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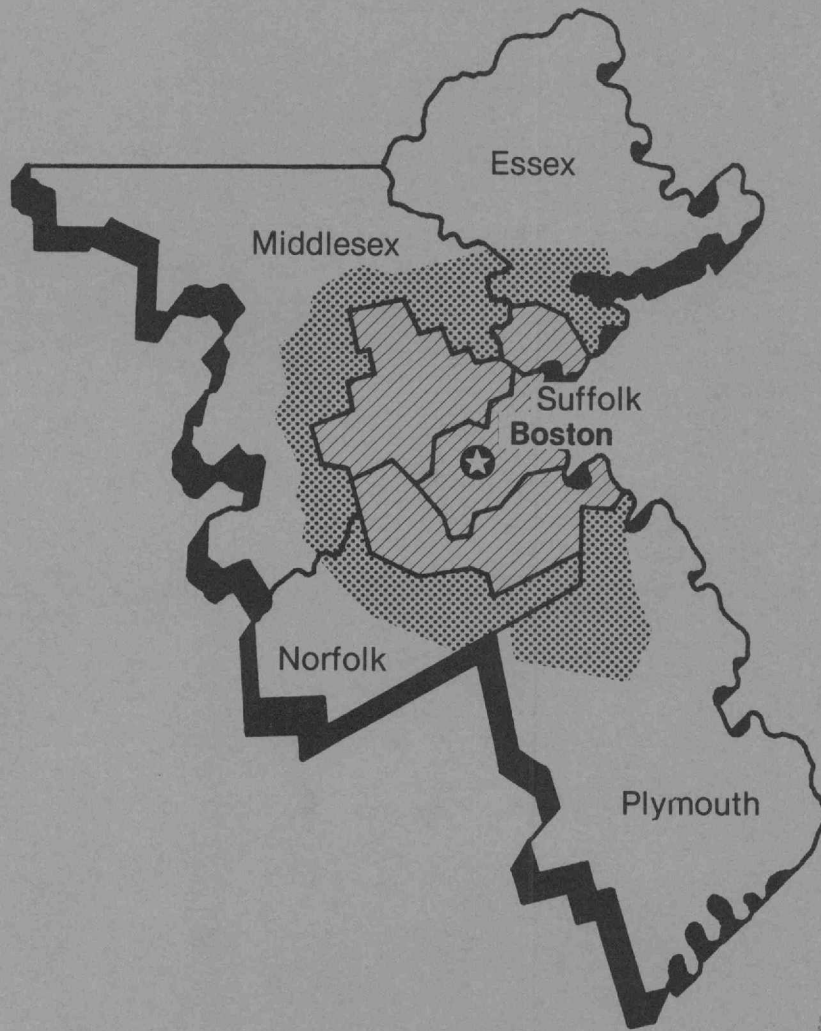
Area Wage Survey

Boston, Massachusetts, Metropolitan Area August 1980



U.S. Department of Labor
Bureau of Labor Statistics

Bulletin 3000-40



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Preface

This bulletin provides results of an August 1980 survey of occupational earnings in the Boston, Massachusetts, 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 Boston, Mass., under the general direction of Gordon E. Bowen, 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:

Reports on occupational earnings and supplementary wage provisions in the Boston area are available for the electrical appliance repair (November 1978) and men's and boys' suits and coats (April 1979) industries. A report on occupational earnings only is available in the laundry and dry cleaning industry (August 1980). 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. A report on occupational earnings and supplementary benefits for municipal government workers is available for the city of Boston. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

Area Wage Survey

Boston, Massachusetts, Metropolitan Area August 1980



U.S. Department of Labor
Ray Marshall, Secretary

Bureau of Labor Statistics
Janet L. Norwood,
Commissioner

November 1980

Bulletin 3000-40

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Introduction

This area is 1 of 71 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-12 through A-17 provide similar data for establishments employing 500 workers or more.

Table A-7 provides indexes and percent changes in average hourly earnings for 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 through A-11 provide measures of average pay relationships within establishments. These measures may differ considerably from the pay relationships of overall area 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.

Table A-1. Weekly earnings of office workers in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	Under 120	120 and under 130	130-140	140-150	150-160	160-170	170-180	180-190	190-200	200-220	220-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-400	400-440	440 and over
Secretaries.....	10,007	38.0	250.00	245.00	214.50- 280.50	-	-	-	46	88	182	319	338	507	1443	1594	1628	1328	974	656	442	222	64	126	42	8
Manufacturing.....	4,403	39.5	262.00	257.00	225.00- 292.00	-	-	-	13	4	31	46	98	183	507	712	645	603	641	393	274	132	35	65	17	4
Nonmanufacturing.....	5,604	37.5	240.00	235.00	205.00- 266.50	-	-	-	33	84	151	273	240	324	936	882	983	725	333	263	168	90	29	61	25	4
Public utilities.....	470	38.5	296.00	296.00	264.50- 321.50	-	-	-	-	-	-	-	-	3	46	8	50	78	58	99	53	27	17	10	19	2
Secretaries, class A.....	489	38.0	320.50	314.50	288.00- 351.00	-	-	-	-	-	-	-	-	-	19	2	20	62	65	83	59	74	23	61	16	5
Manufacturing.....	166	39.0	327.50	342.50	275.00- 370.50	-	-	-	-	-	-	-	-	-	12	-	13	20	17	8	10	34	18	19	14	1
Nonmanufacturing.....	323	37.5	317.00	310.00	288.00- 345.00	-	-	-	-	-	-	-	-	-	7	2	7	42	48	75	49	40	5	42	2	4
Secretaries, class B.....	1,951	38.0	282.50	279.00	250.00- 313.00	-	-	-	-	-	8	7	2	109	195	325	350	234	322	237	65	26	51	19	1	1
Manufacturing.....	663	39.0	306.50	306.50	285.00- 325.00	-	-	-	-	-	-	-	-	15	38	30	58	84	202	148	29	15	42	1	1	
Nonmanufacturing.....	1,288	37.5	270.00	264.50	241.00- 294.50	-	-	-	-	-	8	7	2	94	157	295	292	150	120	89	36	11	9	18	-	-
Secretaries, class C.....	3,446	38.5	256.00	253.00	227.50- 281.00	-	-	-	5	-	13	103	61	109	338	562	715	657	438	198	137	75	14	12	7	2
Manufacturing.....	1,906	39.5	267.00	266.00	239.00- 290.00	-	-	-	-	-	5	5	26	32	130	295	345	383	327	167	115	66	2	4	2	2
Nonmanufacturing.....	1,540	37.5	242.00	243.50	215.00- 265.00	-	-	-	5	-	8	98	35	77	208	267	370	274	111	31	22	9	12	8	5	-
Public utilities.....	144	38.5	295.00	272.00	264.50- 326.00	-	-	-	-	-	-	-	-	-	-	7	16	64	5	7	17	6	12	8	2	-
Secretaries, class D.....	3,116	38.0	224.00	220.00	200.00- 245.00	-	-	-	23	67	95	151	199	236	765	618	456	213	234	50	5	3	1	-	-	-
Manufacturing.....	1,461	39.5	237.50	235.00	211.50- 261.50	-	-	-	-	-	2	21	60	111	288	353	251	142	213	16	1	3	-	-	-	-
Nonmanufacturing.....	1,655	37.0	212.00	210.00	186.00- 233.00	-	-	-	23	67	93	130	139	125	477	265	205	71	21	34	4	-	1	-	-	-
Public utilities.....	122	40.0	264.00	248.00	214.50- 316.50	-	-	-	-	-	-	-	-	-	36	-	31	6	10	34	4	-	1	-	-	-
Secretaries, class E.....	690	37.0	205.00	201.50	184.00- 226.00	-	-	-	18	21	66	53	41	116	135	149	59	32	-	-	-	-	-	-	-	-
Manufacturing.....	207	39.0	194.50	198.00	173.00- 212.50	-	-	-	13	4	24	20	12	40	62	26	6	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	483	36.0	210.00	208.00	188.00- 230.00	-	-	-	5	17	42	33	29	76	73	123	53	32	-	-	-	-	-	-	-	-
Stenographers.....	356	39.0	261.00	264.50	220.50- 282.00	-	-	-	-	1	3	5	21	11	46	41	49	39	94	1	4	18	9	5	9	-
Manufacturing.....	207	40.0	259.00	278.00	243.50- 282.00	-	-	-	-	-	2	3	9	6	15	15	28	34	91	-	1	3	-	-	-	-
Nonmanufacturing.....	149	38.0	263.50	232.00	210.00- 344.50	-	-	-	-	1	1	2	12	5	31	26	21	5	3	1	3	15	9	5	9	-
Public utilities.....	59	40.0	337.50	344.50	295.50- 376.50	-	-	-	-	-	-	-	-	-	-	3	8	3	3	1	3	15	9	5	9	-
Stenographers, senior.....	121	38.0	250.00	232.00	210.00- 285.50	-	-	-	-	1	2	12	7	21	20	14	7	20	1	4	3	6	3	-	-	-
Nonmanufacturing.....	84	37.5	238.00	224.50	200.00- 241.00	-	-	-	-	1	2	11	4	21	20	10	2	-	1	3	-	6	3	-	-	-
Stenographers, general.....	235	39.5	266.50	278.00	232.00- 282.00	-	-	-	-	1	2	3	9	4	25	21	35	32	74	-	-	15	3	2	9	-
Manufacturing.....	170	40.0	255.00	278.00	234.00- 282.00	-	-	-	-	-	2	3	8	3	15	15	24	29	71	-	-	-	-	-	-	-
Nonmanufacturing.....	65	39.0	296.00	274.50	230.00- 344.50	-	-	-	1	-	-	-	1	1	10	6	11	3	3	-	-	15	3	2	9	-
Public utilities.....	41	40.0	341.50	344.50	295.50- 383.50	-	-	-	-	-	-	-	-	-	-	1	5	3	3	-	-	15	3	2	9	-
Transcribing-machine typists.....	197	37.0	195.00	195.00	174.00- 210.00	-	-	-	10	28	17	34	29	36	35	4	4	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	161	36.5	198.00	199.50	170.00- 221.00	-	-	-	10	28	12	13	19	36	35	4	4	-	-	-	-	-	-	-	-	-
Typists.....	2,464	38.0	190.00	185.00	163.50- 206.00	14	9	90	130	201	308	406	281	247	362	179	107	82	20	6	10	1	1	3	7	-
Manufacturing.....	687	39.5	198.50	188.50	175.00- 214.00	-	-	-	30	8	49	138	133	63	122	52	52	23	16	-	-	1	-	-	-	-
Nonmanufacturing.....	1,777	37.0	186.50	178.50	160.00- 201.00	14	9	90	100	193	259	268	148	184	240	127	55	59	4	6	10	-	1	3	7	-
Typists, class A.....	1,026	38.0	204.50	199.50	184.50- 219.50	-	-	6	23	48	44	115	118	175	251	105	66	41	18	-	10	1	1	3	1	-
Manufacturing.....	333	39.5	212.50	210.00	188.00- 221.50	-	-	-	-	6	25	57	47	104	104	36	23	18	16	-	-	1	-	-	-	-
Nonmanufacturing.....	693	37.0	201.00	199.50	175.00- 215.00	-	-	6	23	48	38	90	61	128	147	69	43	23	2	-	10	-	1	3	1	-
Typists, class B.....	1,438	37.5	179.50	172.50	159.00- 189.00	14	9	84	107	153	264	291	163	72	111	74	41	41	2	6	-	-	-	-	6	-
Manufacturing.....	354	40.0	185.00	175.00	170.00- 189.00	-	-	-	30	8	43	113	76	16	18	16	29	5	-	-	-	-	-	-	-	-
Nonmanufacturing.....	1,084	37.0	177.50	168.00	155.00- 189.50	14	9	84	77	145	221	178	87	56	93	58	12	36	2	6	-	-	-	-	6	-
File clerks.....	1,361	37.0	166.00	156.50	140.00- 179.00	44	91	197	290	89	188	137	77	69	49	26	4	6	93	-	-	-	-	-	1	-
Manufacturing.....	181	40.0	229.00	282.00	166.00- 282.00	-	17	-	-	1	34	2	6	16	8	-	-	5	92	-	-	-	-	-	-	-
Nonmanufacturing.....	1,180	36.5	156.50	148.00	139.00- 174.50	44	74	197	290	88	154	135	71	53	41	26	4	1	1	-	-	-	-	-	1	-
File clerks, class A.....	312	37.5	210.50	190.00	174.50- 282.00	-	-	10	29	17	18	47	26	27	17	22	4	1	93	-	-	-	-	-	1	-
Nonmanufacturing.....	203	36.5	180.50	174.50	158.50- 190.00	-	-	10	29	16	12	46	26	24	11	22	4	1	1	-	-	-	-	-	1	-

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																											
			Mean ²	Median ²	Middle range ²	120 and under 140	140-160	160-180	180-200	200-220	220-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-400	400-420	420-440	440-460	460-500	500-540	540-580	580 and over							
Computer systems analysts (business).....	1,879	38.0	411.00	419.00	347.50- 473.00	-	-	-	-	-	63	50	62	89	107	67	102	108	146	163	132	197	277	184	108	24							
Manufacturing.....	400	39.5	425.00	424.50	376.50- 477.50	-	-	-	-	-	-	8	8	10	9	17	41	10	53	31	34	44	65	45	19	6							
Nonmanufacturing.....	1,479	38.0	407.50	415.50	335.50- 472.50	-	-	-	-	-	63	42	54	79	98	50	61	98	93	132	98	153	212	139	89	18							
Computer systems analysts (business), class A.....	808	38.0	474.00	471.50	434.00- 517.50	-	-	-	-	-	-	-	-	1	5	23	31	36	56	60	132	194	146	100	24								
Manufacturing.....	197	39.5	473.50	472.00	431.00- 517.50	-	-	-	-	-	-	-	-	-	-	15	-	11	10	16	21	56	44	18	6								
Nonmanufacturing.....	611	37.5	474.00	471.50	436.00- 517.50	-	-	-	-	-	-	-	-	1	5	8	31	25	46	44	111	138	102	82	18								
Computer systems analysts (business), class B.....	757	38.0	398.00	396.00	354.00- 441.00	-	-	-	-	-	-	-	35	73	38	67	69	104	105	72	65	83	38	8	-								
Manufacturing.....	152	40.0	400.00	393.00	365.00- 437.00	-	-	-	-	-	-	-	4	1	9	23	7	36	20	18	23	9	1	1	-								
Nonmanufacturing.....	605	38.0	397.50	398.50	347.50- 441.50	-	-	-	-	-	-	-	31	72	29	44	62	68	85	54	42	74	37	7	-								
Computer systems analysts (business), class C.....	314	38.5	281.00	277.50	249.50- 303.50	-	-	-	-	-	63	50	62	54	33	24	12	8	6	2	-	-	-	-	-								
Manufacturing.....	51	39.5	313.00	308.00	270.50- 342.00	-	-	-	-	-	-	8	8	6	8	8	3	3	6	1	-	-	-	-	-								
Nonmanufacturing.....	263	38.0	274.50	275.00	249.00- 293.00	-	-	-	-	-	63	42	54	48	25	16	9	5	-	1	-	-	-	-	-								
Computer programmers (business).....	1,724	37.5	332.00	328.50	274.00- 383.00	-	-	-	-	23	144	165	168	126	179	140	175	129	160	126	64	46	51	22	5	1							
Manufacturing.....	396	39.5	374.00	365.00	336.00- 417.00	-	-	-	-	-	-	11	13	19	22	58	60	42	48	26	30	24	30	11	1								
Nonmanufacturing.....	1,328	37.0	319.50	312.50	261.00- 375.00	-	-	-	-	23	144	154	155	107	157	82	115	87	112	100	34	22	21	11	4	-							
Computer programmers (business), class A.....	599	38.0	399.50	390.50	367.00- 424.50	-	-	-	-	-	-	-	-	-	10	46	74	67	122	117	58	37	43	19	5	1							
Manufacturing.....	150	40.0	424.50	426.00	384.50- 459.00	-	-	-	-	-	-	-	-	-	1	4	12	10	22	18	26	19	28	8	1								
Nonmanufacturing.....	449	37.5	391.00	386.50	360.00- 415.00	-	-	-	-	-	-	-	-	-	9	42	62	57	100	99	32	18	15	11	4	-							
Computer programmers (business), class B.....	635	38.0	325.00	318.50	285.00- 353.50	-	-	-	-	-	39	85	87	113	82	97	60	37	9	6	9	8	3	-	-								
Manufacturing.....	207	39.5	354.00	345.00	326.00- 374.50	-	-	-	-	-	-	1	14	19	50	46	30	25	8	4	5	2	3	-	-								
Nonmanufacturing.....	428	37.5	311.00	307.00	276.50- 340.00	-	-	-	-	-	39	84	73	94	32	51	30	12	1	2	4	6	-	-	-								
Computer programmers (business), class C.....	490	37.5	258.00	246.00	232.00- 278.00	-	-	-	-	23	144	126	83	39	56	12	4	2	1	-	-	-	-	-	-								
Nonmanufacturing.....	451	37.0	255.50	244.50	232.00- 274.00	-	-	-	-	23	144	115	71	34	54	8	2	-	-	-	-	-	-	-	-								
Computer operators.....	1,568	38.5	255.50	248.50	217.00- 290.00	2	43	60	149	165	296	143	224	171	121	65	37	43	26	5	11	3	-	4	-								
Manufacturing.....	571	39.0	263.50	262.00	222.00- 291.50	-	13	17	49	49	92	64	100	60	29	21	19	41	11	1	-	1	-	4	-								
Nonmanufacturing.....	997	38.0	251.00	240.00	210.00- 290.00	2	30	43	100	116	204	79	124	111	92	44	18	2	15	4	11	2	-	-	-								
Public utilities.....	43	39.5	349.00	359.00	306.00- 420.00	-	-	-	-	3	-	5	-	-	10	2	5	-	1	4	11	2	-	-	-								
Computer operators, class A.....	399	38.5	317.50	310.00	290.00- 340.00	-	-	-	-	-	2	21	49	82	82	56	32	40	25	2	5	3	-	-	-								
Manufacturing.....	154	39.5	322.50	335.00	277.00- 368.00	-	-	-	-	-	14	30	14	13	15	19	38	10	-	-	1	-	-	-	-								
Nonmanufacturing.....	245	38.0	314.00	306.00	290.00- 330.00	-	-	-	-	-	2	7	19	68	69	41	13	2	15	2	5	2	-	-	-								
Computer operators, class B.....	780	38.0	251.00	244.00	225.00- 273.00	-	-	7	75	62	209	102	172	85	37	9	5	3	1	3	6	-	-	4	-								
Manufacturing.....	287	39.0	257.50	257.00	225.00- 279.00	-	-	4	18	22	66	39	67	42	14	6	-	3	1	1	-	-	-	4	-								
Nonmanufacturing.....	493	37.5	247.50	240.00	220.50- 272.00	-	-	3	57	40	143	63	105	43	23	3	5	-	-	2	6	-	-	-	-								
Computer operators, class C.....	389	38.5	200.50	201.00	178.00- 225.50	2	43	53	74	103	85	20	3	4	2	-	-	-	-	-	-	-	-	-	-								
Manufacturing.....	130	39.0	207.00	210.00	184.00- 226.00	-	13	13	31	27	26	11	3	4	2	-	-	-	-	-	-	-	-	-	-								
Nonmanufacturing.....	259	38.0	197.50	200.00	178.00- 224.00	2	30	40	43	76	59	9	-	-	-	-	-	-	-	-	-	-	-	-	-								
Peripheral equipment operators.....	58	38.5	220.50	180.00	168.50- 291.50	-	4	21	5	5	2	5	-	3	13	-	-	-	-	-	-	-	-	-	-								
Computer data librarians.....	52	37.5	203.00	192.00	169.00- 227.50	-	3	17	13	3	6	4	-	6	-	-	-	-	-	-	-	-	-	-	-								

