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FEDERAL PAY

Comparisons With the Private Sector by Job and Locality

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The Honorable John Glenn
Chairman, Committee on
Governmental Affairs
United States Senate

The Honorable William D. Ford
Chairman, Committee on Post Office
and Civil Service
House of Representatives

We are examining a number of federal employment policies and practices in order to determine how to improve federal recruitment and retention. One of our research priorities is federal pay. More specifically, our goal is to determine whether federal white-collar salary rates are competitive with nonfederal rates within local geographic areas. Current legislative proposals calling for variation in federal white-collar salary rates by geographic area (i.e., locality pay) are designed to achieve locality-specific federal/nonfederal pay comparability.

Federal white-collar salary rates for the same job generally apply nationwide, with no differentiation by locality.[1] Accordingly, federal and private sector salary comparisons have been made, as part of the pay-setting process for these jobs, using federal and private sector national averages. These national pay comparisons show that, after the 3.6-percent increase for the General Schedule (GS) and related statutory salary systems in January 1990, federal white-collar workers are paid about 25 percent less, on average, than their private sector counterparts at similar levels of work.

On March 14, 1990, we testified before the House Post Office and Civil Service Committee's Subcommittee on Compensation and Employee Benefits on the issue of federal white-collar employee salary reform. On March 21, 1990, we testified on the same topic before the Senate Governmental Affairs Committee. In both statements, we noted that we were comparing federal and private sector pay by job and geographic

[1]Currently, the only systematic way federal white-collar pay rate schedules for a particular job can vary by locality is if the Office of Personnel Management approves "special rates" to counteract recruitment or retention problems caused by higher private sector pay or for other reasons. Employing agencies must certify that they have sufficient funds to pay the higher amounts before special rates will be approved.

area to determine the degree of pay comparability within specific localities. This fact sheet complements those testimonies by providing details of our pay competitiveness analysis.

Objective, Scope, and Methodology

To accomplish our objective, we used private sector pay data from Bureau of Labor Statistics (BLS) pay surveys and federal pay data from the Office of Personnel Management (OPM). Our analysis focused on 10 occupations—file clerk, stenographer, secretary, typist, computer operator, computer programmer, computer systems analyst, key entry operator, accounting clerk, and drafter—at a total of 30 job levels.[2] The occupations and job levels were selected on the basis of the availability of BLS private sector pay data for job levels that had clear federal counterparts.

The BLS private sector survey data used in this analysis covered 64 metropolitan statistical areas (MSA) in 1987 and 63 MSAs in 1988.[3] Using federal employee salary data for the same MSAs, we compared average federal and private sector salary rates for 748 MSA/job-level combinations in 1987 and 755 MSA/job-level combinations in 1988.[4] (A more complete statement of the methodology used in this review is in appendix I.)

This pay competitiveness analysis covers only a portion of the over 400 federal white-collar occupations and 266 MSAs in the United States in 1988. Therefore, the scope of this analysis is limited. No generalizations to the remaining federal white-collar occupations or MSAs can be made regarding the degree to which federal pay is competitive with private sector pay. Also, because some of the MSAs included in the analysis differ from 1987 to 1988, no trend comparisons should be made between the 2 years.

[2]In this report, a "job level" or "job" refers to a subunit of an occupation denoting a level of experience or expertise in that occupation. For example, an entry-level secretary ("secretary I") is the first job level of the secretarial occupation. A somewhat more experienced or expert secretary would be at the next higher job level ("secretary II").

[3]A metropolitan statistical area or MSA is an area consisting of a large population nucleus together with adjacent communities having a high degree of economic and social integration with that nucleus. MSAs are composed of whole counties, except in New England where they are defined by city and town. A standard set of metropolitan areas in the United States is defined by the Office of Management and Budget as part of its statistical policy responsibilities under the Paperwork Reduction Act.

[4]An MSA/job-level combination pay comparison is the comparison of the average salary paid by the private sector and the federal government for a particular job in a particular MSA. For example, the comparison between private sector and federal pay for the secretary I job in Atlanta is one MSA/job-level combination comparison.

Results in Brief

The pay comparisons showed that, in most cases, the private sector paid more than the federal government for the same jobs within particular MSAs. Of the 748 MSA/job-level combinations that were compared for 1987, the private sector paid more in 668 (89 percent) and the federal government paid more in 80 (11 percent). Of the 755 MSA/job-level comparisons for 1988, the private sector paid more in 683 (90 percent) and the federal government paid more in 72 (10 percent). Moreover, the median amount of private sector pay advantage (in MSAs where the private sector paid more than the federal government) was about four times larger than the federal pay advantage (in areas of federal pay advantage). In the MSA/job-levels where the private sector paid more, the median private sector pay advantage across all jobs was 24.4 percent ($3,717) in 1987 and 21.9 percent ($3,483) in 1988. In those MSA/job-levels where the federal government paid more, the median federal pay advantage was 5.4 percent ($866) in 1987 and 5.5 percent ($1,023) in 1988.

While most of the occupations in this analysis are classified by OPM as "clerical" or "technical," two (computer programmer and computer systems analyst) are classified as "administrative" occupations. The degree of federal/private pay disparity was even more apparent in these administrative jobs than in the clerical and technical jobs. For example, the private sector paid more in 75 (96.1 percent) of the 78 MSA/job-levels compared for these administrative occupations in 1987; in the clerical and technical occupations the private sector paid more in 593 (88.5 percent) of 670 MSA/job-level combinations. In 1988, the private sector paid more in 74 (93.7 percent) of 79 administrative MSA/job-levels, compared with 609 (90.1 percent) of 676 clerical or technical job levels.

Problems in the Administration of the Pay Comparability Principle

Since 1962, federal law has required that federal white-collar employee pay rates be set and adjusted on the basis of overall comparability with the private sector.[5] The comparability principle holds that the private sector determines the "going rates" for jobs comparable to those found in government, and the government then pays the national average of those rates for similar levels of work. The President's Pay Agent (currently the Secretary of Labor and the Directors of the Office of Management and Budget and the Office of Personnel Management) reports annually to the president on the pay adjustments that BLS national survey data indicate are necessary to keep federal pay comparable with private sector pay. The president either implements that increase or recommends an alternative pay increase to Congress. In concept, the pay comparability principle was established to assure both federal employees and the Nation's taxpayers that federal pay rates are fair and reasonable.

However, two factors have prevented the pay comparability principle from operating as intended. First, beginning in 1978 and each year since then, presidents proposed and Congress agreed to grant federal pay raises at lesser amounts than the Pay Agent said were required to achieve comparability with the private sector. As a result, a national pay gap between average federal and private sector pay grew each year until it now stands at about 25 percent. Table 1 shows the growth of that pay gap from 1978 to 1990.

[5]The Federal Salary Reform Act of 1962 (76 Stat. 841) established the principle, which the Federal Pay Comparability Act of 1970 (84 Stat. 1946) reaffirmed, that federal salary rates for white-collar employees (General Schedule, Foreign Service schedules, and Department of Medicine and Surgery schedules in the Department of Veterans Affairs) should be comparable with private sector rates for the same level of work. BLS surveys a nationwide sample of private sector establishments each year to discern the average rates paid by private employers for occupations selected to be representative of occupations found in the federal government.

Table 1: History of General Schedule Pay Adjustments (1978 to 1990)

Month/year	Pay agent determination	Increase provided	Pay gap
October 1978	8.40%	5.50%	2.90%
October 1979	10.41	7.00	3.41
October 1980	13.46	9.10	4.36
October 1981	15.10	4.80	10.30
October 1982	18.47	4.00	14.47
January 1984	21.51	4.00	17.51
January 1985	18.28	3.50	14.78
January 1986	19.15	0.00	19.15
January 1987	23.79	3.00	20.79
January 1988	23.74	2.00	21.74
January 1989	26.28	4.10	22.18
January 1990	28.62	3.60	25.02

The other factor that has prevented the pay comparability principle from operating as intended is the assumption, in its use of national averages, that private sector pay rates are similar in different parts of the country. BLS area wage surveys show, however, that private sector pay rates for the same jobs vary substantially across different localities. Table 2 illustrates the variances in pay for the same job level between the highest and lowest paying MSAs surveyed in 1988.

By using national rates, the federal government does not have geographic differences in rates of basic pay. The variances in private sector rates combined with the relative uniformity of federal pay rates causes differences in the degree to which federal pay is competitive in local job markets.

Table 2: Average Private Sector Weekly Earnings in High and Low Paying Areas for White-Collar Jobs (1988)

Job level	High/low-paying areas and average weekly earnings		Percent difference[a]
Secretary I	San Francisco, CA	$424	
	Scranton, PA	265	60%
Stenographer I	Detroit, MI	463	
	St. Louis, MO-IL	306	51
Typist I	San Francisco, CA	410	
	Omaha, NE-IA	219	87
Word Processor I	San Francisco, CA	420	
	Scranton, PA	223	88
Key Entry Operator I	Kokomo, IN	371	
	Florence, SC	222	67
Accounting Clerk I	San Francisco, CA	417	
	Champaign-Urbana,IL	210	99
File Clerk I	San Francisco, CA	269	
	Champaign-Urbana,IL	163	65
Order Clerk I	San Francisco, CA	377	
	Salt Lake City, UT	215	75
Computer Systems Analyst I	Miami, FL	775	
	Cincinnati, OH	542	43
Computer Programmer I	Miami, FL	539	
	Scranton, PA	343	57
Computer Operator I	Detroit, MI	385	
	San Antonio, TX	250	54
Drafter II	Newark, NJ	394	
	Scranton, PA	300	31
Electronics Technician I	Houston, TX	467	
	Orlando, FL	327	43

[a]Computed as "High" minus "Low" and then divided by "Low".

Local Pay Comparisons by Job Level

We compared federal and private sector average pay for 30 job levels in 64 MSAs in calendar year 1987 and 63 MSAs in calendar year 1988. Figures 1 and 2 illustrate federal/private sector pay competitiveness in those years. Figure 1 shows the number of MSA/job-level combinations where the federal sector paid more than the private sector, and vice versa. Figure 2 depicts the median amount by which the federal or private sector pays more within each sector's area of pay advantage. The data from which those figures were drawn are included in tables 3 and 4. Overall, the data show that the private sector pays more than the federal government for particular jobs in about nine times as many MSA/job-level combinations as the federal government pays more than

the private sector (see figure 1 and table 3). Also, the amount of any pay advantage by the private sector is commonly greater than any pay advantage by the federal government (see figure 2 and table 4).

Table 3 shows the pay comparison data by occupation and job level in 1987 and 1988 in terms of the number of MSA/job-level combinations the private sector pay rates exceed the federal rates and vice versa. In the drafter and stenographer occupations, the federal government's pay rates were below private sector rates in all of the MSA/job-level combinations in both years. In other occupations and job levels, the federal government was somewhat more competitive (e.g., the secretary and computer operator occupations). However, there were no occupations or job levels where the federal government paid more than the private sector in a majority of the MSAs.

Table 4 compares average federal and private sector pay in terms of the amount of any private sector or federal pay advantage within areas where each sector pays more. The median private sector pay advantage varied somewhat by occupation and job level. For example, the median private sector pay advantage in the drafter and stenographer occupations in 1987 was 50 percent or greater; in the secretary and systems analyst occupations, the differential was about 12 percent. Also, the relative pay advantage of the private sector over the federal government varied across the job levels. For some occupations (e.g., stenographer, computer programmer, and drafter), the private sector pay advantage was at least 30 percentage points higher than the federal pay advantage. In other occupations (e.g., secretary, typist, and systems analyst), the difference was less extreme. In one job level (typist I in 1987), the median federal pay advantage actually exceeded the private pay advantage. However, that median was calculated on a limited number of MSAs (two) where a federal pay advantage occurred. Overall, the private sector median pay advantage exceeded the federal pay advantage in 57 of the 58 job levels for which data were available across the 2 years.

Figure 1: Number of MSAs/Job Levels Where Federal and Private Sectors Pay More (1987 and 1988)

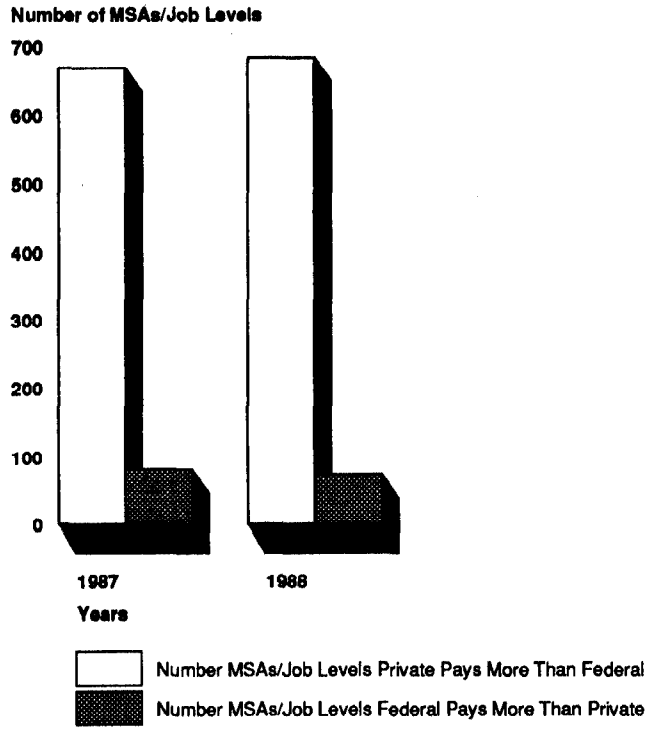

Figure 2: Median Percent Federal and Private Sector Pay Advantage (1987 and 1988)

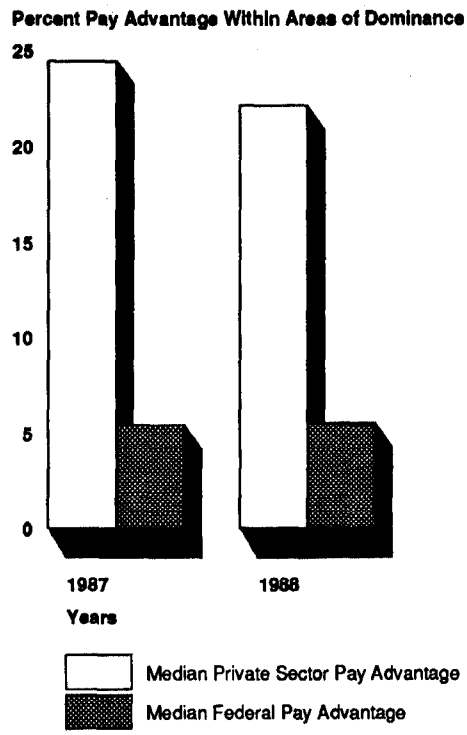

Table 3: Number of MSA/Job-Level Combinations Federal/Private Sectors Pay More (Calendar Years 1987 and 1988)

	Calendar 1987		Calendar 1988	
	MSA/job-levels private pays more	MSA/job-levels federal pays more	MSA/job-levels private pays more	MSA/job-levels federal pays more
File Clerk I	2	1	3	1
File Clerk II	13	4	20	3
File Clerk III	5	1	4	0
All File Clerks	20	6	27	4
Stenographer I	8	0	6	0
Stenographer II	8	0	7	0
All Stenographers	16	0	13	0
Secretary I	35	12	42	7
Secretary II	35	11	43	8
Secretary III	41	15	42	15
Secretary IV	34	9	39	9
Secretary V	24	2	24	4
All Secretaries	169	49	190	43
Typist I	27	2	28	3
Typist II	26	0	26	0
All Typists	53	2	54	3
Computer Operator I	17	5	13	7
Computer Operator II	39	7	37	7
Computer Operator III	42	2	44	0
Computer Operator IV	11	1	21	0
All Computer Operators	109	15	115	14
Computer Programmer I	27	0	21	1
Computer Programmer II	39	0	41	0
All Computer Programmers	66	0	62	1
Computer Systems Analyst IV	9	3	12	4
Key Entry Operator I	26	0	24	0
Key Entry Operator II	42	1	40	1
All Key Entry Operators	68	1	64	1
Accounting Clerk I	1	0	2	0
Accounting Clerk II	24	1	20	1
Accounting Clerk III	40	3	43	1

(continued)

	Calendar 1987		Calendar 1988	
	MSA/job-levels private pays more	MSA/job-levels federal pays more	MSA/job-levels private pays more	MSA/job-levels federal pays more
Accounting Clerk IV	31	0	26	0
All Accounting Clerks	96	4	91	2
Drafter I	0	0	0	0
Drafter II	2	0	1	0
Drafter III	13	0	10	0
Drafter IV	25	0	26	0
Drafter V	22	0	18	0
All Drafters	62	0	55	0
Total Across All Jobs	**668**	**80**	**683**	**72**

Note: For pay comparisons by MSA and job level, see appendixes II and III for 1987 and 1988, respectively.

