The Cost and Incidence of Referral, Hiring, and Retention Bonuses

Signing and other bonuses can be important staffing tools. Employment Cost Index data show that the overall cost of these plans is relatively small.

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The tight labor market has brought attention to compensation policies targeted to either attract or retain employees in occupations experiencing labor shortages. Some of the more touted policies include stock options as well as lump-sum bonus payments for referral, hiring, and retention.[1] In an ongoing effort to measure fully the changes in compensation costs, the Employment Cost Index (ECI) program has expanded its definition of nonproduction bonuses by capturing referral and hiring bonuses.

The impact of this expansion on the ECI compensation and total benefit indexes is relatively small. The overall cost of these plans amounts to no more than 2 cents per hour for any major industry or occupational grouping. With hourly costs for total benefits ranging from $2 to $7, an additional 1 to 2 cents should have virtually no impact on the ECI rates of change or the Employer Cost for Employee Compensation (ECEC) hourly costs.[2]

This article explores the incidence and hourly employer costs of the new bonus plans.[3] The analysis is based on data collected from the Nonproduc-tion Bonus Test conducted by the Bureau of Labor Statistics (BLS) during its March 2000 ECI update.[4]

Some background

The ECI is a fixed-employment-weighted index that tracks quarterly changes in hourly labor costs (wages, salaries, and employer costs for employee benefits), free from the influence of employment shifts among occupations and industries. ECI benefits are grouped into 20 detailed categories, such as holiday and vacation pay, health and life insurance, and retirement and Social Security benefits. Also included are nonproduction bonus benefits.

Nonproduction bonus benefits are cash sums not directly related to productivity that are given to employees by the employer.[5] Typical cash bonuses that would be included as non-production benefit costs are holiday and yearend bonuses, profit-sharing bonuses, and retention bonuses. While retention bonuses have been a part of nonproduction bonus costs since the measurement of benefits in the ECI began in 1979, referral and hiring bonuses were added to the ECI

nonproduction bonus measure starting in June 2000.

Hiring bonuses, sometimes referred to as signing bonuses, are payments made by the employer to induce an individual to accept employment. Referral bonuses are made by the employer to an employee for recommending an applicant who is hired by the establishment. Retention bonuses are payments to an incumbent employee to retain that individual within the establishment.

Nonproduction Bonus Test

To measure the incidence and hourly cost of referral, hiring, and retention bonuses, BLS field staff obtained separate information on these bonuses in addition to their regular collection of benefit costs during the ECI March 2000 quarterly collection cycle. Although retention bonuses have been included in the nonproduction bonus category, data for them were collected separately in the test to permit comparison with the findings for referral and hiring bonuses. Having the three bonus plans studied together gives a more robust picture of the compensation policies used in this tight labor market.[6]

There are several limitations to the data collected during the March test. Sample nonresponse coupled with the low incidences of these plans are most important. Table 1 shows the sample response rates by sector, where the occupational record counts and corresponding percentages are based on the combined incidence of the three bonus plans.[7]

Table 1 shows that 84 percent of the private industry occupations were not provided any one of these plans and that, for an additional 6 percent, employers were unable or unwilling to provide these data—permanent nonresponse. The remaining 10 percent of occupations were reported as having at least one of the three plans offered, but 63 percent of these—1,665 records—were reported as partial responses. Partial response occurs when an establishment reports offering the plan to its employees, but cannot report the cost outlay.

TABLE 1. **Sample response rates for occupational records from the Nonproduction Bonus Test, March 2000**

Sector	Referral, hiring, and retention bonuses combined				
	Reported data	Partial response	Permanent non-response	No plans	Total
State and local government	51 (1.3)	34 (0.8)	194 (4.8)	3,725 (93.0)	4,004 (100.0)
Private industry	976 (3.7)	1,665 (6.3)	1,570 (5.9)	22,208 (84.1)	26,419 (100.0)
Total	1,027 (3.4)	1,699 (5.6)	1,764 (5.8)	25,933 (85.2)	30,423 (100.0)

NOTE: Numbers in parenthesis are percentages of total occupational records for that row. Because of rounding, some percentages may not sum to 100.0.

To include the partial-response records, hourly costs were imputed using the data from the complete reporters. The imputation method used in this study follows a procedure similar to that used in the ECI program, in which sample weighted averages by detailed industry groups—typically two-digit SICs[8]—were computed for each of the major occupational groups. These averages were then assigned to nonresponse records for the same industry and occupation.

