Occupational Pay by Establishment Size

Occupational earnings for workers vary considerably depending on the size of the establishment employing them. Typically the larger the establishment, the higher the earnings. This relationship was especially true for blue-collar occupations in private industry. This relationship not only held when looking at variation in earnings by establishment size but also when taking into account other characteristics such as industry and region.

BY ROBERTW .VAN GIEZEN

Recent articles in *Compensation and Working Conditions* (*CWC*) have examined national data from the Occupational Compensation Survey (OCS) and reviewed, in depth, aspects of the survey not treated in the national summary bulletin. The *CWC* articles have highlighted occupational pay differences among the Nation's four regions, goods- versus service-producing industries, metropolitan versus nonmetropolitan areas, and private industry versus State and local governments.[1] One of the topics not covered is the difference in occupational earnings among establishments of different sizes. This article, using the recently published 1995 national data, examines in more detail earnings by different establishment size categories.[2] This article also makes use of regression analysis to better isolate the effect of establishment size.

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The surveys

The Bureau of Labor Statistics (BLS) surveys specific occupations in its OCS program, producing detailed locality pay data for selected occupations. National data are obtained by sampling 90 metropolitan and 70 nonmetropolitan areas. Surveys cover establishments in the continental United States employing 50 workers or more in all industries, as classified by the *Standard Industrial Classification Manual*, excluding agriculture, the Federal Government, private households, and the self-employed.

In the goods-producing sector, an establishment is defined as a single physical location where industrial operations are performed. In the service-producing sector, an establishment is defined as all locations of a company in the area within the same industry division. In government, an establishment is typically defined as all locations of a government entity.

Over 64 million workers in more than a quarter of a million establishments are represented in the 4 establishment size categories. Establishments employing fewer than 500 workers comprised over 90 percent of the total number of establishments and represented nearly half the workers.

Table 1. Number of establishments and workers within the scope of the survey[1] and the number studied by establishment size, November 1995

Establishment size	Number of establishments		Number of workers in establishments	
	Within the scope of the survey	Studied	Within the scope of the survey	Studied
All establishments	267,494	17,899	64,098,451	14,642,070
Establishment size by number of workers:				
50-499	245,512	12,821	31,239,407	2,139,211
500-999	13,116	2,164	9,005,366	1,505,303
1,000-2,499	6,515	1,734	9,598,356	2,652,215
2,500 or more	2,351	1,180	14,255,322	8,345,341

[1] The "workers within the scope of the survey" estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since: (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied; and (2) establishments employing fewer than 50 workers are excluded from the scope of the survey.

Establishments of 2,500 workers or more comprised fewer than 1 percent of all establishments, and represented over one-fifth of all workers. (See table 1.)

Professional and administrative occupations

Earnings of professional and administrative workers showed very little variation by establishment size. (See table 2.) Earnings for professional occupations ranged from 1 percent below the national average in establishments with fewer than 500 workers to 3 percent above the average in establishments of 1,000 to 2,499 workers. Earnings for administrative occupations were within 3 percent of each other – from 1 percent below for the 2 establishment size categories below 1,000 workers to 2 percent above for workers in establishments with 1,000 to 2,499 workers.[3]

Relative earnings by size of establishment followed the same pattern among private industry and governments. The most notable exception was workers in State and local governments in establishments with 1,000 to 2,499 workers, where professional workers enjoyed a 13-percent advantage over their counterparts in smaller establishments.

Among eight individual occupations studied separately, most were generally clustered around the national average. (See table 3.) For example, earnings were clustered for the three most populous jobs as follows: Computer systems analysts, level II (2 percent), engineers, level IV (4 percent), and accountants, level III (4 percent). An earnings differential of 10 percent among personnel specialists, level III was the largest found among any of the occupations when a comparison was made by size of establishment.

Individual professional and administrative occupations chosen for comparison were the most populated ones within each job series, and they represented the middle (or journey-level) position within the range. All of the jobs selected were in an occupation that was classified into at least four, and as many as eight, work levels.

