does not discriminate by either adopting a safe harbor ICR or by passing the General Test. The easiest way is the safe harbor approach with a uniform method of allocating contributions: same percentage of pay or same dollar amount to each participant (Esposito 2014). In addition, section 415 of the Code sets maximum allowable limits on contribution and benefit amounts with which pension plans must comply.

Since cash balance plans are defined benefit plans, these rules apply to them as well. However, the PPA of 2006 and the 2010 and 2014 regulations added flexibility to these rules for CB plans. In particular, they allow CB plan contributions to be age dependent. Since older participants have fewer years remaining before attaining the plan’s NRA, it is permissible to allocate larger contributions to their hypothetical account in order to produce the same benefit entitlement as younger workers.

Cash balance plans are often combined with a 401(k) or a profit-sharing 401(k) plan. Such plans are required to pass the average deferral percentage (ADP) and average contribution percentage (ACP) tests unless they meet one of the safe harbor tests allowed by the Code: (1) a dollar-for-dollar match on the first 3% of compensation deferred by each contributing employee and a $0.50-per-dollar match on the next 2% deferred or (2) a 3% of compensation non-elective contribution for all employees eligible to contribute regardless of participation.
If the safe harbor approach is not feasible, the sponsor must use the General Test applied to either contributions or benefits, usually benefits. This is also called cross testing.

There may also be a problem with the Code’s top-heavy rules. A top-heavy plan is one that allocates 60% of the value of the benefits to key employees. A key employee is defined as any officer paid $175,000 or more, a 5% owner of the business or an employee who owns 1% or more of the business and is paid $150,000 (in 2017). Note that the definition of key employee differs from that of highly compensated employee mentioned earlier.

**CB PLANS COUPLED WITH PROFIT-SHARING 401(K) PLANS**

There are various types of 401(k) plans. One of them combines a profit-sharing feature with a 401(k) plan. It is also permissible to attach a CB plan to a 401(k) plan. The joint profit-sharing 401(k) plan and CB plan combination can create a lucrative arrangement for the owners of a small business, especially if they are significantly older than the employees.

The two most popular contribution allocation approaches in such situations are the age weighted method and the new comparability method. Table 6 presents a simple example of an age weighted profit-sharing plan for an organization with one owner and three employees. When the owner’s $265,000 salary is multiplied by the 20%, it comes to $53,000, the maximum DC limit in 2016.

Note how the profit-sharing percentage of the 61-year-old clerical employee is greater than that of the owner. This is because he/she has fewer work years.

<table>
<thead>
<tr>
<th>TABLE 6 Age-Weighted Profit Sharing Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Owner</td>
</tr>
<tr>
<td>Salesperson</td>
</tr>
<tr>
<td>Assistant</td>
</tr>
<tr>
<td>Clerical</td>
</tr>
<tr>
<td><strong>Total Contribution</strong></td>
</tr>
<tr>
<td><strong>Owner Total</strong></td>
</tr>
<tr>
<td><strong>Non-Owner Total</strong></td>
</tr>
<tr>
<td><strong>Portion of Total Contribution to Owner</strong></td>
</tr>
</tbody>
</table>

remaining to accrue the same benefit as the other participants. Total contributions to the plan come to $74,450, of which $53,000 is attributable to the owner. The owner receives 71.2% of the total contribution.

The new comparability approach allows profit-sharing 401(k) plan sponsors to establish different categories of employees in a profit-sharing plan. The groups can be based on age, job classification (exempt, nonexempt; union, nonunion), or geographical location. If the owners of a small business (medical or dental practice, law firm, etc.) are significantly older than the other employees, a combined CB and profit-sharing 401(k) plan using the new comparability approach can be particularly advantageous to the owners.

Table 7 presents an example of the new comparability profit-sharing method. The business owner is in Group 1 and the other participants in Group 2. Group 1 has a profit-sharing rate of 20%. Group 2’s rate is 5%. When the owner’s $265,000 salary is multiplied by 20%, the total is $53,000, the maximum allowed. When the pay of the three other participants is multiplied by 5%, the total nonowner allocation is $10,000. The total contribution of Group 1 and Group 2 comes to $63,000. Thus, $53,000 ÷ $63,000 gives the owner 84.1% of the total.

Of course, these are two very simple examples. There could be multiple owners or executives (principals) and more employees classified into a larger number of groups. A CB plan can be combined with other forms of DC arrangements. Another complication is that in 2017 there is a $6,000 catch-up contribution allowed for participants age 50 and older in addition to the $18,000 general 401(k) contribution limit.

### TABLE 7 New Comparability Profit Sharing Method

<table>
<thead>
<tr>
<th>Title</th>
<th>W-2 Pay ($)</th>
<th>Group</th>
<th>Profit Sharing Percent (%)</th>
<th>Profit Sharing Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>265,000</td>
<td>1</td>
<td>20</td>
<td>53,000</td>
</tr>
<tr>
<td>Salesperson</td>
<td>125,000</td>
<td>2</td>
<td>5</td>
<td>6,250</td>
</tr>
<tr>
<td>Assistant</td>
<td>50,000</td>
<td>2</td>
<td>5</td>
<td>2,500</td>
</tr>
<tr>
<td>Clerical</td>
<td>25,000</td>
<td>2</td>
<td>5</td>
<td>1,250</td>
</tr>
<tr>
<td><strong>Total Contribution</strong></td>
<td><strong>63,000</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Owner Total</strong></td>
<td><strong>53,000</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-Owners Total</strong></td>
<td><strong>10,000</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Portion of Total Contribution to Owner</strong></td>
<td><strong>84.1%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One can’t help but wonder if nondiscrimination problems won’t emerge in some situations. Indeed, a cynic might wonder what ever happened to the nondiscrimination principles of ERISA and the Code. These complications and speculations are beyond the scope of this article.

A CONCERN
There is a potential situation that may warrant concern. Remember, assets in a pension plan are protected from creditors in bankruptcy proceedings. A small business or practice with principals who are approaching retirement age can use a profit-sharing 401(k)-CB plan combination to transfer the assets of the business to the retirement plan and then file for bankruptcy or otherwise go out of business.

By using the age-related or new comparability approach to allocate contributions, the owners can end up with almost all of the business’s assets in a way that allows them to walk away from most of their debt. Should that be allowed?

CONCLUSION
The spectacular rise of hybrid cash balance plans has to a considerable extent masked the true decline of traditional defined benefit pension plans. As of 2013,
CB plans accounted for more than 20% of the plans and over 40% of the participants in all PBGC-insured defined benefit plans (Table 2). The growth is even more impressive when it is remembered that PBGC data exclude professional service firms with fewer than 25 employees, and that that is where much of the CB plan growth has been since the PPA of 2006 clarified the CB plan's status and rules.