The 6 percent of the private industry sample coded as permanent nonresponse was dropped from the analysis. Imputation for these records is problematic in that no information about whether the occupation received the benefit plan is present. Because this study addresses the incidence of bonus plans, the inclusion of these occupational records would bias the results.

The potential biasing effect of dropping the nonresponse records was mitigated by benchmarking the sample weights to the March 2000 industry employment estimates available from the BLS Current Employment Statistics survey.[9] Applying the sample weights, benchmarked to industry employment, translates the sample results to universe estimates, defined here as all private industry workers.

For State and local governments, 93 percent of occupations were not offered any one of the plans, and employers were unable or unwilling to respond for an additional 5 percent. For the remaining 2 percent, incidence of the plans was reported, but not necessarily costs. Reports for nearly one-half of the occupations did not provide the cost outlay of the plans, and were thus considered partial responses.

With government establishments accounting for about 13 percent of the ECI sample, the 2-percent response is insufficient to produce any statistically reasonable estimates, and thus these establishments were excluded from tabulations presented in this article.

Computation of average costs

Employer outlays for the bonus plans are presented as costs per hour worked, the standard benefit cost measure used in the Employer Cost for Employee Compensation reports published by BLS.[10] The hourly costs in this study differ from the ECEC estimates, however, in that the averages tabulated here are based on occupations in which workers were either provided or offered the bonus plans, whereas ECEC estimates are averages calculated from the entire sample of occupations, regardless of whether the sampled occupation received particular benefits. This important distinction should be kept in mind when comparing estimates, because the employer costs presented in this study are substantially higher than what would be reported if averages were calculated across all occupational records.[11]

TABLE 2. **Average hourly employer cost for occupations offered bonus plans and percent of employees having access, private industry, March 2000**

Item	Referral		Hiring		Retention	
	Cost	Percent	Cost	Percent	Cost	Percent
All private industry workers	$0.08	8	$0.07	4	$0.11	2
Number of workers in establishments						
Under 100 workers	.04	4	.09	2	.10	1
100 to 499 workers	.14	11	.04	4	.09	3
500 workers or more	.06	13	.08	8	.13	6
Industry						
Goods producing	.02	6	.10	3	.05	2
Construction	.03	2	.00	0	.00	0
Manufacturing	.01	7	.10	4	.05	2
Service producing	.10	8	.06	4	.12	3
Transportation, communications, and public utilities	.05	11	.07	8	.11	7
Wholesale trade	.24	8	.09	3	.06	3
Retail trade	.06	7	.01	2	.01	2
Finance, insurance, and real estate	.01	14	.21	7	.24	3
Other services	.14	8	.02	4	.17	2
Occupational group						
White collar	.03	9	.08	6	.14	4
Professional specialty	.02	9	.06	9	.28	5
Technical	.05	10	.07	4	.03	2
Executive, administrative, and managerial	.03	12	.19	9	.03	6
Sales	.01	7	.01	4	.06	2
Administrative support, including clerical	.05	9	.03	4	.15	3
Blue collar	.03	6	.05	2	.01	1
Precision production, craft, and repair	.03	4	.04	2	.00	2
Machine operators, assemblers, and inspectors	.01	6	.03	2	.02	1
Transportation and material moving.................................	.06	6	.11	3	(¹)	(¹)
Handlers, equipment cleaners, helpers, and laborers	.04	6	.02	1	.00	1
Service	.28	9	.01	1	.04	1

¹ Data were suppressed to protect confidentiality of respondents.

Table 2 shows costs per hour worked and the percentage of employees having access to, or coverage under, each of the bonus plans. This table shows breakouts by establishment employment size, industry, and occupational groups. The percentages of employees having access were calculated from weighted employment of occupations that were either provided the bonus plan, in which case employer costs were incurred, or were offered the plan with no costs being incurred. The latter will occur, for example, when an employer offers a referral bonus, but no employee refers an applicant. This interpretation of the percentages assumes that all employees within a sampled occupation have access to the plan, should the plan be offered.[12]

As with any statistical measure, the reliability of the estimate increases with the number of observations. Table 3 shows the number of occupational records used in the estimates. The record count provides a means from which reliability of the estimates can be gauged.[13] Also presented in table 3 are the percentages of records that were used in the estimate and that had a reported nonzero cost. These two measures provide the number of cost records used in the computations of the hourly averages.