Technical and protective service occupations

Earnings for technical and protective service occupations were generally higher in larger establishments. Relative earnings for technical workers ranged from 3 percent below the national average in the smallest establishments to 6 percent above in establishments with 2,500 workers or more. Among protective service workers, a 40-percent earnings differential was found between the largest and smallest establishment size categories. (See table 2.)

Similar patterns were found where comparisons could be made within industry divisions, private industry for technical workers and State and local government for protective service occupations. Earnings differentials between the smallest and largest establishment size categories were 10 percent for technical workers and 35 percent for protective service workers.

Earnings for the 4 technical occupations studied separately were higher in the 2 establishment size categories with 1,000 workers or more and lower in the 2 size categories with fewer than 1,000 workers. (See table 3.) For the most populous job, engineering technicians, level IV, earnings ranged from $732 per week in establishments with 500 to 999 workers to $808 in establishments with 2,500 workers or more. The largest differential, 16 percent, was found among civil engineering technicians, level III, ranging from $553 per week in establishments with 500 to 999 workers to $644 a week in establishments with 1,000 to 2,499 workers.

Earnings for corrections officers ranged from $337 a week in establishments with fewer than 500 workers to $620 a week in establishments with 2,500 workers or more, a differential of nearly 84 percent. For the most populous protective service occupation, police officers, level I, the 2 same establishment categories (fewer than 500 and 2,500 or more) earned $598 and $743, respectively, a 24-percent differential. Nearly all of protective service occupations studied—corrections officers, firefighters, and police officers—are State and local government employees.

Office clerical occupations

The earnings pattern of office clerical workers generally followed those of other white-collar workers. Earnings were higher as establishment size category advanced, ranging from 2 percent below the national average in establishments with fewer than 500 workers to 4 percent above the national average in establishments with 2,500 workers or more. The all industry pattern generally held

Table 2. Pay relatives[1] by establishment size, selected occupational groups, November 1995

Establishment size	Professional	Administrative	Technical	Protective services	Clerical	Maintenance	Material movement
All industries							
All establishments	100	100	100	100	100	100	100
Establishment size by number of workers:							
50-499	99	99	97	80	98	92	92
500-999	100	99	98	96	98	98	103
1,000-2,499	103	102	102	-	102	104	116
2,500 or more	100	101	106	112	104	115	131
Private industry							
All establishments	100	100	100	-	100	100	100
Establishment size by number of workers:							
50-499	99	99	97	-	99	92	92
500-999	99	99	99	-	99	98	104
1,000-2,499	102	101	101	-	103	105	116
2,500 or more	101	102	107	-	105	119	136
State and local governments							
All establishments	100	100	100	100	100	100	100
Establishment size by number of workers:							
50-499	98	-	-	82	96	91	-
500-999	98	94	-	95	96	95	85
1,000-2,499	111	107	-	-	102	102	-
2,500 or more	99	100	101	111	101	106	117

[1] Pay relatives indicate establishment size pay as a percent of the national pay for that occupational group and industry group. For example, pay for material movement workers in establishments with 2,500 workers or more in private industry was 36 percent higher than the national average in private industry for this occupational group.

NOTE: Dashes indicate that data did not meet publication criteria.

for private industry and State and local governments.

Among one of the most populous clerical occupations, secretaries, level III, earnings were nearly identical in all establishment size categories, varying only by $3 from the mean of $547 per week. The occupation with the widest variation was key entry operators, level I, with a 28-percent variation in earnings between establishments with 2,500 workers or more and all other establishment size categories.

Maintenance and material movement occupations

Blue-collar workers showed a wide variation in earnings between small and large establishments. Earnings ranged from 8 percent below the national average for maintenance and material movement workers in establishments with fewer than 500 workers to 15 percent and 31 percent above the national average, respectively, for comparable workers in establishments of 2,500 workers or more. (See table 2.) Similar earning patterns were observed in private industry and State and local governments.

