

A Look at Supplemental Pay: Overtime Pay, Bonuses, and Shift Differentials

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For many occupations in the U.S. labor market, supplemental pay--overtime, bonuses, and shift differentials--is an important component of overall cash compensation. Overtime pay is especially important in production occupations and other blue-collar jobs; bonus pay is mostly a feature of high-wage managerial and sales occupations; and shift differentials play a prominent role in a particular set of occupations--healthcare practitioner and technical occupations.

A likely first question asked by an individual when considering a possible job opportunity is, How much will I earn? Usually the expected answer is a simple statement of the annual salary, or perhaps an hourly wage rate, along with some general idea of the number of hours per week and weeks per year. While this may be an adequate answer for most jobs, for others there are additional aspects of cash compensation to consider. In many jobs, supplemental pay--overtime premiums, bonuses, and shift differentials--is an important component of compensation.¹

The [Employer Cost for Employee Compensation \(ECEC\)](#) quarterly [news release](#) publishes estimates of employer expenditures for supplemental pay--expressed as both an hourly rate and as a percent of total compensation--for a selection of broad occupational groups, defined according to the [2000 Standard Occupational Classification \(SOC\)](#).² Separate estimates for overtime, bonuses, and shift differentials are published for management and professional occupations, sales and office workers, service occupations and similar broad occupational groups. Estimates for *supplemental pay*--the sum of overtime, bonuses, and shift differentials--are also available for a selection of more detailed occupations, including professional and related occupations, teachers, nurses, sales and related occupations, and office and administrative support occupations. (See table 1.) But the components of supplemental pay (overtime, bonuses, and shift differentials) are not currently published at this level of detail. The ECEC news release for December 2007 reported that supplemental pay costs employers an average of 72 cents per hour, representing 2.6 percent of total compensation costs. This is relatively small compared, for example, with an average cost of \$1.96 per hour (7.0 percent of total compensation) for paid leave, and \$2.34 per hour (8.3 percent of total compensation) for insurance benefits.

Table 1. Supplemental pay as a percent of total compensation and cost per hour worked for the civilian workforce, by occupation, December 2007

Occupational group	All supplemental pay		Overtime		Shift differentials		Nonproduction bonuses	
	Percent	Average employer cost per hour	Percent	Average employer cost per hour	Percent	Average employer cost per hour	Percent	Average employer cost per hour
Civilian workers	2.6	\$0.72	0.9	\$0.26	0.2	\$0.07	1.4	\$0.40
Management, professional, and related	2.5	1.14	0.3	0.16	0.2	0.11	1.9	0.88

NOTE: Blank cells appear in table because data on overtime, bonuses, and shift differentials are not published for detailed occupations.

Source: [Employer Costs for Employee Compensation--December 2007](#), USDL 08-0331 (U.S. Department of Labor), Mar. 12, 2008; available on the Internet at http://www.bls.gov/news.release/archives/ecec_03122008.pdf.

Occupational group	All supplemental pay		Overtime		Shift differentials		Nonproduction bonuses	
	Percent	Average employer cost per hour	Percent	Average employer cost per hour	Percent	Average employer cost per hour	Percent	Average employer cost per hour
Management, business, and financial	3.7	1.91						
Professional and related	1.9	0.85						
Teachers	0.3	0.15						
Primary, secondary, and special education school teachers	0.3	0.15						
Registered nurses	3.4	1.49						
Sales and office	2.3	0.49	0.7	0.14	0.1	0.02	1.5	0.32
Sales and related	2.7	0.53						
Office and administrative support	2.1	0.46						
Service	1.8	0.28	1.1	0.17	0.3	0.05	0.4	0.07
Natural resources, construction, and maintenance	3.2	0.96	2.1	0.64	0.2	0.05	0.9	0.26
Construction, extraction, farming, fishing, and forestry	3.2	0.97						
Installation, maintenance, and repair	3.2	0.94						
Production, transportation, and material moving	3.5	0.81	2.2	0.5	0.4	0.1	0.9	0.21
Production	4.2	0.98						
Transportation and material moving	2.8	0.64						

NOTE: Blank cells appear in table because data on overtime, bonuses, and shift differentials are not published for detailed occupations.

Source: [Employer Costs for Employee Compensation--December 2007](http://www.bls.gov/news.release/archives/ecec_03122008.pdf), USDL 08-0331 (U.S. Department of Labor), Mar. 12, 2008; available on the Internet at http://www.bls.gov/news.release/archives/ecec_03122008.pdf.

Although it is a relatively small part of compensation for the overall civilian work force, supplemental pay is worth examining for a number of reasons. Supplemental pay is the only “benefit” that the employee receives as a direct cash payment, which is to say that, from the workers viewpoint, it is essentially a part of cash earnings. Prevalent use of supplemental pay can convey important information about what to expect from a job. For example, jobs where overtime pay is an important part of earnings are likely to require long hours. Similarly, if a job regularly pays shift differentials, potential job seekers can expect to work some evening and weekend shifts. The third type of supplemental pay--bonus pay--is more subtle. Some employers might believe that cash bonuses provide greater incentive to employees than ordinary raises do. Alternatively, if the firms

profits are volatile, the employer might choose to “share the wealth” with its employees during prosperous times, but be reluctant to commit to permanent wage increases.³

This article presents information that should serve as a useful complement to the data on supplemental pay currently published by BLS. The ECEC news release is based on one quarter of data. This article uses a dataset that pools data from seven quarters spanning the years 2001 to 2007.⁴ This larger sample allows for the examination of the components of supplemental pay across a larger range of occupational categories, as well as for a selection of detailed occupations. Rather than looking at supplemental pay as a percent of total compensation, the focus here is on supplemental pay as a percent of *cash compensation*, which emphasizes the fact that supplemental pay is more closely related to wages and salaries than are most other benefits.⁵

As table 2 shows, 55 percent of workers are in jobs that receive overtime pay, making it the most prevalent type of supplemental pay. Bonus payments are the second most prevalent type, with more than 42 percent of jobs receiving positive payments. Shift differentials are the least common type of supplemental pay, with around 20 percent of jobs receiving such payments.⁶ In addition, as a percentage of cash compensation for all jobs, overtime represents the highest percentage (1.49 percent), followed by bonuses (1.21 percent) and shift differentials (0.37 percent).

