

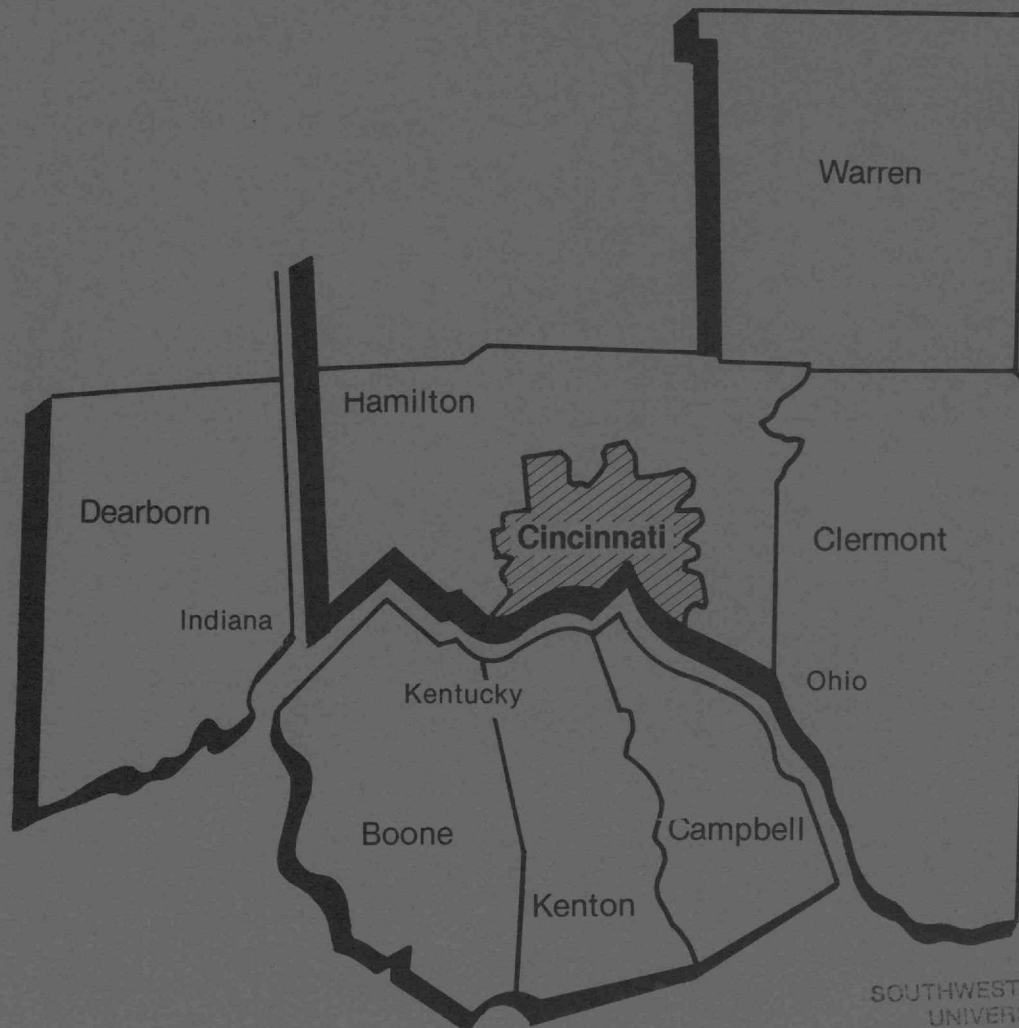
Area Wage Survey

Cincinnati, Ohio—Kentucky— Indiana, Metropolitan Area July 1981



U.S. Department of Labor
Bureau of Labor Statistics

Bulletin 3010-30



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Preface

This bulletin provides results of a July 1981 survey of occupational earnings in the Cincinnati, Ohio-Ky.-Ind., 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:

A report on occupational earnings is available for the laundry and dry cleaning industry (July 1981). Reports are available on occupational earnings and supplementary wage provisions for the savings and loan association (February 1980) and banking (February 1980) industries. Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

Area Wage Survey

Cincinnati, Ohio—Kentucky— Indiana, Metropolitan Area July 1981



U.S. Department of Labor
Raymond J. Donovan, Secretary

Bureau of Labor Statistics
Janet L. Norwood,
Commissioner

September 1981

Bulletin 3010-30

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Introduction

This area is 1 of 71 in which the U.S. Department of Labor's Bureau of Labor Statistics conducts surveys of occupational earnings and related benefits. (See list of areas on inside back cover.) In each area, earnings data for selected occupations (A-series tables) are collected annually. Information on establishment practices and supplementary wage benefits (B-series tables) is obtained every third year. This report has no B-series tables.

Each year after all individual area wage surveys have been completed, two summary reports 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. Where possible, occupations with related duties (e.g., accounting clerks and payroll clerks) are clustered to facilitate comparison. The occupations are defined in appendix B. For the 31 largest survey areas, tables A-12 through A-17 provide similar data for establishments employing 500 workers or more.

Beginning in 1981, multilevel jobs are designated numerically instead of alphabetically. A job conversion list is provided in appendix C.

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

Tables A-8 through A-11 provide measures of pay relationships in establishments. These measures may differ considerably from the pay relationships of overall area averages published in tables A-1 through A-6. See appendix A for details.

Appendixes

Appendix A describes the methods and concepts used in the area wage survey program. 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 representatives to classify workers by occupation.

Appendix C is an alphabetic to numeric conversion list for all multilevel jobs in the survey.

