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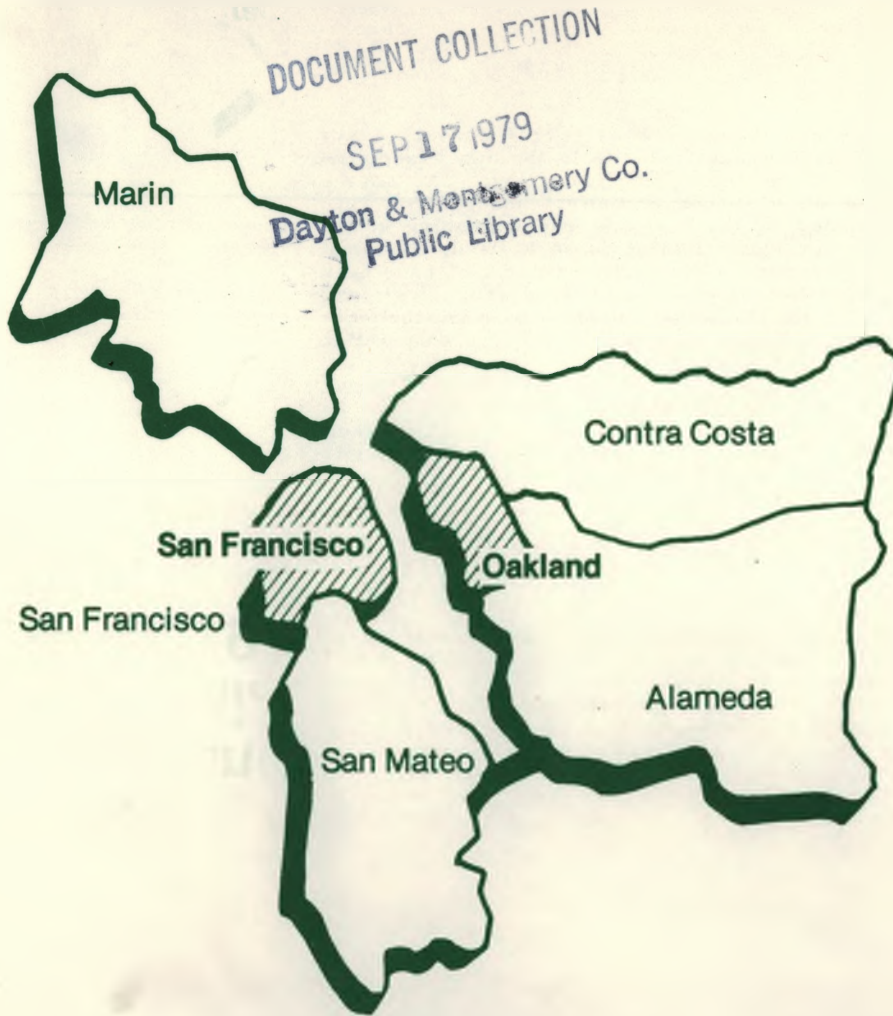
Area Wage Survey

San Francisco—Oakland, California, Metropolitan Area March 1979



U.S. Department of Labor
Bureau of Labor Statistics

Bulletin 2050-14



Preface

This bulletin provides results of a March 1979 survey of occupational earnings and supplementary wage benefits in the San Francisco-Oakland, California, Standard Metropolitan Statistical Area. The survey was made as part of the Bureau of Labor Statistics' annual area wage survey program. It was conducted by the Bureau's regional office in San Francisco, Calif., under the general direction of Susan Holland, Assistant Regional Commissioner for Operations. The survey could not have been accomplished without the cooperation of the many firms whose wage and salary data provided the basis for the statistical information in this bulletin. The Bureau wishes to express sincere appreciation for the cooperation received.

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Note:

Current reports on occupational earnings and supplementary wage provisions in the San Francisco-Oakland area are available for the hotels and motels (May 1978), computer and data processing (March 1978), and machinery (January 1978) industries. A report on occupational earnings and supplementary wage provisions in the San Francisco area is available for municipal government. Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

Area Wage Survey

San Francisco—Oakland, California, Metropolitan Area March 1979



U.S. Department of Labor
Ray Marshall, Secretary
Bureau of Labor Statistics
Janet L. Norwood
Commissioner

August 1979

Bulletin 2050-14

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Introduction

This area is 1 of 72 in which the U.S. Department of Labor's Bureau of Labor Statistics conducts surveys of occupational earnings and related benefits. (See list of areas on inside back cover.) In each area, earnings data for selected occupations (A-series tables) are collected annually. Information on establishment practices and supplementary wage benefits (B-series tables) is obtained every third year. This report has no B-series tables.

Each year after all individual area wage surveys have been completed, two summary bulletins are issued. The first brings together data for each metropolitan area surveyed; the second presents national and regional estimates, projected from individual metropolitan area data, for all Standard Metropolitan Statistical Areas in the United States, excluding Alaska and Hawaii.

A major consideration in the area wage survey program is the need to describe the level and movement of wages in a variety of labor markets, through the analysis of (1) the level and distribution of wages by occupation, and (2) the movement of wages by occupational category and skill level. The program develops information that may be used for many purposes, including wage and salary administration, collective bargaining, and assistance in determining plant location. Survey results also are used by the U.S. Department of Labor to make wage determinations under the Service Contract Act of 1965.

A-series tables

Tables A-1 through A-6 provide estimates of straight-time weekly or hourly earnings for workers in occupations common to a variety of

manufacturing and nonmanufacturing industries. The occupations are defined in Appendix B. For the 31 largest survey areas, tables A-10 through A-15 provide similar data for establishments employing 500 workers or more.

Table A-7 provides percent changes in average hourly earnings of office clerical workers, electronic data processing workers, industrial nurses, skilled maintenance trades workers, and unskilled plant workers. Where possible, data are presented for all industries and for manufacturing and nonmanufacturing separately. Data are not presented for skilled maintenance workers in nonmanufacturing because the number of workers employed in this occupational group in nonmanufacturing is too small to warrant separate presentation. This table provides a measure of wage trends after elimination of changes in average earnings caused by employment shifts among establishments as well as turnover of establishments included in survey samples. For further details, see appendix A.

Tables A-8 and A-9 provide for the first time measures of average pay relationships within establishments. These measures may differ considerably from the pay relationships of overall averages published in tables A-1 through A-6. See appendix A for details.

Appendixes

Appendix A describes the methods and concepts used in the area wage survey program and provides information on the scope of the survey.

Appendix B provides job descriptions used by Bureau field representatives to classify workers by occupation.

Earnings: All establishments

Table A-1. Weekly earnings of office workers, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																						
			Mean ²	Median ²	Middle range ²	Under \$ 120		\$ 120	\$ 130	\$ 140	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480	\$ 500
						and under																						
SECRETARIES -----	6,141	39.0	\$ 249.50	\$ 236.00	\$ 213.00-276.00	-	-	7	22	214	527	1169	1301	780	767	381	231	307	150	220	23	40	-	1	-	1	-	-
MANUFACTURING -----	1,421	39.5	253.50	247.50	214.00-282.00	-	-	7	7	44	79	277	203	264	179	88	79	95	73	11	6	7	-	1	-	1	-	-
NONMANUFACTURING -----	4,720	39.0	248.50	233.00	213.00-275.00	-	-	-	15	170	448	892	1098	516	588	293	152	212	77	209	17	33	-	-	-	-	-	-
PUBLIC UTILITIES -----	796	39.0	306.50	292.50	249.00-364.00	-	-	-	-	-	5	42	65	29	162	111	58	72	52	164	5	31	-	-	-	-	-	-
SECRETARIES, CLASS A -----	347	39.0	299.50	286.00	260.00-333.50	-	-	-	-	-	-	2	14	69	55	55	37	55	14	31	5	9	-	-	-	-	-	1
MANUFACTURING -----	70	39.5	296.50	277.50	274.50-306.50	-	-	-	-	-	-	-	3	11	22	10	12	2	1	3	1	4	-	-	-	-	-	1
NONMANUFACTURING -----	277	38.5	300.50	287.50	259.50-333.50	-	-	-	-	-	-	2	11	58	33	45	25	53	13	28	4	5	-	-	-	-	-	-
SECRETARIES, CLASS B -----	1,154	39.0	275.00	267.00	236.00-310.50	-	-	-	-	3	33	121	181	151	198	117	102	85	93	27	16	26	-	1	-	-	-	-
MANUFACTURING -----	296	39.5	291.50	287.50	249.00-345.00	-	-	-	-	-	1	28	16	50	46	12	34	32	68	5	3	-	-	1	-	-	-	-
NONMANUFACTURING -----	858	39.0	269.50	264.50	233.00-292.00	-	-	-	-	3	32	93	165	101	152	105	68	53	25	22	13	26	-	-	-	-	-	-
PUBLIC UTILITIES -----	170	39.5	306.00	289.00	267.50-342.00	-	-	-	-	-	-	4	18	13	24	44	4	10	15	7	5	26	-	-	-	-	-	-
SECRETARIES, CLASS C -----	1,910	39.0	244.50	237.00	215.00-275.00	-	-	-	17	48	163	343	434	292	323	115	51	75	34	8	2	5	-	-	-	-	-	-
MANUFACTURING -----	393	39.5	246.50	241.50	226.00-260.00	-	-	-	7	-	22	48	112	99	46	38	9	2	3	2	2	3	-	-	-	-	-	-
NONMANUFACTURING -----	1,517	39.0	244.00	236.00	212.00-275.00	-	-	-	19	48	141	295	322	193	277	77	42	73	31	6	-	2	-	-	-	-	-	-
PUBLIC UTILITIES -----	307	38.5	285.50	275.00	270.50-311.00	-	-	-	-	-	5	18	19	11	108	53	30	33	26	4	-	-	-	-	-	-	-	-
SECRETARIES, CLASS D -----	1,776	39.0	243.50	228.50	213.00-259.00	-	-	-	-	83	154	418	490	203	127	69	29	40	9	154	-	-	-	-	-	-	-	-
MANUFACTURING -----	363	39.0	246.50	241.50	213.00-267.50	-	-	-	-	11	21	83	54	78	45	15	20	34	1	1	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,413	39.0	242.50	228.50	213.00-248.50	-	-	-	-	72	133	335	436	125	82	54	9	6	8	153	-	-	-	-	-	-	-	-
SECRETARIES, CLASS E -----	886	39.5	221.00	211.00	198.50-236.50	-	-	7	-	76	173	279	166	56	54	19	11	45	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	293	39.5	222.00	210.00	198.00-247.50	-	-	7	-	33	35	118	18	26	20	13	4	19	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	593	39.5	220.50	213.00	198.50-236.50	-	-	-	-	43	138	161	148	30	34	6	7	26	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	93	38.5	272.50	265.50	236.50-320.50	-	-	-	-	-	-	18	20	-	20	2	7	26	-	-	-	-	-	-	-	-	-	-
STENOGRAPHERS -----	639	39.5	220.00	205.00	183.50-249.00	-	-	5	21	113	167	114	40	34	34	5	69	16	19	2	-	-	-	-	-	-	-	-
MANUFACTURING -----	77	39.5	246.50	219.50	199.00-303.50	-	-	-	-	-	-	20	19	3	10	1	15	8	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	562	40.0	216.50	195.50	180.00-245.50	-	-	5	21	113	147	95	37	24	33	4	54	8	19	2	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	160	39.5	285.50	308.00	249.00-318.00	-	-	-	-	2	2	18	4	17	31	4	53	8	19	2	-	-	-	-	-	-	-	-
STENOGRAPHERS, SENIOR -----	512	39.5	219.50	195.50	183.00-252.00	-	-	-	8	105	154	77	24	27	28	3	54	11	19	2	-	-	-	-	-	-	-	-
MANUFACTURING -----	53	39.0	229.50	219.50	196.00-252.00	-	-	-	-	-	16	18	1	10	1	1	3	3	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	459	39.5	218.50	190.00	181.00-245.50	-	-	-	8	105	138	59	23	17	27	2	51	8	19	2	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	116	39.0	305.00	318.00	263.00-318.50	-	-	-	-	-	-	-	-	10	25	2	50	8	19	2	-	-	-	-	-	-	-	-
STENOGRAPHERS, GENERAL -----	127	40.0	222.00	219.00	188.50-249.00	-	-	5	13	8	13	37	16	7	6	2	15	5	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	103	40.0	207.50	208.50	177.50-228.50	-	-	5	13	8	9	36	14	7	6	2	3	-	-	-	-	-	-	-	-	-	-	-
TRANSCRIBING-MACHINE TYPISTS -----	194	39.0	211.50	207.00	184.00-241.00	-	-	-	-	41	34	49	21	42	-	3	4	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	60	38.5	203.00	203.00	184.00-221.50	-	-	-	-	15	7	20	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	134	39.5	215.50	207.50	184.00-249.50	-	-	-	-	26	27	29	3	42	-	3	4	-	-	-	-	-	-	-	-	-	-	-
TYPISTS -----	2,129	39.0	186.50	173.50	161.00-213.00	-	-	53	435	662	303	234	290	72	26	15	14	3	4	15	1	-	-	-	-	-	-	
MANUFACTURING -----	394	39.5	203.50	206.00	183.00-225.50	-	-	-	-	36	56	77	109	92	12	9	-	1	1	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,735	39.0	183.00	169.00	160.00-200.50	-	-	53	399	606	226	125	198	60	17	15	14	2	3	15	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	161	39.0	244.00	230.50	200.50-290.00	-	-	-	-	1	7	35	14	25	7	12	13	2	3	15	-	-	-	-	-	-	-	-
TYPISTS, CLASS A -----	1,128	39.0	192.50	189.50	161.00-224.00	-	-	11	204	288	149	171	245	29	17	3	5	1	4	-	1	-	-	-	-	-	-	-
MANUFACTURING -----	252	39.5	218.00	219.50	205.00-228.50	-	-	-	-	10	35	95	91	10	8	-	1	1	-	1	-	1	-	-	-	-	-	-
NONMANUFACTURING -----	876	39.0	185.00	172.50	161.00-213.50	-	-	11	204	278	114	76	154	19	9	3	5	-	3	-	-	-	-	-	-	-	-	-

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers, San Francisco—Oakland, Calif., March 1979—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																				
			Mean ²	Median ²	Middle range ²																					
						Under \$ 120	\$ 120 and under	\$ 130	\$ 140	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480
TYPISTS - CONTINUED																										
TYPISTS, CLASS B -----	921	38.5	177.50	162.00	150.00-191.00	-	2	42	231	369	134	33	40	38	4	2	9	2	-	15	-	-	-	-	-	-
MANUFACTURING -----	142	39.5	177.00	172.50	160.00-193.50	-	-	-	36	46	42	14	1	2	1	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	779	38.5	177.50	162.00	150.00-187.00	-	2	42	195	323	92	19	39	36	3	2	9	2	-	15	-	-	-	-	-	-
PUBLIC UTILITIES -----	55	40.0	287.00	288.00	240.00-364.00	-	-	-	-	2	1	1	5	18	-	2	9	2	-	15	-	-	-	-	-	-
FILE CLERKS																										
FILE CLERKS, CLASS A -----	1,521	38.5	161.00	144.00	138.00-163.00	2	108	468	436	245	67	81	26	2	19	9	23	20	15	-	-	-	-	-	-	-
MANUFACTURING -----	90	38.5	194.50	199.00	163.00-228.50	-	-	3	7	33	13	8	16	1	8	-	1	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,431	38.5	158.50	141.50	138.00-162.50	2	108	465	429	212	54	73	10	1	11	9	22	20	15	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	94	39.5	283.50	307.00	264.00-329.50	-	-	15	-	-	-	2	-	-	11	9	22	20	15	-	-	-	-	-	-	-
NONMANUFACTURING -----	104	39.5	200.00	176.50	162.00-192.00	-	-	-	19	36	26	4	21	1	-	2	-	5	9	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	52	40.0	309.50	313.00	307.00-329.50	-	-	-	-	-	-	-	-	-	11	-	20	15	6	-	-	-	-	-	-	-
FILE CLERKS, CLASS B -----	690	38.5	166.50	149.50	138.00-165.50	2	56	197	185	96	21	66	5	1	19	-	21	15	6	-	-	-	-	-	-	-
MANUFACTURING -----	658	38.5	165.00	146.50	138.00-162.50	2	56	197	182	80	20	64	4	1	11	-	20	15	6	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	52	40.0	309.50	313.00	307.00-329.50	-	-	-	-	-	-	-	-	-	11	-	20	15	6	-	-	-	-	-	-	-
FILE CLERKS, CLASS C -----	708	38.0	148.00	140.00	138.00-146.00	-	52	271	232	113	20	11	-	-	-	7	2	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	669	38.0	146.00	140.00	138.00-144.00	-	52	268	228	97	8	7	-	-	-	7	2	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	26	38.5	198.50	137.00	137.00-298.00	-	-	15	-	-	-	2	-	-	-	7	2	-	-	-	-	-	-	-	-	-
MESSENGERS																										
MESSENGERS -----	1,143	37.5	182.00	178.50	157.00-211.50	5	76	98	118	280	129	281	140	11	-	5	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	166	38.5	174.50	167.00	168.00-177.00	-	-	-	22	115	12	9	4	1	-	3	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	977	37.5	183.50	188.00	147.50-211.50	5	76	98	96	165	117	272	136	10	-	2	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	60	38.5	170.50	145.00	137.00-197.50	-	-	25	10	-	14	1	8	-	-	2	-	-	-	-	-	-	-	-	-	-
SWITCHBOARD OPERATORS																										
SWITCHBOARD OPERATORS -----	655	39.0	187.00	167.00	166.50-194.50	-	25	2	45	318	124	56	26	11	5	3	23	7	10	-	-	-	-	-	-	-
MANUFACTURING -----	52	39.5	214.00	196.50	175.00-228.50	-	-	-	4	13	13	6	4	-	4	-	3	5	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	603	39.0	184.50	167.00	166.50-194.00	-	25	2	41	305	111	50	22	11	1	3	20	2	10	-	-	-	-	-	-	-
SWITCHBOARD OPERATOR-RECEPTIONISTS																										
SWITCHBOARD OPERATOR-RECEPTIONISTS -----	858	38.5	191.50	178.50	167.00-207.00	-	35	28	93	281	177	102	52	25	9	3	21	-	13	19	-	-	-	-	-	-
MANUFACTURING -----	227	39.5	202.50	192.00	183.00-218.50	-	-	1	10	20	112	33	26	3	8	-	13	-	1	-	-	-	-	-	-	-
NONMANUFACTURING -----	631	38.5	188.00	170.00	161.00-205.50	-	35	27	83	261	65	69	26	22	1	3	8	-	12	19	-	-	-	-	-	-
PUBLIC UTILITIES -----	58	39.0	279.00	346.50	205.50-364.00	-	-	6	-	3	-	18	-	-	-	-	-	-	12	19	-	-	-	-	-	-
ORDER CLERKS																										
ORDER CLERKS -----	1,134	39.5	232.00	216.50	199.00-244.50	-	-	20	67	77	192	259	134	42	106	45	84	6	24	13	24	1	-	-	-	-
MANUFACTURING -----	607	39.0	247.00	223.00	205.00-288.50	-	-	-	-	20	123	145	68	26	68	41	60	6	12	13	24	1	-	-	-	-
NONMANUFACTURING -----	527	39.5	215.00	204.50	172.50-247.50	-	-	20	67	57	69	114	66	16	38	44	24	-	12	-	-	-	-	-	-	-
NONMANUFACTURING -----	244	40.0	232.00	218.50	204.00-264.50	-	-	-	-	6	22	96	40	16	38	14	-	-	12	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	244	40.0	232.00	218.50	204.00-264.50	-	-	-	-	6	22	96	40	16	38	14	-	-	12	-	-	-	-	-	-	-
ORDER CLERKS, CLASS A -----	560	39.5	251.50	232.50	204.00-287.50	-	-	-	-	6	94	141	50	27	94	53	27	6	24	13	24	1	-	-	-	-
MANUFACTURING -----	316	39.5	267.00	260.50	213.00-303.50	-	-	-	-	-	72	45	10	11	56	39	27	6	12	13	24	1	-	-	-	-
NONMANUFACTURING -----	244	40.0	232.00	218.50	204.00-264.50	-	-	-	-	6	22	96	40	16	38	14	-	-	12	-	-	-	-	-	-	-
ORDER CLERKS, CLASS B -----	564	39.0	213.50	209.50	172.50-237.00	-	-	20	67	71	88	118	84	15	12	32	57	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	291	38.5	225.50	217.50	203.00-230.00	-	-	-	-	20	51	100	58	15	12	2	33	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	273	39.5	200.50	172.50	154.00-239.50	-	-	20	67	51	37	18	26	-	-	30	24	-	-	-	-	-	-	-	-	-
ACCOUNTING CLERKS																										
ACCOUNTING CLERKS -----	5,009	39.0	223.50	213.00	180.50-254.50	-	-	89	269	859	719	940	535	514	407	124	95	112	137	194	11	-	-	-	-	-
MANUFACTURING -----	1,559	39.5	224.50	219.00	184.00-253.00	-	-	-	60	314	178	240	237	184	101	94	55	68	19	3	2	-	-	-	-	-
NONMANUFACTURING -----	3,450	39.0	223.50	210.50	180.50-258.50	-	-	89	209	541	541	700	298	334	306	30	40	44	118	191	9	-	-	-	-	-
PUBLIC UTILITIES -----	738	40.0	299.50	269.00	269.00-364.00	-	-	-	-	25	3	46	22	43	279	-	-	4	116	191	9	-	-	-	-	-