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Boston, Mass., August 1980 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	120 and under 140	140 - 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 500	500 - 540	540 - 580	580 and over
Drafters.....	2,398	39.5	317.00	320.00	259.50- 372.00	-	17	61	96	153	143	134	184	197	234	206	220	243	106	137	106	86	67	8	-	-
Manufacturing.....	1,562	40.0	327.00	325.00	267.00- 381.50	-	-	-	61	99	112	58	111	156	149	118	145	152	82	101	85	71	54	8	-	-
Nonmanufacturing.....	836	38.5	298.00	304.00	242.00- 359.00	-	17	61	35	54	31	76	73	41	85	88	75	91	24	36	21	15	13	-	-	-
Public utilities.....	59	39.5	393.50	402.50	369.00- 402.50	-	-	-	-	-	-	-	-	-	-	-	5	21	1	19	6	7	-	-	-	-
Drafters, class A.....	924	39.5	381.00	374.50	341.50- 422.00	-	-	-	-	-	-	8	9	19	68	104	155	131	85	102	92	86	57	8	-	-
Manufacturing.....	627	40.0	394.50	394.50	349.00- 433.00	-	-	-	-	-	-	-	-	1	29	62	102	71	62	85	82	71	54	8	-	-
Nonmanufacturing.....	297	39.0	352.50	355.00	321.00- 371.00	-	-	-	-	-	-	8	9	18	39	42	53	60	23	17	10	15	3	-	-	-
Drafters, class B.....	850	39.5	314.50	308.00	273.50- 350.50	-	-	-	-	36	67	134	134	133	89	65	112	21	35	14	-	10	-	-	-	-
Manufacturing.....	572	40.0	311.50	301.00	280.00- 350.50	-	-	-	-	26	36	81	116	102	48	43	81	20	16	3	-	-	-	-	-	-
Nonmanufacturing.....	278	39.0	320.50	319.00	271.50- 361.50	-	-	-	-	10	31	53	18	31	41	22	31	1	19	11	-	10	-	-	-	-
Public utilities.....	47	39.5	382.00	373.00	369.00- 402.50	-	-	-	-	-	-	-	-	-	-	5	21	1	19	1	-	-	-	-	-	-
Drafters, class C.....	528	39.5	232.50	222.50	207.00- 257.50	-	2	24	76	141	103	59	33	44	33	13	-	-	-	-	-	-	-	-	-	-
Manufacturing.....	324	40.0	237.00	224.50	208.00- 264.50	-	-	-	46	87	82	22	22	39	18	8	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	204	38.5	225.50	215.00	196.00- 250.00	-	2	24	30	54	21	37	11	5	15	5	-	-	-	-	-	-	-	-	-	-
Drafter-tracers.....	96	38.0	186.00	176.00	163.50- 199.50	-	15	37	20	12	4	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Electronics technicians.....	3,300	40.0	328.50	315.00	271.00- 399.00	-	-	26	5	98	210	324	323	436	274	212	201	149	249	121	668	1	1	2	-	-
Manufacturing.....	2,187	40.0	298.50	290.00	250.00- 339.50	-	-	26	5	88	197	305	261	377	215	166	131	108	172	106	30	-	-	-	-	-
Nonmanufacturing.....	1,113	40.0	387.50	433.00	342.00- 433.00	-	-	-	-	10	13	19	62	59	59	46	70	41	77	15	638	1	1	2	-	-
Electronics technicians, class A.....	1,402	40.0	394.50	411.50	364.00- 433.00	-	-	-	-	-	-	3	9	45	63	118	98	81	205	108	668	1	1	2	-	-
Manufacturing.....	683	40.0	361.00	364.00	328.00- 393.00	-	-	-	-	-	-	3	9	45	59	118	90	61	170	98	30	-	-	-	-	-
Electronics technicians, class B.....	916	40.0	302.00	299.00	269.50- 337.00	-	-	-	-	95	114	86	169	146	84	97	68	44	13	-	-	-	-	-	-	-
Manufacturing.....	644	40.0	287.00	286.00	250.00- 310.00	-	-	-	-	95	107	81	135	96	38	35	47	2	8	-	-	-	-	-	-	-
Electronics technicians, class C.....	790	40.0	255.50	262.00	233.50- 282.00	-	-	26	3	94	91	153	198	190	31	4	-	-	-	-	-	-	-	-	-	-
Registered industrial nurses.....	174	39.0	320.50	327.00	298.00- 345.50	-	-	-	-	4	3	10	12	17	30	39	30	18	6	1	1	2	1	-	-	-
Manufacturing.....	135	39.5	317.50	326.50	294.00- 342.00	-	-	-	-	4	3	9	9	13	21	38	23	6	4	1	1	2	1	-	-	-

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Boston, Mass., August 1980

Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)		Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)		Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)	
		Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹
Office occupations - men				Transcribing-machine typists.....	197	37.0	195.00	Accounting clerks, class B.....	3,043	37.5	189.50
File clerks.....	66	37.5	173.00	Nonmanufacturing.....	161	36.5	198.00	Manufacturing.....	752	39.5	185.50
Nonmanufacturing.....	63	37.5	173.50	Typists.....	2,406	37.5	189.00	Nonmanufacturing.....	2,291	36.5	191.00
Messengers.....	805	38.0	146.00	Manufacturing.....	683	39.5	198.50	Payroll clerks.....	491	38.0	215.00
Manufacturing.....	68	38.0	172.00	Nonmanufacturing.....	1,723	37.0	185.00	Manufacturing.....	263	39.0	215.50
Nonmanufacturing.....	737	38.0	143.50	Typists, class A.....	980	38.0	203.00	Nonmanufacturing.....	228	36.5	214.00
Accounting clerks.....	489	37.5	229.50	Manufacturing.....	329	39.5	212.50	Key entry operators.....	1,815	37.5	200.50
Manufacturing.....	116	39.0	259.00	Nonmanufacturing.....	651	37.0	198.00	Manufacturing.....	598	39.5	211.00
Nonmanufacturing.....	373	37.0	220.00	Typists, class B.....	1,426	37.5	179.00	Nonmanufacturing.....	1,217	37.0	195.50
Accounting clerks, class A.....	303	38.0	258.00	Manufacturing.....	354	40.0	185.00	Public utilities.....	169	39.0	284.50
Manufacturing.....	87	39.0	273.50	Nonmanufacturing.....	1,072	37.0	177.00	Key entry operators, class A.....	921	38.5	215.00
Nonmanufacturing.....	216	37.5	251.50	Public utilities.....	45	38.5	297.00	Manufacturing.....	405	39.5	224.00
Accounting clerks, class B.....	186	37.0	183.00	File clerks.....	1,293	37.0	165.50	Nonmanufacturing.....	516	38.0	208.00
Office occupations - women				Manufacturing.....	178	40.0	230.00	Key entry operators, class B.....	894	36.5	185.50
Secretaries.....	9,916	38.0	249.50	Nonmanufacturing.....	1,115	36.5	155.00	Manufacturing.....	193	39.5	183.50
Manufacturing.....	4,398	39.5	262.00	File clerks, class A.....	297	37.5	213.00	Nonmanufacturing.....	701	36.0	186.00
Nonmanufacturing.....	5,518	37.0	240.00	Nonmanufacturing.....	191	36.5	181.00	Public utilities.....	68	39.5	268.00
Public utilities.....	458	38.5	298.00	File clerks, class B.....	574	36.5	157.00	Professional and technical occupations - men			
Secretaries, class A.....	488	38.0	320.50	Nonmanufacturing.....	545	36.5	155.00	Computer systems analysts (business).....	1,277	38.0	429.50
Manufacturing.....	166	39.0	327.50	File clerks, class C.....	422	37.0	144.00	Manufacturing.....	305	39.5	440.50
Nonmanufacturing.....	322	37.5	316.50	Nonmanufacturing.....	379	36.5	142.50	Nonmanufacturing.....	972	38.0	426.50
Secretaries, class B.....	1,949	38.0	282.50	Messengers.....	167	38.0	158.50	Computer systems analysts (business), class A.....	636	38.0	479.00
Manufacturing.....	662	39.0	306.00	Nonmanufacturing.....	131	37.5	148.50	Manufacturing.....	161	39.5	482.50
Nonmanufacturing.....	1,287	37.5	270.00	Switchboard operators.....	630	38.0	199.00	Nonmanufacturing.....	475	37.5	478.00
Secretaries, class C.....	3,426	38.5	256.00	Manufacturing.....	184	39.5	218.50	Computer systems analysts (business), class B.....	502	38.5	406.00
Manufacturing.....	1,906	39.5	267.00	Nonmanufacturing.....	446	37.5	190.50	Manufacturing.....	121	40.0	404.00
Nonmanufacturing.....	1,520	37.5	242.50	Public utilities.....	70	39.0	272.50	Nonmanufacturing.....	381	38.0	406.50
Public utilities.....	141	38.5	295.50	Switchboard operator-receptionists.....	720	38.5	188.00	Computer systems analysts (business), class C.....	139	38.5	289.00
Secretaries, class D.....	3,100	38.0	224.00	Manufacturing.....	284	39.0	201.00	Nonmanufacturing.....	116	38.0	280.00
Manufacturing.....	1,457	39.5	237.50	Nonmanufacturing.....	436	38.0	180.00	Computer programmers (business).....	1,083	38.0	339.00
Nonmanufacturing.....	1,643	37.0	212.00	Order clerks.....	833	39.0	219.00	Manufacturing.....	280	39.5	374.50
Public utilities.....	113	40.0	268.00	Manufacturing.....	534	39.5	223.00	Nonmanufacturing.....	803	37.5	327.00
Secretaries, class E.....	689	37.0	205.50	Nonmanufacturing.....	299	38.0	212.00	Computer programmers (business), class A.....	397	38.0	404.50
Manufacturing.....	207	39.0	194.50	Order clerks, class A.....	187	38.5	241.50	Manufacturing.....	109	40.0	426.00
Nonmanufacturing.....	482	36.0	210.00	Manufacturing.....	88	40.0	227.50	Nonmanufacturing.....	288	37.5	396.50
Stenographers.....	347	39.0	260.00	Order clerks, class B.....	646	39.0	212.50	Computer programmers (business), class B.....	411	38.0	328.00
Manufacturing.....	207	40.0	259.00	Manufacturing.....	446	39.5	222.00	Manufacturing.....	138	39.5	355.00
Nonmanufacturing.....	140	38.0	262.00	Nonmanufacturing.....	200	38.5	191.50	Nonmanufacturing.....	273	37.5	314.00
Public utilities.....	54	40.0	337.00	Accounting clerks.....	5,260	37.5	208.00	Computer programmers (business), class C.....	275	37.5	262.00
Stenographers, senior.....	121	38.0	250.00	Manufacturing.....	1,271	39.5	202.00	Nonmanufacturing.....	242	37.0	258.50
Nonmanufacturing.....	84	37.5	238.00	Nonmanufacturing.....	3,989	37.0	210.00				
Stenographers, general.....	226	39.5	265.50	Accounting clerks, class A.....	2,217	37.5	233.50				
Manufacturing.....	170	40.0	255.00	Manufacturing.....	519	39.5	226.00				
Nonmanufacturing.....	56	39.0	298.00	Nonmanufacturing.....	1,698	37.0	235.50				
Public utilities.....	36	40.0	341.00								

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Boston, Mass., August 1980 —Continued

Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)		Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)		Sex, ³ occupation, and industry division	Number of workers	Average (mean ²)	
		Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹
Computer operators	1,142	38.0	258.50	Electronics technicians, class A.....	1,355	40.0	394.50	Computer programmers			
Manufacturing.....	389	39.0	270.50	Manufacturing.....	670	40.0	361.50	(business), class C.....	215	37.0	253.50
Nonmanufacturing.....	753	37.5	252.50					Nonmanufacturing.....	209	37.0	252.00
Computer operators, class A.....	317	38.5	321.00	Electronics technicians, class B.....	869	40.0	303.50				
Manufacturing.....	104	39.5	337.50	Manufacturing.....	597	40.0	288.00	Computer operators	384	38.5	243.00
Nonmanufacturing.....	213	38.0	313.00					Manufacturing.....	182	39.5	249.00
Computer operators, class B.....	590	38.0	248.00	Electronics technicians, class C.....	714	40.0	256.50				
Manufacturing.....	210	39.0	257.50					Computer operators, class A.....	74	39.5	300.00
Nonmanufacturing.....	380	37.5	243.00	Professional and technical occupations - women				Manufacturing.....	50	40.0	292.00
Computer operators, class C.....	235	38.0	200.00	Computer systems analysts				Computer operators, class B.....	166	38.5	254.50
Manufacturing.....	75	39.0	213.00	(business)	582	38.0	370.50	Manufacturing.....	77	39.5	257.00
Nonmanufacturing.....	160	37.5	193.50	Manufacturing.....	95	39.5	375.50				
				Nonmanufacturing.....	487	38.0	369.50	Computer operators, class C.....	144	38.5	201.00
Drafters	2,156	39.5	324.50	Computer systems analysts				Manufacturing.....	55	39.5	198.50
Manufacturing.....	1,426	40.0	332.50	(business), class A.....	172	38.0	455.00	Nonmanufacturing.....	89	38.0	203.00
Nonmanufacturing.....	730	39.0	309.00	Nonmanufacturing.....	136	38.0	461.00				
Public utilities.....	59	39.5	393.50	Computer systems analysts				Drafters	242	39.0	249.00
Drafters, class A	906	40.0	382.00	(business), class B.....	235	38.0	380.50	Manufacturing.....	136	40.0	269.50
Manufacturing.....	624	40.0	394.50	Nonmanufacturing.....	204	38.0	380.00	Nonmanufacturing.....	106	37.5	222.50
Nonmanufacturing.....	282	39.5	355.00	Computer systems analysts							
Drafters, class B	765	39.5	316.00	(business), class C.....	175	38.5	274.50	Drafters, class B	85	39.5	297.50
Manufacturing.....	508	40.0	312.50	Nonmanufacturing.....	147	38.0	270.50	Manufacturing.....	64	40.0	303.00
Nonmanufacturing.....	257	39.0	323.50	Computer programmers (business)	641	37.5	319.50	Drafters, class C	100	38.5	224.00
Public utilities.....	47	39.5	382.00	Manufacturing.....	116	39.5	373.00	Manufacturing.....	57	40.0	240.50
Drafters, class C	428	39.5	234.50	Nonmanufacturing.....	525	37.0	308.00				
Manufacturing.....	267	40.0	236.00	Computer programmers				Electronics technicians.....	202	40.0	286.50
Nonmanufacturing.....	161	38.5	232.00	(business), class A.....	202	37.5	389.50	Manufacturing.....	157	40.0	261.50
Drafter-tracers.....	57	38.5	194.50	Nonmanufacturing.....	161	36.5	381.50				
Electronics technicians	3,098	40.0	331.00	Computer programmers				Electronics technicians, class C.....	76	40.0	245.50
Manufacturing.....	2,030	40.0	301.00	(business), class B.....	224	38.0	320.00	Manufacturing.....	65	40.0	249.50
Nonmanufacturing.....	1,068	40.0	388.00	Manufacturing.....	69	39.0	351.00	Registered industrial nurses.....	171	39.0	320.50
				Nonmanufacturing.....	155	37.0	306.50	Manufacturing.....	134	39.5	317.50

See footnotes at end of tables.