Table A-1. Weekly earnings of office workers in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																							
			Mean ²	Median ²	Middle range ²	120 and under 130	130-140	140-150	150-160	160-180	180-200	200-220	220-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-400	400-440	440-480	480-520	520-560	560-600			
Secretaries.....	3,024	39.0	280.50	271.00	233.00- 319.00	-	-	-	3	92	189	265	289	465	365	289	316	165	209	118	109	88	31	19	10	2			
Manufacturing.....	1,684	39.0	297.00	289.50	250.00- 342.00	-	-	-	1	13	68	94	141	200	234	195	169	109	179	92	94	55	18	14	7	1			
Nonmanufacturing.....	1,340	38.5	260.50	252.50	215.00- 298.00	-	-	-	2	79	121	171	148	265	131	94	147	56	30	26	15	33	13	5	3	1			
Transportation and utilities.....	131	39.5	311.50	310.50	235.00- 391.00	-	-	-	-	4	4	24	4	8	-	14	25	2	7	2	7	24	2	3	-	1			
Secretaries I.....	125	39.0	240.50	215.50	196.00- 295.50	-	-	-	-	2	35	28	12	13	3	3	25	-	-	-	-	3	1	-	-	-			
Nonmanufacturing.....	110	39.5	240.50	214.00	196.00- 304.50	-	-	-	-	2	34	26	8	8	-	3	25	-	-	-	-	3	1	-	-	-			
Transportation and utilities.....	52	40.0	284.50	310.50	251.50- 310.50	-	-	-	-	-	4	8	-	8	-	3	25	-	-	-	-	3	1	-	-	-			
Secretaries II.....	1,021	39.0	261.50	254.00	225.00- 300.00	-	-	-	1	63	95	83	91	198	95	132	125	46	78	9	1	-	1	3	-	-			
Manufacturing.....	616	39.0	282.00	288.00	251.50- 311.00	-	-	-	1	12	30	14	47	74	85	126	101	42	74	9	-	-	1	-	-	-			
Nonmanufacturing.....	405	39.0	230.00	231.00	198.00- 252.50	-	-	-	-	51	65	69	44	124	10	6	24	4	4	-	1	-	-	3	-	-			
Secretaries III.....	1,080	39.0	287.50	275.00	234.50- 336.00	-	-	-	2	21	49	98	123	127	139	72	113	76	81	66	74	22	8	8	-	1			
Manufacturing.....	628	39.5	302.00	307.00	241.50- 360.00	-	-	-	-	1	34	62	56	50	64	36	46	53	69	63	70	9	7	8	-	-			
Nonmanufacturing.....	452	38.5	267.00	262.00	230.00- 300.00	-	-	-	2	20	15	36	67	77	75	36	67	23	12	3	4	13	1	-	-	1			
Secretaries IV.....	566	39.0	302.50	280.50	250.00- 357.00	-	-	-	-	6	8	54	48	84	78	53	25	34	36	30	29	58	16	3	4	-			
Manufacturing.....	283	39.0	316.50	287.50	253.50- 386.50	-	-	-	-	-	3	14	24	50	37	23	8	11	25	11	21	43	6	3	4	-			
Nonmanufacturing.....	283	38.5	288.50	275.50	235.50- 336.00	-	-	-	-	6	5	40	24	34	41	30	17	23	11	19	8	15	10	-	-	-			
Transportation and utilities.....	27	39.5	311.00	298.00	200.00- 415.00	-	-	-	-	4	-	4	-	-	-	7	-	-	-	2	2	8	-	-	-	-			
Secretaries V.....	170	38.5	318.00	298.50	266.50- 347.50	-	-	-	-	-	2	1	9	25	25	23	23	8	14	13	5	5	5	5	6	1			
Manufacturing.....	86	38.5	330.50	302.00	268.50- 371.00	-	-	-	-	-	-	1	5	3	22	6	10	2	11	9	3	3	4	3	3	1			
Nonmanufacturing.....	84	38.5	304.50	288.50	245.00- 325.00	-	-	-	-	-	2	-	4	22	3	17	13	6	3	4	2	2	1	2	3	-			
Stenographers.....	758	39.0	264.50	256.50	223.00- 290.00	-	-	4	-	25	38	113	117	86	110	115	32	44	8	12	8	46	-	-	-	-			
Manufacturing.....	540	38.5	259.00	250.00	223.50- 282.50	-	-	-	-	11	23	92	95	69	94	83	23	8	3	12	6	21	-	-	-	-			
Nonmanufacturing.....	218	39.5	278.50	280.00	220.00- 323.00	-	-	4	-	14	15	21	22	17	16	32	9	36	5	-	2	25	-	-	-	-			
Transportation and utilities.....	159	40.0	308.00	299.00	273.00- 330.00	-	-	-	-	-	3	7	13	13	14	32	9	36	5	-	2	25	-	-	-	-			
Stenographers I.....	415	38.5	255.00	234.00	213.00- 283.00	-	-	4	-	25	26	85	96	49	17	34	-	25	7	10	5	32	-	-	-	-			
Nonmanufacturing.....	140	39.5	294.00	283.00	250.00- 337.00	-	-	4	-	14	5	1	10	9	13	27	-	25	5	-	2	25	-	-	-	-			
Transportation and utilities.....	110	40.0	323.50	323.00	283.00- 352.00	-	-	-	-	-	-	-	8	7	11	27	-	25	5	-	2	25	-	-	-	-			
Stenographers II.....	343	39.0	276.50	276.50	250.50- 292.50	-	-	-	-	-	12	28	21	37	93	81	32	19	1	2	3	14	-	-	-	-			
Manufacturing.....	265	39.0	284.00	278.00	266.50- 292.50	-	-	-	-	-	2	8	9	29	90	76	23	8	1	2	3	14	-	-	-	-			
Nonmanufacturing.....	78	39.5	251.00	236.00	210.00- 302.00	-	-	-	-	-	10	20	12	8	3	5	9	11	-	-	-	-	-	-	-	-			
Transcribing-machine typists.....	140	38.5	219.00	206.50	179.50- 266.00	-	-	2	4	29	26	22	9	12	12	10	13	1	-	-	-	-	-	-	-	-			
Manufacturing.....	83	39.0	241.50	241.00	202.00- 281.50	-	-	-	-	12	3	15	6	12	12	10	13	-	-	-	-	-	-	-	-	-			
Nonmanufacturing.....	57	37.5	186.50	183.00	171.00- 194.00	-	-	2	4	17	23	7	3	-	-	-	-	1	-	-	-	-	-	-	-	-			
Typists.....	737	39.0	202.00	194.00	165.00- 225.50	-	18	54	66	127	144	101	98	60	34	15	7	2	-	-	5	1	5	-	-	-			
Manufacturing.....	222	38.5	226.00	223.50	205.00- 248.00	-	-	2	4	11	29	58	35	49	21	8	4	1	-	-	-	-	-	-	-	-			
Nonmanufacturing.....	515	39.0	191.50	181.00	159.00- 207.00	-	18	52	62	116	115	43	63	11	13	7	3	1	-	-	5	1	5	-	-	-			
Transportation and utilities.....	54	40.0	266.00	235.00	204.00- 296.50	-	-	-	-	4	8	4	21	1	-	3	2	-	-	-	5	1	5	-	-	-			
Typists I.....	347	39.0	180.50	168.00	153.50- 192.50	-	18	44	48	93	67	41	22	2	3	3	1	-	-	-	5	-	-	-	-	-			
Manufacturing.....	96	38.5	203.50	212.00	186.50- 218.50	-	-	2	4	11	22	35	18	1	3	-	-	-	-	-	-	-	-	-	-	-			
Nonmanufacturing.....	251	39.0	172.00	164.50	150.00- 181.00	-	18	42	44	82	45	6	4	1	-	3	1	-	-	-	5	-	-	-	-	-			
Typists II.....	390	39.0	220.50	217.50	190.00- 245.00	-	-	10	18	34	77	60	76	58	31	12	6	2	-	-	-	1	5	-	-	-			
Manufacturing.....	126	38.0	243.50	245.00	220.50- 258.50	-	-	-	-	-	7	23	17	48	18	8	4	1	-	-	-	-	-	-	-	-			
Nonmanufacturing.....	264	39.0	209.50	199.50	180.50- 226.00	-	-	10	18	34	70	37	59	10	13	4	2	1	-	-	-	1	5	-	-	-			
Transportation and utilities.....	33	40.0	267.00	235.00	226.50- 235.00	-	-	-	-	1	2	4	19	-	-	-	1	-	-	-	-	1	5	-	-	-			