Drawing on Form 5500 data and proprietary industry data, Kravitz reported that the total number of cash balance plans had grown from 1,337 in 2001 to 17,455 in 2015 and that CB plans as a percentage of all defined benefit plans had grown from 2.9 to 29.0 in 2014 (Table 8 on page 31).

Of the 15,178 CB plans in 2014, 13,517 were established from 2006 through 2009 and that 8,262 were established from 2010 through 2014 (Kravitz 2016). Thus, 11,779 (77.6%) of the CB plans were adopted after the passage of the PPA of 2006.

In addition, in 2014 there were 12.3 million participants in CB plans. Of the 15,178 CB plans, 12,184 (80.3%) had fewer than 25 participants and were therefore excluded from the PBGC data and benefit insurance protection (derived from Kravitz 2016).

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REFERENCES


The importance of pay for performance as a principle of executive compensation philosophy can hardly be understated. Entire books and hundreds of articles and conference presentations have been devoted to showing the techniques and strategies needed to align executive pay with company performance. As has been the case over the past several years, the focus on executive pay — especially the dollar amounts reported in the news — has distracted attention from performance, which should be the focal point of any pay-for-performance discussion.

There is no unified, standard way to address the performance side of the equation, and various metrics are in use. The use of multiple performance measures — financial, strategic, operational and individual — is appropriate when performance is measured on a holistic basis and viewed through multiple lenses. That said, total shareholder return (TSR) is increasingly becoming the focus of performance from a number of different perspectives. While TSR is seldom used as a performance measure within short-term incentive programs, it can be very helpful in measuring senior management performance within LTI plans when balanced with other performance measures that more accurately reflect the current status and expectations of long-term growth.
One of the biggest challenges within both short- and long-term incentive design is determining the most effective performance measures and measurement approach given each company’s unique set of facts and circumstances. Once a metrically sound framework is in place, the goal-setting process can be a relatively unambiguous process for some companies, while others may struggle to set “meaningful” goals in context of the current state of the business, competitive landscape, performance measure(s) being utilized, and shareholder and senior management expectations.

**THIS ARTICLE:**

- Discusses performance measurement approaches and considerations for incentive plans.
- Addresses the conditions under which an effective performance/payout calibration takes place and the threshold, target and maximum performance levels used for goal-setting purposes.
- Discusses how performance should be defined and measured and introduces a “cash value added” approach that connects corporate performance metrics with shareholder return.
- Explains in more detail the techniques used in incorporating TSR in LTI plan design. Taking a “high-definition” approach in choosing and implementing a TSR comparator group is recommended — one that entails testing, weighting and ranking the comparator group companies. Examples of when not to use TSR also are reviewed.

**PERFORMANCE MEASUREMENT APPROACHES AND CONSIDERATIONS FOR INCENTIVE PLANS**

From a performance measurement perspective, companies measure goals on an either absolute or relative basis:

- **Absolute (internal approach).** Performance goals are measured vs. internal plan (budget/target). An internal approach requires a strong planning process and is difficult in industries in which external events can have a dramatic effect on results. Performance goals usually are effective when there is rigor around the goal-setting process and goals are based on the company’s strategic, financial and operating objectives. This technique can be enhanced if shareholder expectations are incorporated in the process.

- **Relative (external approach).** Performance goals are measured vs. an external comparator group. A relative or external approach measures the company against a comparator group of companies that are affected by similar macroeconomic factors, compete in the same market and/or have similar products. This method eliminates the need to set internal company performance goals because it focuses on how the company performs against its comparator group. It also mitigates the risk of setting the goals too high or too low. Depending upon the company and
performance goals being utilized, a comparator group may consist of a compensation peer group, custom peer group or broad market index.

Relative performance measurement is seldom used within STI plans and typically reserved for performance-based LTI programs. The choice of performance measures is also a key consideration in establishing absolute vs. relative performance measurement. Absolute performance measurement is typically utilized when long-term performance measures are based on profitability (EPS, EBITDA, etc.), revenue/sales, cash flow (free, modified, etc.) and/or capital-efficiency (ROE, ROIC, etc.). Relative performance measurement is typically employed when long-term performance measures are based on TSR or stock price (relative TSR is discussed in additional detail below). A potential drawback to a relative approach is that selecting a comparator group may be difficult for some companies. It may be particularly challenging for firms with a unique business model or in a consolidating industry. Also, the relative approach sometimes can result in unintended payouts. Even if a company out-performed the majority of its comparator group companies, it is possible that its absolute performance was poor and created “negative value” for shareholders. This situation can be addressed in the following ways:

- The compensation committee may apply negative discretion in determining the incentive payouts. Therefore, the compensation committee would have the ability to pay reduced or no incentives if the company did not create any shareholder value.
- In addition to the relative performance measurement versus the comparator group, an absolute threshold (or “circuit breaker”) can be established under which reduced or no incentives are paid if the threshold performance level is not achieved (i.e., if the company does not reach an $X level of EBITDA, reduced or no incentives are paid, depending on the terms). In cases in which the circuit breaker is tripped, all incentive payments become discretionary.
- In the case of relative TSR, a cap on the payout regardless of relative performance versus the comparator group in the event that the company’s absolute TSR is negative over the performance period (current trend is to set the cap at target).

In selecting a performance measurement approach, companies should consider several factors:

- **Management process.** How much rigor and structure is in the process? How much information is available to management regarding shareholder and analyst expectations and peer company metrics?
- **Strategic priorities.** What are the company’s business objectives and ability to forecast performance based on the company’s life cycle and maturity?
- **Company performance.** How volatile is the company’s performance on an absolute basis and relative to peers historically?
Setting goals for incentive plans is a subjective process that requires much discussion and consideration. The board of directors and management should be able to provide sound rationale for the goals and approach selected.

**PERFORMANCE AND PAYOUT CALIBRATION FOR INCENTIVE PLANS**

With the increased scrutiny on executive compensation and greater transparency due to enhanced disclosure requirements, having a pay-for-performance compensation philosophy is practically a must. Companies not only need to show a relationship between executive pay and business performance, but also must demonstrate that they pay the appropriate level for commensurate performance. The pay-for-performance calibration/relationship should create and reinforce shareholder alignment.

A main challenge in designing an incentive plan (when based on absolute performance) is being able to forecast company performance and set goals at the right level, especially for periods longer than one year. Executives are motivated, and the likelihood of desired performance increases under incentive plans when the following conditions are met:

- Executives have a line of sight in which they understand the performance goals and view them as realistic and achievable.
- There is a clear link between performance and pay.
- Executives view the pay associated with the incentive plan as meaningful (i.e., large enough to justify the effort required to achieve the performance goals).

If performance goals are not appropriately set, there can be negative consequences. If performance objectives are set too high, executives will not be motivated, knowing there is little likelihood of achieving the targets. At the other extreme, if executives consistently and easily achieve performance targets, they are being sent the wrong message that superior performance is not required to receive a meaningful incentive payout.