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean ²	Median ²	Middle range ²	Under 5.00	5.00 and under 5.30	5.30-5.60	5.60-5.90	5.90-6.20	6.20-6.50	6.50-6.80	6.80-7.10	7.10-7.40	7.40-7.80	7.80-8.20	8.20-8.60	8.60-9.00	9.00-9.40	9.40-9.80	9.80-10.20	10.20-10.60	10.60-11.00	11.00-11.40	11.40-11.80	11.80-12.20	12.20-13.00	13.00-13.80	
						5.00	5.30	5.60	5.90	6.20	6.50	6.80	7.10	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	13.00	13.80
Maintenance carpenters.....	378	8.46	8.39	8.02- 9.22	-	-	-	4	4	10	7	11	12	30	35	117	30	81	-	26	1	-	-	7	3	-	-	
Manufacturing	224	8.37	8.28	8.02- 8.49	-	-	-	-	-	6	5	9	10	7	32	101	20	9	-	19	-	-	-	3	3	-	-	
Nonmanufacturing	154	8.59	9.22	7.59- 9.22	-	-	-	4	4	4	2	2	2	23	3	16	10	72	-	7	1	-	-	4	-	-		
Maintenance electricians.....	898	9.19	9.08	8.39- 9.68	-	-	-	-	-	-	6	11	23	75	84	61	91	269	81	59	-	70	-	14	29	25	-	
Manufacturing	717	9.11	9.08	8.39- 9.41	-	-	-	-	-	-	6	10	21	53	75	49	85	232	38	35	-	70	-	14	29	-	-	
Nonmanufacturing	181	9.54	9.60	8.55-10.04	-	-	-	-	-	-	-	1	2	22	9	12	6	37	43	24	-	-	-	-	-	25	-	
Maintenance painters	210	7.98	7.89	6.94- 8.24	-	-	-	-	2	-	46	15	6	16	48	35	4	11	9	12	-	-	-	6	-	-	-	
Manufacturing	113	8.21	8.02	7.89- 8.23	-	-	-	-	-	-	-	4	4	15	44	29	3	8	-	-	-	-	-	6	-	-	-	
Nonmanufacturing	97	7.70	6.94	6.77- 8.67	-	-	-	-	2	-	46	11	2	1	4	6	1	3	9	12	-	-	-	-	-	-	-	
Maintenance machinists.....	645	8.65	8.80	8.45- 9.00	-	-	-	-	-	13	-	12	-	19	4	-	34	59	57	218	143	26	20	14	26	-	-	
Manufacturing	645	8.65	8.80	8.45- 9.00	-	-	-	-	-	13	-	12	-	19	4	-	34	59	57	218	143	26	20	14	26	-	-	
Maintenance mechanics (machinery)	1,228	8.38	8.50	7.63- 9.24	-	-	-	4	26	61	71	33	26	40	54	225	78	168	216	4	131	82	-	3	-	6	-	
Manufacturing	1,092	8.32	8.47	7.63- 9.24	-	-	-	-	26	56	52	33	24	39	54	219	72	151	198	-	89	79	-	-	-	-	-	
Nonmanufacturing	136	8.82	9.21	8.05-10.04	-	-	-	4	-	5	19	-	2	1	-	6	6	17	18	4	42	3	-	3	-	6	-	
Maintenance mechanics (motor vehicles)	689	9.83	9.00	8.50-11.65	-	-	-	-	1	2	-	-	16	19	16	76	95	119	13	15	31	13	21	25	144	35	27	21
Manufacturing	127	8.77	8.50	8.15- 8.88	-	-	-	-	-	-	-	-	4	3	25	57	6	13	3	-	7	-	-	9	-	-	-	
Nonmanufacturing	562	10.07	9.87	8.73-11.65	-	-	-	1	2	-	-	-	16	15	13	51	38	113	-	12	31	6	21	25	135	35	27	21
Public utilities	517	10.04	9.87	8.54-11.65	-	-	-	-	2	-	-	-	15	15	10	51	38	113	-	12	31	-	-	12	135	35	27	21
Maintenance pipefitters.....	448	9.00	8.63	8.49- 9.24	-	-	-	-	-	12	12	-	2	2	11	39	42	125	102	-	21	44	-	-	33	-	3	
Manufacturing	436	8.98	8.62	8.28- 9.24	-	-	-	-	-	12	12	-	2	2	11	39	40	123	100	-	21	38	-	-	33	-	3	
Maintenance sheet-metal workers... Manufacturing	89	8.99	9.17	8.68- 9.24	-	-	-	-	-	-	-	-	-	-	15	6	16	43	-	4	4	-	-	-	1	-	-	
Manufacturing	71	8.97	9.24	8.49- 9.24	-	-	-	-	-	-	-	-	-	-	15	5	14	28	-	4	4	-	-	-	1	-	-	
Millwrights	160	7.72	8.28	6.94- 8.28	-	-	-	5	-	12	17	6	6	2	2	20	69	19	-	2	-	-	-	-	-	-	-	
Manufacturing	158	7.71	8.28	6.82- 8.28	-	-	-	5	-	12	17	6	6	2	2	20	67	19	-	2	-	-	-	-	-	-	-	
Maintenance trades helpers	153	5.48	5.25	4.50- 6.02	* 58	19	18	8	17	13	3	6	3	3	-	-	2	-	-	3	-	-	-	-	-	-	-	
Machine-tool operators (toolroom)... Manufacturing	225	7.58	7.82	6.85- 8.33	-	-	-	4	22	20	7	27	9	20	50	35	25	-	6	-	-	-	-	-	-	-	-	
Manufacturing	223	7.59	7.83	6.95- 8.33	-	-	-	4	22	20	5	27	9	20	50	35	25	-	6	-	-	-	-	-	-	-	-	
Tool and die makers..... Manufacturing	557	9.39	9.30	8.91- 9.72	-	-	-	-	-	-	-	-	2	56	20	38	42	133	157	24	8	25	15	-	37	-	-	
Manufacturing	557	9.39	9.30	8.91- 9.72	-	-	-	-	-	-	-	-	2	56	20	38	42	133	157	24	8	25	15	-	37	-	-	
Stationary engineers..... Manufacturing	275	8.81	8.50	7.65- 9.55	-	-	-	2	-	2	6	-	58	3	33	34	23	43	10	9	6	24	3	5	5	9	-	
Manufacturing	132	9.27	9.09	8.34-10.96	-	-	-	-	-	-	6	-	4	-	17	24	8	23	7	4	5	24	-	5	5	-	-	
Nonmanufacturing	143	8.38	8.18	7.16- 9.00	-	-	-	2	-	2	-	-	54	3	16	10	15	20	3	5	1	-	3	-	-	9	-	
Boiler tenders	158	7.44	6.83	6.13- 8.23	-	-	-	-	46	3	23	13	3	3	17	18	8	-	24	-	-	-	-	-	-	-	-	
Manufacturing	152	7.47	6.95	6.13- 8.23	-	-	-	-	46	1	21	11	3	3	17	18	8	-	24	-	-	-	-	-	-	-	-	

* Workers were distributed as follows: 7 under \$4.10; 10 at \$4.10 to \$4.40; 29 at \$4.40 to \$4.70; and 12 at \$4.70 to \$5.00. See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean ²	Median ²	Middle range ²	3.10 and under 3.40	3.40	3.70	4.00	4.30	4.60	4.90	5.20	5.50	5.80	6.10	6.40	6.70	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	
						3.70	4.00	4.30	4.60	4.90	5.20	5.50	5.80	6.10	6.40	6.70	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	
Truckdrivers.....	4,265	9.39	9.88	7.55-11.45	-	-	-	33	26	7	32	27	419	17	33	9	57	136	414	92	465	195	297	170	213	1593	30	
Manufacturing.....	765	8.40	9.07	7.63- 9.88	-	-	-	5	24	4	14	23	24	13	27	4	29	21	63	49	42	162	200	61	-	-	-	
Nonmanufacturing.....	3,500	9.60	10.60	7.55-11.45	-	-	-	28	2	3	18	4	395	4	6	5	28	115	351	43	423	33	97	109	213	1593	30	
Public utilities.....	2,200	10.69	11.45	9.09-11.45	-	-	-	-	-	-	-	-	10	-	1	-	10	96	17	33	378	31	1	-	-	1593	30	
Truckdrivers, light truck.....	97	4.94	4.55	4.13- 5.40	-	-	-	33	18	5	11	11	8	-	-	3	3	1	4	-	-	-	-	-	-	-	-	
Manufacturing.....	63	5.26	4.97	4.50- 5.46	-	-	-	5	18	4	10	11	4	-	-	3	3	1	4	-	-	-	-	-	-	-	-	
Truckdrivers, medium truck.....	644	9.21	9.88	7.48-11.45	-	-	-	-	2	2	21	10	27	9	18	4	31	38	27	13	4	60	201	-	-	177	-	
Manufacturing.....	367	8.82	9.88	7.86- 9.88	-	-	-	-	-	-	4	6	20	5	15	-	17	19	21	-	-	60	200	-	-	-	-	
Truckdrivers, heavy truck.....	1,717	8.23	8.09	7.40- 9.07	-	-	-	-	-	-	-	-	-	384	8	6	1	10	96	350	18	391	115	-	63	21	254	-
Manufacturing.....	198	8.95	9.07	8.55-10.21	-	-	-	-	-	-	-	-	-	-	8	4	1	-	1	20	13	84	-	54	-	-	-	
Nonmanufacturing.....	1,519	8.13	7.55	5.63- 8.95	-	-	-	-	-	-	-	-	-	384	-	2	-	10	95	330	5	378	31	-	9	21	254	-
Truckdrivers, tractor-trailer.....	1,498	10.93	11.45	10.60-11.45	-	-	-	-	-	-	-	-	-	-	-	1	13	-	22	8	70	18	96	61	192	987	30	
Manufacturing.....	89	8.49	8.50	7.87- 9.00	-	-	-	-	-	-	-	-	-	-	-	-	9	-	18	8	29	18	-	7	-	-	-	
Nonmanufacturing.....	1,409	11.08	11.45	10.60-11.45	-	-	-	-	-	-	-	-	-	-	-	1	4	-	4	-	41	-	96	54	192	987	30	
Public utilities.....	1,017	11.47	11.45	11.45-11.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	987	30	
Shippers.....	432	6.57	6.70	5.79- 6.93	-	-	-	13	33	6	12	9	60	29	17	29	116	19	12	12	40	25	-	-	-	-	-	
Manufacturing.....	297	6.47	6.70	5.90- 6.86	-	-	-	6	-	2	10	8	37	29	17	29	116	19	12	12	-	-	-	-	-	-	-	
Nonmanufacturing.....	135	6.81	5.79	4.35- 8.83	-	-	-	7	33	4	2	1	23	-	-	-	-	-	-	-	40	25	-	-	-	-	-	
Receivers.....	626	7.10	7.35	5.56- 8.63	-	-	-	3	16	15	49	28	70	29	29	27	19	55	50	2	221	13	-	-	-	-	-	
Manufacturing.....	186	5.86	5.97	5.30- 6.28	-	-	-	2	15	15	7	16	31	28	27	6	19	20	-	-	-	-	-	-	-	-	-	
Nonmanufacturing.....	440	7.62	8.63	6.55- 8.63	-	-	-	1	1	-	42	12	39	1	2	21	-	35	50	2	221	13	-	-	-	-	-	
Shippers and receivers.....	579	6.35	6.40	5.26- 7.44	-	-	-	32	27	34	43	69	26	5	42	22	7	251	-	12	7	1	1	-	-	-	-	
Manufacturing.....	505	6.40	7.38	5.26- 7.44	-	-	-	12	22	32	43	66	21	-	31	21	3	251	-	-	1	1	1	-	-	-	-	
Nonmanufacturing.....	74	6.02	5.85	4.25- 6.88	-	-	-	20	5	2	-	3	5	5	11	1	4	-	-	12	6	-	-	-	-	-	-	
Warehousemen.....	1,241	7.22	7.35	6.51- 8.17	26	19	26	40	10	5	54	21	43	22	39	27	16	386	164	68	40	185	6	20	24	-	-	
Manufacturing.....	474	6.76	6.79	5.15- 9.07	26	13	-	39	-	-	47	19	16	14	32	27	10	15	78	-	6	132	-	-	-	-	-	
Nonmanufacturing.....	767	7.50	7.35	7.35- 8.17	-	6	26	1	10	5	7	2	27	8	7	-	6	371	86	68	34	53	6	20	24	-	-	
Public utilities.....	51	8.90	8.58	7.75-10.12	-	-	-	-	-	-	-	-	-	-	-	-	-	6	9	5	11	-	-	20	-	-	-	
Order fillers.....	848	5.14	4.81	4.25- 5.62	66	43	22	148	44	138	82	59	53	19	47	7	24	25	8	7	54	2	-	-	-	-	-	
Manufacturing.....	465	5.11	4.81	4.25- 5.51	-	6	15	127	24	115	24	37	23	-	31	1	21	20	8	7	4	2	-	-	-	-	-	
Nonmanufacturing.....	383	5.18	4.95	3.40- 5.95	66	37	7	21	20	23	58	22	30	19	16	6	3	5	-	-	50	-	-	-	-	-	-	
Shipping packers.....	384	5.48	5.05	4.60- 6.55	-	16	-	29	38	61	72	28	12	12	9	14	4	77	9	1	1	-	-	-	1	-	-	
Manufacturing.....	296	5.67	5.05	4.68- 7.04	-	16	-	9	28	42	64	6	8	10	7	13	4	77	9	1	1	-	-	-	1	-	-	
Material handling laborers.....	1,855	5.69	5.18	4.47- 6.59	-	13	46	135	393	92	267	192	55	69	101	86	30	167	26	13	153	3	14	-	-	-	-	
Manufacturing.....	1,508	5.44	5.18	4.47- 6.27	-	13	36	112	337	70	239	187	46	60	92	80	29	167	26	-	-	-	14	-	-	-	-	
Forklift operators.....	685	8.35	7.68	6.86- 9.84	-	-	-	-	-	14	1	5	14	93	-	20	63	62	106	-	77	41	45	-	-	144	-	
Manufacturing.....	414	7.14	6.91	6.09- 7.66	-	-	-	-	-	14	1	5	14	93	-	20	63	62	84	-	6	7	45	-	-	-	-	
Nonmanufacturing.....	271	10.19	11.45	8.90-11.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	71	34	-	-	-	144	-	
Guards.....	6,782	4.02	3.50	3.30- 3.90	2583	1739	816	225	98	37	66	250	89	127	282	83	149	152	37	2	4	-	11	32	-	-	-	
Manufacturing.....	836	6.32	6.16	5.89- 6.92	-	-	13	28	23	16	36	8	65	104	254	40	80	113	24	-	-	-	-	32	-	-	-	
Nonmanufacturing.....	5,946	3.70	3.40	3.30- 3.75	2583	1739	803	197	75	21	30	242	24	23	28	43	69	39	13	2	4	-	11	-	-	-	-	
Guards, class A.....	684	5.66	5.28	5.28- 6.62	-	-	110	20	-	12	21	243	39	21	15	36	47	90	13	2	4	-	11	-	-	-	-	
Nonmanufacturing.....	603	5.53	5.28	5.06- 6.41	-	-	110	20	-	8	21	239	17	21	15	36	47	39	13	2	4	-	11	-	-	-	-	