In all but 1 of the 14 maintenance and material movement occupations studied separately (maintenance pipefitter was the exception), earnings increased as employment size rose. (See table 4.) Maintenance electronics technician, level II, with only a 9-percent pay advantage, had the smallest disparity in earnings. Among other maintenance occupations, the pay disparity ranged up to 39 percent for maintenance mechanics, machinery. General maintenance worker, maintenance machinist, and tool and die maker all averaged a 32-percent pay disparity in earnings between the smallest and largest size category. The average disparity between earnings in the smallest to largest establishment size category for the eight maintenance occupations was 26 percent.

A similar pattern was found for material movement occupations. The pay disparity for workers in the largest employment size category to the smallest ranged from 31 percent for shipping/receiving clerks and tractor-trailer truckdrivers to 66 percent for material handling laborers. Comparable pay disparities for other occupations were: Forklift operators (62 percent); guards, level I (52 percent); and janitors (43 percent). For the six occupations studied, the average disparity was 48 percent.

Conclusion

Workers in larger establishments generally enjoyed a pay advantage over workers in smaller establishments. However, this pay advantage varied among different occupations. The smallest pay advantages were found among white-collar workers in professional, administrative, and clerical occupations. The largest pay disparities were found among blue-collar workers.

Table 3. Average weekly pay and relative pay levels[1] by establishment size, selected white-collar occupations, November 1995

Occupation and pay level[2]	All establishments		Average pay and relative pay level by establishment size			
	Number of workers	Average pay (mean)	Fewer than 500	500-999	1,000-2,499	2,500 or more
Professional						
Accountant III	74,378	$797 (100)	$789 (99)	$805 (101)	$818 (103)	$797 (100)
Attorney III	13,353	1,249 (100)	1,306 (105)	1,216 (97)	1,313 (105)	1,206 97)
Engineer IV	200,421	1,149 (100)	1,148 (100)	1,134 (99)	1,178 (103)	1,140 (99)
Administrative						
Budget analyst III	4,167	846 (100)	802 (95)	814 (96)	837 (99)	860 (102)
Buyer/contracting specialist II	32,573	651 (100)	636 (98)	652 (100)	686 (105)	665 (102)
Computer programmer III	43,003	774 (100)	762 (98)	754 (97)	790 (102)	787 (102)
Computer systems analyst II	99,218	926 (100)	923 (100)	920 (99)	935 (101)	926 (100)
Personnel specialist III	47,496	791 (100)	767 (97)	759 (96)	830 (105)	833 (105)
Technical						
Computer operator II	32,754	440 (100)	420 (95)	430 (98)	453 (103)	470 (107)
Drafter III	25,598	622 (100)	601 (97)	599 (96)	689 (111)	676 (109)
Engineering technician IV	39,626	767 (100)	751 (98)	732 (95)	746 (97)	808 (105)
Civil engineering technician III	20,329	582 (100)	582 (100)	553 (95)	644 (111)	575 (99)
Protective Services						
Corrections officer[3]	248,640	517 (100)	337 (65)	485 (94)	-	620 (120)
Firefighter[3]	111,814	677 (100)	575 (85)	667 (99)	665 (98)	760 (112)
Police officer I	345,834	688 (100)	598 (87)	666 (97)	680 (99)	743 (108)
Clerical						
Accounting clerk II	173,548	372 (100)	359 (97)	378 (102)	384 (103)	413 (111)
General clerk III	186,633	422 (100)	399 (95)	391 (93)	433 (103)	438 (104)
Key entry operator I	64,065	349 (100)	324 (93)	327 (94)	326 (93)	418 (120)
Personnel assistant III	16,084	502 (100)	474 (94)	490 (98)	521 (104)	541 (108)
Secretary III	147,865	547 (100)	548 (100)	545 (100)	550 (101)	545 (100)
Switchboard operator-receptionist[3]	105,519	348 (100)	345 (99)	360 (103)	380 (109)	359 (103)
Word processor II	24,732	489 (100)	482 (99)	458 (94)	490 (100)	496 (101)

[1] Relative pay levels, shown in parenthesis, indicate the relative pay of different establishment size categories as a percent of all establishment pay in the United States. For example, average pay for accountants, level III in establishments with fewer than 500 workers is 1 percent lower than the national average for that job.