STI plans and performance-based LTI programs typically have pre-established performance levels:

- **Threshold.** A floor that represents the minimum level of performance that must be achieved before an incentive can be earned.
- **Target.** The expected and/or planned (budgeted) level of achievement or a realistic goal that is achievable and meaningful.
- **Maximum.** The total incentive opportunity that may be earned for superior performance, sometimes referred to as a cap.

The level of performance relative to target that should correlate with threshold and maximum payout levels can be difficult to calibrate. A simplified approach would be to set the threshold performance level at 80 or 90 percent of target performance and set the maximum performance level at 110 or 120 percent of
target performance. For example, if revenue is the performance metric and the target is $1 billion in revenue, a maximum performance level based on 120 percent of target, or $1.2 billion, may be reasonable. However, if TSR is the metric and 10 percent TSR is the target, 120 percent of target (or 12 percent TSR) likely would set the maximum goal too low.

Calibrating threshold and maximum goals appropriately can depend greatly on the performance measure. One way to test the reasonableness of the goal-setting process is to estimate the probabilities of achieving the performance levels and compare them to standard achievement frequencies.

**SAY ON PAY? WHAT ABOUT PERFORMANCE?**

A pay-for-performance debate has long dominated the corporate governance agenda. While great progress has been made in enhancing transparency and aligning the interests of management and shareholders, there has been surprisingly little consensus on what constitutes best practices in performance management. Boards and investors must hold management accountable for achieving performance objectives that are comprehensive, actionable and value creating.

For compensation professionals, aligning executive pay with performance is the great work in progress of our time. The plot is well understood — align management with investor objectives by rewarding executives for their enterprise’s performance and voilà ... all stakeholders are satisfied.

So why does the drama continue to escalate? Because the mainstream focus to date has been on the pay side of the equation.

While significant and important progress has been achieved, the critical problem of effectively assessing performance remains largely unaddressed. Unless and until this changes, the plot will continue, intensifying during worsening economic times.

**Defining Performance**

Pay-for-performance depends entirely on the definition of performance. While executive pay is an easy target, it is a distracting sideshow to the management imperative of assessing and improving corporate performance. So why has progress been so elusive? The two primary reasons — comparability and complexity — are well-known:

- First, establishing standards for industries or enterprises that have different economic dynamics can be contentious at best. The question “Who had a better year, the World Series champion or the Super Bowl winner?” illustrates the point.
- Second, “corporate performance” math is difficult to measure and not necessarily supported by historical accounting measures. Much like a horse race, corporate performance is best thought of as a firm’s position at any given point in time relative to its long-term objectives. While the past is certainly prologue, current expectations define performance, not vice versa. It is a world in which “What have you done for me lately?” is trumped by “What can I expect from you tomorrow?”
Measuring Performance

As noted earlier, relative TSR is increasingly becoming the focus of performance for a variety of reasons, including:

- Preference by large, influential institutional shareholders and other key stakeholders
- Prevalence as a performance measure within large public company long-term incentive plans
- De facto definition of performance per pay-versus-performance disclosure requirements established under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010
- Usage as the singular definition of performance for Institutional Shareholders Services’ quantitative CEO pay-for-performance assessment.

For some companies, there are very good reasons to use relative TSR as a performance measure for LTI plans. For example, in mature businesses that are cyclical and/or significantly affected by external factors, relative TSR can be an excellent way to assess the achievements of management in the prevailing market, economic and regulatory context. Conversely, relative TSR is of limited validity and application for the following types of organizations:

- Companies targeting substantial growth
- Firms in a turnaround situation
- Companies that are not competing with others for customers or investors to any meaningful extent
- “Grow or die” companies.

For these types of organizations, absolute performance is what matters most. If relative performance is to be used at all, it might be used as a multiplier or modifier to the short- or long-term incentive award rather than as a primary measure.

While TSR can be an appropriate measure, it is imperfect and there are some concerns with using this singular metric as the standard bearer for measuring performance:

- **TSR depends on two random, arbitrary points in time.** The same company can simultaneously be the best among its peers for one timeframe and the worst for another.
- **TSR is not actionable.** Theoretically speaking, expectations on earnings and future performance, coupled with supply and demand, should be the primary considerations affecting share price. Instead, share prices are influenced by many factors outside the control of executive decision makers. External perceptions, interest rates and geopolitical activity are some of the many factors that contribute to positive and negative share price growth. The case of Enron demonstrated the ill and unintended effects of CEOs who attempt to make TSR actionable.
- **TSR is a short-term performance measure.** Irrespective of the timeframe selected, TSR fluctuates with the daily vagaries of the capital markets. It is
possible, for example, for an enterprise to have achieved a five-year TSR of 20 percent one day and 0 percent the next. Can CEO performance actually go from top quartile to bottom quartile in a single day?

Ultimately, corporate performance must be assessed based on a broad framework of interrelated metrics that influence current expectations. To succeed, the framework must, first and foremost, be economically sound. The “performance mathematics” must ensure that as levers are pressed, expected values are achieved and perceptions are influenced accordingly. Performance measurement also must be comprehensive and balanced. History is replete with pay-for-performance issues stemming from improvement in measured revenue growth offset by non-measured asset expansion. Finally, the assessment approach must be easy to implement. If it cannot be readily understood and tracked by all stakeholders, it will not work.

Figure 1 is an example of a performance management framework that connects capital market expectations with actionable enterprise operating metrics. The framework begins with establishing a corporate performance measure that is highly correlated to TSR. Measures like cash-value added (CVA), summarized in Figure 2 (using the “residual value” definition), have become attractive choices in recent years because of their efficacy and simplicity. Forecasted CVA has a strong correlation to TSR because it is tied directly to the discounted cash-flow valuation of the enterprise.

While CVA is important because it is the sum of the moving parts of performance, the actionable levers of growth, profitability and asset management are the important focal points. By establishing plans and targets in each of these areas
in accordance with forecasted CVA, performance improvement can be measured and effectively managed for the long term. From a board and investor point of view, the framework provides the rest of the story to the TSR metric and enables effective assessment of performance in the context of executive pay.

Although this approach is not immune to the aforementioned issues of comparability and complexity, it is a useful paradigm for establishing a standardized methodology regarding corporate performance management. As investors become increasingly frustrated by subpar returns, they will shift their attention from pay to performance. Boards and management that take action now will be well-served by staying ahead of this inevitable plot twist.

INCORPORATING RELATIVE TSR IN PERFORMANCE-BASED LTI PLAN DESIGN: A HIGH-DEFINITION APPROACH

When incorporating a relative TSR measure into a performance-based LTI plan, not all companies take a high-definition view in selecting and implementing a TSR comparator group, despite the fact that the choice of comparator group can have a big effect on both performance and payout outcomes. Similarly, high-definition thinking may allow an organization to reduce the level of random “noise” in the comparator group, which may in turn make the use of relative TSR more appealing to executives who often are suspicious of its use as a performance measure.