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																									
			Mean ²	Median ²	Middle range ²	120 and under 130	130 — 140	140 — 150	150 — 160	160 — 180	180 — 200	200 — 220	220 — 240	240 — 260	260 — 280	280 — 300	300 — 320	320 — 340	340 — 360	360 — 380	380 — 400	400 — 440	440 — 480	480 — 520	520 — 560	560 — 600					
File clerks.....	553	38.5	170.50	160.00	140.00— 184.00	-	108	103	58	74	113	51	13	18	5	-	7	-	-	-	-	3	-	-	-	-	-				
Manufacturing.....	145	39.5	195.50	199.50	173.00— 214.00	-	-	23	-	15	36	42	13	10	3	-	3	-	-	-	-	-	-	-	-	-	-				
Nonmanufacturing.....	408	38.0	161.50	152.00	139.00— 180.50	-	108	80	58	59	77	9	-	8	2	-	4	-	-	-	-	3	-	-	-	-	-				
File clerks I.....	252	38.0	153.00	143.00	135.00— 155.00	-	85	78	35	17	16	9	6	-	2	-	4	-	-	-	-	-	-	-	-	-	-				
Manufacturing.....	51	40.0	173.00	185.50	140.00— 214.00	-	-	23	-	1	13	8	6	-	-	-	-	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	201	37.5	148.00	140.00	133.00— 150.00	-	85	55	35	16	3	1	-	-	2	-	4	-	-	-	-	-	-	-	-	-					
File clerks II.....	247	39.0	176.00	180.00	155.00— 184.00	-	23	25	23	49	80	36	3	6	-	-	2	-	-	-	-	-	-	-	-	-					
Manufacturing.....	74	39.5	199.00	201.00	181.00— 201.00	-	-	-	-	14	22	29	3	4	-	-	2	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	173	39.0	166.50	170.50	142.00— 182.50	-	23	25	23	35	58	7	-	2	-	-	-	-	-	-	-	-	-	-	-	-					
File clerks III.....	54	39.0	227.00	213.00	189.50— 253.00	-	-	-	-	8	17	6	4	12	3	-	1	-	-	-	-	3	-	-	-	-					
Messengers.....	175	38.5	175.50	167.00	149.50— 191.50	-	9	37	29	34	33	13	10	6	1	3	-	-	-	-	-	-	-	-	-	-					
Manufacturing.....	59	39.5	192.50	189.00	153.00— 223.50	-	3	12	7	3	12	4	9	5	1	3	-	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	116	38.0	166.50	162.00	148.00— 180.50	-	6	25	22	31	21	9	1	1	-	-	-	-	-	-	-	-	-	-	-	-					
Switchboard operators.....	141	39.5	194.50	162.00	144.00— 210.00	2	33	15	7	24	19	7	2	7	-	2	4	8	9	-	2	-	-	-	-	-					
Nonmanufacturing.....	110	39.5	178.00	152.00	136.00— 181.50	2	33	15	6	18	18	6	-	-	-	-	-	1	9	-	2	-	-	-	-	-					
Switchboard operator-receptionists.....	422	39.5	207.50	200.00	169.50— 246.00	-	7	11	25	131	31	83	20	38	40	29	3	-	-	-	-	3	1	-	-	-					
Manufacturing.....	206	39.0	208.50	207.00	175.00— 222.00	-	-	-	20	38	17	69	18	19	17	5	3	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	216	39.5	206.00	177.00	160.00— 246.50	-	7	11	5	93	14	14	2	19	23	24	-	-	-	-	-	3	1	-	-	-					
Order clerks.....	852	39.5	217.00	208.00	170.00— 259.00	-	42	87	37	103	123	86	87	80	71	76	7	4	3	46	-	-	-	-	-	-					
Manufacturing.....	637	39.5	209.00	200.00	170.00— 250.00	-	42	84	2	58	123	64	65	80	49	54	7	4	3	2	-	-	-	-	-	-					
Order clerks I.....	561	39.5	193.50	188.50	150.00— 234.00	-	42	84	37	86	100	62	30	44	37	36	3	-	-	-	-	-	-	-	-	-					
Manufacturing.....	481	39.5	198.00	192.00	140.00— 237.50	-	42	84	2	41	100	62	30	44	37	36	3	-	-	-	-	-	-	-	-	-					
Order clerks II.....	291	39.0	263.00	254.50	225.00— 298.00	-	-	3	-	17	23	24	57	36	34	40	4	4	3	46	-	-	-	-	-	-					
Manufacturing.....	156	39.5	242.00	240.00	195.00— 264.50	-	-	-	-	17	23	2	35	36	12	18	4	4	3	2	-	-	-	-	-	-					
Accounting clerks.....	2,123	39.0	218.00	208.00	175.00— 248.00	-	32	52	172	345	355	288	293	180	71	105	76	88	18	20	10	9	5	4	-	-					
Manufacturing.....	1,015	39.5	225.50	218.00	181.50— 255.50	-	28	28	68	115	144	132	174	83	47	41	63	50	11	17	6	5	3	-	-	-					
Nonmanufacturing.....	1,108	39.0	211.50	198.00	170.00— 235.00	-	4	24	104	230	211	156	119	97	24	64	13	38	7	3	4	4	2	4	-	-					
Transportation and utilities.....	113	40.0	266.50	256.50	192.50— 324.00	-	-	-	8	12	12	5	19	6	4	12	1	17	4	1	2	4	2	4	-	-					
Accounting clerks I.....	1,390	39.0	200.50	192.00	167.00— 221.50	-	32	51	166	273	294	169	152	120	45	35	32	12	3	-	-	-	2	4	-	-					
Manufacturing.....	757	39.5	205.50	200.00	168.00— 232.00	-	28	28	68	115	136	99	123	66	36	19	31	8	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	633	39.0	194.00	187.50	162.00— 206.00	-	4	23	98	158	158	70	29	54	9	16	1	4	3	-	-	-	2	4	-	-					
Transportation and utilities.....	48	40.0	277.00	286.00	192.50— 301.50	-	-	-	4	-	12	1	3	2	2	12	1	2	3	-	-	-	2	4	-	-					
Accounting clerks II.....	732	39.5	252.00	230.50	210.00— 291.00	-	-	1	6	72	61	119	141	60	26	70	44	76	15	20	10	9	2	-	-	-					
Manufacturing.....	257	39.5	284.00	284.00	228.50— 328.50	-	-	-	-	-	8	33	51	17	11	22	32	42	11	17	6	5	2	-	-	-					
Nonmanufacturing.....	475	39.0	234.50	222.50	196.00— 265.00	-	-	1	6	72	53	86	90	43	15	48	12	34	4	3	4	4	-	-	-	-					
Transportation and utilities.....	65	40.0	259.00	235.00	211.50— 326.50	-	-	-	4	12	-	4	16	4	2	-	-	15	1	1	2	4	-	-	-	-					
Payroll clerks.....	400	39.5	239.50	235.00	190.00— 264.50	-	1	1	16	39	54	48	62	57	54	14	18	11	5	4	9	2	3	2	-	-					
Manufacturing.....	239	39.5	256.00	254.50	220.00— 279.00	-	1	-	9	18	9	21	46	29	50	12	17	4	3	4	9	2	3	2	-	-					
Nonmanufacturing.....	161	39.0	214.50	201.00	184.00— 240.00	-	-	1	7	21	45	27	16	28	4	2	1	7	2	-	-	-	-	-	-	-					
Key entry operators.....	1,111	39.0	209.00	200.00	175.00— 229.00	-	2	19	67	206	238	204	167	95	48	19	9	19	2	3	2	6	5	-	-	-					
Manufacturing.....	493	39.5	222.50	214.50	193.50— 242.00	-	-	4	25	51	88	102	82	63	36	11	7	8	2	3	1	5	5	-	-	-					
Nonmanufacturing.....	618	38.5	198.50	194.50	168.00— 217.50	-	2	15	42	155	150	102	85	32	12	8	2	11	-	-	1	1	-	-	-	-					
Transportation and utilities.....	52	40.0	260.50	257.00	214.00— 296.50	-	-	-	-	-	7	8	7	7	4	7	1	10	-	-	1	-	-	-	-	-					

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	120 and under 130	130-140	140-150	150-160	160-180	180-200	200-220	220-240	240-260	260-280	280-300	300-320	320-340	340-360	360-380	380-400	400-440	440-480	480-520	520-560	560-600
Key entry operators I	599	39.0	202.50	195.50	173.50- 225.00	-	2	16	29	118	163	94	92	46	13	9	5	12	-	-	-	-	-	-	-	-
Manufacturing	277	39.0	216.00	213.50	193.50- 231.50	-	-	1	9	17	70	55	66	41	10	2	4	2	-	-	-	-	-	-	-	-
Nonmanufacturing	322	39.0	191.00	180.50	165.00- 205.50	-	2	15	20	101	93	39	26	5	3	7	1	10	-	-	-	-	-	-	-	-
Transportation and utilities	42	40.0	259.00	239.50	214.00- 309.50	-	-	-	-	-	7	7	7	1	2	7	1	10	-	-	-	-	-	-	-	-
Key entry operators II	512	39.0	217.00	207.50	178.50- 238.00	-	-	3	38	88	75	110	75	49	35	10	4	7	2	3	2	6	5	-	-	-
Manufacturing	216	39.5	231.00	217.50	182.00- 266.00	-	-	3	16	34	18	47	16	22	26	9	3	6	2	3	1	5	5	-	-	-
Nonmanufacturing	296	38.5	206.50	202.50	176.00- 231.00	-	-	-	22	54	57	63	59	27	9	1	1	1	-	-	1	1	-	-	-	-

