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Area Wage Survey

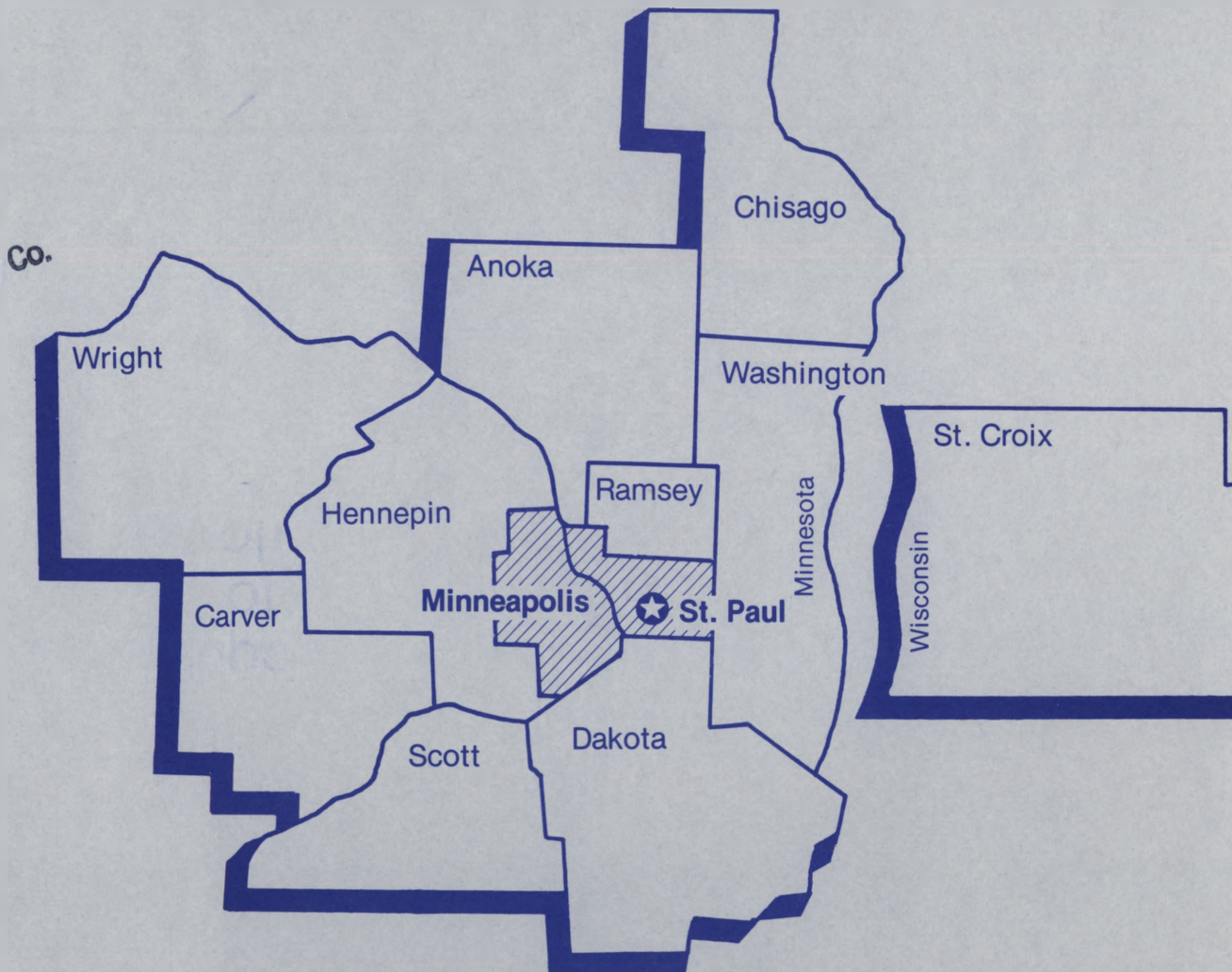
Minneapolis—St. Paul, Minnesota—Wisconsin, Metropolitan Area, January 1978



Bulletin 2025-2

U.S. Department of Labor
Bureau of Labor Statistics

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Preface

This bulletin provides results of a January 1978 survey of occupational earnings and supplementary wage benefits in the Minneapolis-St. Paul, Minnesota-Wisconsin, 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 Chicago, Ill., under the general direction of Lois L. Orr, 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 Minneapolis-St. Paul area are available for the nursing homes (May 1976), banking (December 1976), moving and storage (January 1978), and laundry and dry cleaning (January 1978) industries. Also available for Minneapolis and for St. Paul are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truck-drivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

Area Wage Survey

Minneapolis—St. Paul, Minnesota—Wisconsin, Metropolitan Area, January 1978

U.S. Department of Labor
Ray Marshall, Secretary
Bureau of Labor Statistics
Julius Shiskin, Commissioner

April 1978

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Introduction

This area is 1 of 75 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, occupational earnings data (A-series tables) are collected annually. Information on establishment practices and supplementary wage benefits (B-series tables) is obtained every third year.

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. For the 31 largest survey areas, tables A-8 through A-13 provide similar data for establishments employing 500 workers or more.

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

B-series tables

The B-series tables present information on minimum entrance salaries for inexperienced typists and clerks; late-shift pay provisions and practices for production and related workers in manufacturing; and data separately for production and related workers and office workers on scheduled weekly hours and days of first-shift workers; paid holidays; paid vacations; health, insurance, and pension plans; and more detailed information on life insurance plans.

Appendixes

Appendix A describes the methods and concepts used in the area wage survey program. It provides information on the scope of the area survey, the area's industrial composition in manufacturing, and labor-management agreement coverage.

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

A. Earnings

Table A-1. Weekly earnings of office workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$ 90 and under	\$ 95	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 160	\$ 170	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400		
						95	100	110	120	130	140	150	160	170	180	200	220	240	260	280	300	320	340	360	380	400			
ALL WORKERS			\$	\$	\$																								
SECRETARIES -----	6,372	39.5	199.00	193.50	174.00-217.00	-	-	-	8	17	96	241	382	502	813	1622	1234	677	344	204	106	33	69	21	3	-	-	-	
MANUFACTURING -----	3,315	39.5	199.50	195.50	178.50-216.50	-	-	-	-	-	15	62	135	257	448	943	724	390	212	86	30	7	3	1	2	-	-	-	
NONMANUFACTURING -----	3,057	39.0	198.50	190.00	169.00-217.00	-	-	-	8	17	81	179	247	245	365	679	510	287	132	118	76	26	66	20	1	-	-	-	
PUBLIC UTILITIES -----	356	39.5	252.50	257.50	216.00-298.50	-	-	-	2	-	-	2	5	22	22	30	21	51	26	56	32	23	45	18	1	-	-	-	
SECRETARIES, CLASS A -----	550	39.5	244.50	244.00	213.00-270.00	-	-	-	-	-	-	25	3	3	6	63	58	87	128	78	39	10	30	17	3	-	-	-	
MANUFACTURING -----	262	40.0	244.00	249.50	230.00-269.00	-	-	-	-	-	-	-	-	-	-	11	38	41	92	48	26	2	2	-	2	-	-		
NONMANUFACTURING -----	288	39.0	241.50	240.00	190.00-276.00	-	-	-	-	-	-	25	3	3	6	52	20	46	36	30	13	8	28	17	1	-	-	-	
PUBLIC UTILITIES -----	73	40.0	300.00	325.00	269.00-338.00	-	-	-	-	-	-	-	1	3	-	2	1	6	2	6	6	5	23	17	1	-	-	-	
SECRETARIES, CLASS B -----	1,563	39.0	216.00	211.50	191.00-234.50	-	-	-	-	-	3	26	15	89	91	329	377	323	138	65	52	13	38	4	-	-	-	-	
MANUFACTURING -----	679	39.5	218.50	218.50	203.50-232.50	-	-	-	-	-	-	-	-	5	18	114	227	219	81	13	1	-	-	1	-	-	-		
NONMANUFACTURING -----	884	39.0	214.50	202.50	184.00-236.00	-	-	-	-	-	3	26	15	84	73	215	150	104	57	52	51	13	38	3	-	-	-	-	
PUBLIC UTILITIES -----	107	40.0	271.00	280.50	243.00-317.00	-	-	-	-	-	-	-	-	13	-	2	2	6	9	21	18	13	22	1	-	-	-	-	
SECRETARIES, CLASS C -----	2,348	39.5	189.50	187.50	176.00-203.50	-	-	-	-	-	6	85	127	178	429	814	499	152	36	12	8	2	-	-	-	-	-	-	
MANUFACTURING -----	1,404	39.5	191.00	190.50	178.50-202.50	-	-	-	-	-	-	23	23	110	256	585	327	69	7	4	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	944	39.5	188.00	180.00	169.00-208.00	-	-	-	-	-	6	62	104	68	173	229	172	83	29	8	8	2	-	-	-	-	-	-	
PUBLIC UTILITIES -----	78	40.0	228.50	228.50	209.50-244.00	-	-	-	-	-	-	-	-	-	13	5	3	33	11	4	7	2	-	-	-	-	-	-	
SECRETARIES, CLASS D -----	1,308	39.5	179.50	176.00	156.50-196.50	-	-	-	8	13	85	88	184	155	215	269	171	53	24	38	3	2	-	-	-	-	-	-	
MANUFACTURING -----	604	40.0	182.50	176.00	162.00-195.50	-	-	-	-	-	15	28	79	100	123	135	69	23	16	12	2	2	-	-	-	-	-	-	
NONMANUFACTURING -----	704	39.0	176.50	174.50	150.50-199.00	-	-	-	8	13	70	60	105	55	92	134	102	30	8	26	1	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	93	39.0	211.50	216.50	181.50-268.50	-	-	-	2	-	-	2	4	6	9	21	15	6	4	24	-	-	-	-	-	-	-	-	
SECRETARIES, CLASS E -----	277	39.5	178.50	172.50	159.00-194.00	-	-	-	-	4	2	16	51	55	49	41	37	18	1	1	1	1	-	-	-	-	-	-	
MANUFACTURING -----	161	39.5	172.00	169.50	159.00-178.50	-	-	-	-	-	-	11	33	39	39	30	4	4	1	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	116	39.5	186.00	186.00	159.50-213.00	-	-	-	-	4	2	5	18	16	10	11	33	14	-	1	1	1	-	-	-	-	-	-	
STENOGRAPHERS -----	1,569	39.5	173.50	161.00	144.00-180.50	-	-	-	8	99	217	251	175	204	215	159	21	17	56	18	114	12	2	1	-	-	-	-	
MANUFACTURING -----	709	39.5	164.00	162.50	150.50-175.00	-	-	-	5	7	43	121	139	143	129	105	6	2	7	2	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	860	39.0	181.00	160.00	138.00-213.00	-	-	-	3	92	174	130	36	61	86	54	15	15	49	16	114	12	2	1	-	-	-	-	
PUBLIC UTILITIES -----	241	40.0	261.00	283.00	240.00-289.00	-	-	-	-	-	2	6	4	2	5	5	10	14	48	16	114	12	2	1	-	-	-	-	
STENOGRAPHERS, GENERAL -----	517	39.5	187.00	161.50	140.50-240.00	-	-	-	8	47	67	81	50	19	58	20	12	9	54	15	69	8	-	-	-	-	-	-	
MANUFACTURING -----	182	39.5	155.50	149.00	140.00-162.50	-	-	-	5	4	35	52	36	12	14	13	4	-	7	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	335	39.5	204.00	175.00	144.00-277.50	-	-	-	3	43	32	29	14	7	44	7	8	9	47	15	69	8	-	-	-	-	-	-	
PUBLIC UTILITIES -----	186	40.0	253.00	265.00	240.00-288.00	-	-	-	-	-	2	6	4	2	5	5	8	9	47	15	69	8	-	-	-	-	-	-	
STENOGRAPHERS, SENIOR -----	1,052	39.0	167.00	161.00	144.00-175.50	-	-	-	-	52	150	170	125	185	157	139	9	8	2	3	45	4	2	1	-	-	-	-	
MANUFACTURING -----	527	39.5	167.00	167.00	157.50-177.00	-	-	-	-	3	8	69	103	131	115	92	2	2	-	2	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	525	39.0	166.50	149.50	137.00-173.00	-	-	-	-	49	142	101	22	54	42	47	7	6	2	1	45	4	2	1	-	-	-	-	
TRANSCRIBING-MACHINE TYPISTS -----	137	39.5	151.50	146.00	138.00-156.00	-	-	-	1	5	36	43	21	10	6	11	3	-	-	-	-	1	-	-	-	-	-	-	
MANUFACTURING -----	75	39.5	150.00	146.00	136.00-156.00	-	-	-	1	4	23	20	14	1	1	9	2	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	62	39.5	154.00	146.00	142.50-162.00	-	-	-	-	-	1	13	23	7	9	5	2	1	-	-	-	-	1	-	-	-	-	-	
TYPISTS -----	2,002	39.5	149.00	139.00	126.50-157.50	-	-	-	7	143	428	444	329	205	98	79	60	38	47	37	3	-	-	-	-	-	-	-	
MANUFACTURING -----	480	39.5	147.00	139.00	129.50-155.00	-	-	-	5	20	97	124	87	59	33	8	1	-	31	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	1,522	39.0	149.50	139.00	126.50-158.50	-	-	-	2	123	331	320	242	146	65	71	59	38	16	37	3	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	250	40.0	194.00	185.50	148.00-228.50	-	-	-	-	1	11	41	16	30	17	6	12	23	38	15	37	3	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																											
			Mean ²	Median ²	Middle range ²	\$ 90	\$ 95	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 160	\$ 170	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400						
						and under 95	100	110	120	130	140	150	160	170	180	200	220	240	260	280	300	320	340	360	380	400							
ALL WORKERS-- CONTINUED																																	
TYPISTS - CONTINUED																																	
TYPISTS, CLASS A -----	965	39.5	\$ 156.50	\$ 143.00	\$ 132.50-160.00	-	-	-	28	136	247	182	126	44	36	25	39	36	32	34	-	-	-	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	237	39.5	155.00	140.50	130.00-159.00	-	-	-	3	51	61	41	24	11	9	5	1	-	31	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	728	39.0	157.00	144.00	132.50-161.00	-	-	-	25	85	186	141	102	33	27	20	38	36	1	34	-	-	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	109	40.0	229.00	228.50	214.50-275.50	-	-	-	-	-	2	3	1	3	6	7	17	36	-	34	-	-	-	-	-	-	-	-	-	-	-		
TYPISTS, CLASS B -----	1,031	39.5	142.00	134.00	122.00-155.50	-	-	7	115	288	197	147	77	54	48	54	21	2	15	3	3	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	237	39.5	139.50	138.50	127.50-151.50	-	-	5	17	42	63	46	33	22	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	794	39.5	143.00	133.50	122.00-157.50	-	-	2	98	246	134	101	44	32	42	51	21	2	15	3	3	-	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	141	39.5	167.50	157.50	139.00-167.50	-	-	-	1	11	39	13	29	14	-	5	6	2	15	3	3	-	-	-	-	-	-	-	-	-	-		
FILE CLERKS -----	1,389	39.0	130.00	117.50	108.00-137.00	24	140	299	291	212	100	111	42	16	24	43	6	18	14	29	15	4	1	-	-	-	-	-	-	-	-		
MANUFACTURING -----	133	40.0	138.50	131.00	123.00-149.50	-	-	-	8	52	19	29	7	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	1,256	39.0	129.50	116.00	108.00-133.50	24	140	299	283	160	81	82	35	10	20	35	6	18	14	29	15	4	1	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	133	40.0	226.00	237.00	180.00-273.50	-	-	-	2	2	3	2	14	7	3	13	6	18	14	29	15	4	1	-	-	-	-	-	-	-	-		
FILE CLERKS, CLASS A -----	125	40.0	184.50	144.00	140.00-224.00	-	-	1	-	1	20	45	1	7	7	9	-	5	-	12	13	3	1	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	118	40.0	185.00	144.00	140.00-232.00	-	-	1	-	1	20	44	1	4	7	6	-	5	-	12	13	3	1	-	-	-	-	-	-	-	-		
FILE CLERKS, CLASS B -----	707	39.5	132.00	118.50	109.50-139.00	24	72	97	178	133	36	28	26	9	17	34	6	13	14	17	2	1	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	665	39.0	131.00	117.00	109.50-132.50	24	72	97	176	119	32	25	19	6	13	29	6	13	14	17	2	1	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	77	40.0	221.00	237.00	190.00-263.00	-	-	-	2	2	3	2	1	5	-	9	6	13	14	17	2	1	-	-	-	-	-	-	-	-	-		
FILE CLERKS, CLASS C -----	556	38.5	116.00	110.50	108.00-124.50	-	68	201	113	77	44	38	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	83	40.0	131.50	129.00	120.00-141.50	-	-	-	6	37	15	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	473	38.5	113.00	109.50	103.50-119.50	-	68	201	107	40	29	13	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MESSENGERS -----	564	39.0	130.00	119.50	109.50-135.50	-	-	166	122	91	83	34	21	12	1	1	3	-	15	9	6	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	199	39.5	129.50	127.50	116.00-137.00	-	-	23	42	38	53	15	19	8	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	365	39.0	130.00	115.00	109.50-126.50	-	-	143	80	53	30	19	2	4	1	1	2	-	15	9	6	-	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	39	40.0	241.50	251.50	251.50-269.00	-	-	-	-	-	2	1	2	1	-	1	2	-	15	9	6	-	-	-	-	-	-	-	-	-	-		
SWITCHBOARD OPERATORS -----	426	39.5	149.50	136.00	122.50-165.50	-	4	1	17	125	92	50	19	14	38	23	18	5	3	14	3	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	67	39.5	166.50	162.00	146.00-184.00	-	-	-	-	-	8	14	10	5	10	15	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	359	39.5	146.50	135.00	121.00-152.50	-	4	1	17	125	84	36	9	9	28	8	18	-	3	14	3	-	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	26	40.0	248.00	264.50	241.00-270.00	-	-	-	-	-	-	1	1	1	1	-	2	-	3	14	3	-	-	-	-	-	-	-	-	-	-		
SWITCHBOARD OPERATOR-RECEPTIONISTS -----	873	39.5	155.50	144.00	129.50-172.50	-	-	11	50	167	109	124	77	115	8	72	109	1	17	13	-	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	205	40.0	155.50	149.50	138.00-172.50	-	-	-	-	13	60	34	13	32	3	39	9	1	1	-	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	668	39.5	155.50	144.00	126.00-170.00	-	-	11	50	154	49	90	64	83	5	33	100	-	16	13	-	-	-	-	-	-	-	-	-	-	-		
PUBLIC UTILITIES -----	74	39.5	201.50	207.00	138.00-246.00	-	-	11	-	6	2	2	-	-	-	-	24	-	16	13	-	-	-	-	-	-	-	-	-	-	-		
ORDER CLERKS -----	741	40.0	182.50	172.00	149.50-204.00	-	-	14	22	34	58	81	20	47	122	136	87	5	23	71	20	1	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	238	40.0	180.00	171.00	149.50-201.50	-	-	-	8	10	11	50	10	23	22	43	29	5	9	1	16	1	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	503	40.0	184.00	172.00	144.00-204.00	-	-	14	14	24	47	31	10	24	100	93	58	-	14	70	4	-	-	-	-	-	-	-	-	-	-		
ORDER CLERKS, CLASS A -----	459	40.0	199.00	185.50	170.00-217.50	-	-	-	-	-	13	28	9	34	112	102	49	5	20	70	16	4	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	116	40.0	206.00	195.50	179.50-218.50	-	-	-	-	-	2	6	10	12	12	37	21	5	6	-	16	1	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	343	40.0	196.50	180.00	170.00-204.00	-	-	-	-	-	13	26	3	24	100	65	26	-	14	70	-	-	-	-	-	-	-	-	-	-	-		
ORDER CLERKS, CLASS B -----	282	40.0	156.00	149.50	130.50-188.50	-	-	14	22	34	45	53	11	13	10	34	38	-	3	1	4	-	-	-	-	-	-	-	-	-	-		
MANUFACTURING -----	122	40.0	155.50	149.50	140.00-162.00	-	-	-	8	10	11	46	4	13	10	6	8	-	3	1	-	-	-	-	-	-	-	-	-	-	-		
NONMANUFACTURING -----	160	39.5	156.50	138.00	124.00-189.00	-	-	14	14	24	34	5	7	-	-	28	30	-	-	-	4	-	-	-	-	-	-	-	-	-	-		

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																											
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
						90 and under	95	100	110	120	130	140	150	160	170	180	200	220	240	260	280	300	320	340	360	380	400						
ALL WORKERS-- CONTINUED																																	
ACCOUNTING CLERKS -----	6,169	39.5	\$ 173.50	\$ 161.00	\$ 138.00-195.00	-	-	43	345	603	718	829	484	615	471	621	432	273	234	86	212	182	15	5	1	-	-	-	-	-	-	-	-
MANUFACTURING -----	1,668	39.5	169.00	163.50	146.50-184.50	-	-	14	26	77	194	226	224	186	193	270	131	62	44	2	4	9	6	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	4,501	39.0	175.50	159.00	135.00-204.00	-	-	29	319	526	524	603	260	429	278	351	301	211	190	84	208	173	9	5	1	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	1,222	40.0	238.50	240.00	198.00-287.00	-	-	-	-	15	28	38	11	54	81	94	137	130	160	78	208	173	9	5	1	-	-	-	-	-	-	-	-
ACCOUNTING CLERKS, CLASS A -----	2,542	39.5	200.50	185.00	160.00-235.00	-	-	-	24	47	97	229	232	296	276	311	285	152	171	28	193	180	15	5	1	-	-	-	-	-	-	-	-
MANUFACTURING -----	732	39.5	187.50	183.00	162.00-207.00	-	-	-	-	2	8	71	75	88	102	152	123	61	31	2	4	7	6	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,810	39.5	205.50	187.00	157.00-240.00	-	-	-	24	45	89	158	157	208	174	159	162	91	140	26	189	173	9	5	1	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	699	40.0	263.50	282.50	225.00-302.00	-	-	-	-	-	-	-	7	-	29	51	81	21	113	20	189	173	9	5	1	-	-	-	-	-	-	-	-
ACCOUNTING CLERKS, CLASS B -----	3,589	39.5	155.00	146.00	130.00-170.00	-	-	43	321	543	621	583	250	317	193	308	147	121	63	58	19	2	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	924	39.5	154.00	151.50	136.00-169.00	-	-	14	26	75	186	151	147	96	89	116	8	1	13	-	-	2	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	2,665	39.0	155.00	144.00	126.50-170.00	-	-	29	295	468	435	432	103	221	104	192	139	120	50	58	19	-	-	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	497	40.0	209.00	212.00	170.00-234.00	-	-	-	-	2	28	25	4	54	52	43	56	109	47	58	19	-	-	-	-	-	-	-	-	-	-	-	-
BOOKKEEPING-MACHINE OPERATORS -----	270	39.0	156.00	150.00	149.50-174.00	-	-	-	43	3	4	77	35	34	41	21	2	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	249	39.0	154.00	150.00	149.50-161.50	-	-	-	43	3	4	77	35	29	33	13	2	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
BOOKKEEPING-MACHINE OPERATORS, CLASS A -----	99	39.5	175.00	174.00	161.50-174.00	-	-	-	-	-	-	17	-	29	33	8	2	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	91	39.5	173.00	161.50	161.50-174.00	-	-	-	-	-	-	17	-	29	33	-	2	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
BOOKKEEPING-MACHINE OPERATORS, CLASS B -----	171	38.5	145.50	150.00	118.50-150.00	-	-	-	43	3	4	60	35	5	8	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	158	38.5	143.50	150.00	116.00-150.00	-	-	-	43	3	4	60	35	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MACHINE BILLERS -----	295	39.0	198.50	192.50	135.00-264.00	-	-	2	2	44	45	32	17	3	-	5	1	1	26	117	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	247	39.0	208.00	250.00	135.00-268.00	-	-	-	-	44	29	30	-	-	-	-	1	-	26	117	-	-	-	-	-	-	-	-	-	-	-	-	-
PAYROLL CLERKS -----	695	39.5	195.00	184.00	157.00-218.50	-	-	-	4	25	32	58	65	75	51	103	128	53	25	3	34	19	6	1	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	287	40.0	196.00	191.50	162.00-218.50	-	-	-	-	11	8	22	18	24	21	55	63	29	5	2	26	1	2	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	408	39.5	194.00	177.00	155.50-205.00	-	-	-	4	14	24	36	47	51	30	48	65	24	20	1	8	18	4	1	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	85	40.0	278.00	284.00	220.50-309.00	-	-	-	-	-	-	-	-	-	4	7	9	4	16	1	8	18	4	1	-	-	-	-	-	-	-	-	-
KEY ENTRY OPERATORS -----	2,477	39.5	160.00	153.00	138.00-172.50	-	-	35	119	200	340	349	444	259	245	291	82	6	14	69	21	3	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	846	39.5	160.50	157.50	146.00-170.50	-	-	2	3	34	78	169	185	162	101	81	8	1	8	10	4	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,631	39.5	160.00	150.50	133.00-175.00	-	-	33	116	166	262	180	259	97	144	210	74	5	6	59	17	3	-	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	203	40.0	225.00	218.00	187.00-273.00	-	-	-	-	-	5	14	12	7	6	26	43	5	6	59	17	3	-	-	-	-	-	-	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS A -----	1,164	39.5	171.50	163.50	150.00-180.00	-	-	-	1	25	104	150	207	193	187	159	50	2	6	67	10	3	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	533	39.5	163.50	161.50	149.50-173.50	-	-	-	-	2	44	110	95	113	86	65	3	1	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	631	39.5	178.50	169.50	150.50-190.00	-	-	-	1	23	60	40	112	80	101	94	47	1	-	59	10	3	-	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	135	40.0	243.50	273.00	210.00-273.00	-	-	-	-	-	-	-	-	-	2	21	39	1	-	59	10	3	-	-	-	-	-	-	-	-	-	-	-
KEY ENTRY OPERATORS, CLASS B -----	1,301	39.5	149.50	144.00	129.50-158.50	-	-	35	118	175	236	199	229	66	56	130	32	4	8	2	11	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	301	39.5	155.00	152.00	140.00-166.00	-	-	2	3	32	34	59	82	49	13	14	5	-	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-
NONMANUFACTURING -----	1,000	39.0	148.00	140.00	126.50-156.50	-	-	33	115	143	202	140	147	17	43	116	27	4	6	-	7	-	-	-	-	-	-	-	-	-	-	-	-
PUBLIC UTILITIES -----	66	39.5	188.00	169.50	146.50-218.50	-	-	-	-	-	5	14	12	7	4	5	4	4	6	-	7	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of tables.