Referral bonuses

Of the three ECI bonus plans, referral bonuses were the most commonly offered, with 8 percent of occupations in private industry covered. (See table 2.) Referral bonuses, where paid, cost employers, on average, 8 cents per hour, but there were notable differences among the labor categories. By industry, as little as 1 cent per hour, on average, was paid to occupations in manufacturing and finance, insurance, and real estate jobs, and as much as 24 cents to occupations in wholesale trade jobs. Occupations employed in midsize firms—100 to 499 workers—were paid an average referral bonus of 14 cents per hour, while small and large firms paid out between 4 and 6 cents per hour. Within occupational groups, service occupations received, by far, the highest payments per hour worked, 28 cents per hour.

The percentage of employees who had access to referral bonuses varied

Table 3. **Number of occupational records reporting bonus, and percent of those records reporting nonzero costs, March 2000**

Item	Referral		Hiring		Retention	
	Record count	Percent nonzero	Record count	Percent nonzero	Record count	Percent nonzero
All private industry workers	2,298	76	1,284	75	760	67
Number of workers in establishments						
Under 100 workers	503	60	187	65	86	47
100 to 499 workers	767	72	304	84	157	72
500 workers or more	1,028	87	793	74	517	72
Industry						
Goods producing[1]...	372	70	238	92	120	87
Construction	26	77	0	0	0	0
Manufacturing	341	71	234	92	120	87
Service producing	1,926	77	1,046	71	640	63
Transportation, communications, and public utilities	235	91	188	100	196	92
Wholesale trade	163	47	92	100	66	49
Retail trade	239	77	106	84	42	26
Finance, insurance, and real estate	544	83	284	49	100	52
Other services	745	76	376	62	236	55
Occupational group						
White collar	1,649	76	1,067	73	625	72
Professional specialty	358	77	318	85	195	91
Technical	141	70	74	64	40	43
Executive, administrative, and managerial	379	79	296	71	174	49
Sales	217	67	126	79	54	56
Administrative support, including clerical	554	78	253	57	162	87
Blue collar	339	71	126	95	81	22
Precision production, craft, and repair	125	67	66	100	47	0
Machine operators, assemblers, and inspectors	85	72	25	100	17	77
Transportation and material moving	41	88	10	70	([2])	([2])
Handlers, equipment cleaners, helpers, and laborers	88	69	25	88	12	0
Service	310	83	91	70	54	78

[1] Mining is excluded from these tables, and thus goods producing will exceed construction and manufacturing employment counts.

[2] Data were suppressed to protect confidentiality of respondents.

widely among the categories as well. The differences in coverage are most notable between small and larger size establishments, and among the industry groups. Employees in small firms were substantially less likely to have referral bonuses (4 percent) than were employees in midsize and large firms (11 and 13 percent, respectively). By industry, employees in construction were the least likely to receive referral benefits (2 percent coverage) while employees in finance, insurance, and real estate were the most likely (14 percent coverage). Although wholesale occupations received substantially higher hourly payments for referral bonuses than did occupations in other

industries, they were no more likely to receive such bonuses.

Among the occupational groups, white-collar and service occupations were more likely to have a referral plan (9 percent of employees) than were blue-collar employees (6 percent). Executive, administrative, and managerial jobs had the highest incidence of any detailed occupational group with 12 percent coverage.

Hiring bonuses

Hiring bonuses were much less prevalent than referral bonuses, with 4 percent of private industry occupations offered the plan. The average hourly employer cost of hiring bonuses, where

paid, across all occupations was 7 cents per hour, almost equaling the 8 cents for referral bonuses. The differences among occupations in hiring-bonus costs were smaller than those found for referral bonuses, but the differences were reversed by industry. Per-hour hiring bonuses in goods-producing industries exceeded those in service-producing industries by 4 cents, while referral bonuses were 8 cents higher in service-producing than in goods-producing industries. Occupations in goods-producing industries received 10 cents per hour from hiring bonuses, ostensibly driven by manufacturing establishments, while occupations in service-producing industries

received 6 cents.

There are some noteworthy distinctions within the service-producing industries in regard to hiring bonuses. Occupations in the finance, insurance, and real estate industry received the highest hourly payments (21 cents per hour) while occupations in retail and service industries received the lowest (1 and 2 cents, respectively). Occupations in the remaining service-producing industries received hiring bonuses near the private industry average.

The referral- and hiring-bonus estimates for finance, insurance, and real estate occupations are peculiar in that these occupations received the highest average amount in hiring bonuses (21 cents per hour worked) while receiving 1 cent per hour for referral bonuses. The reverse relationship occurs for the incidence of coverage: these same jobs were more likely to receive a referral bonus, albeit a smaller hourly amount, than a hiring bonus. These results suggest that the actual hiring bonus payment received by a new hire is substantially higher than what is paid for a new-employee referral.