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																											
			Mean ²	Median ²	Middle range ²	140 and under 160	160–180	180–200	200–220	220–240	240–260	260–280	280–300	300–320	320–340	340–360	360–380	380–420	420–460	460–500	500–540	540–580	580–620	620–660	660–700	700–740							
Computer systems analysts (business).....	561	39.0	474.00	482.00	423.00– 515.50	–	–	–	–	–	–	–	1	6	12	11	25	85	72	132	134	53	25	2	1	2							
Manufacturing.....	228	39.5	475.50	480.00	416.00– 511.50	–	–	–	–	–	–	–	–	–	–	5	15	45	27	55	43	21	12	2	1	2							
Nonmanufacturing.....	333	39.0	472.50	482.00	425.50– 518.50	–	–	–	–	–	–	–	1	6	12	6	10	40	45	77	91	32	13	–	–	–							
Computer systems analysts (business) I.....	61	39.5	421.00	405.00	341.00– 493.50	–	–	–	–	–	–	–	1	6	7	8	5	6	1	15	9	2	–	–	1	–							
Computer systems analysts (business) II.....	300	39.5	472.00	482.00	410.00– 521.50	–	–	–	–	–	–	–	–	–	5	3	20	63	43	49	65	27	22	2	–	1							
Manufacturing.....	99	40.0	468.00	418.50	402.00– 549.00	–	–	–	–	–	–	–	–	–	–	1	13	37	6	4	10	13	12	2	–	1							
Nonmanufacturing.....	201	39.0	474.50	482.00	430.00– 515.50	–	–	–	–	–	–	–	–	–	5	2	7	26	37	45	55	14	10	–	–	–							
Computer systems analysts (business) III.....	200	38.5	492.50	495.50	465.50– 511.50	–	–	–	–	–	–	–	–	–	–	–	–	16	28	68	60	24	3	–	–	1							
Manufacturing.....	96	39.0	482.00	494.50	455.00– 511.50	–	–	–	–	–	–	–	–	–	–	–	–	8	21	36	24	6	–	–	–	1							
Nonmanufacturing.....	104	38.5	502.00	509.00	474.00– 529.00	–	–	–	–	–	–	–	–	–	–	–	–	8	7	32	36	18	3	–	–	–							
Computer programmers (business).....	749	38.5	361.00	355.00	315.00– 404.00	–	–	–	–	7	21	59	60	66	72	99	100	127	68	50	19	–	1	2	–	–							
Manufacturing.....	266	39.5	366.50	372.00	325.00– 405.00	–	–	–	–	6	16	7	27	10	13	27	56	60	22	16	3	–	1	2	–	–							
Nonmanufacturing.....	483	38.0	358.00	345.50	308.00– 400.50	–	–	–	–	1	5	52	33	56	59	72	44	67	44	34	16	–	–	–	–	–							
Computer programmers (business) I.....	154	38.0	298.50	289.00	265.00– 323.50	–	–	–	–	–	12	49	19	34	13	13	9	5	–	–	–	–	–	–	–	–							
Nonmanufacturing.....	117	37.5	292.50	285.00	267.50– 317.00	–	–	–	–	–	2	45	19	29	9	13	–	–	–	–	–	–	–	–	–	–							
Computer programmers (business) II.....	378	39.0	352.50	350.00	328.50– 380.50	–	–	–	–	7	9	8	36	22	54	82	62	71	14	8	5	–	–	–	–	–							
Manufacturing.....	156	40.0	354.00	358.00	297.50– 401.00	–	–	–	–	6	6	3	27	3	9	25	25	33	12	7	–	–	–	–	–	–							
Nonmanufacturing.....	222	38.0	351.50	347.00	330.00– 375.00	–	–	–	–	1	3	5	9	19	45	57	37	38	2	1	5	–	–	–	–	–							
Computer programmers (business) III.....	217	38.0	420.00	422.50	375.00– 461.00	–	–	–	–	–	–	2	5	10	5	4	29	51	52	42	14	–	1	2	–	–							
Manufacturing.....	73	39.0	417.00	405.00	374.00– 455.00	–	–	–	–	–	–	–	–	2	–	2	22	22	10	9	3	–	1	2	–	–							
Nonmanufacturing.....	144	38.0	422.00	429.00	392.00– 462.50	–	–	–	–	–	–	2	5	8	5	2	7	29	42	33	11	–	–	–	–	–							
Computer operators.....	671	39.0	285.50	267.00	236.00– 330.00	–	11	45	59	85	96	75	58	45	70	40	26	22	16	–	16	5	1	1	–	–							
Manufacturing.....	318	39.0	295.00	275.50	241.00– 346.00	–	1	14	29	31	36	61	24	22	15	30	23	10	12	–	3	5	1	1	–	–							
Nonmanufacturing.....	353	39.0	277.50	257.00	228.00– 323.00	–	10	31	30	54	60	14	34	23	55	10	3	12	4	–	13	–	–	–	–	–							
Computer operators I.....	201	39.0	239.50	238.00	211.00– 256.50	–	6	15	45	38	54	25	4	–	12	–	–	1	–	–	1	–	–	–	–	–							
Manufacturing.....	92	39.0	242.00	239.00	211.00– 257.00	–	1	6	22	18	23	17	3	–	–	–	–	1	–	–	1	–	–	–	–	–							
Nonmanufacturing.....	109	39.0	237.50	235.50	214.00– 256.50	–	5	9	23	20	31	8	1	–	12	–	–	–	–	–	–	–	–	–	–	–							
Computer operators II.....	308	39.5	288.00	284.00	237.00– 330.00	–	5	30	14	31	24	36	39	34	44	9	22	11	4	–	1	4	–	–	–	–							
Manufacturing.....	158	39.5	300.00	292.00	258.50– 338.50	–	–	8	7	13	13	32	15	20	10	4	22	6	3	–	1	4	–	–	–	–							
Nonmanufacturing.....	150	39.5	275.00	284.00	237.00– 330.00	–	5	22	7	18	11	4	24	14	34	5	–	5	1	–	–	–	–	–	–	–							
Computer operators III.....	162	39.0	339.00	329.00	275.50– 374.00	–	–	–	–	16	18	14	15	11	14	31	4	10	12	–	14	1	1	1	–	–							
Manufacturing.....	68	39.5	354.50	346.00	292.00– 356.50	–	–	–	–	–	–	12	6	2	5	26	1	3	9	–	1	1	1	1	–	–							
Nonmanufacturing.....	94	38.5	327.50	310.00	251.00– 375.50	–	–	–	–	16	18	2	9	9	9	5	3	7	3	–	13	–	–	–	–	–							
Drafters.....	1,049	40.0	304.50	300.00	249.50– 359.00	2	4	71	53	70	118	105	78	135	85	67	77	109	61	12	2	–	–	–	–	–							
Manufacturing.....	792	40.0	317.00	313.00	262.00– 366.00	–	–	51	26	31	70	72	53	126	68	64	69	100	48	12	2	–	–	–	–	–							
Nonmanufacturing.....	257	40.0	266.50	249.50	220.00– 288.00	2	4	20	27	39	48	33	25	9	17	3	8	9	13	–	–	–	–	–	–	–							
Drafters III.....	312	40.0	258.00	255.00	229.00– 297.00	–	–	17	37	38	81	43	24	49	13	4	4	2	–	–	–	–	–	–	–	–							
Manufacturing.....	170	40.0	269.00	260.50	240.00– 300.00	–	–	1	16	21	45	19	16	44	5	1	–	2	–	–	–	–	–	–	–	–							

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																											
			Mean ²	Median ²	Middle range ²	140 and under 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 420	420 - 460	460 - 500	500 - 540	540 - 580	580 - 620	620 - 660	660 - 700	700 - 740							
Drafters IV	426	40.0	325.00	325.00	286.50- 366.00	-	-	9	6	18	17	47	38	64	58	42	47	65	15	-	-	-	-	-	-	-	-						
Manufacturing	374	40.0	333.00	332.00	302.00- 369.00	-	-	9	-	-	9	39	34	64	57	42	47	58	15	-	-	-	-	-	-	-	-						
Drafters V	214	40.0	373.00	378.00	330.00- 425.00	-	-	-	-	-	6	10	13	22	14	21	26	42	46	12	2	-	-	-	-	-	-						
Manufacturing	173	40.0	375.50	380.00	341.00- 425.00	-	-	-	-	-	6	10	3	18	6	21	22	40	33	12	2	-	-	-	-	-	-						
Electronics technicians.....	270	40.0	326.50	334.00	216.50- 426.00	-	12	37	20	15	10	16	15	8	2	4	-	11	120	-	-	-	-	-	-	-	-						
Manufacturing	227	40.0	326.00	359.00	218.50- 424.50	-	12	27	18	15	10	12	9	6	2	4	-	11	101	-	-	-	-	-	-	-	-						
Electronics technicians II.....	84	40.0	301.50	230.00	193.00- 430.50	-	4	22	12	6	1	-	-	-	-	4	-	4	31	-	-	-	-	-	-	-	-						
Registered industrial nurses	90	39.5	366.00	351.00	324.00- 402.50	-	-	-	-	-	-	1	7	11	12	21	7	15	8	5	1	2	-	-	-	-	-						
Manufacturing	81	39.5	368.50	356.50	326.00- 402.50	-	-	-	-	-	-	1	4	11	9	20	7	14	8	4	1	2	-	-	-	-	-						

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Cincinnati, Ohio-Ky.-Ind., July 1981

Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^b)	
		Weekly hours ^c (standard)	Weekly earnings (in dollars) ^d			Weekly hours ^c (standard)	Weekly earnings (in dollars) ^d			Weekly hours ^c (standard)	Weekly earnings (in dollars) ^d
Office occupations - men				Typists.....	654	38.5	205.00	Payroll clerks.....	377	39.5	235.00
Messengers.....	66	38.5	185.50	Manufacturing.....	222	38.5	226.00	Manufacturing.....	224	39.5	249.00
Order clerks.....	179	39.5	292.50	Nonmanufacturing.....	432	39.0	194.00	Nonmanufacturing.....	153	39.0	214.00
Manufacturing.....	69	39.5	271.50	Transportation and utilities.....	47	40.0	264.00	Key entry operators.....	1,070	39.0	208.50
Order clerks II.....	147	39.5	300.50	Typists I:				Manufacturing.....	488	39.5	221.50
Accounting clerks:				Manufacturing.....	96	38.5	203.50	Nonmanufacturing.....	582	38.5	197.50
Manufacturing.....	68	39.5	286.50	Typists II.....	390	39.0	220.50	Transportation and utilities.....	51	40.0	260.50
Accounting clerks II.....	115	39.5	276.00	Manufacturing.....	126	38.0	243.50	Key entry operators I.....	593	39.0	202.50
Manufacturing.....	52	39.5	292.00	Nonmanufacturing.....	264	39.0	209.50	Manufacturing.....	277	39.0	216.00
Office occupations - women				Transportation and utilities.....	33	40.0	267.00	Nonmanufacturing.....	316	39.0	191.00
Secretaries.....	3,015	39.0	281.00	File clerks.....	538	38.5	169.50	Transportation and utilities.....	41	40.0	259.00
Manufacturing.....	1,681	39.0	297.00	Manufacturing.....	136	39.5	193.50	Key entry operators II.....	477	39.0	215.50
Nonmanufacturing.....	1,334	38.5	260.50	Nonmanufacturing.....	402	38.0	161.50	Manufacturing.....	211	39.5	228.50
Transportation and utilities.....	131	39.5	311.50	File clerks I.....	247	38.0	153.50	Nonmanufacturing.....	266	38.5	205.00
Secretaries I.....	125	39.0	240.50	Manufacturing.....	51	40.0	173.00	Professional and technical occupations - men			
Nonmanufacturing.....	110	39.5	240.50	Nonmanufacturing.....	196	37.5	148.00	Computer systems analysts (business).....	411	39.0	479.00
Transportation and utilities.....	52	40.0	284.50	File clerks II.....	240	39.0	175.00	Manufacturing.....	190	39.5	483.00
Secretaries II.....	1,021	39.0	261.50	Manufacturing.....	67	39.5	197.00	Nonmanufacturing.....	221	38.5	475.50
Manufacturing.....	616	39.0	282.00	Nonmanufacturing.....	173	39.0	166.50	Computer systems analysts (business) II.....	205	39.5	474.00
Nonmanufacturing.....	405	39.0	230.00	File clerks III.....	51	38.5	222.00	Manufacturing.....	81	40.0	474.00
Secretaries III.....	1,079	39.0	287.50	Messengers.....	98	38.0	170.00	Nonmanufacturing.....	124	39.0	474.00
Manufacturing.....	627	39.5	302.00	Nonmanufacturing.....	73	38.0	167.00	Computer systems analysts (business) III.....	163	38.5	499.50
Nonmanufacturing.....	452	38.5	267.00	Switchboard operators.....	136	39.5	193.50	Manufacturing.....	85	39.0	490.00
Secretaries IV.....	564	39.0	303.00	Nonmanufacturing.....	106	39.5	176.50	Nonmanufacturing.....	78	38.0	510.00
Manufacturing.....	281	39.0	317.00	Switchboard operator-receptionists.....	422	39.5	207.50	Computer programmers (business).....	492	38.5	374.00
Nonmanufacturing.....	283	38.5	288.50	Manufacturing.....	206	39.0	208.50	Manufacturing.....	180	39.5	375.50
Transportation and utilities.....	27	39.5	311.00	Nonmanufacturing.....	216	39.5	206.00	Nonmanufacturing.....	312	38.0	373.00
Secretaries V.....	170	38.5	318.00	Order clerks.....	673	39.5	197.00	Computer programmers (business) I.....	83	38.0	305.50
Manufacturing.....	86	38.5	330.50	Manufacturing.....	568	39.5	201.50	Computer programmers (business) II.....	246	39.0	363.00
Nonmanufacturing.....	84	38.5	304.50	Order clerks I.....	529	39.5	189.50	Manufacturing.....	101	39.5	371.50
Stenographers.....	755	39.0	264.50	Manufacturing.....	449	39.5	194.00	Nonmanufacturing.....	145	38.0	357.00
Manufacturing.....	539	38.5	259.00	Order clerks II.....	144	39.0	225.00	Computer programmers (business) III.....	163	38.0	425.00
Nonmanufacturing.....	216	39.5	278.50	Manufacturing.....	119	39.0	228.50	Manufacturing.....	53	38.5	414.00
Transportation and utilities.....	157	40.0	308.00	Accounting clerks.....	1,892	39.0	215.50	Nonmanufacturing.....	110	38.0	430.50
Stenographers I.....	413	38.5	254.50	Manufacturing.....	947	39.5	221.50	Computer operators.....	371	39.0	295.00
Nonmanufacturing.....	139	39.5	293.00	Nonmanufacturing.....	945	39.0	209.50	Manufacturing.....	194	39.5	312.50
Transportation and utilities.....	109	40.0	322.50	Transportation and utilities.....	102	40.0	263.00	Nonmanufacturing.....	177	38.5	276.00
Stenographers II.....	342	39.0	277.00	Accounting clerks I.....	1,288	39.0	200.00	Computer operators I.....	115	38.5	236.00
Manufacturing.....	265	39.0	284.00	Manufacturing.....	741	39.5	204.00	Manufacturing.....	61	39.0	248.00
Nonmanufacturing.....	77	39.5	251.50	Nonmanufacturing.....	547	39.0	194.50	Computer operators II.....	122	39.5	315.50
Transcribing-machine typists.....	140	38.5	219.00	Transportation and utilities.....	48	40.0	277.00	Manufacturing.....	79	39.5	330.00
Manufacturing.....	83	39.0	241.50	Accounting clerks II.....	603	39.0	248.00				
Nonmanufacturing.....	57	37.5	186.50	Manufacturing.....	205	39.5	282.00				
				Nonmanufacturing.....	398	39.0	230.00				
				Transportation and utilities.....	54	40.0	250.50				

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Sex, ² occupation, and industry division	Number of workers	Average (mean ²)		Sex, ² occupation, and industry division	Number of workers	Average (mean ²)		Sex, ² occupation, and industry division	Number of workers	Average (mean ²)	
		Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹
Computer operators III	134	39.0	327.00	Computer systems analysts (business) II	89	39.5	474.50	Drafters III	78	40.0	246.50
Manufacturing.....	54	39.5	359.00								
Nonmanufacturing.....	80	38.0	305.50	Computer programmers (business)	257	38.5	336.50				
Drafters	912	40.0	311.00	Manufacturing.....	86	39.5	347.50				
Manufacturing.....	724	40.0	320.50	Nonmanufacturing.....	171	38.0	331.00				
Nonmanufacturing.....	188	40.0	274.50	Computer programmers (business) I	71	38.0	290.50				
Drafters III	234	40.0	262.00	Nonmanufacturing.....	60	37.5	283.50				
Manufacturing.....	127	40.0	274.00	Computer programmers (business) II	132	38.5	333.00				
Drafters IV.....	400	40.0	328.00	Manufacturing.....	55	40.0	322.50				
Manufacturing.....	365	40.0	333.00	Nonmanufacturing.....	77	38.0	341.00				
Drafters V.....	190	40.0	379.50	Computer programmers (business) III	54	38.5	405.00				
Manufacturing.....	157	40.0	381.50	Computer operators	270	39.0	274.50				
Electronics technicians	248	40.0	335.00	Manufacturing.....	124	39.0	268.00				
Manufacturing.....	207	40.0	335.50	Computer operators II	179	39.5	269.00				
Electronics technicians II	71	40.0	319.00	Manufacturing.....	79	39.5	270.00				
Professional and technical occupations - women				Nonmanufacturing.....	100	39.0	268.00				
Computer systems analysts (business)	133	39.5	463.00	Drafters	137	40.0	261.50	Registered industrial nurses	90	39.5	366.00
Nonmanufacturing.....	95	39.0	472.00	Manufacturing.....	68	40.0	278.50	Manufacturing.....	81	39.5	368.50

See footnotes at end of tables.