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Boston, Mass., August 1980 —Continued

Occupation and industry division	Number of workers	Hourly earnings (in dollars) ¹			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean ²	Median ²	Middle range ²	3.10 and under 3.40	3.40	3.70	4.00	4.30	4.60	4.90	5.20	5.50	5.80	6.10	6.40	6.70	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00
Guards, class B	5,653	3.86	3.40	3.30- 3.80	2356	1653	620	188	81	25	40	7	43	106	267	47	102	62	24	-	-	-	-	32	-	-	-	-
Manufacturing	755	6.29	6.16	5.90- 6.92	-	-	13	28	23	12	36	4	43	104	254	40	80	62	24	-	-	-	-	32	-	-	-	-
Nonmanufacturing	4,898	3.49	3.40	3.30- 3.65	2356	1653	607	160	58	13	4	3	-	2	13	7	22	-	-	-	-	-	-	-	-	-	-	-
Janitors, porters, and cleaners	6,213	4.65	4.18	3.70- 5.10	47	359	2416	717	821	176	193	167	194	324	44	45	84	401	78	2	40	105	-	-	-	-	-	-
Manufacturing	1,768	5.84	5.69	4.69- 6.91	13	48	76	68	210	102	117	136	142	299	40	42	70	233	55	-	12	105	-	-	-	-	-	-
Nonmanufacturing	4,445	4.18	3.85	3.70- 4.29	34	311	2340	649	611	74	76	31	52	25	4	3	14	168	23	2	28	-	-	-	-	-	-	-

See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Boston, Mass., August 1980

Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴
Maintenance, toolroom, and powerplant occupations - men			Boiler tenders.....	158	7.44	Forklift operators.....	604	8.30
Maintenance carpenters.....	370	8.45	Manufacturing.....	152	7.47	Manufacturing.....	404	7.13
Manufacturing.....	222	8.37	Material movement and custodial occupations - men			Guards.....	5,902	4.05
Nonmanufacturing.....	148	8.57	Truckdrivers.....	4,260	9.39	Manufacturing.....	788	6.31
Maintenance electricians.....	891	9.20	Manufacturing.....	764	8.41	Nonmanufacturing.....	5,114	3.71
Manufacturing.....	717	9.11	Nonmanufacturing.....	3,496	9.60	Guards, class A.....	629	5.64
Nonmanufacturing.....	174	9.57	Public utilities.....	2,200	10.69	Nonmanufacturing.....	551	5.51
Maintenance painters.....	204	7.96	Truckdrivers, light truck.....	96	4.94	Guards, class B.....	4,871	3.90
Manufacturing.....	113	8.21	Manufacturing.....	62	5.26	Manufacturing.....	710	6.27
Nonmanufacturing.....	91	7.65	Truckdrivers, medium truck.....	640	9.21	Nonmanufacturing.....	4,161	3.49
Maintenance machinists.....	641	8.65	Manufacturing.....	367	8.82	Janitors, porters, and cleaners.....	4,137	4.96
Manufacturing.....	641	8.65	Truckdrivers, heavy truck.....	1,717	8.23	Manufacturing.....	1,603	5.87
Maintenance mechanics (machinery).....	1,223	8.38	Manufacturing.....	198	8.95	Nonmanufacturing.....	2,534	4.38
Manufacturing.....	1,087	8.32	Nonmanufacturing.....	1,519	8.13	Public utilities.....	203	6.91
Nonmanufacturing.....	136	8.82	Truckdrivers, tractor-trailer.....	1,498	10.93	Material movement and custodial occupations - women		
Maintenance mechanics (motor vehicles).....	689	9.83	Manufacturing.....	89	8.49	Order fillers:		
Manufacturing.....	127	8.77	Nonmanufacturing.....	1,409	11.08	Manufacturing.....	225	4.51
Nonmanufacturing.....	562	10.07	Public utilities.....	1,017	11.47	Shipping packers:		
Public utilities.....	517	10.04	Shippers.....	356	6.17	Manufacturing.....	136	5.64
Maintenance pipefitters.....	448	9.00	Manufacturing.....	292	6.46	Material handling laborers:		
Manufacturing.....	436	8.98	Receivers:			Manufacturing.....	128	5.47
Maintenance sheet-metal workers.....	89	8.99	Manufacturing.....	182	5.85	Guards.....	856	3.71
Manufacturing.....	71	8.97	Shippers and receivers.....	561	6.33	Nonmanufacturing.....	808	3.54
Millwrights.....	160	7.72	Manufacturing.....	499	6.39	Guards, class B.....	770	3.63
Manufacturing.....	158	7.71	Nonmanufacturing.....	62	5.79	Nonmanufacturing.....	725	3.45
Maintenance trades helpers.....	151	5.44	Warehousemen.....	1,177	7.25	Janitors, porters, and cleaners:		
Machine-tool operators (toolroom).....	225	7.58	Manufacturing.....	465	6.78	Manufacturing.....	165	5.53
Manufacturing.....	223	7.59	Nonmanufacturing.....	712	7.56			
Tool and die makers.....	557	9.39	Public utilities.....	42	9.15			
Manufacturing.....	557	9.39	Order fillers:					
Stationary engineers.....	267	8.80	Manufacturing.....	240	5.68			
Manufacturing.....	132	9.27	Shipping packers.....	210	5.48			
Nonmanufacturing.....	135	8.34	Manufacturing.....	160	5.69			
			Material handling laborers.....	1,467	5.42			
			Manufacturing.....	1,380	5.43			

See footnotes at end of tables.

Table A-7. Indexes of earnings and percent increases for selected occupational groups, Boston, Mass., selected periods

Period ^a	All industries					Manufacturing					Nonmanufacturing			
	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (August 1977 = 100):														
August 1979.....	114.4	115.2	118.3	115.5	115.7	114.7	116.2	117.8	115.9	115.5	114.2	114.8	(*)	116.0
August 1980.....	124.9	125.2	129.8	126.6	126.3	126.2	127.0	128.9	127.0	126.9	124.1	124.6	(*)	126.2
Percent increases:														
August 1972 to August 1973.....	5.5	(*)	6.2	6.6	6.1	5.9	(*)	6.8	6.4	6.3	5.2	(*)	5.1	5.4
August 1973 to August 1974.....	7.6	6.5	7.5	8.5	9.1	7.2	7.4	8.1	8.1	9.1	7.8	6.1	6.4	9.1
August 1974 to August 1975.....	8.1	6.3	9.2	7.9	8.2	7.7	7.7	9.9	7.6	8.4	8.3	5.5	7.8	8.2
August 1975 to August 1976.....	6.9	6.1	7.4	8.6	8.0	8.2	6.9	7.8	9.1	8.5	6.3	5.8	6.7	7.7
August 1976 to August 1977.....	6.4	5.8	5.9	7.3	6.5	7.1	5.9	6.3	6.6	7.4	6.1	5.8	(*)	6.0
August 1977 to August 1978.....	6.0	6.7	8.7	7.3	7.1	5.9	7.7	8.5	7.7	5.5	6.0	6.3	(*)	8.2
August 1978 to August 1979.....	7.9	8.0	8.8	7.6	8.0	8.3	7.9	8.6	7.6	9.5	7.7	8.0	(*)	7.2
August 1979 to August 1980.....	9.2	8.7	9.7	9.6	9.2	10.0	9.3	9.4	9.6	9.9	8.7	8.5	(*)	8.8

See footnotes at end of tables.

Table A-8. Average pay relationships within establishments for office clerical occupations, Boston, Mass., August 1980

Occupation which equals 100	Office clerical occupation being compared																							
	Secretaries					Stenographers		Transcribing-machine typists	Typists		File clerks			Messengers	Switchboard operators	Switchboard operator-receptionists	Order clerks		Accounting clerks		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	Class A
Secretaries, class A.....	100																							
Secretaries, class B.....	117	100																						
Secretaries, class C.....	134	117	100																					
Secretaries, class D.....	152	134	115	100																				
Secretaries, class E.....	167	149	128	112	100																			
Stenographers, senior.....	175	142	129	115	(*)	100																		
Stenographers, general.....	171	146	132	116	(*)	106	100																	
Transcribing-machine typists.....	144	119	115	97	(*)	(*)	(*)	100																
Typists, class A.....	163	145	132	117	123	105	102	104	100															
Typists, class B.....	182	160	148	133	134	120	115	108	118	100														
File clerks, class A.....	183	149	143	127	(*)	98	106	129	99	85	100													
File clerks, class B.....	202	170	152	133	130	(*)	109	122	118	105	115	100												
File clerks, class C.....	225	189	156	138	(*)	(*)	145	136	130	114	(*)	117	100											
Messengers.....	195	173	156	135	126	142	121	129	125	110	119	101	102	100										
Switchboard operators.....	158	139	121	110	98	100	98	109	97	90	91	82	80	80	100									
Switchboard operator-receptionists.....	163	137	128	114	99	103	101	109	111	97	97	91	86	86	104	100								
Order clerks, class A.....	(*)	(*)	97	96	(*)	(*)	(*)	(*)	94	70	(*)	(*)	(*)	(*)	81	100								
Order clerks, class B.....	183	142	123	112	101	(*)	(*)	(*)	125	97	(*)	87	(*)	87	110	105	131	100						
Accounting clerks, class A.....	138	120	111	101	98	94	86	98	89	82	87	76	71	73	89	86	95	78	100					
Accounting clerks, class B.....	166	140	128	114	114	102	99	113	105	95	100	89	78	89	101	100	143	103	119	100				
Payroll clerks.....	145	125	107	98	93	94	96	98	88	73	87	79	66	76	87	90	99	89	104	89	100			
Key entry operators, class A.....	147	134	117	103	102	99	95	107	89	94	93	85	74	80	97	93	101	89	105	90	105	100		
Key entry operators, class B.....	166	144	137	116	115	117	105	117	107	96	98	86	80	87	108	105	(*)	105	120	104	115	114	100	

NOTE: This matrix table shows the average (mean) relationship of earnings within establishments between any two occupations compared. Earnings for an occupation in the column heading are expressed as a percent of the earnings for an occupation in the table stub at the point where the data lines for the two intersect. 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.
See footnotes at end of tables.

Table A-9. Average pay relationships within establishments for professional and technical occupations, Boston, Mass., August 1980

Occupation which equals 100	Professional and technical occupation being compared																		
	Computer systems analysts (business)			Computer programmers (business)			Computer operators			Peripheral equipment operators	Computer data librarians	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	Tracers	Class A	Class B	Class C	
Computer systems analysts (business), class A	100																		
Computer systems analysts (business), class B	123	100																	
Computer systems analysts (business), class C	153	126	100																
Computer programmers (business), class A	122	110	71	100															
Computer programmers (business), class B	151	132	90	124	100														
Computer programmers (business), class C	180	162	(*)	154	120	100													
Computer operators, class A	143	120	89	127	103	86	100												
Computer operators, class B	183	155	118	157	131	110	129	100											
Computer operators, class C	234	198	159	201	162	131	156	127	100										
Peripheral equipment operators	(*)	(*)	(*)	181	149	129	161	142	(*)	100									
Computer data librarians	257	209	132	182	144	122	149	126	100	104	100								
Drafters, class A	119	104	(*)	99	87	73	85	71	58	58	(*)	100							
Drafters, class B	151	131	100	123	110	93	104	90	79	(*)	(*)	126	100						
Drafters, class C	214	184	132	164	155	127	138	115	96	(*)	110	164	128	100					
Drafter-tracers	266	216	(*)	(*)	186	139	175	140	109	(*)	(*)	204	171	124	100				
Electronics technicians, class A	129	105	75	110	92	74	90	71	59	67	64	108	83	65	(*)	100			
Electronics technicians, class B	155	125	89	127	108	85	109	88	61	72	70	128	102	78	66	124	100		
Electronics technicians, class C	200	159	(*)	160	139	114	142	111	75	(*)	(*)	147	116	87	73	143	117	100	
Registered industrial nurses	148	128	93	124	101	82	100	85	69	(*)	72	125	102	81	69	116	99	(*)	100

See table A-8 for description of these pay relationships and appendix A for method of computation. See footnotes at end of tables.

Table A-10. Average pay relationships within establishments for maintenance, toolroom, and powerplant occupations, Boston, Mass., August 1980

Occupation which equals 100	Maintenance, toolroom, and powerplant occupation being compared													
	Carpenters	Electricians	Painters	Machinists	Mechanics		Pipefitters	Sheet-metal workers	Millwrights	Trades helpers	Machine-tool operators (toolroom)	Tool and die makers	Stationary engineers	Boiler tenders
					Machinery	Motor vehicles								
Maintenance carpenters.....	100													
Maintenance electricians.....	95	100												
Maintenance painters.....	105	108	100											
Maintenance machinists.....	96	103	94	100										
Maintenance mechanics (machinery).....	102	106	97	103	100									
Maintenance mechanics (motor vehicles).....	100	106	100	(*)	101	100								
Maintenance pipefitters.....	97	101	94	99	96	96	100							
Maintenance sheet-metal workers.....	95	101	92	98	96	95	100	100						
Millwrights.....	99	108	95	104	(*)	90	100	(*)	100					
Maintenance trades helpers.....	138	147	119	140	(*)	(*)	146	146	(*)	100				
Machine-tool operators (toolroom).....	107	116	101	110	113	(*)	113	109	107	76	100			
Tool and die makers.....	89	95	88	92	88	(*)	94	94	92	69	84	100		
Stationary engineers.....	94	96	91	90	91	102	91	97	84	83	88	103	100	
Boiler tenders.....	103	110	101	105	107	108	105	111	101	(*)	104	(*)	120	100

See table A-8 for description of these pay relationships and appendix A for method of computation. See footnotes at end of tables.

Table A-11. Average pay relationships within establishments for material movement and custodial occupations, Boston, Mass., August 1980

Occupation which equals 100	Material movement and custodial occupation being compared														
	Truckdrivers				Shippers	Receivers	Shippers and receivers	Warehousemen	Order fillers	Shipping packers	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.....	(*)	100													
Truckdrivers, heavy truck.....	(*)	94	100												
Truckdrivers, tractor-trailer.....	(*)	(*)	95	100											
Shippers.....	(*)	102	104	(*)	100										
Receivers.....	91	(*)	(*)	(*)	101	100									
Shippers and receivers.....	108	99	116	102	100	90	100								
Warehousemen.....	(*)	110	(*)	114	101	102	100	100							
Order fillers.....	98	143	(*)	137	145	145	(*)	(*)	100						
Shipping packers.....	99	146	(*)	124	138	152	99	119	101	100					
Material handling laborers.....	111	128	(*)	155	121	117	102	114	99	95	100				
Forklift operators.....	(*)	103	(*)	(*)	106	97	101	99	78	85	86	100			
Guards, class A.....	(*)	90	(*)	(*)	(*)	(*)	98	100	(*)	84	(*)	105	100		
Guards, class B.....	99	125	(*)	(*)	126	118	104	104	104	96	100	118	(*)	100	
Janitors, porters, and cleaners.....	111	125	158	146	121	127	111	116	110	105	107	116	119	109	100

See table A-8 for description of these pay relationships and appendix A for method of computation. See footnotes at end of tables.