[2] Occupations in the Occupational Compensation Survey program are divided into work levels based on duties and responsibilities. The number of levels varies by occupation, as does the degree of difficulty and responsibility. Work levels among different occupations are not necessarily equal. For example, attorneys levels I through IV equate to accountants levels III to VI. In addition, the work levels studied are not intended to represent all workers in a specific occupation. The duties and responsibilities of an establishment's top engineers, for example, may exceed those of the highest level of engineers in the survey.

[3] Single-level occupation.

Table 4. Average hourly pay and relative pay levels[1] by establishment size, selected blue-collar occupations, November 1995

Occupation and pay level[2]	All establishments		Average pay and relative pay level by establishment size			
	Number of workers	Average pay (mean)	Fewer than 500	500-999	1,000-2,499	2,500 or more
Maintenance						
General maintenance worker[3]	132,302	$10.31 (100)	$9.63 (93)	$10.67 (103)	$11.96 (116)	$12.73 (123)
Maintenance electrician[3]	112,426	18.41 (100)	16.53 (88)	16.98 (92)	18.53 (101)	20.56 (112)
Maintenance electronics technician II	74,624	17.84 (100)	17.23 (97)	17.31 (97)	17.90 (100)	18.83 (106)
Maintenance machinist[3]	29,948	16.82 (100)	15.47 (92)	16.64 (99)	16.97 (101)	20.37 (121)
Maintenance mechanic, machinery[3]	149,579	16.43 (100)	14.63 (89)	16.39 (100)	17.04 (104)	20.30 (124)
Maintenance mechanic, motor vehicle[3]	101,964	15.69 (100)	14.66 (93)	15.35 (100)	16.66 (106)	17.83 (116)
Maintenance pipefitter[3]	25,214	20.01 (100)	19.09 (95)	18.27 (91)	19.27 (96)	21.01 (105)
Tool and die maker[3]	55,162	18.75 (100)	16.41 (88)	17.41 (93)	19.16 (102)	21.68 (116)
Material movement						
Forklift operator[3]	186,415	11.28 (100)	10.28 (91)	11.29 (100)	12.36 (110)	16.66 (148)
Material handling laborer[3]	123,808	8.84 (100)	7.91 (89)	9.26 (105)	11.16 (126)	13.12 (148)
Shipping/receiving clerk[3]	108,313	10.24 (100)	9.82 (96)	10.56 (103)	11.06 (108)	12.84 (125)
Truckdriver, tractor-trailer[3]	184,854	14.07 (100)	13.17 (94)	15.19 (108)	16.83 (120)	17.27 (123)
Guard I	319,009	7.01 (100)	6.31 (90)	7.30 (104)	8.13 (116)	9.60 (137)
Janitor[3]	908,513	7.83 (100)	6.82 (87)	8.07 (103)	8.59 (110)	9.76 (125)

[1] Relative pay levels, shown in parenthesis, indicate the relative pay of different establishment size categories as a percent of all establishment pay. For example, average pay for general maintenance workers in establishments with 2,500 or more workers is 23 percent higher than the national average for that job.

[2] Occupations in the Occupational Compensation Survey program are divided into work levels based on duties and responsibilities. The number of levels varies by occupation, as does the degree of difficulty and responsibility. Work levels among different occupations are not necessarily equal.

[3] Single-level occupations.