Table 4: Median Dollar and Percent Federal/Private Sector Pay Advantage (Calendar Years 1987 and 1988)

	Calendar 1987				Calendar 1988			
	Median private pay advantage		Median federal pay advantage		Median private pay advantage		Median federal pay advantage	
	Dollar	Percent	Dollar	Percent	Dollar	Percent	Dollar	Percent
File Clerk I	$1,725	16.6%	$862	7.3%	$2,409	24.6%	$263	2.1%
File Clerk II	2,759	24.2	958	7.7	2,251	19.6	626	4.7
File Clerk III	2,757	21.0	347	2.6	1,529	11.4	0	0.0
All File Clerks	2,711	24.0	878	7.4	2,314	17.4	445	3.4
Stenographer I	7,125	57.7	0	0.0	8,073	66.0	0	0.0
Stenographer II	6,666	45.2	0	0.0	5,816	38.5	0	0.0
All Stenographers	6,972	50.3	0	0.0	6,307	50.6	0	0.0
Secretary I	2,225	15.2	669	4.7	2,389	16.0	1,459	9.5
Secretary II	1,961	11.6	1,127	6.6	1,916	11.2	1,536	8.7
Secretary III	1,706	8.8	842	4.3	2,066	10.3	1,105	5.8
Secretary IV	2,909	13.3	870	4.0	2,312	10.4	819	3.7
Secretary V	3,137	12.6	1,364	5.2	4,129	16.7	426	1.7
All Secretaries	2,263	12.4	842	4.4	2,227	11.6	1,034	5.7
Typist I	1,998	18.0	2,965	19.3	2,254	19.4	1,065	7.7
Typist II	4,444	36.2	0	0.0	3,458	26.6	0	0.0
All Typists	2,704	24.5	2,965	19.3	2,696	24.2	1,065	7.7
Computer Operator I	2,326	16.4	1,340	7.8	1,568	10.8	1,044	7.1
Computer Operator II	2,850	16.8	687	3.7	2,648	16.1	444	2.4
Computer Operator III	4,352	23.0	677	3.6	4,093	21.4	0	0.0
Computer Operator IV	5,201	24.4	257	1.1	5,755	26.0	0	0.0
All Computer Operators	3,378	19.7	687	3.7	3,548	20.3	919	5.3
Computer Programmer I	6,004	36.6	0	0.0	5,443	31.1	2,701	13.2
Computer Programmer II	6,136	31.3	0	0.0	6,269	31.8	0	0.0
All Computer Programmers	6,083	32.9	0	0.0	6,081	31.4	2,701	13.2
Computer Systems Analyst IV	5,495	12.5	2,819	6.3	6,884	15.2	1,883	3.9
Key Entry Operator I	3,100	28.4	0	0.0	2,664	23.0	0	0.0
Key Entry Operator II	4,281	33.3	1,003	7.1	3,819	28.0	779	5.2
All Key Entry Operators	3,777	30.7	1,003	7.1	3,260	26.0	779	5.2
Accounting Clerk I	3,513	31.7	0	0.0	2,279	20.4	0	0.0
Accounting Clerk II	3,044	24.4	114	0.9	3,355	26.2	203	1.3
Accounting Clerk III	3,400	23.2	859	5.8	3,918	26.7	1,947	11.7

(continued)

	Calendar 1987				Calendar 1988			
	Median private pay advantage		Median federal pay advantage		Median private pay advantage		Median federal pay advantage	
	Dollar	Percent	Dollar	Percent	Dollar	Percent	Dollar	Percent
Accounting Clerk IV	4,973	29.8	0	0.0	5,886	34.3	0	0.0
All Accounting Clerks	3,728	25.5	799	5.4	4,139	28.2	1,075	6.5
Drafter I	0	0.0	0	0.0	0	0.0	0	0.0
Drafter II	5,602	46.2	0	0.0	5,605	45.1	0	0.0
Drafter III	7,071	52.5	0	0.0	6,555	47.7	0	0.0
Drafter IV	9,358	57.1	0	0.0	9,312	59.0	0	0.0
Drafter V	12,258	65.6	0	0.0	11,546	61.8	0	0.0
All Drafters	9,384	55.8	0	0.0	9,366	58.1	0	0.0
Across All Jobs	3,717	24.4	866	5.4	3,483	21.9	1,023	5.5

Note: For pay comparisons by MSA and job level, see appendixes II and III for 1987 and 1988, respectively.

Table 5 shows the pay comparison data by MSA in terms of the number of MSA/job-level combinations the private sector pay rates exceeded the federal rates and vice versa and the median percent pay advantage for the private sector and the federal government in 1987. Table 6 presents the same data for 1988. Both tables show that the private sector paid more than the federal government in many more MSAs than the federal government paid more than the private sector. Of the 64 MSAs in the 1987 database, the private sector most often paid more in 54; the federal government most often paid more in 5; and there were 5 ties, including 2 MSAs where there were no data. Of the 63 MSAs in 1988, the private sector most often paid more in 55, the federal government most often paid more in 2, and there were 6 ties.

There were several MSAs where the private sector or the federal government always paid more. In 1987 (see table 5) there were 25 MSAs where the private sector paid more than the federal government in all of the MSA/job-level matches, and 3 MSAs where the federal government paid more than the private sector in all the MSA/job-levels. This federal dominance, however, may be a function of the low number of observations; in all of these MSAs there were only two MSA/job-level observations. In 1988 (see table 6) there were 27 MSAs where the private sector paid more in all of the MSA/job-level matches; the federal government paid more in all of the matches in one MSA (with only one observation).

Although the private sector generally paid more than the federal government across all the MSAs in the analysis, the competitiveness of the federal government differed across the MSAs. In certain MSAs (e.g., Anaheim, CA; Denver, CO; Detroit, MI; Houston, TX; Los Angeles, CA; New Orleans, LA; San Francisco, CA; and Seattle, WA), the private sector clearly dominated, paying more than the federal government in all MSA/job-level matches by a substantial margin in both 1987 and 1988. Other MSAs (e.g., Boston, MA; Chicago, IL; Newark, NJ; and Oakland, CA) showed a similar pattern of private sector dominance in at least one of the years. In other MSAs (e.g., Billings, MT; Bradenton, FL; Florence, SC; Longview, TX; and Tampa, FL), the federal government was more competitive, paying more than the private sector for certain jobs in one or both of the years.[6] Specific pay comparisons by job level and MSA are shown in appendixes II and III.

[6]The Billings, Montana; Bradenton, Florida; Florence, South Carolina; and Longview, Texas, MSAs were not surveyed by BLS in both 1987 and 1988.

Table 5: Comparison of Federal/Private Sector Pay Competitiveness by MSA (Calendar Year 1987)

MSA	MSA/job-levels where private pays more		MSA/job-levels where federal pays more		Total number MSA/job-level matches
	Number	Median % pay advantage	Number	Median % pay advantage	
Anaheim-Santa Ana, CA	13	37.0%	0	0.0%	13
Appleton-Oshkosh-Neenah, WI	0	0.0	2	4.9	2
Atlanta, GA	13	20.5	1	7.3	14
Baltimore, MD	16	25.0	1	7.9	17
Bergen-Passaic, NJ	4	11.1	0	0.0	4
Billings, MT	1	15.7	3	6.6	4
Boston, MA	20	23.9	0	0.0	20
Bradenton, FL	0	0.0	2	11.2	2
Charlotte-Gastonia-Rock Hill, NC-SC	4	6.1	2	5.9	6
Chicago, IL	14	27.2	0	0.0	14
Cincinnati, OH-KY-IN	17	24.7	1	1.5	18
Cleveland, OH	18	26.2	2	4.8	20
Columbus, OH	13	25.3	1	11.1	14
Corpus Christi, TX	4	7.6	1	0.9	5
Dallas, TX	15	21.7	1	7.8	16
Danbury, CT	0	0.0	0	0.0	0
Davenport-Rock Island-Moline, IA-IL	11	38.2	1	5.5	12
Dayton-Springfield, OH	9	26.1	4	5.2	13
Denver, CO	24	25.2	0	0.0	24
Detroit, MI	20	44.5	0	0.0	20
Elkhart-Goshen, IN	1	28.6	0	0.0	1
Fresno, CA	6	12.1	1	4.0	7
Gary-Hammond, IN	2	19.1	2	9.1	4
Houston, TX	19	30.0	0	0.0	19
Huntsville, AL	9	24.8	3	4.8	12
Jackson, MS	6	9.5	4	6.7	10
Kansas City, MO-KS	22	22.3	0	0.0	22
Lawrence-Haverhill, MA-NH	9	24.5	0	0.0	9
Longview-Marshall, TX	0	0.0	2	17.9	2
Los Angeles-Long Beach, CA	15	39.9	0	0.0	15
Louisville, KY-IN	13	11.7	0	0.0	13
Memphis, TN-AR-MS	11	19.8	1	1.9	12
Miami-Hialeah, FL	12	14.1	0	0.0	12
Milwaukee, WI	15	18.5	0	0.0	15
Minneapolis-St. Paul, MN-WI	10	17.1	6	4.0	16
Monmouth-Ocean, NJ	12	22.4	1	17.2	13

(continued)

MSA	MSA/job-levels where private pays more		MSA/job-levels where federal pays more		Total number MSA/job-level matches
	Number	Median % pay advantage	Number	Median % pay advantage	
Nassau-Suffolk, NY	17	21.4	1	2.9	18
New Orleans, LA	11	24.8	0	0.0	11
New York, NY	19	23.9	0	0.0	19
Newark, NJ	20	26.9	0	0.0	20
Norfolk-VA Beach-Newport News, VA	7	5.9	4	6.1	11
Oakland, CA	13	19.8	0	0.0	13
Oklahoma City, OK	13	18.2	1	3.5	14
Philadelphia, PA	20	29.6	0	0.0	20
Phoenix, AZ	13	21.2	2	4.2	15
Pittsburgh, PA	18	30.0	3	1.8	21
Portland, OR	12	17.7	2	3.7	14
Poughkeepsie, NY	1	3.7	0	0.0	1
Richmond-Petersburg, VA	10	15.1	3	3.5	13
Rochester, NY	6	21.8	0	0.0	6
St. Cloud, MN	1	12.6	1	8.2	2
St. Louis, MO-IL	18	26.0	3	2.8	21
San Angelo, TX	0	0.0	0	0.0	0
San Diego, CA	12	23.6	1	9.4	13
San Francisco, CA	17	37.2	0	0.0	17
San Jose, CA	13	24.6	1	15.9	14
Scranton—Wilkes-Barre, PA	8	18.1	5	14.3	13
Seattle, WA	14	32.4	0	0.0	14
South Bend-Mishawaka, IN	2	15.5	1	8.1	3
Tampa-St. Petersburg-Clearwater, FL	5	7.5	7	5.8	12
Visalia-Tulare-Portersville, CA	4	30.0	2	2.7	6
Washington, DC-MD-VA	7	21.3	0	0.0	7
Wilmington, DE-NJ-MD	8	14.9	0	0.0	8
Worcester, MA	1	6.6	1	9.1	2
Totals	**668**	**24.4**	**80**	**5.4**	**748**

Table 6: Comparison of Federal/Private Sector Pay Competitiveness by MSA (Calendar Year 1988)

MSA	Number of MSA/job-levels where private pays more		Number of MSA/job-levels where federal pays more		Total number MSA/job-level matches
	Number	Median % pay advantage	Number	Median % pay advantage	
Anaheim-Santa Ana, CA	14	25.7%	0	0.0%	14
Atlanta, GA	17	23.8	1	2.1	18
Austin, TX	10	20.6	0	0.0	10
Baltimore, MD	18	22.6	2	4.0	20
Bergen-Passaic, NJ	4	9.2	0	0.0	4
Boise City, ID	7	25.8	3	8.1	10
Boston, MA	22	25.1	0	0.0	22
Buffalo, NY	6	23.0	4	7.2	10
Champaign-Urbana-Rantoul, IL	3	25.5	1	12.4	4
Charleston, SC	4	24.5	1	2.9	5
Charlotte-Gastonia-Rock Hill, NC-SC	7	20.2	1	1.2	8
Chicago, IL	17	17.5	0	0.0	17
Cleveland, OH	20	18.8	1	1.8	21
Corpus Christi, TX	2	5.7	1	9.5	3
Dallas, TX	18	26.6	1	1.3	19
Dayton-Springfield, OH	10	26.7	4	1.6	14
Decatur, IL	0	0.0	0	0.0	0
Denver, CO	21	23.4	0	0.0	21
Detroit, MI	22	24.3	0	0.0	22
Florence, SC	0	0.0	1	7.5	1
Fresno, CA	7	11.3	0	0.0	7
Gainesville, FL	3	36.1	1	8.2	4
Hartford, CT	6	20.5	0	0.0	6
Houston, TX	16	22.7	0	0.0	16
Indianapolis, IN	18	23.3	3	4.6	21
Joliet, IL	0	0.0	0	0.0	0
Kansas City, MO-KS	21	22.2	1	3.8	22
Kokomo, IN	0	0.0	0	0.0	0
Los Angeles-Long Beach, CA	20	23.7	0	0.0	20
Miami-Hialeah, FL	12	22.3	1	4.1	13
Milwaukee, WI	12	13.8	0	0.0	12
Minneapolis-St. Paul, MN-WI	13	21.1	4	2.2	17
Mobile, AL	3	9.4	2	7.8	5
Nassau-Suffolk, NY	17	21.3	1	11.6	18
New Orleans, LA	13	28.1	0	0.0	13

(continued)

MSA	Number of MSA/job-levels where private pays more		Number of MSA/job-levels where federal pays more		Total number MSA/job-level matches
	Number	Median % pay advantage	Number	Median % pay advantage	
New York, NY	20	20.9	0	0.0	20
Newark, NJ	18	21.7	0	0.0	18
Norfolk-VA Beach-Newport News, VA	6	11.1	6	5.3	12
Oakland, CA	12	22.8	0	0.0	12
Oklahoma City, OK	10	17.1	0	0.0	10
Omaha, NE-IA	14	20.1	3	12.9	17
Orlando, FL	10	13.5	1	2.4	11
Pawtucket-Woonsocket-Attleboro, RI-MA	1	8.2	1	15.6	2
Philadelphia, PA-NJ	18	19.4	0	0.0	18
Phoenix, AZ	17	22.7	1	1.3	18
Pittsburgh, PA	16	24.2	3	0.2	19
Portland, ME	5	8.1	0	0.0	5
Riverside-San Bernardino, CA	9	21.6	0	0.0	9
St. Louis, MO-IL	21	16.7	0	0.0	21
Salt Lake City-Ogden, UT	14	23.6	2	6.4	16
San Angelo, TX	1	19.1	0	0.0	1
San Antonio, TX	12	28.0	2	9.2	14
San Diego, CA	12	28.5	1	0.4	13
San Francisco, CA	19	23.3	0	0.0	19
San Jose, CA	12	18.3	0	0.0	12
Scranton—Wilkes-Barre, PA	9	32.8	6	13.1	15
Seattle, WA	13	26.0	0	0.0	13
Shreveport, LA	2	21.7	2	4.3	4
Tampa-St. Petersburg-Clearwater, FL	4	23.0	7	5.2	11
Toledo, OH	3	18.2	1	0.1	4
Trenton, NJ	8	12.3	0	0.0	8
Washington, DC-MD-VA	11	21.9	0	0.0	11
York, PA	3	9.9	2	11.4	5
Totals	**683**	**21.9**	**72**	**5.5**	**755**

It is important to note that the private sector pay advantages occurred despite the presence of special pay rates for federal employees in some of the occupations or job levels and MSAs. For example, in 1988 special pay rates were in effect in some of the MSAs included in this analysis for the secretary, clerk typist, computer operator, and key entry operator occupations. Despite the use of special rates, average federal pay in all of the applicable MSAs and job levels still fell short of the average pay of

their private sector counterparts. For example, the average private sector rate for the typist I job in the San Francisco MSA in 1988 was 61.3 percent higher than the average federal rate in the San Francisco MSA after the special rate adjustment of 22.2 percent.

Special pay rates did, however, appear to have some effect on federal/private pay competitiveness. For example, in 1988 federal employees in the typist I job in New York City received a special rate of 25.8 percent above the national General Schedule. After this special rate increase, the average private sector rate for this job in New York City was still 8.5 percent higher than the average federal rate for typist I employees. In the nearby MSAs of Nassau-Suffolk, New York, and Newark, New Jersey, where typist I employees did not receive the special rate, the average federal pay for employees in this job lagged behind average private sector pay by 24.4 and 18.8 percent, respectively.