Table 2. Incidence of supplemental pay and the percent of cash compensation received as supplemental pay

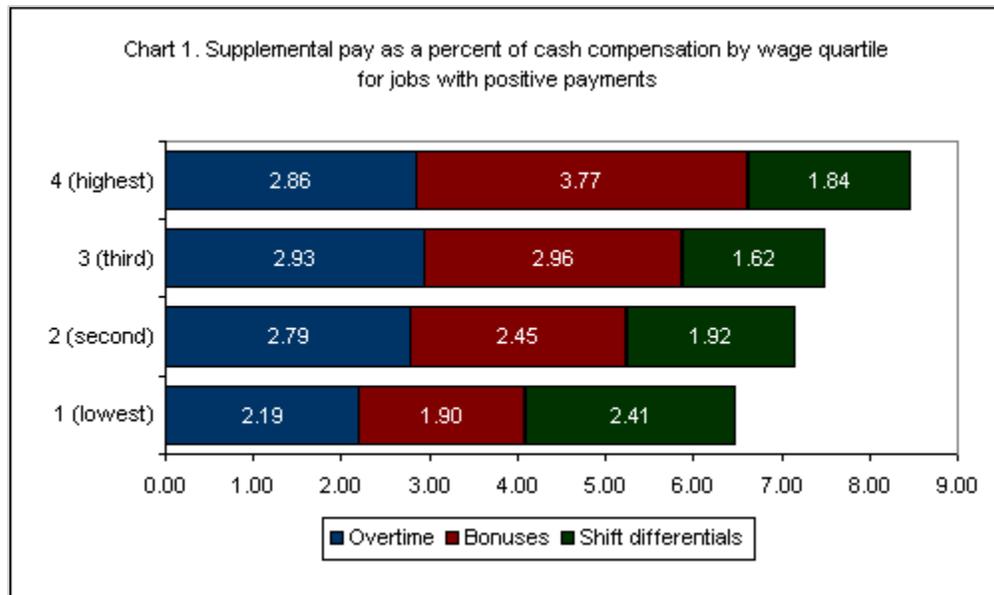
Type of supplemental pay	Percent of workers receiving supplemental pay(1)	Percent of cash compensation(2)	
		For all jobs	Jobs with positive payments
Overtime	55.20	1.49	2.70
Bonuses	42.35	1.21	2.87
Shift Differentials	19.75	0.37	1.87

Footnotes:
 (1) This column refers to the percent of workers receiving positive payments for each type of supplemental pay.
 (2) The two columns below this heading refer to the percent of cash compensation received as each type of supplemental pay.

When the analysis is limited to only jobs that receive positive payments--that is, those jobs that actually receive supplemental pay, as opposed to the average for all jobs--the percentage for each type of supplemental pay is higher. The sections that follow focus on jobs that receive positive payments.

Wage Quartiles

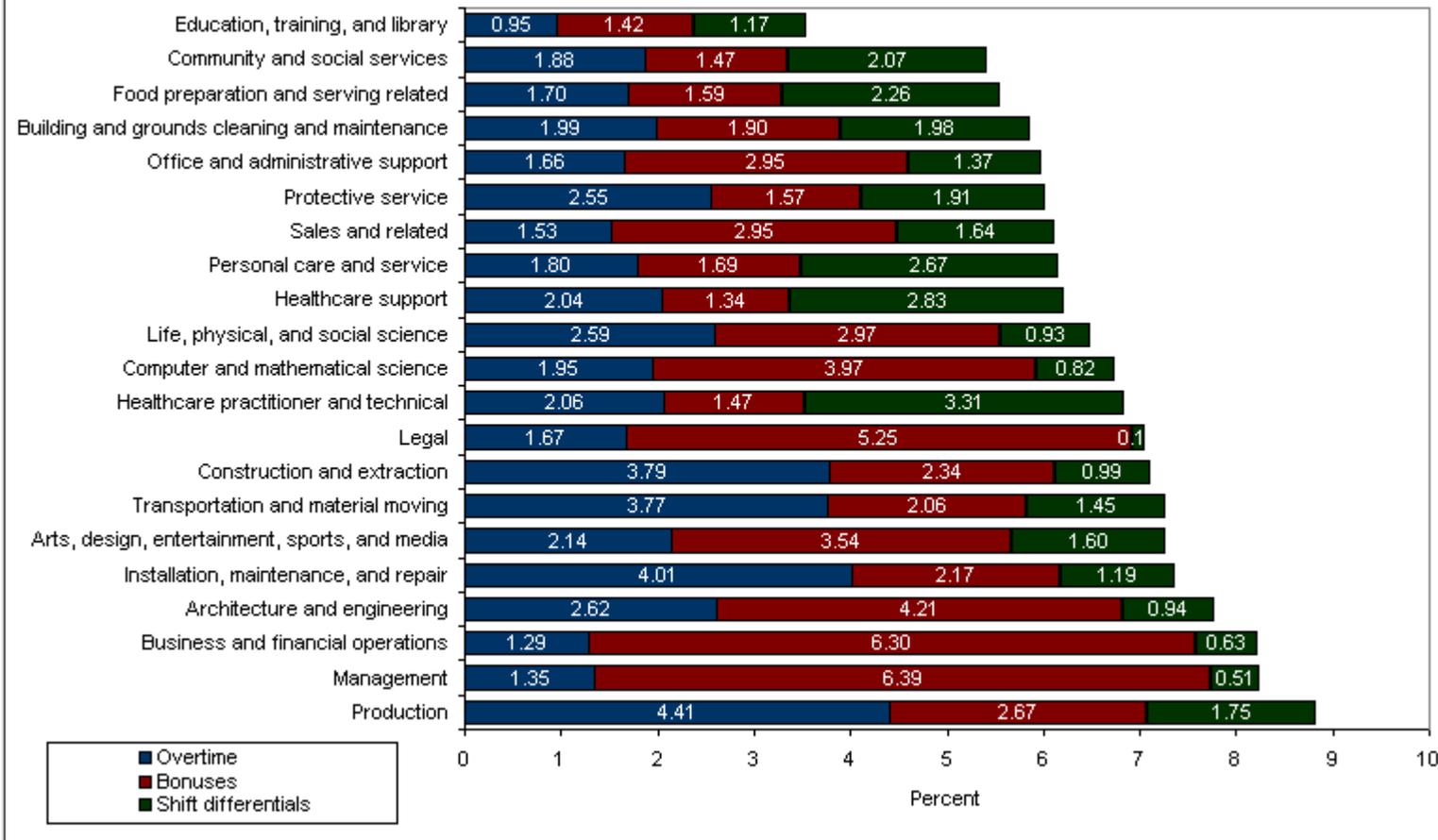
A look at the distribution of supplemental pay and its components by wage quartile provides some clues for what trends to look for across occupations. Chart 1 shows that supplemental pay as a proportion of cash compensation is greatest among workers in the highest wage quartile, largely due to the prevalence of bonus payments among these workers. That proportion is smallest among workers in the lowest earnings quartile. For these relatively low-paid workers, shift differentials appear to be the most important source of supplemental pay.