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers, San Francisco—Oakland, Calif., March 1979—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																				
			Mean ²	Median ²	Middle range ²	Under \$ 120		\$ 140	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480	
						and under	120	130	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	500
ACCOUNTING CLERKS - CONTINUED																										
ACCOUNTING CLERKS, CLASS A -----	2,509	39.0	\$ 238.50	\$ 226.50	\$ 202.00-258.50	-	-	-	14	258	328	524	420	408	130	100	32	60	30	194	11	-	-	-	-	-
MANUFACTURING -----	910	39.5	233.50	230.00	207.00-255.50	-	-	-	147	60	148	181	150	99	71	16	20	13	3	2	-	-	-	-	-	-
NONMANUFACTURING -----	1,599	38.5	241.50	225.00	201.50-258.50	-	-	-	14	111	268	376	239	258	31	29	16	40	17	191	9	-	-	-	-	-
PUBLIC UTILITIES -----	281	39.5	336.00	364.00	354.00-373.00	-	-	-	-	-	-	40	6	16	4	-	-	-	15	191	9	-	-	-	-	-
ACCOUNTING CLERKS, CLASS B -----	2,486	39.0	209.00	195.50	168.00-242.00	-	-	89	255	601	391	402	115	110	277	24	63	52	107	-	-	-	-	-	-	-
MANUFACTURING -----	649	39.0	212.00	195.50	172.50-237.50	-	-	-	60	171	118	92	56	34	2	23	39	48	6	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,837	39.0	207.50	194.00	167.00-248.50	-	-	89	195	430	273	310	59	76	275	1	24	4	101	-	-	-	-	-	-	-
MACHINE BILLERS -----	84	38.5	289.00	364.00	190.00-364.00	-	-	-	3	30	3	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-
NONMANUFACTURING -----	81	38.5	293.50	364.00	190.00-364.00	-	-	-	-	30	3	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-
PUBLIC UTILITIES -----	48	40.0	364.00	364.00	364.00-364.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-
BILLING-MACHINE BILLERS -----	58	38.0	255.50	190.00	190.00-364.00	-	-	-	3	30	3	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-
PAYROLL CLERKS -----	949	39.0	239.00	230.00	200.00-264.50	24	-	-	30	67	104	145	137	112	159	43	23	22	41	42	-	-	-	-	-	-
MANUFACTURING -----	308	39.0	245.00	252.00	207.00-277.00	-	-	-	21	13	25	37	40	36	67	31	18	4	16	-	-	-	-	-	-	-
NONMANUFACTURING -----	641	39.0	236.00	223.00	195.50-263.50	24	-	-	9	54	79	108	97	76	92	12	5	18	25	42	-	-	-	-	-	-
PUBLIC UTILITIES -----	78	40.0	346.50	372.00	354.00-374.00	-	-	-	3	-	-	-	-	7	-	2	-	-	24	42	-	-	-	-	-	-
KEY ENTRY OPERATORS -----	3,283	38.5	228.50	221.50	195.50-248.50	-	-	14	125	394	501	584	330	708	154	67	252	6	102	44	-	-	-	-	-	-
MANUFACTURING -----	540	39.0	219.00	210.50	195.50-233.50	-	-	-	-	55	135	149	88	45	17	9	37	-	2	3	-	-	-	-	-	-
NONMANUFACTURING -----	2,743	38.5	230.50	225.50	195.50-248.50	-	-	14	125	339	366	435	242	663	139	58	215	6	100	41	-	-	-	-	-	-
PUBLIC UTILITIES -----	688	40.0	284.50	288.00	249.00-315.00	-	-	-	-	25	41	35	39	51	110	54	186	6	100	41	-	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS A -----	952	39.5	244.50	227.00	201.50-269.00	-	-	-	-	66	152	219	90	112	106	19	44	6	102	36	-	-	-	-	-	-
MANUFACTURING -----	210	38.5	227.50	219.00	195.00-249.00	-	-	-	-	25	49	32	35	28	12	9	15	-	2	3	-	-	-	-	-	-
NONMANUFACTURING -----	742	40.0	249.50	229.00	201.50-278.50	-	-	-	-	41	103	187	55	84	94	10	29	6	100	33	-	-	-	-	-	-
PUBLIC UTILITIES -----	268	40.0	297.00	332.00	269.00-342.50	-	-	-	-	20	9	10	7	12	65	6	-	6	100	33	-	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS B -----	2,225	38.0	224.00	222.00	192.00-248.50	-	-	14	125	263	323	365	225	596	50	48	208	-	-	8	-	-	-	-	-	-
MANUFACTURING -----	330	39.0	213.50	205.00	197.50-225.00	-	-	-	-	30	86	117	53	17	5	-	22	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,895	37.5	225.50	227.50	190.00-248.50	-	-	14	125	233	237	248	172	579	45	48	186	-	-	8	-	-	-	-	-	-

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																				
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
						140 and under	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	480	520	560	600	640
COMPUTER SYSTEMS ANALYSTS (BUSINESS) -----	1,940	39.5	\$ 403.00	\$ 400.50	\$ 345.00-455.50	-	-	-	-	3	50	41	104	116	112	136	198	205	196	170	284	165	109	35	11	5
MANUFACTURING -----	458	39.5	434.50	428.00	377.00-486.00	-	-	-	-	1	1	-	18	23	28	58	35	48	41	71	68	46	12	7	1	
NONMANUFACTURING -----	1,482	39.5	393.00	391.00	337.00-444.00	-	-	-	-	3	49	40	104	98	89	108	140	170	148	129	213	97	63	23	4	4
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A -----	821	39.5	\$ 448.50	\$ 446.00	\$ 400.50-489.00	-	-	-	-	-	-	21	7	5	37	54	81	84	101	173	115	92	35	11	5	
MANUFACTURING -----	136	39.5	496.50	488.50	453.00-535.00	-	-	-	-	-	-	-	-	-	2	-	-	13	6	35	27	31	12	7	1	
NONMANUFACTURING -----	685	39.5	439.00	436.00	391.00-480.50	-	-	-	-	-	-	21	7	5	35	54	79	71	95	138	88	61	23	4	4	
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B -----	872	39.5	\$ 377.00	\$ 374.50	\$ 329.00-414.00	-	-	-	-	22	4	65	88	83	82	132	107	92	57	83	41	16	-	-	-	
MANUFACTURING -----	245	39.5	410.00	393.50	368.00-441.00	-	-	-	-	-	-	-	-	11	10	24	57	31	23	24	19	32	14	-	-	
NONMANUFACTURING -----	627	39.5	364.00	364.50	316.50-403.50	-	-	-	-	22	4	65	77	73	58	75	76	69	33	64	9	2	-	-	-	
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C -----	228	39.5	\$ 341.50	\$ 325.00	\$ 270.00-407.50	-	-	-	-	2	28	36	18	20	20	16	9	15	17	11	26	9	1	-	-	
MANUFACTURING -----	151	39.5	310.50	293.50	260.00-356.00	-	-	-	-	2	27	35	18	13	7	14	8	13	5	-	9	-	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS) -----	769	39.5	\$ 337.00	\$ 329.00	\$ 276.00-386.50	-	-	-	18	29	59	97	66	69	78	54	77	68	63	39	34	10	7	1	-	
MANUFACTURING -----	167	39.0	335.00	333.50	280.50-382.00	-	-	-	6	7	11	18	11	9	25	18	15	29	9	4	1	1	2	1	-	
NONMANUFACTURING -----	602	39.5	337.50	328.00	276.00-391.00	-	-	-	-	12	22	48	79	55	60	53	36	62	39	54	33	9	5	-	-	
PUBLIC UTILITIES -----	208	40.0	363.50	371.00	299.00-412.50	-	-	-	-	1	18	20	19	8	15	13	25	16	29	13	17	9	5	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	178	39.5	\$ 409.00	\$ 402.00	\$ 370.50-443.50	-	-	-	-	-	-	1	-	19	3	37	25	25	20	30	10	7	1	-	-	
NONMANUFACTURING -----	161	39.5	408.50	402.50	373.00-443.00	-	-	-	-	-	-	1	-	14	2	34	23	25	19	29	9	5	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	431	39.5	\$ 332.50	\$ 330.00	\$ 292.00-378.00	-	-	-	-	8	28	64	44	44	51	48	40	43	38	19	4	-	-	-	-	
MANUFACTURING -----	114	39.0	349.00	350.00	329.00-383.50	-	-	-	-	14	11	1	20	17	12	27	9	3	-	-	-	-	-	-	-	
NONMANUFACTURING -----	317	39.5	327.00	315.00	276.00-366.50	-	-	-	-	8	28	50	33	43	31	31	28	14	29	16	4	-	-	-	-	
PUBLIC UTILITIES -----	72	39.5	368.50	368.50	332.50-407.50	-	-	-	-	-	-	8	2	10	10	14	7	14	3	4	-	-	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	160	39.5	\$ 267.50	\$ 264.50	\$ 243.50-299.00	-	-	-	18	21	31	33	21	25	8	3	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	124	40.0	270.50	270.00	248.50-294.00	-	-	-	12	14	20	29	21	17	8	3	-	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	63	40.0	279.00	270.50	253.00-299.00	-	-	-	-	1	18	20	10	6	5	3	-	-	-	-	-	-	-	-	-	
COMPUTER OPERATORS -----	1,068	39.0	\$ 271.00	\$ 270.50	\$ 240.50-289.00	-	12	63	83	108	206	169	215	67	40	39	31	18	7	2	6	2	-	-	-	
MANUFACTURING -----	238	39.0	271.00	272.00	236.00-302.50	-	6	7	21	30	47	28	39	29	23	-	1	-	1	2	2	2	-	-	-	
NONMANUFACTURING -----	830	39.0	271.00	270.00	241.50-286.00	-	6	56	62	78	159	141	176	38	17	39	30	18	6	4	-	-	-	-	-	
PUBLIC UTILITIES -----	200	39.5	305.00	280.50	275.00-349.50	-	-	-	-	-	29	70	30	9	2	19	29	2	6	-	4	-	-	-	-	
COMPUTER OPERATORS, CLASS A -----	249	39.5	\$ 309.00	\$ 292.00	\$ 280.50-321.00	-	-	-	-	1	11	39	89	46	13	16	3	18	6	-	5	2	-	-	-	
NONMANUFACTURING -----	202	39.5	308.50	288.50	280.50-322.50	-	-	-	-	1	8	34	78	29	6	16	2	18	6	-	4	-	-	-	-	
COMPUTER OPERATORS, CLASS B -----	737	38.5	\$ 265.00	\$ 259.00	\$ 236.00-286.00	-	-	-	30	75	89	186	128	126	21	27	23	28	-	1	2	1	-	-	-	
MANUFACTURING -----	172	38.5	267.50	257.50	236.00-294.50	-	-	3	16	26	44	23	28	12	16	-	-	-	1	2	1	-	-	-		
NONMANUFACTURING -----	565	38.5	264.50	259.00	234.50-286.00	-	-	27	59	63	142	105	98	9	11	23	28	-	-	1	-	-	-	-		
PUBLIC UTILITIES -----	152	39.0	299.00	275.00	268.50-349.50	-	-	-	-	-	29	70	5	-	1	19	28	-	-	-	-	-	-	-	-	

See footnotes at end of tables.

**Table A-3. Average weekly earnings of office, professional, and technical workers, by sex,
San Francisco—Oakland, Calif., March 1979**

Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)	
		Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)
OFFICE OCCUPATIONS - MEN				OFFICE OCCUPATIONS - WOMEN--CONTINUED				OFFICE OCCUPATIONS - WOMEN--CONTINUED			
FILE CLERKS, CLASS C -----	66	38.0	\$ 140.00	SECRETARIES - CONTINUED				ORDER CLERKS - CONTINUED			
MESSENGERS -----	524	37.0	185.00	SECRETARIES, CLASS E -----	814	39.5	\$ 219.50	ORDER CLERKS, CLASS A -----	378	39.5	\$ 234.50
MANUFACTURING -----	68	38.5	177.50	MANUFACTURING -----	293	39.5	222.00	MANUFACTURING -----	242	39.5	245.50
NONMANUFACTURING -----	456	36.5	186.00	NONMANUFACTURING -----	521	39.5	218.00	ORDER CLERKS, CLASS B -----	490	39.0	213.00
ORDER CLERKS -----	256	39.5	267.00	STENOGRAPHERS:				MANUFACTURING -----	255	38.5	229.00
MANUFACTURING -----	110	39.5	291.00	MANUFACTURING -----	77	39.5	246.50	NONMANUFACTURING -----	235	39.5	195.00
ORDER CLERKS, CLASS A -----	182	40.0	287.50	STENOGRAPHERS, SENIOR:				ACCOUNTING CLERKS -----	3,855	39.0	218.50
MANUFACTURING -----	74	39.5	335.50	MANUFACTURING -----	53	39.0	229.50	MANUFACTURING -----	1,399	39.5	220.50
ORDER CLERKS, CLASS B -----	74	39.5	216.00	STENOGRAPHERS, GENERAL -----	109	40.0	224.00	ACCOUNTING CLERKS, CLASS A -----	1,999	39.0	236.50
ACCOUNTING CLERKS:				TRANSCRIBING--MACHINE TYPISTS -----	170	39.0	210.00	MANUFACTURING -----	818	39.5	227.50
MANUFACTURING -----	160	39.5	261.50	MANUFACTURING -----	50	39.0	203.00	NONMANUFACTURING -----	1,181	38.5	242.50
ACCOUNTING CLERKS, CLASS A -----	446	39.0	253.00	TYPISTS -----	1,946	39.0	185.50	PUBLIC UTILITIES -----	221	39.5	326.50
MANUFACTURING -----	92	39.0	286.00	MANUFACTURING -----	388	39.5	203.00	ACCOUNTING CLERKS, CLASS B:			
NONMANUFACTURING -----	354	38.5	244.50	NONMANUFACTURING -----	1,558	39.0	181.00	MANUFACTURING -----	581	39.0	210.50
PUBLIC UTILITIES -----	60	40.0	371.00	PUBLIC UTILITIES -----	115	38.5	241.50	PAYROLL CLERKS -----	836	39.0	234.50
ACCOUNTING CLERKS, CLASS B:				TYPISTS, CLASS A -----	1,017	39.0	192.50	MANUFACTURING -----	274	39.0	239.50
MANUFACTURING -----	68	39.5	228.50	MANUFACTURING -----	246	39.5	218.00	NONMANUFACTURING -----	562	39.0	232.50
PAYROLL CLERKS -----	100	39.5	278.50	NONMANUFACTURING -----	771	39.0	184.00	PUBLIC UTILITIES -----	58	40.0	337.50
NONMANUFACTURING -----	66	39.5	273.50	TYPISTS, CLASS B -----	869	38.5	175.00	KEY ENTRY OPERATORS -----	2,740	38.0	227.50
OFFICE OCCUPATIONS - WOMEN				MANUFACTURING -----	142	39.5	177.00	MANUFACTURING -----	521	39.0	219.50
SECRETARIES -----	5,778	39.0	249.50	NONMANUFACTURING -----	727	38.5	175.00	NONMANUFACTURING -----	2,219	38.0	229.50
MANUFACTURING -----	1,412	39.5	254.00	FILE CLERKS -----	1,332	38.5	155.50	KEY ENTRY OPERATORS, CLASS A:			
NONMANUFACTURING -----	4,366	39.0	248.50	MANUFACTURING -----	75	38.5	199.00	MANUFACTURING -----	203	38.5	228.50
PUBLIC UTILITIES -----	725	39.0	303.50	NONMANUFACTURING -----	1,257	38.5	153.00	KEY ENTRY OPERATORS, CLASS B -----	1,863	37.5	222.50
SECRETARIES, CLASS A -----	334	39.0	300.00	FILE CLERKS, CLASS B -----	632	38.5	158.50	MANUFACTURING -----	318	39.0	214.00
MANUFACTURING -----	70	39.5	296.50	NONMANUFACTURING -----	606	38.5	156.50	NONMANUFACTURING -----	1,545	37.0	224.00
NONMANUFACTURING -----	264	38.5	301.00	FILE CLERKS, CLASS C -----	633	38.0	146.50	PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN			
SECRETARIES, CLASS B -----	1,147	39.0	275.00	NONMANUFACTURING -----	602	38.0	145.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS):			
MANUFACTURING -----	292	39.5	291.50	MESSENGERS -----	602	38.5	180.50	MANUFACTURING -----	352	39.5	442.50
NONMANUFACTURING -----	855	39.0	269.00	MANUFACTURING -----	98	38.5	172.50	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A:			
PUBLIC UTILITIES -----	167	39.5	304.50	NONMANUFACTURING -----	504	38.5	182.00	MANUFACTURING -----	124	39.5	494.00
SECRETARIES, CLASS C -----	1,723	39.0	243.00	SWITCHBOARD OPERATORS -----	556	38.5	188.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B:			
MANUFACTURING -----	390	39.5	286.50	MANUFACTURING -----	50	39.5	212.00	MANUFACTURING -----	178	39.5	417.00
NONMANUFACTURING -----	1,333	39.0	242.00	NONMANUFACTURING -----	506	38.5	185.50	COMPUTER PROGRAMMERS (BUSINESS):			
PUBLIC UTILITIES -----	258	38.5	275.50	SWITCHBOARD OPERATOR--RECEPTIONISTS-	768	39.0	194.50	MANUFACTURING -----	95	39.0	346.50
SECRETARIES, CLASS D -----	1,754	39.0	244.00	MANUFACTURING -----	227	39.5	202.50	ORDER CLERKS -----			
MANUFACTURING -----	361	39.0	247.00	NONMANUFACTURING -----	541	38.5	190.50	MANUFACTURING -----			
NONMANUFACTURING -----	1,393	39.0	243.00	PUBLIC UTILITIES -----	58	39.0	279.00	MANUFACTURING -----			
				ORDER CLERKS -----	878	39.5	222.00				
				MANUFACTURING -----	497	39.0	237.00				
				NONMANUFACTURING -----	381	39.5	202.00				

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, San Francisco—Oakland, Calif., March 1979—Continued

Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ²)	
		Weekly hours (standard)	Weekly earnings ¹ (standard)			Weekly hours (standard)	Weekly earnings ¹ (standard)			Weekly hours (standard)	Weekly earnings ¹ (standard)
PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN--CONTINUED				PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN--CONTINUED				PROFESSIONAL AND TECHNICAL OCCUPATIONS - WOMEN--CONTINUED			
COMPUTER PROGRAMMERS (BUSINESS) - CONTINUED				DRAFTERS - CONTINUED				COMPUTER SYSTEMS ANALYSTS (BUSINESS) - CONTINUED			
COMPUTER PROGRAMMERS (BUSINESS), CLASS R: MANUFACTURING -----	65	38.5	\$ 360.00	DRAFTERS, CLASS C -----	197	39.5	\$ 228.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B: MANUFACTURING -----	67	39.0	\$ 391.50
COMPUTER OPERATORS: MANUFACTURING -----	157	39.0	274.00	MANUFACTURING -----	129	39.5	227.50	COMPUTER PROGRAMMERS (BUSINESS): MANUFACTURING -----	72	39.0	319.50
COMPUTER OPERATORS, CLASS R: MANUFACTURING -----	109	39.0	249.50	NONMANUFACTURING -----	68	39.5	228.50	COMPUTER OPERATORS: MANUFACTURING -----	81	39.0	265.00
DRAFTERS -----	885	40.0	303.50	ELECTRONICS TECHNICIANS -----	510	39.5	339.00	COMPUTER OPERATORS, CLASS R: MANUFACTURING -----	63	38.5	264.50
MANUFACTURING -----	535	39.5	296.50	MANUFACTURING -----	243	40.0	316.50	DRAFTERS: MANUFACTURING -----	64	39.5	256.00
NONMANUFACTURING -----	350	40.0	314.50	NONMANUFACTURING -----	267	39.0	359.50	DRAFTERS, CLASS C -----	54	39.0	242.50
DRAFTERS, CLASS A -----	327	40.0	355.00	ELECTRONICS TECHNICIANS, CLASS A- MANUFACTURING -----	248	40.0	361.50	REGISTERED INDUSTRIAL NURSES -----	67	39.5	323.00
MANUFACTURING -----	236	39.5	347.00	NONMANUFACTURING -----	169	40.0	345.50				
DRAFTERS, CLASS R -----	360	40.0	298.50	MANUFACTURING -----	79	40.0	396.50				
MANUFACTURING -----	169	40.0	279.00	ELECTRONICS TECHNICIANS, CLASS R- MANUFACTURING -----	244	39.0	322.00				
NONMANUFACTURING -----	191	40.0	315.50	MANUFACTURING -----	62	40.0	252.50				
				NONMANUFACTURING -----	182	38.5	346.00				
				PROFESSIONAL AND TECHNICAL OCCUPATIONS - WOMEN							
				COMPUTER SYSTEMS ANALYSTS (BUSINESS): MANUFACTURING -----	106	39.0	408.50				