**Table A-2. Weekly earnings of professional and technical workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978**

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$ 120 and under	\$ 130	\$ 140	\$ 150	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480			
																	</												

See footnotes at end of tables.

**Table A-2. Weekly earnings of professional and technical workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978—Continued**

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																								
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
						120 and under	130	140	150	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500	520	540	560
ALL WORKERS-- CONTINUED																														
COMPUTER OPERATORS - CONTINUED																														
COMPUTER OPERATORS, CLASS B -----	655	39.5	\$ 207.00	\$ 195.50	\$ 183.00-219.00	1	1	7	10	127	206	144	66	27	23	1	25	12	4	-	1	-	-	-	-	-	-	-	-	-
MANUFACTURING -----	275	39.5	200.50	195.50	184.00-217.50	1	1	2	6	46	99	61	35	11	11	-	-	-	1	-	1	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	380	39.0	211.50	196.00	181.50-226.00	-	-	5	4	81	107	83	31	16	12	1	25	12	3	-	-	-	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	63	40.0	265.00	264.00	228.50-314.50	-	-	-	-	-	3	5	23	-	6	1	22	3	-	-	-	-	-	-	-	-	-	-	-	
COMPUTER OPERATORS, CLASS C -----	331	39.5	166.00	161.50	150.00-179.50	17	24	37	55	115	62	14	6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	187	40.0	172.50	169.50	158.00-183.50	-	4	19	35	75	36	14	3	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	144	39.0	158.00	155.00	139.00-167.50	17	20	18	20	40	26	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PERIPHERAL EQUIPMENT OPERATORS -----	55	40.0	181.50	189.00	164.50-198.00	5	3	4	2	3	26	7	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
COMPUTER DATA LIBRARIANS -----	76	38.5	175.00	178.50	155.00-184.00	-	5	8	11	15	29	5	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	64	38.5	174.00	176.00	156.00-184.00	-	4	7	8	15	26	2	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
DRAFTERS -----	1,913	40.0	251.50	244.00	206.00-288.00	-	-	6	4	142	256	192	218	310	205	202	151	101	53	41	13	17	2	-	-	-	-	-	-	
MANUFACTURING -----	1,428	40.0	254.00	248.50	209.50-289.00	-	-	-	4	84	196	151	167	210	168	148	120	85	40	30	8	17	-	-	-	-	-	-	-	
NONMANUFACTURING -----	485	40.0	244.00	240.00	195.50-285.50	-	-	6	-	58	60	41	51	100	37	54	31	16	13	11	5	-	2	-	-	-	-	-	-	
PUBLIC UTILITIES -----	75	40.0	297.50	301.00	263.50-325.00	-	-	-	-	2	-	3	12	-	7	11	17	9	3	4	5	-	2	-	-	-	-	-	-	
DRAFTERS, CLASS A -----	640	40.0	297.50	292.00	265.50-321.50	-	-	-	-	-	-	-	38	98	106	112	117	59	53	25	13	17	2	-	-	-	-	-	-	
MANUFACTURING -----	532	40.0	296.00	289.00	264.50-318.00	-	-	-	-	-	-	-	20	96	90	101	95	51	40	14	8	17	-	-	-	-	-	-	-	
NONMANUFACTURING -----	108	40.0	306.00	301.00	276.00-348.00	-	-	-	-	-	-	-	18	2	16	11	22	8	13	11	5	-	2	-	-	-	-	-	-	
PUBLIC UTILITIES -----	40	40.0	333.00	316.00	301.00-362.00	-	-	-	-	-	-	-	-	-	-	8	13	5	3	4	5	-	2	-	-	-	-	-	-	
DRAFTERS, CLASS B -----	608	40.0	242.00	240.00	220.00-260.00	-	-	-	-	2	47	100	119	186	61	74	9	10	-	-	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	409	40.0	237.00	237.00	218.50-254.00	-	-	-	-	-	39	75	105	111	45	31	1	2	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	199	40.0	252.00	240.00	240.00-285.50	-	-	-	-	2	8	25	14	75	16	43	8	8	-	-	-	-	-	-	-	-	-	-	-	
DRAFTERS, CLASS C -----	465	40.0	194.50	190.00	178.50-207.00	-	-	6	4	125	179	86	32	26	6	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	312	40.0	194.00	192.00	180.00-206.00	-	-	-	4	73	133	74	24	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	153	40.0	195.50	190.00	169.50-215.00	-	-	6	-	52	46	12	8	23	5	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
ELECTRONICS TECHNICIANS -----	1,442	39.5	292.00	286.50	230.00-354.00	-	-	-	-	18	81	172	173	145	94	96	125	113	89	109	145	82	-	-	-	-	-	-	-	
MANUFACTURING -----	1,103	40.0	268.00	256.00	220.00-313.00	-	-	-	-	18	81	172	167	144	76	92	108	90	70	51	29	5	-	-	-	-	-	-	-	
NONMANUFACTURING -----	339	39.0	370.00	383.50	356.50-396.00	-	-	-	-	-	-	-	6	1	18	4	17	23	19	58	116	77	-	-	-	-	-	-	-	
PUBLIC UTILITIES -----	299	39.0	369.00	396.00	354.00-401.00	-	-	-	-	-	-	-	6	1	18	4	17	23	18	19	116	77	-	-	-	-	-	-	-	
ELECTRONICS TECHNICIANS, CLASS B -----	360	40.0	249.50	241.50	227.00-269.00	-	-	-	-	16	8	36	112	85	18	32	29	15	9	-	-	-	-	-	-	-	-	-	-	
REGISTERED INDUSTRIAL NURSES -----	118	39.5	263.00	266.50	236.50-278.50	-	-	-	-	-	-	12	21	17	40	18	6	1	-	3	-	-	-	-	-	-	-	-	-	
MANUFACTURING -----	89	39.5	265.50	267.50	247.00-278.50	-	-	-	-	-	-	2	16	16	34	15	4	1	-	1	-	-	-	-	-	-	-	-	-	

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Minneapolis—St. Paul, Minn.—Wis., January 1978

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 (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)
OFFICE OCCUPATIONS - MEN			\$	OFFICE OCCUPATIONS - WOMEN--CONTINUED			\$	OFFICE OCCUPATIONS - WOMEN--CONTINUED			\$
ORDER CLERKS -----	152	40.0	239.00	TYPISTS - CONTINUED				BOOKKEEPING-MACHINE OPERATORS - CONTINUED			
MANUFACTURING -----	54	40.0	234.00								
ORDER CLERKS, CLASS A -----	148	40.0	239.50	TYPISTS, CLASS B -----	991	39.5	141.00	BOOKKEEPING-MACHINE OPERATORS, CLASS A -----	99	39.5	175.00
MANUFACTURING -----	50	40.0	235.50	NONMANUFACTURING -----	228	39.5	139.50	NONMANUFACTURING -----	91	39.5	173.00
				NONMANUFACTURING -----	763	39.5	141.50				
				PUBLIC UTILITIES -----	120	39.5	163.00				
OFFICE OCCUPATIONS - WOMEN				FILE CLERKS -----	1,325	39.0	125.50	BOOKKEEPING-MACHINE OPERATORS, CLASS B -----	168	38.5	145.50
SECRETARIES -----	5,322	39.0	197.50	MANUFACTURING -----	119	40.0	136.00	NONMANUFACTURING -----	155	38.5	143.50
NONMANUFACTURING -----	2,966	39.0	198.50	NONMANUFACTURING -----	1,206	39.0	124.50				
PUBLIC UTILITIES -----	352	39.5	252.00	FILE CLERKS, CLASS B -----	678	39.0	129.50	MACHINE BILLERS -----	295	39.0	198.50
SECRETARIES, CLASS A -----	463	39.5	240.00	NONMANUFACTURING -----	643	39.0	128.50	NONMANUFACTURING -----	247	39.0	208.00
NONMANUFACTURING -----	286	39.0	240.50	PUBLIC UTILITIES -----	61	40.0	215.00				
PUBLIC UTILITIES -----	71	40.0	299.00	FILE CLERKS, CLASS C -----	555	38.5	116.00	PAYROLL CLERKS -----	597	39.5	190.50
SECRETARIES, CLASS B -----	1,354	39.0	214.50	MANUFACTURING -----	83	40.0	131.50	MANUFACTURING -----	229	40.0	192.50
NONMANUFACTURING -----	883	39.0	214.50	NONMANUFACTURING -----	472	38.5	113.00	NONMANUFACTURING -----	368	39.5	189.00
PUBLIC UTILITIES -----	106	40.0	271.00	MESSENGERS -----	409	39.0	121.50	KEY ENTRY OPERATORS -----	2,222	39.5	156.50
SECRETARIES, CLASS C: NONMANUFACTURING -----	943	39.5	187.50	MANUFACTURING -----	129	39.5	127.50	NONMANUFACTURING -----	1,544	39.5	155.50
PUBLIC UTILITIES -----	77	40.0	227.50	NONMANUFACTURING -----	280	39.0	118.50	KEY ENTRY OPERATORS, CLASS A: NONMANUFACTURING -----	562	39.5	168.00
SECRETARIES, CLASS D -----	1,308	39.5	179.50	SWITCHBOARD OPERATORS -----	410	39.5	146.50	KEY ENTRY OPERATORS, CLASS B -----	1,255	39.5	150.00
MANUFACTURING -----	604	40.0	182.50	MANUFACTURING -----	66	39.5	166.50	MANUFACTURING -----	273	39.5	155.50
NONMANUFACTURING -----	704	39.0	176.50	NONMANUFACTURING -----	344	39.5	142.50	NONMANUFACTURING -----	982	39.0	148.00
PUBLIC UTILITIES -----	93	39.0	211.50	SWITCHBOARD OPERATOR-RECEPTIONISTS- MANUFACTURING -----	871	39.5	155.50	PUBLIC UTILITIES -----	68	39.5	188.00
SECRETARIES, CLASS E: NONMANUFACTURING -----	116	39.5	188.00	MANUFACTURING -----	205	40.0	155.50				
STENOGRAPHERS -----	1,340	39.0	167.50	NONMANUFACTURING -----	666	39.5	155.50	PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN			
NONMANUFACTURING -----	759	39.0	170.50	PUBLIC UTILITIES -----	72	39.5	204.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS) -----	979	39.5	362.50
STENOGRAPHERS, GENERAL -----	468	39.5	178.00	ORDER CLERKS -----	589	40.0	168.00	MANUFACTURING -----	569	39.5	369.50
MANUFACTURING -----	182	39.5	155.50	MANUFACTURING -----	184	40.0	164.50	NONMANUFACTURING -----	410	39.5	352.50
NONMANUFACTURING -----	286	39.5	192.00	NONMANUFACTURING -----	405	40.0	170.00	PUBLIC UTILITIES -----	95	40.0	393.50
STENOGRAPHERS, SENIOR: NONMANUFACTURING -----	473	39.0	157.50	ORDER CLERKS, CLASS A -----	311	40.0	179.50	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A -----	541	39.5	389.50
TRANSCRIBING-MACHINE TYPISTS -----	137	39.5	151.50	MANUFACTURING -----	66	40.0	183.50	NONMANUFACTURING -----	197	39.0	382.00
MANUFACTURING -----	75	39.5	150.00	NONMANUFACTURING -----	245	40.0	178.50	PUBLIC UTILITIES -----	39	40.0	441.50
NONMANUFACTURING -----	62	39.5	154.00	ORDER CLERKS, CLASS B -----	278	40.0	155.50	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B -----	372	39.5	334.50
TYPISTS -----	1,945	39.5	148.50	MANUFACTURING -----	118	40.0	153.50	MANUFACTURING -----	180	39.5	342.00
MANUFACTURING -----	471	39.5	147.00	NONMANUFACTURING -----	160	39.5	156.50	NONMANUFACTURING -----	192	39.5	327.50
NONMANUFACTURING -----	1,474	39.0	149.00	ACCOUNTING CLERKS -----	5,231	39.5	164.50	PUBLIC UTILITIES -----	46	40.0	365.00
PUBLIC UTILITIES -----	223	40.0	194.00	MANUFACTURING -----	1,506	39.5	165.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C -----	66	40.0	297.00
TYPISTS, CLASS A -----	948	39.5	156.00	NONMANUFACTURING -----	3,725	39.0	164.00	COMPUTER PROGRAMMERS (BUSINESS) -----	1,255	39.0	290.00
MANUFACTURING -----	237	39.5	155.00	ACCOUNTING CLERKS, CLASS A: MANUFACTURING -----	636	39.5	182.50	MANUFACTURING -----	607	39.5	308.50
NONMANUFACTURING -----	711	39.0	156.50	MANUFACTURING -----	3,227	39.5	152.00	NONMANUFACTURING -----	648	39.0	272.50
PUBLIC UTILITIES -----	103	40.0	229.50	MANUFACTURING -----	858	39.5	152.00	PUBLIC UTILITIES -----	118	40.0	343.50
				NONMANUFACTURING -----	2,369	39.0	152.00				
				BOOKKEEPING-MACHINE OPERATORS -----	267	39.0	156.50				
				NONMANUFACTURING -----	246	39.0	154.50				

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Minneapolis—St. Paul, Minn.—Wis., January 1978—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 (standard)	Weekly earnings ¹ (standard)			Weekly hours (standard)	Weekly earnings ¹ (standard)			Weekly hours (standard)	Weekly earnings ¹ (standard)
PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN--CONTINUED				PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN--CONTINUED				PROFESSIONAL AND TECHNICAL OCCUPATIONS - WOMEN--CONTINUED			
COMPUTER PROGRAMMERS (BUSINESS) - CONTINUED				DRAFTERS -----	1,639	40.0	\$ 255.50	COMPUTER PROGRAMMERS (BUSINESS) - CONTINUED			
COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	384	39.0	\$ 333.00	MANUFACTURING -----	1,228	40.0	257.00	COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	66	39.0	\$ 306.50
MANUFACTURING -----	165	39.5	356.00	NONMANUFACTURING -----	411	40.0	252.00	COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	156	39.5	275.50
NONMANUFACTURING -----	219	39.0	315.50	PUBLIC UTILITIES -----	62	40.0	312.50	NONMANUFACTURING -----	96	39.5	269.00
PUBLIC UTILITIES -----	45	40.0	386.00	DRAFTERS, CLASS A -----	582	40.0	297.50	COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	117	39.0	248.50
COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	541	39.0	288.00	MANUFACTURING -----	478	40.0	296.00	NONMANUFACTURING -----	56	38.5	240.50
MANUFACTURING -----	277	39.5	305.00	NONMANUFACTURING -----	104	40.0	306.50	COMPUTER OPERATORS -----	479	39.5	190.50
NONMANUFACTURING -----	264	38.5	270.50	PUBLIC UTILITIES -----	40	40.0	333.00	MANUFACTURING -----	258	40.0	185.50
PUBLIC UTILITIES -----	60	40.0	324.00	DRAFTERS, CLASS B -----	545	40.0	241.50	NONMANUFACTURING -----	221	39.5	196.00
COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	291	39.5	239.00	MANUFACTURING -----	347	40.0	235.50	COMPUTER OPERATORS, CLASS B -----	251	39.5	194.00
NONMANUFACTURING -----	136	38.5	214.50	NONMANUFACTURING -----	198	40.0	252.00	MANUFACTURING -----	140	39.5	184.00
COMPUTER OPERATORS -----	850	39.0	206.50	DRAFTERS, CLASS C -----	336	40.0	195.00	NONMANUFACTURING -----	66	40.0	165.00
MANUFACTURING -----	339	39.5	203.50	MANUFACTURING -----	238	40.0	192.50	COMPUTER OPERATORS, CLASS C -----	131	40.0	168.50
NONMANUFACTURING -----	511	39.0	208.00	NONMANUFACTURING -----	98	40.0	202.00	MANUFACTURING -----	65	40.0	172.00
COMPUTER OPERATORS, CLASS A -----	260	39.0	239.50	ELECTRONICS TECHNICIANS -----	1,376	39.5	291.50	NONMANUFACTURING -----	66	40.0	174.00
NONMANUFACTURING -----	158	39.0	250.00	MANUFACTURING -----	1,080	40.0	269.00	COMPUTER DATA LIBRARIANS -----	65	38.5	174.00
PUBLIC UTILITIES -----	32	40.0	297.50	NONMANUFACTURING -----	296	39.0	371.50	NONMANUFACTURING -----	56	38.5	174.00
COMPUTER OPERATORS, CLASS B -----	363	39.0	210.00	PUBLIC UTILITIES -----	256	38.5	370.50	DRAFTERS: -----			
MANUFACTURING -----	117	39.5	219.50	ELECTRONICS TECHNICIANS, CLASS B -----	352	40.0	250.00	NONMANUFACTURING -----	74	40.0	197.50
NONMANUFACTURING -----	246	39.0	205.50	PROFESSIONAL AND TECHNICAL OCCUPATIONS - WOMEN				REGISTERED INDUSTRIAL NURSES -----	105	39.5	260.50
COMPUTER OPERATORS, CLASS C -----	194	39.5	163.50	COMPUTER PROGRAMMERS (BUSINESS) -----	339	39.5	272.50	MANUFACTURING -----	76	39.5	262.00
MANUFACTURING -----	120	40.0	172.00	MANUFACTURING -----	144	39.5	285.50				
NONMANUFACTURING -----	74	38.0	150.00	NONMANUFACTURING -----	195	39.0	262.50				
				PUBLIC UTILITIES -----	35	40.0	316.00				

See footnotes at end of tables.

**Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978**

Occupation and industry division	Number of workers	Hourly earnings ¹			Number of workers receiving straight-time hourly earnings of—																						
		Mean ²	Median ²	Middle range ²	\$ 3.70 and under	\$ 3.80	\$ 4.00	\$ 4.20	\$ 4.40	\$ 4.60	\$ 4.80	\$ 5.00	\$ 5.40	\$ 5.80	\$ 6.20	\$ 6.60	\$ 7.00	\$ 7.40	\$ 7.80	\$ 8.20	\$ 8.60	\$ 9.00	\$ 9.40	\$ 9.80	\$ 10.20	\$ 10.60	\$ 11.00
						3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	10.60	11.00
ALL WORKERS																											
MAINTENANCE CARPENTERS -----	147	\$ 7.81	\$ 7.39	\$ 7.01- 7.92	-	-	-	-	-	-	-	-	-	-	5	30	46	22	8	1	5	2	-	26	2	-	-
MANUFACTURING -----	76	7.48	7.39	7.16- 7.68	-	-	-	-	-	-	-	-	-	5	10	26	21	7	1	2	2	-	2	-	-	-	-
NONMANUFACTURING -----	71	8.16	7.25	6.82- 9.66	-	-	-	-	-	-	-	-	-	-	-	20	20	1	1	-	3	-	24	2	-	-	-
PUBLIC UTILITIES -----	39	7.09	6.82	6.80- 7.12	-	-	-	-	-	-	-	-	-	-	-	20	15	1	1	-	1	-	1	-	-	-	-
MAINTENANCE ELECTRICIANS -----	439	8.67	8.78	7.85- 9.51	-	-	-	-	-	-	-	-	-	-	1	16	48	26	97	29	75	1	38	51	4	50	1
MANUFACTURING -----	364	8.44	8.11	7.80- 8.80	-	-	-	-	-	-	-	-	-	-	1	16	48	26	92	26	75	1	36	-	-	42	1
MAINTENANCE PAINTERS -----	90	8.14	8.16	7.39- 9.13	-	-	-	-	-	-	-	-	-	-	1	6	16	20	2	19	-	17	5	3	-	1	-
MANUFACTURING -----	50	7.87	7.68	7.41- 8.32	-	-	-	-	-	-	-	-	-	-	1	1	7	19	2	16	-	4	-	-	-	-	-
MAINTENANCE MACHINISTS -----	527	8.11	8.01	7.90- 8.42	-	-	-	-	-	-	-	-	-	1	9	10	9	74	181	188	32	14	3	-	5	1	-
MANUFACTURING -----	519	8.08	8.00	7.90- 8.42	-	-	-	-	-	-	-	-	-	1	9	10	9	74	181	188	32	14	-	-	-	1	-
MAINTENANCE MECHANICS (MACHINERY) -	916	7.38	7.12	6.72- 7.78	-	-	-	-	-	-	-	-	-	93	58	231	121	189	28	99	61	3	18	15	-	-	-
MANUFACTURING -----	808	7.36	7.07	6.72- 7.78	-	-	-	-	-	-	-	-	-	62	58	224	105	176	23	79	60	3	18	-	-	-	-
NONMANUFACTURING -----	108	7.51	7.47	5.91- 8.45	-	-	-	-	-	-	-	-	-	31	7	16	13	5	20	1	-	-	15	-	-	-	-
PUBLIC UTILITIES -----	48	8.68	8.45	7.98- 9.86	-	-	-	-	-	-	-	-	-	-	-	-	3	9	1	20	-	-	-	15	-	-	-
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	1,195	8.18	8.74	8.15- 8.87	15	-	-	-	-	-	-	15	110	-	5	14	12	11	73	56	159	696	5	3	21	-	-
MANUFACTURING -----	64	7.52	7.37	6.68- 7.91	-	-	-	-	-	-	-	-	-	-	14	9	10	6	12	-	8	5	-	-	-	-	-
NONMANUFACTURING -----	1,131	8.22	8.87	8.50- 8.87	15	-	-	-	-	-	-	15	110	-	5	-	3	1	67	44	159	688	-	3	21	-	-
PUBLIC UTILITIES -----	1,044	8.36	8.87	8.50- 8.87	-	-	-	-	-	-	-	-	110	-	-	-	1	65	-	159	685	-	3	21	-	-	-
MAINTENANCE PIPEFITTERS -----	121	8.77	8.75	8.75- 9.28	-	-	-	-	-	-	-	-	-	-	-	5	5	3	1	1	70	30	-	2	4	-	-
MANUFACTURING -----	114	8.71	8.75	8.75- 9.28	-	-	-	-	-	-	-	-	-	-	-	5	5	3	-	1	70	30	-	-	-	-	-
MILLWRIGHTS -----	166	8.02	7.80	7.68- 8.32	-	-	-	-	-	-	-	-	-	-	1	-	6	59	53	24	-	23	-	-	-	-	-
MANUFACTURING -----	159	8.00	7.80	7.68- 8.26	-	-	-	-	-	-	-	-	-	-	1	-	6	59	53	17	-	23	-	-	-	-	-
MAINTENANCE TRADES HELPERS: -----																											
MANUFACTURING -----	78	6.37	6.66	6.31- 6.66	-	-	-	-	-	2	-	-	16	-	12	48	-	-	-	-	-	-	-	-	-	-	-
MACHINE-TOOL OPERATORS (TOOLROOM) -	66	7.25	7.43	6.77- 7.59	-	-	-	-	-	-	-	-	-	-	4	24	4	22	12	-	-	-	-	-	-	-	-
MANUFACTURING -----	66	7.25	7.43	6.77- 7.59	-	-	-	-	-	-	-	-	-	-	4	24	4	22	12	-	-	-	-	-	-	-	-
TOOL AND DIE MAKERS -----	768	8.24	8.33	7.93- 8.47	-	-	-	-	-	-	-	-	-	-	-	36	10	43	165	415	51	26	20	2	-	-	-
MANUFACTURING -----	767	8.24	8.33	7.93- 8.47	-	-	-	-	-	-	-	-	-	-	-	36	10	43	165	415	51	26	20	1	-	-	-
STATIONARY ENGINEERS -----	544	7.66	8.21	7.50- 8.47	-	-	-	-	-	-	-	24	15	3	1	1	24	59	26	118	235	20	12	-	6	-	-
MANUFACTURING -----	138	8.13	8.27	7.77- 8.50	-	-	-	-	-	-	-	-	-	-	-	5	25	6	29	43	20	10	-	-	-	-	-
NONMANUFACTURING -----	406	7.78	8.15	7.49- 8.47	-	-	-	-	-	-	-	24	15	3	1	1	19	34	20	89	192	-	2	-	6	-	-
BOILER TENDERS -----	315	7.27	7.31	6.36- 8.22	-	-	-	-	-	-	-	-	-	12	53	19	26	85	12	9	79	17	3	-	-	-	-
MANUFACTURING -----	226	7.22	7.31	6.36- 7.66	-	-	-	-	-	-	-	-	-	12	28	19	24	75	12	9	27	17	3	-	-	-	-

See footnotes at end of tables.

**Table A-5. Hourly earnings of material movement and custodial workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978**

Occupation and industry division	Number of workers	Hourly earnings ¹			Number of workers receiving straight-time hourly earnings of—																						
		Mean ²	Median ²	Middle range ²	\$ 2.60	\$ 2.80	\$ 3.00	\$ 3.20	\$ 3.40	\$ 3.60	\$ 3.80	\$ 4.00	\$ 4.20	\$ 4.40	\$ 4.60	\$ 4.80	\$ 5.00	\$ 5.40	\$ 5.80	\$ 6.20	\$ 6.60	\$ 7.00	\$ 7.40	\$ 7.80	\$ 8.20	\$ 8.60	\$ 9.00
					and under	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40
ALL WORKERS																											
TRUCKDRIVERS -----	6,004	\$ 8.12	\$ 8.50	\$ 8.29- 8.50	-	-	-	-	-	-	3	30	17	30	7	60	26	59	120	254	198	118	358	208	3444	1072	-
MANUFACTURING -----	1,220	7.87	8.60	6.47- 8.85	-	-	-	-	-	-	-	-	-	-	-	-	23	43	30	250	39	1	25	133	64	612	-
NONMANUFACTURING -----	4,784	8.18	8.50	8.50- 8.50	-	-	-	-	-	-	3	30	17	30	7	60	3	16	90	4	159	117	333	75	3380	460	-
PUBLIC UTILITIES -----	3,372	8.48	8.50	8.50- 8.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	19	40	-	3303	-	-
TRUCKDRIVERS, LIGHT TRUCK -----	373	7.19	6.98	5.87- 8.90	-	-	-	-	-	-	-	-	-	-	-	-	19	24	94	13	70	-	24	2	-	127	-
NONMANUFACTURING -----	202	6.46	6.16	5.87- 6.98	-	-	-	-	-	-	-	-	-	-	-	-	-	16	90	-	70	-	24	2	-	-	-
TRUCKDRIVERS, MEDIUM TRUCK -----	1,385	8.02	8.50	7.87- 8.50	-	-	-	-	-	-	3	30	-	-	7	-	7	16	12	89	52	15	102	72	953	27	-
MANUFACTURING -----	186	6.84	6.40	6.40- 7.47	-	-	-	-	-	-	-	-	-	-	-	-	4	16	12	89	10	1	10	18	-	26	-
TRUCKDRIVERS, HEAVY TRUCK -----	498	8.16	8.50	8.50- 8.70	-	-	-	-	-	-	-	-	17	-	-	-	-	19	-	9	24	5	7	5	230	182	-
TRUCKDRIVERS, TRACTOR-TRAILER -----	2,483	8.21	8.50	8.50- 8.60	-	-	-	-	-	-	-	-	-	30	-	60	-	-	-	139	42	98	46	116	1222	730	-
MANUFACTURING -----	534	8.00	8.81	6.47- 8.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139	6	-	10	104	4	271	-
NONMANUFACTURING -----	1,949	8.26	8.50	8.50- 8.59	-	-	-	-	-	-	-	-	-	30	-	60	-	-	-	-	36	96	36	12	1218	459	-
SHIPPERS -----	429	6.75	7.51	5.50- 7.51	-	-	-	-	4	-	-	-	18	-	-	-	32	72	29	10	33	15	160	42	14	-	-
MANUFACTURING -----	196	5.91	5.50	5.39- 6.54	-	-	-	-	-	-	-	-	18	-	-	-	31	72	16	10	18	9	4	18	-	-	-
NONMANUFACTURING -----	233	7.47	7.51	7.51- 7.70	-	-	-	-	4	-	-	-	-	-	-	-	1	-	13	-	15	6	156	24	14	-	-
RECEIVERS -----	563	6.29	6.69	5.10- 7.53	-	5	10	9	28	5	4	1	9	5	13	3	66	37	37	47	70	15	143	30	26	-	-
MANUFACTURING -----	159	6.20	6.41	5.36- 7.60	-	-	-	-	8	-	-	-	9	4	9	2	10	19	16	8	23	9	33	9	-	-	-
NONMANUFACTURING -----	404	6.33	6.69	5.10- 7.51	-	5	10	9	20	5	4	1	-	1	4	1	56	18	21	39	47	6	110	21	26	-	-
SHIPPERS AND RECEIVERS -----	369	6.23	6.51	5.50- 6.73	-	-	-	-	-	-	4	-	-	-	9	19	50	71	26	25	133	2	2	-	26	2	-
MANUFACTURING -----	286	6.05	6.18	5.50- 6.65	-	-	-	-	-	-	4	-	-	-	9	19	25	71	26	25	105	2	-	-	-	-	-
WAREHOUSEMEN -----	1,610	6.91	7.51	6.14- 8.12	-	-	-	57	3	3	18	19	41	22	63	74	23	59	40	43	162	138	392	168	129	156	-
MANUFACTURING -----	423	5.13	4.87	4.37- 6.14	-	-	-	57	-	-	-	19	38	19	63	45	19	54	11	22	45	15	16	-	-	-	-
NONMANUFACTURING -----	1,187	7.54	7.51	7.27- 8.12	-	-	-	-	3	3	18	-	3	3	-	29	4	5	29	21	117	123	376	168	129	156	-
PUBLIC UTILITIES -----	281	7.64	8.12	7.17- 8.12	-	-	-	-	-	-	-	-	-	-	-	-	4	-	12	-	42	47	8	168	-	-	-
ORDER FILLEES -----	3,313	6.43	6.66	5.43- 7.50	10	1	69	52	82	25	63	18	96	96	114	69	128	12	34	562	575	60	1000	105	64	78	-
MANUFACTURING -----	632	5.56	5.24	4.38- 6.88	9	-	9	9	45	9	8	18	71	17	34	-	99	12	32	63	85	60	52	-	-	-	-
NONMANUFACTURING -----	2,681	6.63	6.66	6.56- 7.50	1	1	60	43	37	16	55	-	25	79	80	69	29	-	2	499	490	-	948	105	64	78	-
SHIPPING PACKERS -----	1,580	5.75	5.69	4.65- 6.66	6	-	3	8	-	41	15	60	67	49	185	95	176	155	184	25	155	135	195	-	13	13	-
MANUFACTURING -----	730	5.79	5.70	5.37- 6.10	-	-	-	-	-	-	9	28	-	30	-	64	115	134	183	22	2	135	8	-	-	-	-
NONMANUFACTURING -----	850	5.71	5.30	4.66- 7.33	6	-	3	8	-	41	6	32	67	19	185	31	61	21	1	3	153	-	187	-	13	13	-
MATERIAL HANDLING LABORERS -----	5,646	6.91	7.45	5.69- 8.50	42	4	124	85	47	42	244	37	136	45	77	60	224	336	340	213	517	213	453	131	2276	-	-
MANUFACTURING -----	1,693	6.28	6.35	5.63- 6.92	-	-	-	19	-	-	-	20	2	19	64	18	175	324	161	94	392	209	111	59	26	-	-
NONMANUFACTURING -----	3,953	7.17	8.50	6.17- 8.50	42	4	124	66	47	42	244	17	134	26	13	42	49	12	179	119	125	4	342	72	2250	-	-
PUBLIC UTILITIES -----	2,257	8.48	8.50	8.50- 8.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	13	3	-	-	2236	-	-
FORKLIFT OPERATORS -----	1,711	7.03	6.90	6.01- 7.96	-	-	-	-	-	-	-	9	-	-	27	-	110	79	292	213	223	85	238	74	124	85	152
MANUFACTURING -----	1,245	6.68	6.42	6.00- 7.31	-	-	-	-	-	-	-	9	-	-	27	-	110	79	292	178	197	85	79	26	8	3	152
NONMANUFACTURING -----	466	7.96	8.15	7.56- 8.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	26	-	159	48	116	82	-
PUBLIC UTILITIES -----	62	8.39	8.50	8.50- 8.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	29	27	-
POWER-TRUCK OPERATORS (OTHER THAN FORKLIFT) -----	180	6.00	6.47	5.97- 7.21	30	-	-	-	-	-	-	-	8	-	-	-	-	4	36	19	17	42	18	3	1	2	-
MANUFACTURING -----	144	6.67	6.92	6.04- 7.21	-	-	-	-	-	-	-	-	8	-	-	-	-	4	36	19	11	42	18	3	1	2	-

See footnotes at end of tables.

**Table A-5. Hourly earnings of material movement and custodial workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978—Continued**

Occupation and industry division	Number of workers	Hourly earnings ⁴			Number of workers receiving straight-time hourly earnings of—																							
		Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
					2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	
					and under	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.40	5.80	6.20	6.60	7.00	7.40	7.80	8.20	8.60	9.00	9.40	
ALL WORKERS-- CONTINUED																												
GUARDS -----	2,576	\$ 3.62	\$ 2.85	\$ 2.70- 4.40	1150	325	118	83	45	15	21	87	67	147	43	21	102	75	82	79	68	17	2	25	4	-	-	
MANUFACTURING -----	380	5.80	5.72	5.30- 6.36	-	-	-	5	5	8	1	6	1	15	6	7	83	61	23	78	67	7	2	5	-	-	-	
NONMANUFACTURING -----	2,196	3.25	2.75	2.65- 3.30	1150	325	118	78	40	7	20	81	66	132	37	14	19	14	59	1	1	10	-	20	4	-	-	
PUBLIC UTILITIES -----	46	7.23	7.84	6.90- 7.84	-	-	-	-	-	-	-	1	-	-	-	-	1	-	9	-	1	10	-	20	4	-	-	
GUARDS, CLASS A -----	474	4.54	4.40	4.10- 4.91	-	-	64	14	-	-	20	62	62	129	2	7	15	13	50	27	-	-	-	5	4	-	-	
NONMANUFACTURING -----	443	4.40	4.40	4.10- 4.40	-	-	64	14	-	-	20	62	62	129	2	7	15	13	50	1	-	-	-	-	4	-	-	
GUARDS, CLASS B -----	1,728	3.54	2.80	2.72- 3.50	862	310	29	58	43	12	1	9	2	16	38	12	84	61	32	52	68	17	2	20	-	-	-	
MANUFACTURING -----	349	5.73	5.72	5.30- 6.36	-	-	-	5	5	8	1	6	1	15	6	7	83	61	23	52	67	7	2	-	-	-	-	
NONMANUFACTURING -----	1,379	2.98	2.75	2.65- 2.85	862	310	29	53	38	4	-	3	1	1	32	5	1	-	9	-	1	10	-	20	-	-	-	
PUBLIC UTILITIES -----	42	7.13	7.35	6.14- 7.84	-	-	-	-	-	-	-	1	-	-	-	-	1	-	9	-	1	10	-	20	-	-	-	
JANITORS, PORTERS, AND CLEANERS -----	7,552	4.26	4.54	3.37- 4.66	502	348	522	809	636	237	100	324	160	1680	432	192	525	274	286	343	21	144	2	2	13	-	-	
MANUFACTURING -----	1,677	5.31	5.16	4.84- 6.07	-	16	30	43	21	-	5	91	14	37	128	128	413	223	198	248	-	77	2	2	1	-	-	
NONMANUFACTURING -----	5,875	3.96	3.75	3.25- 4.56	502	332	492	766	615	237	95	233	146	1643	304	64	112	51	88	95	21	67	-	-	12	-	-	
PUBLIC UTILITIES -----	271	6.12	6.27	5.80- 6.47	-	-	6	-	-	4	3	2	3	-	-	-	17	19	74	95	21	15	-	-	12	-	-	

See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Minneapolis—St. Paul, Minn.—Wis., January 1978

Sex, ¹ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings ⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings ⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings ⁴
MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS - MEN			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN--CONTINUED		
MAINTENANCE CARPENTERS:		\$	TRUCKDRIVERS -----	5,983	8.12	FORKLIFT OPERATORS -----	1,701	\$ 7.03
MANUFACTURING -----	76	7.48	MANUFACTURING -----	1,220	7.87	MANUFACTURING -----	1,241	6.68
MAINTENANCE ELECTRICIANS -----	434	8.68	NONMANUFACTURING -----	4,763	8.19	NONMANUFACTURING -----	460	7.97
MANUFACTURING -----	364	8.44	PUBLIC UTILITIES -----	3,351	8.48			
MAINTENANCE PAINTERS -----	87	8.17	TRUCKDRIVERS, LIGHT TRUCK -----	373	7.19	POWER-TRUCK OPERATORS (OTHER THAN FORKLIFT) -----	150	6.67
MAINTENANCE MACHINISTS -----	525	8.11	NONMANUFACTURING -----	202	6.46	MANUFACTURING -----	144	6.67
MANUFACTURING -----	517	8.08	TRUCKDRIVERS, MEDIUM TRUCK -----	1,377	8.02	GUARDS -----	2,291	3.51
MAINTENANCE MECHANICS (MACHINERY) -	912	7.37	MANUFACTURING -----	186	6.84	NONMANUFACTURING -----	2,611	3.22
MANUFACTURING -----	808	7.36	TRUCKDRIVERS, HEAVY TRUCK -----	498	8.16	GUARDS, CLASS A -----	454	4.56
NONMANUFACTURING -----	104	7.51	TRUCKDRIVERS, TRACTOR-TRAILER -----	2,480	8.21	NONMANUFACTURING -----	423	4.42
PUBLIC UTILITIES -----	44	8.79	MANUFACTURING -----	534	8.00	GUARDS, CLASS B -----	1,479	3.34
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	1,195	8.18	NONMANUFACTURING -----	1,946	8.26	NONMANUFACTURING -----	1,230	2.92
MANUFACTURING -----	64	7.52	SHIPPERS -----	417	6.81	JANITORS, PORTERS, AND CLEANERS ---	5,390	4.24
NONMANUFACTURING -----	1,131	8.22	MANUFACTURING -----	188	5.93	MANUFACTURING -----	1,353	5.21
PUBLIC UTILITIES -----	1,044	8.36	NONMANUFACTURING -----	229	7.53	NONMANUFACTURING -----	4,037	3.92
MAINTENANCE PIPEFITTERS -----	120	8.78	RECEIVERS -----	482	6.64			
MANUFACTURING -----	114	8.71	MANUFACTURING -----	143	6.43			
MILLWRIGHTS -----	166	8.02	NONMANUFACTURING -----	339	6.73	MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - WOMEN		
MANUFACTURING -----	159	8.00	SHIPPERS AND RECEIVERS -----	327	6.23			
MAINTENANCE TRADES HELPERS:			MANUFACTURING -----	244	6.01	RECEIVERS -----	81	4.24
MANUFACTURING -----	76	6.36	WAREHOUSEMEN -----	1,538	6.92	ORDER FILLERS -----	726	4.58
MACHINE-TOOL OPERATORS (TOOLROOM) -	66	7.25	MANUFACTURING -----	405	5.06	MANUFACTURING -----	243	4.46
MANUFACTURING -----	66	7.25	NONMANUFACTURING -----	1,133	7.58	NONMANUFACTURING -----	483	4.64
TOOL AND DIE MAKERS -----	768	8.24	ORDER FILLERS -----	2,587	6.95	SHIPPING PACKERS -----	685	4.95
MANUFACTURING -----	767	8.24	MANUFACTURING -----	389	6.25	MANUFACTURING -----	265	5.60
STATIONARY ENGINEERS -----	539	7.87	NONMANUFACTURING -----	2,198	7.07	GUARDS:		
MANUFACTURING -----	138	8.13	SHIPPING PACKERS -----	895	6.36	NONMANUFACTURING -----	165	2.97
NONMANUFACTURING -----	401	7.78	MANUFACTURING -----	465	5.90	JANITORS, PORTERS, AND CLEANERS ---	1,920	4.06
BOILER TENDERS -----	315	7.27	NONMANUFACTURING -----	430	6.86	NONMANUFACTURING -----	1,765	3.96
MANUFACTURING -----	226	7.22	MATERIAL HANDLING LABORERS -----	5,389	7.03			
			MANUFACTURING -----	1,664	6.30			
			NONMANUFACTURING -----	3,725	7.35			
			PUBLIC UTILITIES -----	2,244	8.49			

See footnotes at end of tables.

Table A-7. Percent increases in average hourly earnings, adjusted for employment shifts, for selected occupational groups in Minneapolis—St. Paul, Minn.—Wis., for selected periods

Industry and occupational group ⁵	January 1972 to January 1973	January 1973 to January 1974	January 1974 to January 1975	January 1975 to January 1976	January 1976 to January 1977	January 1977 to January 1978
All industries:						
Office clerical.....	5.1	6.2	8.6	7.7	7.9	8.0
Electronic data processing.....	(⁶)	(⁶)	8.4	6.5	5.5	7.3
Industrial nurses.....	5.9	5.6	7.8	9.9	8.2	6.8
Skilled maintenance trades.....	6.8	6.4	9.2	8.1	8.7	8.2
Unskilled plant workers.....	6.8	6.1	9.3	7.7	8.9	8.1
Manufacturing:						
Office clerical.....	4.2	5.4	7.7	7.9	8.1	7.1
Electronic data processing.....	(⁶)	(⁶)	6.9	5.0	5.8	6.5
Industrial nurses.....	5.4	6.4	6.5	9.8	9.0	6.3
Skilled maintenance trades.....	6.4	6.1	9.0	8.9	8.8	8.1
Unskilled plant workers.....	6.3	6.6	9.3	10.1	8.3	9.5
Nonmanufacturing:						
Office clerical.....	5.5	6.7	9.0	7.6	7.7	8.4
Electronic data processing.....	(⁶)	(⁶)	10.2	7.8	5.0	8.1
Industrial nurses.....	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)
Unskilled plant workers.....	7.1	5.8	9.2	6.7	9.2	7.5

See footnotes at end of tables.

A revised description for computer operators is being introduced in this area in 1978. The revised description is not considered equivalent to the previous description. Therefore, the earnings of computer operators are not used in computing percent increases for the electronic data processing group.