Historically, the common approach with relative TSR plans was to base the comparator group on the most obvious alternative investments for a shareholder. This reflected the origins of relative TSR in the relative performance-driven bonus plans operated for mutual fund managers themselves. In the early days, this often meant simply using the S&P 500 or some other very broad comparator group. However, hindsight and experience have exposed this as low-definition thinking. Such broad comparator groups include a high degree of randomness due to the very different degrees of volatility and cyclical exposure faced by different sectors and businesses. In addition, when looking at the stock market in high definition, we see that the U.S. shareholder base has become more diverse in the past 10 to 15 years and the alternative investments are not always obvious.

With this richness and diversity in both the shareholder base and the nature of potential alternative investments, it becomes necessary to think about relative TSR in a different way. In essence, this means considering which businesses face broadly similar economic, market, regulatory and operational challenges. This generally

<table>
<thead>
<tr>
<th>FIGURE 2 Cash-Value Added (CVA) Defined</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash-Value Added:</strong> Operating cash flow – capital charge</td>
</tr>
<tr>
<td><strong>Operating Cash Flow:</strong> Net income + depreciation +/- changes in net working capital</td>
</tr>
<tr>
<td><strong>Capital Charge:</strong> Total invested capital x weighted average cost of capital</td>
</tr>
</tbody>
</table>
includes direct business competitors and/or businesses with a similar profile in terms of complexity, structure, products, sectors and locations. Size also can be a factor, but wider size variations can be accepted for TSR than would be appropriate when selecting a peer group for compensation benchmarking purposes.

Of course, not all businesses have competitors that look like them or face the same challenges. For example, in some highly-consolidated sectors there may only be a handful of competing firms, and some of these may not be listed on a stock market. In these circumstances, assuming that TSR remains a valid metric, it becomes necessary to choose on the basis of factors such as:

- **Correlation**: How well does the historical TSR of different sectors correlate to our company/sector?
- **Volatility (beta)**: How does the historical share price volatility for different sectors compare to our company/sector?

Having developed a potential comparator group, it is important to model and test this group. This means tracking TSR for the potential comparators over several overlapping historical performance periods and computing what the plan would have paid in these scenarios. This modeling allows the following key questions to be addressed:

- Do the performance outcomes fit with what we believe about the historical performance of our business?
- In a small group, are any comparators miscorrelated? Why? Does the miscorrelation invalidate the outcomes? Is this likely to recur?
- In a larger group, are many sectors miscorrelated to us and our main competitors?
- In a global group, are any countries miscorrelated?

Ideally, this exercise answers whether the proposed comparator group is suitable and/or highlights any necessary modifications. It is possible that the modeling will produce a set of notional historical payments that seem to be driven by random factors rather than the performance of the business. In this event, either the proposed comparator group needs to be significantly revised or the use of relative TSR as a measure needs to be re-thought.

Some companies may have a small number of highly relevant comparators and a larger number of companies with whom they have some similarity. In this case, the aim is to make sure the comparator group is large enough to be robust without it being dominated by the less relevant comparators. The answer here could be to weight the companies in the comparator group such that the most relevant companies have a larger effect on the result.

When assessing performance against a comparator group, there typically are three approaches:

- **Sample percentile ranking**: This is the simplest and most common approach, and would be the low-definition default choice. However, under this approach
incentive payments are sensitive to the level of clustering of comparator companies. Therefore, incremental improvements to TSR may have a very large or very small effect on plan vesting/payouts.

- **Percentage outperformance.** An example of this approach provides for full vesting/payout where TSR is at median plus 10 percent per annum, with linear interpolation used between median and this level. This approach avoids material differences in incentive awards arising from small differences in performance. However, this approach does require a percentage outperformance target to be set for full vesting/payout.

- **Smoothed ranking.** This is a compromise option between the two approaches described above. For example, TSR at median- and upper-quartile companies is calculated with vesting/payout between these points calculated by linear interpolation. Again, this avoids material differences for incentive awards arising from small differences in performance.

Simple percentile ranking works best for very large comparator groups. Otherwise, the other methods are preferable. If the comparator group is very small, the percentage outperformance approach generally works best.

Any high-definition approach requires active consideration of the following issues:

- **Start and end dates within the performance period.** Depending upon a company's objectives and intent, TSR is generally measured over one of the following periods — calendar year, fiscal year or grant date to vesting date.

- **Share price averaging period.** Generally, the authors recommend an averaging period of at least one month (typically 30 to 90 days) at both the beginning and end of the performance period as a “spot price” approach is not aligned with the desired intent of the program.

- **Treatment of companies leaving the comparator group.** This typically depends upon the comparator group being used to measure relative performance and reason for exit (acquired, taken private, bankruptcy, etc.).

- **Termination provisions.** It is important to define the provisions around relative TSR performance, vesting and payout in the event of various termination scenarios Change in Control, by the company “without cause,” by the executive for “good reason,” etc.). These provisions should be addressed up front and are generally memorialized in the individual LTI award agreement, LTI plan document or employment agreement.
ABOUT THE AUTHORS AND EDITORS

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Adam Kahle, CCP, CEC, is principal at Korn Ferry Hay Group in New York. Kahle has expertise in both general rewards and executive compensation. His experience in general awards includes job analysis, job evaluation, job description and job family model development, market pricing and the designing of base pay structures and short-term incentive plans. Kahle’s work in executive compensation includes working with management and compensation committees on benchmarking of executive and director total compensation, incentive plan design, regulatory issues and governance developments.

Kahle hold a B.A. in psychology from Saint Olaf College in Minnesota and a master’s degree in human resources and industrial relations from the University of Minnesota Carlson School of Management.
A salesforce represents a significant investment because it is a large percentage of total costs for most sales organizations. As boundary spanners, salespeople link the organization to its customers and generate revenue. Given the important role salespeople play in building competitive advantages for an organization, motivation of the salesforce is widely recognized as an essential component of a rewards strategy. An effective rewards strategy has the goal of attracting, motivating and retaining qualified sales employees as well as enhancing their performance.

An organization needs to determine what its salesforce wants and provide it through proper design of rewards plans in a way that is proactive and specific as well as economic and effective.

Rewards optimization not only reduces employee turnover but also enhances performance of retained employees as it takes into consideration the needs of the sales employees, the characteristics of their territories and the requirements of the organization. This research provides an approach to a salesperson’s profitability index (SPI) that can predict future sales performance.
and link that performance to the rewards practices of sales organizations. After determining the future value of various groups, a sales organization may correlate data on each segment's prior rewards structure with the SPI to develop a picture of how such factors influence performance of sales employees. Because of this, SPI can be used across various segments and can be correlated with types of rewards practices. Based on this relationship, sales organizations can identify specific rewards needs to enhance sales performance.