By occupational groups, white-collar occupations received 8 cents per hour in hiring bonuses, just above the overall average, while service occupations received much below the average (1 cent per hour). Blue-collar occupations were paid 5 cents per hour, which was 2 cents higher than their referral payments. Among the detailed occupational groups, executive, administrative, and managerial jobs were the most favored, receiving 19 cents per hour, 12 cents above the average. The higher-than-average costs for executive jobs contributed to the above-average costs for finance, insurance, and real estate, because the two estimates are closely linked; the data show that the highest hourly costs for hiring bonuses were paid to executive, administrative, and managerial occupations in the finance, insurance, and real estate industry.

The frequency of hiring bonuses was marginally higher in the service-producing sector (4 percent) than in goods producing (3 percent), but with more prevalence among employees in transportation, communications, and public utilities (8 percent) and in finance, insurance, and real estate (7 percent). Employees in transportation, communications, and public utilities received hiring bonuses near the average, but the data showed a higher incidence of coverage among communication occupations in this industry group. White-collar jobs in communications, particularly professional and executive occupations, had a high incidence of coverage. The relationship in hiring costs drawn between occupations in finance, insurance, and real estate and executive, administrative, and managerial jobs is reflected in the incidence of coverage as well. There is a higher-than-average incidence of hiring bonuses for employees in finance, insurance, and real estate (7 percent) and in executive, administrative, and managerial jobs (9 percent).

Not surprisingly, the industry and occupational groups that have some of the lowest costs per hour have among the lowest incidence of coverage. Two percent of employees in retail establishments and 1 percent in service occupations have hiring bonuses offered. Blue-collar jobs also have below-average costs and a correspondingly low incidence of coverage (2 percent). None of the major occupational groups making up the blue-collar category have an incidence of coverage above the private industry average.

Retention bonuses

Retention bonuses were the least prevalent incentive plan among the three, with 2 percent of private industry occupations being offered such plans. At 11 cents per hour, however, the cost of retention bonuses, where paid, was slightly higher than that of either of the other two bonuses. Except in terms of establishment size, there is a much starker division in cost among the occupations in regards to retention bonuses than there is for the other two bonus plans.

Occupations in retail trade establishments received 1 cent per hour for retention bonuses, much lower than the 11-cent average—as were retention bonuses for blue-collar and service occupations (1 and 4 cents, respectively). Occupations in finance, insurance, and real estate were paid the highest among industry groups (24 cents per hour), followed by service-industry occupations (17 cents per hour).

The data show that the higher-than-average costs in finance, insurance, and real estate and the service industries were attributable to professional-specialty occupations. Retention bonuses paid to professional-specialty jobs in finance, insurance, and real estate ranked highest among operations researchers and attorneys. For the service industry, nurses bolstered the average. These two industry groups together contributed to the service-producing industry average of 12 cents per hour, and in turn contributed substantially to the private industry average. The retention benefit payments in goods-producing industries, reported only for manufacturing establishments, were 6 cents below the 11-cents overall average.

Incidence of retention bonus coverage varied widely as well. Large firms were more likely to offer a retention plan than were smaller establishments. Midsize and large establishments had incidences of coverage ranging between 3 and 6 percent, compared with 1 percent for small firms. Transportation, communications, and public utilities employees were the most likely recipients of retention bonuses with incidence of 7 percent, primarily attributable to the communication industry. Like referral and hiring bonuses, retention bonuses were more likely to be available to white-collar employees, with 4 percent having coverage, than to blue-collar or service occupations. This higher-than-average incidence is explained by professional-specialty and executive, administrative, and managerial jobs, for which the incidence of coverage exceeded 5 percent.

Conclusion

Without other prior measures of costs

or incidence of bonus plans for referral, hiring, and retention, it is unclear whether these plans have become more common with the tightening of the labor force. What was evident from the March Nonproduction Bonus Test, however, was that these bonus plans were not widely offered across industries or occupations. Only about 10 percent of private industry occupations received any of these three plans.

Occupations in service-producing industries, particularly white-collar jobs, were more likely to receive these bonus plans than were occupations in goods-producing industries. Employment size of the establishment also played a role, as midsize and large firms provided more coverage and incurred higher hourly costs for these bonus plans. The least likely occupations to have received a referral, hiring, or retention plan were lower technical and old-economy-type jobs. Occupations in retail trade, as well as blue-collar occupations, received smaller average payments and coverage than did other occupations.