Broad Occupational Groups

Chart 2 shows supplemental pay as a percent of cash compensation for 21 broadly defined occupational categories (at the 2-digit SOC level).

Chart 2. Supplemental pay as a percent of cash compensation for jobs with positive payments



Again, the sample has been limited to jobs with *positive* payments for each type of supplemental pay. The chart shows that workers in production occupations have the highest percentage of supplemental pay (8.83 percent), with overtime accounting for 4.41 percent of cash compensation. Management occupations and business and financial operation occupations also have high percentages of supplemental pay, but overtime pay is less important in these occupations. Instead, bonus pay plays a more prominent role, representing more than 6 percent of cash compensation in both categories. Shift differential pay is most prominent as a source of cash compensation for healthcare practitioner and technical occupations and for healthcare support occupations, representing 3.31 percent and 2.83 percent, respectively, of cash compensation. The chart shows that shift differential pay is notable for personal care and service occupations (2.67 percent) and for food preparation and serving related occupations (2.26 percent).

Overtime. Overtime pay represents 2.7 percent of cash compensation for all jobs with positive payments, and it ranges by occupation from about 1 percent for education, training, and library occupations to about 4.5 percent for production occupations. (See table 2 and chart 2.)

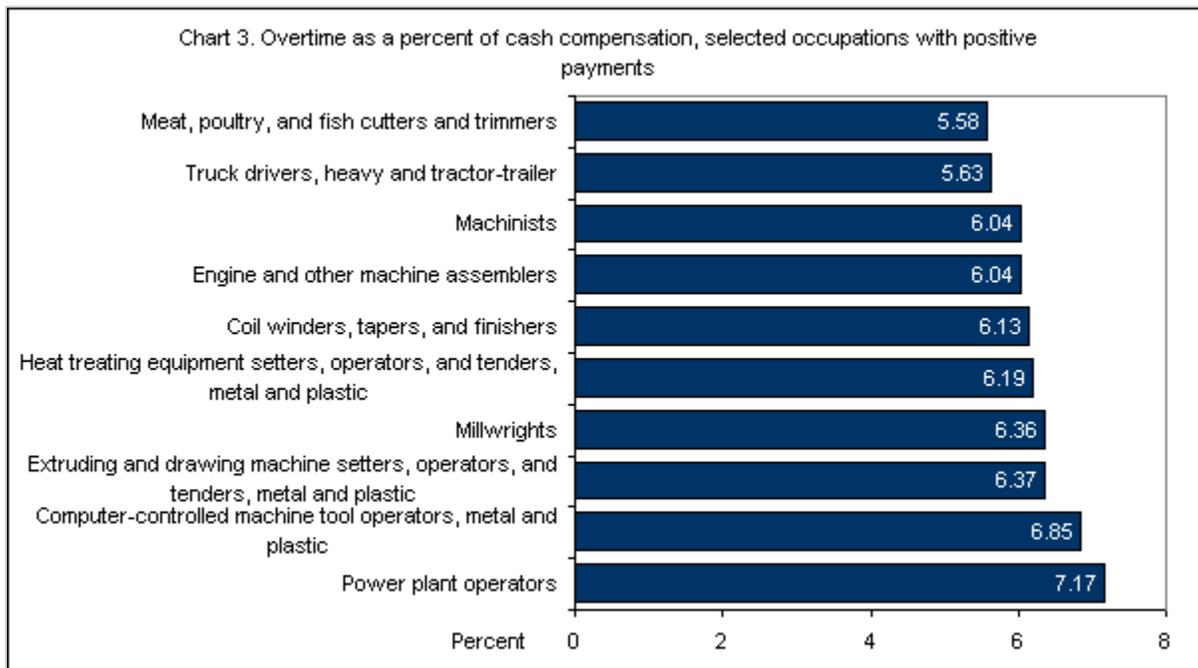
Bonuses. Bonus payments represent 2.87 percent of cash compensation for all jobs with positive payments. By occupational category, the percent of cash compensation received as bonus pay ranges from 1.34 percent for healthcare support occupations to 6.30 percent for business and financial operation occupations and 6.39 percent for management occupations.