Table A-12. Weekly earnings of office workers—large establishments in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	120 and under 130	130-140	140-150	150-160	160-170	170-180	180-190	190-200	200-210	210-220	220-230	230-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-420	420 and over
						140	150	160	170	180	190	200	210	220	230	240	260	280	300	320	340	360	380	420	over	
Secretaries.....	6,841	38.5	252.00	245.00	212.00- 289.50	-	-	28	84	156	155	264	390	468	517	483	548	949	824	745	496	372	164	58	114	26
Manufacturing.....	3,463	39.5	266.00	262.00	229.00- 293.00	-	-	-	4	13	28	72	143	173	201	243	266	515	478	526	318	262	106	29	71	15
Nonmanufacturing.....	3,378	37.5	237.50	230.00	200.00- 268.00	-	-	28	80	143	127	192	247	295	316	240	282	434	346	219	178	110	58	29	43	11
Secretaries, class A.....	223	39.0	339.50	340.00	314.00- 368.50	-	-	-	-	-	-	-	-	2	-	-	2	7	13	19	22	45	47	17	32	17
Manufacturing.....	84	39.0	367.50	366.00	342.50- 385.00	-	-	-	-	-	-	-	-	-	-	-	-	2	5	-	10	21	12	23	* 11	
Nonmanufacturing.....	139	38.5	322.50	321.50	294.00- 345.00	-	-	-	-	-	-	-	2	-	-	2	7	11	14	22	35	26	5	9	6	
Secretaries, class B.....	1,028	38.5	301.50	306.50	273.00- 325.00	-	-	-	-	-	2	2	16	24	20	45	70	125	150	246	194	37	26	65	6	
Manufacturing.....	488	39.5	315.00	314.00	296.50- 325.00	-	-	-	-	-	-	-	-	3	5	7	13	55	47	147	136	16	15	43	1	
Nonmanufacturing.....	540	38.0	289.00	292.50	249.00- 315.00	-	-	-	-	-	2	2	16	21	15	38	57	70	103	99	58	21	11	22	5	
Secretaries, class C.....	2,429	38.5	263.50	261.00	235.00- 289.50	-	-	-	8	32	30	71	82	99	161	205	477	501	352	181	126	72	14	15	3	
Manufacturing.....	1,421	39.5	275.50	274.00	248.50- 298.00	-	-	-	-	-	-	7	19	35	78	109	275	291	261	155	115	66	2	5	3	
Nonmanufacturing.....	1,008	37.5	246.00	244.00	219.00- 270.50	-	-	-	8	32	30	64	63	64	83	96	202	210	91	26	11	6	12	10	-	
Secretaries, class D.....	2,557	38.5	224.00	220.00	199.50- 245.00	-	-	23	67	95	74	180	217	291	320	262	249	336	171	221	44	3	3	1	-	
Manufacturing.....	1,307	39.5	239.00	235.00	212.00- 266.00	-	-	-	2	8	60	96	126	135	148	148	221	130	213	16	1	3	-	-	-	
Nonmanufacturing.....	1,250	37.5	208.50	207.50	185.50- 227.50	-	-	23	67	93	66	120	121	165	185	114	101	115	41	8	28	2	-	1	-	
Secretaries, class E.....	289	38.5	189.50	193.00	171.50- 205.00	-	-	5	17	45	45	22	56	40	34	17	2	6	-	-	-	-	-	-	-	
Manufacturing.....	163	39.0	197.50	198.50	183.00- 212.00	-	-	-	4	11	20	12	40	28	28	12	2	6	-	-	-	-	-	-	-	
Stenographers.....	272	39.5	267.00	278.00	229.00- 282.00	-	-	-	1	3	5	16	11	11	6	16	10	23	39	94	1	1	18	9	7	1
Manufacturing.....	191	40.0	261.00	278.00	243.50- 282.00	-	-	-	2	3	9	6	7	4	11	4	16	34	91	-	1	3	-	-	-	
Nonmanufacturing.....	81	38.5	281.00	266.50	219.50- 344.50	-	-	1	1	2	7	5	4	2	5	6	7	5	3	1	-	15	9	7	1	
Public utilities.....	47	40.0	334.00	344.50	295.50- 370.50	-	-	-	-	-	-	-	-	-	-	3	-	5	3	3	1	-	15	9	7	1
Stenographers, senior.....	73	39.0	267.50	266.50	229.00- 299.00	-	-	-	1	2	7	7	1	-	2	3	9	7	20	1	1	3	6	3	-	
Stenographers, general.....	199	40.0	266.50	278.00	232.00- 282.00	-	-	-	1	2	3	9	4	10	6	14	7	14	32	74	-	-	15	3	4	1
Nonmanufacturing:.....	32	40.0	336.00	344.50	297.50- 352.50	-	-	-	-	-	-	-	-	-	-	1	-	2	3	3	-	-	15	3	4	1
Public utilities.....	32	40.0	336.00	344.50	297.50- 352.50	-	-	-	-	-	-	-	-	-	-	1	-	2	3	3	-	-	15	3	4	1
Transcribing-machine typists.....	134	37.0	190.50	190.00	165.00- 205.00	-	-	-	10	28	12	16	29	13	2	12	4	4	4	-	-	-	-	-	-	
Nonmanufacturing.....	121	37.0	190.50	186.50	164.00- 209.00	-	-	-	10	28	12	13	19	13	2	12	4	4	4	-	-	-	-	-	-	
Typists.....	1,573	38.0	188.00	178.50	162.00- 204.00	2	34	96	151	250	292	143	123	142	99	59	47	46	67	6	-	10	1	1	4	
Manufacturing.....	422	40.0	199.50	194.00	175.00- 216.50	-	-	17	8	30	80	56	31	32	77	25	10	28	23	4	-	-	1	-	-	
Nonmanufacturing.....	1,151	37.5	183.50	175.00	160.00- 200.00	2	34	79	143	220	212	87	92	110	22	34	37	18	44	2	-	10	-	1	4	
Typists, class A.....	581	39.0	203.00	194.00	175.00- 214.00	-	6	16	13	37	108	60	85	64	67	31	13	29	30	6	-	10	1	1	4	
Manufacturing.....	263	40.0	211.50	210.00	188.50- 221.50	-	-	-	6	25	37	27	30	61	23	8	23	18	4	-	-	1	-	-	-	
Nonmanufacturing.....	318	38.0	195.50	186.50	170.00- 200.00	-	6	16	13	31	83	23	58	34	6	8	5	6	12	2	-	10	-	1	4	
Typists, class B.....	992	37.5	179.50	170.00	160.00- 197.00	2	28	80	138	213	184	83	38	78	32	28	34	17	37	-	-	-	-	-	-	
Manufacturing.....	159	40.0	180.00	175.00	165.00- 180.00	-	-	17	8	24	55	19	4	2	16	2	2	5	5	-	-	-	-	-	-	
Nonmanufacturing.....	833	37.0	179.00	170.00	159.00- 199.00	2	28	63	130	189	129	64	34	76	16	26	32	12	32	-	-	-	-	-	-	
File clerks.....	697	37.5	161.00	155.00	139.00- 179.50	54	155	91	82	92	59	58	50	20	15	8	1	4	6	1	-	-	-	1	-	
Manufacturing.....	53	39.5	187.00	181.00	162.00- 192.00	-	-	-	1	21	2	6	16	-	2	-	-	-	5	-	-	-	-	-	-	
Nonmanufacturing.....	644	37.0	158.50	152.50	137.50- 175.00	54	155	91	81	71	57	52	34	20	13	8	1	4	1	1	-	-	-	1	-	
File clerks, class A.....	121	37.5	173.50	161.00	145.50- 190.00	-	10	29	17	18	9	7	8	4	7	4	1	4	1	1	-	-	-	-	1	
Nonmanufacturing.....	110	37.5	173.50	160.00	145.50- 190.00	-	10	29	16	12	8	7	5	4	7	4	1	4	1	1	-	-	-	-	1	
File clerks, class B.....	340	37.0	163.50	158.50	139.00- 182.00	22	78	16	54	43	28	44	27	13	6	4	-	-	5	-	-	-	-	-	-	
Nonmanufacturing.....	316	36.5	160.00	156.50	139.00- 179.00	22	78	16	54	42	27	42	14	13	4	4	-	-	-	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-12. Weekly earnings of office workers—large establishments in Boston, Mass., August 1980 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																					
			Mean ²	Median ²	Middle range ²	120 and under 130	130-140	140-150	150-160	160-170	170-180	180-190	190-200	200-210	210-220	220-230	230-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-420	420 and over	
File clerks, class C.....	236	38.0	151.00	144.50	133.50- 162.00	32	67	46	11	31	22	7	15	3	2	-	-	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	218	37.5	149.50	142.00	133.50- 160.50	32	67	46	11	17	22	3	15	3	2	-	-	-	-	-	-	-	-	-	-	-	-
Messengers.....	358	38.0	159.50	151.00	139.00- 172.50	41	52	76	46	49	43	5	9	5	15	1	3	-	13	-	-	-	-	-	-	-	-
Manufacturing.....	94	38.5	183.00	169.50	149.00- 213.00	4	9	16	3	17	12	3	2	1	11	-	3	-	13	-	-	-	-	-	-	-	-
Nonmanufacturing.....	264	37.5	151.50	148.50	135.00- 165.00	37	43	60	43	32	31	2	7	4	4	1	-	-	-	-	-	-	-	-	-	-	-
Switchboard operators.....	352	38.5	217.00	208.50	173.00- 251.00	-	-	6	21	52	25	14	32	32	26	12	27	24	47	14	8	4	7	1	-	-	
Manufacturing.....	137	39.5	226.50	214.50	198.00- 246.00	-	-	-	1	3	13	4	17	21	16	4	13	19	6	13	3	4	-	-	-	-	-
Nonmanufacturing.....	215	38.0	211.00	197.00	164.00- 263.50	-	-	6	20	49	12	10	15	11	10	8	14	5	41	1	5	-	7	1	-	-	
Public utilities.....	54	39.0	287.50	277.50	270.50- 293.00	-	-	-	-	-	-	-	-	1	-	-	-	-	39	1	5	-	7	1	-	-	
Switchboard operator-receptionists.....	67	39.0	194.00	192.00	172.00- 210.00	-	4	-	4	6	7	12	7	8	6	4	2	5	1	1	-	-	-	-	-	-	
Order clerks.....	150	39.0	200.50	198.00	184.00- 223.00	-	4	3	12	4	12	19	33	16	8	14	4	9	11	1	-	-	-	-	-	-	-
Manufacturing.....	143	39.0	201.00	198.00	184.00- 224.50	-	4	3	12	3	11	19	33	11	8	14	4	9	11	1	-	-	-	-	-	-	-
Order clerks, class B.....	123	39.0	192.50	193.00	177.00- 206.50	-	4	3	12	4	12	17	28	13	8	14	2	6	-	-	-	-	-	-	-	-	-
Manufacturing.....	116	39.0	192.50	192.50	177.00- 210.50	-	4	3	12	3	11	17	28	8	8	14	2	6	-	-	-	-	-	-	-	-	-
Accounting clerks.....	2,332	38.0	229.00	210.00	176.50- 285.50	15	60	70	184	108	188	207	180	154	101	61	39	94	245	428	43	37	22	19	73	4	
Manufacturing.....	729	39.0	214.50	198.00	175.00- 244.00	12	40	20	29	24	73	88	94	66	39	29	18	41	35	45	19	21	18	12	6	-	
Nonmanufacturing.....	1,603	37.5	235.50	224.50	177.00- 292.00	3	20	50	155	84	115	119	86	88	62	32	21	53	210	383	24	16	4	7	67	4	
Accounting clerks, class A.....	1,175	38.5	258.00	275.00	199.50- 292.00	-	-	1	15	20	83	94	85	79	56	46	22	68	28	402	25	36	21	18	72	4	
Manufacturing.....	345	39.5	243.50	220.00	190.00- 291.50	-	-	-	-	-	23	39	48	38	22	24	7	26	18	28	17	21	18	11	5	-	
Nonmanufacturing.....	830	38.0	264.00	285.50	202.00- 292.00	-	-	1	15	20	60	55	37	41	34	22	15	42	10	374	8	15	3	7	67	4	
Accounting clerks, class B.....	1,157	38.0	199.50	185.00	158.00- 241.00	15	60	69	169	88	105	113	95	75	45	15	17	26	217	26	18	1	1	1	1	-	
Manufacturing.....	384	39.0	188.50	183.50	158.00- 208.00	12	40	20	29	24	50	49	46	28	17	5	11	15	17	17	2	-	-	1	1	-	
Nonmanufacturing.....	773	37.5	205.00	186.50	157.50- 270.50	3	20	49	140	64	55	64	49	47	28	10	6	11	200	9	16	1	1	-	-	-	
Payroll clerks.....	217	38.5	226.50	220.00	191.50- 251.00	1	9	2	1	6	21	7	19	24	11	13	24	31	13	17	6	5	3	4	-	-	
Manufacturing.....	128	39.0	232.00	234.50	205.00- 266.00	-	8	-	-	1	5	2	11	20	3	5	17	20	13	17	3	1	2	-	-	-	
Nonmanufacturing.....	89	38.0	218.50	212.00	176.50- 240.00	1	1	2	1	5	16	5	8	4	8	7	11	-	-	3	4	1	4	-	-	-	
Key entry operators.....	960	38.5	218.00	212.00	181.00- 246.50	-	13	27	79	44	61	81	80	64	106	70	53	66	104	65	18	6	-	20	1	2	
Manufacturing.....	403	39.5	223.50	218.00	187.00- 255.50	-	4	8	18	7	32	35	39	23	50	21	30	39	21	63	6	2	-	2	1	2	
Nonmanufacturing.....	557	38.0	214.50	209.50	174.50- 244.00	-	9	19	61	37	29	46	41	41	56	49	23	27	83	2	12	4	-	18	-	-	
Public utilities.....	134	39.0	287.50	277.00	277.00- 297.50	-	-	-	-	-	-	-	-	-	-	-	4	5	8	82	1	12	4	-	18	-	
Key entry operators, class A.....	689	38.5	226.50	217.00	190.50- 259.50	-	-	8	27	26	32	63	60	52	97	53	45	54	79	59	7	6	-	19	-	2	
Manufacturing.....	316	39.5	231.50	221.50	198.50- 260.00	-	-	-	1	5	13	30	35	19	45	21	29	37	13	57	6	2	-	1	-	2	
Nonmanufacturing.....	373	37.5	222.50	211.50	185.00- 246.00	-	-	8	26	21	19	33	25	33	52	32	16	17	66	2	1	4	-	18	-	-	
Key entry operators, class B.....	271	39.0	197.50	181.50	158.00- 226.50	-	13	19	52	18	29	18	20	12	9	17	8	12	25	6	11	-	-	1	1	-	
Manufacturing.....	87	39.5	194.50	175.00	158.00- 212.50	-	4	8	17	2	19	5	4	4	5	-	1	2	8	6	-	-	-	1	1	-	
Nonmanufacturing.....	184	38.5	198.50	186.00	157.00- 228.50	-	9	11	35	16	10	13	16	8	4	17	7	10	17	-	11	-	-	-	-	-	
Public utilities.....	45	40.0	268.00	279.50	247.50- 279.50	-	-	-	-	-	-	-	-	-	-	-	4	5	8	17	-	11	-	-	-	-	

* Workers were distributed as follows: 10 at \$420.00 to \$460.00; and 1 at \$540.00 to \$580.00. See footnotes at end of tables.