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Hourly earnings ⁴			Number of workers receiving straight-time hourly earnings of—																						
		Mean ²	Median ²	Middle range ²	2.80	3.00	3.40	3.80	4.20	4.60	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	10.60	11.00	11.40
					and under																						
TRUCKDRIVERS -----	6,292	\$ 9.07	\$ 9.68	\$ 9.45-9.83	264	127	54	13	3	12	6	4	152	49	2	36	25	33	247	294	146	3218	1020	119	15	370	90
MANUFACTURING -----	1,173	9.36	9.01	8.77-9.84	-	-	6	-	-	6	-	-	-	11	-	5	9	1	222	248	121	132	270	12	10	30	90
NONMANUFACTURING -----	5,119	9.01	9.71	9.53-9.71	264	120	48	13	3	6	6	4	152	38	2	31	16	32	25	46	25	3086	750	107	5	340	-
PUBLIC UTILITIES -----	3,103	9.72	9.71	9.68-9.83	-	-	-	-	-	-	-	-	-	-	1	-	15	2	10	-	25	2241	702	107	-	-	-
TRUCKDRIVERS, LIGHT TRUCK -----	297	5.36	5.87	3.89-5.87	-	24	42	13	3	12	6	3	150	-	-	32	9	3	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	274	5.32	5.87	3.89-5.87	-	24	36	13	3	6	6	3	150	-	-	31	-	2	-	-	-	-	-	-	-	-	-
TRUCKDRIVERS, MEDIUM TRUCK -----	1,650	7.86	9.65	6.38-9.68	264	96	12	-	-	-	-	2	44	2	4	16	8	211	16	20	907	48	-	-	-	-	-
NONMANUFACTURING -----	1,399	7.74	9.65	3.25-9.68	264	96	12	-	-	-	-	2	38	2	-	16	8	1	5	-	907	48	-	-	-	-	-
TRUCKDRIVERS, HEAVY TRUCK -----	1,235	9.73	9.71	9.71-9.71	-	-	-	-	-	-	-	1	5	-	-	-	-	4	-	-	1107	21	57	10	30	-	
MANUFACTURING -----	102	10.08	9.94	9.71-11.19	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	32	21	-	10	30	-	
NONMANUFACTURING -----	1,133	9.70	9.71	9.71-9.71	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1075	-	57	-	
PUBLIC UTILITIES -----	883	9.75	9.71	9.71-9.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	786	-	57	-	
TRUCKDRIVERS, TRACTOR-TRAILER -----	2,749	9.84	9.71	9.53-9.84	-	-	-	-	-	-	-	-	-	-	-	-	-	22	14	272	113	970	861	62	5	340	90
MANUFACTURING -----	770	9.65	9.45	8.77-10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	231	88	100	249	12	-	-	90
NONMANUFACTURING -----	1,979	9.91	9.83	9.68-9.84	-	-	-	-	-	-	-	-	-	-	-	-	-	22	14	41	25	870	612	50	5	340	-
PUBLIC UTILITIES -----	1,121	9.79	9.83	9.71-9.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	434	612	50	-	-	-
SHIPPERS -----	132	7.81	8.30	7.54-8.50	-	-	-	1	1	1	10	2	10	-	1	32	5	44	13	12	-	-	-	-	-	-	-
MANUFACTURING -----	77	7.47	7.71	6.35-8.78	-	-	-	1	1	-	10	2	10	-	-	32	-	-	10	11	-	-	-	-	-	-	-
NONMANUFACTURING -----	55	8.30	8.30	8.30-8.45	-	-	-	-	-	1	-	-	-	-	1	-	5	44	3	1	-	-	-	-	-	-	-
RECEIVERS -----	301	7.65	8.30	6.59-8.47	-	-	-	4	-	35	-	11	3	31	6	-	6	6	167	8	9	-	-	15	-	-	-
MANUFACTURING -----	75	7.00	6.59	6.31-8.35	-	-	-	2	-	10	-	3	27	2	-	6	6	13	4	8	-	-	-	-	-	-	-
NONMANUFACTURING -----	226	7.87	8.30	8.30-8.50	-	-	-	2	-	25	-	11	-	4	4	-	6	154	4	1	-	-	15	-	-	-	-
SHIPPERS AND RECEIVERS -----	538	6.77	6.91	4.90-8.30	-	-	-	-	140	74	15	6	18	18	9	55	54	53	63	22	7	2	-	-	-	-	-
MANUFACTURING -----	196	8.09	8.04	7.68-8.64	-	-	-	-	-	-	-	-	14	-	-	55	56	17	37	8	7	2	-	-	-	-	-
NONMANUFACTURING -----	342	6.01	5.38	4.90-6.97	-	-	-	-	140	74	15	6	4	18	9	-	-	36	26	14	-	-	-	-	-	-	-
WAREHOUSEMEN -----	1,757	8.19	8.42	8.31-8.42	-	-	-	1	150	4	-	1	9	10	-	25	63	1361	-	8	6	-	84	35	-	-	-
MANUFACTURING -----	151	8.07	8.25	7.78-8.25	-	-	-	-	-	-	-	-	9	10	-	21	30	63	-	8	6	-	4	-	-	-	-
NONMANUFACTURING -----	1,606	8.20	8.42	8.34-8.42	-	-	-	1	150	4	-	1	-	-	-	4	33	1298	-	-	-	-	80	35	-	-	-
ORDER FILLERS -----	1,008	8.63	8.20	8.13-10.15	-	-	-	-	72	-	20	12	30	-	-	-	318	154	12	-	-	292	-	98	-	-	-
NONMANUFACTURING -----	952	8.67	8.20	8.13-10.15	-	-	-	-	72	-	20	12	-	-	-	-	318	150	12	-	-	270	-	98	-	-	-
SHIPPING PACKERS: -----	76	8.61	9.93	6.20-9.93	-	-	-	1	-	-	-	-	-	20	-	-	-	14	-	-	-	25	16	-	-	-	-
MANUFACTURING -----	76	8.61	9.93	6.20-9.93	-	-	-	1	-	-	-	-	-	20	-	-	-	14	-	-	-	25	16	-	-	-	-
MATERIAL HANDLING LABORERS -----	1,736	7.97	8.28	7.14-8.84	-	-	-	9	6	-	-	17	250	27	1	227	30	226	334	369	1	236	3	-	-	-	-
MANUFACTURING -----	753	7.17	7.14	5.88-8.28	-	-	-	-	-	-	-	15	250	27	-	104	22	121	214	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	983	8.59	8.84	8.10-8.84	-	-	-	9	6	-	-	2	-	-	1	123	8	105	120	369	1	236	3	-	-	-	-
PUBLIC UTILITIES -----	584	9.17	8.84	8.84-9.65	-	-	-	-	-	-	-	-	-	-	-	2	-	-	343	-	236	3	-	-	-	-	-
FORKLIFT OPERATORS -----	1,906	8.13	8.20	7.09-8.78	-	-	-	3	-	-	-	16	156	281	76	137	83	599	248	56	114	30	-	107	-	-	-
MANUFACTURING -----	1,362	7.83	8.03	6.96-8.69	-	-	-	3	-	-	-	16	156	281	76	131	76	227	248	56	72	20	-	-	-	-	-
NONMANUFACTURING -----	544	8.88	8.20	8.20-9.71	-	-	-	-	-	-	-	-	-	-	-	6	7	372	-	-	42	10	-	107	-	-	-

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers, San Francisco—Oakland, Calif., March 1979—Continued

Occupation and industry division	Number of workers	Hourly earnings*			Number of workers receiving straight-time hourly earnings of—																							
		Mean ²	Median ²	Middle range ²	2.80	3.00	3.40	3.80	4.20	4.60	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	10.60	11.00	11.40	
					and under	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					3.00	3.40	3.80	4.20	4.60	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	10.60	11.00	11.40	11.80	
GUARDS -----	3,175	\$ 3.96	\$ 3.70	\$ 3.00- 4.46	751	518	386	611	393	228	25	24	32	4	13	4	62	27	49	47	1	-	-	-	-	-	-	-
MANUFACTURING -----	174	7.27	7.58	5.88- 8.66	12	-	-	-	-	10	2	-	22	-	9	-	42	21	8	47	1	-	-	-	-	-	-	
NONMANUFACTURING -----	3,001	3.77	3.66	3.00- 4.18	739	518	386	611	393	218	23	24	10	4	4	4	20	6	41	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	71	8.05	8.34	7.73- 8.34	-	-	-	-	-	-	-	-	-	-	-	4	20	6	41	-	-	-	-	-	-	-	-	
GUARDS, CLASS A -----	157	6.96	7.79	4.61- 8.34	-	-	13	-	14	16	2	1	1	1	5	4	23	27	40	9	1	-	-	-	-	-	-	
GUARDS, CLASS B -----	2,913	3.77	3.50	2.95- 4.18	751	518	373	610	302	210	23	18	30	-	-	-	39	-	1	38	-	-	-	-	-	-		
MANUFACTURING -----	123	6.98	7.58	5.88- 8.88	12	-	-	-	-	10	2	-	21	-	-	-	39	-	1	38	-	-	-	-	-	-		
NONMANUFACTURING -----	2,790	3.63	3.43	2.95- 4.07	739	518	373	610	302	200	21	18	9	-	-	-	-	-	-	-	-	-	-	-	-	-		
JANITORS, PORTERS, AND CLEANERS -----	6,978	5.92	6.61	4.89- 6.61	120	54	98	743	481	405	554	309	98	150	3187	194	128	306	34	98	19	-	-	-	-	-		
MANUFACTURING -----	881	7.07	7.58	5.98- 8.11	-	-	12	9	39	16	2	134	50	72	18	4	112	300	15	98	-	-	-	-	-	-		
NONMANUFACTURING -----	6,097	5.76	6.61	4.89- 6.61	120	54	86	734	442	389	552	175	48	78	3169	190	16	6	19	-	19	-	-	-	-	-		
PUBLIC UTILITIES -----	296	6.81	7.11	6.36- 7.13	-	-	-	-	2	5	18	4	2	64	-	183	16	2	-	-	-	-	-	-	-	-		

See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, San Francisco—Oakland, Calif., March 1979

Occupation, sex, ³ and industry division	Number of workers	Average (mean ²) hourly earnings ⁴	Occupation, sex, ³ and industry division	Number of workers	Average (mean ²) hourly earnings ⁴
MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS - MEN			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN--CONTINUED		
MAINTENANCE CARPENTERS:			TRUCKDRIVERS - CONTINUED		
MANUFACTURING -----	71	\$ 9.82	TRUCKDRIVERS, HEAVY TRUCK -----	1,229	\$ 9.72
MAINTENANCE ELECTRICIANS -----	559	9.97	MANUFACTURING -----	96	10.01
MANUFACTURING -----	380	9.62	NONMANUFACTURING -----	1,133	9.70
NONMANUFACTURING -----	179	10.72	PUBLIC UTILITIES -----	883	9.75
PUBLIC UTILITIES -----	160	10.85	TRUCKDRIVERS, TRACTOR-TRAILER ---	2,745	9.84
MAINTENANCE PAINTERS -----	152	9.96	MANUFACTURING -----	766	9.65
NONMANUFACTURING -----	120	10.02	NONMANUFACTURING -----	1,979	9.91
MAINTENANCE MACHINISTS -----	645	10.14	PUBLIC UTILITIES -----	1,121	9.79
MANUFACTURING -----	552	10.09	SHIPPERS -----	110	7.72
MAINTENANCE MECHANICS (MACHINERY) -	1,273	9.25	MANUFACTURING -----	76	7.51
MANUFACTURING -----	1,156	9.25	RECEIVERS:		
NONMANUFACTURING -----	117	9.17	MANUFACTURING -----	64	7.37
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	892	10.51	SHIPPERS AND RECEIVERS:		
MANUFACTURING -----	185	9.99	MANUFACTURING -----	160	8.29
NONMANUFACTURING -----	707	10.64	WAREHOUSEMEN -----	1,599	8.46
PUBLIC UTILITIES -----	616	10.60	MANUFACTURING -----	151	8.07
MAINTENANCE PIPEFITTERS -----	172	9.90	ORDER FILLERS -----	966	8.73
MANUFACTURING -----	145	9.87	NONMANUFACTURING -----	911	8.78
MAINTENANCE SHEET-METAL WORKERS ---	70	10.64	SHIPPING PACKERS:		
MAINTENANCE TRADES HELPERS -----	130	7.93	MANUFACTURING -----	59	8.61
MANUFACTURING -----	80	8.56	MATERIAL HANDLING LABORERS -----	1,512	8.04
NONMANUFACTURING -----	50	8.91	MANUFACTURING -----	708	7.12
TOOL AND DIE MAKERS -----	287	11.18	NONMANUFACTURING:		
MANUFACTURING -----	274	11.22	PUBLIC UTILITIES -----	582	9.17
STATIONARY ENGINEERS -----	444	10.06	FORKLIFT OPERATORS -----	1,872	8.13
MANUFACTURING -----	149	10.07	MANUFACTURING -----	1,346	7.83
NONMANUFACTURING -----	295	10.05	NONMANUFACTURING -----	526	8.90
MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN			GUARDS -----	2,857	3.89
TRUCKDRIVERS -----	6,176	9.07	MANUFACTURING -----	163	7.25
MANUFACTURING -----	1,163	9.35	NONMANUFACTURING -----	2,694	3.69
NONMANUFACTURING -----	5,013	9.01	GUARDS, CLASS B -----	2,665	3.76
PUBLIC UTILITIES -----	3,010	9.73	MANUFACTURING -----	120	6.93
TRUCKDRIVERS, LIGHT TRUCK -----	296	5.36	NONMANUFACTURING -----	2,545	3.61
NONMANUFACTURING -----	273	5.32	JANITORS, PORTERS, AND CLEANERS ---	6,083	5.85
TRUCKDRIVERS, MEDIUM TRUCK -----	1,545	7.78	MANUFACTURING -----	810	7.08
NONMANUFACTURING -----	1,294	7.63	NONMANUFACTURING -----	5,273	5.66
			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - WOMEN		
			JANITORS, PORTERS, AND CLEANERS ---	1,511	5.26
			MANUFACTURING -----	71	7.03
			NONMANUFACTURING -----	1,440	5.17

See footnotes at end of tables.

Table A-7. Percent increases in average hourly earnings for selected occupational groups, San Francisco—Oakland, Calif., for selected periods

Industry and occupational group ⁵	October 1971 to March 1973		March 1973	March 1974	March 1975	March 1976	March 1977	March 1978
	17-month increase	Annual rate of increase	to March 1974	to March 1975	to March 1976	to March 1977	to March 1978	to March 1979
All industries:								
Office clerical.....	8.1	5.7	6.7	10.0	8.0	6.7	6.9	8.3
Electronic data processing.....	(⁶)	(⁶)	(⁶)	9.2	7.5	6.8	7.9	8.4
Industrial nurses.....	8.8	6.1	7.5	11.9	7.9	6.2	11.7	7.7
Skilled maintenance trades.....	10.4	7.2	7.3	11.4	9.2	8.9	9.2	8.5
Unskilled plant workers.....	9.9	6.9	7.2	11.9	7.6	7.1	8.0	9.0
Manufacturing:								
Office clerical.....	8.0	5.6	7.1	12.2	7.6	6.9	7.7	7.7
Electronic data processing.....	(⁶)	(⁶)	(⁶)	10.9	7.8	5.0	8.1	(⁶)
Industrial nurses.....	8.5	5.9	7.8	12.8	9.0	5.2	11.5	8.3
Skilled maintenance trades.....	9.4	6.5	8.0	11.7	10.2	8.9	9.2	8.0
Unskilled plant workers.....	8.9	6.2	8.0	9.3	9.1	8.1	9.7	10.0
Nonmanufacturing:								
Office clerical.....	8.1	5.7	6.5	9.2	8.1	6.7	6.7	8.6
Electronic data processing.....	(⁶)	(⁶)	(⁶)	8.8	7.4	7.5	7.9	8.6
Industrial nurses.....	9.7	6.8	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)
Unskilled plant workers.....	10.1	7.0	6.8	12.7	7.1	6.9	7.5	8.7

See footnotes at end of tables.

Table A-8. Average pay relationships within establishments for white-collar occupations, San Francisco—Oakland, Calif., March 1979

Occupation which equals 100	Office clerical occupation being compared—																								
	Secretaries					Stenographers		Transcribing-machine typist	Typists		File clerks			Messengers	Switch-board operators	Switch-board operator-receptionists	Order clerks		Accounting clerks		Billing-machine billers	Payroll clerks	Key entry operators		
	Class A	Class B	Class C	Class D	Class E	Senior	General		Class A	Class B	Class A	Class B	Class C				Class A	Class B	Class A	Class B			Class A	Class B	
SECRETARIES, CLASS A-----	100																								
SECRETARIES, CLASS B-----	116	100																							
SECRETARIES, CLASS C-----	136	117	100																						
SECRETARIES, CLASS D-----	137	122	109	100																					
SECRETARIES, CLASS E-----	155	134	118	114	100																				
STENOGRAPHERS, SENIOR-----	146	131	112	117	102	100																			
STENOGRAPHERS, GENERAL-----	170	(6)	129	132	112	120	100																		
TRANSCRIBING-MACHINE TYPISTS--	140	138	117	105	(6)	97	79	100																	
TYPISTS, CLASS A-----	168	147	125	121	113	112	99	114	100																
TYPISTS, CLASS B-----	198	160	137	128	119	127	109	121	110	100															
FILE CLERKS, CLASS A-----	174	144	128	124	124	109	102	(6)	97	(6)	100														
FILE CLERKS, CLASS B-----	210	161	137	143	128	124	110	(6)	119	107	110	100													
FILE CLERKS, CLASS C-----	224	185	163	(6)	(6)	145	(6)	158	(6)	(6)	(6)	121	100												
MESSENGERS-----	218	163	140	129	125	136	116	129	115	104	127	101	100	100											
SWITCHBOARD OPERATORS-----	154	142	127	126	110	110	91	105	104	84	101	87	77	91	100										
SWITCHBOARD OPERATOR-RECEPTIONISTS-----	170	136	129	118	115	115	96	95	104	91	(6)	87	78	88	95	100									
ORDER CLERKS, CLASS A-----	130	116	91	94	(6)	(6)	91	77	72	63	(6)	69	(6)	66	(6)	81	100								
ORDER CLERKS, CLASS B-----	155	130	101	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	67	73	(6)	94	122	100							
ACCOUNTING CLERKS, CLASS A-----	137	122	110	101	97	91	77	90	86	79	85	75	75	79	87	87	100	83							
ACCOUNTING CLERKS, CLASS B-----	169	140	126	116	113	101	88	101	98	92	103	89	87	86	104	101	142	108	119	100					
BILLING-MACHINE BILLERS-----	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	100					
PAYROLL CLERKS-----	136	119	114	98	94	85	82	75	85	80	83	73	84	78	84	84	93	82	100	89	91	100			
KEY ENTRY OPERATORS, CLASS A-----	134	118	106	106	95	89	81	(6)	83	81	79	69	(6)	69	89	83	(6)	91	104	93	97	111	100		
KEY ENTRY OPERATORS, CLASS B-----	143	131	112	121	102	105	85	105	94	88	99	83	77	211	98	274	136	105	248	186	(6)	122	125	100	100
	Professional and technical occupation being compared—																								
	Computer systems analysts (business)			Computer programmers (business)			Computer operators			Drafters			Electronics technicians		Registered industrial nurses										
	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B											
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A-----	103																								
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B-----	122	100																							
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C-----	145	119	100																						
COMPUTER PROGRAMMERS (BUSINESS), CLASS A-----	113	94	86	100																					
COMPUTER PROGRAMMERS (BUSINESS), CLASS B-----	146	118	111	126	100																				
COMPUTER PROGRAMMERS (BUSINESS), CLASS C-----	156	140	133	157	137	100																			
COMPUTER OPERATORS, CLASS A-----	147	124	111	123	103	94	100																		
COMPUTER OPERATORS, CLASS B-----	174	145	131	142	128	100	115	100																	
COMPUTER OPERATORS, CLASS C-----	(6)	161	(6)	(6)	174	131	132	119	100					100											
DRAFTERS, CLASS A-----	134	121	106	107	94	77	95	77	72	100															
DRAFTERS, CLASS B-----	166	144	125	129	119	87	112	92	85	120	100														
DRAFTERS, CLASS C-----	185	161	144	156	142	110	138	110	(6)	148	125	100													
ELECTRONICS TECHNICIANS, CLASS A-----	129	116	(6)	102	93	(6)	84	68	51	95	72	58	100												
ELECTRONICS TECHNICIANS, CLASS B-----	152	(6)	(6)	(6)	119	(6)	(6)	(6)	(6)	116	87	67	126	100											
REGISTERED INDUSTRIAL NURSES--	(6)	124	(6)	117	111	(6)	106	86	81	113	92	73	120	(6)											100

See note under table A-9 and footnote at end of tables.