Copies of this report are being sent to other parties interested in federal pay matters and will be available to others on request. Please contact me on 275-6204 if you have any questions concerning the report.

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Future Issues

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Abbreviations

AWS	Area Wage Survey
BLS	Bureau of Labor Statistics
CPDF	Central Personnel Data File
GS	General Schedule
MSA	Metropolitan Statistical Area
OPM	Office of Personnel Management
SCA	Service Contract Act

Objective, Scope, and Methodology

The objective of this review was to determine the extent to which federal pay is competitive with private sector pay within particular geographic areas and occupational job levels. We obtained federal pay data from the Office of Personnel Management's (OPM) Central Personnel Data File (CPDF) and private sector pay data from the Bureau of Labor Statistics (BLS) on average earnings within particular metropolitan statistical areas (MSA) for particular occupations and job levels for calendar years 1987 and 1988. The primary source of the data was BLS's area wage survey (AWS) program. In that program, average private sector earnings data are collected for specified occupations and job levels in specified MSAs each year. BLS surveyed private sector employers in 61 MSAs in 1987 and 1988. Thirty-seven of the 61 MSAs were surveyed in both years and 24 different MSAs were surveyed in each year. We discarded pay data for one of the 1988 MSAs because the data were not comparable to other MSAs' data for certain occupations. Therefore, we used 61 AWS MSAs for 1987 and 60 for 1988.

As of March 1989, nearly 60 percent of all GS employees worked in 28 MSAs; each MSA had at least 10,000 GS employees. Nine of these MSAs were not included in the 1987 AWS, and 7 were not included in the 1988 AWS. To cover more of the MSAs with at least 10,000 GS employees, we supplemented the AWS data with earnings data collected by BLS through its Service Contract Act (SCA) surveys for the non-AWS MSAs for which data were available.[1] Three MSAs were added from the SCA data for each year (Dayton, Norfolk, and Oklahoma City). Therefore, the earnings data from both the AWS and the SCA programs cover 64 MSAs in 1987 and 63 MSAs in 1988. (See appendixes II and III for lists of the MSAs included in the analysis for 1987 and 1988.)

The AWS and SCA surveys include very few administrative or professional occupations. Also, some AWS jobs have no federal counterparts and, in some cases, salary data were not collected by job level. Thus, the occupations in our analysis were chiefly clerical and technical occupations covered by the AWS for which comparable federal data were available by job level.

[1]BLS conducts these surveys at the request of the Employment Standards Administration for use in administering the Service Contract Act. Although similar to the AWS, the SCA surveys are more restricted in the number of jobs studied and the amount of detail published. For example, the 1987 and 1988 SCA surveys do not include the computer systems analyst and computer programmer occupations. Thus, data presented in this report for those two occupations are from the AWS.

In 1987 and 1988, BLS collected data on 21 AWS white-collar occupations each year.[2] To determine the comparability of the AWS occupations to federal occupations, we used the crosswalk in the 1988 Annual Report of the President's Pay Agent. The crosswalk shows, by grade, the GS-equivalent occupational series for each of the occupations used to determine the national pay rate for jobs comparable to federal jobs. We eliminated 9 of the 21 AWS occupations from the analysis due to the lack of comparable federal occupations: word processor, receptionist, switchboard operator, peripheral equipment operator, computer data librarian, electronics technician, order clerk, payroll clerk, and switchboard operator/receptionist.

In order to make the pay comparisons as specific as possible and to attempt to control for possible differences in grade or job experience, the comparisons were made at each job level or grade within occupations.[3] For example, entry-level secretaries in the private sector ("secretary I" in the BLS AWS and SCA surveys) were compared to entry-level secretaries in the federal government (occupational series 318, GS-4 "secretary"); second-level secretaries in the private sector ("secretary II") were compared to second-level secretaries in the federal government (GS-5 "secretary"). We excluded two occupations, nurse and messenger, from the analysis because the AWS/SCA data were not broken down by job level.

Also, six occupational job levels were eliminated from the analysis because the crosswalk indicated that two separate private sector occupations were comparable to a single federal occupational series. The Pay Agent's crosswalk indicates that both the "programmer" and the "systems analyst" private sector jobs are comparable to the GS-334 occupational series ("computer specialist"). Thus, we could not make comparisons for those jobs at the GS-9, 11, and 12 grade levels. We compared pay at other levels where only one of the private sector jobs were applicable and where private sector pay data were available (programmer I and II and systems analyst IV).

[2]The AWS also collected pay information on various maintenance, toolroom, powerplant, material movement, and custodial occupations in 1987 and 1988, but this information was not part of this study.

[3]Comparisons of all occupants of a particular occupation in the private sector with all federal job occupants in a given area could result in erroneous conclusions about pay comparability. For example, if federal and private sector pay for secretaries were exactly the same for each level but, overall, the private sector had more senior-level secretaries, the average pay for the private sector would exceed the average pay for the federal government. Analysis by job level, to a large extent, controls for these differences.

In total, we made pay comparisons for 30 job levels within the 10 selected occupations: file clerk, stenographer, secretary, typist, computer operator, computer programmer, computer systems analyst, key entry operator, accounting clerk, and drafter. Table I.1 shows the General Schedule equivalents for the occupations and job levels used in this analysis.

Table I.1: Crosswalk: Federal Government Equivalents of Private Sector Occupation Classifications

Private sector classification	Federal government equivalent
File Clerk I	Mail & File Clerk (0305) GS-1
File Clerk II	Mail & File Clerk (0305) GS-2
File Clerk III	Mail & File Clerk (0305) GS-3[a]
Stenographer I	Clerk Stenographer (0312) GS-3
Stenographer II	Clerk Stenographer (0312) GS-4
Secretary I	Secretary (0318) GS-4
Secretary II	Secretary (0318) GS-5
Secretary III	Secretary (0318) GS-6
Secretary IV	Secretary (0318) GS-7
Secretary V	Secretary (0318) GS-8
Typist I	Clerk Typist (0322) GS-2
Typist II	Clerk Typist (0322) GS-3
Computer Operator I	Computer Operator (0332) GS-4
Computer Operator II	Computer Operator (0332) GS-5
Computer Operator III	Computer Operator (0332) GS-6
Computer Operator IV	Computer Operator (0332) GS-7
Computer Programmer I	Computer Specialist (0334) GS-5
Computer Programmer II	Computer Specialist (0334) GS-7
Computer Systems Analyst IV	Computer Specialist (0334) GS-13
Key Entry Operator I	Data Transcriber (0356) GS-2
Key Entry Operator II	Data Transcriber (0356) GS-3
Accounting Clerk I	Accounting Technician (0525) GS-2
Accounting Clerk II	Accounting Technician (0525) GS-3
Accounting Clerk III	Accounting Technician (0525) GS-4
Accounting Clerk IV	Accounting Technician (0525) GS-5
Drafter I	Engineering Drafting (0818) GS-2
Drafter II	Engineering Drafting (0818) GS-3
Drafter III	Engineering Drafting (0818) GS-4
Drafter IV	Engineering Drafting (0818) GS-5
Drafter V	Engineering Drafting (0818) GS-7

Source: Report of the President's Pay Agent, 1988, Attachment D.

[a]Although the crosswalk did not give a federal equivalent for the file clerk III job, we used the GS-3 "mail and file clerk" (0305) job as its equivalent.

However, both private and federal earnings data were not available for all 30 job levels in all 64 MSAs in 1987 and 63 MSAs in 1988. BLS does not report private sector earnings for particular job levels and locations if either (1) employment in the occupation is insufficient to merit presentation or (2) there is a possibility of disclosure of individual establishment data. Federal pay data were unavailable when there were no employees in a particular MSA at a particular job level.

The pay data used in the analysis are average straight-time earnings of full-time job incumbents. The AWS data are published as average weekly earnings and the SCA data are published as average hourly earnings; both were annualized for comparison to the federal annual pay data.[4] The AWS and SCA data cover six industry divisions: manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and selected services. Major exclusions are the mining and construction industries, government, and establishments employing fewer than 50 workers. The federal pay data represent the actual average pay for all full-time permanent job incumbents in that job level and location, and include any special pay rates in effect at the time of the data collection.

Our work was done between July 1989 and March 1990. We did not attempt to verify either the BLS private sector pay data or the OPM federal pay data. Neither did we attempt to verify the Pay Agent's Crosswalk used to determine federal and private sector job comparability. Otherwise, this report was prepared in accordance with generally accepted government auditing standards.

[4]AWS weekly earnings were multiplied by 52 (weeks per year); SCA hourly earnings were multiplied by 40 (hours per week) and then by 52 (weeks per year).

Federal/Private Sector Pay Differentials (Dollar and Percent) By MSA and Job Level (1987)

The pay comparisons in this appendix show whether the private sector paid, on average, more than the federal government, less than the federal government, or whether no match of private sector and federal pay could be made within each of 64 MSAs within each of 30 job levels in 1987. The private sector pay data are from BLS pay surveys. The federal pay data are from OPM.

Pay differentials were calculated using federal rates as the base of comparison.[1] The differential, therefore, represents the extent to which the federal pay rate would need to be adjusted to become comparable to the private sector rate. In MSAs where the private sector paid more than the federal government, the dollar and percent differentials are presented as positive values. In MSAs where the private sector paid less than the federal government, the dollar and percent differentials are presented as negative values.

In MSAs and jobs where no match between private sector and federal pay could be made, an "n/m" is shown. For example, no match between private sector and federal pay could be made for the file clerk I job in Anaheim-Santa Ana, California. The failure to make a federal/private sector pay match could be due to the lack of reportable BLS private sector data, lack of federal pay data (due to the lack of any federal job incumbents at that grade level), or both.

[1]Differential calculations were made using the following formulas: Dollar Differential = private sector rate - federal rate; Percent Differential = (private rate - federal rate)/federal rate.

File Clerk (0305)

64 MSA Cities 1987	01 I $Diff	%Diff	02 II $Diff	%Diff	03 III $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m		n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m		n/m	
0520 Atlanta, GA	(862)	(7.3)	2,171	19.5	n/m	
0720 Baltimore, MD	n/m		(1,022)	(7.9)	n/m	
0875 Bergen-Passaic, NJ	n/m		n/m		n/m	
0880 Billings, MT	n/m		n/m		n/m	
1120 Boston, MA	n/m		1,128	9.4	n/m	
1140 Bradenton, FL	n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m	
1600 Chicago, IL	n/m		2,759	24.2	n/m	
1640 Cincinnati, OH-KY-IN	n/m		n/m		n/m	
1680 Cleveland, OH	n/m		(851)	(7.0)	(347)	(2.6)
1840 Columbus, OH	n/m		n/m		n/m	
1880 Corpus Christi, TX	n/m		n/m		n/m	
1920 Dallas, TX	n/m		3,510	32.5	n/m	
1930 Danbury, CT	n/m		n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		n/m		n/m	
2000 Dayton-Springfield, OH	n/m		n/m		n/m	
2080 Denver, CO	n/m		2,778	24.2	3,352	25.3
2160 Detroit, MI	n/m		3,140	26.9	n/m	
2330 Elkhart-Goshen, IN	n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m		n/m	
3360 Houston, TX	n/m		4,111	37.1	n/m	
3440 Huntsville, AL	n/m		n/m		n/m	
3560 Jackson, MS	n/m		n/m		n/m	
3760 Kansas City, MO-KS	n/m		2,664	24.3	n/m	
4160 Lawrence-Haverhill, MA-NH	n/m		n/m		n/m	
4420 Longview-Marshall, TX	n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		5,217	45.9	n/m	
4520 Louisville, KY-IN	n/m		n/m		n/m	
4920 Memphis, TN-AR-MS	n/m		n/m		n/m	
5000 Miami-Hialeah, FL	n/m		n/m		n/m	
5080 Milwaukee, WI	n/m		n/m		n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		1,550	13.1	n/m	
5190 Monmouth-Ocean, NJ	n/m		n/m		n/m	
5380 Nassau-Suffolk, NY	n/m		2,323	21.4	n/m	

(continued)

64 MSA Cities 1987	01 I $Diff	%Diff	02 II $Diff	%Diff	03 III $Diff	%Diff
5560 New Orleans, LA	n/m		n/m		n/m	
5600 New York, NY	n/m		n/m		1,333	9.9
5640 Newark, NJ	911	9.5	n/m		n/m	
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m		n/m	
5775 Oakland, CA	n/m		n/m		n/m	
5880 Oklahoma City, OK	n/m		n/m		n/m	
6160 Philadelphia, PA	n/m		n/m		3,599	27.1
6200 Phoenix, AZ	n/m		465	3.9	n/m	
6280 Pittsburgh, PA	n/m		n/m		2,757	21.0
6440 Portland, OR	n/m		n/m		n/m	
6460 Poughkeepsie, NY	n/m		n/m		n/m	
6760 Richmond-Petersburg, VA	n/m		n/m		n/m	
6840 Rochester, NY	n/m		n/m		n/m	
6980 St Cloud, MN	n/m		n/m		n/m	
7040 St Louis, MO-IL	n/m		(894)	(7.5)	649	4.9
7200 San Angelo, TX	n/m		n/m		n/m	
7320 San Diego, CA	n/m		(1,487)	(9.4)	n/m	
7360 San Francisco, CA	n/m		3,510	32.5	n/m	
7400 San Jose, CA	n/m		n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		n/m	
7600 Seattle, WA	n/m		n/m		n/m	
7800 South Bend-Mishawaka, IN	n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		n/m	
8780 Visalia-Tulare-Portersville, CA	n/m		n/m		n/m	
8840 Washington, DC-MD-VA	2,538	23.8	n/m		n/m	
9160 Wilmington, DE-NJ-MD	n/m		n/m		n/m	
9240 Worcester, MA	n/m		n/m		n/m	

Stenographer (0312)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m	
0520 Atlanta, GA	n/m		n/m	
0720 Baltimore, MD	n/m		n/m	
0875 Bergen-Passaic, NJ	n/m		n/m	
0880 Billings, MT	n/m		n/m	
1120 Boston, MA	n/m		n/m	
1140 Bradenton, FL	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m	
1600 Chicago, IL	12,378	104.9	4,080	27.3
1640 Cincinnati, OH-KY-IN	n/m		n/m	
1680 Cleveland, OH	5,982	50.7	7,364	49.8
1840 Columbus, OH	n/m		n/m	
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	n/m		n/m	
1930 Danbury, CT	n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		n/m	
2000 Dayton-Springfield, OH	n/m		n/m	
2080 Denver, CO	n/m		8,696	57.9
2160 Detroit, MI	7,671	64.6	10,826	75.9
2330 Elkhart-Goshen, IN	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m	
3360 Houston, TX	n/m		n/m	
3440 Huntsville, AL	n/m		n/m	
3560 Jackson, MS	n/m		n/m	
3760 Kansas City, MO-KS	n/m		5,968	40.7
4160 Lawrence-Haverhill, MA-NH	n/m		n/m	
4420 Longview-Marshall, TX	n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		n/m	
4520 Louisville, KY-IN	n/m		n/m	
4920 Memphis, TN-AR-MS	n/m		n/m	
5000 Miami-Hialeah, FL	n/m		n/m	
5080 Milwaukee, WI	n/m		5,923	39.1
5120 Minneapolis-St Paul, MN-WI	n/m		n/m	
5190 Monmouth-Ocean, NJ	n/m		n/m	
5380 Nassau-Suffolk, NY	n/m		n/m	

(continued)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
5560 New Orleans, LA	n/m		n/m	
5600 New York, NY	5,110	39.4	n/m	
5640 Newark, NJ	n/m		n/m	
5720 Norfolk-VA Beach-Newport News, VA	14,760	125.1	n/m	
5775 Oakland, CA	n/m		n/m	
5880 Oklahoma City, OK	n/m		n/m	
6160 Philadelphia, PA	7,970	66.9	13,727	95.1
6200 Phoenix, AZ	n/m		n/m	
6280 Pittsburgh, PA	6,579	48.5	n/m	
6440 Portland, OR	n/m		n/m	
6460 Poughkeepsie, NY	n/m		n/m	
6760 Richmond-Petersburg, VA	n/m		n/m	
6840 Rochester, NY	n/m		n/m	
6980 St Cloud, MN	n/m		n/m	
7040 St Louis, MO-IL	3,902	33.1	4,440	29.8
7200 San Angelo, TX	n/m		n/m	
7320 San Diego, CA	n/m		n/m	
7360 San Francisco, CA	n/m		n/m	
7400 San Jose, CA	n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m	
7600 Seattle, WA	n/m		n/m	
7800 South Bend-Mishawaka, IN	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m	
8780 Visalia-Tulare-Portersville, CA	n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m	
9160 Wilmington, DE-NJ-MD	n/m		n/m	
9240 Worcester, MA	n/m		n/m	