**Table A-8. Weekly earnings of office workers—large establishments in Minneapolis—
St. Paul, Minn.—Wis., January 1978**

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$ 95 and under	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 160	\$ 170	\$ 180	\$ 190	\$ 200	\$ 210	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360			
						100	110	120	130	140	150	160	170	180	190	200	210	220	240	260	280	300	320	340	360	380			
ALL WORKERS																													
SECRETARIES -----	3,956	39.5	\$ 202.50	\$ 196.50	\$ 178.50-220.00	-	-	-	5	20	63	184	305	521	508	556	445	358	489	232	130	59	33	27	18	3			
MANUFACTURING -----	2,785	39.5	200.50	196.50	179.50-216.50	-	-	-	-	6	36	104	203	366	402	435	358	266	329	171	70	26	7	3	1	2			
NONMANUFACTURING -----	1,171	39.5	208.00	198.00	173.50-229.00	-	-	-	5	14	27	80	102	155	106	121	87	92	160	61	60	33	26	24	17	1			
PUBLIC UTILITIES -----	239	40.0	264.00	268.50	228.00-298.50	-	-	-	-	-	3	3	3	5	6	4	17	49	16	48	27	23	19	15	1				
SECRETARIES, CLASS A -----	308	40.0	257.50	253.00	230.00-279.00	-	-	-	-	-	3	3	6	6	9	8	18	50	75	56	30	10	17	14	3				
MANUFACTURING -----	185	40.0	256.00	253.00	241.50-271.50	-	-	-	-	-	-	-	-	-	3	4	8	28	70	44	22	2	2	-	2				
NONMANUFACTURING -----	123	39.5	259.50	246.00	214.00-315.50	-	-	-	-	-	3	3	6	6	6	4	10	22	5	12	8	8	15	14	1				
PUBLIC UTILITIES -----	55	40.0	295.50	313.00	266.00-344.00	-	-	-	-	-	1	3	-	-	-	-	1	6	2	6	6	5	10	14	1				
SECRETARIES, CLASS B -----	825	39.5	220.50	219.50	201.50-237.00	-	-	-	-	3	2	14	12	58	41	64	99	124	235	103	28	16	13	9	4	-			
MANUFACTURING -----	524	39.5	222.00	221.00	209.50-234.50	-	-	-	-	-	-	1	2	26	34	78	107	195	70	9	1	-	-	1	-				
NONMANUFACTURING -----	301	39.5	219.00	209.00	178.50-244.50	-	-	-	3	2	14	11	56	15	30	21	17	40	33	19	15	13	9	3	-				
PUBLIC UTILITIES -----	69	40.0	283.00	282.00	262.50-312.00	-	-	-	-	-	-	-	-	-	-	-	2	4	9	18	13	13	9	1	-				
SECRETARIES, CLASS C -----	1,624	39.5	193.50	192.00	179.50-205.50	-	-	-	-	13	37	126	274	301	331	251	134	119	19	10	7	2	-	-	-	-			
MANUFACTURING -----	1,316	39.5	191.50	191.00	179.50-202.50	-	-	-	-	5	14	92	247	267	299	220	104	61	3	4	-	-	-	-	-	-			
NONMANUFACTURING -----	308	39.5	201.00	199.00	174.00-226.50	-	-	-	-	8	23	34	27	34	32	31	30	58	16	6	7	2	-	-	-	-			
SECRETARIES, CLASS D -----	652	40.0	185.00	179.50	163.50-198.50	-	-	-	1	15	35	86	87	111	87	78	39	30	37	17	25	2	2	-	-	-			
MANUFACTURING -----	398	40.0	181.00	177.00	161.50-195.00	-	-	-	-	6	24	57	68	66	59	51	26	14	7	12	4	2	2	-	-	-			
NONMANUFACTURING -----	254	39.5	192.00	185.50	167.00-218.00	-	-	-	1	9	11	29	19	45	28	27	13	16	30	5	21	-	-	-	-	-			
PUBLIC UTILITIES -----	55	40.0	231.50	220.50	216.50-268.50	-	-	-	-	-	2	-	3	2	4	2	13	6	2	21	-	-	-	-	-	-			
SECRETARIES, CLASS E -----	221	39.5	172.50	168.50	159.00-180.00	-	-	-	4	2	12	42	55	49	25	16	6	2	4	1	1	1	1	-	-	-			
MANUFACTURING -----	157	39.5	172.50	169.50	159.50-179.00	-	-	-	-	-	7	33	39	39	22	8	2	2	4	1	-	-	-	-	-	-			
NONMANUFACTURING -----	64	39.5	172.50	168.00	157.00-181.50	-	-	-	4	2	5	9	16	10	3	8	4	-	-	-	1	1	1	-	-	-			
STENOGRAPHERS -----	1,049	39.5	181.00	165.50	149.50-184.00	-	-	8	21	74	160	166	169	147	70	25	6	10	13	55	18	92	12	2	1	-			
MANUFACTURING -----	689	39.5	163.50	161.50	149.50-174.50	-	-	5	7	43	121	137	143	129	65	22	4	2	2	7	2	-	-	-	-	-			
NONMANUFACTURING -----	360	39.5	215.00	222.50	153.00-284.50	-	-	3	14	31	39	29	26	18	5	3	2	8	11	48	16	92	12	2	1	-			
PUBLIC UTILITIES -----	216	40.0	259.00	278.50	240.00-289.00	-	-	-	-	2	6	4	2	5	4	1	2	8	11	48	16	92	12	2	1	-			
STENOGRAPHERS, GENERAL -----	417	39.5	191.50	163.00	144.00-240.00	-	-	8	18	54	71	48	19	25	10	10	4	8	9	54	15	56	8	-	-	-			
MANUFACTURING -----	180	39.5	155.50	148.00	140.00-163.00	-	-	5	4	35	52	34	12	14	5	8	4	-	-	7	-	-	-	-	-	-			
NONMANUFACTURING -----	237	40.0	219.00	240.00	153.00-281.50	-	-	3	14	19	19	14	7	11	5	2	-	8	9	47	15	56	8	-	-	-			
PUBLIC UTILITIES -----	167	40.0	250.00	257.00	240.00-286.00	-	-	-	-	2	6	4	2	5	4	1	-	8	9	47	15	56	8	-	-	-			
STENOGRAPHERS, SENIOR -----	632	39.5	174.50	165.50	156.50-177.00	-	-	-	3	20	89	118	150	122	60	15	2	2	4	1	3	36	4	2	1	-			
MANUFACTURING -----	509	39.5	166.00	165.50	157.50-176.00	-	-	-	3	8	69	103	131	115	60	14	-	2	2	-	2	-	-	-	-	-			
NONMANUFACTURING -----	123	39.5	208.00	167.00	149.50-289.00	-	-	-	-	12	20	15	19	7	-	1	2	-	2	1	1	36	4	2	1	-			
TRANSCRIBING-MACHINE TYPISTS -----	84	39.0	156.00	151.00	135.00-169.50	-	-	1	5	23	12	12	10	6	9	2	1	2	-	-	-	-	1	-	-	-			
TYPISTS -----	947	39.5	151.00	139.00	129.50-157.50	-	7	65	166	253	158	84	58	19	17	3	8	17	38	47	4	3	-	-	-	-			
MANUFACTURING -----	370	39.5	147.50	138.00	127.50-152.00	-	5	20	80	99	62	37	20	11	3	1	-	1	-	31	-	-	-	-	-	-			
NONMANUFACTURING -----	577	39.5	153.00	140.50	130.00-161.00	-	2	45	86	154	96	47	38	8	14	2	8	16	38	16	4	3	-	-	-	-			
TYPISTS, CLASS A -----	447	39.5	160.50	145.00	134.50-172.50	-	-	4	70	99	90	38	33	16	7	2	4	15	36	32	1	-	-	-	-	-			
MANUFACTURING -----	219	39.5	156.00	141.50	131.00-159.00	-	-	3	43	57	41	22	11	9	-	1	-	1	-	31	-	-	-	-	-	-			
NONMANUFACTURING -----	228	39.5	165.00	149.50	138.00-190.00	-	-	1	27	42	49	16	22	7	7	1	4	14	36	1	1	-	-	-	-	-			

See footnotes at end of tables.

**Table A-8. Weekly earnings of office workers—large establishments in Minneapolis—
St. Paul, Minn.—Wis., January 1978—Continued**

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$ 95 and under	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 160	\$ 170	\$ 180	\$ 190	\$ 200	\$ 210	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360			
						100	110	120	130	140	150	160	170	180	190	200	210	220	240	260	280	300	320	340	360	380			
ALL WORKERS-- CONTINUED																													
TYPISTS - CONTINUED																													
TYPISTS, CLASS B -----	494	39.5	\$142.50	\$134.00	\$125.00-\$148.00	-	7	61	92	154	68	44	25	3	10	1	4	2	2	15	3	3	-	-	-	-	-	-	
MANUFACTURING -----	145	39.0	135.50	133.50	124.50-143.00	-	5	17	33	42	21	13	9	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	349	39.5	145.50	137.00	125.50-148.00	-	2	44	59	112	47	31	16	1	7	1	4	2	2	15	3	3	-	-	-	-	-	-	
FILE CLERKS -----	392	39.5	148.00	127.50	117.00-153.00	-	32	105	75	50	28	13	12	11	12	5	-	-	15	1	13	15	4	1	-	-	-	-	
MANUFACTURING -----	70	40.0	143.50	134.00	123.50-162.50	-	-	8	20	11	6	7	6	4	6	2	-	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	322	39.0	149.00	125.50	117.00-144.00	-	32	97	55	39	22	6	6	7	6	3	-	-	15	1	13	15	4	1	-	-	-	-	
FILE CLERKS, CLASS A -----	63	40.0	221.50	194.00	165.00-287.50	-	1	-	1	4	5	1	7	7	1	5	-	-	2	-	12	13	3	1	-	-	-	-	
NONMANUFACTURING -----	56	40.0	227.50	271.50	165.50-289.50	-	1	-	1	4	4	1	4	7	-	3	-	-	2	-	12	13	3	1	-	-	-	-	
FILE CLERKS, CLASS B -----	178	39.5	140.50	122.00	115.00-152.50	-	24	57	31	11	8	9	5	4	11	-	-	-	13	1	1	2	1	-	-	-	-	-	
NONMANUFACTURING -----	140	39.5	138.00	118.50	111.50-133.00	-	24	55	21	7	5	2	2	-	6	-	-	-	13	1	1	2	1	-	-	-	-	-	
PUBLIC UTILITIES -----	30	40.0	203.50	237.00	141.50-237.00	-	-	2	2	3	2	1	2	-	-	-	-	-	13	1	1	2	1	-	-	-	-	-	
FILE CLERKS, CLASS C -----	150	39.0	125.50	125.50	117.50-133.50	-	7	48	42	35	15	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	126	38.5	126.00	125.50	117.50-133.50	-	7	42	33	28	13	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MESSENGERS -----	316	39.5	138.50	121.00	110.00-142.00	-	78	77	31	46	20	17	12	1	-	1	1	2	-	15	9	6	-	-	-	-	-	-	
MANUFACTURING -----	147	39.5	131.50	130.00	119.00-141.50	-	14	33	25	36	15	15	8	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	169	39.5	144.50	115.00	109.50-147.50	-	64	44	6	10	5	2	4	1	-	1	-	2	-	15	9	6	-	-	-	-	-	-	
PUBLIC UTILITIES -----	39	40.0	241.50	251.50	251.50-269.00	-	-	-	-	2	1	2	1	-	-	1	-	2	-	15	9	6	-	-	-	-	-	-	
SWITCHBOARD OPERATORS -----	170	39.5	165.50	152.50	138.50-179.50	4	1	2	15	23	32	15	13	24	12	7	2	2	1	3	11	3	-	-	-	-	-	-	
MANUFACTURING -----	59	39.5	161.00	155.50	145.50-178.50	-	-	-	-	8	14	10	5	10	11	-	-	-	1	-	-	-	-	-	-	-	-	-	
NONMANUFACTURING -----	111	39.5	168.00	151.00	134.50-185.50	4	1	2	15	15	18	5	8	14	1	7	2	2	-	3	11	3	-	-	-	-	-	-	
SWITCHBOARD OPERATOR-RECEPTIONISTS-----	83	39.5	157.00	160.00	144.00-163.50	-	-	-	7	12	14	8	29	3	6	2	-	-	1	1	-	-	-	-	-	-	-	-	
ORDER CLERKS -----	183	39.5	162.00	158.00	126.50-189.00	-	14	14	26	24	7	9	15	9	30	2	11	6	5	9	1	-	1	-	-	-	-	-	
MANUFACTURING -----	72	40.0	191.50	188.50	163.50-217.00	-	-	-	2	6	4	6	12	6	2	2	11	6	5	9	1	-	1	-	-	-	-	-	
NONMANUFACTURING -----	111	39.5	143.00	136.50	118.50-181.50	-	14	14	24	19	3	3	3	3	28	-	-	-	-	-	-	-	-	-	-	-	-	-	
ORDER CLERKS, CLASS A -----	58	39.5	192.00	178.50	163.50-216.50	-	-	-	-	-	2	9	13	7	2	-	7	6	5	6	-	-	1	-	-	-	-	-	
ORDER CLERKS, CLASS B -----	125	39.5	148.00	137.00	121.00-189.00	-	14	14	26	24	5	-	2	2	28	2	4	-	-	3	1	-	-	-	-	-	-	-	
NONMANUFACTURING -----	102	39.5	141.00	129.00	117.50-186.50	-	14	14	24	19	3	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	
ACCOUNTING CLERKS -----	3+250	39.5	184.00	170.50	141.50-213.50	-	25	129	223	381	323	236	297	263	246	166	115	133	160	169	28	153	182	15	5	1	-	-	
MANUFACTURING -----	932	39.5	169.50	165.50	147.50-186.00	-	14	22	60	84	101	115	122	116	127	49	39	19	20	23	2	4	9	6	-	-	-	-	
NONMANUFACTURING -----	2+318	39.5	190.00	173.50	140.00-228.50	-	11	107	163	297	222	121	175	147	119	117	76	114	140	146	26	149	173	9	5	1	-	-	
PUBLIC UTILITIES -----	963	40.0	240.50	240.00	198.50-295.00	-	-	-	-	28	12	11	54	51	47	45	24	84	118	132	20	149	173	9	5	1	-	-	
ACCOUNTING CLERKS, CLASS A -----	1+411	39.5	216.00	198.50	168.00-279.00	-	-	-	5	47	99	110	111	145	112	90	50	94	53	119	28	147	180	15	5	1	-	-	
MANUFACTURING -----	426	39.5	184.00	176.00	160.50-195.50	-	-	-	2	8	44	52	67	57	59	39	31	19	19	10	2	4	7	6	-	-	-	-	
NONMANUFACTURING -----	985	40.0	229.50	221.50	175.00-294.50	-	-	-	3	39	55	58	44	88	53	51	19	75	34	109	26	143	173	9	5	1	-	-	
PUBLIC UTILITIES -----	616	40.0	264.50	282.50	225.00-302.50	-	-	-	-	-	7	-	23	20	29	5	62	21	98	20	143	173	9	5	1	-	-	-	-
ACCOUNTING CLERKS, CLASS B -----	1+827	39.5	159.50	149.50	132.50-182.00	-	25	129	218	334	220	124	184	116	132	76	65	39	107	50	-	6	2	-	-	-	-	-	
MANUFACTURING -----	494	39.5	157.00	155.50	136.00-179.00	-	14	22	58	76	53	61	53	57	66	10	8	-	1	13	-	-	2	-	-	-	-	-	
NONMANUFACTURING -----	1+333	39.5	163.50	146.00	132.00-185.00	-	11	107	160	258	167	63	131	59	66	66	57	39	106	37	-	6	-	-	-	-	-	-	
PUBLIC UTILITIES -----	347	40.0	199.00	202.00	166.00-228.50	-	-	-	-	28	12	4	54	28	27	16	19	22	97	34	-	6	-	-	-	-	-	-	

See footnotes at end of tables.

**Table A-8. Weekly earnings of office workers—large establishments in Minneapolis—
St. Paul, Minn.—Wis., January 1978—Continued**

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of--																											
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$						
						95 and under	100	110	120	130	140	150	160	170	180	190	200	210	220	240	260	280	300	320	340	360	380						
						100	110	120	130	140	150	160	170	180	190	200	210	220	240	260	280	300	320	340	360	380							
ALL WORKERS-- CONTINUED																																	
PAYROLL CLERKS -----	307	40.0	\$ 192.00	\$ 175.50	\$ 153.00-218.00	-	-	4	12	32	22	28	40	24	12	27	16	16	23	10	3	12	19	6	1	-							
MANUFACTURING -----	106	40.0	194.00	184.50	159.50-211.50	-	-	-	2	8	8	10	6	15	7	13	9	5	6	5	2	7	1	2	-	-							
NONMANUFACTURING -----	201	39.5	191.00	168.00	149.50-220.50	-	-	4	10	24	14	18	34	9	5	14	7	11	17	5	1	5	18	4	1	-							
PUBLIC UTILITIES -----	52	40.0	264.50	286.00	218.00-309.00	-	-	-	-	-	-	-	-	2	1	6	1	8	4	1	1	5	18	4	1	-							
KEY ENTRY OPERATORS -----	1,336	39.5	165.50	157.00	142.50-175.50	-	7	27	103	155	214	224	187	131	71	62	22	34	6	14	61	15	3	-	-	-							
MANUFACTURING -----	679	39.5	160.00	157.50	147.00-169.50	-	2	3	21	70	132	151	137	84	31	25	8	-	1	8	2	4	-	-	-	-							
NONMANUFACTURING -----	657	39.5	171.50	156.50	138.00-190.00	-	5	24	82	85	82	73	50	47	40	37	14	34	5	6	59	11	3	-	-	-							
PUBLIC UTILITIES -----	150	40.0	237.50	257.00	206.00-273.00	-	-	-	-	5	3	-	7	6	9	5	5	26	5	6	59	11	3	-	-	-							
KEY ENTRY OPERATORS, CLASS A ----	641	39.5	173.00	163.50	149.50-180.00	-	-	-	11	74	133	146	147	118	57	41	11	27	2	6	59	4	3	-	-	-							
MANUFACTURING -----	474	39.5	161.00	160.00	149.00-171.50	-	-	-	2	40	101	95	109	77	27	13	3	-	1	6	-	-	-	-	-	-							
NONMANUFACTURING -----	367	39.5	188.00	173.50	152.00-216.50	-	-	-	9	34	32	53	38	41	30	28	8	27	1	-	59	4	3	-	-	-							
PUBLIC UTILITIES -----	105	40.0	251.00	273.00	218.00-273.00	-	-	-	-	-	-	-	-	2	6	3	2	25	1	-	59	4	3	-	-	-							
KEY ENTRY OPERATORS, CLASS B ----	483	39.5	153.00	142.50	129.00-162.50	-	7	27	92	81	81	68	40	11	14	19	11	7	4	8	2	11	-	-	-	-							
MANUFACTURING -----	193	39.5	157.00	151.50	137.00-165.00	-	2	3	19	30	31	48	28	5	4	10	5	-	-	2	2	4	-	-	-	-							
NONMANUFACTURING -----	290	39.5	150.00	139.00	127.50-156.50	-	5	24	73	51	50	20	12	6	10	9	6	7	4	6	-	7	-	-	-	-							
PUBLIC UTILITIES -----	45	40.0	206.00	191.50	169.50-257.00	-	-	-	-	5	3	-	7	4	3	2	3	1	4	6	-	7	-	-	-	-							

See footnotes at end of tables.

Table A-9. Weekly earnings of professional and technical workers—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$ 125 and under	\$ 130	\$ 140	\$ 150	\$ 160	\$ 180	\$ 200	\$ 220	\$ 240	\$ 260	\$ 280	\$ 300	\$ 320	\$ 340	\$ 360	\$ 380	\$ 400	\$ 420	\$ 440	\$ 460	\$ 480			
						130	140	150	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	over			
ALL WORKERS																													
COMPUTER SYSTEMS ANALYSTS (BUSINESS) -----	1,027	39.5	\$ 362.00	\$ 365.50	\$ 326.50-402.50	-	-	-	-	-	1	2	10	23	70	56	62	104	149	141	127	137	81	32	22	10			
MANUFACTURING -----	664	39.5	370.50	375.00	340.50-406.00	-	-	-	-	-	1	3	12	30	27	29	61	99	92	102	111	58	23	9	7				
NONMANUFACTURING -----	363	39.5	346.50	347.50	302.50-384.50	-	-	-	-	-	1	7	11	40	29	33	43	50	49	25	26	23	9	13	3				
PUBLIC UTILITIES -----	110	40.0	383.50	376.50	346.50-429.00	-	-	-	-	-	-	-	-	7	2	9	6	14	20	9	9	12	7	12	3				
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A -----	548	39.5	394.00	398.00	368.00-421.00	-	-	-	-	-	-	-	1	2	3	10	3	24	64	77	105	118	79	30	22	10			
NONMANUFACTURING -----	146	39.5	386.00	385.00	354.50-426.50	-	-	-	-	-	-	-	1	2	3	9	2	10	16	21	15	21	22	8	13	3			
PUBLIC UTILITIES -----	42	40.0	437.50	440.00	421.50-465.00	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	4	11	6	12	3				
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B -----	393	39.5	333.00	336.00	304.00-362.50	-	-	-	-	-	1	1	6	11	43	28	47	71	79	61	22	19	2	2	-	-			
MANUFACTURING -----	197	39.5	344.00	347.50	322.50-367.00	-	-	-	-	-	-	-	1	4	9	11	20	40	49	35	12	14	1	1	-	-			
NONMANUFACTURING -----	196	39.5	322.00	326.00	280.50-357.00	-	-	-	-	-	1	1	5	7	34	17	27	31	30	26	10	5	1	1	-	-			
PUBLIC UTILITIES -----	57	40.0	352.00	361.50	315.00-379.50	-	-	-	-	-	-	-	-	-	7	2	6	4	8	16	7	5	1	1	-	-			
COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C -----	86	40.0	289.50	284.50	264.50-313.00	-	-	-	-	-	-	1	3	10	24	18	12	9	6	3	-	-	-	-	-	-			
MANUFACTURING -----	65	40.0	284.50	280.50	264.50-302.50	-	-	-	-	-	-	-	1	2	8	21	15	8	7	2	1	-	-	-	-	-			
COMPUTER PROGRAMMERS (BUSINESS) -----	1,104	39.5	301.00	297.00	262.50-333.50	-	-	-	1	1	13	55	54	136	153	170	145	133	92	65	33	24	16	10	1	2			
MANUFACTURING -----	682	39.5	310.00	308.00	274.00-340.50	-	-	-	1	1	5	8	15	69	111	102	97	102	73	42	21	19	8	5	1	2			
NONMANUFACTURING -----	422	39.5	286.50	286.00	240.50-317.50	-	-	-	-	-	8	47	39	67	42	68	48	31	19	23	12	5	8	5	-	-			
PUBLIC UTILITIES -----	147	40.0	336.50	331.50	298.50-374.50	-	-	-	-	-	-	1	1	13	10	16	20	16	15	23	12	5	8	5	-	-			
COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	342	39.5	333.00	331.00	291.00-377.50	-	-	-	-	-	-	2	14	24	24	47	41	38	32	41	28	24	16	10	1	-			
MANUFACTURING -----	171	39.5	354.50	356.50	322.00-369.50	-	-	-	-	-	-	2	1	5	4	10	17	25	25	31	18	19	8	5	1	-			
NONMANUFACTURING -----	171	39.0	312.00	298.00	270.50-345.00	-	-	-	-	-	-	-	13	19	20	37	24	13	7	10	10	5	8	5	-	-			
PUBLIC UTILITIES -----	45	40.0	391.00	391.00	366.00-427.50	-	-	-	-	-	-	-	-	-	1	-	2	1	3	10	10	5	8	5	-	-			
COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	522	39.5	297.00	301.50	267.00-328.50	-	-	-	-	-	3	27	33	55	51	85	89	93	59	24	3	-	-	-	-	-			
MANUFACTURING -----	324	39.5	309.00	311.50	288.50-332.50	-	-	-	-	-	-	1	12	14	35	59	67	76	48	11	1	-	-	-	-	-			
NONMANUFACTURING -----	198	39.5	277.00	268.50	238.50-313.50	-	-	-	-	-	3	26	21	41	16	26	22	17	11	13	2	-	-	-	-	-			
PUBLIC UTILITIES -----	81	40.0	320.50	323.00	299.00-351.00	-	-	-	-	-	-	1	1	7	3	11	16	16	11	13	2	-	-	-	-	-			
COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	230	40.0	259.50	263.50	246.50-278.00	-	-	-	1	1	10	26	7	57	76	34	15	2	1	-	-	-	-	-	-	-			
NONMANUFACTURING -----	53	39.0	239.50	224.50	209.50-263.50	-	-	-	-	-	5	21	5	7	6	5	2	1	1	-	-	-	-	-	-	-			
COMPUTER OPERATORS -----	786	39.5	215.00	206.00	183.00-235.00	1	4	17	42	112	170	152	108	62	35	23	26	16	11	-	7	-	-	-	-	-			
MANUFACTURING -----	442	39.5	203.50	200.00	177.00-225.00	1	1	13	33	74	97	97	59	39	18	5	-	2	2	-	1	-	-	-	-	-			
NONMANUFACTURING -----	344	39.5	230.00	213.50	188.50-264.00	-	3	4	9	38	73	55	49	23	17	18	26	14	9	-	6	-	-	-	-	-			
PUBLIC UTILITIES -----	111	40.0	265.00	272.00	228.50-314.50	-	1	-	1	2	9	6	25	4	12	17	23	5	6	-	-	-	-	-	-	-			
COMPUTER OPERATORS, CLASS A -----	256	39.5	237.50	230.00	203.50-258.00	-	-	-	-	-	4	46	48	44	49	22	22	1	4	6	-	6	-	-	-	-			
MANUFACTURING -----	147	39.5	223.50	220.00	195.50-248.00	-	-	-	-	-	6	36	30	29	28	11	5	-	2	-	-	-	-	-	-	-			
NONMANUFACTURING -----	109	39.5	256.00	246.00	215.50-284.00	-	-	-	-	-	2	10	18	15	21	11	17	1	2	6	-	6	-	-	-	-			
PUBLIC UTILITIES -----	36	40.0	289.00	284.00	270.50-293.50	-	-	-	-	-	-	-	1	2	4	6	16	1	2	6	-	-	-	-	-	-			

See footnotes at end of tables.