Table A-9. Average pay relationships within establishments for blue-collar occupations, San Francisco—Oakland, Calif., March 1979

Occupation which equals 100	Maintenance, toolroom, and powerplant occupation being compared—													
	Carpenters	Electricians	Painters	Machinists	Mechanics		Pipefitters	Sheet-metal workers	Trades helpers	Tool and die makers	Stationary engineers			
					Machinery	Motor vehicles								
MAINTENANCE CARPENTERS-----	100													
MAINTENANCE ELECTRICIANS-----	98	100												
MAINTENANCE PAINTERS-----	99	101	100											
MAINTENANCE MACHINISTS-----	97	99	100	100										
MAINTENANCE MECHANICS (MACHINERY)-----	98	103	99	109	100									
MAINTENANCE MECHANICS (MOTOR VEHICLES)-----	102	102	100	137	96	100								
MAINTENANCE PIPEFITTERS-----	100	101	100	133	100	100								
MAINTENANCE SHEET-METAL WORKERS-----	100	109	99	95	(6)	100	99	100						
MAINTENANCE TRADES HELPERS-----	120	127	124	125	122	129	117	121	100					
TOOL AND DIE MAKERS-----	95	99	96	96	88	(6)	(6)	102	84	100				
STATIONARY ENGINEERS-----	100	105	101	106	97	105	96	(6)	80	(6)	100			
	Material movement and custodial occupation being compared—													
	Truckdrivers				Shippers	Receivers	Shippers and receivers	Warehousemen	Order fillers	Material handling laborers	Forklift operators	Guards		Janitors, porters, and cleaners
	Light truck	Medium truck	Heavy truck	Tractor-trailer								Class A	Class B	
TRUCKDRIVERS, LIGHT TRUCK-----	100													
TRUCKDRIVERS, MEDIUM TRUCK-----	(6)	100												
TRUCKDRIVERS, HEAVY TRUCK-----	(6)	97	100											
TRUCKDRIVERS, TRACTOR-TRAILER-----	(6)	97	100	100										
SHIPPERS-----	(6)	107	(6)	129	100									
RECEIVERS-----	108	112	(6)	(6)	101	100								
SHIPPERS AND RECEIVERS-----	(6)	(6)	(6)	(6)	(6)	(6)	100							
WAREHOUSEMEN-----	(6)	(6)	106	114	(6)	101	109	100						
ORDER FILLERS-----	(6)	124	(6)	114	(6)	104	107	102	100					
MATERIAL HANDLING LABORERS-----	(6)	103	113	122	114	105	104	(6)	98	100				
FORKLIFT OPERATORS-----	(6)	100	114	119	104	100	102	99	98	94	100			
GUARDS, CLASS A-----	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	114	(6)	100		
GUARDS, CLASS B-----	133	(6)	(6)	(6)	146	137	(6)	(6)	(6)	120	104	(6)	100	
JANITORS, PORTERS, AND CLEANERS-----	111	148	142	163	130	129	108	148	144	110	122	110	97	100

See footnote at end of tables.

NOTE: Tables A-8 and A-9 present the average pay relationship between pairs of occupations within establishments. For example, a value of 122 indicates that earnings for the occupation directly above in the heading are 22 percent greater than earnings for the occupation directly to the left in the stub. Similarly, a value of 85 indicates earnings for the occupation in the heading are 15 percent below earnings for the occupation in the stub.

See appendix A for method of computation.

Earnings: Large establishments

Table A-10. Weekly earnings of office workers, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)				Number of workers receiving straight-time weekly earnings of—																			
			Mean ²	Median ²	Middle range ²	\$ 115	\$ 120	\$ 130	\$ 140	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 240	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480
						and under	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500
SECRETARIES -----	4,156	39.5	\$ 249.00	\$ 236.00	\$ 216.50-275.00	-	-	-	15	106	343	769	984	526	484	325	173	208	94	65	23	37	-	1	-	1
MANUFACTURING -----	927	40.0	255.00	247.50	219.50-283.00	-	-	-	6	59	169	177	144	111	70	55	76	17	11	6	4	-	1	-	1	
NONMANUFACTURING -----	3,229	39.5	247.00	232.50	215.00-275.00	-	-	-	15	100	284	600	807	362	375	255	118	132	77	54	17	33	-	-	-	
PUBLIC UTILITIES -----	541	39.0	297.50	289.00	270.50-327.00	-	-	-	-	-	5	24	41	29	122	111	51	44	52	26	5	31	-	-	-	
SECRETARIES, CLASS A -----	170	39.5	306.50	306.00	269.00-337.50	-	-	-	-	-	2	14	15	23	24	30	20	14	16	5	6	-	-	-	1	
NONMANUFACTURING -----	145	39.5	304.00	304.50	266.00-331.00	-	-	-	-	-	2	11	15	22	17	25	18	13	13	4	5	-	-	-	-	
SECRETARIES, CLASS B -----	774	39.5	275.00	269.00	231.50-308.00	-	-	-	3	25	76	139	102	94	111	59	63	37	22	16	26	-	1	-	-	
MANUFACTURING -----	152	40.0	290.50	281.50	253.00-324.50	-	-	-	-	1	3	16	26	28	12	17	28	12	5	3	-	-	1	-	-	
NONMANUFACTURING -----	622	39.5	271.50	264.50	229.00-301.50	-	-	-	3	24	73	123	76	64	99	42	35	25	17	13	26	-	-	-	-	
SECRETARIES, CLASS C -----	1,487	39.5	245.00	238.00	215.00-274.50	-	-	-	10	48	138	248	321	240	225	105	51	55	34	5	2	5	-	-	-	
MANUFACTURING -----	322	40.0	251.00	247.50	227.00-267.50	-	-	-	-	12	34	94	85	45	31	9	2	3	2	2	3	-	-	-	-	
NONMANUFACTURING -----	1,165	39.0	243.00	236.00	211.00-275.00	-	-	-	10	48	126	214	227	155	180	74	42	53	31	3	-	2	-	-	-	
PUBLIC UTILITIES -----	271	39.0	283.50	275.00	270.50-308.50	-	-	-	-	-	5	18	13	11	99	53	30	15	26	1	-	-	-	-	-	
SECRETARIES, CLASS D -----	941	39.5	245.50	230.50	220.00-263.50	-	-	-	3	36	193	346	104	98	68	28	34	9	22	-	-	-	-	-	-	
MANUFACTURING -----	198	39.5	256.50	243.00	221.00-301.00	-	-	-	1	11	31	46	27	17	15	20	28	1	1	-	-	-	-	-	-	
NONMANUFACTURING -----	743	39.5	242.50	230.50	219.50-257.50	-	-	-	2	25	162	300	77	81	53	8	6	8	21	-	-	-	-	-	-	
PUBLIC UTILITIES -----	60	39.5	314.50	333.00	263.50-379.00	-	-	-	-	-	2	8	4	4	10	-	3	8	21	-	-	-	-	-	-	
SECRETARIES, CLASS E -----	716	40.0	220.00	210.50	198.50-233.50	-	-	-	48	140	244	148	54	34	11	4	29	-	-	-	-	-	-	-	-	
MANUFACTURING -----	224	40.0	226.00	210.00	205.50-247.50	-	-	-	5	35	101	18	24	20	5	4	10	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	492	40.0	217.00	211.00	195.50-231.00	-	-	-	43	105	143	130	30	16	6	-	19	-	-	-	-	-	-	-	-	
STENOGRAPHERS -----	483	39.5	224.00	201.50	176.00-263.00	-	-	5	21	113	97	54	32	23	34	5	62	16	19	2	-	-	-	-	-	
MANUFACTURING -----	448	39.5	220.50	198.00	175.00-262.50	-	-	5	21	113	87	53	29	21	33	4	53	8	19	2	-	-	-	-	-	
PUBLIC UTILITIES -----	160	39.5	285.50	308.00	249.00-318.00	-	-	-	-	2	2	18	4	17	31	4	53	8	19	2	-	-	-	-	-	
STENOGRAPHERS, SENIOR -----	366	39.5	226.00	194.50	175.50-275.00	-	-	-	8	105	86	19	16	16	28	3	53	11	19	2	-	-	-	-	-	
MANUFACTURING -----	349	39.5	224.50	191.50	175.00-263.00	-	-	-	8	105	80	19	15	14	27	2	50	8	19	2	-	-	-	-	-	
PUBLIC UTILITIES -----	116	39.0	305.00	318.00	263.00-318.50	-	-	-	-	-	-	-	-	10	25	2	50	8	19	2	-	-	-	-	-	
STENOGRAPHERS, GENERAL -----	117	40.0	217.50	218.50	185.00-238.00	-	-	5	13	8	11	35	16	7	6	2	9	5	-	-	-	-	-	-	-	
NONMANUFACTURING -----	99	40.0	207.50	214.00	173.50-228.50	-	-	5	13	8	7	34	14	7	6	2	3	-	-	-	-	-	-	-	-	
TYPISTS -----	1,185	39.0	191.00	185.00	159.50-219.50	-	2	53	250	209	223	153	187	57	14	13	14	3	4	-	1	-	-	-	-	
MANUFACTURING -----	262	39.5	201.50	203.50	180.50-228.50	-	-	-	36	29	48	69	48	8	1	-	1	1	-	1	-	-	-	-	-	
NONMANUFACTURING -----	923	39.0	188.00	180.00	154.00-213.50	-	2	53	214	180	175	84	119	49	15	13	14	2	3	-	-	-	-	-	-	
PUBLIC UTILITIES -----	139	38.5	231.50	219.00	199.50-261.00	-	-	-	1	7	27	35	14	18	7	12	13	2	3	-	-	-	-	-	-	
TYPISTS, CLASS A -----	694	39.5	190.00	184.00	154.00-222.50	-	-	11	186	119	98	98	142	21	7	1	5	1	4	-	1	-	-	-	-	
MANUFACTURING -----	181	39.0	215.50	219.50	200.00-228.50	-	-	-	-	7	35	63	47	6	-	-	-	1	1	-	1	-	-	-	-	
NONMANUFACTURING -----	513	39.5	181.50	169.00	150.50-213.50	-	-	11	186	112	63	35	75	15	7	1	5	-	3	-	-	-	-	-	-	
TYPISTS, CLASS B -----	411	39.0	187.50	181.00	159.00-202.50	-	2	42	64	85	105	25	40	31	4	2	9	2	-	-	-	-	-	-	-	
MANUFACTURING -----	81	39.5	170.00	161.00	150.50-185.00	-	-	-	36	22	13	6	1	2	1	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	330	39.0	192.00	191.00	167.00-220.50	-	2	42	28	63	92	19	39	29	3	2	9	2	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	33	40.0	262.00	254.50	229.50-304.50	-	-	-	2	1	1	5	11	-	2	9	2	-	-	-	-	-	-	-	-	
FILE CLERKS -----	468	39.0	185.50	165.50	144.50-210.50	2	69	29	57	116	36	77	23	2	5	9	23	17	3	-	-	-	-	-	-	
NONMANUFACTURING -----	441	39.0	183.50	162.50	141.50-204.00	2	69	26	57	115	35	73	7	1	5	9	22	17	3	-	-	-	-	-	-	
FILE CLERKS, CLASS A -----	94	40.0	196.50	174.00	161.00-228.50	-	-	-	19	35	7	4	18	1	-	2	-	5	3	-	-	-	-	-	-	
FILE CLERKS, CLASS B -----	245	38.5	196.50	188.00	162.50-211.50	2	17	9	24	62	21	66	5	1	5	-	21	12	-	-	-	-	-	-	-	
NONMANUFACTURING -----	239	38.5	196.00	188.00	162.50-211.50	2	17	9	24	61	20	64	4	1	5	-	20	12	-	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-10. Weekly earnings of office workers, large establishments, San Francisco—Oakland, Calif., March 1979—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																			
			Mean ²	Median ²	Middle range ²	\$	%	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
						115 and under	120	130	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460
FILE CLERKS - CONTINUED																									
FILE CLERKS, CLASS C -----	129	38.5	\$ 156.50	\$ 137.00	\$ 124.00-170.50	-	52	20	14	19	8	7	-	-	-	7	2	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	126	38.5	157.00	137.00	124.00-171.00	-	52	17	14	19	8	7	-	-	-	7	2	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	26	38.5	198.50	137.00	137.00-298.00	-	-	15	-	-	-	2	-	-	-	7	2	-	-	-	-	-	-	-	-
MESSENGERS																									
MANUFACTURING -----	771	38.5	182.00	189.50	161.00-211.50	5	76	48	57	146	114	276	36	11	-	2	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	57	39.0	169.00	164.00	164.00-164.00	-	-	-	9	41	2	4	-	1	-	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	714	38.5	183.50	189.50	160.00-211.50	5	76	48	48	105	112	272	36	10	-	2	-	-	-	-	-	-	-	-	-
SWITCHBOARD OPERATORS																									
MANUFACTURING -----	370	39.0	200.00	175.00	166.50-218.50	-	1	2	10	177	49	50	26	10	5	3	20	7	10	-	-	-	-	-	-
NONMANUFACTURING -----	321	39.0	198.50	167.00	166.50-218.50	-	1	2	6	164	36	44	22	10	1	3	20	2	10	-	-	-	-	-	-
SWITCHBOARD OPERATOR-RECEPTIONISTS-																									
NONMANUFACTURING -----	95	40.0	235.50	214.00	197.00-264.00	-	-	-	5	5	16	31	12	2	1	3	10	-	10	-	-	-	-	-	-
MANUFACTURING -----	56	40.0	252.00	214.00	214.00-318.00	-	-	-	2	-	6	25	2	-	1	3	8	-	9	-	-	-	-	-	-
ORDER CLERKS																									
MANUFACTURING -----	163	39.0	256.00	247.50	191.00-292.50	-	-	2	7	21	18	18	12	11	5	33	1	3	12	13	6	1	-	-	-
NONMANUFACTURING -----	90	39.5	270.50	243.00	198.50-356.00	-	-	-	-	20	3	12	8	7	3	1	1	3	12	13	6	1	-	-	-
ORDER CLERKS, CLASS A																									
NONMANUFACTURING -----	64	40.0	303.50	345.00	229.00-365.50	-	-	-	-	-	4	12	4	4	2	2	1	3	12	13	6	1	-	-	-
ORDER CLERKS, CLASS R																									
NONMANUFACTURING -----	89	39.0	229.50	230.50	177.00-292.50	-	-	2	7	21	4	6	8	7	3	31	-	-	-	-	-	-	-	-	-
ACCOUNTING CLERKS																									
MANUFACTURING -----	2,066	39.5	243.50	228.00	200.00-269.00	-	-	25	99	165	224	435	173	131	341	44	53	94	132	115	11	-	-	-	-
NONMANUFACTURING -----	444	39.5	248.00	243.00	202.00-292.00	-	-	-	22	39	38	76	44	32	41	56	16	56	19	3	2	-	-	-	-
PUBLIC UTILITIES -----	1,622	40.0	242.50	225.00	198.00-269.00	-	-	25	77	126	186	359	129	99	300	8	37	42	113	112	9	-	-	-	-
MANUFACTURING -----	583	40.0	299.00	269.00	269.00-354.00	-	-	-	-	25	3	7	2	29	279	-	-	4	113	112	9	-	-	-	-
ACCOUNTING CLERKS, CLASS A																									
MANUFACTURING -----	796	39.5	264.00	240.00	210.50-323.00	-	-	-	1	20	56	177	136	63	64	58	21	44	28	115	11	-	-	-	-
NONMANUFACTURING -----	250	39.5	255.50	256.00	218.50-286.00	-	-	-	-	17	6	42	43	18	39	51	8	8	13	3	2	-	-	-	-
PUBLIC UTILITIES -----	546	39.5	268.00	232.00	210.50-339.50	-	-	-	1	3	50	135	93	45	25	7	13	38	15	112	9	-	-	-	-
ACCOUNTING CLERKS, CLASS R																									
MANUFACTURING -----	1,256	40.0	231.00	214.00	184.00-269.00	-	-	25	98	145	168	244	37	68	277	6	32	52	104	-	-	-	-	-	-
NONMANUFACTURING -----	194	40.0	238.00	206.00	184.00-327.50	-	-	-	22	22	32	34	1	14	2	5	8	48	6	-	-	-	-	-	-
PAYROLL CLERKS																									
MANUFACTURING -----	405	39.5	243.00	224.50	208.50-280.00	-	-	-	12	15	43	114	45	14	58	35	20	18	25	4	-	-	-	-	-
NONMANUFACTURING -----	101	39.0	252.50	275.00	224.50-287.50	-	-	-	6	3	7	8	15	8	13	26	15	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	304	39.5	240.00	212.50	205.00-263.50	-	-	-	6	12	36	106	30	8	45	9	5	18	25	4	-	-	-	-	-
KEY ENTRY OPERATORS																									
MANUFACTURING -----	1,715	40.0	229.00	227.50	202.00-269.00	-	-	14	20	194	181	321	293	150	136	57	230	6	102	11	-	-	-	-	-
NONMANUFACTURING -----	206	39.5	227.00	225.50	194.50-245.00	-	-	-	-	32	26	37	51	26	9	5	15	-	2	3	-	-	-	-	-
PUBLIC UTILITIES -----	1,509	40.0	241.00	227.50	204.50-288.00	-	-	14	20	162	155	284	242	124	127	52	215	6	100	8	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS A																									
MANUFACTURING -----	548	40.0	261.00	255.00	218.50-306.50	-	-	-	-	26	38	83	82	53	102	9	44	6	102	3	-	-	-	-	-
NONMANUFACTURING -----	103	39.5	251.00	243.00	227.00-269.50	-	-	-	-	6	4	9	27	24	8	5	15	-	2	3	-	-	-	-	-
PUBLIC UTILITIES -----	445	40.0	263.50	268.50	216.50-309.50	-	-	-	-	20	34	74	55	29	94	4	29	6	100	-	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS R																									
MANUFACTURING -----	229	40.0	287.50	269.00	256.50-342.50	-	-	-	-	20	9	10	7	12	45	-	-	6	100	-	-	-	-	-	-
NONMANUFACTURING -----	1,152	40.0	229.00	219.50	192.00-250.50	-	-	14	20	168	143	238	196	97	34	48	186	-	8	-	-	-	-	-	-
PUBLIC UTILITIES -----	103	39.5	202.50	203.50	180.00-225.00	-	-	-	-	26	22	28	24	2	1	-	-	-	-	-	-	-	-	-	-
FILE CLERKS - CONTINUED																									
MANUFACTURING -----	1,049	40.0	231.50	221.50	195.50-268.50	-	-	14	20	142	121	210	172	95	33	48	186	-	8	-	-	-	-	-	-

See footnotes at end of tables.