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																											
		Mean²	Median²	Middle range²	4.40 and under 4.80	4.80	5.20	5.60	6.00	6.40	6.80	7.20	7.60	8.00	8.40	8.80	9.20	9.60	10.00	10.80	11.60	12.40	13.20	14.00	14.80	15.60	16.40	17.20				
						5.20	5.60	6.00	6.40	6.80	7.20	7.60	8.00	8.40	8.80	9.20	9.60	10.00	10.80	11.60	12.40	13.20	14.00	14.80	15.60	16.40	17.20					
Maintenance carpenters.....	107	10.58	10.15	9.50–11.85	–	–	–	–	–	–	4	–	–	1	4	2	21	21	8	15	7	19	–	5	–	–	–	–	–			
Manufacturing	82	10.54	10.49	9.50–11.85	–	–	–	–	–	–	4	–	–	–	4	1	21	6	6	15	6	19	–	–	–	–	–	–	–			
Maintenance electricians.....	781	10.69	10.15	9.31–12.45	–	–	–	–	–	–	14	8	31	–	66	24	112	123	52	83	51	203	–	–	6	2	6	–	–			
Manufacturing	755	10.66	10.03	9.31–12.45	–	–	–	–	–	–	14	8	31	–	65	24	112	123	46	68	51	203	–	–	4	2	4	–	–			
Maintenance painters	127	9.58	9.42	8.42–10.29	–	1	1	–	–	5	2	1	13	6	11	12	28	8	9	6	–	17	4	2	–	–	–	–	–			
Manufacturing	105	9.69	9.50	8.44–10.29	–	–	–	–	–	–	2	–	11	5	11	8	28	8	9	6	–	17	–	–	–	–	–	–	–			
Maintenance machinists.....	310	9.98	9.76	8.74–11.85	–	–	–	–	–	–	38	2	13	19	26	–	4	79	30	8	25	66	–	–	–	–	–	–	–			
Manufacturing	294	9.99	9.76	8.49–11.85	–	–	–	–	–	–	38	2	13	19	26	–	4	63	30	8	25	66	–	–	–	–	–	–	–			
Maintenance mechanics (machinery)	1,216	9.55	9.31	8.61–10.95	–	–	9	–	9	22	59	104	34	4	199	42	298	100	20	156	30	112	–	–	4	–	14	–	–			
Manufacturing	1,190	9.58	9.31	8.61–10.95	–	–	9	–	9	21	42	104	34	4	199	42	298	100	20	148	30	112	–	–	4	–	14	–	–			
Maintenance mechanics (motor vehicles).....	698	11.64	12.81	10.70–12.84	–	–	–	–	–	5	–	10	4	50	19	6	34	15	68	23	55	409	–	–	–	–	–	–	–	–		
Manufacturing	170	9.96	9.48	8.26–11.89	–	–	–	–	–	5	–	6	4	48	10	2	10	15	6	4	22	38	–	–	–	–	–	–	–			
Nonmanufacturing	528	12.18	12.84	11.68–12.84	–	–	–	–	–	–	–	4	–	2	9	4	24	–	62	19	33	371	–	–	–	–	–	–	–	–		
Transportation and utilities	474	12.35	12.84	12.81–13.04	–	–	–	–	–	–	–	4	–	2	8	4	24	–	9	19	33	371	–	–	–	–	–	–	–	–		
Maintenance pipefitters.....	483	10.81	9.85	9.69–12.45	–	–	–	–	–	–	–	–	–	3	67	1	1	188	–	28	35	160	–	–	–	–	–	–	–	–		
Manufacturing	483	10.81	9.85	9.69–12.45	–	–	–	–	–	–	–	–	–	3	67	1	1	188	–	28	35	160	–	–	–	–	–	–	–	–		
Maintenance sheet-metal workers.....	50	10.62	9.79	9.76–12.80	–	–	–	–	–	–	–	–	–	–	–	–	2	33	–	1	–	14	–	–	–	–	–	–	–	–		
Maintenance trades helpers	159	8.66	8.43	8.43– 8.43	4	–	6	–	–	4	5	4	5	4	97	7	–	3	–	–	–	20	–	–	–	–	–	–	–	–		
Nonmanufacturing:	–	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Transportation and utilities	38	10.14	12.54	8.37–12.54	–	–	6	–	–	–	1	–	–	4	4	3	–	–	–	–	–	20	–	–	–	–	–	–	–	–		
Machine-tool operators (toolroom).....	404	10.24	9.69	9.50–12.87	–	–	–	–	–	–	–	22	–	14	12	48	7	190	8	–	–	103	–	–	–	–	–	–	–	–		
Manufacturing	404	10.24	9.69	9.50–12.87	–	–	–	–	–	–	–	22	–	14	12	48	7	190	8	–	–	103	–	–	–	–	–	–	–	–		
Tool and die makers	440	10.83	10.66	9.99–12.99	–	–	–	–	–	–	–	10	–	31	6	44	13	6	200	6	–	118	2	4	–	–	–	–	–	–		
Manufacturing	440	10.83	10.66	9.99–12.99	–	–	–	–	–	–	–	10	–	31	6	44	13	6	200	6	–	118	2	4	–	–	–	–	–	–		
Stationary engineers.....	222	10.01	9.82	8.75–11.46	–	–	–	–	6	–	6	16	10	3	42	2	24	10	29	19	4	51	–	–	–	–	–	–	–	–		
Manufacturing	170	10.65	10.35	8.86–12.68	–	–	–	–	–	–	3	–	–	–	40	–	22	4	27	19	4	51	–	–	–	–	–	–	–	–		
Nonmanufacturing	52	7.90	7.60	7.31– 8.53	–	–	–	–	6	–	3	16	10	3	2	2	2	6	2	–	–	–	–	–	–	–	–	–	–	–		
Boiler tenders.....	154	9.31	9.78	8.26–10.48	–	–	–	–	2	12	5	5	3	24	9	6	10	38	20	6	7	7	–	–	–	–	–	–	–	–		
Manufacturing	142	9.44	9.78	8.26–10.48	–	–	–	–	–	12	4	4	–	24	7	4	9	38	20	6	7	7	–	–	–	–	–	–	–	–		