Shift differentials. Among jobs that receive positive payments, shift differentials account for less than 2 percent of cash compensation. The percent of cash compensation for shift differentials ranges from 0.14 percent for legal occupations to 3.31 percent for healthcare practitioner and technical occupations.

Selected Detailed Occupations

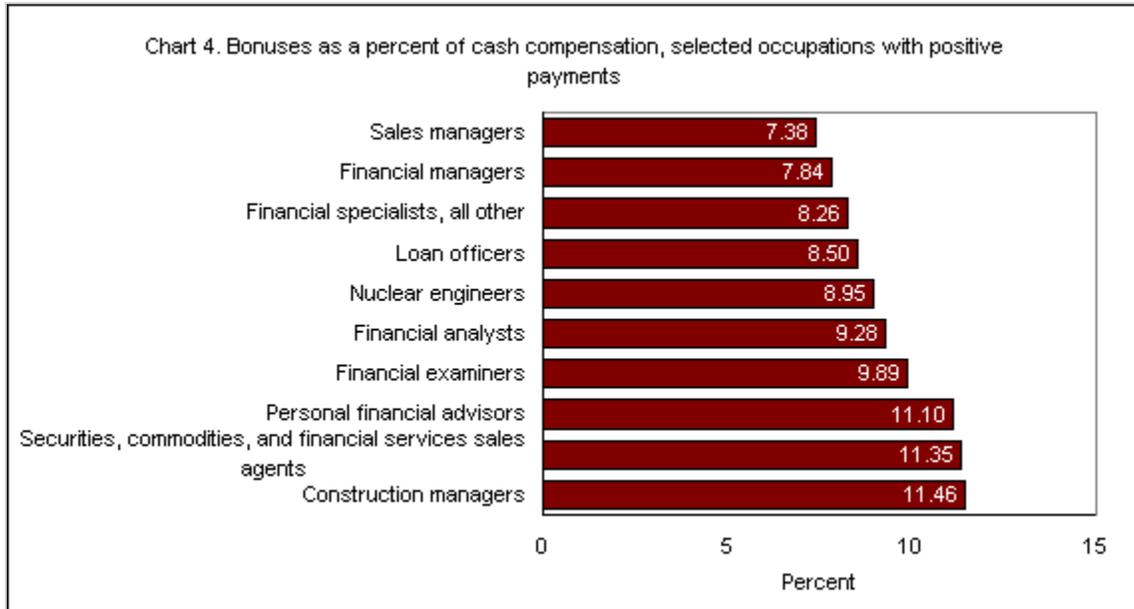
As discussed previously, production occupations receive relatively high percentages of cash compensation in the form of overtime payments, while management occupations and business and financial operations occupations receive relatively high percentages in the form of bonus pay. Shift differentials are a more important source of cash compensation for healthcare practitioner and technical occupations than for other occupations. This section examines whether the implications for broad occupational groups hold true at the level of detailed occupations. For each of the three types of supplemental pay, a selection of detailed occupations (6-digit SOC) that receive relatively high percentages of compensation in the form of overtime, bonuses, or shift differentials are examined.

Overtime. Each of the detailed occupations in chart 3 receives more than 5 percent of compensation in the form of overtime pay, on average.⁷



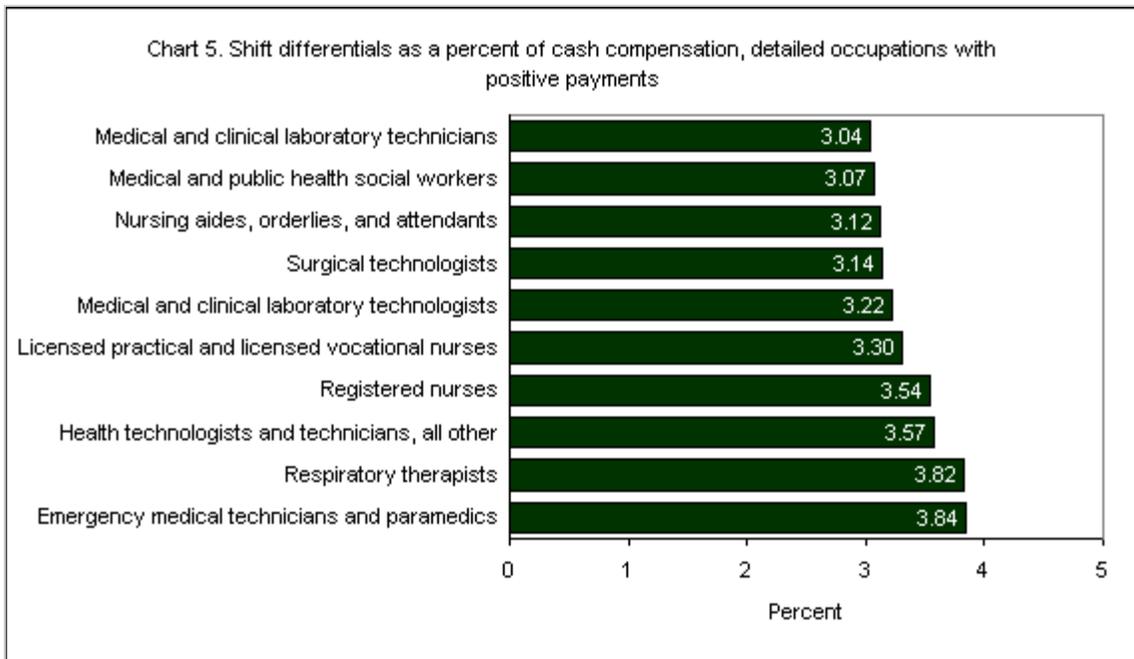
Of the 10 detailed occupations receiving relatively high percentages of cash compensation as overtime, 8 are production occupations. One exception is millwrights,⁸ which falls under the broad occupational category of installation, maintenance, and repair occupations which, as can be seen in chart 2, also receives a relatively high percent of cash compensation as overtime pay. The other exception is truck drivers, which are part of the transportation and material moving occupations, another group for which overtime pay represents a relatively large portion of supplemental pay. Overall, the findings for these detailed occupations support the notion that overtime pay is a particularly important part of cash compensation in blue-collar jobs. This is not surprising, because the Fair Labor Standards Act (FLSA) requires that many of these jobs receive overtime pay for hours in excess of 40 during a workweek.