Table A-13. Weekly earnings of professional and technical workers—large establishments in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	130 and under 150	150 - 170	170 - 190	190 - 210	210 - 230	230 - 250	250 - 270	270 - 290	290 - 310	310 - 330	330 - 350	350 - 370	370 - 390	390 - 410	410 - 430	430 - 450	450 - 470	470 - 490	490 - 530	530 - 570	570 and over
Computer systems analysts (business).....	1,160	38.0	416.50	422.00	356.00- 478.50	-	-	-	-	14	8	43	63	36	37	57	75	91	84	124	108	88	90	132	78	32
Manufacturing.....	363	39.5	425.00	422.50	381.50- 477.50	-	-	-	-	-	-	11	15	6	7	23	25	37	21	43	36	38	26	36	32	7
Nonmanufacturing.....	797	37.5	413.00	420.50	350.50- 480.00	-	-	-	-	14	8	32	48	30	30	34	50	54	63	81	72	50	64	96	46	25
Computer systems analysts (business), class A.....	455	38.5	478.00	475.00	431.50- 522.50	-	-	-	-	-	-	-	-	-	1	8	11	15	23	47	53	51	59	86	69	32
Manufacturing.....	188	39.5	472.00	467.50	430.00- 517.50	-	-	-	-	-	-	-	-	-	-	6	9	7	9	14	19	32	21	33	31	7
Nonmanufacturing.....	267	37.5	482.00	481.00	432.00- 525.50	-	-	-	-	-	-	-	-	-	1	2	2	8	14	33	34	19	38	53	38	25
Computer systems analysts (business), class B.....	501	38.0	412.00	412.00	374.00- 447.50	-	-	-	-	-	-	9	9	17	30	57	69	56	76	55	37	31	46	9	-	-
Manufacturing.....	124	40.0	400.00	393.50	377.00- 434.00	-	-	-	-	-	-	4	1	1	11	14	25	8	28	17	6	5	3	1	-	-
Nonmanufacturing.....	377	37.5	416.00	413.00	374.00- 461.00	-	-	-	-	-	-	5	8	16	19	43	44	48	48	38	31	26	43	8	-	-
Computer systems analysts (business), class C.....	204	37.5	291.50	283.50	260.50- 317.50	-	-	-	-	14	8	43	54	27	19	19	7	7	5	1	-	-	-	-	-	-
Manufacturing.....	51	39.5	313.00	308.00	270.50- 342.00	-	-	-	-	-	-	11	11	5	6	6	2	5	4	1	-	-	-	-	-	-
Nonmanufacturing.....	153	37.0	284.50	280.00	254.50- 305.00	-	-	-	-	14	8	32	43	22	13	13	5	2	1	-	-	-	-	-	-	-
Computer programmers (business).....	1,267	38.0	329.50	323.00	274.50- 376.00	-	-	-	6	74	122	96	126	111	139	138	113	95	70	47	48	39	17	19	4	3
Manufacturing.....	323	39.5	383.00	378.50	336.50- 431.50	-	-	-	-	-	4	3	20	12	30	37	45	38	29	21	28	26	11	16	2	1
Nonmanufacturing.....	944	37.5	311.50	306.50	259.00- 352.00	-	-	-	6	74	118	93	106	99	109	101	68	57	41	26	20	13	6	3	2	2
Computer programmers (business), class A.....	375	38.5	400.50	400.50	355.00- 435.50	-	-	-	-	-	-	-	-	1	23	65	33	46	57	43	42	29	14	15	4	3
Manufacturing.....	140	40.0	428.50	431.50	393.50- 460.00	-	-	-	-	-	-	-	-	-	1	8	11	11	19	19	24	22	10	12	2	1
Nonmanufacturing.....	235	37.5	384.00	379.50	344.00- 411.00	-	-	-	-	-	-	-	-	1	22	57	22	35	38	24	18	7	4	3	2	2
Computer programmers (business), class B.....	533	38.0	325.50	319.50	282.00- 357.00	-	-	-	-	1	68	89	61	82	66	78	48	13	4	6	10	3	4	-	-	-
Manufacturing.....	150	39.5	359.50	355.50	326.00- 382.00	-	-	-	-	-	-	7	9	24	27	32	26	10	2	4	4	1	4	-	-	-
Nonmanufacturing.....	383	37.5	312.50	306.00	275.50- 345.50	-	-	-	-	1	68	82	52	58	39	46	22	3	2	2	6	2	-	-	-	-
Computer programmers (business), class C.....	359	37.5	261.00	246.00	234.00- 293.00	-	-	-	6	74	121	28	37	49	34	7	2	1	-	-	-	-	-	-	-	-
Nonmanufacturing.....	326	37.0	258.00	245.00	231.50- 288.00	-	-	-	6	74	117	25	24	46	29	5	-	-	-	-	-	-	-	-	-	-
Computer operators.....	931	38.5	260.00	253.00	217.00- 298.50	15	23	80	85	132	118	95	113	97	28	58	41	28	5	-	7	2	-	4	-	-
Manufacturing.....	398	39.5	275.00	267.00	226.00- 318.50	-	-	34	28	51	49	41	43	16	30	29	26	3	-	1	-	-	4	-	-	-
Nonmanufacturing.....	533	38.0	248.50	242.50	204.50- 282.00	15	23	46	57	81	69	54	70	54	12	28	12	2	2	-	6	2	-	-	-	-
Computer operators, class A.....	238	39.0	324.50	331.00	290.00- 355.00	-	-	-	-	1	5	20	32	36	21	51	41	24	4	-	1	2	-	-	-	-
Manufacturing.....	121	40.0	337.50	340.00	307.50- 368.00	-	-	-	-	-	-	10	10	11	11	25	29	22	2	-	1	-	-	-	-	-
Nonmanufacturing.....	117	38.0	311.50	307.00	285.00- 336.00	-	-	-	-	1	5	10	22	25	10	26	12	2	2	-	2	-	-	-	-	-
Computer operators, class B.....	449	38.0	257.00	252.00	225.00- 280.00	-	-	17	43	72	87	68	75	58	7	7	-	4	1	-	6	-	-	4	-	-
Manufacturing.....	188	39.0	262.00	257.00	228.50- 290.00	-	-	8	18	25	34	28	27	29	5	5	-	4	1	-	-	-	-	4	-	-
Nonmanufacturing.....	261	37.5	253.00	249.50	222.50- 275.00	-	-	9	25	47	53	40	48	29	2	2	-	-	-	-	6	-	-	-	-	-
Computer operators, class C.....	244	39.0	202.00	201.50	178.00- 226.00	15	23	63	42	59	26	7	6	3	-	-	-	-	-	-	-	-	-	-	-	-
Manufacturing.....	89	40.0	218.00	220.00	184.00- 236.50	-	-	26	10	26	15	3	6	3	-	-	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing.....	155	38.0	192.50	192.00	172.50- 215.00	15	23	37	32	33	11	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drafters.....	1,556	39.5	327.00	330.00	268.00- 381.50	-	48	33	52	95	60	109	89	156	152	108	180	111	103	76	63	72	40	9	-	-
Manufacturing.....	1,079	40.0	346.50	350.50	296.50- 405.00	-	-	9	40	42	30	65	48	120	105	64	140	93	77	71	63	63	40	9	-	-
Nonmanufacturing.....	477	39.0	282.50	279.50	220.00- 341.50	-	48	24	12	53	30	44	41	36	47	44	40	18	26	5	-	9	-	-	-	-
Public utilities.....	44	40.0	395.00	402.50	369.00- 402.50	-	-	-	-	-	-	-	-	-	-	5	11	-	20	1	-	7	-	-	-	-

See footnotes at end of tables.

Table A-13. Weekly earnings of professional and technical workers—large establishments in Boston, Mass., August 1980 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	130 and under 150	150-170	170-190	190-210	210-230	230-250	250-270	270-290	290-310	310-330	330-350	350-370	370-390	390-410	410-430	430-450	450-470	470-490	490-530	530-570	570 and over
Drafters, class A.....	668	40.0	385.50	381.00	341.50- 433.00	-	-	-	-	-	-	8	15	44	62	69	78	83	69	59	60	72	40	9	-	-
Manufacturing.....	477	40.0	405.00	408.50	366.00- 447.00	-	-	-	-	-	-	-	1	15	19	36	51	65	63	55	60	63	40	9	-	-
Nonmanufacturing.....	191	39.5	337.00	331.00	304.00- 365.50	-	-	-	-	-	-	8	14	29	43	33	27	18	6	4	-	9	-	-	-	-
Drafters, class B.....	510	40.0	324.50	320.50	284.50- 368.00	-	-	-	5	21	59	51	70	86	34	102	28	34	17	3	-	-	-	-	-	-
Manufacturing.....	376	40.0	332.00	330.00	302.00- 368.00	-	-	-	-	4	30	24	63	82	23	89	28	14	16	3	-	-	-	-	-	-
Nonmanufacturing.....	134	39.5	302.50	278.50	256.00- 352.50	-	-	-	5	17	29	27	7	4	11	13	-	20	1	-	-	-	-	-	-	
Public utilities.....	37	40.0	384.50	402.50	369.00- 402.50	-	-	-	-	-	-	-	-	-	5	11	-	20	1	-	-	-	-	-	-	
Drafters, class C.....	303	39.5	236.00	227.00	211.00- 267.50	-	16	29	30	83	37	34	23	42	4	5	-	-	-	-	-	-	-	-	-	-
Manufacturing.....	187	40.0	254.50	250.00	223.50- 292.00	-	-	9	18	35	24	27	23	42	4	5	-	-	-	-	-	-	-	-	-	
Nonmanufacturing.....	116	38.5	206.50	214.50	181.50- 222.50	-	16	20	12	48	13	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drafter-tracers.....	75	38.0	190.50	192.00	163.50- 204.00	-	32	4	22	7	2	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Electronics technicians.....	1,648	40.0	310.50	297.00	268.00- 351.50	-	-	-	20	38	203	174	287	218	159	104	139	92	111	91	9	-	-	3	-	
Manufacturing.....	1,491	40.0	303.50	292.00	263.00- 345.50	-	-	-	20	36	197	168	280	212	149	96	130	91	69	39	4	-	-	-	-	
Nonmanufacturing.....	157	40.0	378.00	399.00	340.00- 426.00	-	-	-	-	2	6	6	7	6	10	8	9	1	42	52	5	-	-	3	-	
Electronics technicians, class A.....	496	40.0	368.00	371.00	336.00- 399.00	-	-	-	-	-	6	12	27	70	73	55	89	65	87	9	-	-	3	-	-	
Manufacturing.....	424	40.0	359.50	364.00	325.50- 389.00	-	-	-	-	-	6	12	27	66	69	51	89	65	35	4	-	-	-	-	-	
Electronics technicians, class B.....	451	40.0	315.00	309.00	285.00- 351.50	-	-	-	10	27	34	79	77	65	22	84	3	46	4	-	-	-	-	-	-	
Manufacturing.....	378	40.0	305.50	304.50	280.00- 337.00	-	-	-	10	27	32	72	71	59	18	79	2	4	4	-	-	-	-	-	-	
Nonmanufacturing.....	73	39.5	363.50	399.00	326.50- 399.00	-	-	-	-	-	2	7	6	6	4	5	1	42	-	-	-	-	-	-	-	
Registered industrial nurses.....	137	39.0	324.50	328.00	300.00- 350.00	-	-	-	4	-	4	5	14	26	21	25	23	9	1	1	2	2	-	-	-	
Manufacturing.....	98	39.5	322.00	326.50	298.50- 345.50	-	-	-	4	-	3	4	9	18	19	21	10	4	1	1	2	2	-	-	-	

See footnotes at end of tables.

Table A-14. Average weekly earnings of office, professional, and technical workers, by sex—large establishments in Boston, Mass., August 1980

Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)	
		Weekly hours ^c (stand-ard)	Weekly earnings (in dollars) ^d			Weekly hours ^c (stand-ard)	Weekly earnings (in dollars) ^d			Weekly hours ^c (stand-ard)	Weekly earnings (in dollars) ^d
Office occupations - men				Typists, class B	980	37.5	179.00	Professional and technical occupations - men			
File clerks	53	38.0	171.00	Manufacturing	159	40.0	180.00	Computer systems analysts (business)	778	38.0	436.50
Nonmanufacturing	50	38.0	171.50	Nonmanufacturing	821	37.0	179.00	Manufacturing	274	39.5	440.50
Messengers	226	38.0	159.00	File clerks	642	37.5	160.00	Nonmanufacturing	504	37.5	434.50
Manufacturing	64	38.0	173.50	Manufacturing	50	39.5	188.50	Computer systems analysts (business), class A	353	38.5	486.00
Nonmanufacturing	162	38.0	153.00	Nonmanufacturing	592	37.0	157.50	Manufacturing	152	39.5	481.50
Accounting clerks:				File clerks, class A	106	37.5	174.50	Nonmanufacturing	201	37.5	489.00
Manufacturing	71	39.5	248.00	Nonmanufacturing	98	37.5	174.00	Computer systems analysts (business), class B	346	38.0	417.50
Accounting clerks, class A:				File clerks, class B	324	37.0	163.00	Manufacturing	99	39.5	402.50
Manufacturing	51	39.5	269.00	Nonmanufacturing	300	36.5	159.50	Nonmanufacturing	247	37.5	423.50
Office occupations - women				File clerks, class C	212	37.5	148.00	Computer systems analysts (business), class C	79	37.5	301.50
Secretaries	6,781	38.5	252.00	Nonmanufacturing	194	37.5	146.00	Computer systems analysts (business), class C	800	38.0	336.00
Manufacturing	3,461	39.5	266.00	Messengers	132	37.5	161.00	Manufacturing	231	39.5	385.00
Nonmanufacturing	3,320	37.5	237.00	Nonmanufacturing	102	37.5	149.00	Nonmanufacturing	569	37.5	316.00
Secretaries, class A	222	39.0	339.00	Switchboard operators	341	38.5	217.00	Computer programmers (business)	258	38.5	404.00
Manufacturing	84	39.0	367.50	Manufacturing	137	39.5	226.50	Manufacturing	105	40.0	429.00
Nonmanufacturing	138	38.5	322.00	Nonmanufacturing	204	38.0	211.00	Nonmanufacturing	153	37.5	387.00
Secretaries, class B	1,026	38.5	301.00	Public utilities	54	39.0	287.50	Computer programmers (business), class A	258	38.5	404.00
Manufacturing	487	39.5	315.00	Switchboard operator-receptionists	62	39.0	195.50	Manufacturing	105	40.0	429.00
Nonmanufacturing	539	38.0	288.50	Order clerks	148	39.0	200.00	Nonmanufacturing	153	37.5	387.00
Secretaries, class C	2,428	38.5	263.50	Manufacturing	141	39.0	200.50	Computer programmers (business), class B	335	38.0	330.00
Manufacturing	1,421	39.5	275.50	Order clerks, class B	121	39.0	191.50	Manufacturing	99	39.5	363.00
Nonmanufacturing	1,007	37.5	246.00	Manufacturing	114	39.0	191.50	Nonmanufacturing	236	37.5	316.50
Secretaries, class D	2,553	38.5	224.00	Accounting clerks	2,052	38.0	226.50	Computer programmers (business), class C	207	37.5	261.00
Manufacturing	1,306	39.5	239.00	Manufacturing	658	39.0	211.00	Nonmanufacturing	180	37.0	256.00
Nonmanufacturing	1,247	37.5	208.50	Nonmanufacturing	1,394	37.5	234.00	Computer operators	665	38.5	262.50
Secretaries, class E	288	38.5	189.50	Accounting clerks, class A	992	38.0	254.50	Manufacturing	275	39.5	283.00
Manufacturing	163	39.0	197.50	Manufacturing	294	39.0	239.00	Nonmanufacturing	390	37.5	248.50
Stenographers	263	39.5	266.00	Nonmanufacturing	698	37.5	260.50	Computer operators, class A	184	39.0	328.50
Manufacturing	191	40.0	261.00	Accounting clerks, class B	1,060	38.0	200.50	Manufacturing	89	40.0	350.00
Nonmanufacturing	72	38.5	280.50	Manufacturing	364	39.0	188.00	Nonmanufacturing	95	38.0	308.00
Public utilities	42	40.0	333.00	Nonmanufacturing	696	37.5	207.50	Computer operators, class B	328	38.0	254.50
Stenographers, senior	73	39.0	267.50	Payroll clerks	195	38.5	224.00	Manufacturing	134	39.0	263.50
Stenographers, general	190	40.0	266.00	Manufacturing	120	39.0	230.00	Nonmanufacturing	194	37.0	248.50
Nonmanufacturing:				Nonmanufacturing	75	37.5	214.50	Computer operators, class C	153	38.5	201.50
Public utilities	27	40.0	334.50	Key entry operators	864	38.5	219.00	Manufacturing	52	40.0	218.00
Transcribing-machine typists	134	37.0	190.50	Manufacturing	397	39.5	224.00	Nonmanufacturing	101	38.0	192.50
Nonmanufacturing	121	37.0	190.50	Nonmanufacturing	467	37.5	214.50	Drafters	1,374	40.0	337.50
Typists	1,534	38.0	187.00	Public utilities	134	39.0	287.50	Manufacturing	980	40.0	354.00
Manufacturing	418	40.0	199.50	Key entry operators, class A	624	38.5	227.00	Nonmanufacturing	394	39.5	297.00
Nonmanufacturing	1,116	37.5	182.50	Manufacturing	316	39.5	231.50	Public utilities	44	40.0	395.00
Typists, class A	554	38.5	201.50	Nonmanufacturing	308	37.5	222.50	Drafters, class A	650	40.0	387.50
Manufacturing	259	40.0	211.50	Key entry operators, class B	240	39.0	198.00	Manufacturing	474	40.0	405.00
Nonmanufacturing	295	37.5	192.50	Manufacturing	81	39.5	196.00	Nonmanufacturing	176	39.5	339.50
				Nonmanufacturing	159	38.5	199.00				
				Public utilities	45	40.0	268.00				

See footnotes at end of tables.

Table A-14. Average weekly earnings of office, professional, and technical workers, by sex—large establishments in Boston, Mass., August 1980 —Continued

Sex, ² occupation, and industry division	Number of workers	Average (mean ²)		Sex, ² occupation, and industry division	Number of workers	Average (mean ²)		Sex, ² occupation, and industry division	Number of workers	Average (mean ²)	
		Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹
Drafters, class B	458	40.0	326.00	Computer systems analysts (business), class A	102	38.0	450.50	Computer programmers (business), class C	152	37.0	261.50
Manufacturing	336	40.0	333.00	Nonmanufacturing	66	37.0	460.50	Nonmanufacturing	146	37.0	260.00
Nonmanufacturing	122	39.5	307.00	Computer systems analysts (business), class B	135	38.0	398.50	Computer operators	224	39.0	246.00
Public utilities	37	40.0	384.50	Nonmanufacturing	110	37.5	400.50	Manufacturing	123	39.5	257.50
Drafters, class C	227	39.5	241.50	Computer systems analysts (business), class C	125	37.5	285.00	Computer operators, class B: Manufacturing	54	39.5	258.00
Manufacturing	143	40.0	257.50	Nonmanufacturing	97	37.0	282.00	Computer operators, class C	81	39.0	201.50
Nonmanufacturing	84	39.0	214.00	Computer programmers (business)	467	37.5	318.50	Drafters	182	39.0	246.50
Electronics technicians	1,507	40.0	314.50	Manufacturing	92	39.5	377.50	Manufacturing	99	40.0	275.50
Manufacturing	1,360	40.0	307.00	Nonmanufacturing	375	37.0	304.00	Drafters, class B	52	40.0	308.50
Electronics technicians, class A	479	40.0	369.00	Computer programmers (business), class A	117	38.5	393.50	Drafters, class C	76	38.5	221.00
Manufacturing	411	40.0	360.50	Nonmanufacturing	82	37.5	379.00	Electronics technicians	141	40.0	267.00
Electronics technicians, class B	417	40.0	318.50	Computer programmers (business), class B	198	38.0	318.50	Manufacturing	131	40.0	266.00
Manufacturing	344	40.0	308.50	Manufacturing	51	39.5	353.00	Electronics technicians, class C	58	40.0	254.50
Nonmanufacturing	73	39.5	363.50	Nonmanufacturing	147	37.0	306.00	Registered industrial nurses	134	39.0	324.50
Professional and technical occupations - women								Manufacturing	97	39.5	321.50
Computer systems analysts (business)	362	38.0	374.00								
Manufacturing	89	39.5	377.00								
Nonmanufacturing	273	37.5	373.00								

See footnotes at end of tables.