Secretary (0318)

64 MSA Cities 1987	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff	08 V $Diff	%Diff
0360 Anaheim-Santa Ana, CA	4,551	31.1	2,373	14.0	3,738	19.5	4,819	22.9	8,810	41.3
0460 Appleton-Oshkosh-Neenah, WI	(560)	(3.7)	n/m		(1,258)	(6.1)	n/m		n/m	
0520 Atlanta, GA	3,025	20.5	853	5.0	3,432	17.6	2,732	12.5	n/m	
0720 Baltimore, MD	n/m		n/m		2,543	13.0	n/m		n/m	
0875 Bergen-Passaic, NJ	2,225	15.2	1,233	7.0	476	2.4	n/m		n/m	
0880 Billings, MT	(880)	(5.6)	n/m		(1,295)	(6.6)	n/m		n/m	
1120 Boston, MA	1,000	6.5	1,722	10.1	2,212	11.5	3,042	13.9	n/m	
1140 Bradenton, FL	(2,042)	(11.9)	n/m		(2,126)	(10.4)	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	601	3.8	n/m		(362)	(1.8)	1,393	6.4	(2,645)	(10.0)
1600 Chicago, IL	n/m		n/m		1,527	7.9	n/m		n/m	
1640 Cincinnati, OH-KY-IN	1,670	11.5	1,181	6.9	542	2.8	(317)	(1.5)	3,131	12.5
1680 Cleveland, OH	4,647	31.7	385	2.3	1,127	5.9	528	2.4	793	3.2
1840 Columbus, OH	n/m		n/m		n/m		n/m		n/m	
1880 Corpus Christi, TX	327	2.2	1,608	9.1	1,160	6.0	n/m		n/m	
1920 Dallas, TX	3,039	21.7	2,826	16.8	1,706	8.8	3,722	17.3	n/m	
1930 Danbury, CT	n/m		n/m		n/m		n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	(778)	(5.5)	2,306	14.1	n/m		7,284	34.9	n/m	
2000 Dayton-Springfield, OH	n/m		(854)	(5.2)	(1,009)	(5.2)	(2,877)	(13.0)	(83)	(0.3)
2080 Denver, CO	3,998	27.7	2,047	12.2	939	4.9	1,209	5.6	3,337	13.5
2160 Detroit, MI	7,653	53.2	3,742	22.3	6,193	32.1	3,436	16.0	8,229	33.6
2330 Elkhart-Goshen, IN	3,912	28.6	n/m		n/m		n/m		n/m	
2840 Fresno, CA	2,139	14.7	438	2.6	713	3.6	(870)	(4.0)	n/m	
2960 Gary-Hammond, IN	(222)	(1.4)	(2,938)	(16.8)	5,296	27.7	2,472	10.4	n/m	
3360 Houston, TX	4,602	32.5	4,152	24.7	3,277	16.7	4,411	20.4	5,922	24.8
3440 Huntsville, AL	n/m		n/m		913	4.6	n/m		n/m	
3560 Jackson, MS	(160)	(1.1)	(1,673)	(9.7)	(729)	(3.7)	990	4.7	n/m	
3760 Kansas City, MO-KS	1,712	11.4	990	5.8	1,409	7.2	363	1.7	2,114	8.6
4160 Lawrence-Haverhill, MA-NH	1,109	7.1	2,263	12.8	1,780	8.9	2	0.0	n/m	
4420 Longview-Marshall, TX	(3,368)	(19.6)	n/m		(3,488)	(16.2)	n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		6,227	36.3	4,867	25.0	5,636	25.9	n/m	
4520 Louisville, KY-IN	1,738	11.2	485	2.7	1,302	6.6	2,593	11.7	n/m	
4920 Memphis, TN-AR-MS	(285)	(1.9)	399	2.3	212	1.1	n/m		n/m	
5000 Miami-Hialeah, FL	1,782	12.4	1,426	8.4	1,539	8.0	2,866	13.0	1,282	5.4
5080 Milwaukee, WI	1,994	13.1	451	2.6	456	2.3	122	0.6	1,185	5.0
5120 Minneapolis-St Paul, MN-WI	n/m		(60)	(0.4)	(842)	(4.4)	(940)	(4.3)	n/m	
5190 Monmouth-Ocean, NJ	1,719	12.1	n/m		3,963	20.5	5,319	24.3	6,764	27.6
5380 Nassau-Suffolk, NY	2,979	20.2	3,045	18.0	943	4.9	3,282	15.3	2,899	11.9

(continued)

64 MSA Cities 1987	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff	08 V $Diff	%Diff
5560 New Orleans, LA	1,881	12.6	n/m		1,590	8.2	n/m		n/m	
5600 New York, NY	2,203	14.0	2,656	15.6	2,590	13.5	3,440	15.9	3,611	14.6
5640 Newark, NJ	3,702	25.2	4,177	24.6	2,565	13.3	2,572	11.7	2,668	10.8
5720 Norfolk-VA Beach-Newport News, VA	579	3.9	(1,127)	(6.6)	(844)	(4.3)	(1,219)	(5.5)	434	1.7
5775 Oakland, CA	1,291	8.4	2,341	13.1	1,895	9.4	3,870	17.5	5,910	24.4
5880 Oklahoma City, OK	2,086	14.4	2,061	12.4	1,161	6.1	4,737	21.8	4,449	18.2
6160 Philadelphia, PA	n/m		1,961	11.6	781	4.0	1,319	6.1	1,304	5.3
6200 Phoenix, AZ	1,391	9.4	(826)	(4.7)	(718)	(3.6)	212	1.0	n/m	
6280 Pittsburgh, PA	3,736	25.3	(654)	(3.8)	(356)	(1.8)	(94)	(0.4)	1,226	5.0
6440 Portland, OR	n/m		763	4.5	982	5.1	2,000	9.5	n/m	
6460 Poughkeepsie, NY	n/m		n/m		n/m		n/m		n/m	
6760 Richmond-Petersburg, VA	n/m		n/m		(1,321)	(6.6)	(787)	(3.5)	n/m	
6840 Rochester, NY	3,386	21.7	n/m		3,958	19.4	4,802	21.8	3,829	14.5
6980 St Cloud, MN	n/m		(1,489)	(8.2)	n/m		n/m		n/m	
7040 St Louis, MO-IL	2,309	15.9	(475)	(2.8)	30	0.2	(35)	(0.2)	2,858	11.6
7200 San Angelo, TX	n/m		n/m		n/m		n/m		n/m	
7320 San Diego, CA	3,274	22.2	3,254	19.3	2,030	10.3	2,269	9.8	n/m	
7360 San Francisco, CA	n/m		4,347	24.9	2,736	13.9	3,073	14.1	4,710	18.8
7400 San Jose, CA	2,879	17.1	1,117	5.9	2,055	9.9	3,863	17.6	4,870	20.1
7560 Scranton—Wilkes-Barre, PA	(2,153)	(14.3)	(2,013)	(11.4)	(742)	(4.0)	(3,743)	(16.3)	n/m	
7600 Seattle, WA	n/m		2,014	11.8	2,248	11.6	2,952	13.5	3,142	12.7
7800 South Bend-Mishawaka, IN	3,958	28.2	(1,383)	(8.1)	515	2.8	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	(204)	(1.3)	487	2.7	(707)	(3.5)	1,053	4.8	n/m	
8780 Visalia-Tulare-Portersville, CA	(543)	(3.8)	513	3.1	(317)	(1.6)	n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m		2,911	15.4	n/m		n/m	
9160 Wilmington, DE-NJ-MD	4,167	28.3	2,427	13.6	3,172	16.2	5,536	26.0	2,845	11.3
9240 Worcester, MA	(1,429)	(9.1)	1,084	6.6	n/m		n/m		n/m	

Typist (0322)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m	
0520 Atlanta, GA	n/m		n/m	
0720 Baltimore, MD	2,704	24.6	4,914	38.6
0875 Bergen-Passaic, NJ	n/m		3,052	24.6
0880 Billings, MT	n/m		n/m	
1120 Boston, MA	2,456	22.3	n/m	
1140 Bradenton, FL	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m	
1600 Chicago, IL	2,678	24.8	4,510	36.3
1640 Cincinnati, OH-KY-IN	1,718	15.7	3,919	30.7
1680 Cleveland, OH	n/m		3,871	30.3
1840 Columbus, OH	n/m		6,227	49.1
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	2,236	20.7	n/m	
1930 Danbury, CT	n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	63	0.5	n/m	
2000 Dayton-Springfield, OH	4,457	40.6	6,090	50.5
2080 Denver, CO	1,622	14.2	4,532	36.3
2160 Detroit, MI	1,998	18.0	6,690	54.2
2330 Elkhart-Goshen, IN	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m	
3360 Houston, TX	3,085	26.3	2,629	20.9
3440 Huntsville, AL	n/m		n/m	
3560 Jackson, MS	355	3.0	n/m	
3760 Kansas City, MO-KS	1,962	17.2	2,595	20.3
4160 Lawrence-Haverhill, MA-NH	n/m		n/m	
4420 Longview-Marshall, TX	n/m		n/m	
4480 Los Angeles-Long Beach, CA	6,422	59.4	5,125	40.7
4520 Louisville, KY-IN	n/m		n/m	
4920 Memphis, TN-AR-MS	n/m		n/m	
5000 Miami-Hialeah, FL	n/m		n/m	
5080 Milwaukee, WI	2,002	18.5	5,034	40.5
5120 Minneapolis-St Paul, MN-WI	1,274	11.8	2,199	17.6
5190 Monmouth-Ocean, NJ	n/m		n/m	
5380 Nassau-Suffolk, NY	2,392	22.1	3,057	24.6

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64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
5560 New Orleans, LA	n/m		n/m	
5600 New York, NY	1,623	13.7	2,314	17.4
5640 Newark, NJ	1,818	16.4	4,378	36.0
5720 Norfolk-VA Beach-Newport News, VA	1,163	10.5	n/m	
5775 Oakland, CA	4,083	33.9	3,300	24.5
5880 Oklahoma City, OK	n/m		n/m	
6160 Philadelphia, PA	2,644	24.2	4,647	36.5
6200 Phoenix, AZ	n/m		n/m	
6280 Pittsburgh, PA	2,886	26.7	3,711	29.6
6440 Portland, OR	503	3.9	n/m	
6460 Poughkeepsie, NY	n/m		n/m	
6760 Richmond-Petersburg, VA	2,209	19.5	n/m	
6840 Rochester, NY	n/m		n/m	
6980 St Cloud, MN	n/m		1,484	12.6
7040 St Louis, MO-IL	1,638	15.1	3,132	24.4
7200 San Angelo, TX	n/m		n/m	
7320 San Diego, CA	1,147	10.0	5,310	42.4
7360 San Francisco, CA	n/m		8,725	60.9
7400 San Jose, CA	(2,849)	(15.9)	n/m	
7560 Scranton—Wilkes-Barre, PA	664	5.9	4,958	38.7
7600 Seattle, WA	n/m		6,777	52.7
7800 South Bend-Mishawaka, IN	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	(3,081)	(22.6)	n/m	
8780 Visalia-Tulare-Portersville, CA	n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m	
9160 Wilmington, DE-NJ-MD	n/m		n/m	
9240 Worcester, MA	n/m		n/m	

Computer Operator (0332)

64 MSA Cities 1987	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		5,666	37.0	5,153	27.1	n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m		n/m		n/m	
0520 Atlanta, GA	4,083	29.7	4,026	24.3	5,318	29.4	n/m	
0720 Baltimore, MD	n/m		396	2.3	2,483	13.2	5,923	27.7
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m	
0880 Billings, MT	n/m		(1,770)	(10.5)	n/m		n/m	
1120 Boston, MA	272	1.8	1,698	10.3	4,345	23.4	5,201	24.4
1140 Bradenton, FL	n/m		n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		1,076	5.8	n/m	
1600 Chicago, IL	2,430	17.8	2,758	16.6	3,763	19.7	n/m	
1640 Cincinnati, OH-KY-IN	1,187	7.9	4,040	24.7	6,619	37.5	n/m	
1680 Cleveland, OH	n/m		992	6.0	2,961	16.7	5,410	27.5
1840 Columbus, OH	n/m		532	3.1	522	2.6	3,571	17.1
1880 Corpus Christi, TX	n/m		n/m		n/m		n/m	
1920 Dallas, TX	(1,340)	(7.8)	1,289	7.5	2,998	15.7	6,937	33.1
1930 Danbury, CT	n/m		n/m		n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		6,245	38.2	12,105	67.6	n/m	
2000 Dayton-Springfield, OH	n/m		648	3.8	3,824	21.8	2,417	11.9
2080 Denver, CO	n/m		2,425	15.0	4,917	26.9	7,014	34.1
2160 Detroit, MI	9,086	68.6	7,009	43.0	8,509	46.0	n/m	
2330 Elkhart-Goshen, IN	n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m		n/m		n/m	
3360 Houston, TX	2,326	16.0	3,985	25.5	5,371	30.0	7,834	38.8
3440 Huntsville, AL	2,187	15.2	(360)	(2.2)	(1,056)	(5.7)	n/m	
3560 Jackson, MS	n/m		2,494	14.0	n/m		n/m	
3760 Kansas City, MO-KS	1,654	10.9	3,170	19.5	5,636	31.2	n/m	
4160 Lawrence-Haverhill, MA-NH	n/m		3,772	24.5	7,406	43.9	n/m	
4420 Longview-Marshall, TX	n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		n/m		n/m		n/m	
4520 Louisville, KY-IN	n/m		322	1.8	3,182	16.2	n/m	
4920 Memphis, TN-AR-MS	2,421	17.3	3,287	20.5	n/m		n/m	
5000 Miami-Hialeah, FL	n/m		4,938	33.3	2,904	15.2	n/m	
5080 Milwaukee, WI	n/m		4,860	32.8	2,621	14.0	n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		(687)	(3.7)	3,071	16.5	(257)	(1.1)
5190 Monmouth-Ocean, NJ	(2,703)	(17.2)	768	4.7	3,111	17.1	n/m	
5380 Nassau-Suffolk, NY	(418)	(2.9)	3,378	21.4	5,431	30.3	n/m	

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64 MSA Cities 1987	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff
5560 New Orleans, LA	n/m		953	6.0	979	5.3	n/m	
5600 New York, NY	n/m		3,905	23.9	7,531	41.6	n/m	
5640 Newark, NJ	2,872	21.7	2,296	13.9	3,109	15.4	n/m	
5720 Norfolk-VA Beach-Newport News, VA	878	5.9	(1,637)	(10.0)	1,016	5.6	n/m	
5775 Oakland, CA	2,306	16.4	5,349	32.5	3,658	19.7	n/m	
5880 Oklahoma City, OK	(482)	(3.5)	2,082	13.4	2,159	11.8	4,138	20.4
6160 Philadelphia, PA	807	5.1	2,850	16.8	6,268	34.2	n/m	
6200 Phoenix, AZ	n/m		2,641	16.5	5,339	29.6	n/m	
6280 Pittsburgh, PA	2,456	17.9	1,688	9.8	5,943	33.2	n/m	
6440 Portland, OR	n/m		(191)	(1.1)	1,943	10.0	n/m	
6460 Poughkeepsie, NY	n/m		n/m		n/m		n/m	
6760 Richmond-Petersburg, VA	1,260	9.2	(210)	(1.2)	2,542	13.7	3,469	16.4
6840 Rochester, NY	n/m		n/m		4,732	26.0	n/m	
6980 St Cloud, MN	n/m		n/m		n/m		n/m	
7040 St Louis, MO-IL	n/m		2,212	13.4	4,723	26.1	n/m	
7200 San Angelo, TX	n/m		n/m		n/m		n/m	
7320 San Diego, CA	n/m		4,945	31.1	4,544	25.0	4,467	21.0
7360 San Francisco, CA	3,262	18.9	4,961	30.4	7,211	40.0	n/m	
7400 San Jose, CA	n/m		5,971	34.8	6,095	30.7	n/m	
7560 Scranton—Wilkes-Barre, PA	(2,707)	(17.7)	1,360	8.2	n/m		n/m	
7600 Seattle, WA	4,867	32.4	6,153	39.2	7,772	42.3	n/m	
7800 South Bend-Mishawaka, IN	n/m		n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		(1,036)	(5.9)	(298)	(1.5)	n/m	
8780 Visalia-Tulare-Portersville, CA	n/m		n/m		n/m		n/m	
8840 Washington, DC-MD-VA	n/m		3,479	21.3	3,288	18.0	n/m	
9160 Wilmington, DE-NJ-MD	n/m		2,468	13.5	4,358	22.6	n/m	
9240 Worcester, MA	n/m		n/m		n/m		n/m	