**FINANCIAL VERSUS NONFINANCIAL REWARDS: KEY FEATURES**

An effective rewards design influences the behavior of sales employees and leads to a positive sales outcome. Financial rewards are associated with a lower level of internalization and thus undermine intrinsic motivation and clearly influence extrinsic motivation. Motivation varies with age, education, experience, aspirations, background and position in an organization. Thus, organizations should try to cater to individual preferences to align employees' efforts with business objectives and enhance employees' motivation levels. Part of that alignment is including nonfinancial, as well as financial, elements in rewards designs. Such designs are customized to fit individual selling roles, different selling strategies and unique requirement of different sales territories. Hence, it helps to drive sales direction to maximize efficiency and effectiveness and improve sales performance. Rewards employees receive for performing their jobs are intrinsic as well as extrinsic. Intrinsic rewards reflect employees' psychological satisfaction resulting from performing their tasks while extrinsic rewards are based on performance-based financial incentives. Extrinsic motivation is mainly divided in two components: compensation (financial rewards) seeking and recognition (nonfinancial rewards) seeking (Miao, Evans, and Shaoming 2007). Thus, two main components of rewards plan are financial and nonfinancial rewards.

Organizations should pay attention to individual differences (e.g., age, tenure, educational background, etc.) in rewards preferences among employees. Individuals may favor different rewards/incentives according to their needs, education, social status and circumstances (Gerhart and Rynes 2003). Employees' behavior and attitudes are affected by their satisfaction with both financial and nonfinancial rewards (De Gieter and Hofmans 2015). Findings show that employees' initial motivation and satisfaction may have improved with a pay raise or cash bonus, but the effects were shorter lived than the motivating effects of nonfinancial rewards (Whitaker 2010).

The size, scope and formality of nonfinancial recognition schemes vary tremendously. Nonfinancial rewards are more likely to enhance interest and involvement in the job (Selart, Nordstrom, Kuvaas, and Takemura 2008). Therefore, they should be customized to carefully match employees' characteristics, situations and preferences, which are often idiosyncratic to each salesperson. WorldatWork
reported that effectively implemented nonfinancial rewards programs can achieve a return on investment three times higher than cash incentive programs (Jimenez, Posthuma, and Campion 2013).

Reward systems have a direct effect on the direction of employees’ individual attention and effort (Bamberger and Levi 2009). There is a positive relationship between rewards satisfaction and task performance and a negative one between satisfaction with rewards and turnover intentions. The more employees feel dissatisfied with their financial rewards, the higher the risk they leave the organization (Williams, McDaniel, and Nguyen 2006). Organizations are recognizing that paying above or at-market levels is not sufficient to encourage, motivate and retain staff. Accordingly, businesses use various rewards mechanisms and frequently realign them to motivate salespeople to expend more effort and eventually perform better. Changes in reward systems have long been known to affect employee motivation and performance. Nearly 80% of U.S. organizations make meaningful changes to their salesforce rewards programs every two years or less (WorldatWork 2009).

OPTIMAL REWARDS MIX: REBALANCING OF FINANCIAL AND NONFINANCIAL REWARDS

An organizational reward system based solely on financial rewards, or at the other extreme nonfinancial rewards, is not likely to lead to an optimum rewards strategy because financial and nonfinancial rewards send different messages to the employees. Nonfinancial rewards, such as recognition, signal appreciation and can promote feelings of self-actualization while financial rewards are perceived as control and micro-management of employees (James 2005).

As explained by Herzberg’s two-factor theory of motivation, there are two rather distinct sets of job-related variables: job content variables (motivators) and job context variables (hygiene factors). Accordingly, the theory differentiates rewards into two categories: financial and nonfinancial. Financial rewards are identified as a hygiene/satisfying factor and as such could cause employees’ dissatisfaction if their expectations are not realized.

Financial and nonfinancial rewards are not the opposite ends of a spectrum. Rather, they represent two distinct dimensions and a salesperson can have both an incentive and recognition orientation. It’s important for sales organizations to optimize the rewards mix between financial and nonfinancial rewards in order to enhance sales performance (See Figure 1 on page 47). Sales employees may have great potential that can be reached only if they get the right motivational tools. For the recognition-seeking sales employees, sales managers may emphasize nonfinancial rewards because they will further enhance motivation. Similarly, compensation-driven sales employees’ performance may fall off if a manager overemphasizes nonfinancial rewards and neglects financial rewards. Financial rewards are motivating for such sales employees, and as such they had a greater effect on their performance.
The optimal mix of financial and nonfinancial rewards encourages the salesperson to perform better. It is important to provide the appropriate financial rewards, but it is also necessary to complement these with other rewards types (Chiang and Birtch 2011). Employees’ personalities affect the attractiveness of a variety of rewards types (Vandenberghhe, St-Onge, and Robineau 2008). Employment level can also affect employee preferences for certain rewards (Dubinsky, Anderson, and Mehta 2000) as can personal characteristics such as age (Von Bonsdorff 2011). Salespeople can underperform because of a misalignment of their extrinsic motivation with the type of rewards they receive (Kumar, Sunder, and Leone 2015). Therefore, the more important a rewards type is for an employee, the more it will positively influence the employee’s behaviors and attitudes.

**OPTIMAL REWARDS MIX AND A SALESPERSON’S PROFITABILITY INDEX (SPI)**

The performance of salespeople can be divided into four categories: laggards, learners, stable and stars. No salesforce consists entirely of stars. Salesforces are usually made up mainly of stable or core performers (60%), with smaller but roughly equal proportion of learners/laggards and stars/rainmakers (20% each) (Madhani 2013). In most sales organizations, an outstanding few star performers outperform their peers because they are highly motivated, know the products and customers well, communicate effectively with customers, know how to forge a long-term relationship with prospects and customers, sell more efficiently and effectively and spend their resources on prospects and customers with high potential or the most productive sales activities. Star sales employees thus gain an edge over other salespeople by keeping focused on winning new as well as repeat and referral sales. They also have a high customer retention rate. Typically, sales organizations focus on identifying star performers and replicating their success for other salespeople by motivating them with the right incentives plan. Optimizing sales employees’ rewards according to such predictive analytics can result in improved sales.
Evaluating the performance of individual sales employees is a complex yet necessary task for sales organizations. Sales organizations need to identify their star performers as well as those who are not meeting expectations. Both groups necessitate special policies. The star should be managed as a valued asset while the laggard warrants special attention and a chance to improve. In comparison to backward-looking metrics such as revenue, sales volume and market share, a salesperson’s profitability index (SPI) helps sales organizations predict future profitability of salespeople and determine which salespeople will respond best to different types of rewards (financial versus nonfinancial) and adjust them as needed.