Bonuses. The mean percent of cash compensation received as bonus payments is more than 7 percent for each of the occupations in chart 4.⁹



Among these selected occupations, 8 of 10 fall within the two broad occupational categories--management occupations and business and financial operations occupations--that have relatively high percentages of compensation received as bonus payments. Management occupations include financial, sales, and construction managers, while business and financial operation occupations include financial analysts, examiners, and specialists, as well as loan officers and cost estimators.

Shift differentials. The mean percent of cash compensation received as shift differentials is 3 percent or higher for each of the occupations shown in chart 5.¹⁰



Among these 10 detailed occupations, 8 are healthcare practitioner and technical occupations, a category for which shift differentials represent an important source of cash compensation. The use of shift differentials for registered nurses, licensed practical nurses, and other healthcare-related detailed occupations is fairly self-explanatory, because these occupations often require round-the-clock coverage.

Conclusion

This article examined variations in the use of supplemental pay across occupations, including how the use of different types of supplemental pay varies by occupation. Unlike other “benefits,” such as retirement and health insurance benefits, supplemental pay is received by the employee essentially as cash earnings. For this reason, the article focused on supplemental pay as a percent of cash earnings, rather than as a percent of total compensation.

Although supplemental pay represents a modest portion of earnings for most jobs in the overall labor market, it is a more notable component of earnings in certain occupations. Bonuses are predominantly a feature of high-wage managerial and sales occupations, while overtime pay is common to a broader spectrum of occupations. Shift differentials tend to play a minor role across most occupations; nonetheless, this form of supplemental pay is an important component of earnings in a particular set of occupations, especially those in the healthcare practitioner and technical occupations group.

An avenue of analysis for further research is how the use of supplemental pay for a given occupational category varies by industry. An examination of variations in the use of supplemental pay by industry and of industry and occupational cross-sections would be a natural extension of the present study.

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Notes

1 Tips also are an important source of supplemental earnings for some occupations, but information on tips is not available in the establishment data used in this study. For other jobs, commissions and other forms of incentive pay are an important part of earnings; the NCS includes these earnings in the wage rate.

2 See [2000 Standard Occupational Classification \(SOC\)](http://www.bls.gov/SOC/), available on the Internet at <http://www.bls.gov/SOC/>.

3 There have been reports of a growing trend in the use of bonuses as a substitute for pay raises. See Erin White, “Theory & Practice: Employers Increasingly Favor Bonuses to Raises; Companies Aim to Motivate Workers, Lower Fixed Costs; Losing Entitlement Notion,” *Wall Street Journal* (Eastern edition), Aug. 28, 2006, p. B.3.

4 This study uses second quarter data for 2001 to 2005, and for 2007. Because second quarter data for State and local government workers were not readily available for 2006, fourth quarter data were used for that year.

5 There are a number of reasons for treating the components of supplemental pay as benefits. Overtime pay is a premium payment (over and above the average hourly rate) for extra hours of work (usually, in excess of 40 hours in a standard workweek). Similarly, shift differential pay can be thought of as a premium paid for working during hours that are less convenient than those of the typical workday. Nonproduction bonus payments are treated as benefits because they are generally discretionary in terms of frequency and amount, and can vary significantly from employee to employee.

6 These percentages are based on observations that have nonzero payments. In these data, costs are actually given as an average of payments to all workers in the selected job within the establishment. These figures will tend to overstate the incidence of each type of supplemental pay in the economy, because some workers within a given job might not actually be receiving positive payments for a given type of supplemental pay.

7 The detailed occupations were selected by sorting on the lower bound of the 90-percent confidence interval for the mean of the percent of compensation received as overtime. The occupations in chart 3 are those with the 10 highest lower bounds. The estimate for engine and other machine assemblers is 6.04 percent. The 90-percent confidence interval for this estimate is from 4.965 to 7.123. All of the other estimates in chart 3 have lower bounds that are greater than 4.965, while the estimates for all the occupations not included in chart 3 have lower bounds that are less than 4.965. The detailed occupations included in the charts for bonuses and shift differentials (chart 4 and chart 5, respectively) were selected in an analogous manner.

8 [Millwrights \(49-9044\)](#) install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. See [2000 Standard Occupational Classification \(SOC\)](http://www.bls.gov/SOC/), on the Internet at <http://www.bls.gov/SOC/>.