Computer Programmer (0334)

64 MSA Cities 1987	05 I $Diff	%Diff	07 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		10,451	53.0
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m	
0520 Atlanta, GA	n/m		4,084	19.9
0720 Baltimore, MD	4,262	25.3	6,136	31.0
0875 Bergen-Passaic, NJ	n/m		n/m	
0880 Billings, MT	n/m		n/m	
1120 Boston, MA	5,198	30.9	6,714	35.8
1140 Bradenton, FL	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		4,024	19.3
1600 Chicago, IL	n/m		6,737	35.4
1640 Cincinnati, OH-KY-IN	5,568	36.1	5,730	29.8
1680 Cleveland, OH	6,515	43.5	4,750	24.9
1840 Columbus, OH	6,288	39.6	6,158	31.9
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	n/m		n/m	
1930 Danbury, CT	n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		5,744	31.3
2000 Dayton-Springfield, OH	n/m		n/m	
2080 Denver, CO	3,368	19.2	7,489	38.1
2160 Detroit, MI	8,981	53.6	9,076	47.5
2330 Elkhart-Goshen, IN	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m	
3360 Houston, TX	9,566	64.5	9,138	47.9
3440 Huntsville, AL	4,896	31.6	5,003	25.2
3560 Jackson, MS	5,432	36.6	6,030	32.8
3760 Kansas City, MO-KS	5,060	29.5	7,301	37.3
4160 Lawrence-Haverhill, MA-NH	n/m		5,422	26.4
4420 Longview-Marshall, TX	n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		9,348	48.0
4520 Louisville, KY-IN	n/m		4,164	20.8
4920 Memphis, TN-AR-MS	n/m		3,678	17.9
5000 Miami-Hialeah, FL	n/m		n/m	
5080 Milwaukee, WI	7,434	48.5	6,276	33.1
5120 Minneapolis-St Paul, MN-WI	3,222	18.6	3,300	14.8
5190 Monmouth-Ocean, NJ	3,038	16.7	5,475	27.8
5380 Nassau-Suffolk, NY	6,862	43.4	4,203	18.9

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64 MSA Cities 1987	05 I $Diff	%Diff	07 II $Diff	%Diff
5560 New Orleans, LA	n/m		6,683	33.5
5600 New York, NY	6,407	37.6	10,026	52.0
5640 Newark, NJ	7,980	53.8	6,360	33.0
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m	
5775 Oakland, CA	n/m		n/m	
5880 Oklahoma City, OK	n/m		n/m	
6160 Philadelphia, PA	4,539	24.4	8,448	43.7
6200 Phoenix, AZ	6,576	42.9	5,712	29.9
6280 Pittsburgh, PA	6,004	40.5	6,376	34.0
6440 Portland, OR	5,328	35.9	5,392	28.4
6460 Poughkeepsie, NY	n/m		n/m	
6760 Richmond-Petersburg, VA	1,068	5.3	4,850	24.9
6840 Rochester, NY	n/m		n/m	
6980 St Cloud, MN	n/m		n/m	
7040 St Louis, MO-IL	4,843	26.8	6,708	33.9
7200 San Angelo, TX	n/m		n/m	
7320 San Diego, CA	n/m		n/m	
7360 San Francisco, CA	10,173	59.0	10,917	55.1
7400 San Jose, CA	11,161	65.2	7,380	31.3
7560 Scranton—Wilkes-Barre, PA	n/m		2,668	13.0
7600 Seattle, WA	7,616	48.2	4,784	23.8
7800 South Bend-Mishawaka, IN	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	6,186	32.1	4,450	23.8
8780 Visalia-Tulare-Portersville, CA	n/m		n/m	
8840 Washington, DC-MD-VA	n/m		6,563	33.1
9160 Wilmington, DE-NJ-MD	n/m		n/m	
9240 Worcester, MA	n/m		n/m	

Computer Systems Analyst (0334)

64 MSA Cities 1987	13 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m	
0520 Atlanta, GA	n/m	
0720 Baltimore, MD	907	2.0
0875 Bergen-Passaic, NJ	n/m	
0880 Billings, MT	n/m	
1120 Boston, MA	7,441	16.4
1140 Bradenton, FL	n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m	
1600 Chicago, IL	n/m	
1640 Cincinnati, OH-KY-IN	n/m	
1680 Cleveland, OH	905	2.1
1840 Columbus, OH	(5,002)	(11.1)
1880 Corpus Christi, TX	n/m	
1920 Dallas, TX	3,213	7.2
1930 Danbury, CT	n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m	
2000 Dayton-Springfield, OH	n/m	
2080 Denver, CO	3,326	7.4
2160 Detroit, MI	n/m	
2330 Elkhart-Goshen, IN	n/m	
2840 Fresno, CA	n/m	
2960 Gary-Hammond, IN	n/m	
3360 Houston, TX	11,523	25.1
3440 Huntsville, AL	n/m	
3560 Jackson, MS	n/m	
3760 Kansas City, MO-KS	n/m	
4160 Lawrence-Haverhill, MA-NH	n/m	
4420 Longview-Marshall, TX	n/m	
4480 Los Angeles-Long Beach, CA	5,785	13.0
4520 Louisville, KY-IN	n/m	
4920 Memphis, TN-AR-MS	n/m	
5000 Miami-Hialeah, FL	n/m	
5080 Milwaukee, WI	n/m	
5120 Minneapolis-St Paul, MN-WI	(1,944)	(4.3)
5190 Monmouth-Ocean, NJ	n/m	
5380 Nassau-Suffolk, NY	9,587	23.5

(continued)

64 MSA Cities 1987	13 IV $Diff	%Diff
5560 New Orleans, LA	n/m	
5600 New York, NY	n/m	
5640 Newark, NJ	n/m	
5720 Norfolk-VA Beach-Newport News, VA	n/m	
5775 Oakland, CA	n/m	
5880 Oklahoma City, OK	n/m	
6160 Philadelphia, PA	n/m	
6200 Phoenix, AZ	n/m	
6280 Pittsburgh, PA	n/m	
6440 Portland, OR	(2,819)	(6.3)
6460 Poughkeepsie, NY	n/m	
6760 Richmond-Petersburg, VA	n/m	
6840 Rochester, NY	n/m	
6980 St Cloud, MN	n/m	
7040 St Louis, MO-IL	n/m	
7200 San Angelo, TX	n/m	
7320 San Diego, CA	n/m	
7360 San Francisco, CA	5,495	12.5
7400 San Jose, CA	n/m	
7560 Scranton—Wilkes-Barre, PA	n/m	
7600 Seattle, WA	n/m	
7800 South Bend-Mishawaka, IN	n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m	
8780 Visalia-Tulare-Portersville, CA	n/m	
8840 Washington, DC-MD-VA	n/m	
9160 Wilmington, DE-NJ-MD	n/m	
9240 Worcester, MA	n/m	

Key Entry Operator (0356)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	4,891	44.2	6,249	51.4
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m	
0520 Atlanta, GA	3,711	34.3	4,939	40.1
0720 Baltimore, MD	3,120	28.8	1,737	13.4
0875 Bergen-Passaic, NJ	n/m		n/m	
0880 Billings, MT	n/m		n/m	
1120 Boston, MA	3,848	35.6	4,369	33.4
1140 Bradenton, FL	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m	
1600 Chicago, IL	3,079	28.0	3,967	31.0
1640 Cincinnati, OH-KY-IN	7,130	65.8	3,523	28.8
1680 Cleveland, OH	n/m		3,775	28.9
1840 Columbus, OH	2,054	19.0	3,175	25.3
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	n/m		4,832	38.4
1930 Danbury, CT	n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		7,651	57.7
2000 Dayton-Springfield, OH	2,395	22.1	3,218	26.1
2080 Denver, CO	2,357	20.1	5,163	42.9
2160 Detroit, MI	n/m		5,385	40.1
2330 Elkhart-Goshen, IN	n/m		n/m	
2840 Fresno, CA	2,249	20.6	n/m	
2960 Gary-Hammond, IN	n/m		n/m	
3360 Houston, TX	4,550	42.1	4,713	36.9
3440 Huntsville, AL	4,347	35.6	n/m	
3560 Jackson, MS	n/m		n/m	
3760 Kansas City, MO-KS	3,011	27.4	5,091	41.2
4160 Lawrence-Haverhill, MA-NH	n/m		4,492	33.1
4420 Longview-Marshall, TX	n/m		n/m	
4480 Los Angeles-Long Beach, CA	4,484	40.5	n/m	
4520 Louisville, KY-IN	n/m		1,432	10.4
4920 Memphis, TN-AR-MS	2,450	22.6	3,005	24.5
5000 Miami-Hialeah, FL	1,716	15.9	4,192	34.2
5080 Milwaukee, WI	n/m		1,520	12.5
5120 Minneapolis-St Paul, MN-WI	n/m		3,681	27.3
5190 Monmouth-Ocean, NJ	n/m		5,149	43.1
5380 Nassau-Suffolk, NY	2,236	20.7	5,295	44.1

(continued)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff
5560 New Orleans, LA	3,406	31.5	3,375	25.4
5600 New York, NY	3,792	33.5	3,981	30.2
5640 Newark, NJ	n/m		4,756	38.7
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m	
5775 Oakland, CA	2,618	19.8	5,299	37.5
5880 Oklahoma City, OK	947	8.3	2,787	20.8
6160 Philadelphia, PA	3,478	32.1	5,364	43.1
6200 Phoenix, AZ	n/m		2,681	21.2
6280 Pittsburgh, PA	3,224	29.8	4,495	35.9
6440 Portland, OR	n/m		4,803	38.3
6460 Poughkeepsie, NY	n/m		n/m	
6760 Richmond-Petersburg, VA	n/m		1,325	10.0
6840 Rochester, NY	n/m		n/m	
6980 St Cloud, MN	n/m		n/m	
7040 St Louis, MO-IL	n/m		3,779	30.3
7200 San Angelo, TX	n/m		n/m	
7320 San Diego, CA	n/m		5,096	40.7
7360 San Francisco, CA	n/m		5,283	37.2
7400 San Jose, CA	n/m		5,614	37.2
7560 Scranton—Wilkes-Barre, PA	n/m		3,071	23.2
7600 Seattle, WA	2,783	25.3	6,576	53.5
7800 South Bend-Mishawaka, IN	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		(1,003)	(7.1)
8780 Visalia-Tulare-Portersville, CA	6,782	62.7	3,038	24.1
8840 Washington, DC-MD-VA	2,298	20.7	3,874	30.2
9160 Wilmington, DE-NJ-MD	n/m		602	4.0
9240 Worcester, MA	n/m		n/m	

Accounting Clerk (0525)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		4,679	38.4	4,297	28.3	n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m		n/m		n/m	
0520 Atlanta, GA	n/m		n/m		2,819	19.0	7,098	41.9
0720 Baltimore, MD	n/m		1,814	14.1	1,689	11.3	6,149	36.0
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m	
0880 Billings, MT	n/m		n/m		2,352	15.7	n/m	
1120 Boston, MA	n/m		n/m		4,436	29.9	4,527	26.8
1140 Bradenton, FL	n/m		n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m		n/m	
1600 Chicago, IL	n/m		n/m		3,954	27.0	4,839	29.0
1640 Cincinnati, OH-KY-IN	3,513	31.7	3,044	25.8	1,855	12.0	3,484	20.4
1680 Cleveland, OH	n/m		2,905	23.2	4,095	28.7	5,062	30.1
1840 Columbus, OH	n/m		n/m		1,754	13.2	1,515	9.3
1880 Corpus Christi, TX	n/m		(114)	(0.9)	3,054	21.6	n/m	
1920 Dallas, TX	n/m		3,900	32.3	3,549	24.3	4,521	26.9
1930 Danbury, CT	n/m		n/m		n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		2,510	18.4	8,264	55.4	7,847	46.9
2000 Dayton-Springfield, OH	n/m		n/m		n/m		n/m	
2080 Denver, CO	n/m		3,075	25.1	3,329	23.3	4,752	28.8
2160 Detroit, MI	n/m		1,939	14.3	4,094	28.7	13,083	79.0
2330 Elkhart-Goshen, IN	n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		2,099	16.2	1,387	9.5	n/m	
2960 Gary-Hammond, IN	n/m		n/m		n/m		n/m	
3360 Houston, TX	n/m		n/m		6,191	45.7	n/m	
3440 Huntsville, AL	n/m		1,039	8.5	(738)	(4.8)	4,158	24.8
3560 Jackson, MS	n/m		n/m		(1,678)	(9.7)	856	5.0
3760 Kansas City, MO-KS	n/m		3,864	30.9	2,361	15.8	4,973	29.8
4160 Lawrence-Haverhill, MA-NH	n/m		n/m		3,923	27.0	n/m	
4420 Longview-Marshall, TX	n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		4,953	37.2	6,103	38.4	6,801	39.9
4520 Louisville, KY-IN	n/m		793	5.8	3,834	24.8	5,484	32.6
4920 Memphis, TN-AR-MS	n/m		2,454	19.8	1,284	8.7	5,229	30.5
5000 Miami-Hialeah, FL	n/m		n/m		1,208	7.4	3,689	22.1
5080 Milwaukee, WI	n/m		n/m		3,912	29.5	5,757	35.9
5120 Minneapolis-St Paul, MN-WI	n/m		n/m		2,408	16.4	5,072	30.6
5190 Monmouth-Ocean, NJ	n/m		1,444	10.6	4,475	30.2	n/m	
5380 Nassau-Suffolk, NY	n/m		n/m		3,470	23.1	n/m	

(continued)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff
5560 New Orleans, LA	n/m		3,116	24.8	3,293	22.8	7,202	43.9
5600 New York, NY	n/m		n/m		3,106	20.1	6,944	41.7
5640 Newark, NJ	n/m		3,928	33.3	4,575	31.9	4,924	28.6
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m		n/m		n/m	
5775 Oakland, CA	n/m		n/m		n/m		n/m	
5880 Oklahoma City, OK	n/m		n/m		n/m		n/m	
6160 Philadelphia, PA	n/m		3,044	24.0	n/m		n/m	
6200 Phoenix, AZ	n/m		n/m		1,923	12.6	2,055	12.1
6280 Pittsburgh, PA	n/m		3,564	30.2	3,180	20.7	6,526	38.4
6440 Portland, OR	n/m		n/m		2,099	13.7	3,631	21.7
6460 Poughkeepsie, NY	n/m		n/m		532	3.7	n/m	
6760 Richmond-Petersburg, VA	n/m		2,576	21.8	913	5.7	2,998	16.9
6840 Rochester, NY	n/m		n/m		n/m		7,941	46.6
6980 St Cloud, MN	n/m		n/m		n/m		n/m	
7040 St Louis, MO-IL	n/m		2,074	16.1	3,785	25.8	6,570	40.2
7200 San Angelo, TX	n/m		n/m		n/m		n/m	
7320 San Diego, CA	n/m		3,487	28.7	n/m		n/m	
7360 San Francisco, CA	n/m		8,021	66.8	7,359	50.6	n/m	
7400 San Jose, CA	n/m		n/m		3,767	23.6	4,272	24.6
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		1,219	8.4	n/m	
7600 Seattle, WA	n/m		3,824	32.4	4,894	34.3	n/m	
7800 South Bend-Mishawaka, IN	n/m		n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		(859)	(5.8)	1,269	7.5
8780 Visalia-Tulare-Portersville, CA	n/m		n/m		5,238	35.9	n/m	
8840 Washington, DC-MD-VA	n/m		n/m		n/m		n/m	
9160 Wilmington, DE-NJ-MD	n/m		n/m		n/m		n/m	
9240 Worcester, MA	n/m		n/m		n/m		n/m	