Table A-11. Weekly earnings of professional and technical workers, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																				
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
						140 and under	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	480	520	560	600	640
COMPUTER SYSTEMS ANALYSTS (BUSINESS) -----	1,813	39.5	405.00	402.50	\$352.00-\$556.00	-	-	-	-	3	50	41	83	88	100	129	184	202	185	170	268	157	102	35	11	5
MANUFACTURING -----	392	39.5	441.00	437.00	385.00-487.00	-	-	-	-	1	1	-	11	11	21	44	35	40	41	68	60	39	12	7	1	
NONMANUFACTURING -----	1,421	39.5	395.50	393.00	343.50-444.00	-	-	-	-	3	49	40	83	77	89	108	140	167	145	129	200	97	63	23	4	4
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A -----	789	39.5	448.00	445.50	397.00-489.00	-	-	-	-	-	-	21	7	5	37	54	78	73	101	170	107	85	35	11	5	
MANUFACTURING -----	110	39.5	500.50	487.50	455.50-544.50	-	-	-	-	-	-	-	-	-	2	-	2	5	6	32	19	24	12	7	1	
NONMANUFACTURING -----	679	39.5	439.50	436.50	391.00-481.00	-	-	-	-	-	-	21	7	5	35	54	76	68	95	138	88	61	23	4	4	
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B -----	789	39.5	380.50	378.50	335.50-415.00	-	-	-	-	22	4	44	40	83	75	118	107	92	57	70	41	16	-	-	-	
MANUFACTURING -----	217	39.5	417.50	401.00	377.00-459.00	-	-	-	-	-	-	-	4	10	17	43	31	23	24	19	32	14	-	-	-	
NONMANUFACTURING -----	572	39.5	366.50	368.00	324.50-408.00	-	-	-	-	22	4	44	56	73	58	75	76	69	33	51	9	2	-	-	-	
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C -----	216	39.5	342.50	324.50	260.00-414.50	-	-	-	-	2	28	36	18	20	8	16	9	15	17	11	26	9	1	-	-	
NONMANUFACTURING -----	151	39.5	310.50	293.50	260.00-356.00	-	-	-	-	2	27	35	18	13	7	14	8	13	5	-	9	-	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS) -----	536	39.5	346.50	349.50	293.00-395.50	-	-	-	18	9	51	40	37	39	55	33	74	52	50	26	34	10	7	1	-	
MANUFACTURING -----	74	39.5	359.50	369.50	326.50-398.00	-	-	-	6	-	3	3	3	1	5	10	12	13	9	4	1	1	2	1	-	
NONMANUFACTURING -----	462	39.5	344.50	344.00	285.50-395.50	-	-	-	12	9	48	37	34	38	50	23	62	39	41	22	33	9	5	-	-	
PUBLIC UTILITIES -----	205	40.0	363.50	373.00	299.00-412.50	-	-	-	-	1	18	20	19	8	12	13	25	16	29	13	17	9	5	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	171	39.5	411.00	403.00	373.50-444.50	-	-	-	-	-	-	1	-	14	2	34	25	25	20	30	10	7	1	-	-	
NONMANUFACTURING -----	161	39.5	408.50	402.50	373.00-443.00	-	-	-	-	-	-	1	-	14	2	34	23	25	19	29	9	5	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	245	39.0	338.50	345.00	299.00-380.00	-	-	-	-	8	28	11	15	22	31	28	40	27	25	6	4	-	-	-	-	
NONMANUFACTURING -----	190	39.0	330.50	331.00	297.00-368.00	-	-	-	-	8	28	8	12	21	28	18	28	16	16	3	4	-	-	-	-	
PUBLIC UTILITIES -----	69	39.5	370.00	370.50	340.50-407.50	-	-	-	-	-	-	8	2	7	10	14	7	14	3	4	-	-	-	-	-	
COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	120	40.0	271.00	270.50	253.00-299.00	-	-	-	18	1	23	29	21	17	8	3	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	111	39.5	275.00	276.00	253.00-300.50	-	-	-	12	1	20	29	21	17	8	3	-	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	63	40.0	279.00	270.50	253.00-299.00	-	-	-	-	1	18	20	10	6	5	3	-	-	-	-	-	-	-	-	-	
COMPUTER OPERATORS -----	684	39.5	276.00	273.50	242.50-299.50	-	12	24	44	75	112	157	89	59	27	39	11	18	7	2	6	2	-	-	-	
MANUFACTURING -----	129	39.5	274.50	275.00	231.00-310.50	-	6	4	13	19	12	16	14	24	11	-	1	-	1	2	2	2	-	-	-	
NONMANUFACTURING -----	555	39.5	276.00	272.50	245.00-295.50	-	6	20	31	56	100	141	73	35	16	39	10	18	6	4	-	-	-	-	-	
PUBLIC UTILITIES -----	174	39.5	297.00	275.00	272.00-303.50	-	-	-	-	-	29	70	27	4	2	19	9	2	6	-	4	-	-	-	-	
COMPUTER OPERATORS, CLASS A -----	218	39.5	312.50	298.50	280.50-327.50	-	-	-	-	1	11	39	61	43	13	16	3	18	6	-	5	2	-	-	-	
NONMANUFACTURING -----	178	39.5	311.50	294.00	280.50-341.50	-	-	-	-	1	8	34	57	26	6	14	2	18	6	-	4	-	-	-	-	
COMPUTER OPERATORS, CLASS B -----	402	39.5	266.50	261.00	240.00-276.50	-	-	9	36	56	92	116	28	14	14	23	8	-	1	2	1	-	-	-		
MANUFACTURING -----	70	39.5	271.00	263.50	232.50-286.50	-	-	-	8	15	9	11	12	7	4	-	-	-	1	2	1	-	-	-		
NONMANUFACTURING -----	332	39.5	265.50	261.00	241.50-275.00	-	-	9	28	41	83	105	16	9	10	23	8	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	129	39.0	286.50	275.00	264.50-279.00	-	-	-	-	-	29	70	2	-	1	19	8	-	-	-	-	-	-	-	-	
COMPUTER OPERATORS, CLASS C -----	64	39.5	212.00	211.00	189.00-237.00	-	12	15	8	18	9	2	-	-	-	-	-	-	-	-	-	-	-	-		

See footnotes at end of tables.

Table A-11. Weekly earnings of professional and technical workers, large establishments, San Francisco—Oakland, Calif., March 1979—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
						140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	480	520	560	600	640			
DRAFTERS -----	546	40.0	\$ 324.50	\$ 340.50	\$ 265.00-374.00	-	5	23	13	45	29	49	31	46	32	110	38	54	23	16	32	-	-	-	-	-	-	-	
MANUFACTURING -----	203	39.5	306.00	300.50	229.00-368.50	-	-	22	10	28	16	13	12	18	9	13	22	5	14	5	16	-	-	-	-	-	-	-	
NONMANUFACTURING -----	343	40.0	336.00	351.50	293.00-379.50	-	5	1	3	17	13	36	19	28	23	97	16	49	9	11	16	-	-	-	-	-	-	-	
DRAFTERS, CLASS A -----	160	40.0	388.50	389.00	363.50-429.00	-	-	1	-	4	4	3	4	3	7	8	13	48	17	16	32	-	-	-	-	-	-	-	
MANUFACTURING -----	75	39.5	369.50	379.50	318.00-422.00	-	-	1	-	4	4	3	4	3	7	5	7	4	12	5	16	-	-	-	-	-	-	-	
NONMANUFACTURING -----	85	40.0	406.00	389.00	389.00-429.00	-	-	-	-	-	-	-	-	-	-	3	6	44	5	11	16	-	-	-	-	-	-	-	
DRAFTERS, CLASS B -----	274	40.0	318.00	336.00	290.50-351.50	-	-	9	6	17	12	15	21	38	23	97	24	6	6	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	84	40.0	280.50	264.50	222.50-343.50	-	-	8	6	17	10	4	4	12	1	4	15	1	2	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	190	40.0	334.50	351.50	314.00-351.50	-	-	1	-	-	2	11	17	26	22	93	9	5	4	-	-	-	-	-	-	-	-	-	
DRAFTERS, CLASS C -----	101	39.5	249.00	245.00	221.00-271.50	-	5	13	7	21	13	23	6	5	2	5	1	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	58	39.5	250.50	248.50	230.00-270.00	-	5	-	3	15	11	17	2	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	
ELECTRONICS TECHNICIANS -----	376	39.5	361.00	367.00	347.50-370.50	-	-	-	-	3	4	13	18	21	23	60	156	25	18	6	29	-	-	-	-	-	-	-	
MANUFACTURING -----	140	40.0	346.50	353.00	336.00-368.00	-	-	-	-	3	1	5	7	10	20	46	29	13	6	-	-	-	-	-	-	-	-	-	
ELECTRONICS TECHNICIANS, CLASS A -----	177	40.0	376.50	367.00	350.00-401.00	-	-	-	-	-	-	-	4	9	18	48	31	20	13	5	29	-	-	-	-	-	-	-	
ELECTRONICS TECHNICIANS, CLASS B -----	186	38.5	351.00	367.00	348.50-367.00	-	-	-	-	3	3	8	10	11	5	12	125	4	4	1	-	-	-	-	-	-	-	-	
REGISTERED INDUSTRIAL NURSES -----	63	39.5	323.00	330.00	295.00-347.00	-	-	-	-	1	4	3	12	8	12	8	11	4	-	-	-	-	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-12. Average weekly earnings of office, professional, and technical workers, by sex, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation, sex, ³ and industry division	Number of workers	Average (mean ¹)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ¹)		Occupation, sex, ³ and industry division	Number of workers	Average (mean ¹)	
		Weekly hours ² (standard)	Weekly earnings ¹ (standard)			Weekly hours ² (standard)	Weekly earnings ¹ (standard)			Weekly hours ² (standard)	Weekly earnings ¹ (standard)
OFFICE OCCUPATIONS - MEN			\$	OFFICE OCCUPATIONS - WOMEN--CONTINUED			\$	PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN			\$
MESSENGERS -----	269	38.5	182.50	FILE CLERKS:				COMPUTER SYSTEMS ANALYSTS (BUSINESS):			
NONMANUFACTURING -----	236	38.0	184.50	FILE CLERKS, CLASS B -----	195	38.5	180.50	MANUFACTURING -----	315	39.5	442.50
ORDER CLERKS -----	52	39.5	261.00	FILE CLERKS, CLASS C -----	100	38.5	148.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A:			
ACCOUNTING CLERKS:				NONMANUFACTURING -----	97	38.5	148.50	MANUFACTURING -----	98	39.5	498.00
MANUFACTURING -----	74	39.5	265.00	MESSENGERS -----	485	38.5	183.50	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B:			
OFFICE OCCUPATIONS - WOMEN				NONMANUFACTURING -----	461	38.5	184.00	MANUFACTURING -----	171	39.5	419.00
SECRETARIES -----	3,834	39.5	248.50	SWITCHBOARD OPERATORS -----	317	39.0	197.00	COMPUTER PROGRAMMERS (BUSINESS):			
MANUFACTURING -----	918	40.0	255.50	NONMANUFACTURING -----	270	38.5	195.50	MANUFACTURING -----	53	39.5	361.50
NONMANUFACTURING -----	2,916	39.5	246.50	SWITCHBOARD OPERATOR-RECEPTIONISTS-	95	40.0	235.50	COMPUTER OPERATORS:			
PUBLIC UTILITIES -----	470	39.0	291.50	NONMANUFACTURING -----	56	40.0	252.00	MANUFACTURING -----	87	39.5	274.50
SECRETARIES, CLASS A -----	157	39.5	308.00	ORDER CLERKS -----	111	39.0	254.00	MANUFACTURING -----	425	40.0	322.00
NONMANUFACTURING -----	132	39.5	306.00	MANUFACTURING -----	52	40.0	268.50	MANUFACTURING -----	193	40.0	307.00
SECRETARIES, CLASS B -----	767	39.5	274.50	ORDER CLERKS, CLASS B -----	68	39.0	246.50	DRAFTERS, CLASS A -----	131	40.0	381.00
MANUFACTURING -----	148	40.0	290.50	ACCOUNTING CLERKS:				MANUFACTURING -----	72	39.5	372.00
NONMANUFACTURING -----	619	39.5	270.50	MANUFACTURING -----	370	39.5	244.50	DRAFTERS, CLASS B -----	221	40.0	313.00
SECRETARIES, CLASS C -----	1,336	39.5	243.00	ACCOUNTING CLERKS, CLASS A -----	595	39.5	266.00	MANUFACTURING -----	81	40.0	280.50
MANUFACTURING -----	319	40.0	251.50	MANUFACTURING -----	201	39.5	250.50	DRAFTERS, CLASS C -----	73	39.5	242.50
NONMANUFACTURING -----	1,017	39.0	240.00	NONMANUFACTURING -----	394	39.5	274.00	ELECTRONICS TECHNICIANS -----	357	39.5	362.50
SECRETARIES, CLASS D -----	924	39.5	246.00	PUBLIC UTILITIES -----	107	40.0	362.00	MANUFACTURING -----	135	40.0	348.00
MANUFACTURING -----	196	39.5	257.50	ACCOUNTING CLERKS, CLASS B:				ELECTRONICS TECHNICIANS, CLASS A-	176	40.0	376.50
NONMANUFACTURING -----	728	39.5	243.00	MANUFACTURING -----	169	40.0	237.00	MANUFACTURING -----	171	38.5	351.50
PUBLIC UTILITIES -----	60	39.5	314.50	PAYROLL CLERKS -----	369	39.5	241.50	ELECTRONICS TECHNICIANS, CLASS B-			
SECRETARIES, CLASS E -----	644	40.0	217.50	MANUFACTURING -----	87	39.0	246.50	MANUFACTURING -----			
MANUFACTURING -----	224	40.0	226.00	NONMANUFACTURING -----	282	39.5	239.50	REGISTERED INDUSTRIAL NURSES -----	57	39.0	322.50
NONMANUFACTURING -----	420	40.0	213.00	PUBLIC UTILITIES -----	26	40.0	353.00				
STENOGRAPHERS, GENERAL -----	99	40.0	219.00	ACCOUNTING CLERKS, CLASS B:							
MANUFACTURING -----	256	39.5	201.00	MANUFACTURING -----	200	39.5	227.00				
NONMANUFACTURING -----	802	39.0	187.00	KEY ENTRY OPERATORS:							
TYPISTS -----	1,058	39.0	190.00	MANUFACTURING -----	100	39.5	251.50				
MANUFACTURING -----	256	39.5	201.00	KEY ENTRY OPERATORS, CLASS A:							
NONMANUFACTURING -----	802	39.0	187.00	MANUFACTURING -----	100	39.5	251.50				
TYPISTS, CLASS A -----	614	39.5	190.50	KEY ENTRY OPERATORS, CLASS B -----	898	40.0	220.50				
MANUFACTURING -----	175	39.0	215.50	MANUFACTURING -----	100	39.5	202.50				
NONMANUFACTURING -----	439	39.5	180.50								
TYPISTS, CLASS B -----	384	39.0	185.00								
MANUFACTURING -----	81	39.5	170.00								
NONMANUFACTURING -----	303	39.0	189.00								

See footnotes at end of tables.

Table A-13. Hourly earnings of maintenance, toolroom, and powerplant workers, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Hourly earnings ⁴			Number of workers receiving straight-time hourly earnings of—																						
		Mean ²	Median ²	Middle range ²	Number of workers receiving straight-time hourly earnings of—																						
					\$ 5.00 and under	\$ 5.40	\$ 5.80	\$ 6.20	\$ 6.60	\$ 7.00	\$ 7.40	\$ 7.80	\$ 8.20	\$ 8.60	\$ 9.00	\$ 9.40	\$ 9.80	\$ 10.20	\$ 10.60	\$ 11.00	\$ 11.40	\$ 11.80	\$ 12.20	\$ 12.60	\$ 13.00	\$ 13.40	
MAINTENANCE CARPENTERS -----	147	9.95	10.08	8.93-10.36	-	-	-	-	-	-	-	4	21	8	4	23	-	44	8	6	-	-	16	-	13	-	-
MANUFACTURING -----	57	9.58	9.32	9.32-10.19	-	-	-	-	-	-	-	-	-	7	4	23	-	9	8	6	-	-	-	-	-	-	-
NONMANUFACTURING -----	90	10.19	10.09	7.97-12.10	-	-	-	-	-	-	-	4	21	1	-	-	-	35	-	-	-	-	16	-	13	-	-
PUBLIC UTILITIES -----	54	9.95	10.10	7.97-12.10	-	-	-	-	-	-	-	-	20	-	-	-	-	17	-	-	-	-	16	-	1	-	-
MAINTENANCE ELECTRICIANS -----	433	10.19	10.37	9.32-10.56	-	-	-	-	-	-	-	-	27	25	73	12	48	142	63	-	-	37	-	3	-	3	-
MANUFACTURING -----	242	9.87	10.35	9.32-10.72	-	-	-	-	-	-	-	-	27	11	71	5	6	56	63	-	-	-	-	-	-	-	3
NONMANUFACTURING -----	191	10.59	10.56	10.08-10.56	-	-	-	-	-	-	-	-	-	14	2	7	42	86	-	-	-	37	-	3	-	-	-
PUBLIC UTILITIES -----	173	10.69	10.56	10.10-10.56	-	-	-	-	-	-	-	-	-	13	-	-	34	86	-	-	-	37	-	3	-	-	-
MAINTENANCE PAINTERS -----	125	10.09	10.03	10.03-10.10	-	-	-	-	-	1	-	2	5	2	-	2	105	-	-	-	-	-	-	-	-	8	-
NONMANUFACTURING -----	93	10.21	10.03	10.03-10.03	-	-	-	-	-	1	-	2	-	-	-	2	80	-	-	-	-	-	-	-	-	8	-
MAINTENANCE MACHINISTS -----	422	10.24	10.56	9.32-10.84	-	-	-	-	-	-	-	-	10	1	124	8	27	79	111	60	-	-	-	-	-	-	-
MANUFACTURING -----	329	10.19	10.66	9.32-10.85	-	-	-	-	-	-	-	-	10	1	123	8	16	-	111	60	-	-	-	-	-	-	-
MAINTENANCE MECHANICS (MACHINERY) -----	431	9.42	9.15	8.49-10.10	-	-	-	-	-	-	1	4	115	53	52	3	126	16	61	-	-	-	-	-	-	-	-
MANUFACTURING -----	360	9.35	9.03	8.49-10.05	-	-	-	-	-	-	1	4	115	43	44	3	74	15	61	-	-	-	-	-	-	-	-
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	457	10.68	10.35	10.10-11.78	-	-	-	-	-	-	1	1	17	13	5	50	58	133	10	36	32	38	61	2	-	-	-
MANUFACTURING -----	60	9.40	10.05	8.49-10.19	-	-	-	-	-	-	1	-	14	7	5	-	31	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	397	10.87	10.35	10.33-11.84	-	-	-	-	-	-	-	1	1	6	-	50	27	133	10	36	32	38	61	2	-	-	-
PUBLIC UTILITIES -----	320	10.81	10.35	10.33-11.08	-	-	-	-	-	-	-	-	-	-	-	49	13	133	10	36	-	16	61	2	-	-	-
MAINTENANCE PIPEFITTERS -----	172	9.90	10.19	9.32-10.40	-	-	-	-	-	-	-	-	17	1	24	-	79	49	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	145	9.87	10.19	9.32-10.40	-	-	-	-	-	-	-	-	17	1	24	-	52	49	-	-	-	-	-	-	-	-	-
MAINTENANCE SHEET-METAL WORKERS -----	62	10.40	10.65	8.35-12.10	-	-	-	-	-	-	-	-	24	-	-	1	5	-	3	-	-	26	-	3	-	-	-
MAINTENANCE TRADES HELPERS -----	113	7.96	8.42	6.46- 8.95	5	8	6	2	10	-	-	21	-	6	34	-	-	12	7	-	-	-	-	-	-	-	-
TOOL AND DIE MAKERS -----	227	11.23	11.67	10.40-11.67	-	-	-	-	-	-	-	-	-	-	-	8	-	64	-	15	130	2	2	5	1	-	-
MANUFACTURING -----	214	11.28	11.67	10.40-11.67	-	-	-	-	-	-	-	-	-	-	-	8	-	51	-	15	130	2	2	5	1	-	-
STATIONARY ENGINEERS -----	299	9.44	10.08	10.05-10.08	-	-	-	-	1	2	8	3	1	12	3	23	10	206	8	21	-	-	1	-	-	-	-
MANUFACTURING -----	85	9.88	10.05	9.34-10.12	-	-	-	-	-	-	-	-	-	-	23	7	47	8	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	214	9.43	10.08	10.08-10.08	-	-	-	-	1	2	8	3	1	12	3	-	3	159	-	21	-	-	1	-	-	-	-

See footnotes at end of tables.

Table A-14. Hourly earnings of material movement and custodial workers, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation and industry division	Number of workers	Hourly earnings ¹			Number of workers receiving straight-time hourly earnings of—																							
		Mean ²	Median ²	Middle range ²	Under \$3.80	\$3.80	\$4.00	\$4.20	\$4.40	\$4.60	\$5.00	\$5.40	\$5.80	\$6.20	\$6.60	\$7.00	\$7.40	\$7.80	\$8.20	\$8.60	\$9.00	\$9.40	\$9.80	\$10.20	\$10.60	\$11.00	\$11.40	
						3.80	4.00	4.20	4.40	4.60	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	10.60	11.00	11.40	
TRUCKDRIVERS -----	1,876	9.89	9.71	9.68-10.04	-	-	-	-	-	-	-	1	2	8	2	17	17	3	15	11	42	1159	144	110	5	340	-	
MANUFACTURING -----	105	9.33	9.83	9.25-10.04	-	-	-	-	-	-	-	-	-	6	-	5	1	4	6	17	-	62	3	-	-	-	-	
NONMANUFACTURING -----	1,771	9.92	9.71	9.68-10.28	-	-	-	-	-	-	-	1	2	2	2	12	16	2	11	5	25	1159	82	107	5	340	-	
PUBLIC UTILITIES -----	1,353	9.68	9.68	9.68-9.71	-	-	-	-	-	-	-	-	-	-	1	-	15	2	10	-	25	1111	82	107	-	-	-	
TRUCKDRIVERS, TRACTOR-TRAILER -----	574	10.60	11.11	9.84-11.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	18	133	53	5	340	-	
NONMANUFACTURING -----	520	10.67	11.11	10.28-11.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	18	82	50	5	340	-	
PUBLIC UTILITIES -----	157	9.85	9.84	9.84-10.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	82	50	-	-	-	
SHIPPERS -----	56	7.96	8.40	7.92-8.59	-	-	-	-	-	-	1	-	2	10	-	1	-	5	23	13	1	-	-	-	-	-	-	
RECEIVERS -----	132	8.06	8.35	6.86-8.55	-	-	2	-	-	3	-	-	-	23	6	-	1	6	67	8	1	-	-	15	-	-	-	
NONMANUFACTURING -----	106	8.35	8.40	8.30-8.55	-	-	2	-	-	3	-	-	-	4	4	-	-	6	67	4	1	-	-	15	-	-	-	
SHIPPERS AND RECEIVERS -----	111	8.08	8.71	7.08-8.99	-	-	-	-	-	4	-	-	2	4	17	9	-	1	13	55	4	-	2	-	-	-	-	
NONMANUFACTURING -----	76	7.77	8.41	6.86-8.99	-	-	-	-	-	4	-	-	2	4	17	9	-	-	10	26	4	-	-	-	-	-	-	
WAREHOUSEMEN -----	484	7.76	8.31	4.90-9.63	-	-	-	1	150	4	-	1	-	-	-	-	5	29	161	-	8	6	-	84	35	-	-	
NONMANUFACTURING -----	465	7.69	8.31	4.90-8.37	-	-	-	1	150	4	-	1	-	-	-	-	4	29	161	-	-	-	-	80	35	-	-	
ORDER FILLERS -----	560	9.43	10.15	8.13-10.15	-	-	-	-	-	-	-	20	12	30	-	-	-	108	-	-	-	292	-	98	-	-	-	
NONMANUFACTURING -----	508	9.58	10.15	8.13-10.15	-	-	-	-	-	-	-	20	12	-	-	-	-	108	-	-	-	270	-	98	-	-	-	
SHIPPING PACKERS -----	74	8.10	8.04	6.29-9.93	-	-	-	-	-	-	-	-	-	20	-	4	5	20	-	-	-	-	-	25	-	-	-	
MATERIAL HANDLING LABORERS -----	799	8.32	8.41	8.03-9.65	-	4	3	1	5	-	-	17	-	27	1	123	8	100	245	26	1	236	-	-	-	-	-	
MANUFACTURING -----	263	7.93	8.33	8.11-8.41	-	-	-	-	-	-	-	15	-	27	-	-	-	79	142	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	536	8.51	8.55	7.30-9.65	-	6	3	1	5	-	-	2	-	-	1	123	8	21	103	26	1	236	-	-	-	-	-	
PUBLIC UTILITIES -----	238	9.63	9.65	9.65-9.65	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	236	-	-	-	-	-	
FORKLIFT OPERATORS -----	736	8.59	8.46	8.20-9.56	-	-	-	-	-	-	-	-	16	108	4	16	21	16	243	73	-	102	30	-	107	-	-	
MANUFACTURING -----	495	8.03	8.46	6.58-8.84	-	-	-	-	-	-	-	-	16	108	4	16	15	16	167	73	-	60	20	-	-	-	-	
NONMANUFACTURING -----	241	9.73	9.71	8.20-10.86	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	76	-	42	10	-	107	-	-	
GUARDS -----	388	6.47	6.75	4.35-8.20	-	4	5	91	9	26	11	24	11	4	13	4	62	27	49	47	1	-	-	-	-	-	-	
MANUFACTURING -----	141	7.84	8.18	7.58-8.85	-	-	-	-	-	10	2	-	1	-	9	-	42	21	8	47	1	-	-	-	-	-	-	
NONMANUFACTURING -----	247	5.69	4.98	4.24-7.43	-	4	5	91	9	16	9	24	10	4	4	4	20	6	41	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	71	8.05	8.34	7.73-8.34	-	-	-	-	-	-	-	-	-	-	4	20	4	41	-	-	-	-	-	-	-	-	-	
GUARDS, CLASS A -----	118	7.85	8.18	7.72-8.34	-	-	-	-	1	3	2	1	1	1	5	4	23	27	40	9	1	-	-	-	-	-	-	
GUARDS, CLASS B -----	165	6.49	5.92	4.74-7.58	-	4	4	16	6	21	9	18	9	-	-	-	39	-	1	38	-	-	-	-	-	-	-	
NONMANUFACTURING -----	75	4.97	4.81	4.32-5.74	-	4	4	16	6	11	7	18	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
JANITORS, PORTERS, AND CLEANERS -----	3,438	6.11	6.61	5.20-6.61	4	209	215	2	6	299	383	196	79	146	1325	190	77	203	6	98	-	-	-	-	-	-	-	
MANUFACTURING -----	553	7.37	8.11	6.46-8.11	1	3	2	71	31	72	2	-	61	197	6	98	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	2,885	5.87	6.61	4.99-6.61	4	209	207	1	5	296	381	125	48	74	1323	190	16	6	-	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	278	6.91	7.12	6.36-7.13	-	-	-	1	1	5	-	4	2	64	-	183	16	2	-	-	-	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-15. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, large establishments, San Francisco—Oakland, Calif., March 1979