9 See note 7 for information on how the occupations were selected for this portion of the study.

10 See note 7.

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Management, business, and financial	3.7	1.91						
Professional and related	1.9	0.85						
Teachers	0.3	0.15						
Primary, secondary, and special education school teachers	0.3	0.15						
Registered nurses	3.4	1.49						
Sales and office	2.3	0.49	0.7	0.14	0.1	0.02	1.5	0.32
Sales and related	2.7	0.53						
Office and administrative support	2.1	0.46						
Service	1.8	0.28	1.1	0.17	0.3	0.05	0.4	0.07
Natural resources, construction, and maintenance	3.2	0.96	2.1	0.64	0.2	0.05	0.9	0.26
Construction, extraction, farming, fishing, and forestry	3.2	0.97						
Installation, maintenance, and repair	3.2	0.94						
Production, transportation, and material moving	3.5	0.81	2.2	0.5	0.4	0.1	0.9	0.21
Production	4.2	0.98						
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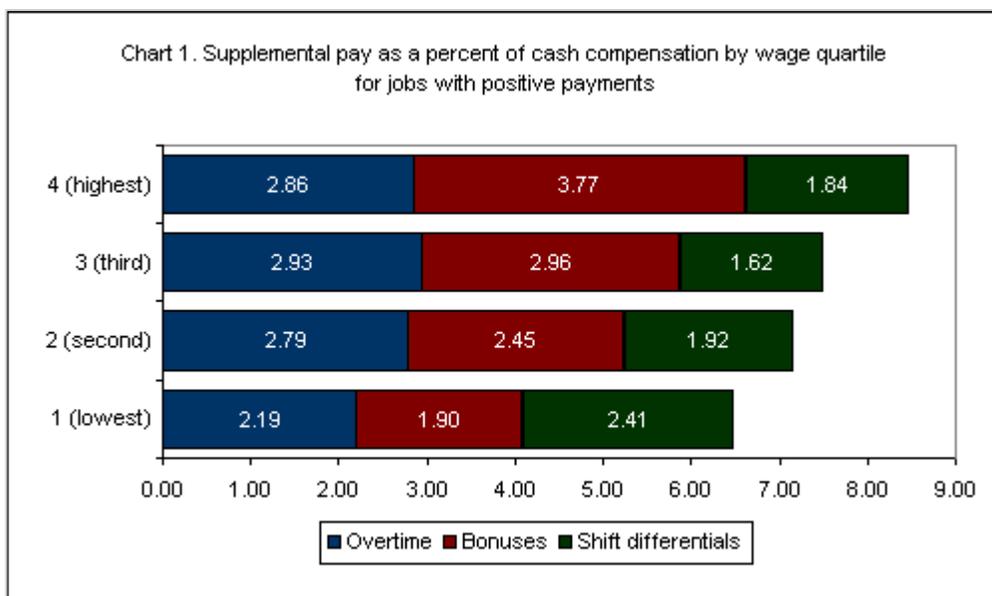
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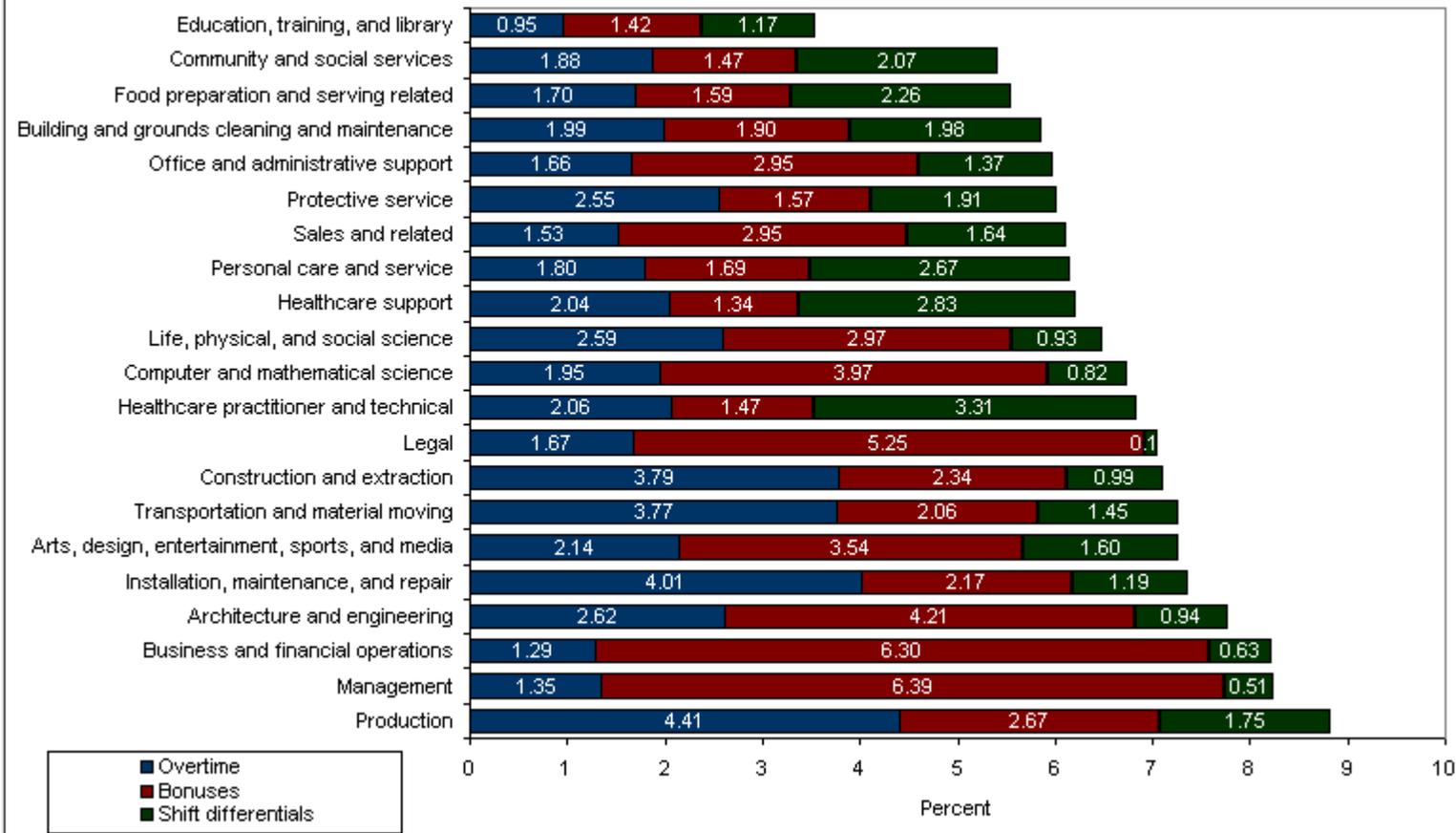