Drafter (0818)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff	06 V $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m		9,892	72.3	n/m		n/m	
0460 Appleton-Oshkosh-Neenah, WI	n/m		n/m		n/m		n/m		n/m	
0520 Atlanta, GA	n/m		n/m		n/m		n/m		n/m	
0720 Baltimore, MD	n/m		n/m		7,691	55.6	n/m		12,555	67.7
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m		n/m	
0880 Billings, MT	n/m		n/m		n/m		n/m		n/m	
1120 Boston, MA	n/m		6,398	54.2	n/m		10,252	62.1	13,887	66.9
1140 Bradenton, FL	n/m		n/m		n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m		n/m		n/m	
1600 Chicago, IL	n/m		n/m		n/m		n/m		n/m	
1640 Cincinnati, OH-KY-IN	n/m		n/m		n/m		n/m		n/m	
1680 Cleveland, OH	n/m		n/m		n/m		n/m		n/m	
1840 Columbus, OH	n/m		n/m		7,071	52.5	9,592	64.7	8,081	43.2
1880 Corpus Christi, TX	n/m		n/m		n/m		n/m		n/m	
1920 Dallas, TX	n/m		n/m		n/m		n/m		9,896	51.3
1930 Danbury, CT	n/m		n/m		n/m		n/m		n/m	
1960 Davenport-Rock Island-Moline, IA-IL	n/m		n/m		n/m		n/m		7,873	42.0
2000 Dayton-Springfield, OH	n/m		n/m		7,302	55.1	n/m		11,603	60.6
2080 Denver, CO	n/m		n/m		5,034	33.1	7,655	44.9	9,016	47.5
2160 Detroit, MI	n/m		n/m		n/m		n/m		18,242	94.6
2330 Elkhart-Goshen, IN	n/m		n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m		n/m		n/m	
2960 Gary-Hammond, IN	n/m		n/m		n/m		n/m		n/m	
3360 Houston, TX	n/m		n/m		n/m		10,424	62.1	n/m	
3440 Huntsville, AL	n/m		n/m		3,600	20.9	5,354	36.1	n/m	
3560 Jackson, MS	n/m		n/m		n/m		n/m		n/m	
3760 Kansas City, MO-KS	n/m		n/m		2,638	15.3	8,805	56.1	11,961	64.3
4160 Lawrence-Haverhill, MA-NH	n/m		n/m		n/m		n/m		n/m	
4420 Longview-Marshall, TX	n/m		n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		n/m		10,802	78.9	7,691	37.3	14,050	76.2
4520 Louisville, KY-IN	n/m		n/m		n/m		12,187	77.6	19,437	108.6
4920 Memphis, TN-AR-MS	n/m		n/m		n/m		6,498	38.7	n/m	
5000 Miami-Hialeah, FL	n/m		n/m		n/m		9,410	63.5	n/m	
5080 Milwaukee, WI	n/m		n/m		n/m		n/m		n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		4,806	38.2	n/m		n/m		n/m	
5190 Monmouth-Ocean, NJ	n/m		n/m		n/m		10,892	66.8	n/m	
5380 Nassau-Suffolk, NY	n/m		n/m		n/m		n/m		14,544	85.2

(continued)

64 MSA Cities 1987	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff	06 V $Diff	%Diff
5560 New Orleans, LA	n/m		n/m		n/m		11,217	69.9	n/m	
5600 New York, NY	n/m		n/m		n/m		10,151	61.3	9,168	47.6
5640 Newark, NJ	n/m		n/m		8,670	65.4	10,393	68.3	13,918	80.7
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m		n/m		6,228	37.1	n/m	
5775 Oakland, CA	n/m		n/m		n/m		n/m		13,702	70.1
5880 Oklahoma City, OK	n/m		n/m		3,956	28.4	8,559	57.1	10,060	55.6
6160 Philadelphia, PA	n/m		n/m		5,387	37.8	8,025	48.1	13,398	69.0
6200 Phoenix, AZ	n/m		n/m		7,630	55.7	6,180	36.1	10,140	55.8
6280 Pittsburgh, PA	n/m		n/m		n/m		5,913	31.9	9,589	47.7
6440 Portland, OR	n/m		n/m		n/m		5,319	30.5	7,166	37.2
6460 Poughkeepsie, NY	n/m		n/m		n/m		n/m		n/m	
6760 Richmond-Petersburg, VA	n/m		n/m		n/m		n/m		n/m	
6840 Rochester, NY	n/m		n/m		n/m		n/m		n/m	
6980 St Cloud, MN	n/m		n/m		n/m		n/m		n/m	
7040 St Louis, MO-IL	n/m		n/m		n/m		10,580	71.4	13,577	71.5
7200 San Angelo, TX	n/m		n/m		n/m		n/m		n/m	
7320 San Diego, CA	n/m		n/m		n/m		9,358	55.7	n/m	
7360 San Francisco, CA	n/m		n/m		n/m		15,286	103.1	14,820	81.5
7400 San Jose, CA	n/m		n/m		n/m		11,100	70.2	n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		4,354	31.8	7,179	44.2	n/m	
7600 Seattle, WA	n/m		n/m		n/m		n/m		n/m	
7800 South Bend-Mishawaka, IN	n/m		n/m		n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		n/m		n/m		n/m	
8780 Visalia-Tulare-Portersville, CA	n/m		n/m		n/m		n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m		n/m		n/m		n/m	
9160 Wilmington, DE-NJ-MD	n/m		n/m		n/m		n/m		n/m	
9240 Worcester, MA	n/m		n/m		n/m		n/m		n/m	

Federal/Private Pay Differentials (Dollar and Percent) By MSA and Job Level (1988)

The pay comparisons in this appendix show whether the private sector paid, on average, more than the federal government, less than the federal government, or whether no match of private sector and federal pay could be made within each of 63 MSAs within each of 30 job levels in 1988. The private sector pay data are from BLS pay surveys. The federal pay data are from OPM.

Pay differentials were calculated using federal rates as the base of comparison.[1] The differential, therefore, represents the extent to which the federal pay rate would need to be adjusted to become comparable to the private sector rate. In MSAs where the private sector paid more than the federal government, the dollar and percent differentials are presented as positive values. In MSAs where the private sector paid less than the federal government, the dollar and percent differentials are presented as negative values.

In MSAs and jobs where no match between private sector and federal pay could be made, a "n/m" is shown. For example, no match between private sector and federal pay could be made for the file clerk I job in Anaheim-Santa Ana, California. The failure to make a federal/private sector pay match could be due to the lack of reportable BLS private sector data, lack of federal pay data (due to the lack of any federal job incumbents at that grade level), or both.

[1]Differential calculations were made using the following formulas: Dollar Differential = private sector rate - federal rate; Percent Differential = (private rate - federal rate)/federal rate.

File Clerk (0305)

63 MSA Cities 1988	01 I $Diff	%Diff	02 II $Diff	%Diff	03 III $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m		n/m	
0520 Atlanta, GA	(263)	(2.1)	1,922	17.3	n/m	
0640 Austin, TX	n/m		n/m		n/m	
0720 Baltimore, MD	n/m		2,579	21.9	n/m	
0875 Bergen-Passaic, NJ	n/m		n/m		n/m	
1080 Boise City, ID	n/m		n/m		n/m	
1120 Boston, MA	n/m		2,722	24.6	n/m	
1280 Buffalo, NY	n/m		n/m		n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m		n/m	
1440 Charleston, SC	n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m	
1600 Chicago, IL	n/m		2,857	24.6	n/m	
1680 Cleveland, OH	n/m		(229)	(1.8)	129	1.0
1880 Corpus Christi, TX	n/m		n/m		n/m	
1920 Dallas, TX	n/m		625	4.5	n/m	
2000 Dayton-Springfield, OH	n/m		n/m		n/m	
2040 Decatur, IL	n/m		n/m		n/m	
2080 Denver, CO	n/m		1,361	11.6	n/m	
2160 Detroit, MI	n/m		3,156	25.8	n/m	
2655 Florence, SC	n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m	
2900 Gainesville, FL	n/m		n/m		n/m	
3280 Hartford, CT	n/m		n/m		n/m	
3360 Houston, TX	n/m		n/m		n/m	
3480 Indianapolis, IN	n/m		(1,240)	(10.2)	n/m	
3690 Joliet, IL	n/m		n/m		n/m	
3760 Kansas City, MO-KS	n/m		583	5.2	n/m	
3850 Kokomo, IN	n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		6,039	52.8	7,044	52.1
5000 Miami-Hialeah, FL	n/m		n/m		n/m	
5080 Milwaukee, WI	n/m		n/m		n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		n/m		n/m	
5160 Mobile, AL	n/m		n/m		n/m	
5380 Nassau-Suffolk, NY	2,409	24.6	3,212	29.0	n/m	
5560 New Orleans, LA	n/m		n/m		n/m	
5600 New York, NY	n/m		1,541	13.5	2,314	17.4
5640 Newark, NJ	n/m		n/m		n/m	

(continued)

63 MSA Cities 1988	01 I $Diff	%Diff	02 II $Diff	%Diff	03 III $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	1,109	11.3	(626)	(4.7)	n/m	
5775 Oakland, CA	n/m		3,905	33.8	n/m	
5880 Oklahoma City, OK	n/m		n/m		n/m	
5920 Omaha, NE-IA	n/m		851	6.8	n/m	
5960 Orlando, FL	n/m		n/m		n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m		n/m	
6160 Philadelphia, PA-NJ	n/m		1,332	11.9	n/m	
6200 Phoenix, AZ	n/m		645	5.2	n/m	
6280 Pittsburgh, PA	n/m		458	4.1	n/m	
6400 Portland, ME	n/m		n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		n/m		n/m	
7040 St Louis, MO-IL	n/m		288	2.4	744	5.4
7160 Salt Lake City-Ogden, UT	n/m		n/m		n/m	
7200 San Angelo, TX	n/m		n/m		n/m	
7240 San Antonio, TX	n/m		n/m		n/m	
7320 San Diego, CA	n/m		3,855	28.0	n/m	
7360 San Francisco, CA	n/m		4,464	40.5	n/m	
7400 San Jose, CA	n/m		n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		n/m	
7600 Seattle, WA	n/m		n/m		n/m	
7680 Shreveport, LA	n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		n/m	
8400 Toledo, OH	n/m		n/m		n/m	
8480 Trenton, NJ	n/m		n/m		n/m	
8840 Washington, DC-MD-VA	2,698	25.1	2,655	23.3	n/m	
9280 York, PA	n/m		n/m		n/m	

Stenographer (0312)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		n/m	
0520 Atlanta, GA	n/m		n/m	
0640 Austin, TX	n/m		n/m	
0720 Baltimore, MD	n/m		n/m	
0875 Bergen-Passaic, NJ	n/m		n/m	
1080 Boise City, ID	n/m		n/m	
1120 Boston, MA	n/m		n/m	
1280 Buffalo, NY	n/m		n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m	
1440 Charleston, SC	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m	
1600 Chicago, IL	n/m		3,892	25.7
1680 Cleveland, OH	6,292	52.3	7,812	51.8
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	n/m		2,144	11.6
2000 Dayton-Springfield, OH	n/m		n/m	
2040 Decatur, IL	n/m		n/m	
2080 Denver, CO	n/m		n/m	
2160 Detroit, MI	12,012	99.8	12,715	87.0
2655 Florence, SC	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2900 Gainesville, FL	n/m		n/m	
3280 Hartford, CT	n/m		n/m	
3360 Houston, TX	n/m		n/m	
3480 Indianapolis, IN	n/m		n/m	
3690 Joliet, IL	n/m		n/m	
3760 Kansas City, MO-KS	n/m		7,430	50.6
3850 Kokomo, IN	n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		n/m	
5000 Miami-Hialeah, FL	n/m		n/m	
5080 Milwaukee, WI	n/m		5,816	38.5
5120 Minneapolis-St Paul, MN-WI	n/m		n/m	
5160 Mobile, AL	n/m		n/m	
5380 Nassau-Suffolk, NY	n/m		n/m	
5560 New Orleans, LA	n/m		n/m	

(continued)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
5600 New York, NY	n/m		n/m	
5640 Newark, NJ	n/m		n/m	
5720 Norfolk-VA Beach-Newport News, VA	15,371	123.6	n/m	
5775 Oakland, CA	n/m		n/m	
5880 Oklahoma City, OK	n/m		n/m	
5920 Omaha, NE-IA	n/m		n/m	
5960 Orlando, FL	n/m		n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m	
6160 Philadelphia, PA-NJ	9,839	79.7	n/m	
6200 Phoenix, AZ	n/m		n/m	
6280 Pittsburgh, PA	6,307	48.0	n/m	
6400 Portland, ME	n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		n/m	
7040 St Louis, MO-IL	3,848	32.0	5,031	33.2
7160 Salt Lake City-Ogden, UT	n/m		n/m	
7200 San Angelo, TX	n/m		n/m	
7240 San Antonio, TX	n/m		n/m	
7320 San Diego, CA	n/m		n/m	
7360 San Francisco, CA	n/m		n/m	
7400 San Jose, CA	n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m	
7600 Seattle, WA	n/m		n/m	
7680 Shreveport, LA	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m	
8400 Toledo, OH	n/m		n/m	
8480 Trenton, NJ	n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m	
9280 York, PA	n/m		n/m	

Secretary (0318)

63 MSA Cities 1988	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff	08 V $Diff	%Diff
0360 Anaheim-Santa Ana, CA	2,933	17.6	4,057	22.1	4,783	23.6	n/m		10,914	50.9
0520 Atlanta, GA	3,336	22.5	1,776	10.2	3,373	17.1	3,941	17.7	n/m	
0640 Austin, TX	746	5.0	684	3.9	438	2.2	2,729	12.3	n/m	
0720 Baltimore, MD	2,231	14.6	3,178	18.2	3,007	15.2	2,312	10.4	n/m	
0875 Bergen-Passaic, NJ	2,084	12.4	1,978	11.2	1,400	6.8	n/m		n/m	
1080 Boise City, ID	n/m		(1,705)	(9.8)	(1,611)	(8.1)	(320)	(1.4)	1,583	6.4
1120 Boston, MA	1,357	8.4	1,915	10.8	2,864	14.6	3,915	17.7	4,547	18.0
1280 Buffalo, NY	(5)	0.0	(1,995)	(11.4)	(1,817)	(9.2)	(1,150)	(5.1)	n/m	
1400 Champaign-Urbana-Rantoul, IL	478	3.2	n/m		(2,486)	(12.4)	n/m		n/m	
1440 Charleston, SC	294	1.9	n/m		(572)	(2.9)	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	1,223	8.0	n/m		770	3.8	1,762	7.8	(297)	(1.2)
1600 Chicago, IL	4,282	28.4	2,326	13.6	2,363	12.1	2,994	13.6	4,722	19.3
1680 Cleveland, OH	6,119	41.8	914	5.3	1,058	5.4	699	3.1	1,591	6.4
1880 Corpus Christi, TX	(1,459)	(9.5)	1,561	8.7	221	1.1	n/m		n/m	
1920 Dallas, TX	2,168	14.3	2,998	17.1	1,912	9.7	2,561	11.6	n/m	
2000 Dayton-Springfield, OH	n/m		(106)	(0.6)	(299)	(1.5)	(1,664)	(7.4)	(445)	(1.7)
2040 Decatur, IL	n/m		n/m		n/m		n/m		n/m	
2080 Denver, CO	2,337	15.8	2,384	13.9	1,452	7.4	1,922	8.8	4,009	16.0
2160 Detroit, MI	7,018	48.3	4,381	25.7	7,076	36.3	3,752	17.1	8,394	33.7
2655 Florence, SC	n/m		(1,368)	(7.5)	n/m		n/m		n/m	
2840 Fresno, CA	2,938	20.1	314	1.8	264	1.3	1,710	8.1	n/m	
2900 Gainesville, FL	n/m		n/m		(1,658)	(8.2)	n/m		n/m	
3280 Hartford, CT	n/m		n/m		n/m		n/m		n/m	
3360 Houston, TX	4,271	29.2	3,993	23.4	3,717	18.9	4,883	22.4	7,011	28.6
3480 Indianapolis, IN	3,550	23.4	(204)	(1.2)	2,166	10.9	2,322	10.4	3,419	13.7
3690 Joliet, IL	n/m		n/m		n/m		n/m		n/m	
3760 Kansas City, MO-KS	1,182	7.7	1,359	7.8	1,128	5.7	1,562	7.0	2,973	11.8
3850 Kokomo, IN	n/m		n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	3,454	20.9	5,160	28.2	5,471	26.7	3,427	15.0	6,899	27.5
5000 Miami-Hialeah, FL	3,269	22.3	1,916	11.3	2,173	11.3	2,457	11.4	(1,027)	(4.1)
5080 Milwaukee, WI	2,939	19.5	671	3.9	1,534	7.7	1,528	6.7	1,200	4.9
5120 Minneapolis-St Paul, MN-WI	1,318	9.0	414	2.4	(215)	(1.1)	(819)	(3.7)	290	1.2
5160 Mobile, AL	(1,752)	(10.6)	2,034	11.2	(988)	(5.0)	2,022	8.9	n/m	
5380 Nassau-Suffolk, NY	3,856	25.6	n/m		1,429	7.2	3,842	17.3	4,157	16.7
5560 New Orleans, LA	2,441	16.3	2,525	14.5	1,892	9.6	n/m		n/m	
5600 New York, NY	1,994	11.6	2,163	11.6	2,427	12.0	3,635	16.3	5,757	23.2
5640 Newark, NJ	2,656	16.2	3,374	18.9	2,805	14.2	3,168	14.0	4,101	16.6