Table A-9. Weekly earnings of professional and technical workers—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Number of workers receiving straight-time weekly earnings of—																							
			Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
						125 and under	130	140	150	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	and over		
						130	140	150	160	160	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	over			
ALL WORKERS-- CONTINUED																													
COMPUTER OPERATORS - CONTINUED																													
COMPUTER OPERATORS, CLASS B -----	351	39.5	\$ 219.50	\$ 208.00	\$ 190.00-228.50	1	1	3	9	37	83	90	58	13	13	1	25	12	4	-	1	-	-	-	-	-			
MANUFACTURING -----	153	39.5	210.50	210.50	195.50-225.50	1	1	2	6	10	33	53	27	11	7	-	-	-	1	-	1	-	-	-	-	-			
NONMANUFACTURING -----	198	39.5	226.00	208.00	188.50-239.00	-	-	1	3	27	50	37	31	2	6	1	25	12	3	-	-	-	-	-	-	-			
PUBLIC UTILITIES -----	63	40.0	265.00	264.00	228.50-314.50	-	-	-	-	-	3	5	23	-	6	1	22	3	-	-	-	-	-	-	-	-			
COMPUTER OPERATORS, CLASS C -----	179	40.0	175.00	171.00	159.00-183.50	-	3	14	33	67	41	14	6	-	-	-	-	-	1	-	-	-	-	-	-	-			
MANUFACTURING -----	142	40.0	175.50	170.50	160.00-185.50	-	-	11	27	58	28	14	3	-	-	-	-	-	1	-	-	-	-	-	-	-			
DRAFTERS -----	1,062	40.0	259.00	253.00	215.00-299.00	-	-	2	4	46	116	127	152	126	125	104	105	62	43	18	13	17	2	-	-	-			
MANUFACTURING -----	966	40.0	257.00	252.00	214.00-293.00	-	-	-	4	42	113	120	136	120	118	93	88	53	40	14	8	17	-	-	-	-			
NONMANUFACTURING -----	96	40.0	278.50	285.50	228.50-317.50	-	-	2	-	4	3	7	16	6	7	11	17	9	3	4	5	-	2	-	-	-			
PUBLIC UTILITIES -----	75	40.0	297.50	301.00	263.50-325.00	-	-	-	-	2	-	3	12	-	7	11	17	9	3	4	5	-	2	-	-	-			
DRAFTERS, CLASS A -----	485	40.0	304.50	301.00	274.00-328.00	-	-	-	-	-	-	-	16	51	81	88	100	56	43	18	13	17	2	-	-	-			
MANUFACTURING -----	445	40.0	302.00	298.50	271.50-325.50	-	-	-	-	-	-	-	16	51	81	80	87	51	40	14	8	17	-	-	-	-			
NONMANUFACTURING: PUBLIC UTILITIES -----	40	40.0	333.00	316.00	301.00-362.00	-	-	-	-	-	-	-	-	-	-	8	13	5	3	4	5	-	2	-	-	-			
DRAFTERS, CLASS B -----	328	40.0	238.50	234.00	219.50-256.50	-	-	-	-	2	19	65	100	72	43	16	5	6	-	-	-	-	-	-	-	-			
MANUFACTURING -----	293	40.0	236.00	233.00	218.50-253.00	-	-	-	-	-	17	62	96	66	36	13	1	2	-	-	-	-	-	-	-	-			
DRAFTERS, CLASS C -----	223	40.0	196.50	193.50	184.00-210.50	-	-	2	4	39	91	58	25	3	1	-	-	-	-	-	-	-	-	-	-	-			
MANUFACTURING -----	217	40.0	196.50	193.50	184.00-210.00	-	-	-	4	39	90	56	24	3	1	-	-	-	-	-	-	-	-	-	-	-			
REGISTERED INDUSTRIAL NURSES -----	110	39.5	262.50	264.50	236.00-280.50	-	-	-	-	-	-	12	21	17	32	18	6	1	-	3	-	-	-	-	-	-			
MANUFACTURING -----	81	39.5	264.50	265.00	244.00-280.50	-	-	-	-	-	-	2	16	16	26	15	4	1	-	1	-	-	-	-	-	-			

See footnotes at end of tables.

Table A-10. Average weekly earnings of office, professional, and technical workers, by sex—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978

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 (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)			Weekly hours ¹ (standard)	Weekly earnings ¹ (standard)
OFFICE OCCUPATIONS - WOMEN				OFFICE OCCUPATIONS - WOMEN--CONTINUED				PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN--CONTINUED			
SECRETARIES:			\$	ORDER CLERKS - CONTINUED			\$	COMPUTER PROGRAMMERS (BUSINESS) - CONTINUED			
NONMANUFACTURING -----	1,080	39.5	209.00	ORDER CLERKS, CLASS B -----	123	39.5	146.50	COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	380	39.5	302.00
PUBLIC UTILITIES -----	235	40.0	263.50	NONMANUFACTURING -----	102	39.5	141.00	NONMANUFACTURING -----	133	39.5	285.50
SECRETARIES, CLASS A:				ACCOUNTING CLERKS:				PUBLIC UTILITIES -----	60	40.0	324.00
NONMANUFACTURING -----	121	39.5	258.00	MANUFACTURING -----	779	39.5	163.00	COMPUTER OPERATORS -----	498	39.5	217.50
PUBLIC UTILITIES -----	53	40.0	293.50	ACCOUNTING CLERKS, CLASS A:				MANUFACTURING -----	278	40.0	205.50
SECRETARIES, CLASS B:				MANUFACTURING -----	339	39.5	176.00	NONMANUFACTURING -----	220	39.5	233.00
NONMANUFACTURING -----	300	39.5	219.00	ACCOUNTING CLERKS, CLASS B -----	1,540	39.5	153.50	COMPUTER OPERATORS, CLASS A -----	177	39.5	243.00
PUBLIC UTILITIES -----	68	40.0	283.50	MANUFACTURING -----	428	39.5	153.00	NONMANUFACTURING -----	87	39.5	264.00
SECRETARIES, CLASS C:				NONMANUFACTURING -----	1,112	39.5	154.00	PUBLIC UTILITIES -----	32	40.0	297.50
NONMANUFACTURING -----	307	39.5	200.50	PAYROLL CLERKS -----	256	39.5	181.00	COMPUTER OPERATORS, CLASS B -----	205	39.5	220.00
SECRETARIES, CLASS D -----	652	40.0	185.00	NONMANUFACTURING -----	176	39.5	177.50	MANUFACTURING -----	97	39.5	219.00
MANUFACTURING -----	398	40.0	181.00	KEY ENTRY OPERATORS:				COMPUTER OPERATORS, CLASS C -----	116	40.0	174.00
NONMANUFACTURING -----	254	39.5	192.00	NONMANUFACTURING -----	570	39.5	161.00	MANUFACTURING -----	91	40.0	174.00
PUBLIC UTILITIES -----	55	40.0	231.50	KEY ENTRY OPERATORS, CLASS B -----	437	39.5	154.00	DRAFTERS -----	870	40.0	262.50
SECRETARIES, CLASS E:				MANUFACTURING -----	165	39.5	158.50	MANUFACTURING -----	787	40.0	260.00
NONMANUFACTURING -----	64	39.5	172.50	NONMANUFACTURING -----	272	39.5	151.00	NONMANUFACTURING -----	83	40.0	286.50
STENOGRAPHERS, GENERAL -----	368	39.5	180.50	PUBLIC UTILITIES -----	45	40.0	206.00	PUBLIC UTILITIES -----	62	40.0	312.50
MANUFACTURING -----	180	39.5	155.50	PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN				DRAFTERS, CLASS A -----	431	40.0	306.00
TRANSCRIBING-MACHINE TYPISTS -----	84	39.0	156.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS) -----	802	39.5	367.50	MANUFACTURING -----	391	40.0	303.00
TYPISTS -----	890	39.5	150.00	MANUFACTURING -----	523	39.5	372.00	NONMANUFACTURING:			
MANUFACTURING -----	361	39.5	147.50	NONMANUFACTURING -----	279	39.5	358.50	PUBLIC UTILITIES -----	40	40.0	333.00
NONMANUFACTURING -----	529	39.5	151.50	PUBLIC UTILITIES -----	92	40.0	392.50	DRAFTERS, CLASS B -----	265	40.0	237.00
TYPISTS, CLASS A -----	430	39.5	160.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS A -----	448	39.5	395.00	MANUFACTURING -----	231	40.0	234.00
MANUFACTURING -----	219	39.5	156.00	NONMANUFACTURING -----	120	39.5	396.50	NONMANUFACTURING:			
NONMANUFACTURING -----	211	39.5	164.50	PUBLIC UTILITIES -----	39	40.0	441.50	PUBLIC UTILITIES -----	40	40.0	333.00
TYPISTS, CLASS B -----	454	39.5	140.50	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS B -----	290	39.5	339.50	DRAFTERS, CLASS C -----	162	40.0	194.50
MANUFACTURING -----	136	39.0	135.00	MANUFACTURING -----	150	39.0	345.50	MANUFACTURING -----	156	40.0	195.00
NONMANUFACTURING -----	318	39.5	142.50	NONMANUFACTURING -----	140	39.5	333.00	PROFESSIONAL AND TECHNICAL OCCUPATIONS - WOMEN			
FILE CLERKS -----	328	39.0	132.50	PUBLIC UTILITIES -----	43	40.0	361.00	COMPUTER PROGRAMMERS (BUSINESS) ---	257	39.5	277.00
NONMANUFACTURING -----	272	39.0	131.00	COMPUTER SYSTEMS ANALYSTS (BUSINESS), CLASS C -----	64	40.0	298.00	MANUFACTURING -----	131	39.5	290.00
FILE CLERKS, CLASS B -----	149	39.5	130.00	COMPUTER PROGRAMMERS (BUSINESS) ---	828	39.5	308.50	NONMANUFACTURING -----	126	39.5	263.50
NONMANUFACTURING -----	118	39.0	125.00	NONMANUFACTURING -----	294	39.5	296.50	PUBLIC UTILITIES -----	35	40.0	316.00
FILE CLERKS, CLASS C -----	149	39.0	125.50	PUBLIC UTILITIES -----	112	40.0	343.00	COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	57	39.0	303.50
NONMANUFACTURING -----	125	38.5	125.50	COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	285	39.5	339.00	COMPUTER PROGRAMMERS (BUSINESS), CLASS B -----	123	39.5	280.50
MESSENGERS -----	222	39.0	123.00	MANUFACTURING -----	152	39.5	357.00	NONMANUFACTURING -----	63	39.5	260.50
MANUFACTURING -----	103	39.0	128.00	NONMANUFACTURING -----	133	39.5	318.50	COMPUTER PROGRAMMERS (BUSINESS), CLASS C -----	77	39.5	252.50
SWITCHBOARD OPERATORS -----	154	39.5	158.50	PUBLIC UTILITIES -----	39	40.0	391.50	COMPUTER OPERATORS, CLASS C -----	57	39.5	175.50
MANUFACTURING -----	58	39.5	161.00	COMPUTER PROGRAMMERS (BUSINESS), CLASS A -----	285	39.5	339.00	REGISTERED INDUSTRIAL NURSES -----	97	39.5	259.50
NONMANUFACTURING -----	96	39.5	157.00	MANUFACTURING -----	152	39.5	357.00	MANUFACTURING -----	68	39.5	261.00
SWITCHBOARD OPERATOR-RECEPTIONISTS-----	83	39.5	157.00	NONMANUFACTURING -----	133	39.5	318.50				
ORDER CLERKS -----	166	39.5	154.00	PUBLIC UTILITIES -----	39	40.0	391.50				
MANUFACTURING -----	55	40.0	176.00								
NONMANUFACTURING -----	111	39.5	143.00								

See footnotes at end of tables.

Table A-11. Hourly earnings of maintenance, toolroom, and powerplant workers—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978

Occupation and industry division	Number of workers	Hourly earnings ⁴			Number of workers receiving straight-time hourly earnings of—																									
		Mean ²	Median ²	Middle range ²	\$ 4.70 and under	\$ 4.80	\$ 4.90	\$ 5.00	\$ 5.10	\$ 5.20	\$ 5.40	\$ 5.60	\$ 5.80	\$ 6.00	\$ 6.40	\$ 6.80	\$ 7.20	\$ 7.60	\$ 8.00	\$ 8.40	\$ 8.80	\$ 9.20	\$ 9.60	\$ 10.00	\$ 10.40	\$ 10.80	\$ 11.20	\$ 11.60		
					4.80	4.90	5.00	5.10	5.20	5.40	5.60	5.80	6.00	6.40	6.80	7.20	7.60	8.00	8.40	8.80	9.20	9.60	10.00	10.40	10.80	11.20	11.60			
ALL WORKERS		\$	\$	\$	\$																									
MAINTENANCE CARPENTERS -----	145	7.78	7.39	7.01- 7.91	-	-	-	-	-	-	-	-	1	4	23	28	28	27	1	1	5	1	17	9	-	-	-	-	-	
MANUFACTURING -----	74	7.41	7.39	7.15- 7.68	-	-	-	-	-	-	-	-	1	4	7	9	23	25	1	1	2	1	-	-	-	-	-	-		
NONMANUFACTURING -----	71	8.16	7.25	6.82- 9.86	-	-	-	-	-	-	-	-	-	-	16	19	5	2	-	-	3	-	17	9	-	-	-	-		
PUBLIC UTILITIES -----	39	7.09	6.82	6.80- 7.12	-	-	-	-	-	-	-	-	-	-	16	19	-	2	-	-	1	-	1	-	-	-	-	-		
MAINTENANCE ELECTRICIANS -----	353	8.88	8.80	7.96-10.00	-	-	-	-	-	-	-	-	-	1	2	23	6	93	14	71	7	38	2	53	40	2	1	-		
MANUFACTURING -----	278	8.64	8.80	7.96- 9.51	-	-	-	-	-	-	-	-	-	1	2	23	6	87	11	70	7	36	-	-	34	-	1	-		
MAINTENANCE PAINTERS -----	90	8.14	8.16	7.39- 9.13	-	-	-	-	-	-	-	-	-	-	6	9	15	14	19	1	16	1	6	2	1	-	-	-		
MANUFACTURING -----	50	7.87	7.68	7.41- 8.32	-	-	-	-	-	-	-	-	-	-	2	5	8	14	16	1	3	1	-	-	-	-	-	-		
MAINTENANCE MACHINISTS -----	378	8.23	8.42	7.96- 8.42	-	-	-	-	-	-	-	-	-	1	4	5	16	124	21	182	16	3	-	5	1	-	-	-		
MANUFACTURING -----	370	8.19	8.42	7.96- 8.42	-	-	-	-	-	-	-	-	-	1	4	5	16	124	21	182	16	-	-	-	1	-	-	-		
MAINTENANCE MECHANICS (MACHINERY) -----	515	7.87	7.73	7.31- 8.42	-	-	-	-	-	-	-	-	-	-	34	92	82	110	44	75	44	16	16	-	-	-	-	-		
MANUFACTURING -----	446	7.81	7.73	7.07- 8.42	-	-	-	-	-	-	-	-	-	-	34	81	77	93	43	55	44	18	1	-	-	-	-	-		
NONMANUFACTURING -----	69	8.26	8.45	7.63- 8.45	-	-	-	-	-	-	-	-	-	-	-	11	5	17	1	20	-	-	15	-	-	-	-	-		
PUBLIC UTILITIES -----	46	8.68	8.45	7.98- 9.86	-	-	-	-	-	-	-	-	-	-	-	-	-	3	9	1	20	-	-	15	-	-	-	-		
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	275	8.26	8.15	7.70- 8.87	-	-	-	-	-	-	-	-	5	-	-	5	54	56	43	23	66	2	21	-	-	-	-	-		
NONMANUFACTURING -----	239	8.28	8.25	7.76- 8.87	-	-	-	-	-	-	-	-	5	-	-	-	53	38	43	21	58	-	21	-	-	-	-	-		
PUBLIC UTILITIES -----	188	8.41	8.61	7.44- 8.93	-	-	-	-	-	-	-	-	-	-	-	-	53	13	22	21	58	-	21	-	-	-	-	-		
MAINTENANCE PIPEFITTERS -----	121	8.77	8.75	8.75- 9.28	-	-	-	-	-	-	-	-	-	-	2	5	4	3	-	69	2	30	2	4	-	-	-	-		
MANUFACTURING -----	114	8.71	8.75	8.75- 9.28	-	-	-	-	-	-	-	-	-	-	2	5	4	2	-	69	2	30	-	-	-	-	-	-		
MILLWRIGHTS -----	166	8.02	7.80	7.68- 8.32	-	-	-	-	-	-	-	-	-	1	-	5	7	104	26	-	3	20	-	-	-	-	-	-		
MANUFACTURING -----	159	8.00	7.80	7.68- 8.26	-	-	-	-	-	-	-	-	-	1	-	5	7	104	19	-	3	20	-	-	-	-	-	-		
MAINTENANCE TRADES HELPERS -----	69	6.60	6.66	6.66- 6.68	2	-	-	-	-	-	-	-	-	-	67	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOOL AND DIE MAKERS -----	506	8.45	8.47	8.33- 8.47	-	-	-	-	-	-	-	-	-	-	-	1	3	75	90	252	62	21	2	-	-	-	-	-		
MANUFACTURING -----	505	8.45	8.47	8.33- 8.47	-	-	-	-	-	-	-	-	-	-	-	1	3	75	90	252	62	21	1	-	-	-	-	-		
STATIONARY ENGINEERS -----	384	8.21	8.27	8.15- 8.47	-	-	-	-	-	-	3	-	3	1	-	1	14	30	6	163	130	22	5	6	-	-	-	-		
MANUFACTURING -----	96	8.33	8.50	8.15- 8.80	-	-	-	-	-	-	-	-	-	-	-	10	2	6	21	32	20	5	-	-	-	-	-	-		
NONMANUFACTURING -----	288	8.17	8.27	8.15- 8.47	-	-	-	-	-	-	3	-	3	1	-	1	4	28	-	142	98	2	-	6	-	-	-	-		
BOILER TENDERS -----	95	7.29	7.37	5.87- 8.21	-	-	-	-	-	-	-	-	25	-	-	20	13	9	15	10	-	3	-	-	-	-	-	-		
MANUFACTURING -----	60	7.91	7.94	7.42- 8.30	-	-	-	-	-	-	-	-	-	-	-	10	13	9	15	10	-	3	-	-	-	-	-	-		

See footnotes at end of tables.

Table A-12. Hourly earnings of material movement and custodial workers—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978

Occupation and industry division	Number of workers	Hourly earnings ¹			Number of workers receiving straight-time hourly earnings of—																																		
		Mean ²	Median ²	Middle range ²	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$												
					2.60	2.70	2.80	2.90	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00	6.20	6.40	6.60	6.80	7.00	7.20	7.40	7.60	7.80	8.00	8.20	8.40	8.60	8.80	9.00
					and under	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
					2.70	2.80	2.90	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00	6.20	6.40	6.60	6.80	7.00	7.20	7.40	7.60	7.80	8.00	8.20	8.40	8.60	8.80	9.00	
ALL WORKERS		\$	\$	\$	\$																																		
TRUCKDRIVERS -----	1,002	8.08	8.50	8.05- 8.58	-	-	-	-	-	-	-	-	3	-	-	-	7	-	3	84	13	29	18	40	49	89	514	153											
MANUFACTURING -----	285	8.33	8.90	8.29- 8.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	13	19	5	-	5	35	46	153											
NONMANUFACTURING -----	717	7.98	8.50	7.77- 8.50	-	-	-	-	-	-	-	-	3	-	-	-	7	-	3	75	-	10	13	40	44	54	468	-											
TRUCKDRIVERS, LIGHT TRUCK -----	220	7.74	8.90	5.87- 6.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	2	2	-	12	2	-	-	127											
TRUCKDRIVERS, TRACTOR-TRAILER -----	309	8.32	8.56	8.50- 8.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	12	-	6	42	4	243	-											
NONMANUFACTURING -----	297	8.37	8.56	8.50- 8.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	6	42	-	243	-											
PUBLIC UTILITIES -----	202	8.37	8.50	8.50- 8.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	30	-	166	-											
SHIPPERS -----	116	6.28	5.80	5.40- 7.67	-	-	-	-	-	-	4	-	-	-	-	-	-	1	52	4	9	7	9	-	6	24	-	-											
RECEIVERS -----	192	6.25	6.40	5.21- 7.66	-	-	-	-	-	4	20	-	-	1	-	-	9	14	9	6	4	51	12	1	47	12	-	-											
MANUFACTURING -----	60	6.67	6.90	6.09- 7.66	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	3	3	12	9	-	21	-	-												
NONMANUFACTURING -----	132	6.06	6.40	5.00- 7.69	-	-	-	-	-	4	20	-	-	1	-	-	5	10	5	5	1	39	3	1	26	12	-	-											
SHIPPERS AND RECEIVERS -----	117	6.74	6.65	6.06- 7.63	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	1	9	48	2	-	2	-	28	-											
MANUFACTURING -----	62	6.52	6.65	6.62- 6.65	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	9	48	2	-	-	-	-												
WAREHOUSEMEN -----	660	7.38	7.60	6.73- 8.49	-	-	-	-	-	-	3	3	3	-	3	47	-	6	12	25	67	98	43	104	-	246	-												
MANUFACTURING -----	126	5.96	6.55	4.69- 6.73	-	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	11	64	7	-	-	-	-												
NONMANUFACTURING -----	534	7.72	7.68	7.15- 8.64	-	-	-	-	-	-	3	3	3	-	3	3	-	6	12	14	3	91	43	104	-	246	-												
PUBLIC UTILITIES -----	113	6.92	6.97	6.97- 7.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	8	4	-	55	42	-	-	-												
ORDER FILLERS -----	1,008	5.98	6.34	4.41- 7.55	1	-	-	1	60	43	21	16	39	-	71	53	40	116	32	54	15	83	199	1	169	-	-												
MANUFACTURING -----	407	5.77	5.58	5.24- 6.88	-	-	-	-	-	-	-	-	-	-	62	34	-	109	31	50	11	83	27	-	-	-	-												
NONMANUFACTURING -----	601	6.13	7.55	3.99- 8.05	1	-	-	1	60	43	21	16	39	-	9	19	40	1	1	4	4	-	172	1	169	-	-												
SHIPPING PACKERS -----	618	5.77	5.70	5.37- 5.99	1	-	-	-	3	3	-	9	6	-	3	18	78	169	173	19	24	-	111	1	-	-	-												
MANUFACTURING -----	505	5.79	5.70	5.37- 5.93	-	-	-	-	-	-	-	-	-	-	-	14	64	143	169	16	24	-	75	-	-	-	-												
NONMANUFACTURING -----	113	5.66	5.30	4.70- 7.55	1	-	-	-	3	3	-	9	6	-	3	4	14	26	4	3	-	-	36	1	-	-	-												
MATERIAL HANDLING LABORERS -----	1,786	5.89	5.94	4.53- 7.60	9	3	2	2	69	35	32	42	216	1	28	97	146	115	112	183	67	113	41	255	93	125	-												
MANUFACTURING -----	657	6.08	5.77	5.14- 7.06	-	-	-	-	-	-	-	-	-	-	2	74	118	61	105	66	36	109	35	22	4	25	-												
NONMANUFACTURING -----	1,129	5.78	6.04	3.90- 7.67	9	3	2	2	69	35	32	42	216	1	26	23	28	54	7	117	31	4	6	233	69	100	-												
FORKLIFT OPERATORS -----	785	7.10	6.90	6.42- 7.90	-	-	-	-	-	-	-	-	-	-	-	-	24	-	108	64	131	91	108	66	69	124	-												
MANUFACTURING -----	515	6.64	6.42	5.99- 7.31	-	-	-	-	-	-	-	-	-	-	-	-	24	-	108	39	118	85	102	7	27	5	-												
NONMANUFACTURING -----	270	7.98	8.15	7.77- 8.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	13	6	6	59	42	119	-											
POWER-TRUCK OPERATORS (OTHER THAN FORKLIFT) -----	166	5.93	6.47	5.97- 7.21	30	-	-	-	-	-	-	-	-	-	8	-	-	-	22	15	25	3	58	2	2	1	-												
MANUFACTURING -----	130	6.65	6.84	6.04- 7.21	-	-	-	-	-	-	-	-	-	-	8	-	-	-	22	15	19	3	58	2	2	1	-												
GUARDS -----	1,043	4.59	4.40	2.70- 5.89	258	30	5	10	26	17	7	11	1	27	7	172	30	106	107	100	73	12	12	26	4	-	-												
MANUFACTURING -----	373	5.81	5.72	5.30- 6.36	-	-	-	-	-	5	5	8	1	6	1	17	9	91	51	87	72	12	2	6	-	-	-												
NONMANUFACTURING -----	670	3.90	3.20	2.65- 4.52	258	30	5	10	26	12	2	3	-	21	6	155	21	17	56	13	1	-	10	20	4	-	-												
PUBLIC UTILITIES -----	46	7.23	7.84	6.90- 7.84	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	9	-	1	-	10	20	4	-	-											
GUARDS, CLASS A -----	256	5.15	4.40	4.40- 5.89	-	-	-	-	-	-	-	-	-	2	2	131	11	15	47	39	-	-	-	5	4	-	-												
NONMANUFACTURING -----	225	4.96	4.40	4.40- 5.70	-	-	-	-	-	-	-	-	-	2	2	131	11	15	47	13	-	-	-	-	4	-	-												

See footnotes at end of tables.