Because of the complexity of the ECI collection and processing systems, there is not a straightforward means to measure precisely the impact of the bonus expansion on the ECI. With the low incidence and hourly costs of these plans, however, the impact is likely small. Work is under way at BLS to develop an integrated data collection system as part of the National Compensation Survey that will allow data for individual benefit plans to be collected and coded. Once individual plan data are collected in this new data capture system, analysis of individual benefit plans, including their impacts on the ECI, will be possible. ∎

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[1] See David Lebow, Louise Sheiner, Larry Slifmann, and Martha Starr-McCluer, "Recent Trends in Compensation Practices," Federal Reserve Board working paper (Washington, Board of Governors of the Federal Reserve System, July 15, 1999), also available on the Internet at **www.federalreserve.gov/pubs/feds**.

[2] The hourly costs of total benefits were obtained from "Employer Costs for Employee Compensation," USDL 00-186 (Bureau of Labor Statistics, June 29, 2000), also available on the Internet at **ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/ececrlse.pdf**. Service occupations received $2.16 per hour in total benefit costs, the lowest hourly benefits cost among the major industry and occupational groups, while manufacturing workers received the highest, $7.40 per hour.

[3] As part of its ongoing research program, the Bureau of Labor Statistics is currently conducting research on stock option plans. The research will be completed in stages. BLS has begun testing the incidence of stock option plans across all industries and occupations. The prevalence of the plans, based on test results and the potential impact on compensation costs, will determine the next stage of research. The results of the incidence survey will be published in late 2000.

[4] The ECI March 2000 update period ran for 6 weeks, starting in early March 2000 and ending in mid-April 2000. During the period, ECI sample establishments were contacted about employer costs for wages and benefits during the pay period that included March 12, the reference period of the ECI March update. About 6,200 private industry and 800 government establishments are contacted each quarter for updated compensation costs. For further information about ECI, see *Bureau of Labor Statistics Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), ch. 8.

[5] Noncash bonuses, such as the free use of company cars, are excluded from ECI. Bonus payments directly related to productivity are included as part of wages and salaries.

[6] Considering that the scope of the ECI survey may exclude top executives in some establishments, the full impact of these bonuses on compensation costs across all occupations cannot be captured. For example, corporate officers who are major stockholders or members of corporate boards of directors are excluded from the ECI survey.

[7] The combined status codes for the referral, hiring, and retention benefits were derived based on the following assignment rule:

If any one of the three bonus plans was coded a permanent nonresponse, the occupational record was coded as a permanent nonresponse.

Otherwise, if any one plan was coded as partial nonresponse, the record was coded as a partial response.

Otherwise, if any one plan was coded as actual data, the record was coded as actual data.

All other records were coded as no plan.

[8] SIC is defined as the 1987 Standard Industrial Classification codes of the U.S. Office of Management and Budget.

[9] Sample-weight benchmarking is the process of apportioning employment counts based on the assigned sample weights of the occupational quote and the industry group in which the quote belongs. In most instances, private industry employment counts were total employment estimates for two-digit major industry groups, such as primary metal manufacturing or food stores, as defined by the Standard Industrial Classification (SIC) system. In a few cases, three- and four-digit industry employment counts were used. These include the four-digit aircraft manufacturing industry (3721) and the three-digit health care and educational industries.

[10] BLS has published cost levels in *Employer Costs for Employee Compensation* (ECEC) dating back to 1986. These cost levels, derived from data collected in the ECI survey, are designed to provide a snapshot of the average hourly costs of wages and salaries and of benefits across industry and occupational groups. ECEC is published annually using the March quarter data from the ECI sample and sample weights benchmarked to the March employment counts for that year, from the Bureau of Labor Statistics Current Employment Statistics program.

[11] If averages were based on the entire sample of occupations, most of the labor categories for which data are tabulated would have shown a zero cost per hour, and no category would have exceeded 2 cents per hour.

[12] The unit of analysis for ECI is an occupational quote defined as groups of employees within an establishment that have the same narrowly defined job title, job description, and characteristics. The percentages were calculated as a percent of weighted employment represented by the occupational quotes. Because not all employees within a sampled occupation having the plan will have received the benefit, these employment-weighted percentages are estimates representing the percent of employees who have access to the benefit plan, regardless of whether they receive it. We often refer to this percentage as the incidence of coverage.

[13] Standard errors of the estimates, a common statistical measure used to gauge the reliability of an estimate, were not computed for the cost-per-hour averages or the incidence of coverage percentages.