(continued)

63 MSA Cities 1988	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff	08 V $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	1,160	7.8	(1,034)	(5.9)	(852)	(4.3)	(1,586)	(7.0)	(407)	(1.6)
5775 Oakland, CA	n/m		1,555	8.3	2,276	11.2	4,325	19.3	n/m	
5880 Oklahoma City, OK	2,598	17.0	2,776	16.3	2,355	12.1	4,266	19.3	5,129	20.6
5920 Omaha, NE-IA	568	3.7	4,102	23.8	(2,635)	(12.9)	5	0.0	1,557	6.3
5960 Orlando, FL	23	0.1	174	1.0	998	4.9	212	0.9	1,089	4.4
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		1,704	11.3	(3,423)	(15.6)	n/m		n/m	
6160 Philadelphia, PA-NJ	3,298	22.4	3,284	19.0	2,104	10.7	1,545	6.9	n/m	
6200 Phoenix, AZ	989	6.4	363	2.1	600	3.0	1,190	5.3	2,351	9.9
6280 Pittsburgh, PA	4,143	28.1	565	3.2	(3)	0.0	1,060	4.7	n/m	
6400 Portland, ME	1,655	11.5	1,658	9.8	1,842	10.5	930	4.4	n/m	
6780 Riverside-San Bernardino, CA	4,409	29.1	2,952	16.9	2,028	10.0	1,982	8.5	n/m	
7040 St Louis, MO-IL	2,025	13.5	600	3.5	330	1.7	409	1.8	2,694	10.8
7160 Salt Lake City-Ogden, UT	(859)	(5.7)	769	4.5	1,242	6.4	1,640	7.4	n/m	
7200 San Angelo, TX	n/m		n/m		n/m		n/m		n/m	
7240 San Antonio, TX	302	2.0	1,100	6.4	58	0.3	686	3.0	n/m	
7320 San Diego, CA	4,534	30.4	4,050	23.6	3,033	15.3	4,757	21.6	n/m	
7360 San Francisco, CA	5,504	33.3	4,324	23.6	3,416	16.7	4,700	20.9	6,825	26.9
7400 San Jose, CA	1,941	11.5	1,872	9.7	2,113	9.9	3,950	17.0	5,856	23.4
7560 Scranton—Wilkes-Barre, PA	(1,473)	(9.7)	(2,616)	(14.4)	(1,105)	(5.8)	(3,026)	(14.0)	n/m	
7600 Seattle, WA	n/m		1,370	7.8	2,625	13.4	2,960	13.3	n/m	
7680 Shreveport, LA	1,426	9.8	n/m		(1,706)	(8.1)	(84)	(0.4)	n/m	
8280 Tampa-St Petersburg-Clearwater, FL	(40)	(0.2)	593	3.3	(667)	(3.3)	(110)	(0.5)	n/m	
8400 Toledo, OH	n/m		n/m		566	2.7	(32)	(0.1)	n/m	
8480 Trenton, NJ	2,776	17.5	2,223	13.0	1,938	9.8	358	1.6	4,543	19.0
8840 Washington, DC-MD-VA	n/m		2,401	13.6	2,723	13.7	n/m		n/m	
9280 York, PA	(2,069)	(12.8)	(1,704)	(10.0)	2,311	13.7	98	0.5	n/m	

Typist (0322)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	1,703	12.5	n/m	
0520 Atlanta, GA	n/m		n/m	
0640 Austin, TX	n/m		n/m	
0720 Baltimore, MD	2,800	25.3	4,436	34.7
0875 Bergen-Passaic, NJ	n/m		2,304	17.1
1080 Boise City, ID	n/m		n/m	
1120 Boston, MA	2,107	16.0	n/m	
1280 Buffalo, NY	n/m		90	0.7
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m	
1440 Charleston, SC	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m	
1600 Chicago, IL	3,157	28.5	4,316	33.9
1680 Cleveland, OH	3,788	34.3	5,379	41.9
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	(166)	(1.3)	n/m	
2000 Dayton-Springfield, OH	4,872	43.5	4,918	39.4
2040 Decatur, IL	n/m		n/m	
2080 Denver, CO	1,596	13.9	n/m	
2160 Detroit, MI	2,138	18.2	7,054	55.3
2655 Florence, SC	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2900 Gainesville, FL	n/m		n/m	
3280 Hartford, CT	2,826	25.6	3,250	27.0
3360 Houston, TX	3,185	26.3	n/m	
3480 Indianapolis, IN	252	2.1	2,199	17.0
3690 Joliet, IL	n/m		n/m	
3760 Kansas City, MO-KS	2,214	19.9	3,517	26.9
3850 Kokomo, IN	n/m		n/m	
4480 Los Angeles-Long Beach, CA	5,513	43.2	3,398	22.9
5000 Miami-Hialeah, FL	n/m		2,635	20.4
5080 Milwaukee, WI	1,863	16.7	4,875	39.0
5120 Minneapolis-St Paul, MN-WI	1,538	13.9	2,314	18.5
5160 Mobile, AL	n/m		n/m	
5380 Nassau-Suffolk, NY	2,696	24.4	3,535	27.4
5560 New Orleans, LA	1,018	8.5	n/m	
5600 New York, NY	1,136	8.5	1,624	10.9
5640 Newark, NJ	2,293	18.8	3,648	26.2

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63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	1,055	9.3	n/m	
5775 Oakland, CA	5,452	45.0	n/m	
5880 Oklahoma City, OK	n/m		n/m	
5920 Omaha, NE-IA	(1,783)	(13.5)	1,232	9.2
5960 Orlando, FL	n/m		n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m	
6160 Philadelphia, PA-NJ	2,068	18.6	5,429	43.0
6200 Phoenix, AZ	n/m		n/m	
6280 Pittsburgh, PA	2,696	24.4	3,718	28.8
6400 Portland, ME	n/m		1,672	13.2
6780 Riverside-San Bernardino, CA	n/m		n/m	
7040 St Louis, MO-IL	1,368	11.8	2,623	20.2
7160 Salt Lake City-Ogden, UT	2,669	23.9	521	4.0
7200 San Angelo, TX	n/m		n/m	
7240 San Antonio, TX	n/m		n/m	
7320 San Diego, CA	n/m		n/m	
7360 San Francisco, CA	8,104	61.3	11,466	75.8
7400 San Jose, CA	3,393	24.9	n/m	
7560 Scranton—Wilkes-Barre, PA	146	1.3	n/m	
7600 Seattle, WA	n/m		n/m	
7680 Shreveport, LA	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	(1,065)	(7.7)	n/m	
8400 Toledo, OH	n/m		7,503	60.3
8480 Trenton, NJ	n/m		3,042	25.3
8840 Washington, DC-MD-VA	n/m		n/m	
9280 York, PA	n/m		n/m	

Computer Operator (0332)

63 MSA Cities 1988	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		5,012	29.4	3,509	16.4	n/m	
0520 Atlanta, GA	1,965	12.8	5,147	31.6	5,558	30.4	5,201	24.1
0640 Austin, TX	n/m		323	1.9	3,796	21.1	n/m	
0720 Baltimore, MD	n/m		874	4.9	2,957	15.0	6,109	28.1
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m	
1080 Boise City, ID	n/m		284	1.7	2,481	13.0	n/m	
1120 Boston, MA	1,568	10.8	2,648	16.1	4,418	23.3	5,755	26.0
1280 Buffalo, NY	n/m		808	4.9	1,861	9.0	n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m		n/m		n/m	
1440 Charleston, SC	n/m		364	2.2	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		1,940	10.0	n/m	
1600 Chicago, IL	1,477	10.0	3,568	21.3	4,401	23.3	7,017	32.6
1680 Cleveland, OH	n/m		1,734	10.3	3,392	19.2	5,929	29.5
1880 Corpus Christi, TX	n/m		n/m		n/m		n/m	
1920 Dallas, TX	n/m		2,840	16.9	4,035	21.1	8,098	39.2
2000 Dayton-Springfield, OH	n/m		1,430	8.4	3,261	17.5	3,043	14.7
2040 Decatur, IL	n/m		n/m		n/m		n/m	
2080 Denver, CO	528	3.6	2,815	17.0	3,761	20.2	5,060	23.0
2160 Detroit, MI	5,457	37.5	7,758	46.7	8,764	46.0	n/m	
2655 Florence, SC	n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m		n/m	
2900 Gainesville, FL	n/m		n/m		n/m		n/m	
3280 Hartford, CT	n/m		n/m		3,044	16.1	1,580	6.7
3360 Houston, TX	3,483	24.9	3,354	20.5	5,700	30.7	8,470	40.5
3480 Indianapolis, IN	2,997	22.2	(860)	(4.6)	2,759	14.4	2,887	11.9
3690 Joliet, IL	n/m		n/m		n/m		n/m	
3760 Kansas City, MO-KS	(533)	(3.8)	600	3.6	3,724	19.8	7,314	35.3
3850 Kokomo, IN	n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		6,074	37.5	5,013	25.5	7,134	33.3
5000 Miami-Hialeah, FL	n/m		3,328	19.4	4,780	25.5	5,184	24.0
5080 Milwaukee, WI	n/m		n/m		4,421	23.8	n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		(444)	(2.3)	3,079	16.1	2,828	13.1
5160 Mobile, AL	n/m		n/m		n/m		n/m	
5380 Nassau-Suffolk, NY	(1,852)	(11.6)	3,315	20.3	7,677	44.1	n/m	
5560 New Orleans, LA	n/m		329	2.0	1,819	9.9	n/m	

(continued)

63 MSA Cities 1988	04 I $Diff	%Diff	05 II $Diff	%Diff	06 III $Diff	%Diff	07 IV $Diff	%Diff
5600 New York, NY	315	1.9	4,340	25.8	6,066	31.1	n/m	
5640 Newark, NJ	1,936	12.9	906	4.9	4,794	24.2	10,649	53.7
5720 Norfolk-VA Beach-Newport News, VA	999	6.5	(1,703)	(10.3)	n/m		n/m	
5775 Oakland, CA	n/m		4,293	25.8	4,370	22.7	n/m	
5880 Oklahoma City, OK	n/m		1,886	11.6	4,231	22.6	n/m	
5920 Omaha, NE-IA	n/m		1,614	9.9	2,200	11.4	n/m	
5960 Orlando, FL	n/m		(426)	(2.4)	2,991	16.1	n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m		n/m		n/m	
6160 Philadelphia, PA-NJ	432	2.9	1,840	10.8	3,670	19.4	5,056	23.2
6200 Phoenix, AZ	3,335	24.7	3,592	23.0	4,176	21.5	n/m	
6280 Pittsburgh, PA	(977)	(6.0)	(36)	(0.2)	4,151	23.1	n/m	
6400 Portland, ME	n/m		n/m		n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		3,456	19.8	7,104	38.7	n/m	
7040 St Louis, MO-IL	n/m		2,033	12.1	5,222	28.4	n/m	
7160 Salt Lake City-Ogden, UT	(1,044)	(7.1)	1,360	8.2	3,523	19.0	n/m	
7200 San Angelo, TX	n/m		650	3.8	n/m		n/m	
7240 San Antonio, TX	(2,763)	(17.5)	(133)	(0.8)	975	5.1	n/m	
7320 San Diego, CA	(62)	(0.4)	5,028	30.7	n/m		n/m	
7360 San Francisco, CA	n/m		5,056	29.5	6,109	31.2	3,858	16.9
7400 San Jose, CA	n/m		1,250	6.4	5,879	30.1	6,754	30.5
7560 Scranton—Wilkes-Barre, PA	(1,955)	(12.9)	38	0.2	n/m		n/m	
7600 Seattle, WA	n/m		4,564	28.2	6,024	32.9	7,856	37.7
7680 Shreveport, LA	n/m		n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		(1,754)	(9.5)	448	2.4	n/m	
8400 Toledo, OH	n/m		n/m		5,497	28.8	n/m	
8480 Trenton, NJ	n/m		n/m		6,516	34.5	n/m	
8840 Washington, DC-MD-VA	486	3.3	3,548	20.9	3,965	21.3	4,074	19.1
9280 York, PA	n/m		n/m		n/m		n/m	

Computer Programmer (0334)

63 MSA Cities 1988	05 I $Diff	%Diff	07 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	7,220	42.8	9,848	48.9
0520 Atlanta, GA	5,428	32.1	6,269	30.3
0640 Austin, TX	n/m		n/m	
0720 Baltimore, MD	4,924	28.2	5,473	27.0
0875 Bergen-Passaic, NJ	n/m		n/m	
1080 Boise City, ID	n/m		4,076	21.3
1120 Boston, MA	5,202	29.8	7,094	36.3
1280 Buffalo, NY	n/m		4,466	22.9
1400 Champaign-Urbana-Rantoul, IL	n/m		2,256	11.3
1440 Charleston, SC	n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	7,476	49.5	6,312	33.7
1600 Chicago, IL	n/m		7,342	36.6
1680 Cleveland, OH	5,002	28.7	5,009	25.5
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	7,410	49.2	7,118	36.2
2000 Dayton-Springfield, OH	n/m		n/m	
2040 Decatur, IL	n/m		n/m	
2080 Denver, CO	2,439	13.2	7,942	39.8
2160 Detroit, MI	11,900	75.4	10,212	52.8
2655 Florence, SC	n/m		n/m	
2840 Fresno, CA	n/m		n/m	
2900 Gainesville, FL	n/m		878	4.4
3280 Hartford, CT	n/m		6,234	32.2
3360 Houston, TX	7,397	44.2	9,796	51.7
3480 Indianapolis, IN	3,708	20.2	5,934	30.4
3690 Joliet, IL	n/m		n/m	
3760 Kansas City, MO-KS	5,479	31.1	6,598	32.7
3850 Kokomo, IN	n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		8,881	43.4
5000 Miami-Hialeah, FL	n/m		12,162	64.9
5080 Milwaukee, WI	n/m		5,948	30.0
5120 Minneapolis-St Paul, MN-WI	4,516	26.8	6,312	31.8
5160 Mobile, AL	n/m		n/m	
5380 Nassau-Suffolk, NY	n/m		7,228	34.4
5560 New Orleans, LA	n/m		7,035	36.4
5600 New York, NY	7,058	41.6	10,134	53.1
5640 Newark, NJ	5,443	28.2	8,106	41.9

(continued)

63 MSA Cities 1988	05 I $Diff	%Diff	07 II $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m	
5775 Oakland, CA	n/m		10,105	49.7
5880 Oklahoma City, OK	n/m		n/m	
5920 Omaha, NE-IA	939	4.9	3,972	19.7
5960 Orlando, FL	n/m		1,554	6.6
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m	
6160 Philadelphia, PA-NJ	5,929	36.4	6,214	30.3
6200 Phoenix, AZ	8,386	55.5	7,896	39.9
6280 Pittsburgh, PA	4,434	29.3	4,050	20.6
6400 Portland, ME	n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		n/m	
7040 St Louis, MO-IL	5,725	31.7	7,546	38.3
7160 Salt Lake City-Ogden, UT	999	5.4	4,452	20.9
7200 San Angelo, TX	n/m		n/m	
7240 San Antonio, TX	n/m		3,506	17.8
7320 San Diego, CA	n/m		n/m	
7360 San Francisco, CA	n/m		9,459	47.3
7400 San Jose, CA	n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	(2,701)	(13.2)	2,745	13.8
7600 Seattle, WA	n/m		4,865	24.3
7680 Shreveport, LA	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		5,584	26.3
8400 Toledo, OH	n/m		n/m	
8480 Trenton, NJ	n/m		5,506	27.3
8840 Washington, DC-MD-VA	n/m		6,251	31.0
9280 York, PA	n/m		n/m	

Computer Systems Analyst (0334)