Table A-12. Hourly earnings of material movement and custodial workers—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Occupation and industry division	Number of workers	Hourly earnings ¹			Number of workers receiving straight-time hourly earnings of—																									
		Mean ²	Median ²	Middle range ²	\$ 2.60	\$ 2.70	\$ 2.80	\$ 2.90	\$ 3.00	\$ 3.20	\$ 3.40	\$ 3.60	\$ 3.80	\$ 4.00	\$ 4.20	\$ 4.40	\$ 4.80	\$ 5.20	\$ 5.60	\$ 6.00	\$ 6.40	\$ 6.80	\$ 7.20	\$ 7.60	\$ 8.00	\$ 8.40	\$ 8.80			
					and under	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
					2.70	2.80	2.90	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.80	5.20	5.60	6.00	6.40	6.80	7.20	7.60	8.00	8.40	8.80	9.20			
ALL WORKERS-- CONTINUED																														
GUARDS - CONTINUED																														
GUARDS, CLASS B -----	413	\$ 5.80	\$ 5.72	\$ 5.30- 6.67	-	-	-	-	1	6	5	8	1	9	2	36	14	92	60	61	73	12	12	21	-	-	-			
MANUFACTURING -----	342	5.74	5.72	5.30- 6.47	-	-	-	-	-	5	5	8	1	6	1	17	9	91	51	61	72	12	2	1	-	-	-			
NONMANUFACTURING -----	71	6.07	5.93	4.72- 7.84	-	-	-	-	1	1	-	-	-	3	1	19	5	1	9	-	1	-	10	20	-	-	-			
PUBLIC UTILITIES -----	42	7.13	7.35	6.14- 7.84	-	-	-	-	-	-	-	-	-	1	-	-	-	1	9	-	1	-	10	20	-	-	-			
JANITORS, PORTERS, AND CLEANERS ---	4,251	4.67	4.56	4.04- 5.10	1	7	3	16	27	506	302	156	29	37	69	1734	472	106	278	337	108	13	33	4	13	-	-			
MANUFACTURING -----	1,089	5.55	5.56	5.10- 6.19	-	7	-	16	2	4	2	-	5	9	14	33	383	78	190	309	10	-	29	4	1	-	-			
NONMANUFACTURING -----	3,162	4.36	4.56	3.55- 4.56	1	7	3	-	25	502	300	156	24	28	55	1701	89	28	88	28	98	13	4	-	12	-	-			
PUBLIC UTILITIES -----	250	6.22	6.42	5.86- 6.47	-	-	-	-	-	-	-	4	1	2	3	-	14	10	61	28	98	13	4	-	12	-	-			

See footnotes at end of tables.

Table A-13. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex—large establishments in Minneapolis—St. Paul, Minn.—Wis., January 1978

Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings ¹	Sex, ³ occupation, and industry division	Number of workers	Average (mean ²) hourly earnings ¹
MAINTENANCE, TOOLROOM, AND POWERPLANT OCCUPATIONS - MEN			MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN--CONTINUED		
MAINTENANCE CARPENTERS:		\$	RECEIVERS -----	150	6.86
MANUFACTURING -----	74	7.41	MANUFACTURING -----	52	6.93
MAINTENANCE ELECTRICIANS -----	348	8.90	NONMANUFACTURING -----	98	6.81
MANUFACTURING -----	278	8.64	SHIPPERS AND RECEIVERS -----	114	6.76
MAINTENANCE PAINTERS -----	87	8.17	MANUFACTURING -----	59	6.55
MAINTENANCE MACHINISTS -----	376	8.23	WAREHOUSEMEN -----	588	7.46
MANUFACTURING -----	368	8.19	MANUFACTURING -----	108	5.83
MAINTENANCE MECHANICS (MACHINERY) -	511	7.87	NONMANUFACTURING -----	480	7.83
MANUFACTURING -----	446	7.81	ORDER FILLERS -----	639	6.97
NONMANUFACTURING -----	65	8.31	MANUFACTURING -----	253	6.28
PUBLIC UTILITIES -----	44	8.79	NONMANUFACTURING -----	386	7.43
MAINTENANCE MECHANICS (MOTOR VEHICLES) -----	275	8.26	SHIPPING PACKERS -----	357	5.84
NONMANUFACTURING -----	239	8.28	MANUFACTURING -----	284	5.79
PUBLIC UTILITIES -----	188	8.41	MATERIAL HANDLING LABORERS -----	1,544	6.12
MAINTENANCE PIPEFITTERS -----	120	8.78	MANUFACTURING -----	628	6.12
MANUFACTURING -----	114	8.71	NONMANUFACTURING -----	916	6.13
MILLWRIGHTS -----	166	8.02	FORKLIFT OPERATORS -----	775	7.11
MANUFACTURING -----	159	8.00	MANUFACTURING -----	511	6.65
TOOL AND DIE MAKERS -----	506	8.45	NONMANUFACTURING -----	264	8.00
MANUFACTURING -----	505	8.45	POWER-TRUCK OPERATORS (OTHER THAN FORKLIFT) -----	136	6.65
STATIONARY ENGINEERS -----	379	8.22	MANUFACTURING -----	130	6.65
MANUFACTURING -----	96	8.33	GUARDS -----	898	4.32
NONMANUFACTURING -----	283	8.19	NONMANUFACTURING -----	625	3.78
BOILER TENDERS -----	95	7.29	GUARDS, CLASS A -----	250	5.16
MANUFACTURING -----	60	7.91	NONMANUFACTURING -----	219	4.96
MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - MEN			JANITORS, PORTERS, AND CLEANERS ---	2,060	4.68
TRUCKDRIVERS -----	981	8.09	NONMANUFACTURING -----	1,871	4.35
MANUFACTURING -----	285	8.33	MATERIAL MOVEMENT AND CUSTODIAL OCCUPATIONS - WOMEN		
NONMANUFACTURING -----	696	7.99	ORDER FILLERS -----	369	4.27
TRUCKDRIVERS, LIGHT TRUCK -----	220	7.74	MANUFACTURING -----	154	4.94
TRUCKDRIVERS, TRACTOR-TRAILER ---	306	8.32	SHIPPING PACKERS -----	261	5.67
NONMANUFACTURING -----	294	8.37	MANUFACTURING -----	221	5.79
PUBLIC UTILITIES -----	199	8.37	JANITORS, PORTERS, AND CLEANERS ---	1,349	4.36
SHIPPERS -----	104	6.46			

See footnotes at end of tables.

B. Establishment practices and supplementary wage provisions

Table B-1. Minimum entrance salaries for inexperienced typists and clerks in Minneapolis—
St. Paul, Minn.—Wis., January 1978

Minimum weekly straight-time salary ⁷	Inexperienced typists					Other inexperienced clerical workers ⁸					
	All industries	Manufacturing		Nonmanufacturing		All industries	Manufacturing		Nonmanufacturing		
		Based on standard weekly hours ⁹ of—					Based on standard weekly hours ⁹ of—				
		All schedules	40	All schedules	40		All schedules	40	All schedules	40	38¾
ESTABLISHMENTS STUDIED -----	249	93	XXX	156	XXX	249	93	XXX	156	XXX	XXX
ESTABLISHMENTS HAVING A SPECIFIED MINIMUM -----	64	32	26	32	21	91	36	33	53	39	9
UNDER \$100.00 -----	-	-	-	-	-	1	-	-	1	1	-
\$100.00 AND UNDER \$105.00 -----	1	-	-	1	-	8	2	2	6	2	3
\$105.00 AND UNDER \$110.00 -----	7	1	-	6	6	18	1	1	17	12	3
\$110.00 AND UNDER \$115.00 -----	7	4	3	3	7	8	7	5	1	1	-
\$115.00 AND UNDER \$120.00 -----	12	7	5	5	2	17	10	8	7	4	3
\$120.00 AND UNDER \$125.00 -----	8	3	3	5	3	12	6	6	6	4	-
\$125.00 AND UNDER \$130.00 -----	7	4	3	3	2	2	2	2	-	-	-
\$130.00 AND UNDER \$135.00 -----	6	4	4	2	1	4	1	1	3	3	-
\$135.00 AND UNDER \$140.00 -----	2	1	1	1	1	2	-	-	2	2	-
\$140.00 AND UNDER \$145.00 -----	4	2	2	2	2	7	3	3	4	4	-
\$145.00 AND UNDER \$150.00 -----	2	1	1	1	1	1	1	1	-	-	-
\$150.00 AND UNDER \$155.00 -----	3	2	1	1	1	4	2	1	2	2	-
\$155.00 AND UNDER \$160.00 -----	1	1	-	-	-	1	1	1	-	-	-
\$160.00 AND UNDER \$165.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$165.00 AND UNDER \$170.00 -----	1	-	-	1	1	1	-	-	1	1	-
\$170.00 AND UNDER \$175.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$175.00 AND UNDER \$180.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$180.00 AND UNDER \$185.00 -----	1	-	-	1	1	1	-	-	1	1	-
\$185.00 AND UNDER \$190.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$190.00 AND UNDER \$195.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$195.00 AND UNDER \$200.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$200.00 AND UNDER \$205.00 -----	-	-	-	-	-	1	-	-	1	1	-
\$205.00 AND UNDER \$210.00 -----	1	1	1	-	-	1	1	1	-	-	-
\$210.00 AND UNDER \$215.00 -----	-	-	-	-	-	1	1	1	-	-	-
\$215.00 AND UNDER \$220.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$220.00 AND UNDER \$225.00 -----	-	-	-	-	-	-	-	-	-	-	-
\$225.00 AND UNDER \$230.00 -----	1	1	1	-	-	-	-	-	-	-	-
\$230.00 AND OVER -----	-	-	-	-	-	1	-	-	1	1	-
ESTABLISHMENTS HAVING NO SPECIFIED MINIMUM -----	42	16	XXX	26	XXX	62	19	XXX	43	XXX	XXX
ESTABLISHMENTS WHICH DID NOT EMPLOY WORKERS IN THIS CATEGORY -----	143	45	XXX	98	XXX	96	36	XXX	60	XXX	XXX

See footnotes at end of tables.

Table B-2. Late-shift pay provisions for full-time manufacturing production and related workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

(All full-time manufacturing production and related workers = 100 percent)

Item	All workers ¹⁰		Workers on late shifts	
	Second shift	Third shift	Second shift	Third shift
PERCENT OF WORKERS				
IN ESTABLISHMENTS WITH LATE SHIFT PROVISIONS -----	93.9	75.4	20.3	6.2
WITH NO PAY DIFFERENTIAL FOR LATE SHIFT WORK -----	.9	.9	.1	.1
WITH PAY DIFFERENTIAL FOR LATE SHIFT WORK -----	92.9	74.5	20.2	6.1
UNIFORM CENTS-PER-HOUR DIFFERENTIAL -----	79.4	64.7	17.4	5.4
UNIFORM PERCENTAGE DIFFERENTIAL -----	11.9	9.8	2.4	.7
OTHER DIFFERENTIAL -----	1.6	-	.5	-
AVERAGE PAY DIFFERENTIAL				
UNIFORM CENTS-PER-HOUR DIFFERENTIAL -----	20.3	27.5	20.8	26.9
UNIFORM PERCENTAGE DIFFERENTIAL -----	5.9	7.8	5.5	8.1
PERCENT OF WORKERS BY TYPE AND AMOUNT OF PAY DIFFERENTIAL				
UNIFORM CENTS-PER-HOUR:				
10 CENTS -----	7.1	1.1	1.7	-
12 CENTS -----	4.2	-	1.1	-
14 CENTS -----	1.5	-	.3	-
15 AND UNDER 16 CENTS -----	15.6	6.9	3.0	.9
17 CENTS -----	11.4	-	1.9	-
18 CENTS -----	.8	2.7	.2	.5
20 AND UNDER 21 CENTS -----	17.2	18.2	4.6	1.5
21 CENTS -----	2.4	3.2	.3	-
22 CENTS -----	1.0	.6	.3	(11)
24 CENTS -----	-	2.9	-	.7
25 CENTS -----	9.1	4.9	1.7	.5
28 CENTS -----	-	6.6	-	-
30 CENTS -----	4.3	6.6	.8	.6
33 AND UNDER 34 CENTS -----	1.0	-	.5	-
34 CENTS -----	-	1.9	-	.1
42 CENTS -----	-	.9	-	(11)
43 CENTS -----	-	1.0	-	(11)
50 CENTS -----	1.7	4.1	.4	-
65 CENTS -----	2.1	-	.6	-
66 AND UNDER 67 CENTS -----	-	1.0	-	(11)
85 CENTS -----	-	2.1	-	.4
UNIFORM PERCENTAGE:				
3 PERCENT -----	.9	-	.3	-
4 PERCENT -----	1.9	-	.3	-
5 AND UNDER 6 PERCENT -----	4.5	.9	.8	-
6 PERCENT -----	2.5	1.9	.7	.1
7 AND UNDER 8 PERCENT -----	-	2.7	-	.1
9 PERCENT -----	-	2.5	-	.4
10 PERCENT -----	2.0	1.8	.2	-

See footnotes at end of tables.

**Table B-3. Scheduled weekly hours and days of full-time first-shift workers in Minneapolis—
St. Paul, Minn.—Wis., January 1978**

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
PERCENT OF WORKERS BY SCHEDULED WEEKLY HOURS AND DAYS								
ALL FULL-TIME WORKERS -----	100	100	100	100	100	100	100	100
18 HOURS-5 DAYS -----	(12)	-	(12)	-	-	-	-	-
20 HOURS-5 DAYS -----	1	-	3	-	-	-	-	-
30 HOURS-5 DAYS -----	(12)	-	(12)	-	-	-	-	-
35 HOURS-5 DAYS -----	2	3	2	-	(12)	-	(12)	-
36 HOURS-4 DAYS -----	(12)	1	-	-	(12)	1	-	-
36 1/4 HOURS-5 DAYS -----	-	-	-	-	3	-	4	-
36 2/3 HOURS-5 DAYS -----	(12)	(12)	-	-	(12)	(12)	-	-
37 1/2 HOURS -----	6	4	8	-	12	8	14	4
4 1/2 DAYS -----	-	-	-	-	2	-	3	-
5 DAYS -----	6	4	8	-	10	8	11	4
38 HOURS-5 DAYS -----	(12)	-	(12)	-	-	-	-	-
38 3/4 HOURS-5 DAYS -----	-	-	-	-	19	4	27	8
38 8/10 HOURS-5 DAYS -----	-	-	-	-	2	-	3	-
39 1/4 HOURS-5 DAYS -----	-	-	-	-	2	6	-	-
40 HOURS -----	86	86	86	99	62	81	52	88
4 DAYS -----	1	2	-	-	-	-	-	-
4 1/2 DAYS -----	(12)	1	-	-	-	-	-	-
5 DAYS -----	85	83	86	99	62	81	52	88
42 1/2 HOURS-5 DAYS -----	1	1	-	-	-	-	-	-
44 HOURS-5 DAYS -----	(12)	1	-	-	-	-	-	-
45 HOURS-5 DAYS -----	2	4	-	-	-	-	-	-
48 HOURS-6 DAYS -----	(12)	(12)	(12)	-	-	-	-	-
53 3/4 HOURS-5 DAYS -----	(12)	-	(12)	1	-	-	-	-
AVERAGE SCHEDULED WEEKLY HOURS								
ALL WEEKLY WORK SCHEDULES -----	39.5	40.0	39.0	40.1	39.3	39.7	39.1	39.8

See footnote at end of tables.

Table B-4. Annual paid holidays for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
PERCENT OF WORKERS								
ALL FULL-TIME WORKERS -----	100	100	100	100	100	100	100	100
IN ESTABLISHMENTS NOT PROVIDING PAID HOLIDAYS -----	3	1	6	-	(12)	-	(12)	-
IN ESTABLISHMENTS PROVIDING PAID HOLIDAYS -----	97	99	94	100	99	100	99	100
AVERAGE NUMBER OF PAID HOLIDAYS FOR WORKERS IN ESTABLISHMENTS PROVIDING HOLIDAYS -----	9.0	9.6	8.2	9.6	9.2	9.7	9.0	9.7
PERCENT OF WORKERS BY NUMBER OF PAID HOLIDAYS PROVIDED								
1 HOLIDAY -----	-	-	-	-	-	-	-	-
PLUS 1 HALF DAY -----	(12)	-	1	-	-	-	-	-
2 HOLIDAYS -----	(12)	-	(12)	-	-	-	-	-
6 HOLIDAYS -----	14	7	21	(12)	4	2	5	3
PLUS 1 HALF DAY -----	1	-	1	-	3	1	4	-
PLUS 2 HALF DAYS -----	(12)	-	(12)	-	-	-	-	-
PLUS 3 HALF DAYS -----	-	-	-	-	(12)	(12)	-	-
PLUS 5 HALF DAYS -----	-	-	-	-	(12)	-	(12)	-
7 HOLIDAYS -----	6	2	10	5	5	3	6	2
PLUS 1 HALF DAY -----	(12)	(12)	-	-	1	-	1	-
PLUS 2 HALF DAYS -----	1	1	1	-	2	1	2	-
PLUS 3 HALF DAYS -----	1	1	-	-	(12)	(12)	-	-
8 HOLIDAYS -----	7	6	7	-	8	7	9	2
PLUS 1 HALF DAY -----	2	(12)	3	-	1	(12)	2	-
PLUS 2 HALF DAYS -----	1	-	1	-	2	(12)	3	-
9 HOLIDAYS -----	22	20	25	38	25	13	29	25
PLUS 1 HALF DAY -----	1	1	-	-	9	-	14	-
PLUS 2 HALF DAYS -----	1	1	1	-	(12)	(12)	-	-
10 HOLIDAYS -----	32	45	18	46	35	62	20	55
11 HOLIDAYS -----	7	10	4	11	5	8	3	13
12 HOLIDAYS -----	1	2	-	-	1	2	(12)	-
13 HOLIDAYS -----	1	1	-	-	1	2	-	-
14 HOLIDAYS -----	-	-	-	-	2	(12)	3	-
19 HOLIDAYS -----	1	2	-	-	-	-	-	-
PERCENT OF WORKERS BY TOTAL PAID HOLIDAY TIME PROVIDED ¹³								
1 1/2 DAYS OR MORE -----	97	99	94	100	99	100	99	100
6 DAYS OR MORE -----	96	99	93	100	99	100	99	100
6 1/2 DAYS OR MORE -----	83	93	72	99	96	98	95	97
7 DAYS OR MORE -----	82	93	71	99	93	98	91	97
8 DAYS OR MORE -----	76	90	61	95	88	95	83	95
8 1/2 DAYS OR MORE -----	68	83	53	95	78	87	73	93
9 DAYS OR MORE -----	66	82	50	95	77	87	71	93
9 1/2 DAYS OR MORE -----	43	62	24	57	52	73	39	68
10 DAYS OR MORE -----	43	61	24	57	43	73	25	68
11 DAYS OR MORE -----	9	14	4	11	8	11	5	13
12 DAYS OR MORE -----	2	4	-	-	3	4	3	-
14 DAYS OR MORE -----	1	2	-	-	2	(12)	3	-
19 DAYS -----	1	2	-	-	-	-	-	-

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
PERCENT OF WORKERS								
ALL FULL-TIME WORKERS -----	100	100	100	100	100	100	100	100
IN ESTABLISHMENTS NOT PROVIDING PAID VACATIONS -----	2	-	4	-	(12)	-	(12)	-
IN ESTABLISHMENTS PROVIDING PAID VACATIONS -----	98	100	96	100	99	100	99	100
LENGTH-OF-TIME PAYMENT -----	94	93	96	100	99	98	99	100
PERCENTAGE PAYMENT -----	4	7	-	-	1	2	-	-
AMOUNT OF PAID VACATION AFTER: ¹⁴								
6 MONTHS OF SERVICE:								
UNDER 1 WEEK -----	20	16	25	(12)	4	1	6	-
1 WEEK -----	24	25	23	48	45	44	45	56
OVER 1 AND UNDER 2 WEEKS -----	2	2	2	4	23	41	13	4
2 WEEKS -----	-	-	-	-	5	1	8	-
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	(12)	1	-	-
1 YEAR OF SERVICE:								
1 WEEK -----	60	60	59	25	16	6	24	40
OVER 1 AND UNDER 2 WEEKS -----	7	6	9	35	1	1	1	3
2 WEEKS -----	29	31	28	40	81	91	75	56
OVER 2 AND UNDER 3 WEEKS -----	(12)	-	(12)	-	(12)	1	(12)	-
3 WEEKS -----	-	-	-	-	(12)	(12)	-	-
OVER 3 AND UNDER 4 WEEKS -----	-	-	-	-	(12)	-	(12)	-
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	(12)	1	-	-
2 YEARS OF SERVICE:								
1 WEEK -----	19	29	8	1	2	3	1	(12)
OVER 1 AND UNDER 2 WEEKS -----	3	5	(12)	-	(12)	-	(12)	-
2 WEEKS -----	68	59	78	62	94	89	97	96
OVER 2 AND UNDER 3 WEEKS -----	6	4	8	35	3	6	1	3
3 WEEKS -----	(12)	-	(12)	-	(12)	(12)	(12)	-
OVER 3 AND UNDER 4 WEEKS -----	(12)	-	(12)	2	(12)	-	(12)	-
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	(12)	1	-	-
3 YEARS OF SERVICE:								
1 WEEK -----	1	2	1	-	(12)	-	(12)	-
2 WEEKS -----	81	79	84	63	94	88	97	97
OVER 2 AND UNDER 3 WEEKS -----	11	12	10	35	4	9	2	3
3 WEEKS -----	2	5	(12)	-	1	2	1	-
OVER 3 AND UNDER 4 WEEKS -----	(12)	-	(12)	2	(12)	(12)	(12)	-
4 WEEKS -----	-	-	-	-	(12)	(12)	-	-
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	(12)	1	-	-
4 YEARS OF SERVICE:								
1 WEEK -----	1	1	1	-	(12)	-	(12)	-
2 WEEKS -----	80	79	81	55	90	86	92	85
OVER 2 AND UNDER 3 WEEKS -----	12	13	10	35	5	11	2	3
3 WEEKS -----	4	5	3	8	5	2	6	12
OVER 3 AND UNDER 4 WEEKS -----	(12)	-	(12)	2	(12)	(12)	(12)	-
4 WEEKS -----	-	-	-	-	(12)	(12)	-	-
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	(12)	1	-	-