Data for chart 1. Supplemental pay as a percent of cash compensation for jobs with positive payments

Quartile	Overtime	Bonuses	Shift differentials
1 (lowest)	2.19	1.90	2.41
2 (second)	2.79	2.45	1.92
3 (third)	2.93	2.96	1.62
4 (highest)	2.86	3.77	1.84

Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.

Chart 2. Supplemental pay as a percent of cash compensation for jobs with positive payments



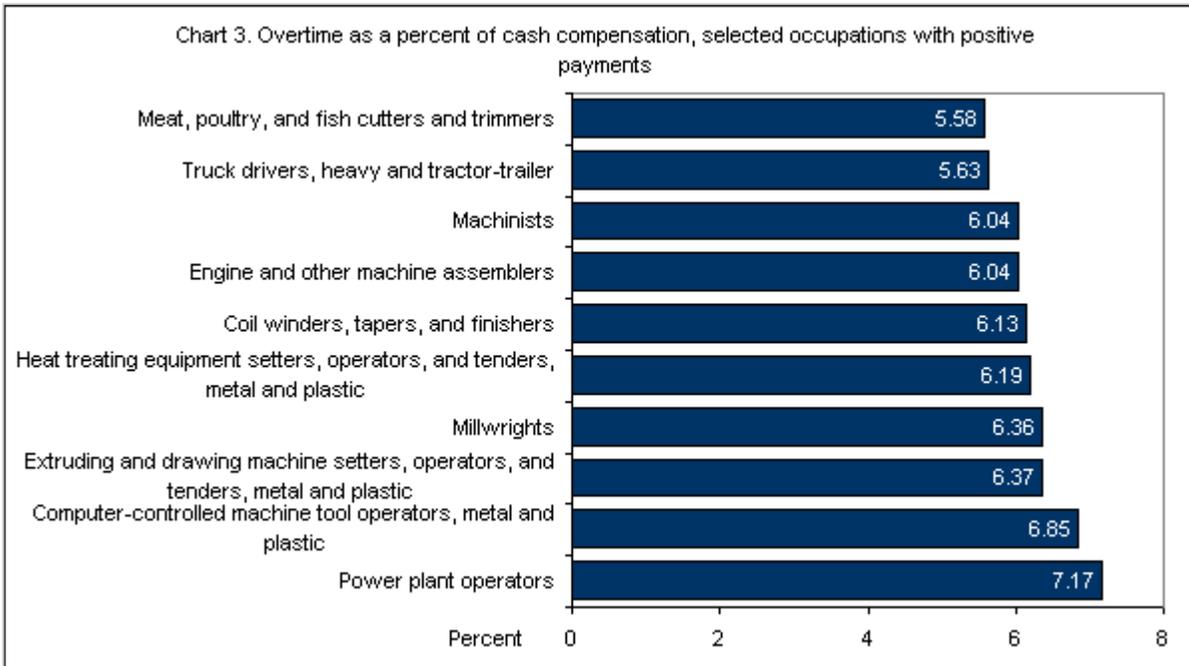
Data for chart 2. Supplemental pay as a percent of cash compensation for jobs with positive payments

Occupation	Overtime	Bonuses	Shift differentials
Production	4.41	2.67	1.75
Management	1.35	6.39	0.51
Business and financial operations	1.29	6.30	0.63
Architecture and engineering	2.62	4.21	0.94
Installation, maintenance, and repair	4.01	2.17	1.19
Arts, design, entertainment, sports, and media	2.14	3.54	1.60
Transportation and material moving	3.77	2.06	1.45
Construction and extraction	3.79	2.34	0.99
Legal	1.67	5.25	0.14
Healthcare practitioner and technical	2.06	1.47	3.31
Computer and mathematical science	1.95	3.97	0.82
Life, physical, and social science	2.59	2.97	0.93
Healthcare support	2.04	1.34	2.83

Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.

Occupation	Overtime	Bonuses	Shift differentials
Personal care and service	1.80	1.69	2.67
Sales and related	1.53	2.95	1.64
Protective service	2.55	1.57	1.91
Office and administrative support	1.66	2.95	1.37
Building and grounds cleaning and maintenance	1.99	1.90	1.98
Food preparation and serving related	1.70	1.59	2.26
Community and social services	1.88	1.47	2.07
Education, training, and library	0.95	1.42	1.17