Regression Analysis

Introduction

The Bureau has published several studies that demonstrated a mixed relationship between establishment size and wages. William R. Bailey and Albert E. Schwenk in 1980 used information from 34 narrowly defined manufacturing industries (3- or 4-digit Standard Industrial Classification codes) from the Bureau's Industry Wage program. They found that "there are considerable differences among industries in the degree to which earnings vary by size of establishment. The size differential is widespread, but not universal."[4]

Martin E. Personick and Carl B. Barsky, using data from the Bureau's March 1980 National Survey of Professional, Administrative, and Clerical Pay, studied the effects of corporate size on white-collar pay levels. They found a "tendency for the wage differential to decline with increasing skill level."[5]

Other Bureau studies have demonstrated that compensation costs, both wages and benefits, are also related strongly to the size of establishment.[6]

Background

Comparing the average earnings of workers by size of establishment, as done earlier in this study, gives an indication of how size is related to earnings, but it does not show whether size itself, or other important establishment and occupational characteristics, are important factors in explaining pay differences. To better isolate the effect of establishment size on occupational pay, a series of regression equations were generated. In the regressions, the average earnings of a selected number of jobs were the dependent variable, while size of establishment, region, and metropolitan characteristic were independent variables. Because of the different definition used to measure establishment size in the goods- and the service-producing sectors, separate regression equations were run for each.

The constant related to workers employed in an establishment with fewer than 500 workers in the South and in a nonmetropolitan area.

The impact of more detailed industry variables was also tested. Within the goods-producing sector, construction and manufacturing divisions were independent variables, with mining included in the constant. Similarly, in the service-producing sector, regressions were run with transportation and utilities; wholesale trade; retail trade; and finance, insurance, and real estate as independent variables. The impact of services was included in the constant. These regressions, while demonstrating that industry was significantly related to earnings, also showed that the inclusion of industry in the estimating equation had little effect on the coefficients of the size of establishment variables. For that reason, these regressions were not included in the analysis.

However, other variables which have an important impact on earnings were not available. Variables such as unionization and demographic characteristics such as sex and race were unavailable and not included in the analysis. It is possible that establishment size is a proxy for these or other variables.

Results

The ability of the regression equations to explain the variation in earnings was much better for blue-collar and protective service occupations than for white-collar workers. For example, the variables in the regression equation explained less than 3 percent of the variability for engineers, level IV, but 64 percent of the variability in wages for corrections officers. (See tables 5 through 9.)

An important reason for the small explanatory power of some of the equations (as measured by the R_2) is the manner in which they are specified. The focus on narrow occupations reduces considerably the range of earnings and the ability of the regression equation to explain the variations. For example, engineer IV is the most populous of the occupation's eight levels, but still represents only 30 percent of all engineers within the United States. Within the same level, pay for higher skilled occupations such as engineer, varies less than for blue-collar jobs because the labor market is national rather than local.

Regression findings generally followed those of occupational averages for workers grouped by characteristic. Earnings did not always rise consistently with establishment size. For example, holding other variables constant, the regression equation estimates that computer systems analysts, level II, in the goods-producing sector averaged nearly $34 per week less in establishments with 500 to 999 workers than in establishments with fewer than 500 workers. Similarly, engineers, level IV, in the goods-producing sector averaged $15 per week less when making a comparable comparison.[7] (See tables 5 and 7.)

Regression analysis showed that earnings of workers in establishments with 2,500 workers or more were generally higher than in smaller establishments. Accounting clerks, level II, in the largest establishment category averaged $65 per week more in goods-producing and $18 per week more in the service-producing sector than comparable workers in establishments with fewer than 500 workers.

Among blue-collar workers, those employed by establishments with 2,500 workers or more enjoyed a significant premium over those in establishments with 50 to 499 workers. (See tables 6 and 8.) For example, in the goods-producing sector, forklift operators and janitors earned over $5 an hour more when comparing earnings among these establishment size categories. (See chart.)

Percentage differences in earnings among size classes were found to be much larger for blue-collar than for white-collar jobs. Janitors in the largest establishment category enjoyed nearly a 50- and 25-percent advantage

over the smallest establishment size category in goods- and service-producing establishments, respectively. Similarly, a comparison for forklift operators between comparable establish- ment size categories found a 50- and 38-percent pay differential, respectively.