Occupation, sex, ³ and industry division	Number of workers	Average (mean ²) hourly earnings ⁴	Occupation, sex, ³ and industry division	Number of workers	Average (mean ²) hourly earnings ⁴
MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS - MEN			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN		\$
MAINTENANCE CARPENTERS:-----		\$	TRUCKDRIVERS -----	1,771	9.94
MANUFACTURING -----	57	9.58	MANUFACTURING -----	105	9.33
MAINTENANCE ELECTRICIANS -----	420	10.23	NONMANUFACTURING -----	1,666	9.98
MANUFACTURING -----	242	9.87	PUBLIC UTILITIES -----	1,260	9.71
NONMANUFACTURING -----	178	10.73	TRUCKDRIVERS, TRACTOR-TRAILER ---	574	10.60
PUBLIC UTILITIES -----	160	10.85	NONMANUFACTURING -----	520	10.67
MAINTENANCE PAINTERS -----	119	9.94	PUBLIC UTILITIES -----	157	9.85
NONMANUFACTURING -----	87	10.02	WAREHOUSEMEN -----	328	8.90
MAINTENANCE MACHINISTS -----	422	10.24	NONMANUFACTURING -----	309	8.86
MANUFACTURING -----	329	10.19	ORDER FILLERS -----	518	9.67
MAINTENANCE MECHANICS (MACHINERY) -	418	9.43	SHIPPING PACKERS -----	51	8.00
MANUFACTURING -----	357	9.34	MATERIAL HANDLING LABORERS:		
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	452	10.69	MANUFACTURING -----	248	7.94
MANUFACTURING -----	60	9.40	FORKLIFT OPERATORS -----	709	8.60
NONMANUFACTURING -----	392	10.89	MANUFACTURING -----	486	8.04
PUBLIC UTILITIES -----	320	10.81	NONMANUFACTURING -----	223	9.83
MAINTENANCE PIPEFITTERS -----	172	9.90	GUARDS -----	302	6.37
MANUFACTURING -----	145	9.87	MANUFACTURING -----	130	7.86
MAINTENANCE SHEET-METAL WORKERS ---	62	10.40	GUARDS, CLASS B -----	149	6.60
MAINTENANCE TRADE HELPERS -----	105	7.99	NONMANUFACTURING -----	62	5.02
TOOL AND DIE MAKERS -----	226	11.24	JANITORS, PORTERS, AND CLEANERS ---	3,073	6.06
MANUFACTURING -----	213	11.29	MANUFACTURING -----	497	7.36
STATIONARY ENGINEERS -----	280	9.93	NONMANUFACTURING -----	2,576	5.81
MANUFACTURING -----	85	9.88	MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - WOMEN		
NONMANUFACTURING -----	195	9.95	JANITORS, PORTERS, AND CLEANERS:		
			MANUFACTURING -----	56	7.42

See footnotes at end of tables.

Footnotes

¹ Standard hours reflect the workweek for which employees receive their regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates), and the earnings correspond to these weekly hours.

² The mean is computed for each job by totaling the earnings of all workers and dividing by the number of workers. The median designates position—half of the workers receive the same or more and half receive the same or less than the rate shown. The middle range is defined by two rates of pay: a fourth of the workers earn the same or less than the lower of these rates and a fourth earn the same or more than the higher rate.

³ Earnings data relate only to workers whose sex identification was provided by the establishment.

⁴ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

⁵ Estimates for periods ending prior to 1976 relate to men only for skilled maintenance and unskilled plant workers. All other estimates relate to men and women.

⁶ Data do not meet publication criteria or data not available.

Appendix A.

Scope and Method of Survey

In each of the 72¹ areas currently surveyed, the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Establishments having fewer than a prescribed number of workers are also excluded because of insufficient employment in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

Bureau field representatives obtain data by personal visits at 3-year intervals. In each of the two intervening years, information on employment and occupational earnings only is collected by a combination of personal visit, mail questionnaire, and telephone interview from establishments participating in the previous survey.

A sample of the establishments in the scope of the survey is selected for study prior to each personal visit survey. This sample, less establishments which go out of business or are no longer within the industrial scope of the survey, is retained for the following two annual surveys. In most cases, establishments new to the area are not considered in the scope of the survey until the selection of a sample for a personal visit survey.

The sampling procedures involve detailed stratification of all establishments within the scope of an individual area survey by industry and number of employees. From this stratified universe a probability sample is selected, with each establishment having a predetermined chance of selection. To obtain optimum accuracy at minimum cost, a greater proportion of large than small establishments is selected. When data are combined, each establishment is weighted according to its probability of selection so that unbiased estimates are generated. For example, if one out of four establishments is selected, it is given a weight of 4 to represent itself plus three others. An alternate of the same original probability is chosen in the same industry-size classification if data are not available from the original sample member. If no suitable substitute is available, additional weight is assigned to a sample member that is similar to the missing unit.

Occupations and earnings

Occupations selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (1) Office clerical; (2) professional and technical; (3) maintenance, toolroom,

and powerplant; and (4) material movement and custodial. Occupational classification is based on a uniform set of job descriptions designed to take account of interestablishment variation in duties within the same job. Occupations selected for study are listed and described in appendix B.

Unless otherwise indicated, the earnings data following the job titles are for all industries combined. Earnings data for some of the occupations listed and described, or for some industry divisions within the scope of the survey, are not presented in the A-series tables because either (1) employment in the occupation is too small to provide enough data to merit presentation, or (2) there is possibility of disclosure of individual establishment data. Separate men's and women's earnings data are not presented when the number of workers not identified by sex is 20 percent or more of the men or women identified in an occupation. Earnings data not shown separately for industry divisions are included in data for all industries combined. Likewise, for occupations with more than one level, data are included in the overall classification when a subclassification is not shown or information to subclassify is not available.

Occupational employment and earnings data are shown for full-time workers, i.e., those hired to work a regular weekly schedule. Earnings data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Nonproduction bonuses are excluded, but cost-of-living allowances and incentive bonuses are included. Weekly hours for office clerical and professional and technical occupations refer to the standard workweek (rounded to the nearest half hour) for which employees receive regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates). Average weekly earnings for these occupations are rounded to the nearest half dollar. Vertical lines within the distribution of workers on some A-tables indicate a change in the size of the class intervals.

These surveys measure the level of occupational earnings in an area at a particular time. Comparisons of individual occupational averages over time may not reflect expected wage changes. The averages for individual jobs are affected by changes in wages and employment patterns. For example, proportions of workers employed by high- or low-wage firms may change, or high-wage workers may advance to better jobs and be replaced by new workers at lower rates. Such shifts in employment could decrease an occupational average even though most establishments in an area increase wages during the year. Changes in earnings of occupational groups, shown in table A-7, are better indicators of wage trends than are earnings changes for individual jobs within the groups.

Average earnings reflect composite, areawide estimates. Industries and establishments differ in pay level and job staffing, and thus contribute differently to the estimates for each job. Pay averages may fail to reflect accurately the wage differential among jobs in individual establishments.

¹ Included in the 72 areas are 2 studies conducted by the Bureau under contract. These areas are Akron, Ohio and Poughkeepsie-Kingston-Newburgh, N.Y. In addition, the Bureau conducts more limited area studies in approximately 100 areas at the request of the Employment Standards Administration of the U.S.

Average pay levels for men and women in selected occupations should not be assumed to reflect differences in pay of the sexes within individual establishments. Factors which may contribute to differences include progression within established rate ranges (only the rates paid incumbents are collected) and performance of specific duties within the general survey job descriptions. Job descriptions used to classify employees in these surveys usually are more generalized than those used in individual establishments and allow for minor differences among establishments in specific duties performed.

Occupational employment estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because occupational structures among establishments differ, estimates of occupational employment obtained from the sample of establishments studied serve only to indicate the relative importance of the jobs studied. These differences in occupational structure do not affect materially the accuracy of the earnings data.

Wage trends for selected occupational groups

The percent increases presented in table A-7 are based on changes in average hourly earnings of men and women in establishments reporting the trend jobs in both the current and previous year (matched establishments). The data are adjusted to remove the effects on average earnings of employment shifts among establishments and turnover of establishments included in survey samples. The percent increases, however, are still affected by factors other than wage increases. Hirings, layoffs, and turnover may affect an establishment average for an occupation when workers are paid under plans providing a range of wage rates for individual jobs. In periods of increased hiring, for example, new employees may enter at the bottom of the range, depressing the average without a change in wage rates.

The percent changes relate to wage changes between the indicated dates. When the time span between surveys is other than 12 months, annual rates are also shown. (It is assumed that wages increase at a constant rate between surveys.)

Occupations used to compute wage trends are:

Office clerical

Secretaries
Stenographers, senior
Stenographers, general
Typists, classes A and B
File clerks, classes A,
B, and C
Messengers
Switchboard operators
Order clerks, classes
A and B
Accounting clerks,
classes A and B
Payroll clerks
Key entry operators,
classes A and B

Electronic data processing

Computer systems analysts,
classes A, B, and C
Computer programmers,
classes A, B, and C

Electronic data processing— Continued

Computer operators,
classes A, B, and C
Industrial nurses
Registered industrial
nurses
Skilled maintenance
Carpenters
Electricians
Painters
Machinists
Mechanics (machinery)
Mechanics (motor vehicle)
Pipefitters
Tool and die makers
Unskilled plant
Janitors, porters, and
cleaners
Material handling laborers

Percent changes for individual areas in the program are computed as follows:

1. Average earnings are computed for each occupation for the 2 years being compared. The averages are derived from earnings in those establishments which are in the survey both years; it is assumed that employment remains unchanged.
2. Each occupation is assigned a weight based on its proportionate employment in the occupational group in the base year.
3. These weights are used to compute group averages. Each occupation's average earnings (computed in step 1) is multiplied by its weight. The products are totaled to obtain a group average.
4. The ratio of group averages for 2 consecutive years is computed by dividing the average for the current year by the average for the earlier year. The result—expressed as a percent—less 100 is the percent change.

For a more detailed description of the method used to compute these wage trends, see "Improving Area Wage Survey Indexes," Monthly Labor Review, January 1973, pp. 52-57.

Average pay relationships within establishments

Relative measures of occupational pay are presented in table A-8 for white-collar occupations and in table A-9 for blue-collar occupations. These relative values reflect differences in pay between occupations within individual establishments. Relative pay values are computed by dividing an establishment's average earnings for an occupation being compared by the average for another occupation (designated as 100) and multiplying the quotient by 100. For example, if janitors in a firm average \$4 an hour and forklift operators \$5, forklift operators have a relative pay value of 125 compared with janitors. ($5 \div 4 = 1.25$, $\times 100 = 125$.) In combining the relatives of the individual establishments to arrive at an overall average, each establishment is considered to have as many relatives as it has weighted workers in the two jobs being compared.

Pay relationships based on overall averages may differ considerably because of the varying contribution of high- and low-wage establishments to the averages. For example, the overall average hourly earnings for forklift operators may be 50 percent more than the average for janitors because the average for forklift operators may be strongly influenced by earnings in high-wage establishments while the average for janitors may be strongly influenced by earnings in low-wage establishments. In such a case, the intra-establishment relationship will indicate a much smaller difference in earnings.

Establishment practices and supplementary wage provisions

Tabulations on selected establishment practices and supplementary wage provisions (B-series tables) are not presented in this bulletin. Information for these tabulations is collected at 3-year intervals. These tabulations on minimum entrance salaries for inexperienced office workers; shift differentials; scheduled weekly hours and days; paid holidays; paid vacations; and health, insurance, and pension plans are presented (in the B-series tables) in previous bulletins for this area.

Appendix table 1. Establishments and workers within scope of survey and number studied, San Francisco—Oakland, Calif.,¹ March 1979

Industry division ²	Minimum employment in establishments in scope of study	Number of establishments		Workers in establishments		
		Within scope of study ³	Studied	Within scope of study ⁴		Studied
				Number	Percent	
ALL ESTABLISHMENTS						
ALL INDUSTRY DIVISIONS-----	-	1,471	200	450,543	100	203,864
MANUFACTURING -----	100	356	70	116,701	26	53,515
NONMANUFACTURING -----	-	1,115	130	333,842	74	150,349
TRANSPORTATION, COMMUNICATION, AND OTHER PUBLIC UTILITIES ⁵ -----	100	102	22	86,889	19	65,944
WHOLESALE TRADE ⁶ -----	50	215	19	25,927	6	4,727
RETAIL TRADE ⁶ -----	100	176	20	88,608	20	41,659
FINANCE, INSURANCE, AND REAL ESTATE ⁶ -----	50	246	18	68,761	15	20,174
SERVICES ^{6,7} -----	50	376	51	63,657	14	17,845
LARGE ESTABLISHMENTS						
ALL INDUSTRY DIVISIONS-----	-	156	73	256,250	100	180,532
MANUFACTURING -----	500	45	28	59,454	23	44,428
NONMANUFACTURING -----	-	111	45	196,796	77	136,104
TRANSPORTATION, COMMUNICATION, AND OTHER PUBLIC UTILITIES ⁵ -----	500	20	12	72,519	28	63,879
WHOLESALE TRADE ⁶ -----	500	5	3	4,150	2	2,400
RETAIL TRADE ⁶ -----	500	42	12	63,290	25	39,806
FINANCE, INSURANCE, AND REAL ESTATE ⁶ -----	500	24	8	35,155	14	18,375
SERVICES ^{6,7} -----	500	20	10	21,682	8	11,644

¹ The San Francisco—Oakland Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties. The "workers within scope of study" estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

² The 1972 edition of the Standard Industrial Classification Manual was used in classifying establishments by industry division. All government operations are excluded from the scope of the survey.

³ Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of companies in industries such as trade, finance, auto repair service, and motion picture theaters are considered as one establishment.

⁴ Includes all workers in all establishments with total employment (within the area) at or above the minimum limitation.

⁵ Abbreviated to "public utilities" in the A-series tables. Taxicabs and services incidental to water transportation are excluded. The local-transit systems in the area are municipally operated and excluded by definition from the scope of the study.

⁶ Separate data for this division are not presented in the A- and B-series tables, but the division is represented in the "all industries" and "nonmanufacturing" estimates.

⁷ Hotels and motels; laundries and other personal services; business services; automobile repair, rental, and parking; motion pictures; nonprofit membership organizations (excluding religious and charitable organizations); and engineering and architectural services.

Appendix B. Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field representatives in classifying into appropriate occupations workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This permits grouping occupational wage rates representing comparable job content. Because of this emphasis on interstate establishments and interarea comparability of occupational content, the Bureau's job descriptions may differ significantly from those in use in individual establishments or those prepared for other purposes. In applying these job descriptions, the Bureau's field representatives are instructed to exclude working supervisors; apprentices; and part-time, temporary, and probationary workers. Handicapped workers whose earnings are reduced because of their handicap are also excluded. Learners, beginners, and trainees, unless specifically included in the job descriptions, are excluded.

Office

SECRETARY

Assigned as a personal secretary, normally to one individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor. Works fairly independently receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and understanding of the organization, programs, and procedures related to the work of the supervisor.

Exclusions. Not all positions that are titled "secretary" possess the above characteristics. Examples of positions which are excluded from the definition are as follows:

- a. Positions which do not meet the "personal" secretary concept described above;
- b. Stenographers not fully trained in secretarial-type duties;
- c. Stenographers serving as office assistants to a group of professional, technical, or managerial persons;
- d. Assistant-type positions which entail more difficult or more responsible technical, administrative, or supervisory duties which are not typical of secretarial work, e.g., Administrative Assistant, or Executive Assistant:

SECRETARY—Continued

Exclusions—Continued

- e. Positions which do not fit any of the situations listed in the sections below titled "Level of Supervisor," e.g., secretary to the president of a company that employs, in all, over 5,000 persons;
- f. Trainees.

Classification by Level

Secretary jobs which meet the required characteristics are matched at one of five levels according to (a) the level of the secretary's supervisor within the company's organizational structure and, (b) the level of the secretary's responsibility. The tabulation following the explanations of these two factors indicates the level of the secretary for each combination of the factors.

Level of Secretary's Supervisor (LS)

- LS-1 a. Secretary to the supervisor or head of a small organizational unit (e.g., fewer than about 25 or 30 persons); or

SECRETARY—Continued

Classification by Level—Continued

- b. Secretary to a nonsupervisory staff specialist, professional employee, administrative officer or assistant, skilled technician or expert. (NOTE: Many companies assign stenographers, rather than secretaries as described above, to this level of supervisory or nonsupervisory worker.)
- LS-2 a. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for LS-3, but whose organizational unit normally numbers at least several dozen employees and is usually divided into organizational segments which are often, in turn, further subdivided. In some companies, this level includes a wide range of organizational echelons; in others, only one or two; or
- b. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, fewer than 5,000 persons.
- LS-3 a. Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
- b. Secretary to a corporate officer (other than chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- c. Secretary to the head (immediately below the officer level) over either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational segment (e.g., a regional headquarters; a major division) of a company that employs, in all, over 5,000 but fewer than 25,000 employees; or
- d. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or
- e. Secretary to the head of a large and important organizational segment (e.g., a middle management supervisor of an organizational segment often involving as many as several hundred persons) of a company that employs, in all, over 25,000 persons.
- LS-4 a. Secretary to the chairman of the board or president of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- b. Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or
- c. Secretary to the head, immediately below the corporate officer level, of a major segment or subsidiary of a company that employs, in all, over 25,000 persons.

NOTE: The term "corporate officer" used in the above LS definition refers to those officials who have a significant corporatewide policymaking role with regard to major company activities. The title "vice president," though normally indicative of this role, does not in all cases identify such

SECRETARY—Continued

Classification by Level—Continued

positions. Vice presidents whose primary responsibility is to act personally on individual cases or transactions (e.g., approve or deny individual loan or credit actions; administer individual trust accounts; directly supervise a clerical staff) are not considered to be "corporate officers" for purposes of applying the definition.

Level of Secretary's Responsibility (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at LR-1 or LR-2 described below according to their level of responsibility.