The SPI metric also provides a basis for internal benchmarking and helps sales organizations measure the future value of a salesperson. The goal of SPI measurement is to narrow the gap between the top 15% or 20% and the rest of the salesforce, which can lead to productivity jumps of more than 200% (Ledingham, Kovac, and Simon 2006). SPI provides a forward-looking, profit-oriented metric to measure and predict the profitability index of a salesperson. SPI is ratio of a salesperson’s future value (SFV) and the cost of salesforce investment (i.e., costs of rewarding and motivating the salesperson). Because SFV is based on the aggregated customer lifetime value (CLV) of the salesperson’s customers, sales organizations that use salesforce automation (SFA), knowledge management (KM) and advanced custom relationship management (CRM) software that calculate CLV already have the required starting data. SFV is defined as the net present value (NPV) of future cash flow (i.e., revenue from a salesperson’s customers). The CLV of the sales employee’s existing and prospective customers, also called customer equity, is determined after accounting for the costs of salesforce investment (Kumar, Sunder, and Leone 2014). A salesperson identified as having a high SPI but who doesn’t live up to expectations may reflect misapplication of rewards and also training.

**MEASURING SALES PERFORMANCE WITH SPI: AN ILLUSTRATION**

By looking not just at the end results sales employees have generated but at their future profitability, sales organizations may find that top performers are more valuable than originally thought and low performers even more costly.

Next is a hypothetical illustration of a sales organization that divides salespeople into deciles, based on profit generated during a three-year period. To understand the relationship between present value and future value of a salesperson, a sales organization typically uses segmentation analysis to identify the rewards mix that influences a salesperson’s future performance and then groups salespeople according to the mix of rewards. After compensation managers determine the SPI of various groups of salespeople, they can use data on each segment’s prior incentives and how the rewards are correlated with their SPI to develop a holistic picture of how the rewards mix influences performance of sales employees. In this exercise, tenure, market competitiveness and sales territory are used as control variables. Next, SPV (salesperson’s present value), SFV and SPI for the
sales employees in each decile are calculated. Table 1 shows SPV, SFV and SPI values for all segments of salespeople. The relationship between SPV and SFV for various decile is shown in Figure 2. Table 1 also shows sales performance (i.e., both SPV and SFV) as a percentage of median (median SPV and SFV are 39.5 and 9, respectively). This relationship is shown in Figure 3.

SPV, SFV and SPI calculation methodology for decile 1 and decile 10 is given in Table 2. The SPI across various deciles of salespeople is plotted in Figure 4. SPI should be positive and a higher value is preferred because it reflects more profit potential. For salespeople in decile 1, SPI is high (1 compared to -0.25 for decile 10).

As shown in Figures 2, 3 and 4 on pages 50 and 51, the sales organization had been dramatically undervaluing salespeople in the highest decile. Those employees’ future value was found to be nearly double their value as measured by current performance alone (See Figure 2 on page 50.) and their SPI was the highest among all deciles as shown in Figure 4 on page 51.

Meanwhile, sales employees in the bottom decile, who appeared to bring in lower but still substantial profit, were badly overvalued. Such salespeople are destined to cost more than they generate. They have SFV and SPI of -20k (Figure 2) and -0.25 (See Figure 4 on page 51), respectively.

Calculations show that SPV and SFV for decile 1 is $50,000 and $100,000, respectively, while they are $32,100 and $-20,100, respectively, for decile 10 (See Table

### Table 1: Sales Employee Performance: SPV, SFV and SPI

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Decile</th>
<th>Sales Employee Performance</th>
<th>Performance As Percentage of Median</th>
<th>Salesperson Profitability Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SPV</td>
<td>SFV</td>
<td>SPV</td>
</tr>
<tr>
<td>(1)</td>
<td>1</td>
<td>50 k</td>
<td>100 k</td>
<td>127%</td>
</tr>
<tr>
<td>(2)</td>
<td>2</td>
<td>48 k</td>
<td>52 k</td>
<td>122%</td>
</tr>
<tr>
<td>(3)</td>
<td>3</td>
<td>45 k</td>
<td>40 k</td>
<td>114%</td>
</tr>
<tr>
<td>(4)</td>
<td>4</td>
<td>43 k</td>
<td>18 k</td>
<td>109%</td>
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<td>40 k</td>
<td>12 k</td>
<td>101%</td>
</tr>
<tr>
<td>(6)</td>
<td>6</td>
<td>39 k</td>
<td>6 k</td>
<td>99%</td>
</tr>
<tr>
<td>(7)</td>
<td>7</td>
<td>38 k</td>
<td>4 k</td>
<td>96%</td>
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<td>32 k</td>
<td>-20 k</td>
<td>81%</td>
</tr>
<tr>
<td>(11)</td>
<td>Chart</td>
<td>Figure -2</td>
<td>Figure -3</td>
<td>Figure -4</td>
</tr>
</tbody>
</table>

(Source: Table developed by Pankaj M. Madhani, Ph.D.)
2 on page 52). Similarly, SPI for decile 1 and decile 10 is 1 and -0.25, respectively, (See Figure 4 on page 51). Sales organizations with appropriate rewards mix adjustments may increase performance of salespeople in lower deciles, particularly those with negative SFV and SPI.

As SPI across various segments are correlated with types of incentives and rewards practices of salespeople, sales organization can identify specific rewards needs (i.e., financial versus nonfinancial rewards) to enhance the performance of salespeople. A combination of financial and nonfinancial rewards had the biggest impact on salespeople’s future value. With optimization of rewards practices, sales organizations can dramatically boost sales revenue and profits through improved

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**FIGURE 2 The Relationship Between SPV and SFV**

![Graph showing the relationship between SPV and SFV](chart)

Source: Chart drawn by Pankaj M. Madhani, Ph.D.

**FIGURE 3 Sales Performance as a Percentage of Median: SPV Versus SFV**

![Graph showing sales performance as a percentage of median](chart)

Source: Chart drawn by Pankaj M. Madhani, Ph.D.
performance of sales employees. Rewards optimization not only reduces sales employee turnover but also enhances performance of retained employees because it takes into consideration the needs of the sales employees, the characteristics of their sales territories and the requirements of the organization.

**MANAGERIAL IMPLICATIONS**

Comparing SPI for different time horizons allows managers to segment the salesforce and identify groups that are sensitive to particular types of rewards and then realign rewards to achieve short- and long-term goals. Though most rewards programs approach these segments as if they were the same, each one is influenced by different types of rewards (financial as well as nonfinancial). With this approach, management can then make strategic decisions about rewards optimization, and even hiring and firing. As a performance metric, SPI enables sales organizations to concentrate their resources in retaining high-performance sales employees who create more value or in transforming existing low-performing sales employees to increase their future value. Such analysis provides the starting point for finding an answer to the question: What type of rewards will bring out the best in a high achiever or help a promising sales employee improve?