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
AMOUNT OF PAID VACATION AFTER ¹⁴ — CONTINUED								
5 YEARS OF SERVICE:								
1 WEEK -----	(12)	1	—	—	—	—	—	—
2 WEEKS -----	62	58	65	51	61	39	74	82
OVER 2 AND UNDER 3 WEEKS -----	15	20	10	35	8	16	4	3
3 WEEKS -----	19	18	20	12	30	44	21	15
OVER 3 AND UNDER 4 WEEKS -----	(12)	—	(12)	2	(12)	(12)	(12)	1
4 WEEKS -----	—	—	—	—	(12)	(12)	—	—
OVER 4 AND UNDER 5 WEEKS -----	1	3	—	—	(12)	1	(12)	—
10 YEARS OF SERVICE:								
OVER 1 AND UNDER 2 WEEKS -----	(12)	1	—	—	—	—	—	—
2 WEEKS -----	10	3	17	(12)	4	1	7	—
OVER 2 AND UNDER 3 WEEKS -----	1	1	(12)	—	1	1	(12)	—
3 WEEKS -----	70	75	64	61	88	87	89	94
OVER 3 AND UNDER 4 WEEKS -----	11	12	11	37	3	7	1	5
4 WEEKS -----	5	6	3	—	3	3	3	—
OVER 4 AND UNDER 5 WEEKS -----	2	3	(12)	2	(12)	1	(12)	1
5 WEEKS -----	—	—	—	—	(12)	(12)	(12)	—
12 YEARS OF SERVICE:								
2 WEEKS -----	3	3	4	(12)	4	1	5	—
OVER 2 AND UNDER 3 WEEKS -----	(12)	—	(12)	—	(12)	—	(12)	—
3 WEEKS -----	65	57	74	57	77	59	88	82
OVER 3 AND UNDER 4 WEEKS -----	17	22	11	41	7	16	1	9
4 WEEKS -----	10	15	6	—	12	23	5	8
OVER 4 AND UNDER 5 WEEKS -----	2	3	(12)	2	(12)	1	(12)	1
5 WEEKS -----	(12)	1	—	—	(12)	(12)	(12)	—
15 YEARS OF SERVICE:								
2 WEEKS -----	2	3	2	(12)	3	1	4	—
OVER 2 AND UNDER 3 WEEKS -----	(12)	—	(12)	—	(12)	—	(12)	—
3 WEEKS -----	34	24	44	26	44	27	53	42
OVER 3 AND UNDER 4 WEEKS -----	10	17	3	4	6	10	3	4
4 WEEKS -----	44	50	37	33	45	56	38	51
OVER 4 AND UNDER 5 WEEKS -----	6	3	8	35	2	5	1	3
5 WEEKS -----	(12)	1	(12)	—	(12)	(12)	(12)	—
OVER 5 AND UNDER 6 WEEKS -----	2	3	(12)	2	(12)	1	—	—
20 YEARS OF SERVICE:								
2 WEEKS -----	2	3	2	(12)	3	1	4	—
OVER 2 AND UNDER 3 WEEKS -----	(12)	—	(12)	—	(12)	—	(12)	—
3 WEEKS -----	14	6	24	2	8	3	11	5
OVER 3 AND UNDER 4 WEEKS -----	1	1	2	—	1	2	—	—
4 WEEKS -----	57	67	45	50	75	78	73	60
OVER 4 AND UNDER 5 WEEKS -----	3	5	—	—	1	2	(12)	2
5 WEEKS -----	13	13	14	12	11	10	11	32
OVER 5 AND UNDER 6 WEEKS -----	6	3	9	37	2	5	(12)	2
6 WEEKS -----	1	2	—	—	(12)	—	(12)	—
7 WEEKS -----	(12)	(12)	—	—	—	—	—	—

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
AMOUNT OF PAID VACATION AFTER ¹⁴ -CONTINUED								
25 YEARS OF SERVICE:								
2 WEEKS -----	2	3	2	(12)	3	1	4	-
OVER 2 AND UNDER 3 WEEKS -----	(12)	-	(12)	-	(12)	-	(12)	-
3 WEEKS -----	12	6	18	2	7	3	9	5
OVER 3 AND UNDER 4 WEEKS -----	1	-	2	-	-	-	-	-
4 WEEKS -----	33	35	31	1	47	38	52	1
OVER 4 AND UNDER 5 WEEKS -----	3	5	1	4	3	(12)	5	6
5 WEEKS -----	36	42	30	45	36	51	27	72
OVER 5 AND UNDER 6 WEEKS -----	6	4	9	37	3	7	(12)	2
6 WEEKS -----	3	4	3	12	2	1	2	15
7 WEEKS -----	(12)	(12)	-	-	-	-	-	-
OVER 7 AND UNDER 8 WEEKS -----	(12)	1	-	-	-	-	-	-
8 WEEKS -----	(12)	(12)	-	-	-	-	-	-
30 YEARS OF SERVICE:								
2 WEEKS -----	2	3	2	(12)	3	1	4	-
OVER 2 AND UNDER 3 WEEKS -----	(12)	-	(12)	-	(12)	-	(12)	-
3 WEEKS -----	12	6	18	2	7	3	9	5
OVER 3 AND UNDER 4 WEEKS -----	1	-	2	-	-	-	-	-
4 WEEKS -----	32	33	31	1	44	38	47	1
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	1	-	2	2
5 WEEKS -----	34	40	28	38	38	47	34	62
OVER 5 AND UNDER 6 WEEKS -----	6	3	9	37	2	5	(12)	2
6 WEEKS -----	8	10	6	22	5	7	4	28
OVER 6 AND UNDER 7 WEEKS -----	1	3	-	-	(12)	1	-	-
7 WEEKS -----	(12)	(12)	-	-	-	-	-	-
OVER 7 AND UNDER 8 WEEKS -----	(12)	1	-	-	-	-	-	-
8 WEEKS -----	(12)	(12)	-	-	-	-	-	-
MAXIMUM VACATION AVAILABLE:								
2 WEEKS -----	2	3	2	(12)	3	1	4	-
OVER 2 AND UNDER 3 WEEKS -----	(12)	-	(12)	-	(12)	-	(12)	-
3 WEEKS -----	12	6	18	2	7	3	9	5
OVER 3 AND UNDER 4 WEEKS -----	1	-	2	-	-	-	-	-
4 WEEKS -----	32	33	31	1	44	38	47	1
OVER 4 AND UNDER 5 WEEKS -----	1	3	-	-	1	-	2	2
5 WEEKS -----	34	40	28	38	36	47	31	62
OVER 5 AND UNDER 6 WEEKS -----	6	3	9	37	2	5	(12)	2
6 WEEKS -----	8	10	6	22	5	7	4	28
OVER 6 AND UNDER 7 WEEKS -----	1	3	-	-	(12)	1	-	-
7 WEEKS -----	(12)	(12)	-	-	2	-	3	-
OVER 7 AND UNDER 8 WEEKS -----	(12)	1	-	-	-	-	-	-
8 WEEKS -----	(12)	(12)	-	-	-	-	-	-

See footnotes at end of tables.

Table B-6. Health, insurance, and pension plans for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Public utilities	All industries	Manufacturing	Nonmanufacturing	Public utilities
PERCENT OF WORKERS								
ALL FULL-TIME WORKERS -----	100	100	100	100	100	100	100	100
IN ESTABLISHMENTS PROVIDING AT LEAST ONE OF THE BENEFITS SHOWN BELOW ¹⁵ -----	97	100	94	100	99	100	99	100
LIFE INSURANCE -----	91	94	88	100	96	99	98	100
NONCONTRIBUTORY PLANS -----	81	86	75	86	73	83	68	84
ACCIDENTAL DEATH AND DISMEMBERMENT INSURANCE -----	66	64	68	75	67	67	67	60
NONCONTRIBUTORY PLANS -----	58	57	59	73	53	61	48	59
SICKNESS AND ACCIDENT INSURANCE OR SICK LEAVE OR BOTH ¹⁶ -----	90	95	85	100	92	96	89	100
SICKNESS AND ACCIDENT INSURANCE -----	73	79	67	70	53	84	35	31
NONCONTRIBUTORY PLANS -----	70	78	62	70	50	81	32	31
SICK LEAVE (FULL PAY AND NO WAITING PERIOD) -----	31	32	29	53	76	83	71	71
SICK LEAVE (PARTIAL PAY OR WAITING PERIOD) -----	8	6	11	(12)	4	2	5	3
LONG-TERM DISABILITY INSURANCE -----	19	23	14	14	54	63	49	28
NONCONTRIBUTORY PLANS -----	10	15	5	12	25	36	19	16
HOSPITALIZATION INSURANCE -----	95	99	91	100	99	99	99	100
NONCONTRIBUTORY PLANS -----	81	93	68	98	57	79	45	96
SURGICAL INSURANCE -----	95	99	91	100	99	99	99	100
NONCONTRIBUTORY PLANS -----	81	93	68	98	57	79	45	96
MEDICAL INSURANCE -----	94	99	90	100	99	99	98	100
NONCONTRIBUTORY PLANS -----	81	93	68	98	57	79	45	96
MAJOR MEDICAL INSURANCE -----	86	93	78	100	99	99	99	100
NONCONTRIBUTORY PLANS -----	66	76	55	98	54	72	44	96
DENTAL INSURANCE -----	41	51	31	82	46	75	30	71
NONCONTRIBUTORY PLANS -----	37	44	29	82	34	67	16	71
RETIREMENT PENSION -----	84	89	79	34	85	94	80	76
NONCONTRIBUTORY PLANS -----	78	83	73	84	79	83	77	76

See footnotes at end of tables.

Table B-7. Life insurance plans for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978

Item	Production and related workers				Office workers			
	All industries		Manufacturing		All industries		Manufacturing	
	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷
TYPE OF PLAN AND AMOUNT OF INSURANCE								
ALL FULL-TIME WORKERS ARE PROVIDED THE SAME FLAT-SUM DOLLAR AMOUNT:								
PERCENT OF ALL FULL-TIME WORKERS ¹⁸ -----	57	51	55	49	33	28	25	19
AMOUNT OF INSURANCE PROVIDED: ¹⁹								
MEAN -----	\$6,700	\$6,700	\$7,300	\$7,500	\$5,100	\$5,100	\$5,300	\$5,300
MEDIAN -----	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
MIDDLE RANGE (50 PERCENT) -----	\$2,000- 9,000	\$2,000- 7,000	\$3,000- 6,500	\$2,500- 6,500	\$3,000- 6,000	\$3,000- 6,000	\$4,000- 6,000	\$3,000- 6,500
MIDDLE RANGE (80 PERCENT) -----	\$1,000-11,000	\$1,000-10,000	\$2,000-10,000	\$2,000-10,000	\$2,000- 8,000	\$2,000-10,000	\$2,500-10,000	\$2,500-10,000
AMOUNT OF INSURANCE IS BASED ON A SCHEDULE WHICH INDICATES A SPECIFIED DOLLAR AMOUNT OF INSURANCE FOR A SPECIFIED LENGTH OF SERVICE:								
PERCENT OF ALL FULL-TIME WORKERS ¹⁸ -----	4	3	4	2	2	2	(12)	(12)
AMOUNT OF INSURANCE PROVIDED ¹⁹ AFTER:								
6 MONTHS OF SERVICE:								
MEAN -----	\$2,500	\$1,600	\$4,500	\$3,900	\$800	\$800	(6)	(6)
MEDIAN -----	\$1,000	\$1,000	\$5,000	(6)	(6)	(6)	(6)	(6)
MIDDLE RANGE (50 PERCENT) -----	\$1,000- 5,000	\$500- 3,000	\$4,000- 5,000	(6)	(6)	(6)	(6)	(6)
MIDDLE RANGE (80 PERCENT) -----	\$500- 5,000	\$500- 4,000	\$4,000- 5,000	(6)	(6)	(6)	(6)	(6)
1 YEAR OF SERVICE:								
MEAN -----	\$2,400	\$1,600	\$4,100	\$3,300	\$1,100	\$1,100	(6)	(6)
MEDIAN -----	\$1,500	\$1,000	\$4,000	(6)	\$500	\$500	(6)	(6)
MIDDLE RANGE (50 PERCENT) -----	\$1,000- 4,000	\$1,000- 2,000	\$4,000- 5,000	(6)	\$500- 1,500	\$500- 1,500	(6)	(6)
MIDDLE RANGE (80 PERCENT) -----	\$500- 5,000	\$500- 4,000	\$2,000- 5,000	(6)	\$500- 1,500	\$500- 1,500	(6)	(6)
5 YEARS OF SERVICE:								
MEAN -----	\$5,400	\$4,000	\$8,400	\$6,700	\$3,000	\$3,000	(6)	(6)
MEDIAN -----	\$3,500	\$3,000	\$5,000	(6)	\$2,000	\$2,000	(6)	(6)
MIDDLE RANGE (50 PERCENT) -----	\$3,000- 8,000	\$3,000- 4,000	\$8,000-10,000	(6)	\$2,000- 3,500	\$2,000- 3,500	(6)	(6)
MIDDLE RANGE (80 PERCENT) -----	\$2,000-10,000	\$2,000- 8,000	\$4,000-10,000	(6)	\$2,000- 3,500	\$2,000- 3,500	(6)	(6)
10 YEARS OF SERVICE:								
MEAN -----	\$8,100	\$7,500	\$9,600	\$9,200	\$4,100	\$4,100	(6)	(6)
MEDIAN -----	\$10,000	\$10,000	\$10,000	(6)	\$2,000	\$2,000	(6)	(6)
MIDDLE RANGE (50 PERCENT) -----	\$6,500-10,000	\$6,000-10,000	\$10,000-10,000	(6)	\$2,000- 6,000	\$2,000- 6,000	(6)	(6)
MIDDLE RANGE (80 PERCENT) -----	\$2,000-10,000	\$2,000-10,000	\$6,500-10,000	(6)	\$2,000- 6,000	\$2,000- 6,000	(6)	(6)
20 YEARS OF SERVICE:								
MEAN -----	\$8,400	\$7,900	\$10,200	\$10,300	\$4,100	\$4,100	(6)	(6)
MEDIAN -----	\$10,000	\$10,000	\$10,000	(6)	\$2,000	\$2,000	(6)	(6)
MIDDLE RANGE (50 PERCENT) -----	\$10,000-10,000	\$6,000-10,000	\$10,000-10,000	(6)	\$2,000- 6,000	\$2,000- 6,000	(6)	(6)
MIDDLE RANGE (80 PERCENT) -----	\$2,000-10,000	\$2,000-10,000	\$10,000-10,000	(6)	\$2,000- 6,000	\$2,000- 6,000	(6)	(6)

See footnotes at end of tables.

Table B-7. Life insurance plans for full-time workers in Minneapolis—St. Paul, Minn.—Wis., January 1978—Continued

Item	Production and related workers				Office workers			
	All industries		Manufacturing		All industries		Manufacturing	
	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷	All plans ¹⁷	Noncontributory plans ¹⁷
TYPE OF PLAN AND AMOUNT OF INSURANCE—CONTINUED								
AMOUNT OF INSURANCE IS BASED ON A SCHEDULE WHICH INDICATES A SPECIFIED DOLLAR AMOUNT OF INSURANCE FOR A SPECIFIED AMOUNT OF EARNINGS: PERCENT OF ALL FULL-TIME WORKERS ¹⁸ -----	12	11	16	16	20	10	15	14
AMOUNT OF INSURANCE PROVIDED ¹⁹ IF:								
ANNUAL EARNINGS ARE \$5,000:								
MEAN -----	\$6,400	\$6,200	\$6,600	\$6,600	\$9,400	\$6,700	\$5,700	\$5,500
MEDIAN -----	\$5,000	\$5,000	\$5,000	\$5,000	\$8,000	\$5,000	\$5,000	\$5,000
MIDDLE RANGE (50 PERCENT) -----	\$5,000- 5,000	\$5,000- 5,000	\$5,000-10,000	\$5,000-10,000	\$5,000-15,000	\$5,000- 7,000	\$5,000- 5,000	\$5,000- 5,000
MIDDLE RANGE (60 PERCENT) -----	\$4,500-11,000	\$5,000-10,400	\$5,000-12,500	\$5,000-12,500	\$5,000-15,000	\$5,000-12,500	\$5,000-10,000	\$5,000- 5,000
ANNUAL EARNINGS ARE \$10,000:								
MEAN -----	\$9,500	\$8,800	\$6,500	\$6,500	\$19,200	\$12,200	\$8,200	\$7,900
MEDIAN -----	\$10,000	\$10,000	\$6,500	\$6,500	\$15,000	\$10,000	\$6,500	\$6,500
MIDDLE RANGE (50 PERCENT) -----	\$6,500-10,000	\$6,500-10,000	\$6,500-10,000	\$6,500-10,000	\$10,000-35,000	\$6,500-13,000	\$6,000-10,000	\$6,000-10,000
MIDDLE RANGE (60 PERCENT) -----	\$4,500-13,000	\$4,500-12,500	\$4,500-13,000	\$4,500-13,000	\$6,500-35,000	\$3,000-22,500	\$1,000-15,000	\$1,000-13,000
ANNUAL EARNINGS ARE \$15,000:								
MEAN -----	\$12,700	\$11,600	\$10,600	\$10,600	\$33,900	\$17,200	\$11,200	\$10,600
MEDIAN -----	\$15,000	\$12,000	\$7,500	\$7,500	\$20,000	\$15,000	\$7,500	\$7,500
MIDDLE RANGE (50 PERCENT) -----	\$7,500-15,000	\$7,500-15,000	\$7,500-15,000	\$7,500-15,000	\$15,000-75,000	\$7,500-17,000	\$7,500-15,000	\$7,500-15,000
MIDDLE RANGE (60 PERCENT) -----	\$7,500-16,500	\$5,500-16,500	\$5,500-16,500	\$5,500-16,500	\$7,500-75,000	\$7,500-32,500	\$1,500-25,000	\$1,500-16,500
ANNUAL EARNINGS ARE \$20,000:								
MEAN -----	\$16,000	\$14,300	\$12,700	\$12,700	\$44,000	\$20,100	\$14,100	\$13,100
MEDIAN -----	\$20,000	\$12,000	\$9,000	\$9,000	\$25,000	\$20,000	\$9,000	\$9,000
MIDDLE RANGE (50 PERCENT) -----	\$9,000-20,000	\$9,000-20,000	\$9,000-20,000	\$9,000-20,000	\$20,000-99,900	\$9,000-23,000	\$9,000-20,000	\$9,000-20,000
MIDDLE RANGE (60 PERCENT) -----	\$9,000-22,000	\$6,000-20,500	\$6,000-22,000	\$6,000-22,000	\$9,000-99,900	\$9,000-42,500	\$2,000-35,000	\$2,000-20,500
AMOUNT OF INSURANCE IS EXPRESSED AS A FACTOR OF ANNUAL EARNINGS: ²⁰								
PERCENT OF ALL FULL-TIME WORKERS ¹⁸ -----	13	12	14	14	37	28	53	44
FACTOR OF ANNUAL EARNINGS USED TO CALCULATE AMOUNT OF INSURANCE: ^{19 20}								
MEAN -----	1.18	1.14	1.23	1.23	1.43	1.24	1.23	1.09
MEDIAN -----	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MIDDLE RANGE (50 PERCENT) -----	1.00-1.00	1.00-1.00	1.00-1.50	1.00-1.50	1.00-2.00	1.00-1.50	1.00-1.50	1.00-1.00
MIDDLE RANGE (60 PERCENT) -----	1.00-2.00	1.00-2.00	1.00-2.00	1.00-2.00	1.00-2.00	1.00-2.00	1.00-2.00	1.00-1.50
PERCENT OF ALL FULL-TIME WORKERS COVERED BY PLANS NOT SPECIFYING A MAXIMUM AMOUNT OF INSURANCE -----	11	11	14	14	24	19	46	37
PERCENT OF ALL FULL-TIME WORKERS COVERED BY PLANS SPECIFYING A MAXIMUM AMOUNT OF INSURANCE -----	2	2	1	1	13	9	7	7
SPECIFIED MAXIMUM AMOUNT OF INSURANCE: ¹⁹								
MEAN -----	\$54,200	\$57,300	(6)	(6)	\$158,100	\$106,600	\$202,900	\$212,500
MEDIAN -----	\$50,000	(6)	(6)	(6)	\$150,000	\$50,000	\$100,000	\$100,000
MIDDLE RANGE (50 PERCENT) -----	\$50,000- 50,000	(6)	(6)	(6)	\$50,000-300,000	\$50,000-150,000	\$50,000-250,000	\$50,000-250,000
MIDDLE RANGE (60 PERCENT) -----	\$40,000- 90,000	(6)	(6)	(6)	\$50,000-300,000	\$50,000-150,000	\$15,000-750,000	\$15,000-750,000
AMOUNT OF INSURANCE IS BASED ON SOME OTHER TYPE OF PLAN:								
PERCENT OF ALL FULL-TIME WORKERS ¹⁸ -----	5	3	4	4	6	5	4	4

See footnotes at end of tables.

Footnotes

Some of these standard footnotes may not apply to this bulletin.

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

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

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

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

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

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

⁷ Formally established minimum regular straight-time hiring salaries that are paid for standard workweeks.

⁸ Excludes workers in subclerical jobs such as messenger.

⁹ Data are presented for all standard workweeks combined, and for the most common standard workweeks reported.

¹⁰ Includes all production and related workers in establishments currently operating late shifts, and establishments whose formal provisions cover late shifts, even though the establishments were not currently operating late shifts.

¹¹ Less than 0.05 percent.

¹² Less than 0.5 percent.

¹³ All combinations of full and half days that add to the same amount; for example, the proportion of workers receiving a total of 10 days includes those with 10 full days and no half days, 9 full days and 2 half days, 8 full days and 4 half days, and so on. Proportions then were cumulated.

¹⁴ Includes payments other than "length of time," such as percentage of annual earnings or flat-sum payments, converted to an equivalent time basis; for example, 2 percent of annual earnings was considered as 1 week's pay. Periods of service are chosen arbitrarily and do not necessarily reflect individual provisions for progression; for example, changes in proportions at 10 years include changes between 5 and 10 years. Estimates are cumulative. Thus, the proportion eligible for at least 3 weeks' pay after 10 years includes those eligible for at least 3 weeks' pay after fewer years of service.

¹⁵ Estimates listed after type of benefit are for all plans for which at least a part of the cost is borne by the employer. "Noncontributory plans" include only those financed entirely by the employer. Excluded are legally required plans, such as workers' disability compensation, social security, and railroad retirement.

¹⁶ Unduplicated total of workers receiving sick leave or sickness and accident insurance shown separately below. Sick leave plans are limited to those which definitely establish at least the minimum number of days' pay that each employee can expect. Informal sick leave allowances determined on an individual basis are excluded.

¹⁷ Estimates under "All plans" relate to all plans for which at least a part of the cost is borne by the employer. Estimates under "Noncontributory plans" include only those financed entirely by the employer.

¹⁸ For "All industries," all full-time production and related workers or office workers equal 100 percent. For "Manufacturing," all full-time production and related workers or office workers in manufacturing equal 100 percent.