LR-1. Performs varied secretarial duties including or comparable to most of the following:

- a. Answers telephones, greets personal callers, and opens incoming mail.
- b. Answers telephone requests which have standard answers. May reply to requests by sending a form letter.
- c. Reviews correspondence, memoranda, and reports prepared by others for the supervisor's signature to ensure procedural and typographical accuracy.
- d. Maintains supervisor's calendar and makes appointments as instructed.
- e. Types, takes and transcribes dictation, and files.

LR-2. Performs duties described under LR-1 and, in addition performs tasks requiring greater judgment, initiative, and knowledge of office functions including or comparable to most of the following:

- a. Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
- b. Answers requests which require a detailed knowledge of office procedures or collection of information from files or other offices. May sign routine correspondence in own or supervisor's name.
- c. Compiles or assists in compiling periodic reports on the basis of general instructions.

SECRETARY—Continued

- d. Schedules tentative appointments without prior clearance. Assembles necessary background material for scheduled meetings. Makes arrangements for meetings and conferences.
- e. Explains supervisor's requirements to other employees in supervisor's unit. (Also types, takes dictation, and files.)

The following tabulation shows the level of the secretary for each LS and LR combination.

Level of secretary's supervisor	Level of secretary's responsibility	
	LR-1	LR-2
LS-1 -----	Class E	Class D
LS-2 -----	Class D	Class C
LS-3 -----	Class C	Class B
LS-4 -----	Class B	Class A

STENOGRAPHER

Primary duty is to take dictation using shorthand, and to transcribe the dictation. May also type from written copy. May operate from a stenographic pool. May occasionally transcribe from voice recordings (if primary duty is transcribing from recordings, see Transcribing-Machine Typist).

NOTE: This job is distinguished from that of a secretary in that a secretary normally works in a confidential relationship with only one manager or executive and performs more responsible and discretionary tasks as described in the secretary job definition.

Stenographer, Senior. Dictation involves a varied technical or specialized vocabulary such as in legal briefs or reports on scientific research. May also set up and maintain files, keep records, etc.

OR

Performs stenographic duties requiring significantly greater independence and responsibility than stenographer, general, as evidenced by the following: Work requires a high degree of stenographic speed and accuracy; a thorough working knowledge of general business and office procedure; and of the specific business operations, organization, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining followup files; assembling material for reports, memoranda, and letters; composing simple letters from general instructions; reading and routing incoming mail; and answering routine questions, etc.

STENOGRAPHER—Continued

Stenographer, General. Dictation involves a normal routine vocabulary. May maintain files, keep simple records, or perform other relatively routine clerical tasks.

TRANSCRIBING-MACHINE TYPIST

Primary duty is to type copy of voice recorded dictation which does not involve varied technical or specialized vocabulary such as that used in legal briefs or reports on scientific research. May also type from written copy. May maintain files, keep simple records, or perform other relatively routine clerical tasks. (See Stenographer definition for workers involved with shorthand dictation.)

TYPIST

Uses a typewriter to make copies of various materials or to make out bills after calculations have been made by another person. May include typing of stencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping simple records, filing records and reports, or sorting and distributing incoming mail.

Class A. Performs one or more of the following: Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

Class B. Performs one or more of the following: Copy typing from rough or clear drafts; or routine typing of forms, insurance policies, etc.; or setting up simple standard tabulations; or copying more complex tables already set up and spaced properly.

FILE CLERK

Files, classifies, and retrieves material in an established filing system. May perform clerical and manual tasks required to maintain files. Positions are classified into levels on the basis of the following definitions.

Class A. Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

Class B. Sorts, codes, and files unclassified material by simple (subject matter) headings or partly classified material by finer subheadings. Prepares simple related index and cross-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical tasks required to maintain and service files.

FILE CLERK—Continued

Class C. Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; and may fill out withdrawal charge. May perform simple clerical and manual tasks required to maintain and service files.

MESSENGER

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening and distributing mail, and other minor clerical work. Exclude positions that require operation of a motor vehicle as a significant duty.

SWITCHBOARD OPERATOR

Operates a telephone switchboard or console used with a private branch exchange (PBX) system to relay incoming, outgoing, and intrasystem calls. May provide information to callers, record and transmit messages, keep record of calls placed and toll charges. Besides operating a telephone switchboard or console, may also type or perform routine clerical work (typing or routine clerical work may occupy the major portion of the worker's time, and is usually performed while at the switchboard or console). Chief or lead operators in establishments employing more than one operator are excluded. For an operator who also acts as a receptionist, see Switchboard Operator-Receptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST

At a single-position telephone switchboard or console, acts both as an operator—see Switchboard Operator—and as a receptionist. Receptionist's work involves such duties as greeting visitors; determining nature of visitor's business and providing appropriate information; referring visitor to appropriate person in the organization or contacting that person by telephone and arranging an appointment; keeping a log of visitors.

ORDER CLERK

Receives written or verbal customers' purchase orders for material or merchandise from customers or sales people. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and adequacy of information recorded; ascertaining credit rating of customer; furnishing customer with acknowledgement of receipt of order; following up to see that order is delivered by the specified date or to let customer know of a delay in delivery; maintaining order file; checking shipping invoice against original order.

Exclude workers paid on a commission basis or whose duties include any of the following: Receiving orders for services rather than for material or merchandise; providing customers with consultative advice using knowledge gained from engineering or extensive technical training; emphasizing selling skills; handling material or merchandise as an integral part of the job.

ORDER CLERK—Continued

Positions are classified into levels according to the following definitions:

Class A. Handles orders that involve making judgments such as choosing which specific product or material from the establishment's product lines will satisfy the customer's needs, or determining the price to be quoted when pricing involves more than merely referring to a price list or making some simple mathematical calculations.

Class B. Handles orders involving items which have readily identified uses and applications. May refer to a catalog, manufacturer's manual, or similar document to insure that proper item is supplied or to verify price of ordered item.

ACCOUNTING CLERK

Performs one or more accounting clerical tasks such as posting to registers and ledgers; reconciling bank accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying for clerical accuracy various types of reports, lists, calculations, posting, etc.; or preparing simple or assisting in preparing more complicated journal vouchers. May work in either a manual or automated accounting system.

The work requires a knowledge of clerical methods and office practices and procedures which relates to the clerical processing and recording of transactions and accounting information. With experience, the worker typically becomes familiar with the bookkeeping and accounting terms and procedures used in the assigned work, but is not required to have a knowledge of the formal principles of bookkeeping and accounting.

Positions are classified into levels on the basis of the following definitions:

Class A. Under general supervision, performs accounting clerical operations which require the application of experience and judgment, for example, clerically processing complicated or nonrepetitive accounting transactions, selecting among a substantial variety of prescribed accounting codes and classifications, or tracing transactions through previous accounting actions to determine source of discrepancies. May be assisted by one or more class B accounting clerks.

Class B. Under close supervision, following detailed instructions and standardized procedures, performs one or more routine accounting clerical operations, such as posting to ledgers, cards, or worksheets where identification of items and locations of postings are clearly indicated; checking accuracy and completeness of standardized and repetitive records or accounting documents; and coding documents using a few prescribed accounting codes.

BOOKKEEPING-MACHINE OPERATOR

Operates a bookkeeping machine (with or without a typewriter keyboard) to keep a record of business transactions.

Class A. Keeps a set of records requiring a knowledge of and experience in basic bookkeeping principles, and familiarity with the structure of the particular accounting system used. Determines proper records and distribution of debit and credit items to be used in each phase of the work. May prepare consolidated reports, balance sheets, and other records by hand.

BOOKKEEPING-MACHINE OPERATOR—Continued

Class B. Keeps a record of one or more phases or sections of a set of records usually requiring little knowledge of basic bookkeeping. Phases or sections include accounts payable, payroll, customers' accounts (not including a simple type of billing described under machine biller), cost distribution, expense distribution, inventory control, etc. May check or assist in preparation of trial balances and prepare control sheets for the accounting department.

MACHINE BILLER

Prepares statements, bills, and invoices on a machine other than an ordinary or electromatic typewriter. May also keep records as to billings or shipping charges or perform other clerical work incidental to billing operations. For wage study purposes, machine billers are classified by type of machine, as follows:

Billing-machine biller. Uses a special billing machine (combination typing and adding machine) to prepare bills and invoices from customers' purchase orders, internally prepared orders, shipping memoranda, etc. Usually involves application of predetermined discounts and shipping charges and entry of necessary extensions, which may or may not be computed on the billing machine, and totals which are automatically accumulated by machine. The operation usually involves a large number of carbon copies of the bill being prepared and is often done on a fanfold machine.

Bookkeeping-machine biller. Uses a bookkeeping machine (with or without a typewriter keyboard) to prepare customers' bills as part of the accounts receivable operation. Generally involves the simultaneous entry of figures on customers' ledger record. The machine automatically accumulates figures on a number of vertical columns and computes and usually prints automatically the debit or credit balances. Does not involve a knowledge of bookkeeping. Works from uniform and standard types of sales and credit slips.

PAYROLL CLERK

Performs the clerical tasks necessary to process payrolls and to maintain payroll records. Work involves most of the following: Processing workers' time or production records; adjusting workers' records for changes in wage rates, supplementary benefits, or tax deductions; editing payroll listings against source records; tracing and correcting errors in listings; and assisting in preparation of periodic summary payroll reports. In a non-automated payroll system, computes wages. Work may require a practical knowledge of governmental regulations, company payroll policy, or the computer system for processing payrolls.

KEY ENTRY OPERATOR

Operates keyboard-controlled data entry device such as keypunch machine or key-operated magnetic tape or disk encoder to transcribe data into a form suitable for computer processing. Work requires skill in operating an alphanumeric keyboard and an understanding of transcribing procedures and relevant data entry equipment.

Positions are classified into levels on the basis of the following definitions:

Class A. Works requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for class B.

KEY ENTRY OPERATOR—Continued

NOTE: Excluded are operators above class A using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

Class B. Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

Professional and Technical

COMPUTER SYSTEMS ANALYST, BUSINESS

Analyzes business problems to formulate procedures for solving them by use of electronic data processing equipment. Develops a complete description of all specifications needed to enable programmers to prepare required digital computer programs. Work involves most of the following: Analyzes subject-matter operations to be automated and identifies conditions and criteria required to achieve satisfactory results; specifies number and types of records, files, and documents to be used; outlines actions to be performed by personnel and computers in sufficient detail for presentation to management and for programming (typically this involves preparation of work and data flow charts); coordinates the development of test problems and participates in trial runs of new and revised systems; and recommends equipment changes to obtain more effective overall operations. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.)

Does not include employees primarily responsible for the management or supervision of other electronic data processing employees, or systems analysts primarily concerned with scientific or engineering problems.

For wage study purposes, systems analysts are classified as follows:

Class A. Works independently or under only general direction on complex problems involving all phases of systems analysis. Problems are complex because of diverse sources of input data and multiple-use requirements of output data. (For example, develops an integrated production scheduling, inventory control, cost analysis, and sales analysis record in which every item of each type is automatically processed through the full system of records and appropriate followup actions are initiated by the computer.) Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of new or revised systems of data processing operations. Makes recommendations, if needed, for approval of major systems installations or changes and for obtaining equipment.

May provide functional direction to lower level systems analysts who are assigned to assist.

Class B. Works independently or under only general direction on problems that are relatively uncomplicated to analyze, plan, program, and operate. Problems are of limited complexity because sources of input data are homogeneous and the output data are closely related. (For example,

COMPUTER SYSTEMS ANALYST, BUSINESS—Continued

develops systems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail establishment, or maintaining inventory accounts in a manufacturing or wholesale establishment.) Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of the data processing systems to be applied.

OR

Works on a segment of a complex data processing scheme or system, as described for class A. Works independently on routine assignments and receives instruction and guidance on complex assignments. Work is reviewed for accuracy of judgment, compliance with instructions, and to insure proper alignment with the overall system.

Class C. Works under immediate supervision, carrying out analyses as assigned, usually of a single activity. Assignments are designed to develop and expand practical experience in the application of procedures and skills required for systems analysis work. For example, may assist a higher level systems analyst by preparing the detailed specifications required by programmers from information developed by the higher level analyst.

COMPUTER PROGRAMMER, BUSINESS

Converts statements of business problems, typically prepared by a systems analyst, into a sequence of detailed instructions which are required to solve the problems by automatic data processing equipment. Working from charts or diagrams, the programmer develops the precise instructions which, when entered into the computer system in coded language, cause the manipulation of data to achieve desired results. Work involves most of the following: Applies knowledge of computer capabilities, mathematics, logic employed by computers, and particular subject matter involved to analyze charts and diagrams of the problem to be programmed; develops sequence of program steps; writes detailed flow charts to show order in which data will be processed; converts these charts to coded instructions for machine to follow; tests and corrects programs; prepares instructions for operating personnel during production run; analyzes, reviews, and alters programs to increase operating efficiency or adapt to new requirements; maintains records of program development and revisions. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.)

Does not include employees primarily responsible for the management or supervision of other electronic data processing employees, or programmers primarily concerned with scientific and/or engineering problems.

For wage study purposes, programmers are classified as follows:

Class A. Works independently or under only general direction on complex problems which require competence in all phases of programming concepts and practices. Working from diagrams and charts which identify the nature of desired results, major processing steps to be accomplished, and the relationships between various steps of the problem solving routine; plans the full range of programming actions needed to efficiently utilize the computer system in achieving desired end products.

COMPUTER PROGRAMMER, BUSINESS—Continued

At this level, programming is difficult because computer equipment must be organized to produce several interrelated but diverse products from numerous and diverse data elements. A wide variety and extensive number of internal processing actions must occur. This requires such actions as development of common operations which can be reused, establishment of linkage points between operations, adjustments to data when program requirements exceed computer storage capacity, and substantial manipulation and resequencing of data elements to form a highly integrated program.

May provide functional direction to lower level programmers who are assigned to assist.

Class B. Works independently or under only general direction on relatively simple programs, or on simple segments of complex programs. Programs (or segments) usually process information to produce data in two or three varied sequences or formats. Reports and listings are produced by refining, adapting, arraying, or making minor additions to or deletions from input data which are readily available. While numerous records may be processed, the data have been refined in prior actions so that the accuracy and sequencing of data can be tested by using a few routine checks. Typically, the program deals with routine recordkeeping operations.

OR

Works on complex programs (as described for class A) under close direction of a higher level programmer or supervisor. May assist higher level programmer by independently performing less difficult tasks assigned, and performing more difficult tasks under fairly close direction.

May guide or instruct lower level programmers.

Class C. Makes practical applications of programming practices and concepts usually learned in formal training courses. Assignments are designed to develop competence in the application of standard procedures to routine problems. Receives close supervision on new aspects of assignments; and work is reviewed to verify its accuracy and conformance with required procedures.

COMPUTER OPERATOR

In accordance with operating instructions, monitors and operates the control console of a digital computer to process data. Executes runs by either serial processing (processes one program at a time) or multi-processing (processes two or more programs simultaneously). The following duties characterize the work of a computer operator:

- Studies operating instructions to determine equipment setup needed.
- Loads equipment with required items (tapes, cards, disks, paper, etc.).
- Switches necessary auxiliary equipment into system.
- Starts and operates computer.
- Responds to operating and computer output instructions.
- Reviews error messages and makes corrections during operation or refers problems.
- Maintains operating record.

COMPUTER OPERATOR—Continued

May test-run new or modified programs. May assist in modifying systems or programs. The scope of this definition includes trainees working to become fully qualified computer operators, fully qualified computer operators, and lead operators providing technical assistance to lower level operators. It excludes workers who monitor and operate remote terminals.

Class A. In addition to work assignments described for a class B operator (see below) the work of a class A operator involves at least one of the following:

- Deviates from standard procedures to avoid the loss of information or to conserve computer time even though the procedures applied materially alter the computer unit's production plans.
- Tests new programs, applications, and procedures.
- Advises programmers and subject-matter experts on setup techniques.
- Assists in (1) maintaining, modifying, and developing operating systems or programs; (2) developing operating instructions and techniques to cover problem situations; and/or (3) switching to emergency backup procedures (such assistance requires a working knowledge of program language, computer features, and software systems).

An operator at this level typically guides lower level operators.

Class B. In addition to established production runs, work assignments include runs involving new programs, applications, and procedures (i.e., situations which require the operator to adapt to a variety of problems). At this level, the operator has the training and experience to work fairly independently in carrying out most assignments. Assignments may require the operator to select from a variety of standard setup and operating procedures. In responding to computer output instructions or error conditions, applies standard operating or corrective procedures, but may deviate from standard procedures when standard procedures fail if deviation does not materially alter the computer unit's production plans. Refers the problem or aborts the program when procedures applied do not provide a solution. May guide lower level operators.

Class C. Work assignments are limited to established production runs (i.e., programs which present few operating problems). Assignments may consist primarily of on-the-job training (sometimes argued by classroom instruction). When learning to run programs, the supervisor or a higher level operator provides detailed written or oral guidance to the operator before and during the run. After the operator has gained experience with a program, however, the operator works fairly independently in applying standard operating or corrective procedures in responding to computer output instructions or error conditions, but refers problems to a higher level operator or the supervisor when standard procedures fail.

PERIPHERAL EQUIPMENT OPERATOR

Operates peripheral equipment which directly supports digital computer operations. Such equipment is uniquely and specifically designed for computer applications, but need not be physically or electronically connected to a computer. Printers, plotters, card read/punches, tape readers, tape units or drives, disk units or drives, and data display units are examples of such equipment.

PERIPHERAL EQUIPMENT OPERATOR—Continued

The following duties characterize the work of a peripheral equipment operator:

- Loading printers and plotters with correct paper; adjusting controls for forms, thickness, tension, printing density, and location; and unloading hard copy.
- Labelling tape reels, disks, or card decks.
- Checking labels and mounting and dismounting designated tape reels or disks on specified units or drives.
- Setting controls which regulate operation of the equipment.
- Observing panel lights for warnings and error indications and taking appropriate action.
- Examining tapes, cards, or other material for creases, tears, or other defects which could cause processing problems.

This classification excludes workers (1) who monitor and operate a control console (see computer operator) or a remote terminal, or (2) whose duties are limited to operating decollaters, bursters, separators, or similar equipment.

COMPUTER DATA LIBRARIAN

Maintains library of media (tapes, disks, cards, cassettes) used for automatic data processing applications. The following or similar duties characterize the work of a computer data librarian: Classifying, cataloging, and storing media in accordance with a standardized system; upon proper requests, releasing media for processing; maintaining records of releases and returns; inspecting returned media for damage or excessive wear to determine whether or not they need replacing. May perform minor repairs to damaged tapes.

DRAFTER

Class A. Plans the graphic presentation of complex items having distinctive design features that differ significantly from established drafting precedents. Works in close support with the design originator, and may recommend minor design changes. Analyzes the effect of each change on the details of form, function, and positional relationships of components and parts. Works with a minimum of supervisory assistance. Completed work is reviewed by design originator for consistency with prior engineering determinations. May either prepare drawings or direct their preparation by lower level drafters.

Class B. Performs nonroutine and complex drafting assignments that require the application of most of the standardized drawing techniques regularly used. Duties typically involve such work as: Prepares working drawings of subassemblies with irregular shapes, multiple functions, and precise positional relationships between components; prepares architectural drawings for construction of a building including detail drawings of foundations, wall sections, floor plans, and roof. Uses accepted formulas and manuals in making necessary computations to determine quantities of materials to be used, load capacities, strengths, stresses, etc. Receives initial instructions, requirements, and advice from supervisor. Completed work is checked for technical adequacy.

Class C. Prepares detail drawings of single units or parts for engineering, construction, manufacturing, or repair purposes. Types of drawings prepared include isometric projections (depicting three dimensions in accurate scale) and sectional views to clarify positioning of components and convey needed information. Consolidates details from a number of sources and adjusts or transposes scale as required. Suggested methods of approach, applicable precedents, and advice on source materials are given with initial assignments. Instructions are less complete when assignments recur. Work may be spot-checked during progress.

DRAFTER-TRACER

Copies plans and drawings prepared by others by placing tracing cloth or paper over drawings and tracing with pen or pencil. (Does not include tracing limited to plans primarily consisting of straight lines and a large scale not requiring close delineation.)

AND/OR

Prepares simple or repetitive drawings of easily visualized items. Work is closely supervised during progress.

ELECTRONICS TECHNICIAN

Works on various types of electronic equipment and related devices by performing one or a combination of the following: Installing, maintaining, repairing, overhauling, troubleshooting, modifying, constructing, and testing. Work requires practical application of technical knowledge of electronics principles, ability to determine malfunctions, and skill to put equipment in required operating condition.

The equipment—consisting of either many different kinds of circuits or multiple repetition of the same kind of circuit—includes, but is not limited to, the following: (a) Electronic transmitting and receiving equipment (e.g., radar, radio, television, telephone, sonar, navigational aids), (b) digital and analog computers, and (c) industrial and medical measuring and controlling equipment.

This classification excludes repairers of such standard electronic equipment as common office machines and household radio and television sets; production assemblers and testers; workers whose primary duty is servicing electronic test instruments; technicians who have administrative or supervisory responsibility; and drafters, designers, and professional engineers.

Positions are classified into levels on the basis of the following definitions.