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																											
		Mean²	Median²	Middle range²	3.20 and under 3.60	3.60 — 4.00	4.00 — 4.40	4.40 — 4.80	4.80 — 5.20	5.20 — 5.60	5.60 — 6.00	6.00 — 6.40	6.40 — 6.80	6.80 — 7.20	7.20 — 7.60	7.60 — 8.00	8.00 — 8.40	8.40 — 8.80	8.80 — 9.20	9.20 — 9.60	9.60 — 10.00	10.00 — 10.40	10.40 — 10.80	10.80 — 11.60	11.60 — 12.40	12.40 — 13.20	13.20 — 14.00					
Truckdrivers	2,505	9.98	10.20	7.77-12.84	13	36	7	9	1	24	10	56	36	105	87	262	257	37	146	114	15	54	239	67	75	855	-					
Manufacturing	869	8.40	8.09	7.77- 9.25	-	-	-	9	-	24	-	2	35	81	7	151	243	37	26	114	15	52	1	43	2	27	-					
Nonmanufacturing	1,636	10.83	12.74	9.07-12.84	13	36	7	-	1	-	10	54	1	24	80	111	14	-	120	-	-	2	238	24	73	828	-					
Transportation and utilities	935	12.58	12.84	12.84-12.84	-	4	-	-	-	-	-	-	1	1	-	4	14	-	10	-	-	-	-	-	73	828	-					
Truckdrivers, light truck	364	9.83	12.84	6.00-12.84	13	36	-	-	1	-	-	54	-	13	-	2	11	6	22	3	-	-	-	7	-	196	-					
Nonmanufacturing	336	9.90	12.84	6.00-12.84	13	36	-	-	1	-	-	54	-	13	-	1	-	-	22	-	-	-	-	-	-	196	-					
Truckdrivers, medium truck	580	7.91	7.77	7.25- 8.60	-	-	7	9	-	24	10	2	29	15	73	140	120	17	88	2	12	2	1	24	-	5	-					
Manufacturing	386	7.83	7.77	7.77- 8.09	-	-	-	9	-	24	-	2	29	15	3	126	120	17	-	2	12	2	1	24	-	-	-					
Nonmanufacturing	194	8.06	7.75	7.25- 9.07	-	-	7	-	-	-	10	-	-	-	70	14	-	-	88	-	-	-	-	-	-	5	-					
Truckdrivers, heavy truck	376	8.23	8.00	7.60- 9.25	-	-	-	-	-	-	-	-	-	76	10	60	109	-	24	44	-	50	-	3	-	-	-					
Manufacturing	306	8.40	8.00	7.93- 9.25	-	-	-	-	-	-	-	-	-	66	-	14	105	-	24	44	-	50	-	3	-	-	-					
Truckdrivers, tractor-trailer	1,074	11.73	12.84	10.70-12.84	-	-	-	-	-	-	-	-	-	-	3	55	10	2	2	52	3	2	238	24	75	608	-					
Manufacturing	106	10.06	9.30	9.30-12.77	-	-	-	-	-	-	-	-	-	-	3	9	6	2	2	52	3	-	-	-	2	27	-					
Nonmanufacturing	968	11.91	12.84	10.70-12.84	-	-	-	-	-	-	-	-	-	-	-	46	4	-	-	-	-	2	238	24	73	581	-					
Transportation and utilities	658	12.70	12.84	12.84-12.84	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	73	581	-					
Shippers	244	7.07	7.26	5.76- 8.26	-	5	5	14	3	-	44	7	8	24	33	30	54	8	-	-	-	4	-	5	-	-	-					
Manufacturing	214	7.17	7.41	5.95- 8.26	-	-	-	9	3	-	44	7	8	22	32	30	46	8	-	-	-	-	5	-	-	-	-					
Receivers	532	7.83	8.25	7.57- 8.25	-	1	8	3	-	3	20	18	10	58	24	12	350	6	3	4	-	4	-	5	3	-	-					
Manufacturing	451	7.94	8.25	8.14- 8.25	-	1	-	3	-	1	19	18	7	14	22	11	347	-	3	-	-	-	3	2	-	-	-					
Nonmanufacturing	81	7.25	7.00	6.95- 7.93	-	-	8	-	-	2	1	-	3	44	2	1	3	6	-	4	-	4	-	2	1	-	-					
Shippers and receivers	194	8.07	7.71	6.62- 9.23	-	-	-	-	-	-	-	21	32	23	3	44	4	-	-	47	-	-	-	12	-	-	8					
Manufacturing	182	8.16	7.71	7.00- 9.23	-	-	-	-	-	-	-	21	21	22	3	44	4	-	-	47	-	-	-	12	-	-	8					
Warehousemen	1,130	7.04	6.80	5.97- 7.77	-	-	50	10	19	62	196	128	53	109	129	175	34	27	34	15	13	26	4	46	-	-	-					
Manufacturing	505	7.30	7.59	7.00- 7.77	-	-	21	10	5	20	-	6	53	43	109	167	9	26	33	-	3	-	-	-	-	-	-					
Nonmanufacturing	625	6.84	6.21	5.97- 6.80	-	-	29	-	14	42	196	122	-	66	20	8	25	1	1	15	10	26	4	46	-	-	-					
Order fillers	556	7.08	7.00	5.60- 8.65	-	-	18	12	50	48	56	70	-	138	-	4	15	53	-	5	63	2	-	-	-	22	-					
Manufacturing	488	7.08	6.16	5.20- 8.65	-	-	18	12	50	48	56	70	-	72	-	4	15	53	-	5	63	-	-	-	-	22	-					
Shipping packers	1,339	6.47	6.19	6.19- 7.07	-	9	22	30	13	73	28	654	20	304	33	113	33	7	-	-	-	-	-	-	-	-	-					
Manufacturing	1,273	6.45	6.19	6.19- 7.07	-	9	22	30	13	73	28	654	20	238	33	113	33	7	-	-	-	-	-	-	-	-	-					
Material handling laborers	1,924	7.98	7.25	5.72-10.85	65	42	43	33	117	119	169	70	88	203	110	87	94	98	45	-	26	16	12	161	-	326	-					
Manufacturing	1,505	7.00	6.96	5.72- 8.02	65	42	42	30	110	79	168	68	88	202	110	87	90	98	39	-	14	-	12	161	-	-	-					
Nonmanufacturing	419	11.48	12.69	12.69-12.79	-	-	1	3	7	40	1	2	-	1	-	-	4	-	6	-	12	16	-	-	-	326	-					
Transportation and utilities	326	12.75	12.79	12.69-12.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	326	-					
Forklift operators	1,807	7.97	7.65	6.81- 8.82	-	-	1	-	-	100	228	39	39	229	163	206	132	124	100	153	15	-	-	270	-	8	-					
Manufacturing	1,660	7.88	7.65	6.81- 8.81	-	-	-	-	-	91	228	33	37	229	163	206	132	124	100	38	1	-	-	270	-	8	-					
Power-truck operators (other than forklift)	270	8.11	7.18	7.05-10.18	-	-	-	-	-	-	-	8	5	122	3	-	51	6	6	-	-	69	-	-	-	-	-					
Manufacturing	201	7.39	7.10	7.05- 8.20	-	-	-	-	-	-	-	8	5	122	3	-	51	6	6	-	-	-	-	-	-	-	-					
Guards	1,366	4.89	3.60	3.40- 5.49	679	147	87	64	25	25	15	32	6	15	29	27	72	47	1	-	1	33	-	24	37	-	-					
Manufacturing	404	7.72	8.12	5.55- 8.77	-	5	30	42	12	13	8	26	2	11	18	25	69	47	1	-	1	33	-	24	37	-	-					
Nonmanufacturing	962	3.70	3.45	3.35- 3.60	679	142	57	22	13	12	7	6	4	4	11	2	3	-	-	-	-	-	-	-	-	-	-					
Guards I	1,310	4.76	3.53	3.40- 4.85	679	147	87	57	25	25	15	32	4	15	29	25	51	23	1	-	1	33	-	24	37	-	-					
Manufacturing	352	7.69	7.77	5.43-10.05	-	5	30	35	12	13	8	26	2	11	18	25	48	23	1	-	1	33	-	24	37	-	-					
Nonmanufacturing	958	3.68	3.45	3.35- 3.60	679	142	57	22	13	12	7	6	2	4	11	-	3	-	-	-	-	-	-	-	-	-	-					

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Occupation and industry division	Number of workers	Hourly earnings (in dollars) ¹			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean ²	Median ²	Middle range ²	3.20 and under 3.60	3.60 — 4.00	4.00 — 4.40	4.40 — 4.80	4.80 — 5.20	5.20 — 5.60	5.60 — 6.00	6.00 — 6.40	6.40 — 6.80	6.80 — 7.20	7.20 — 7.60	7.60 — 8.00	8.00 — 8.40	8.40 — 8.80	8.80 — 9.20	9.20 — 9.60	9.60 — 10.00	10.00 — 10.40	10.40 — 10.80	10.80 — 11.60	11.60 — 12.40	12.40 — 13.20	13.20 — 14.00	
Guards II.....	56	7.86	8.12	8.12- 8.68	-	-	-	7	-	-	-	-	2	-	-	2	21	24	-	-	-	-	-	-	-	-	-	-
Janitors, porters, and cleaners.....	4,990	4.89	3.45	3.35- 6.55	2680	224	155	127	136	29	106	235	105	182	204	248	315	35	16	30	3	3	155	-	2	-	-	
Manufacturing.....	1,669	7.28	7.43	6.25- 8.05	24	23	9	40	125	16	64	210	74	127	190	247	291	33	14	22	3	2	155	-	-	-	-	
Nonmanufacturing.....	3,321	3.69	3.35	3.35- 3.45	2656	201	146	87	11	13	42	25	31	55	14	1	24	2	2	8	-	1	-	-	2	-	-	
Transportation and utilities.....	173	6.83	6.82	6.33- 7.00	-	-	-	10	5	10	6	22	30	53	-	-	24	-	2	8	-	1	-	-	2	-	-	

See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Cincinnati, Ohio-Ky.-Ind., July 1981