63 MSA Cities 1988	13 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	5,645	12.1
0520 Atlanta, GA	n/m	
0640 Austin, TX	n/m	
0720 Baltimore, MD	(3,147)	(6.7)
0875 Bergen-Passaic, NJ	n/m	
1080 Boise City, ID	n/m	
1120 Boston, MA	8,423	18.4
1280 Buffalo, NY	n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m	
1440 Charleston, SC	n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m	
1600 Chicago, IL	n/m	
1680 Cleveland, OH	1,287	2.9
1880 Corpus Christi, TX	n/m	
1920 Dallas, TX	7,326	16.2
2000 Dayton-Springfield, OH	n/m	
2040 Decatur, IL	n/m	
2080 Denver, CO	4,503	9.9
2160 Detroit, MI	n/m	
2655 Florence, SC	n/m	
2840 Fresno, CA	n/m	
2900 Gainesville, FL	n/m	
3280 Hartford, CT	n/m	
3360 Houston, TX	13,373	29.3
3480 Indianapolis, IN	n/m	
3690 Joliet, IL	n/m	
3760 Kansas City, MO-KS	n/m	
3850 Kokomo, IN	n/m	
4480 Los Angeles-Long Beach, CA	8,895	19.8
5000 Miami-Hialeah, FL	n/m	
5080 Milwaukee, WI	n/m	
5120 Minneapolis-St Paul, MN-WI	(1,019)	(2.1)
5160 Mobile, AL	n/m	
5380 Nassau-Suffolk, NY	7,661	17.8
5560 New Orleans, LA	n/m	
5600 New York, NY	n/m	
5640 Newark, NJ	n/m	

(continued)

63 MSA Cities 1988	13 IV $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	n/m	
5775 Oakland, CA	n/m	
5880 Oklahoma City, OK	n/m	
5920 Omaha, NE-IA	(2,747)	(5.7)
5960 Orlando, FL	n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m	
6160 Philadelphia, PA-NJ	n/m	
6200 Phoenix, AZ	(592)	(1.3)
6280 Pittsburgh, PA	1,011	2.3
6400 Portland, ME	n/m	
6780 Riverside-San Bernardino, CA	n/m	
7040 St Louis, MO-IL	n/m	
7160 Salt Lake City-Ogden, UT	n/m	
7200 San Angelo, TX	n/m	
7240 San Antonio, TX	n/m	
7320 San Diego, CA	n/m	
7360 San Francisco, CA	6,441	14.2
7400 San Jose, CA	10,510	23.2
7560 Scranton—Wilkes-Barre, PA	n/m	
7600 Seattle, WA	4,482	9.7
7680 Shreveport, LA	n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m	
8400 Toledo, OH	n/m	
8480 Trenton, NJ	n/m	
8840 Washington, DC-MD-VA	n/m	
9280 York, PA	n/m	

Key Entry Operator (0356)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		5,508	42.6
0520 Atlanta, GA	1,651	11.9	2,979	19.2
0640 Austin, TX	2,447	22.1	5,476	45.0
0720 Baltimore, MD	3,554	32.2	3,024	23.7
0875 Bergen-Passaic, NJ	n/m		n/m	
1080 Boise City, ID	n/m		1,891	14.3
1120 Boston, MA	2,847	20.9	3,433	23.9
1280 Buffalo, NY	n/m		n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m	
1440 Charleston, SC	1,110	10.1	n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		3,139	23.7
1600 Chicago, IL	3,956	35.6	3,763	28.4
1680 Cleveland, OH	n/m		4,293	32.1
1880 Corpus Christi, TX	n/m		n/m	
1920 Dallas, TX	3,216	29.2	5,345	42.5
2000 Dayton-Springfield, OH	3,112	28.2	3,668	29.3
2040 Decatur, IL	n/m		n/m	
2080 Denver, CO	n/m		5,012	40.1
2160 Detroit, MI	n/m		6,531	50.8
2655 Florence, SC	n/m		n/m	
2840 Fresno, CA	3,157	28.5	n/m	
2900 Gainesville, FL	n/m		n/m	
3280 Hartford, CT	n/m		5,089	41.4
3360 Houston, TX	n/m		5,101	40.9
3480 Indianapolis, IN	2,348	20.7	2,225	16.5
3690 Joliet, IL	n/m		n/m	
3760 Kansas City, MO-KS	3,324	29.7	4,847	38.6
3850 Kokomo, IN	n/m		n/m	
4480 Los Angeles-Long Beach, CA	1,343	9.4	4,867	34.1
5000 Miami-Hialeah, FL	2,878	26.1	5,287	41.8
5080 Milwaukee, WI	n/m		n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		1,683	11.5
5160 Mobile, AL	n/m		n/m	
5380 Nassau-Suffolk, NY	2,820	23.8	4,538	34.7
5560 New Orleans, LA	3,866	35.0	4,261	33.3
5600 New York, NY	1,291	9.0	2,318	15.4
5640 Newark, NJ	n/m		3,701	25.9

(continued)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m	
5775 Oakland, CA	n/m		3,875	25.1
5880 Oklahoma City, OK	n/m		3,091	23.2
5920 Omaha, NE-IA	n/m		n/m	
5960 Orlando, FL	n/m		832	6.2
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m	
6160 Philadelphia, PA-NJ	2,507	22.7	5,374	42.2
6200 Phoenix, AZ	n/m		2,767	21.2
6280 Pittsburgh, PA	n/m		4,480	34.6
6400 Portland, ME	n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		3,304	25.8
7040 St Louis, MO-IL	1,838	16.7	3,463	26.6
7160 Salt Lake City-Ogden, UT	2,433	21.9	1,391	11.3
7200 San Angelo, TX	n/m		n/m	
7240 San Antonio, TX	1,448	13.1	2,339	18.9
7320 San Diego, CA	n/m		3,986	29.2
7360 San Francisco, CA	4,334	32.8	4,480	27.5
7400 San Jose, CA	n/m		5,357	34.9
7560 Scranton—Wilkes-Barre, PA	735	6.5	3,424	25.1
7600 Seattle, WA	3,190	28.9	9,528	78.4
7680 Shreveport, LA	n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		(779)	(5.2)
8400 Toledo, OH	n/m		n/m	
8480 Trenton, NJ	n/m		n/m	
8840 Washington, DC-MD-VA	395	3.0	2,656	18.1
9280 York, PA	n/m		n/m	

Accounting Clerk (0525)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		4,970	38.7	4,970	30.9	n/m	
0520 Atlanta, GA	n/m		3,956	30.8	4,154	28.3	7,445	42.8
0640 Austin, TX	n/m		n/m		2,381	15.5	3,701	21.6
0720 Baltimore, MD	n/m		(203)	(1.3)	3,069	20.1	6,026	34.7
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m	
1080 Boise City, ID	n/m		n/m		2,201	15.3	1,630	9.4
1120 Boston, MA	n/m		3,266	24.6	4,241	28.5	6,048	35.2
1280 Buffalo, NY	n/m		n/m		2,997		22.2	n/m
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m		1,249		8.2	n/m
1440 Charleston, SC	n/m		n/m		2,895		19.1	n/m
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m		n/m	
1600 Chicago, IL	n/m		n/m		4,324		28.8	n/m
1680 Cleveland, OH	n/m		3,540	28.6	4,179	28.2	4,824	28.1
1880 Corpus Christi, TX	n/m		n/m		n/m		n/m	
1920 Dallas, TX	n/m		4,139	33.7	3,918	26.6	5,746	33.9
2000 Dayton-Springfield, OH	n/m		n/m		n/m		n/m	
2040 Decatur, IL	n/m		n/m		n/m		n/m	
2080 Denver, CO	n/m		3,443	27.4	3,591	24.8	5,491	32.5
2160 Detroit, MI	2,538	22.5	2,638	19.6	5,062	35.1	13,661	81.1
2655 Florence, SC	n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		2,214	16.1	2,414	16.1	n/m	
2900 Gainesville, FL	n/m		n/m		2,945	21.8	1,054	6.1
3280 Hartford, CT	n/m		n/m		n/m		n/m	
3360 Houston, TX	n/m		n/m		6,335	44.0	n/m	
3480 Indianapolis, IN	n/m		1,501	11.3	4,898	32.4	n/m	
3690 Joliet, IL	n/m		n/m		n/m		n/m	
3760 Kansas City, MO-KS	n/m		1,976	15.2	3,847	26.7	5,724	33.8
3850 Kokomo, IN	n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		5,568	43.4	6,232	39.8	6,794	39.0
5000 Miami-Hialeah, FL	n/m		n/m		3,571	24.0	n/m	
5080 Milwaukee, WI	n/m		n/m		n/m		6,384	39.8
5120 Minneapolis-St Paul, MN-WI	n/m		n/m		273	1.6	4,313	25.2
5160 Mobile, AL	n/m		n/m		177	1.0	n/m	
5380 Nassau-Suffolk, NY	n/m		n/m		5,663	40.3	8,634	52.6
5560 New Orleans, LA	n/m		3,009	22.7	3,065	20.5	7,976	47.6
5600 New York, NY	n/m		n/m		4,385	28.9	8,147	47.9
5640 Newark, NJ	n/m		n/m		6,325	46.8	7,249	45.2

(continued)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m		n/m		n/m	
5775 Oakland, CA	n/m		6,511	51.8	4,771	30.2	n/m	
5880 Oklahoma City, OK	n/m		n/m		n/m		n/m	
5920 Omaha, NE-IA	n/m		2,817	21.6	1,343	8.6	2,436	15.4
5960 Orlando, FL	n/m		n/m		1,666	10.4	n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m		n/m		n/m	
6160 Philadelphia, PA-NJ	n/m		4,301	33.4	4,894	33.2	n/m	
6200 Phoenix, AZ	n/m		n/m		3,241	22.5	3,426	19.8
6280 Pittsburgh, PA	n/m		3,109	25.0	3,151	21.1	n/m	
6440 Portland, ME	n/m		n/m		n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		n/m		5,292	36.1		n/m
7040 St Louis, MO-IL	n/m		1,419	10.3	4,167	28.4	6,592	39.4
7160 Salt Lake City-Ogden, UT	n/m		n/m		4,263	28.4	2,874	17.3
7200 San Angelo, TX	n/m		n/m		n/m		n/m	
7240 San Antonio, TX	n/m		773	5.8	1,387	9.2	n/m	
7320 San Diego, CA	2,020	18.3	4,052	33.3	5,508	37.9	8,204	48.1
7360 San Francisco, CA	n/m		n/m		6,312	42.1	6,737	38.4
7400 San Jose, CA	n/m		n/m		4,341	27.0	n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		1,528	10.2	n/m	
7600 Seattle, WA	n/m		4,836	40.2	4,843	33.0	5,004	29.8
7680 Shreveport, LA	n/m		n/m		1,502	9.1	n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		(1,947)	(11.7)	516	2.8
8400 Toledo, OH	n/m		n/m		n/m		n/m	
8480 Trenton, NJ	n/m		n/m		n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m		n/m		n/m	
9280 York, PA	n/m		n/m		n/m		n/m	

Drafter (0818)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff	06 V $Diff	%Diff
0360 Anaheim-Santa Ana, CA	n/m		5,605	45.1	n/m		n/m		n/m	
0520 Atlanta, GA	n/m		n/m		n/m		7,744	41.5	n/m	
0640 Austin, TX	n/m		n/m		n/m		n/m		n/m	
0720 Baltimore, MD	n/m		n/m		n/m		10,314	61.1	12,902	66.9
0875 Bergen-Passaic, NJ	n/m		n/m		n/m		n/m		n/m	
1080 Boise City, ID	n/m		n/m		n/m		n/m		n/m	
1120 Boston, MA	n/m		n/m		8,093	59.9	11,128	64.9	13,883	65.0
1280 Buffalo, NY	n/m		n/m		n/m		9,338	59.8	n/m	
1400 Champaign-Urbana-Rantoul, IL	n/m		n/m		n/m		n/m		n/m	
1440 Charleston, SC	n/m		n/m		n/m		n/m		n/m	
1520 Charlotte-Gastonia-Rock Hill, NC-SC	n/m		n/m		n/m		n/m		n/m	
1600 Chicago, IL	n/m		n/m		n/m		n/m		n/m	
1680 Cleveland, OH	n/m		n/m		n/m		n/m		n/m	
1880 Corpus Christi, TX	n/m		n/m		n/m		n/m		n/m	
1920 Dallas, TX	n/m		n/m		n/m		n/m		10,083	51.3
2000 Dayton-Springfield, OH	n/m		n/m		7,474	55.3	9,925	65.7	9,366	40.4
2040 Decatur, IL	n/m		n/m		n/m		n/m		n/m	
2080 Denver, CO	n/m		n/m		5,992	40.1	8,552	50.9	9,157	47.3
2160 Detroit, MI	n/m		n/m		n/m		11,780	59.9	17,493	89.0
2655 Florence, SC	n/m		n/m		n/m		n/m		n/m	
2840 Fresno, CA	n/m		n/m		n/m		n/m		n/m	
2900 Gainesville, FL	n/m		n/m		n/m		n/m		n/m	
3280 Hartford, CT	n/m		n/m		n/m		n/m		n/m	
3360 Houston, TX	n/m		n/m		n/m		10,754	61.0	n/m	
3480 Indianapolis, IN	n/m		n/m		8,093	59.9	10,238	63.5	13,959	82.8
3690 Joliet, IL	n/m		n/m		n/m		n/m		n/m	
3760 Kansas City, MO-KS	n/m		n/m		6,403	47.4	n/m		11,914	63.3
3850 Kokomo, IN	n/m		n/m		n/m		n/m		n/m	
4480 Los Angeles-Long Beach, CA	n/m		n/m		n/m		8,801	45.7	n/m	
5000 Miami-Hialeah, FL	n/m		n/m		n/m		n/m		n/m	
5080 Milwaukee, WI	n/m		n/m		n/m		11,298	74.7	n/m	
5120 Minneapolis-St Paul, MN-WI	n/m		n/m		6,707	48.0	n/m		n/m	
5160 Mobile, AL	n/m		n/m		n/m		n/m		n/m	
5380 Nassau-Suffolk, NY	n/m		n/m		n/m		n/m		16,689	99.0
5560 New Orleans, LA	n/m		n/m		n/m		11,528	69.3	n/m	
5600 New York, NY	n/m		n/m		n/m		11,024	64.3	11,166	61.5
5640 Newark, NJ	n/m		n/m		n/m		10,817	69.7	14,411	82.8

(continued)

63 MSA Cities 1988	02 I $Diff	%Diff	03 II $Diff	%Diff	04 III $Diff	%Diff	05 IV $Diff	%Diff	06 V $Diff	%Diff
5720 Norfolk-VA Beach-Newport News, VA	n/m		n/m		n/m		8,357	52.4	n/m	
5775 Oakland, CA	n/m		n/m		n/m		n/m		13,087	59.7
5880 Oklahoma City, OK	n/m		n/m		n/m		8,175	52.9	11,177	62.0
5920 Omaha, NE-IA	n/m		n/m		5,035	34.9	n/m		n/m	
5960 Orlando, FL	n/m		n/m		n/m		7,694	43.0	n/m	
6060 Pawtucket-Woonsocket-Attleboro, RI-MA	n/m		n/m		n/m		n/m		n/m	
6160 Philadelphia, PA-NJ	n/m		n/m		n/m		n/m		n/m	
6200 Phoenix, AZ	n/m		n/m		6,015	40.5	6,147	34.2	10,297	57.0
6280 Pittsburgh, PA	n/m		n/m		n/m		9,286	49.1	10,004	47.5
6400 Portland, ME	n/m		n/m		n/m		n/m		n/m	
6780 Riverside-San Bernardino, CA	n/m		n/m		n/m		12,456	81.5	n/m	
7040 St Louis, MO-IL	n/m		n/m		n/m		10,898	69.8	n/m	
7160 Salt Lake City-Ogden, UT	n/m		n/m		n/m		9,216	58.1	n/m	
7200 San Angelo, TX	n/m		n/m		n/m		n/m		n/m	
7240 San Antonio, TX	n/m		n/m		n/m		2,058	13.2	6,096	33.6
7320 San Diego, CA	n/m		n/m		n/m		8,502	49.6	n/m	
7360 San Francisco, CA	n/m		n/m		11,595	83.0	n/m		16,527	91.9
7400 San Jose, CA	n/m		n/m		n/m		n/m		n/m	
7560 Scranton—Wilkes-Barre, PA	n/m		n/m		4,115	30.5	6,543	38.9	3,982	18.8
7600 Seattle, WA	n/m		n/m		n/m		n/m		n/m	
7680 Shreveport, LA	n/m		n/m		n/m		n/m		n/m	
8280 Tampa-St Petersburg-Clearwater, FL	n/m		n/m		n/m		n/m		n/m	
8400 Toledo, OH	n/m		n/m		n/m		n/m		n/m	
8480 Trenton, NJ	n/m		n/m		n/m		n/m		n/m	
8840 Washington, DC-MD-VA	n/m		n/m		n/m		n/m		n/m	
9280 York, PA	n/m		n/m		n/m		5,314	32.0	n/m	

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