¹⁹ The mean amount is computed by multiplying the number of workers provided insurance by the amount of insurance provided, totaling the products, and dividing the sum by the number of workers. The median indicates that half of the workers are provided an amount equal to or smaller and half an amount equal to or larger than the amount shown. Middle range (50 percent)—a fourth of the workers are provided an amount equal to or less than the smaller amount and a fourth are provided an amount equal to or more than the larger amount. Middle range (80 percent)—10 percent of the workers are provided an amount equal to or less than the smaller amount and 10 percent are provided an amount equal to or more than the larger amount.

²⁰ A factor of annual earnings is the number by which annual earnings are multiplied to determine the amount of insurance provided. For example, a factor of 2 indicates that for annual earnings of \$10,000 the amount of insurance provided is \$20,000.

Appendix A.

Scope and Method of Survey

In each of the 75¹ areas currently surveyed, the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Establishments having fewer than a prescribed number of workers are also excluded because of insufficient employment in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

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

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

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

¹ Included in the 75 areas are 5 studies conducted by the Bureau under contract. These areas are Akron, Ohio; Birmingham, Ala.; Norfolk—Virginia Beach—Portsmouth and Newport News—Hampton, Va.—N.C.; Poughkeepsie—Kingston—Newburgh, N.Y.; and Utica—Rome, N.Y. In addition, the Bureau conducts more limited area studies in approximately 100 areas at the request of the Employment Standards Administration of the U.S. Department of Labor.

Occupations and earnings

Occupations selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (1) Office clerical; (2) professional and technical; (3) maintenance, toolroom, and powerplant; and (4) material movement and custodial. Occupational classification is based on a uniform set of job descriptions designed to take account of interestablishment variation in duties within the same job. Occupations selected for study are listed and described in appendix B.

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

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

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

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

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

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

Wage trends for selected occupational groups

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

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

Occupations used to compute wage trends are:

Office clerical

Secretaries
Stenographers, general
Stenographers, senior
Typists, classes
A and B
File clerks, classes A,
B, and C
Messengers
Switchboard operators

Office clerical—Continued

Order clerks, classes
A and B
Accounting clerks,
classes A and B
Bookkeeping-machine
operators, class B
Payroll clerks
Key entry operators,
classes A and B

Electronic data processing²

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

Industrial nurses

Registered industrial
nurses

Skilled maintenance

Carpenters
Electricians

Skilled maintenance— Continued

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

Unskilled plant

Janitors, porters, and
cleaners
Material handling laborers

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

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

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

Establishment practices and supplementary wage provisions

The incidence of selected establishment practices and supplementary wage provisions is studied for full-time production and related workers and office workers. Production and related workers (referred to hereafter as production workers) include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations. (Cafeteria and route workers

² The earnings of computer operators are not included in the wage trend computation for this group. A revised job description is being introduced in this survey which is not equivalent to the previous description.

are excluded in manufacturing industries but included in nonmanufacturing industries.) In finance and insurance, no workers are considered to be production workers. Office workers include working supervisors and all non-supervisory workers (including lead workers and trainees) performing clerical or related office functions in such departments as accounting, advertising, purchasing, collection, credit, finance, legal, payroll, personnel, sales, industrial relations, public relations, executive, or transportation. Administrative, executive, professional, and part-time employees as well as construction workers utilized as separate work forces are excluded from both the production and office worker categories.

Minimum entrance salaries (table B-1). Minimum entrance salaries for office workers relate only to the establishments visited. Because of the optimum sampling techniques used and the probability that large establishments are more likely than small establishments to have formal entrance rates above the subclerical level, the table is more representative of policies in medium and large establishments. (The "X's" shown under standard weekly hours indicate that no meaningful totals are applicable.)

Shift differentials—manufacturing (table B-2). Data were collected on policies of manufacturing establishments regarding pay differentials for production workers on late shifts. Establishments considered as having policies are those which (1) have provisions in writing covering the operation of late shifts, or (2) have operated late shifts at any time during the 12 months preceding a survey. When establishments have several differentials which vary by job, the differential applying to the majority of the production workers is recorded. When establishments have differentials which apply only to certain hours of work, the differential applying to the majority of the shift hours is recorded.

For purposes of this study, a late shift is either a second (evening) shift which ends at or near midnight or a third (night) shift which starts at or near midnight.

Differentials for second and third shifts are summarized separately for (1) establishment policies (an establishment's differentials are weighted by all production workers in the establishment at the time of the survey) and (2) effective practices (an establishment's differentials are weighted by production workers employed on the specified shift at the time of the survey).

Scheduled weekly hours; paid holidays; paid vacations; and health, insurance, and pension plans. Provisions which apply to a majority of the production or office workers in an establishment are considered to apply to all production or office workers in the establishment; a practice or provision is considered nonexistent when it applies to less than a majority. Holidays; vacations; and health, insurance, and pension plans are considered applicable to employees currently eligible for the benefits as well as to employees who will eventually become eligible.

Scheduled weekly hours and days (table B-3). Scheduled weekly hours and days refer to the number of hours and days per week which full-time first (day) shift workers are expected to work, whether paid for at straight-time or overtime rates.

Paid holidays (table B-4). Holidays are included if workers who are not required to work are paid for the time off and those required to work receive premium pay or compensatory time off. They are included only if they are granted annually on a formal basis (provided for in

written form or established by custom). Holidays are included even though in a particular year they fall on a nonworkday and employees are not granted another day off. Paid personal holiday plans, typically found in the automobile and related industries, are included as paid holidays.

Data are tabulated to show the percent of workers who (1) are granted specific numbers of whole and half holidays and (2) are granted specified amounts of total holiday time (whole and half holidays are aggregated).

Paid vacations (table B-5). Establishments report their method of calculating vacation pay (time basis, percent of annual earnings, flat-sum payment, etc.) and the amount of vacation pay granted. Only basic formal plans are reported. Vacation bonuses, vacation-savings plans, and "extended" or "sabbatical" benefits beyond basic plans are excluded.

For tabulating vacation pay granted, all provisions are expressed on a time basis. Vacation pay calculated on other than a time basis is converted to its equivalent time period. Two percent of annual earnings, for example, is tabulated as 1 week's vacation pay.

Also, provisions after each specified length of service are related to all production or office workers in an establishment regardless of length of service. Vacation plans commonly provide for a larger amount of vacation pay as service lengthens. Counts of production or office workers by length of service were not obtained. The tabulations of vacation pay granted present, therefore, statistical measures of these provisions rather than proportions of workers actually receiving specific benefits.

Health, insurance, and pension plans (tables B-6 and B-7). Health, insurance, and pension plans include plans for which the employer pays either all or part of the cost. The cost may be (1) underwritten by a commercial insurance company or nonprofit organization, (2) covered by a union fund to which the employer has contributed, or (3) borne directly by the employer out of operating funds or a fund set aside to cover the cost. A plan is included even though a majority of the employees in an establishment do not choose to participate in it because they are required to bear part of its cost (provided the choice to participate is available or will eventually become available to a majority). Legally required plans such as social security, railroad retirement, workers' disability compensation, and temporary disability insurance³ are excluded.

³ Temporary disability insurance which provides benefits to covered workers disabled by injury or illness which is not work-connected is mandatory under State laws in California, New Jersey, New York, and Rhode Island. Establishment plans which meet only the legal requirements are excluded from these data, but those under which (1) employers contribute more than is legally required or (2) benefits exceed those specified in the State law are included. In Rhode Island, benefits are paid out of a State fund to which only employees contribute. In each of the other three States, benefits are paid either from a State fund or through a private plan.

State fund financing: In California, only employees contribute to the State fund; in New Jersey, employees and employers contribute; in New York, employees contribute up to a specified maximum and employers pay the difference between the employees' share and the total contribution required.

Private plan financing: In California and New Jersey, employees cannot be required to contribute more than they would if they were covered by the State fund; in New York, employees can agree to contribute more if the State rules that the additional contribution is commensurate with the benefit provided.

Federal legislation (Railroad Unemployment Insurance Act) provides temporary disability insurance benefits to railroad workers for illness or injury, whether work-connected or not. The legislation requires that employers bear the entire cost of the insurance.

Life insurance includes formal plans providing indemnity (usually through an insurance policy) in case of death of the covered worker. Information is also provided in table B-7 on types of life insurance plans and the amount of coverage in all industries combined and in manufacturing.

Accidental death and dismemberment insurance is limited to plans which provide benefit payments in case of death or loss of limb or sight as a direct result of an accident.

Sickness and accident insurance includes only those plans which provide that predetermined cash payments be made directly to employees who lose time from work because of illness or injury, e.g., \$50 a week for up to 26 weeks of disability.

Sick leave plans are limited to formal plans⁴ which provide for continuing an employee's pay during absence from work because of illness. Data collected distinguish between (1) plans which provide full pay with no waiting period, and (2) plans which either provide partial pay or require a waiting period.

Long-term disability insurance plans provide payments to totally disabled employees upon the expiration of their paid sick leave and/or sickness and accident insurance, or after a predetermined period of disability (typically 6 months). Payments are made until the end of the disability, a maximum age, or eligibility for retirement benefits. Full or partial payments are almost always reduced by social security, workers' disability compensation, and private pension benefits payable to the disabled employee.

Hospitalization, surgical, and medical insurance plans reported in these surveys provide full or partial payment for basic services rendered. Hospitalization insurance covers hospital room and board and may cover other hospital expenses. Surgical insurance covers surgeons' fees. Medical insurance covers doctors' fees for home, office, or hospital calls. Plans restricted to post-operative medical care or a doctor's care for minor ailments at a worker's place of employment are not considered to be medical insurance.

Major medical insurance coverage applies to services which go beyond the basic services covered under hospitalization, surgical, and medical insurance. Major medical insurance typically (1) requires that a "deductible" (e.g., \$50) be met before benefits begin, (2) has a coinsurance feature that requires the insured to pay a portion (e.g., 20 percent) of certain expenses, and (3) has a specified dollar maximum of benefits (e.g., \$10,000 a year).

Dental insurance plans provide normal dental service benefits, usually for fillings, extractions, and X-rays. Plans which provide benefits only for oral surgery or repairing accident damage are not reported.

Retirement pension plans provide for regular payments to the retiree for life. Included are deferred profit-sharing plans which provide the option of purchasing a lifetime annuity.

⁴ An establishment is considered as having a formal plan if it specifies at least the minimum number of days of sick leave available to each employee. Such a plan need not be written, but informal sick leave allowances determined on an individual basis are excluded.

Labor-management agreement coverage

The following tabulation shows the percent of full-time production and office workers employed in establishments in the Minneapolis-St. Paul area in which a union contract or contracts covered a majority of the workers in the respective categories, January 1978:

	<u>Production and related workers</u>	<u>Office workers</u>
All industries.....	68	9
Manufacturing.....	66	3
Nonmanufacturing.....	69	13
Public utilities.....	98	60

An establishment is considered to have a contract covering all production or office workers if a majority of such workers is covered by a labor-management agreement. Therefore, all other production or office workers are employed in establishments that either do not have labor-management contracts in effect, or have contracts that apply to fewer than half of their production or office workers. Estimates are not necessarily representative of the extent to which all workers in the area may be covered by the provisions of labor-management agreements, because small establishments are excluded and the industrial scope of the survey is limited.

Industrial composition in manufacturing

Two-fifths of the workers within the scope of the survey in the Minneapolis-St. Paul area were employed in manufacturing firms. The following presents the major industry groups and specific industries as a percent of all manufacturing:

<u>Industry groups</u>	<u>Specific industry</u>
Machinery, except electrical..... 24	Office and computing machines..... 11
Paper and allied products..... 13	Miscellaneous converted paper products..... 10
Food and kindred products..... 10	Measuring and controlling devices..... 8
Electric and electronic equipment..... 10	
Instruments and related products..... 10	
Printing and publishing..... 7	
Fabricated metal products..... 7	

This information is based on estimates of total employment derived from universe material compiled before actual survey. Proportions in various industry divisions may differ from proportions based on the results of the survey as shown in appendix table 1.

**Appendix table 1. Establishments and workers within scope of survey and number studied in Minneapolis—
St. Paul, Minn.—Wis.,¹ January 1978**

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				Studied
				Total ⁴		Full-time production and related workers	Full-time office workers	
				Number	Percent			Total ⁴
ALL ESTABLISHMENTS								
ALL DIVISIONS -----	-	1,829	249	464,860	100	191,896	88,991	220,742
MANUFACTURING -----	50	555	93	185,901	40	98,725	32,193	107,419
NONMANUFACTURING -----	-	1,274	156	278,959	60	93,171	56,798	113,323
TRANSPORTATION, COMMUNICATION, AND OTHER PUBLIC UTILITIES ⁵ -----	50	124	23	49,048	11	21,835	8,550	33,470
WHOLESALE TRADE -----	50	272	24	36,701	8	(⁶)	(⁶)	8,241
RETAIL TRADE -----	50	414	38	105,227	23	(⁶)	(⁶)	45,074
FINANCE, INSURANCE, AND REAL ESTATE -----	50	183	19	44,740	10	(⁶)	(⁶)	14,097
SERVICES ⁷ -----	50	261	52	43,243	9	(⁶)	(⁶)	12,441
LARGE ESTABLISHMENTS								
ALL DIVISIONS -----	-	156	87	244,655	100	92,707	49,597	191,114
MANUFACTURING -----	500	53	37	110,179	45	48,166	23,359	96,425
NONMANUFACTURING -----	-	103	50	134,476	55	44,541	26,238	94,689
TRANSPORTATION, COMMUNICATION, AND OTHER PUBLIC UTILITIES ⁵ -----	500	13	11	52,623	13	13,716	6,309	31,158
WHOLESALE TRADE -----	500	9	5	9,253	4	(⁶)	(⁶)	5,435
RETAIL TRADE -----	500	53	19	65,881	27	(⁶)	(⁶)	42,250
FINANCE, INSURANCE, AND REAL ESTATE -----	500	21	10	22,122	9	(⁶)	(⁶)	12,457
SERVICES ⁷ -----	500	7	5	4,597	2	(⁶)	(⁶)	3,389

¹ The Minneapolis-St. Paul Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties, Minn.; and St. Croix County, Wis. The "workers within scope of study" estimates shown in this table 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 employment indexes 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. However, all government operations are excluded from the scope of the survey.

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

⁴ Includes executive, professional, part-time, and other workers excluded from the separate production and office categories.

⁵ Abbreviated to "public utilities" in the A- and B-series tables. Taxicabs and services incidental to water transportation are excluded.

⁶ Separate presentation of data is not made for this division.

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 staff 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 the grouping of 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 economists 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 description, are excluded.

Office

SECRETARY

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

Exclusions

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

SECRETARY—Continued

Exclusions—Continued

- 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;

Listed below are several occupations for which revised descriptions or titles are being introduced in this survey:

Order clerk
Payroll clerk
Secretary
Key entry operator
Transcribing-machine typist
Computer operator

Guard
Shipper and receiver
(previously surveyed
as shipping and
receiving clerk)
Truckdriver

The Bureau has discontinued collecting data for tabulating-machine operator. Workers previously classified as watchmen are now classified as guards under the revised description.

SECRETARY—Continued

Exclusions—Continued

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

Classification by Level

Secretary jobs which meet the above characteristics are matched at one of five levels according to (a) the level of the secretary's supervisor within the company's organizational structure and, (b) the level of the secretary's responsibility. The chart 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)

Secretaries should be matched at one of the four LS levels described below according to the level of the secretary's supervisor within the company organizational structure.

- 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

SECRETARY—Continued

Classification by Level—Continued

- 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 policy-making 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.

Level of Responsibility 1 (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.

SECRETARY—Continued

Level of Responsibility 2 (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:

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

STENOGRAPHER

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

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

Stenographer, General

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

STENOGRAPHER—Continued

Stenographer, Senior

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

OR

Performs stenographic duties requiring significantly greater independence and responsibility than stenographer, general, as evidenced by the following: Work requires a high degree of stenographic speed and accuracy; a thorough working knowledge of general business and office procedure; and of the specific business operations, organization, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining 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.

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.

FILE CLERK—Continued

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 sales people. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and

ORDER CLERK—Continued

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

ACCOUNTING CLERK—Continued

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

PAYROLL CLERK—Continued

listings against source records; tracing and correcting errors in listings; and assisting in preparation of periodic summary payroll reports. In a non-automated payroll system, computes wages. Work may require a practical knowledge of governmental regulations, company payroll policy, or the computer system for processing payrolls.

KEY ENTRY OPERATOR

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

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

Class A. 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.)

COMPUTER SYSTEMS ANALYST, BUSINESS—Continued

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

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

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

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

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

COMPUTER PROGRAMMER, BUSINESS—Continued

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.

COMPUTER PROGRAMMER, BUSINESS—Continued

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.

COMPUTER OPERATOR—Continued

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,

MAINTENANCE MECHANIC (MOTOR VEHICLE)—Continued

drills, or specialized equipment in disassembling or fitting parts; replacing broken or defective parts from stock; grinding and adjusting valves; re-assembling 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 task; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

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

STATIONARY ENGINEER

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

BOILER TENDER

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

Material Movement and Custodial

TRUCKDRIVER

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

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

- Truckdriver, light truck
(straight truck, under 1½ tons, usually 4 wheels)
- Truckdriver, medium truck
(straight truck, 1½ to 4 tons inclusive, usually 6 wheels)
- Truckdriver, heavy truck
(straight truck, over 4 tons, usually 10 wheels)
- Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

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

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

SHIPPER AND RECEIVER—Continued

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

For wage study purposes, workers are classified as follows:

Shipper
Receiver
Shipper and receiver

WAREHOUSEMAN

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

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

ORDER FILLER

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

SHIPPING PACKER

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

MATERIAL HANDLING LABORER

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

POWER-TRUCK OPERATOR

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

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

Forklift operator
Power-truck operator (other than forklift)

GUARD

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

GUARD—Continued

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.

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 1976, is available on request.

Area	Bulletin number and price*
Akron, Ohio, Dec. 1977	1950-70, 80 cents
Albany-Schenectady-Troy, N.Y., Sept. 1977	1950-52, 80 cents
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1977	1950-60, \$1.00
Atlanta, Ga., May 1977	1950-17, \$1.20
Baltimore, Md., Aug. 1977	1950-39, \$1.20
Billings, Mont., July 1977 ¹	1950-40, \$1.00
Birmingham, Ala., Mar. 1977	1950-8, 85 cents
Boston, Mass., Aug. 1977	1950-50, \$1.20
Buffalo, N.Y., Oct. 1977	1950-58, \$1.00
Canton, Ohio, May 1977 ¹	1950-28, \$1.10
Chattanooga, Tenn.-Ga., Sept. 1977	1950-44, 70 cents
Chicago, Ill., May 1977 ¹	1950-41, \$1.40
Cincinnati, Ohio-Ky.-Ind., July 1977 ¹	1950-45, \$1.20
Cleveland, Ohio, Sept. 1977 ¹	1950-53, \$1.40
Columbus, Ohio, Oct. 1977	1950-64, \$1.00
Corpus Christi, Tex., July 1977 ¹	1950-35, \$1.00
Dallas-Fort Worth, Tex., Oct. 1977	1950-65, \$1.20
Davenport-Rock Island-Moline, Iowa-Ill., May 1977 ¹	1950-26, \$1.10
Dayton, Ohio, Dec. 1977 ¹	1950-71, \$1.10
Daytona Beach, Fla., Aug. 1977 ¹	1950-43, \$1.00
Denver-Boulder, Colo., Dec. 1977 ¹	1950-74, \$1.40
Detroit, Mich., Mar. 1977	1950-13, \$1.20
Fresno, Calif., June 1977	1950-30, 70 cents
Gainesville, Fla., Sept. 1977 ¹	1950-46, \$1.00
Green Bay, Wis., July 1977	1950-36, 70 cents
Greensboro-Winston-Salem-High Point, N.C., Aug. 1977 ¹	1950-42, \$1.10
Greenville-Spartanburg, S.C., June 1977	1950-33, 70 cents
Hartford, Conn., Mar. 1977	1950-9, 80 cents
Houston, Tex., Aug. 1977 ¹	1950-48, \$1.40
Huntsville, Ala., Feb. 1977 ¹	1950-4, \$1.40
Indianapolis, Ind., Oct. 1977	1950-56, \$1.00
Jackson, Miss., Jan. 1978	2025-1, 70 cents
Jacksonville, Fla., Dec. 1977	1950-67, 70 cents
Kansas City, Mo.-Kans., Sept. 1977	1950-54, \$1.00
Los Angeles-Long Beach, Calif., Oct. 1977	1950-61, \$1.20
Louisville, Ky.-Ind., Nov. 1977 ¹	1950-66, \$1.20
Memphis, Tenn.-Ark.-Miss., Nov. 1977	1950-63, 70 cents

Area	Bulletin number and price*
Miami, Fla., Oct. 1977	1950-57, \$1.00
Milwaukee, Wis., Apr. 1977	1950-14, \$1.10
Minneapolis-St. Paul, Minn.-Wis., Jan. 1978 ¹	2025-2, \$1.40
Nassau-Suffolk, N.Y., June 1977	1950-27, \$1.00
Newark, N.J., Jan. 1977	1950-7, \$1.60
New Orleans, La., Jan. 1977 ¹	1950-5, \$1.60
New York, N.Y.-N.J., May 1977	1950-31, \$1.20
Norfolk-Virginia Beach-Portsmouth, Va.-N.C., May 1977	1950-20, 70 cents
Norfolk-Virginia Beach-Portsmouth and Newport News-Hampton, Va.-N.C., May 1977	1950-21, 70 cents
Northeast Pennsylvania, Aug. 1977 ¹	1950-38, \$1.10
Oklahoma City, Okla., Aug. 1977 ¹	1950-49, \$1.10
Omaha, Nebr.-Iowa, Oct. 1977 ¹	1950-55, \$1.10
Paterson-Clifton-Passaic, N.J., June 1977	1950-34, 70 cents
Philadelphia, Pa.-N.J., Nov. 1977	1950-62, \$1.20
Pittsburgh, Pa., Jan. 1977	1950-1, \$1.50
Portland, Maine, Dec. 1977	1950-69, 70 cents
Portland, Oreg.-Wash., May 1977 ¹	1950-32, \$1.20
Poughkeepsie, N.Y., June 1977	1950-25, 70 cents
Poughkeepsie-Kingston-Newburgh, N.Y., June 1976	1900-55, 55 cents
Providence-Warwick-Pawtucket, R.I.-Mass., June 1977 ¹	1950-22, \$1.20
Richmond, Va., June 1977 ¹	1950-23, \$1.10
St. Louis, Mo.-Ill., Mar. 1977	1950-10, \$1.20
Sacramento, Calif., Dec. 1977 ¹	1950-72, \$1.00
Saginaw, Mich., Nov. 1977	1950-59, 70 cents
Salt Lake City-Ogden, Utah, Nov. 1977	1950-68, 80 cents
San Antonio, Tex., May 1977 ¹	1950-24, \$1.10
San Diego, Calif., Nov. 1977 ¹	1950-73, \$1.10
San Francisco-Oakland, Calif., Mar. 1977	1950-29, \$1.20
San Jose, Calif., Mar. 1977	1950-19, \$1.00
Seattle-Everett, Wash., Dec. 1977	1950-75, 80 cents
South Bend, Ind., Aug. 1977 ¹	1950-51, \$1.10
Toledo, Ohio-Mich., May 1977	1950-18, 80 cents
Trenton, N.J., Sept. 1977	1950-47, 70 cents
Utica-Rome, N.Y., July 1977 ¹	1950-37, \$1.10
Washington, D.C.-Md.-Va., Mar. 1977	1950-11, \$1.20
Wichita, Kans., Apr. 1977 ¹	1950-16, \$1.10
Worcester, Mass., Apr. 1977	1950-15, 70 cents
York, Pa., Feb. 1977	1950-6, \$1.10

* 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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