Table A-15. Hourly earnings of maintenance, toolroom, and powerplant workers—large establishments in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Hourly earnings (in dollars) ^a			Number of workers receiving straight-time hourly earnings (in dollars) of —																						
		Mean ²	Median ²	Middle range ²	Under 5.50	5.50 and under 5.80	5.80 - 6.10	6.10 - 6.40	6.40 - 6.70	6.70 - 7.00	7.00 - 7.30	7.30 - 7.60	7.60 - 7.90	7.90 - 8.20	8.20 - 8.50	8.50 - 8.80	8.80 - 9.20	9.20 - 9.60	9.60 - 10.00	10.00 - 10.40	10.40 - 10.80	10.80 - 11.20	11.20 - 11.60	11.60 - 12.00	12.00 - 12.60	12.60 - 13.20	13.20 - 13.80
Maintenance carpenters.....	274	8.39	8.28	8.02- 8.74	-	-	6	12	2	7	10	5	9	34	114	9	18	11	23	3	1	-	3	7	-	-	-
Manufacturing	202	8.42	8.28	8.07- 8.49	-	-	-	6	-	7	7	-	7	32	101	2	7	8	19	-	-	-	-	6	-	-	-
Nonmanufacturing	72	8.30	8.28	7.39- 9.10	-	-	6	6	2	-	3	5	2	2	13	7	11	3	4	3	1	-	3	1	-	-	-
Maintenance electricians.....	721	9.26	9.08	8.47- 9.64	-	-	-	-	-	7	7	17	24	77	56	17	172	158	60	23	-	35	14	29	-	25	-
Manufacturing	595	9.16	9.08	8.47- 9.35	-	-	-	-	-	6	5	14	18	71	45	15	158	135	50	-	-	35	14	29	-	-	-
Nonmanufacturing	126	9.76	9.21	8.83-10.04	-	-	-	-	-	1	2	3	6	6	11	2	14	23	10	23	-	-	-	-	-	25	-
Maintenance painters.....	150	8.39	8.07	7.89- 9.22	-	-	-	-	2	1	6	6	9	37	18	25	5	3	20	-	12	-	6	-	-	-	-
Manufacturing	107	8.21	7.91	7.89- 8.23	-	-	-	-	-	4	4	9	36	14	23	-	3	8	-	-	-	6	-	-	-	-	-
Maintenance machinists.....	500	8.87	8.80	8.58- 9.00	-	-	-	-	2	-	4	2	12	49	51	89	222	7	22	14	26	-	-	-	-	-	-
Manufacturing	500	8.87	8.80	8.58- 9.00	-	-	-	-	2	-	4	2	12	49	51	89	222	7	22	14	26	-	-	-	-	-	-
Maintenance mechanics (machinery).....	926	8.70	8.96	7.83- 9.35	-	4	4	19	1	21	23	61	124	98	74	25	92	162	109	103	-	-	-	-	6	-	-
Manufacturing	805	8.67	8.75	7.83- 9.35	-	-	-	3	1	21	23	61	124	94	72	8	84	146	89	79	-	-	-	-	-	-	-
Nonmanufacturing	121	8.86	9.21	8.52- 9.87	-	4	4	16	-	-	-	-	-	4	2	17	8	16	20	24	-	-	-	-	6	-	-
Maintenance mechanics (motor vehicles).....	280	9.97	8.88	8.73-12.01	-	-	2	-	-	-	-	-	4	25	5	95	13	12	31	-	-	13	-	9	40	10	21
Manufacturing	77	8.69	8.50	8.07- 8.50	-	-	-	-	-	-	-	-	4	24	4	36	-	-	-	-	-	-	-	9	-	-	-
Nonmanufacturing	203	10.46	9.87	8.73-12.01	-	-	2	-	-	-	-	-	-	1	1	59	13	12	31	-	-	13	-	-	40	10	21
Public utilities	190	10.41	9.87	8.73-12.23	-	-	2	-	-	-	-	-	-	1	1	59	13	12	31	-	-	-	-	-	40	10	21
Maintenance pipefitters.....	322	9.33	9.24	8.28- 9.80	-	-	-	-	-	-	2	6	13	33	40	11	20	96	21	44	-	-	-	33	-	-	3
Manufacturing	310	9.32	9.24	8.28- 9.80	-	-	-	-	-	-	2	6	13	33	40	9	16	96	21	38	-	-	-	33	-	-	3
Maintenance sheet-metal workers.....	89	8.99	9.17	8.68- 9.24	-	-	-	-	-	-	-	-	3	12	4	12	22	27	4	4	-	-	-	-	1	-	-
Manufacturing	71	8.97	9.24	8.49- 9.24	-	-	-	-	-	-	-	-	3	12	4	9	7	27	4	4	-	-	-	-	1	-	-
Millwrights.....	114	8.11	8.28	8.03- 8.28	-	-	-	-	2	4	8	-	4	18	69	-	7	2	-	-	-	-	-	-	-	-	-
Manufacturing	112	8.10	8.28	8.02- 8.28	-	-	-	-	2	4	8	-	4	18	67	-	7	2	-	-	-	-	-	-	-	-	-
Maintenance trades helpers.....	64	5.30	5.30	4.38- 5.52	* 41	10	2	-	5	1	3	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Machine-tool operators (toolroom).....	147	7.89	8.07	7.26- 8.49	-	-	12	4	4	9	10	7	11	24	35	3	22	6	-	-	-	-	-	-	-	-	-
Manufacturing	145	7.90	8.07	7.26- 8.49	-	-	12	4	4	7	10	7	11	24	35	3	22	6	-	-	-	-	-	-	-	-	-
Tool and die makers.....	427	9.61	9.58	9.08- 9.72	-	-	-	-	-	-	8	6	12	33	9	82	65	127	7	1	25	15	37	-	-	-	-
Manufacturing	427	9.61	9.58	9.08- 9.72	-	-	-	-	-	-	8	6	12	33	9	82	65	127	7	1	25	15	37	-	-	-	-
Stationary engineers.....	144	9.18	9.00	8.28- 9.58	-	-	2	-	3	2	-	4	2	12	12	3	46	25	7	10	-	-	-	10	-	6	-
Manufacturing	73	9.32	9.23	8.86- 9.98	-	-	-	-	1	2	-	4	-	5	4	-	16	20	6	5	-	-	-	10	-	-	-
Nonmanufacturing	71	9.05	8.95	8.23- 9.11	-	-	2	-	2	-	-	-	2	7	8	3	30	5	1	5	-	-	-	-	-	6	-
Boiler tenders.....	62	7.89	8.09	7.35- 8.23	-	-	-	1	1	10	1	5	5	13	18	4	4	-	-	-	-	-	-	-	-	-	-
Manufacturing	62	7.89	8.09	7.35- 8.23	-	-	-	1	1	10	1	5	5	13	18	4	4	-	-	-	-	-	-	-	-	-	-

* Workers were distributed as follows: 18 under \$4.60; 8 at \$4.60 to \$4.90; 5 at \$4.90 to \$5.20; and 10 at \$5.20 to \$5.50. See footnotes at end of tables.

Table A-16. Hourly earnings of material movement and custodial workers—large establishments in Boston, Mass., August 1980

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean ²	Median ²	Middle range ²	3.10 and under 3.40	3.40-3.70	3.70-4.00	4.00-4.30	4.30-4.60	4.60-4.90	4.90-5.20	5.20-5.50	5.50-5.80	5.80-6.10	6.10-6.40	6.40-6.70	6.70-7.00	7.00-7.30	7.30-7.60	7.60-7.90	7.90-8.20	8.20-8.50	8.50-9.00	9.00-9.50	9.50-10.00	10.00-10.50	10.50 and over	
Truckdrivers.....	863	9.30	9.88	8.07-10.28	-	-	-	2	-	5	26	19	7	7	20	8	12	1	19	60	53	30	44	86	201	53	* 210	
Manufacturing.....	497	8.64	9.22	7.86- 9.88	-	-	-	-	-	4	14	17	7	5	17	4	8	1	7	60	37	2	29	78	200	7	-	
Nonmanufacturing.....	366	10.20	11.45	8.95-11.45	-	-	-	2	-	1	12	2	-	2	3	4	4	-	12	-	16	28	15	8	1	46	210	
Truckdrivers, medium truck.....	535	9.77	9.88	9.22-11.45	-	-	-	-	-	-	15	8	3	7	5	4	5	-	6	21	16	3	4	60	201	-	177	
Truckdrivers, tractor-trailer.....	125	9.49	8.95	8.50-11.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	9	2	37	18	-	7	33	
Manufacturing.....	80	8.66	8.50	8.02- 9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	9	2	29	18	-	7	-	
Shippers.....	291	6.89	6.80	5.95- 7.17	-	-	-	6	-	6	12	9	21	21	11	23	103	7	7	-	-	-	40	25	-	-	-	
Manufacturing.....	211	6.42	6.70	5.92- 6.86	-	-	-	-	-	2	10	8	19	21	11	23	103	7	7	-	-	-	-	-	-	-	-	
Receivers.....	380	7.84	8.63	7.38- 8.83	-	-	-	2	3	15	8	11	15	10	11	6	2	11	5	45	-	2	221	13	-	-	-	
Manufacturing.....	86	5.79	5.73	5.00- 6.46	-	-	-	2	2	15	7	7	13	9	9	6	2	9	5	-	-	-	-	-	-	-	-	
Shippers and receivers.....	193	5.66	5.20	4.77- 6.40	-	-	-	16	27	34	17	13	8	5	15	22	6	-	21	-	-	-	7	1	1	-	-	
Manufacturing.....	149	5.56	5.10	4.77- 6.40	-	-	-	12	22	32	17	10	3	-	6	21	2	-	21	-	-	-	1	1	1	-	-	
Warehousemen.....	391	7.49	7.66	6.25- 8.50	-	-	-	1	5	5	21	21	14	16	25	15	11	3	24	101	15	4	31	53	6	20	-	
Manufacturing.....	138	6.53	6.32	5.52- 7.87	-	-	-	-	-	-	14	19	13	8	18	15	5	1	2	37	-	-	6	-	-	-	-	
Nonmanufacturing.....	253	8.02	7.75	7.55- 9.28	-	-	-	1	5	5	7	2	1	8	7	-	6	2	22	64	15	4	25	53	6	20	-	
Public utilities.....	32	9.35	10.12	7.75-10.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	1	2	-	-	20	-	
Order fillers.....	553	5.71	5.15	4.81- 6.32	-	6	16	29	34	118	82	35	40	19	47	7	24	21	4	8	4	3	54	2	-	-	-	
Manufacturing.....	304	5.43	4.81	4.75- 6.32	-	6	10	23	14	110	24	13	10	-	31	1	21	19	1	8	4	3	4	2	-	-	-	
Shipping packers.....	198	5.83	5.51	4.81- 7.08	-	-	-	9	20	33	22	13	12	12	9	14	4	2	36	9	1	-	1	-	-	-	1	
Manufacturing.....	155	6.06	6.03	4.81- 7.40	-	-	-	4	10	29	14	6	8	10	7	13	4	2	36	9	1	-	1	-	-	-	1	
Material handling laborers.....	1,111	5.88	5.23	4.83- 6.51	-	-	40	20	150	79	263	58	55	69	88	86	4	16	-	-	-	13	153	3	14	-	-	
Manufacturing.....	825	5.39	5.18	4.79- 5.88	-	-	36	7	134	62	235	53	46	60	79	80	3	16	-	-	-	-	-	-	14	-	-	
Forklift operators.....	325	8.11	8.67	7.24- 9.01	-	-	-	-	-	2	1	5	14	5	-	-	-	-	37	30	44	24	-	77	41	45	-	
Manufacturing.....	220	7.69	7.40	6.91- 8.67	-	-	-	-	-	2	1	5	14	5	-	-	-	-	37	30	44	24	-	6	7	45	-	
Nonmanufacturing.....	105	8.99	8.90	8.90- 9.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	34	-	-	-	
Guards:																												
Manufacturing.....	751	6.47	6.16	6.03- 6.95	-	-	-	24	6	16	24	8	52	78	254	40	80	31	82	11	13	-	-	-	-	32	-	
Guards, class A.....	288	6.58	6.51	5.70- 7.29	-	-	-	-	-	12	21	13	39	21	15	36	11	52	43	8	2	-	4	-	11	-	-	
Nonmanufacturing.....	207	6.55	6.47	5.68- 7.18	-	-	-	-	-	8	21	9	17	21	15	36	11	25	19	8	2	-	4	-	11	-	-	
Guards, class B:																												
Manufacturing.....	670	6.45	6.16	6.03- 6.92	-	-	-	24	6	12	24	4	30	78	254	40	80	4	58	11	13	-	-	-	-	32	-	
Janitors, porters, and cleaners.....	1,833	5.91	5.88	4.86- 6.97	1	24	72	82	144	138	131	155	162	312	44	45	84	252	19	3	32	-	28	105	-	-	-	
Manufacturing.....	1,171	6.06	5.88	5.23- 6.70	1	5	41	19	67	80	59	124	114	287	40	42	70	86	3	3	26	-	-	105	-	-	-	
Nonmanufacturing.....	662	5.65	5.27	4.46- 7.01	1	19	31	63	77	58	72	31	48	25	4	3	14	166	16	-	6	-	28	-	-	-	-	

* Workers were distributed as follows: 180 at \$11.00 to \$11.50; and 30 at \$11.50 to \$12.00. See footnotes at end of tables.

Table A-17. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers by sex—large establishments in Boston, Mass., August 1980

Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴
Maintenance, toolroom, and powerplant occupations - men			Maintenance trades helpers	62	5.19	Warehousemen	327	7.65
Maintenance carpenters	266	8.38	Machine-tool operators (toolroom)	147	7.89	Manufacturing	129	6.58
Manufacturing	200	8.42	Manufacturing	145	7.90	Nonmanufacturing	198	8.36
Nonmanufacturing	66	8.25	Tool and die makers	427	9.61	Order fillers:		
Maintenance electricians	714	9.27	Manufacturing	427	9.61	Manufacturing	183	5.89
Manufacturing	595	9.16	Stationary engineers	136	9.20	Shipping packers:		
Nonmanufacturing	119	9.82	Manufacturing	73	9.32	Manufacturing	111	6.27
Maintenance painters	144	8.39	Nonmanufacturing	63	9.05	Material handling laborers:		
Manufacturing	107	8.21	Boiler tenders	62	7.89	Manufacturing	717	5.36
Maintenance machinists	496	8.87	Manufacturing	62	7.89	Forklift operators:		
Manufacturing	496	8.87				Manufacturing	210	7.71
Maintenance mechanics (machinery)	921	8.70	Material movement and custodial occupations - men			Guards:		
Manufacturing	800	8.68	Truckdrivers	858	9.30	Manufacturing	703	6.46
Nonmanufacturing	121	8.86	Manufacturing	496	8.64	Guards, class A	268	6.54
Maintenance mechanics (motor vehicles)	280	9.97	Nonmanufacturing	362	10.21	Nonmanufacturing	190	6.51
Manufacturing	77	8.69	Truckdrivers, medium truck	531	9.78	Guards, class B:		
Nonmanufacturing	203	10.46	Truckdrivers, tractor-trailer	125	9.49	Manufacturing	625	6.44
Public utilities	190	10.41	Manufacturing	80	8.66	Janitors, porters, and cleaners	1,457	6.03
Maintenance pipefitters	322	9.33	Shippers:			Manufacturing	1,037	6.07
Manufacturing	310	9.32	Manufacturing	206	6.42	Nonmanufacturing	420	5.95
Maintenance sheet-metal workers	89	8.99	Receivers:			Material movement and custodial occupations - women		
Manufacturing	71	8.97	Manufacturing	82	5.75	Order fillers:		
Millwrights	114	8.11	Shippers and receivers	175	5.53	Manufacturing	121	4.74
Manufacturing	112	8.10	Manufacturing	143	5.51	Janitors, porters, and cleaners	325	5.48
						Manufacturing	134	5.97

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; one-fourth of the workers earn the same or less than the lower of these rates and one-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 71 areas¹ 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, minus 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) data were insufficient to provide meaningful statistical results, 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. Changes in an occupational average over time reflect, in addition to earnings changes, factors such as changes in proportions of workers employed by high- or low-wage firms, or high-wage workers advancing to better jobs and being 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.