Class A. Applies advanced technical knowledge to solve unusually complex problems (i.e., those that typically cannot be solved solely by reference to manufacturers' manuals or similar documents) in working on electronic equipment. Examples of such problems include location and density of circuitry, electromagnetic radiation, isolating malfunctions, and frequent engineering changes. Work involves: A detailed understanding of the interrelationships of circuits; exercising independent judgment in performing such tasks as making circuit analyses, calculating wave forms, tracing relationships in signal flow; and regularly using complex test instruments (e.g., dual trace oscilloscopes, Q-meters, deviation meters, pulse generators).

Work may be reviewed by supervisor (frequently an engineer or designer) for general compliance with accepted practices. May provide technical guidance to lower level technicians.

Class B. Applies comprehensive technical knowledge to solve complex problems (i.e., those that typically can be solved solely by properly interpreting manufacturers' manuals or similar documents) in working on electronic equipment. Work involves: A familiarity with the interrelationships of circuits; and judgment in determining work sequence and in selecting tools and testing instruments, usually less complex than those used by the class A technician.

Receives technical guidance, as required, from supervisor or higher level technician, and work is reviewed for specific compliance with accepted practices and work assignments. May provide technical guidance to lower level technicians.

Class C. Applies working technical knowledge to perform simple or routine tasks in working on electronic equipment, following detailed instructions which cover virtually all procedures. Work typically involves such tasks as: Assisting higher level technicians by performing such activities as replacing components, wiring circuits, and taking test readings; repairing simple electronic equipment; and using tools and common test instruments (e.g., multimeters, audio signal generators, tube testers, oscilloscopes). Is not required to be familiar with the interrelationships of circuits. This knowledge, however, may be acquired through assignments designed to increase competence (including classroom training) so that worker can advance to higher level technician.

Receives technical guidance, as required, from supervisor or higher level technician. Work is typically spot checked, but is given detailed review when new or advanced assignments are involved.

REGISTERED INDUSTRIAL NURSE

A registered nurse who gives nursing service under general medical direction to ill or injured employees or other persons who become ill or suffer an accident on the premises of a factory or other establishment. Duties involve a combination of the following: Giving first aid to the ill or injured; attending to subsequent dressing of employees' injuries; keeping records of patients treated; preparing accident reports for compensation or other purposes; assisting in physical examinations and health evaluations of applicants and employees; and planning and carrying out programs involving health education, accident prevention, evaluation of plant environment, or other activities affecting the health, welfare, and safety of all personnel. Nursing supervisors or head nurses in establishments employing more than one nurse are excluded.

Maintenance, Toolroom, and Powerplant

MAINTENANCE CARPENTER

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, casings, and trim made of wood in an establishment. Work involves most of the following: Planning and

MAINTENANCE CARPENTER—Continued

laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE ELECTRICIAN

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy in an establishment. Work involves most of the following: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; and using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE PAINTER

Paints and redecorates walls, woodwork, and fixtures of an establishment. Work involves the following: Knowledge of surface peculiarities and types of paint required for different applications; preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices; and applying paint with spray gun or brush. May mix colors, oils, white lead, and other paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MACHINIST

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment operated in an establishment. Work involves most of the following: Interpreting written instructions and specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining; knowledge of the working properties of the common metals; selecting standard materials, parts, and equipment required for this work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MECHANIC (Machinery)

Repairs machinery or mechanical equipment of an establishment. Work involves most of the following: Examining machines and mechanical equipment to diagnose source of trouble; dismantling or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items

MAINTENANCE MECHANIC (Machinery)—Continued

obtained from stock; ordering the production of a replacement part by a machine shop or sending the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a machinery maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose primary duties involve setting up or adjusting machines.

MAINTENANCE MECHANIC (Motor vehicle)

Repairs automobiles, buses, motortrucks, and tractors of an establishment. Work involves most of the following: Examining automotive equipment to diagnose source of trouble; disassembling equipment and performing repairs that involve the use of such handtools as wrenches, gauges, drills, or specialized equipment in disassembling or fitting parts; replacing broken or defective parts from stock; grinding and adjusting valves; reassembling and installing the various assemblies in the vehicle and making necessary adjustments; and aligning wheels, adjusting brakes and lights, or tightening body bolts. In general, the work of the motor vehicle maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

This classification does not include mechanics who repair customers' vehicles in automobile repair shops.

MAINTENANCE PIPEFITTER

Installs or repairs water, steam, gas, or other types of pipe and pipefittings in an establishment. Work involves most of the following: Laying out work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machines; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.

MAINTENANCE SHEET-METAL WORKER

Fabricates, installs, and maintains in good repair the sheet-metal equipment and fixtures (such as machine guards, grease pans, shelves, lockers, tanks, ventilators, chutes, ducts, metal roofing) of an establishment. Work involves most of the following: Planning and laying out all types of sheet-metal maintenance work from blueprints, models, or other specifications; setting up and operating all available types of sheet-metal working machines; using a variety of handtools in cutting, bending, forming, shaping, fitting, and assembling; and installing sheet-metal articles as required. In general, the work of the maintenance sheet-metal worker requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MILLWRIGHT

Installs new machines or heavy equipment, and dismantles and installs machines or heavy equipment when changes in the plant layout are required. Work involves most of the following: Planning and laying out work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; aligning and balancing equipment; selecting standard tools, equipment, and parts to be used; and installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, the millwright's work normally requires a rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE TRADES HELPER

Assists one or more workers in the skilled maintenance trades, by performing specific or general duties of lesser skill, such as keeping a worker supplied with materials and tools; cleaning working area, machine, and equipment; assisting journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade. In some trades the helper is confined to supplying, lifting, and holding materials and tools, and cleaning working areas; and in others he is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis.

MACHINE-TOOL OPERATOR (Toolroom)

Specializes in operating one or more than one type of machine tool (e.g., jig borer, grinding machine, engine lathe, milling machine) to machine metal for use in making or maintaining jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). Work typically involves: Planning and performing difficult machining operations which require complicated setups or a high degree of accuracy; setting up machine tool or tools (e.g., install cutting tools and adjust guides, stops, working tables, and other controls to handle the size of stock to be machined; determine proper feeds, speeds, tooling, and operation sequence or select those prescribed in drawings, blueprints, or layouts); using a variety of precision measuring instruments; making necessary adjustments during machining operation to achieve requisite dimensions to very close tolerances. May be required to select proper coolants and cutting and lubricating oils, to recognize when tools need dressing, and to dress tools. In general, the work of a machine-tool operator (toolroom) at the skill level called for in this classification requires extensive knowledge of machine-shop and toolroom practice usually acquired through considerable on-the-job training and experience.

For cross-industry wage study purposes, this classification does not include machine-tool operators (toolroom) employed in tool and die jobbing shops.

TOOL AND DIE MAKER

Constructs and repairs jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). Work typically involves: Planning and laying out work according to models, blueprints, drawings, or other written or oral specifications; understanding the working properties of common metals and

TOOL AND DIE MAKER—Continued

alloys; selecting appropriate materials, tools, and processes required to complete tasks; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

For cross-industry wage study purposes, this classification does not include tool and die makers who (1) are employed in tool and die jobbing shops or (2) produce forging dies (die sinkers).

STATIONARY ENGINEER

Operates and maintains and may also supervise the operation of stationary engines and equipment (mechanical or electrical) to supply the establishment in which employed with power, heat, refrigeration, or air-conditioning. Work involves: Operating and maintaining equipment such as steam engines, air compressors, generators, motors, turbines, ventilating and refrigerating equipment, steam boilers and boiler-fed water pumps; making equipment repairs; and keeping a record of operation of machinery, temperature, and fuel consumption. May also supervise these operations. Head or chief engineers in establishments employing more than one engineer are excluded.

BOILER TENDER

Fires stationary boilers to furnish the establishment in which employed with heat, power, or steam. Feeds fuels to fire by hand or operates a mechanical stoker, gas, or oil burner; and checks water and safety valves. May clean, oil, or assist in repairing boilerroom equipment.

Material Movement and Custodial

TRUCKDRIVER

Drives a truck within a city or industrial area to transport materials, merchandise, equipment, or workers between various types of establishments such as: Manufacturing plants, freight depots, warehouses, wholesale and retail establishments, or between retail establishments and customers' houses or places of business. May also load or unload truck with or without helpers, make minor mechanical repairs, and keep truck in good working order. Salesroute and over-the-road drivers are excluded.

For wage study purposes, truckdrivers are classified by type and rated capacity of truck, as follows:

Truckdriver, light truck
(straight truck, under 1½ tons, usually 4 wheels)

Truckdriver, medium truck
(straight truck, 1½ to 4 tons inclusive, usually 6 wheels)

Truckdriver, heavy truck
(straight truck, over 4 tons, usually 10 wheels)

Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

Performs clerical and physical tasks in connection with shipping goods of the establishment in which employed and receiving incoming shipments. In performing day-to-day, routine tasks, follows established guidelines. In handling unusual nonroutine problems, receives specific guidance from supervisor or other officials. May direct and coordinate the activities of other workers engaged in handling goods to be shipped or being received.

Shippers typically are responsible for most of the following: Verifying that orders are accurately filled by comparing items and quantities of goods gathered for shipment against documents; insuring that shipments are properly packaged, identified with shipping information, and loaded into transporting vehicles; preparing and keeping records of goods shipped, e.g., manifests, bills of lading.

Receivers typically are responsible for most of the following: Verifying the correctness of incoming shipments by comparing items and quantities unloaded against bills of lading, invoices, manifests, storage receipts, or other records; checking for damaged goods; insuring that goods are appropriately identified for routing to departments within the establishment; preparing and keeping records of goods received.

For wage study purposes, workers are classified as follows:

Shipper
Receiver
Shipper and receiver

WAREHOUSEMAN

As directed, performs a variety of warehousing duties which require an understanding of the establishment's storage plan. Work involves most of the following: Verifying materials (or merchandise) against receiving documents, noting and reporting discrepancies and obvious damages; routing materials to prescribed storage locations; storing, stacking, or palletizing materials in accordance with prescribed storage methods; rearranging and taking inventory of stored materials; examining stored materials and reporting deterioration and damage; removing material from storage and preparing it for shipment. May operate hand or power trucks in performing warehousing duties.

Exclude workers whose primary duties involve shipping and receiving work (see Shipper and Receiver and Shipping Packer), order filling (see Order Filler), or operating power trucks (see Power-Truck Operator).

ORDER FILLER

Fills shipping or transfer orders for finished goods from stored merchandise in accordance with specifications on sales slips, customers' orders, or other instructions. May, in addition to filling orders and indicating items filled or omitted, keep records of outgoing orders, requisition additional stock or report short supplies to supervisor, and perform other related duties.

SHIPPING PACKER

Prepares finished products for shipment or storage by placing them in shipping containers, the specific operations performed being dependent upon the type, size, and number of units to be packed, the type of container employed, and method of shipment. Work requires the placing of items in shipping containers and may involve one or more of the following: Knowledge of various items of stock in order to verify content; selection of appropriate type and size of container; inserting enclosures in container; using excelsior or other material to prevent breakage or damage; closing and sealing container; and applying labels or entering identifying data on container. Packers who also make wooden boxes or crates are excluded.

MATERIAL HANDLING LABORER

A worker employed in a warehouse, manufacturing plant, store, or other establishment whose duties involve one or more of the following: Loading and unloading various materials and merchandise on or from freight cars, trucks, or other transporting devices; unpacking, shelving, or placing materials or merchandise in proper storage location; and transporting materials or merchandise by handtruck, car, or wheelbarrow. Longshore workers, who load and unload ships, are excluded.

POWER-TRUCK OPERATOR

Operates a manually controlled gasoline- or electric-powered truck or tractor to transport goods and materials of all kinds about a warehouse, manufacturing plant, or other establishment.

For wage study purposes, workers are classified by type of power-truck, as follows:

Forklift operator
Power-truck operator (other than forklift)

GUARD

Protects property from theft or damage, or persons from hazards or interference. Duties involve serving at a fixed post, making rounds on foot or by motor vehicle, or escorting persons or property. May be deputized to make arrests. May also help visitors and customers by answering questions and giving directions.

Guards employed by establishments which provide protective services on a contract basis are included in this occupation.

For wage study purposes, guards are classified as follows:

Class A. Enforces regulations designed to prevent breaches of security. Exercises judgment and uses discretion in dealing with emergencies and security violations encountered. Determines whether first

GUARD—Continued

response should be to intervene directly (asking for assistance when deemed necessary and time allows), to keep situation under surveillance, or to report situation so that it can be handled by appropriate authority. Duties require specialized training in methods and techniques of protecting security areas. Commonly, the guard is required to demonstrate continuing physical fitness and proficiency with firearms or other special weapons.

Class B. Carries out instructions primarily oriented toward insuring that emergencies and security violations are readily discovered and reported to appropriate authority. Intervenes directly only in situations which require minimal action to safeguard property or persons. Duties re-

GUARD—Continued

quire minimal training. Commonly, the guard is not required to demonstrate physical fitness. May be armed, but generally is not required to demonstrate proficiency in the use of firearms or special weapons.

JANITOR, PORTER, OR CLEANER

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office, apartment house, or commercial or other establishment. Duties involve a combination of the following: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing metal fixtures or trimmings; providing supplies and minor maintenance services; and cleaning lavatories, showers, and restrooms. Workers who specialize in window washing are excluded.

Area Wage Surveys

A list of the latest bulletins available is presented below. Bulletins may be purchased from any of the BLS regional offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Make checks payable to Superintendent of Documents. A directory of occupational wage surveys, covering the years 1970 through 1977, is available on request.

Area	Bulletin number and price*
Akron, Ohio, Dec. 1978	2025-63, \$1.00
Albany-Schenectady-Troy, N.Y., Sept. 1978 ¹	2025-58, \$1.20
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1978 ¹	2025-65, \$1.30
Atlanta, Ga., May 1978 ¹	2025-28, \$1.40
Baltimore, Md., Aug. 1978 ¹	2025-50, \$1.50
Billings, Mont., July 1978	2025-38, \$1.00
Birmingham, Ala., Mar. 1978	2025-15, 80 cents
Boston, Mass., Aug. 1978 ¹	2025-43, \$1.50
Buffalo, N.Y., Oct. 1978 ¹	2025-71, \$1.30
Canton, Ohio, May 1978	2025-22, 70 cents
Chattanooga, Tenn.-Ga., Sept. 1978 ¹	2025-51, \$1.20
Chicago, Ill., May 1978	2025-32, \$1.30
Cincinnati, Ohio-Ky.-Ind., July 1978	2025-39, \$1.10
Cleveland, Ohio, Sept. 1978	2025-49, \$1.30
Columbus, Ohio, Oct. 1978 ¹	2025-59, \$1.50
Corpus Christi, Tex., July 1978	2025-29, \$1.00
Dallas-Fort Worth, Tex., Oct. 1978 ¹	2025-52, \$1.50
Davenport-Rock Island-Moline, Iowa-Ill., Feb. 1979	2050-10, \$1.00
Dayton, Ohio, Dec. 1978	2025-66, \$1.00
Daytona Beach, Fla., Aug. 1978	2025-48, \$1.00
Denver-Boulder, Colo., Dec. 1978	2025-68, \$1.20
Detroit, Mich., Mar. 1979 ¹	2050-7, \$1.50
Fresno, Calif., June 1978 ¹	2025-31, \$1.20
Gainesville, Fla., Sept. 1978	2025-45, \$1.00
Gary-Hammond-East Chicago, Ind., Aug. 1979 ¹	(To be surveyed)
Green Bay, Wis., July 1978 ¹	2025-41, \$1.20
Greensboro-Winston-Salem-High Point, N.C., Aug. 1978	2025-46, \$1.00
Greenville-Spartanburg, S.C., June 1978	2025-30, \$1.00
Hartford, Conn., Mar. 1979	2050-12, \$1.10
Houston, Tex., Apr. 1978	2025-23, \$1.20
Huntsville, Ala., Feb. 1979	2050-3, \$1.00
Indianapolis, Ind., Oct. 1978 ¹	2025-57, \$1.50
Jackson, Miss., Jan. 1979 ¹	2050-9, \$1.20
Jacksonville, Fla., Dec. 1978	2025-67, \$1.00
Kansas City, Mo.-Kans., Sept. 1978	2025-53, \$1.30
Los Angeles-Long Beach, Calif., Oct. 1978 ¹	2025-61, \$1.50
Louisville, Ky.-Ind., Nov. 1978	2025-69, \$1.00
Memphis, Tenn.-Ark.-Miss., Nov. 1978	2025-62, \$1.00

Area	Bulletin number and price*
Miami, Fla., Oct. 1978 ¹	2025-60, \$1.30
Milwaukee, Wis., Apr. 1979	2050-8, \$1.30
Minneapolis-St. Paul, Minn.-Wis., Jan. 1979	2050-1, \$1.30
Nassau-Suffolk, N.Y., June 1978 ¹	2025-33, \$1.30
Newark, N.J., Jan. 1979	2050-5, \$1.30
New Orleans, La., Jan. 1979 ¹	2050-2, \$1.30
New York, N.Y.-N.J., May 1978 ¹	2025-35, \$1.50
Norfolk-Virginia Beach-Portsmouth, Va.-N.C., May 1978	2025-20, 70 cents
Norfolk-Virginia Beach-Portsmouth and Newport News-Hampton, Va.-N.C., May 1978	2025-21, 80 cents
Northeast Pennsylvania, Aug. 1978	2025-47, \$1.00
Oklahoma City, Okla., Aug. 1978	2025-40, \$1.00
Omaha, Nebr.-Iowa, Oct. 1978	2025-56, \$1.00
Paterson-Clifton-Passaic, N.J., June 1978 ¹	2025-36, \$1.20
Philadelphia, Pa.-N.J., Nov. 1978	2025-54, \$1.30
Pittsburgh, Pa., Jan. 1979 ¹	2050-11, \$1.50
Portland, Maine, Dec. 1978 ¹	2025-70, \$1.20
Portland, Oreg.-Wash., May 1978	2025-25, \$1.00
Poughkeepsie, N.Y., June 1978 ¹	2025-37, \$1.10
Poughkeepsie-Kingston-Newburgh, N.Y., June 1978 ¹	2025-42, \$1.20
Providence-Warwick-Pawtucket, R.I.-Mass., June 1978	2025-27, \$1.40
Richmond, Va., June 1978	2025-26, 80 cents
St. Louis, Mo.-Ill., Mar. 1979 ¹	2050-13, \$1.50
Sacramento, Calif., Dec. 1978	2025-75, \$1.00
Saginaw, Mich., Nov. 1978	2025-64, \$1.00
Salt Lake City-Ogden, Utah, Nov. 1978 ¹	2025-72, \$1.30
San Antonio, Tex., May 1978	2025-17, 70 cents
San Diego, Calif., Nov. 1978	2025-73, \$1.00
San Francisco-Oakland, Calif., Mar. 1979	2050-14, \$1.20
San Jose, Calif., Mar. 1978 ¹	2025-9, \$1.20
Seattle-Everett, Wash., Dec. 1978	2025-74, \$1.00
South Bend, Ind., Aug. 1978	2025-44, \$1.00
Toledo, Ohio-Mich., May 1978 ¹	2025-24, \$1.20
Trenton, N.J., Sept. 1978 ¹	2025-55, \$1.20
Utica-Rome, N.Y., July 1978	2025-34, \$1.00
Washington, D.C.-Md.-Va., Mar. 1979	2050-4, \$1.20
Wichita, Kans., Apr. 1978	2025-16, 80 cents
Worcester, Mass., Apr. 1978 ¹	2025-19, \$1.10
York, Pa., Feb. 1979	2050-6, \$1.00

* Prices are determined by the Government Printing Office and are subject to change.

¹ Data on establishment practices and supplementary wage provisions are also presented.

Official Business
Penalty for private use, \$300

Third Class Mail

Lab-441



Bureau of Labor Statistics Regional Offices

Region I

1803 JFK Federal Building
Government Center
Boston, Mass. 02203
Phone: 223-6761 (Area Code 617)

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Region V

9th Floor, 230 S. Dearborn St.
Chicago, Ill. 60604
Phone: 353-1880 (Area Code 312)

Illinois
Indiana
Michigan
Minnesota
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Wisconsin

Region II

Suite 3400
1515 Broadway
New York, N.Y. 10036
Phone: 399-5406 (Area Code 212)

New Jersey
New York
Puerto Rico
Virgin Islands

Region VI

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Dallas, Tex. 75202
Phone: 767-6971 (Area Code 214)

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3535 Market Street,
P.O. Box 13309
Philadelphia, Pa. 19101
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Delaware
District of Columbia
Maryland
Pennsylvania
Virginia
West Virginia

Regions VII and VIII

Federal Office Building
911 Walnut St., 15th Floor
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Phone: 374-2481 (Area Code 816)

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Missouri
Nebraska
VIII
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Montana
North Dakota
South Dakota
Utah
Wyoming

Region IV

Suite 540
1371 Peachtree St., N.E.
Atlanta, Ga. 30309
Phone: 881-4418 (Area Code 404)

Alabama
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Georgia
Kentucky
Mississippi
North Carolina
South Carolina
Tennessee

Regions IX and X

450 Golden Gate Ave.
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IX
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