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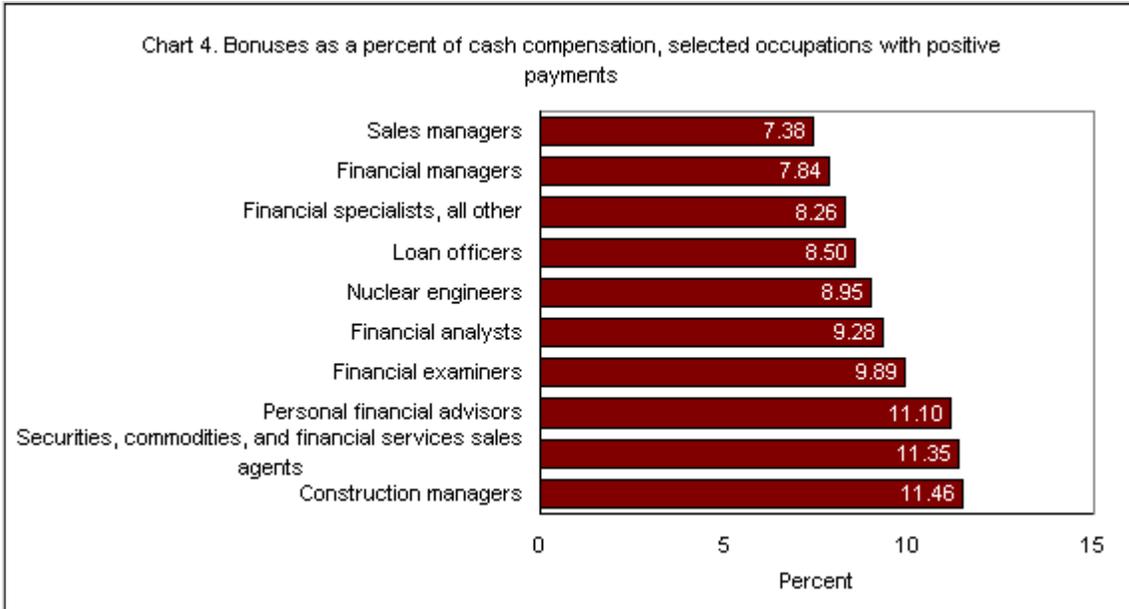
Data for chart 3. Overtime as a percent of cash compensation, selected occupations with positive payments

Occupation	Mean
Power plant operators	7.17
Computer-controlled machine tool operators, metal and plastic	6.85
Extruding and drawing machine setters, operators, and tenders, metal and plastic	6.37
Millwrights	6.36
Heat treating equipment setters, operators, and tenders, metal and plastic	6.19
Coil winders, tapers, and finishers	6.13
Engine and other machine assemblers	6.04

Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.

Occupation	Mean
Machinists	6.04
Truck drivers, heavy and tractor-trailer	5.63
Meat, poultry, and fish cutters and trimmers	5.58

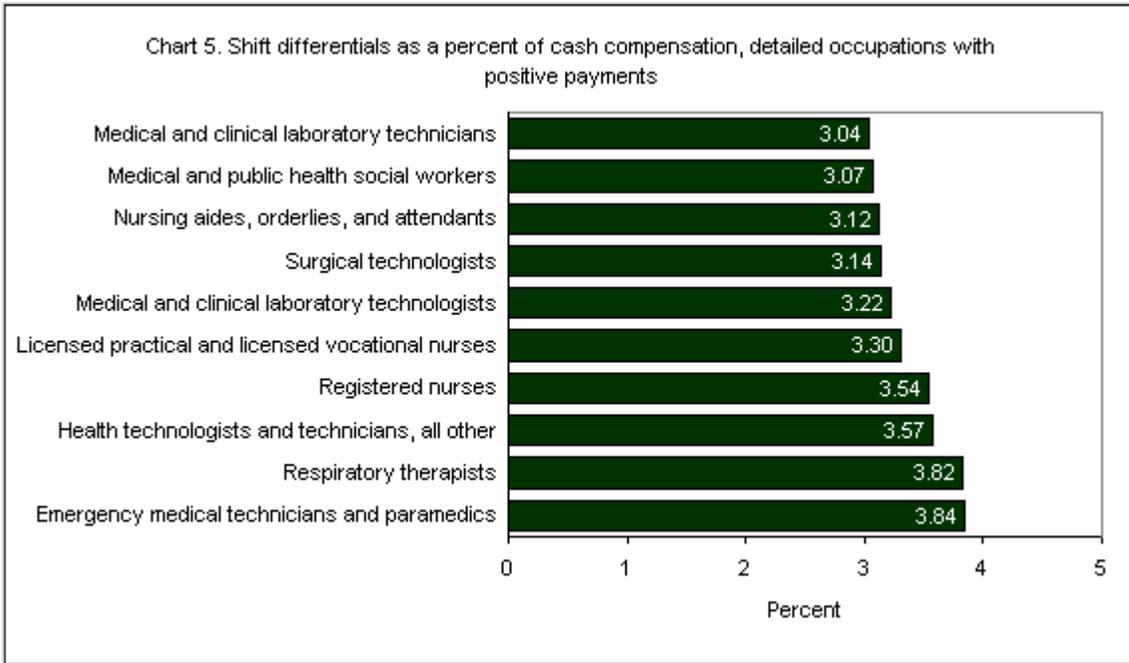
Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.



Data for chart 4. Bonuses as a percent of cash compensation, selected occupations with positive payments

Occupation	Mean
Construction managers	11.46
Securities, commodities, and financial services sales agents	11.35
Personal financial advisors	11.10
Financial examiners	9.89
Financial analysts	9.28
Nuclear engineers	8.95
Loan officers	8.50
Financial specialists, all other	8.26
Financial managers	7.84
Sales managers	7.38

Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.



Data for chart 5. Shift differentials as a percent of cash compensation, selected occupations with positive payments

Occupation	Mean
Emergency medical technicians and paramedics	3.84
Respiratory therapists	3.82
Health technologists and technicians, all other	3.57
Registered nurses	3.54
Licensed practical and licensed vocational nurses	3.30
Medical and clinical laboratory technologists	3.22
Surgical technologists	3.14
Nursing aides, orderlies, and attendants	3.12
Medical and public health social workers	3.07
Medical and clinical laboratory technicians	3.04

Note: Data are pooled from second quarter data for 2001 to 2005, and for 2007; fourth quarter data used for 2006.