**REWARD OPTIMIZATION AT A FORTUNE 500 BUSINESS: MAJOR BENEFITS**

A Fortune 500 business-to-business software, hardware and services company calculated the future value of its salespeople. Based on seven years of data, including the mix and type of monetary and nonmonetary incentives, on 500 salespeople and their customers, this approach allowed the business to reallocate incentive investments across salespeople, resulting in an 8% increase in salesperson's future value (SFV) across the salesforce. The business used its analysis to
prioritize investment in high-SFV representatives and increased those reps’ base pay, incentives and benefits while reducing those investments in low-SFV reps. This reallocation of resources ultimately increased revenue by 4% (Kumar, Sunder, and Leone 2015).

**CONCLUSION**

Because sales is a strategic driver, aligning rewards preference with organizational goals is crucial. Sales organizations should increasingly emphasize rewards optimization to improve their salesforce productivity. It will not only help top performers shine, but will also help drive laggards to the middle of the curve. Such organizations can boost their sales employees’ productivity not by hiring the most gifted individuals but by motivating existing sales employees with proper rewards management to enhance their performance. Use of statistical techniques and salesforce segmentation helps sales organizations quantify the effects of

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Calculation Steps</th>
<th>SPV, SFV and SPI Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)</td>
</tr>
<tr>
<td>(1)</td>
<td>Year (n)</td>
<td>0</td>
</tr>
<tr>
<td>(2)</td>
<td>Cost of promotion ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td>Average order size ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td>No. of purchase/year/ customer</td>
<td>D1 &amp; D10</td>
</tr>
<tr>
<td>(3)</td>
<td>Gross margin (%)</td>
<td>D1</td>
</tr>
<tr>
<td>(4)</td>
<td>Margin on each purchase</td>
<td>D1</td>
</tr>
<tr>
<td>(5)</td>
<td>Discount rate (%) (for NPV calculation)</td>
<td>D1 &amp; D10</td>
</tr>
<tr>
<td>(6)</td>
<td>Customer acquisition cost ($)</td>
<td>D1</td>
</tr>
<tr>
<td>(7)</td>
<td>Retention rate (%)</td>
<td>D1</td>
</tr>
</tbody>
</table>

Table 2: SPV, SFV and SPI Calculation for Decile 1 (D1) and Decile 10 (D10)
rewards programs on the future value of each salesperson. Managing salesforce performance according to the future value of each salesperson and realigning financial and nonfinancial rewards can deliver greater efficiency, profits and increase competitive advantages.

Sales organizations should conduct segmentation analysis of salespeople to understand how sensitive they are to rewards types and tailor each type of rewards accordingly. With this segmentation, sales organizations can make data-driven decisions about rewards optimization to enhance sales employee motivation level and willingness to work harder. With such realignment of incentives, both top performers and those in lower quartiles can show dramatic improvement. Such actions enhance the performance of the sales team and can enable sales organizations to reduce the expense of hiring new rainmakers. Research also emphasizes that all sales employees do not perceive organizational rewards alike as certain needs can be more prominent with some groups than others.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Calculation Steps</th>
<th>SPV, SFV and SPI Calculation</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>(A)</td>
</tr>
<tr>
<td>(1)</td>
<td>Year (n)</td>
<td>0</td>
</tr>
<tr>
<td>(14)</td>
<td>CLV of a customer ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(15)</td>
<td>Number of customers: D1 &amp; D10</td>
<td></td>
</tr>
<tr>
<td>(16)</td>
<td>Rewards and incentives of D1 sales employee ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(17)</td>
<td>Training cost of sales D1 employee ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(18)</td>
<td>Costs of salesforce investment: (16) + (17) ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(19)</td>
<td>SPV: ((12A)x(15) – (18)) ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(20)</td>
<td>SFV: ((14)x(15) – (18)) ($)</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D10</td>
</tr>
<tr>
<td>(21)</td>
<td>SPI: D1/(20)/(18) D10</td>
<td></td>
</tr>
<tr>
<td>(22)</td>
<td>Training and incentives D1 mix: D10</td>
<td></td>
</tr>
<tr>
<td>(23)</td>
<td>Sales performance: D1 D10</td>
<td></td>
</tr>
<tr>
<td>(24)</td>
<td>Recommendation: D1 D10</td>
<td></td>
</tr>
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</table>

Source: Calculated by Pankaj M. Madhani, Ph.D.
ABOUT THE AUTHOR

Pankaj M. Madhani, Ph.D., (pmadhani@iit.edu) earned bachelor’s degrees in chemical engineering and law, a master’s degree in business administration from Northern Illinois University, a master’s degree in computer science from the Illinois Institute of Technology in Chicago and a Ph.D. in strategic management from CEPT University. He has more than 30 years of corporate and academic experience in India and the United States. During this tenure in the corporate sector, he was recognized with the Outstanding Young Manager award. He is now an associate dean and a professor at ICFAI Business School (IBS) where he received the Best Teacher award from the ICFAI Alumni Foundation. He is also the recipient of the Best Mentor award. He has published various management books and more than 300 book chapters and research articles in several academic and practitioner journals. He is a frequent contributor to the WorldatWork Journal. His main research interests includes salesforce compensation, corporate governance and business strategy. He is also editor of the IUP Journal of Corporate Governance.

REFERENCES


Despite Political Uncertainty, Employers Plan to Hire More Foreign Nationals

The strong desire for employers to hire and mobilize a global workforce remains despite political controversy over United States immigration policies and enforcement.

More than half (55%) of employers expect their foreign national headcount to increase in the next year, a 21% increase from 2016, Envoy survey results showed.

Envoy’s second annual “Envoy Immigration Trends Survey” Indicated that 59% of employers expect their demand for work authorization in jurisdictions outside the United States to increase. The survey was conducted online by Harris Poll and had 442 U.S. respondents.

The majority of employers think that hiring and developing global talent is a key building block of their talent management strategy:

- 63% said sourcing foreign national employees is extremely or very important to their companies’ talent acquisition strategy, up from 42% in last year’s report.
- Seven in 10 cited the following as very or extremely important with regard to their company having a global workforce:
  - 77%: filling skills gap
  - 76%: global competitiveness
  - 73%: foreign nationals bring valuable new perspectives to the way their company does business
  - 73%: foreign nationals have knowledge of markets, business practices and cultures outside the United States
  - 71%: international transfers are critical to managing and expanding their global business.

Employers are investing in attracting and retaining this key talent pool through immigration-related perks and green card sponsorship:

- 83% of employers offer immigration-related perk packages, most commonly paying for travel, housing and dependent visa or green card applications for family members.
- 38% of employers spend $16,000 or more on immigration-related perks for each individual.
- 71% of employers have sponsored a foreign national for a green card, up from 63% in the 2016 report.
- 84% of employers pay for all green card-related fees with half enforcing a payback stipulation if the employee leaves.
- 36% start the green card application process after one year of service.
- 36% of employers in science, technology, engineering and mathematics (STEM) fields are likely to start the process immediately versus 24% of non-STEM employers.