In contrast, for accounting clerks, level II, the percentage difference in earnings between the largest and smallest establishment size category was only 17 percent higher in goods-producing and 5 percent higher in service-producing industries. Among engineers, level IV, the earnings difference in goods-producing industries between any of the establishment size categories was only three percent.

Earnings of corrections officers and police officers, level I, did not rise consistently with establishment size. Earnings in establishments with 500 to 2,499 employees were lower than in establishments both smaller and larger in size. However, the pattern of the largest establishments enjoying a significant pay advantage held true. Corrections officers and police officers, level I, employed in establishments with 2,500 workers or more enjoyed a $35 and $28 per week advantage, respectively, over employees in establishments with fewer than 500 workers.

Conclusion

Establishment size has a significant effect on earnings for most of the occupations studied for comparison, even after other establishment and occupational characteristics were taken into account. However, other variables are also important factors in determining pay. Among those studied, region and metropolitan character were found to be significant. Other variables, such as unionization, may also have an impact, but data were not available for this study. The results of this study on establishment size, however, were consistent with earlier studies. The importance of establishment size was more significant among blue-collar and clerical occupations, a finding consistent with Personick and Barsky. As Bailey and Schwenk determined, however, the impact of establishment size "is widespread, but not universal."

—ENDNOTES—

[1] See the national bulletin, *Occupational Compensation Survey: National Summary, 1994*, Bulletin 2479, Bureau of Labor Statistics, June 1996. Also see John E. Buckley, "Occupational Pay Across Regions in 1994," *Compensation and Working Conditions*, June 1996, pp. 35-38; Robert W. Van Giezen, "Occupational Pay in Private Goods- and Service-Producing Industries," *Compensation and Working Conditions*, June 1996, pp. 29-34; Elizabeth Dietz and Jordan Pfuntner, "Do Urban Workers Earn More than Their Country Cousins?", *Compensation and Working Conditions*, June 1996, pp. 39-41; and John E. Buckley, "Pay in Private Industry and State and Local Governments, 1994," *Compensation and Working Conditions*, September 1996, pp. 22-26.

[2] For more extensive data from the surveys and a more complete discussion of the scope of the Occupational Compensation Survey program, the computation of pay relatives, and the occupation definitions used in the survey, see *Occupational Compensation Survey: National Summary, 1995*, Bulletin 2487, Bureau of Labor Statistics, May 1997.

[3] Pay relatives indicate establishment size pay as a percent of national pay for occupational and industry groups. For example, the differences in earnings between occupational groups and individual occupations discussed in this analysis are compiled by dividing the higher pay relatives by the lower pay relative. The pay advantage for an occupational group with earnings 25 percent above the national average compared to a group 10 percent below the national average is 39 percent.

[4] William R. Bailey and Albert E. Schwenk, "Wage Rate Variation by Size of Establishment," *Industrial Relations*, Spring 1980, pp. 192-198.

[5] Martin E. Personick and Carl B. Barksy, "White-collar Pay Levels Linked to Corporate Work Force Size," *Monthly Labor Review*, May 1982, pp. 23-28. The diminishing of the size effect as skill level increased was also found by Charles Brown and James Medoff, "The Employer Size-Wage Effect," *Journal of Political Economy*, October 1989, pp. 1027-1059.

[6] These studies defined small establishments as those employing 100 to 499 workers and medium and large establishments as those employing 500 workers or more. For more information on size of establishment and employee benefits, see Thomas P. Burke and John D. Morton, "How Firm Size and Industry Affect Employee Benefits," *Monthly Labor Review*, December 1990, pp. 35-43. See also Wayne Shelly, "Compensation Cost Levels by Establishment Size," *Compensation and Working Conditions*, August 1991, pp. 1-8.

[7] The regression results for engineers, level IV, correspond with those found for overall engineers. See Kenneth J. Hoffmann, "Analyzing Wage Patterns of Engineers and Secretaries," *Compensation and Working Conditions*, Fall 1997, pp. 22.