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

Indexes in table A-7 measure wages at a given time, expressed as a percent of wages during the base period. Subtracting 100 from the index yields the percent change in wages from the base period to the date of the index. The percent increases in table A-7 relate to wage changes between the indicated dates. Annual rates of increase, where shown, reflect the amount of increase for 12 months when the time span between surveys was other than 12 months. These computations are based on the assumption that wages increased at a constant rate between surveys.

The indexes and percent increases 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.

Occupations used to compute wage trends are:

Office clerical

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

Electronic data processing

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

Industrial nurses

Registered industrial nurses

Skilled maintenance

Carpenters	Mechanics (machinery)
Electricians	Mechanics (motor vehicle)
Painters	Pipefitters
Machinists	Tool and die makers

Unskilled plant

Janitors, porters, and cleaners	Material handling laborers
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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.
3. These weights are used to compute group averages. Each occupation's average earnings (computed in step 1) are 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.

The index is computed by adding 100 to the most recent percent increase, multiplying the total by the previous year's index number, and dividing the product by 100 to obtain the current index value.

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

Tables A-8 through A-11 present occupational pay relatives derived from comparisons of job averages within individual establishments. The method of computation is as follows:

1. A pay relative for any two occupations is computed for each establishment in which they are found by dividing the average earnings for one occupation by the average for the other and multiplying by 100 (e.g., \$5 divided by \$4 = 1.25 times 100 = 125).

- Each pay relative is weighted by the number of workers in the two occupations compared and by the weight assigned to the establishment to represent establishments not included in the survey sample.
- The weighted pay relatives for all establishments reporting the two occupations are summed and divided by the total of the weights to produce the average pay relatives shown in the tables.

Occupational pay relationships measured in this manner yield considerably different results than those produced by using overall survey averages, such as those shown in tables A-1 through A-6. The former measure the average pay relationships found within establishments; the latter measure the relationships among job averages in an area. In

addition, the mix of establishments used in the comparisons may differ between the two methods.

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.

¹ Includes 70 areas surveyed under the Bureau's regular program plus Poughkeepsie-Kingston-Newburgh, N.Y., which is surveyed under contract. 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. Department of Labor.

Appendix table 1. Establishments and workers within scope of survey and number studied in Boston, Mass.,¹ August 1980

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 divisions.....	-	1,456	213	492,050	100	238,797
Manufacturing.....	100	437	75	210,461	43	112,116
Nonmanufacturing.....	-	1,019	138	281,589	57	126,681
Transportation, communication, and other public utilities ⁵	100	66	24	46,285	9	37,389
Wholesale trade ⁶	50	182	13	17,227	4	2,766
Retail trade ⁶	100	162	22	68,204	14	36,752
Finance, insurance, and real estate ⁶	50	244	21	74,903	15	29,552
Services ⁷	50	365	58	74,970	15	20,222
Large establishments						
All divisions.....	-	153	75	288,392	100	211,873
Manufacturing.....	500	70	34	133,570	46	102,708
Nonmanufacturing.....	-	83	41	154,822	54	109,165
Transportation, communication, and other public utilities ⁵	500	10	10	33,806	12	33,806
Wholesale trade ⁶	500	1	1	1,500	1	1,500
Retail trade ⁶	500	19	11	41,475	14	33,989
Finance, insurance, and real estate ⁶	500	33	12	49,012	17	28,169
Services ⁷	500	20	7	29,029	10	11,701

¹The Boston Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Suffolk County, 16 communities in Essex County, 34 in Middlesex County, 26 in Norfolk County, and 12 in Plymouth County. 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 to classify 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 nonmanufacturing companies are considered as one establishment when located within the same industry division.

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. Boston's transit system is municipally operated and is excluded by definition from the scope of the survey.

⁶ Separate data for this division are not presented in the A-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 interestablishment 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 an 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;
- 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 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
- 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 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.
- 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:

	<i>LR-1</i>	<i>LR-2</i>
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 procedures 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 follow-up 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, 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.

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 salespeople. 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.

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.

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 nonautomated 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. Work 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.

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 follow-up 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, 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.

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 multiprocessing (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.

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 augmented 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.

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 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 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 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 1 1/2 tons, usually 4 wheels)

Truckdriver, medium truck

(straight truck, 1 1/2 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 powertruck, 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 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 require 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.*

Service Contract Act Surveys

The following areas are surveyed periodically for use in administering the Service Contract Act of 1965. Survey results are published in releases which are available, at no cost, while supplies last from any of the BLS regional offices shown on the back cover.

Alaska (statewide)
Albany, Ga.
Albuquerque, N. Mex.
Alexandria-Leesville, La.
Alpena-Standish-Tawas City, Mich.
Ann Arbor, Mich.
Asheville, N.C.
Atlantic City, N.J.
Augusta, Ga.-S.C.
Austin, Tex.
Bakersfield, Calif.
Baton Rouge, La.
Beaumont-Port Arthur-Orange and Lake Charles, Tex.-La.
Biloxi-Gulfport and Pascagoula-Moss Point, Miss.
Binghamton, N.Y.
Birmingham, Ala.
Bremerton-Shelton, Wash.
Brunswick, Ga.
Cedar Rapids, Iowa
Champaign-Urbana-Rantoul, Ill.
Charleston-North Charleston-Walterboro, S.C.
Cheyenne, Wyo.
Clarksville-Hopkinsville, Tenn.-Ky.

Colorado Springs, Colo.
Columbia-Sumter, S.C.
Columbus, Ga.-Ala.
Columbus, Miss.
Connecticut (statewide)
Dothan, Ala.
Duluth-Superior, Minn.-Wis.
El Paso-Alamogordo-Las Cruces, Tex.-N. Mex.
Eugene-Springfield-Medford, Oreg.
Fayetteville, N.C.
Fort Smith, Ark.-Okla.
Fort Wayne, Ind.
Frederick-Hagerstown-Chambersburg, Md.-Pa.
Gadsden and Anniston, Ala.
Goldsboro, N.C.
Guam, Territory of
Knoxville, Tenn.
La Crosse-Sparta, Wis.
Laredo, Tex.
Lexington-Fayette, Ky.
Lima, Ohio
Little Rock-North Little Rock, Ark.
Logansport-Peru, Ind.
Lower Eastern Shore, Md.-Va.-Del.
Macon, Ga.
Madison, Wis.
Maine (statewide)
Mansfield, Ohio
McAllen-Pharr-Edinburg and Brownsville-Harlingen- San Benito, Tex.
Meridian, Miss.

Middlesex, Monmouth, and Ocean Counties, N.J.
Mobile-Pensacola-Panama City, Ala.-Fla.
Montana (statewide)
Montgomery, Ala.
Nashville-Davidson, Tenn.
New Bern-Jacksonville, N.C.
New Hampshire (statewide)
North Dakota (statewide)
Northern New York
Northwest Texas
Orlando, Fla.
Oxnard-Simi Valley-Ventura, Calif.
Peoria, Ill.
Pine Bluff, Ark.
Pueblo, Colo.
Puerto Rico
Raleigh-Durham, N.C.
Reno, Nev.
Riverside-San Bernardino-Ontario, Calif.
Salina, Kans.
Santa Barbara-Santa Maria-Lompoc, Calif.
Savannah, Ga.
Selma, Ala.
Sherman-Denison, Tex.
Shreveport, La.
South Dakota (statewide)
Southeastern Massachusetts
Southern Idaho
Southwest Virginia
Spokane, Wash.

Springfield, Ill.
Stockton, Calif.
Tacoma, Wash.
Topeka, Kans.
Tucson-Douglas, Ariz.
Tulsa, Okla.
Upper Peninsula, Mich.
Vallejo-Fairfield-Napa, Calif.
Vermont (statewide)
Virgin Islands of the U.S.
Waco and Killeen-Temple, Tex.
Waterloo-Cedar Falls, Iowa
West Virginia (statewide)
Western and Northern Massachusetts
Wichita Falls-Lawton-Altus, Tex.-Okla.
Yakima-Richland-Kennewick-Pendleton, Wash.-Oreg.

ALSO AVAILABLE—

An annual report on salaries for accountants, auditors, chief accountants, attorneys, job analysts, directors of personnel, buyers, chemists, engineers, engineering technicians, drafters, and clerical employees is available. Order as BLS Bulletin 2045, *National Survey of Professional, Administrative, Technical and Clerical Pay, March 1979*, \$3.00 a copy, from any of the BLS regional sales offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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.

<i>Area</i>	<i>Bulletin number</i>	<i>and price*</i>
Akron, Ohio, Dec. 1978	2025-63	\$1.00
Albany-Schenectady-Troy, N.Y., Sept. 1979	2050-46	\$1.50
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1979	2050-48	\$1.50
Atlanta, Ga., May 1980	3000-21	\$2.25
Baltimore, Md., Aug. 1980	3000-38	\$2.25
Billings, Mont., July 1980 ¹	3000-31	\$2.00
Birmingham, Ala., Mar. 1978	2025-15	\$0.80
Boston, Mass., Aug. 1980	3000-40	\$2.25
Buffalo, N.Y., Oct. 1979	2050-65	\$2.25
Canton, Ohio, May 1978	2025-22	\$0.70
Chattanooga, Tenn.—Ga., Sept. 1979	2050-39	\$1.50
Chicago, Ill., May 1980 ¹	3000-26	\$3.25
Cincinnati, Ohio—Ky.—Ind., July 1980	3000-32	\$2.25
Cleveland, Ohio, Sept. 1979	2050-47	\$1.75
Columbus, Ohio, Oct. 1979	2050-61	\$2.25
Corpus Christi, Tex., July 1980	3000-28	\$1.75
Dallas—Fort Worth, Tex., Dec. 1979	2050-67	\$2.25
Davenport—Rock Island—Moline, Iowa—Ill., Feb. 1980 ¹	3000-5	\$2.25
Dayton, Ohio, Dec. 1979	2050-64	\$2.00
Daytona Beach, Fla., Aug. 1980 ¹	3000-33	\$1.75
Denver—Boulder, Colo., Dec. 1979	2050-72	\$2.25
Detroit, Mich., Mar. 1980	3000-7	\$2.25
Fresno, Calif., June 1980 ¹	3000-30	\$2.00
Gainesville, Fla., Sept. 1979	2050-45	\$1.50
Gary—Hammond—East Chicago, Ind., Oct. 1979 ¹	2050-60	\$2.25
Green Bay, Wis., July 1980	3000-22	\$1.75
Greensboro—Winston-Salem—High Point, N.C., Aug. 1979	2050-49	\$1.50
Greenville—Spartanburg, S.C., June 1980	3000-16	\$1.75
Hartford, Conn., Mar. 1980 ¹	3000-19	\$2.25
Houston, Tex., Apr. 1980 ¹	3000-18	\$3.25
Huntsville, Ala., Feb. 1980 ¹	3000-14	\$2.25
Indianapolis, Ind., Oct. 1979	2050-54	\$2.25
Jackson, Miss., Jan. 1980	3000-2	\$1.75
Jacksonville, Fla., Dec. 1979 ¹	2050-69	\$2.25
Kansas City, Mo.—Kans., Sept. 1979 ¹	2050-58	\$2.75
Los Angeles—Long Beach, Calif., Oct. 1979	2050-59	\$2.25
Louisville, Ky.—Ind., Nov. 1979	2050-66	\$2.00

<i>Area</i>	<i>Bulletin number</i>	<i>and price*</i>
Memphis, Tenn.—Ark.—Miss., Nov. 1979 ¹	2050-56	\$2.25
Miami, Fla., Oct. 1979	2050-55	\$2.25
Milwaukee, Wis., Apr. 1980	3000-10	\$2.25
Minneapolis—St. Paul, Minn.—Wis., Jan. 1980	3000-1	\$2.25
Nassau—Suffolk, N.Y., June 1980	3000-29	\$2.00
Newark, N.J., Jan. 1980 ¹	3000-8	\$3.25
New Orleans, La., Oct. 1979	2050-53	\$2.25
New York, N.Y.—N.J., May 1980	3000-24	\$2.25
Norfolk—Virginia Beach—Portsmouth, Va.—N.C., May 1980	3000-20	\$1.75
Norfolk—Virginia Beach—Portsmouth and Newport News—Hampton, Va.—N.C., May 1978	2025-21	\$0.80
Northeast Pennsylvania, Aug. 1980	3000-37	\$1.75
Oklahoma City, Okla., Aug. 1979	2050-37	\$1.50
Omaha, Nebr.—Iowa, Oct. 1979	2050-51	\$1.50
Paterson—Clifton—Passaic, N.J., June 1980 ¹	3000-34	\$2.25
Philadelphia, Pa.—N.J., Nov. 1979 ¹	2050-57	\$3.00
Pittsburgh, Pa., Jan. 1980	3000-3	\$2.25
Portland, Maine, Dec. 1979	2050-63	\$1.75
Portland, Oreg.—Wash., May 1979	2050-27	\$1.75
Poughkeepsie, N.Y., June 1980 ¹	3000-35	\$2.00
Poughkeepsie—Kingston—Newburgh, N.Y., June 1980 ¹	3000-39	\$2.00
Providence—Warwick—Pawtucket, R.I.—Mass., June 1980	3000-27	\$2.00
Richmond, Va., June 1980 ¹	3000-23	\$2.25
St. Louis, Mo.—Ill., Mar. 1980	3000-12	\$2.25
Sacramento, Calif., Dec. 1979	2050-71	\$1.75
Saginaw, Mich., Nov. 1979 ¹	2050-52	\$1.75
Salt Lake City—Ogden, Utah, Nov. 1979	2050-62	\$2.00
San Antonio, Tex., May 1980 ¹	3000-17	\$2.00
San Diego, Calif., Nov. 1979	2050-70	\$2.00
San Francisco—Oakland, Calif., Mar. 1980	3000-9	\$2.25
San Jose, Calif., Mar. 1980	3000-6	\$2.00
Seattle—Everett, Wash., Dec. 1979 ¹	2050-68	\$2.25
South Bend, Ind., Aug. 1980	3000-36	\$1.75
Toledo, Ohio—Mich., May 1980	3000-13	\$1.75
Trenton, N.J., Sept. 1979	2050-40	\$1.50
Utica—Rome, N.Y., July 1978	2025-34	\$1.00
Washington, D.C.—Md.—Va., Mar. 1980	3000-4	\$2.25
Wichita, Kans., Apr. 1980 ¹	3000-15	\$2.25
Worcester, Mass., Apr. 1980 ¹	3000-25	\$2.00
York, Pa., Feb. 1980	3000-11	\$1.75

* 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.

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Suite 3400
1515 Broadway
New York, N.Y. 10036
Phone: 944-3121 (Area Code 212)

New Jersey
New York
Puerto Rico
Virgin Islands

Region III

3535 Market Street,
P.O. Box 13309
Philadelphia, Pa. 19101
Phone: 596-1154 (Area Code 215)

Delaware
District of Columbia
Maryland
Pennsylvania
Virginia
West Virginia

Region IV

Suite 540
1371 Peachtree St., N.E.
Atlanta, Ga. 30367
Phone: 881-4418 (Area Code 404)

Alabama
Florida
Georgia
Kentucky
Mississippi
North Carolina
South Carolina
Tennessee

Region V

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

Illinois
Indiana
Michigan
Minnesota
Ohio
Wisconsin

Region VI

Second Floor
555 Griffin Square Building
Dallas, Tex. 75202
Phone: 767-6971 (Area Code 214)

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Regions VII and VIII

Federal Office Building
911 Walnut St. 15th Floor
Kansas City, Mo. 64106
Phone: 374-2481 (Area Code 816)

VII
Iowa
Kansas
Missouri
Nebraska

VIII
Colorado
Montana
North Dakota
South Dakota
Utah
Wyoming

Regions IX and X

450 Golden Gate Ave.
Box 36017
San Francisco, Calif. 94102
Phone: 556-4678 (Area Code 415)

IX
Arizona
California
Hawaii
Nevada

X
Alaska
Idaho
Oregon
Washington