The Cost of Student Loan Debt

More than half of all young workers worry about repaying student debt either all the time or often, and nearly 90% of these employees say they would commit to a job for five years in return for help with their student loans.

ASA’s “Young Workers and Student Debt” survey polled 502 young workers from the ages of 22 to 33 as well as 451 HR managers at companies with at least 100 employees. The results showed the challenges faced by young workers with student debt and the strong demand for benefits such as financial literacy, one-on-one counseling, sign-on bonuses and student loan repayment.
Published Research in Total Rewards

A review of total rewards, compensation, benefits and HR-management research reports.
(Compiled by the editors from the WorldatWork Newsline column at worldatwork.org.)

The report also pointed out how rising student loan debt is hurting young workers’ focus, well-being and retirement planning as well as delaying their pursuit of further higher education.

More than three out of five young workers said their priority is paying off student loans and not contributing to a 401(k) or other retirement plan. The research also found a gap between HR managers and their young workforce as to the perceived effect of student loans and the solutions that young workers are looking for in exchange for loyalty.

Other key findings:
- Student loans have various detrimental effects on young workers.
- 56% worry about repaying their loan either all the time (26%) or often (30%).
- 40% reported that worrying about their student loans has affected their health.
- 55% would like to go to grad school but couldn’t take on any additional student loans.
- 61% have considered getting a second job to help pay off their student loans.
- A lack of resources and the burden of loans are hindering retirement planning.
- 63% of young workers reported that they don’t have anyone to turn to for help with regard to paying off their student loans.
- 75% of HR professionals reported that their company does not offer any guidance or assistance regarding student loans.
- 54% of young workers reported that paying off student loans comes first, and they will put off saving for retirement.
- Young workers would respond positively to employers that offer student loan benefits.
- 86% said they would commit to an employer for five years if the company helped pay back their student loans.
- 93% of young workers would take advantage of a sign-on bonus targeted at paying back student loans; 92% would take advantage of a match for student loan repayments similar to a 401(k) match.
- 89% would take advantage of overall long-term financial planning.
- 79% would take advantage of free access to a student debt loan counselor.

Employers: Make It Easier for Employees To Make Healthy Decisions

Employers should adopt the precepts of behavioral economics when it comes to encouraging healthier lifestyles, reducing the burden of noncommunicable diseases — and seeing improved productivity.

These are the findings of the report, “Human-Centric Health: Behavior Change and the Prevention of Non-Communicable Diseases,” from the World Economic Forum in collaboration with Willis Towers Watson. Five key noncommunicable diseases (cardiovascular disease, mental illness, cancer, chronic respiratory disease and diabetes) will account for about 16 million premature deaths annually, and an estimated cumulative loss of $47 trillion in economic activity worldwide in the next two decades, according to Willis Towers Watson.

Traditional approaches that place emphasis on the treatment of noncommunicable diseases haven’t reduced their global effect, according to the study, and an evolution to include prevention through behavior change is needed. The strategic shift from treatment only to include prevention through behavioral economics could substantially reduce the economic burden and empower individuals to live healthier lives, the report asserted.
The report suggested a shift that is modeled toward a human-centric health ecosystem. This approach to population health management and improvement relies on a systematic response by an array of stakeholders — employers, government departments, nongovernmental agencies and other groups such as families — to address the threat of noncommunicable diseases. This is achieved, in part, through individual behavior and consumer choice.

The model focuses on mitigating the risk factors underlying the aforementioned diseases — tobacco use, unhealthy diet, inadequate exercise, indoor and outdoor air pollution and excessive alcohol consumption. It makes personal, prevention-oriented behavior possible, moves the case for change toward individuals and away from institutions and presents people with choices that encourage healthy behavior.

According to the analysis, technology is an accelerant for the dissemination of critical health-related knowledge, connecting stakeholders, reshaping behavior and helping address impediments to an effective human-centric health ecosystem.

Financial Stress Takes a Toll on Employees' Emotional and Physical Well-Being

Anxiety over personal finances is the leading cause of emotional stress and contributes to lower physical wellness. And while many working Americans are dealing with financial and emotional troubles, single working parents and Generation Xers are feeling particularly vulnerable: Two in five struggle to keep up with expenses and save for retirement.

Financial wellness is identified as the most significant driver of overall well-being, according to the “Mind, Body and Wallet” report from Guardian Life Insurance Co. of America. This report is the latest set of findings from the fourth annual “Guardian Workplace Benefits Study.” The report also highlighted how progress toward financial goals has declined in the past two years.

A majority of workers cited money as their primary source of stress, indicating that they struggle with saving for retirement and college education, managing debt and protecting their families in the event of death, serious illness or injury.

Other findings:

- One in four workers has no life insurance; the same is true of single working parents. Among those with life insurance, two in five believe they need more coverage, especially those who are married with children.
- One in three workers (and one in two Millennials) has no disability insurance. Three in five workers said they could not live off of their savings for more than six months if they became ill or injured.
- One in five workers (and one in three single parents) has no retirement plan. Two in five workers feel they are making good progress toward their retirement goals.

More companies are attempting to improve their employees’ well-being through a variety of initiatives, according to the report. Yet, while 52% of working Americans said they have access to wellness programs through their employer, one in four reported having participated in any of the activities offered.

Hiring Managers Lukewarm on Companies’ Talent Development Efficacy

On-the-job training, formal mentorships and one-off online or in-person learning programs are the most common ways today’s employees are trained to do their jobs. But are these methods effective?
Published Research in Total Rewards

A review of total rewards, compensation, benefits and HR-management research reports.

(Compiled by the editors from the WorldatWork Newsline column at worldatwork.org.)

Hiring managers reported lukewarm feelings about how effective their organizations are at talent development and competency development, according to the results of the sixth annual “Job Preparedness Indicator” from the Career Advisory Board. In the study of 500 U.S.-based senior-level hiring managers, 13% of respondents think their talent development initiatives are very well-aligned with their overall business strategy.

To ensure employees are adequately trained, 80% of respondents said they rely on on-the-job training, one-third use formal mentorships and nearly two-thirds leverage one-off online or in-person learning programs. Yet, 11% reported their efforts help in providing employees with the skills they need to be successful.

Respondents also shared that they feel their organizations are weak when it comes to tracking the ROI of talent development initiatives, with three out of 10 reporting they do it a fair amount or a great deal. At the same time, hiring manager expectations for job candidates remain high across all levels of employment.

Nearly half (44%) of respondents agreed that the majority of candidates have the right skills to fill open positions. They reported interviewing, on average, six candidates for every job, with one-third interviewing more than six. Hiring managers also still prize formal education, with 79% valuing a job candidate’s degree completion and 82% for an employee’s degree completion.