Table 5. Regression results for selected white-collar occupations in the goods-producing sector, by independent variable, November 1995

Independent variable	Engineer IV		Computer systems analyst II		Accounting clerk II	
	Parameter estimate	Standard error	Parameter estimate	Standard error	Parameter estimate	Standard error
Constant	1,120.761[1]	3.702	902.148[1]	8.195	337.903[1]	2.291
Establishment size by number of workers:						
500-999	-15.149[1]	2.230	-33.984[1]	4.507	10.469[1]	2.705
1,000-2,499	6.617[1]	2.291	32.053[1]	4.314	24.971[1]	4.053
2,500 or more	10.915[1]	2.493	46.763[1]	4.659	65.341[1]	10.531
Region:						
Northeast	-34.405[1]	2.536	8.326	4.869	33.584[1]	3.019
Midwest	-10.103[1]	2.119	26.552[1]	4.236	-.295	2.331
West	24.582[1]	2.312	3.301	4.570	20.624[1]	2.986
Metropolitan character:						
Metropolitan area	35.664[1]	3.481	22.913[1]	8.026	24.598[1]	2.349
R_2	.0229		.0469		.0980	
Adjusted R_2	.0227		.0459		.0965	

[1] Significant at the 1 percent level.

Table 6. Regression results for selected blue-collar occupations in the goods-producing sector, by independent variable, November 1995

Independent variable	Maintenance electrician		Forklift operator		Janitor	
	Parameter estimate	Standard error	Parameter estimate	Standard error	Parameter estimate	Standard error
Constant	14.047[1]	.190	8.749[1]	.128	6.511[1]	.156
Establishment size by number of workers:						
500-999	-1.330[1]	.174	.051	.128	-.576[1]	.182
1,000-2,499	.583[1]	.208	1.461[1]	.157	1.597[1]	.210
2,500 or more	2.783[1]	.208	5.639[1]	.278	5.222[1]	.258
Region:						
Northeast	1.563[1]	.223	1.852[1]	.180	1.503[1]	.198
Midwest	2.736[1]	.162	1.936[1]	.119	3.692[1]	.159
West	2.697[1]	.239	.823[1]	.179	.332	.211
Metropolitan character:						
Metropolitan area	2.864[1]	.180	1.196[1]	.115	2.032[1]	.161
R_2	.3279		.2557		.3315	
Adjusted R_2	.3256		.2538		.3299	

[1] Significant at the 1 percent level.

Table 7. Regression results for selected white-collar occupations in the service-producing sector, by independent variable, November 1995

Independent variable	Engineer IV		Computer systems analyst II		Accounting clerk II	
	Parameter estimate	Standard error	Parameter estimate	Standard error	Parameter estimate	Standard error
Constant	1,157.842[1]	6.536	884.670[1]	13.225	297.732[1]	2.408
Establishment size by number of workers:						
500-999	16.019[1]	4.412	15.811[1]	2.677	13.660[1]	2.151
1,000-2,499	46.176[1]	3.438	-.719	2.327	3.767	2.110
2,500 or more	47.310[1]	5.386	1.865	2.688	18.253[1]	3.066
Region:						
Northeast	-6.834	3.741	25.722[1]	2.433	37.912[1]	1.863
Midwest	-21.997[1]	3.769	24.944[1]	2.392	4.013[2]	1.739
West	9.677[1]	3.837	70.421[1]	2.871	30.046[1]	1.726
Metropolitan character:						
Metropolitan area	-7.809	6.441	12.274	13.155	54.512[1]	2.348
R_2	.0233		.0323		.1119	
Adjusted R_2	.0227		.0320		.1114	

[1] Significant at the 1 percent level.
[2] Significant at the 5 percent level.

Table 8. Regression results for selected blue-collar occupations in the service-producing sector, by independent variable, November 1995

Independent variable	Maintenance electrician		Forklift operator		Janitor	
	Parameter estimate	Standard error	Parameter estimate	Standard error	Parameter estimate	Standard error
Constant	15.959[1]	.281	10.070[1]	.238	5.215[1]	.042
Establishment size by number of workers:						
500-999	-.955[1]	.260	2.820[1]	.244	.297[1]	.034
1,000-2,499	-.261	.210	2.051[1]	.267	1.071[1]	.034
2,500 or more	.723[1]	.237	4.439[1]	.396	1.680[1]	.055
Region:						
Northeast	1.944[1]	.223	2.177[1]	.211	3.158[1]	.031
Midwest	2.882[1]	.205	1.557[1]	.216	.826[1]	.032
West	2.933[1]	.263	1.674[1]	.229	1.117[1]	.034
Metropolitan character:						
Metropolitan area	.807[1]	.264	-.555[2]	.244	.204[1]	.040
R_2	.1639		.1837		.2910	
Adjusted R_2	.1602		.1804		.2908	

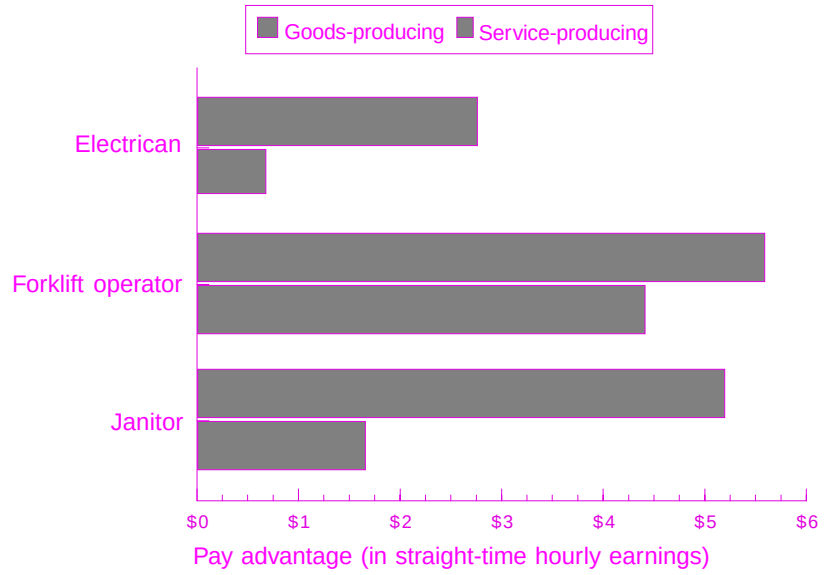
[1] Significant at the 1 percent level.
[2] Significant at the 5 percent level.

Table 9. Regression results for selected protective service occupations in all industries, by independent variable, November 1995

Independent variable	Corrections officer		Police officer I	
	Parameter estimate	Standard error	Parameter estimate	Standard error
Constant	281.833[1]	5.855	310.535[1]	21.209
Establishment size by number of workers:				
500-999	-22.516[1]	5.765	-23.168[1]	4.478
1,000-2,499	-3.782	4.655	-10.612[2]	4.785
2,500 or more	35.404[1]	5.616	28.054[1]	5.280
Region:				
Northeast	238.054[1]	4.204	196.391[1]	3.810
Midwest	94.436[1]	5.009	106.505[1]	4.000
West	260.169[1]	5.862	243.572[1]	4.129
Metropolitan character:				
Metropolitan area	48.564[1]	3.929	142.890[1]	4.341
Industry:				
State and local government	108.236[1]	7.408	133.699[1]	20.758
R_2	.6424		.3815	
Adjusted R_2	.6417		.3810	

[1] Significant at the 1 percent level.
[2] Significant at the 5 percent level.

Regression results on the pay advantage of selected blue-collar workers in large establishments by industry, November 1995



NOTE: Workers in large establishments are defined as employed in establishments with 2,500 or more employees. The pay advantage of these workers is compared to workers in establishments with 50 to 499 workers.