Sex, ^a occupation, and industry division	Number of workers	Average (mean) ^b hourly earnings (in dollars) ^a	Sex, ^a occupation, and industry division	Number of workers	Average (mean) ^b hourly earnings (in dollars) ^a	Sex, ^a occupation, and industry division	Number of workers	Average (mean) ^b hourly earnings (in dollars) ^a
Maintenance, toolroom, and powerplant occupations - men			Material movement and custodial occupations - men			Forklift operators.....	1,541	8.30
Maintenance carpenters.....	106	10.57	Truckdrivers.....	2,461	9.94	Manufacturing.....	1,394	8.22
Manufacturing.....	82	10.54	Manufacturing.....	869	8.40	Power-truck operators (other than forklift).....	246	8.18
Maintenance electricians.....	780	10.69	Nonmanufacturing.....	1,592	10.79	Manufacturing.....	177	7.39
Manufacturing.....	754	10.66	Transportation and utilities.....	891	12.59	Guards.....	1,221	4.86
Maintenance painters.....	123	9.56	Truckdrivers, light truck.....	353	9.74	Manufacturing.....	364	7.61
Manufacturing.....	101	9.66	Nonmanufacturing.....	325	9.80	Nonmanufacturing.....	857	3.70
Maintenance machinists.....	309	9.98	Truckdrivers, medium truck.....	580	7.91	Guards I.....	1,168	4.73
Manufacturing.....	293	9.98	Manufacturing.....	386	7.83	Manufacturing.....	315	7.57
Maintenance mechanics (machinery).....	1,216	9.55	Nonmanufacturing.....	194	8.06	Nonmanufacturing.....	853	3.68
Manufacturing.....	1,190	9.58	Truckdrivers, heavy truck.....	376	8.23	Guards II.....	53	7.84
Maintenance mechanics (motor vehicles).....	698	11.64	Manufacturing.....	306	8.40	Janitors, porters, and cleaners.....	3,094	5.37
Manufacturing.....	170	9.96	Truckdrivers, tractor-trailer.....	1,041	11.72	Manufacturing.....	1,357	7.32
Nonmanufacturing.....	528	12.18	Manufacturing.....	106	10.06	Nonmanufacturing.....	1,737	3.85
Transportation and utilities.....	474	12.35	Nonmanufacturing.....	935	11.90	Transportation and utilities.....	129	6.97
Maintenance pipefitters.....	483	10.81	Transportation and utilities.....	625	12.74	Material movement and custodial occupations - women		
Manufacturing.....	483	10.81	Shippers.....	174	7.52	Shippers.....	67	5.90
Maintenance sheet-metal workers.....	50	10.62	Manufacturing.....	157	7.50	Manufacturing.....	57	6.26
Maintenance trades helpers.....	159	8.66	Receivers.....	438	7.87	Order fillers.....	57	6.02
Nonmanufacturing: Transportation and utilities.....	38	10.14	Manufacturing.....	371	7.97	Manufacturing.....	57	6.02
Machine-tool operators (toolroom).....	404	10.24	Shippers and receivers.....	194	8.07	Material handling laborers.....	112	7.46
Manufacturing.....	404	10.24	Manufacturing.....	182	8.16	Manufacturing.....	102	7.60
Tool and die makers.....	440	10.83	Warehousemen.....	1,061	6.95	Guards.....	143	5.08
Manufacturing.....	440	10.83	Manufacturing.....	479	7.24	Nonmanufacturing.....	103	3.68
Stationary engineers.....	218	10.03	Nonmanufacturing.....	582	6.71	Guards I.....	140	5.01
Manufacturing.....	167	10.68	Order fillers.....	499	7.21	Nonmanufacturing.....	103	3.68
Nonmanufacturing.....	51	7.92	Manufacturing.....	431	7.22	Janitors, porters, and cleaners.....	1,872	4.11
Boiler tenders.....	154	9.31	Shipping packers.....	406	6.49	Manufacturing.....	312	7.10
Manufacturing.....	142	9.44	Manufacturing.....	340	6.41	Nonmanufacturing.....	1,560	3.51
			Material handling laborers.....	1,807	8.02	Transportation and utilities.....	44	6.40
			Manufacturing.....	1,403	6.96			
			Nonmanufacturing.....	404	11.69			
			Transportation and utilities.....	326	12.75			

See footnotes at end of tables.

Table A-7. Indexes of earnings and percent increases for selected occupational groups, Cincinnati, Ohio-Ky.-Ind., selected periods

Period*	All industries					Manufacturing					Nonmanufacturing			
	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (July 1977 = 100):														
July 1980*	126.8	126.8	132.1	131.7	130.3	127.2	(*)	131.8	131.4	129.7	126.4	126.7	(*)	132.0
July 1981	139.0	138.3	146.2	143.9	142.4	139.0	(*)	146.3	143.0	141.8	138.9	138.5	(*)	144.3
Percent increases:														
February 1972 to February 1973	5.2	(*)	4.5	6.0	5.8	5.3	(*)	4.6	5.5	6.1	5.1	(*)	(*)	5.2
February 1973 to February 1974	6.7	(*)	7.2	7.3	7.6	7.0	(*)	7.6	7.1	8.1	5.9	(*)	(*)	6.7
February 1974 to February 1975	9.1	10.1	10.4	10.2	11.7	8.9	9.5	11.0	10.6	10.6	9.4	10.7	(*)	14.2
February 1975 to March 1976:														
13-month increase	8.8	7.4	10.7	8.7	10.4	9.3	7.2	11.2	8.9	9.9	8.4	7.6	(*)	11.4
Annual rate of increase	8.1	6.8	9.8	8.0	9.6	8.6	6.6	10.3	8.2	9.1	7.7	7.0	(*)	10.5
March 1976 to July 1977:														
16-month increase	9.1	9.6	10.3	12.6	11.7	9.9	(*)	11.2	12.2	11.9	8.4	9.7	(*)	11.4
Annual rate of increase	6.8	7.1	7.6	9.3	8.7	7.3	(*)	8.3	9.0	8.8	6.2	7.2	(*)	8.4
July 1977 to July 1978	6.9	7.2	8.7	8.2	9.1	7.4	(*)	8.4	8.1	8.3	6.3	6.6	(*)	10.6
July 1978 to July 1979	8.5	7.5	8.9	9.5	8.2	7.9	6.8	9.1	9.6	7.7	9.2	7.8	(*)	9.2
July 1979 to July 1980*	9.3	10.1	11.6	11.1	10.4	9.7	9.7	11.4	10.9	11.2	8.9	10.3	(*)	9.3
July 1980 to July 1981	9.6	9.1	10.7	9.3	9.3	9.3	8.8	11.0	8.8	9.3	9.9	9.3	(*)	9.3

* Revised estimates for 4 of the 5 groups in all industries (electronic data processing group excepted) and for all groups in manufacturing.

See footnotes at end of tables.

Table A-8. Pay relationships in establishments with paired office clerical occupations, Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100																						
	Secretaries					Stenographers		Trans- scribing ma- chine typists	Typists		File clerks			Mes- sen- gers	Switch- board opera- tors	Switch- board opera- tor -recep- tionists	Order clerks		Accounting clerks		Payroll clerks	Key entry operators	
	I	II	III	IV	V	I	II		I	II	I	II	III				I	II	I	II		I	II
Secretaries I	100	90	79	70	(*)	107	(*)	(*)	148	(*)	(*)	(*)	(*)	(*)	110	112	(*)	(*)	104	89	84	(*)	(*)
Secretaries II	111	100	86	73	58	(*)	108	(*)	122	119	151	133	120	130	104	107	(*)	93	113	88	90	123	106
Secretaries III	127	117	100	86	71	134	126	133	139	128	155	139	134	150	123	126	139	97	128	104	109	134	122
Secretaries IV	143	137	117	100	84	150	138	147	154	130	165	152	163	168	146	145	143	112	147	115	120	148	139
Secretaries V	(*)	172	141	119	100	191	(*)	172	172	161	228	180	187	205	159	155	192	(*)	188	132	137	181	170
Stenographers I	94	(*)	75	67	52	100	(*)	(*)	117	96	(*)	120	(*)	(*)	(*)	106	(*)	81	98	72	75	106	86
Stenographers II	(*)	93	79	72	(*)	(*)	100	(*)	119	114	(*)	(*)	115	120	96	105	(*)	(*)	99	82	85	112	101
Transcribing-machine typists	(*)	(*)	75	68	58	(*)	(*)	100	109	100	129	(*)	(*)	114	(*)	107	(*)	(*)	108	81	85	112	89
Typists I	68	82	72	65	58	86	84	92	100	81	106	107	92	105	85	93	(*)	81	90	69	76	97	75
Typists II	(*)	84	78	77	62	104	88	100	124	100	124	118	105	122	86	98	(*)	(*)	104	80	81	115	87
File clerks I	(*)	66	65	60	44	(*)	(*)	78	94	81	100	81	(*)	92	89	83	(*)	(*)	85	68	71	86	67
File clerks II	(*)	75	72	66	56	83	(*)	(*)	94	85	124	100	(*)	116	86	86	81	(*)	87	69	77	96	79
File clerks III	(*)	84	75	61	53	(*)	87	(*)	109	95	(*)	(*)	100	115	88	(*)	(*)	(*)	102	80	86	115	94
Messengers	(*)	77	67	59	49	(*)	83	88	95	82	109	86	87	100	84	90	90	58	87	68	72	89	74
Switchboard operators	91	96	81	69	63	(*)	104	(*)	118	116	112	116	113	118	100	(*)	(*)	(*)	94	81	86	114	99
Switchboard operator- receptionists	89	93	79	69	64	95	95	93	108	102	120	117	(*)	112	(*)	100	90	76	100	81	86	108	91
Order clerks I	(*)	(*)	72	70	52	(*)	(*)	(*)	(*)	(*)	(*)	124	(*)	112	(*)	111	100	74	103	72	78	107	(*)
Order clerks II	(*)	108	103	90	(*)	124	(*)	(*)	124	(*)	(*)	(*)	(*)	172	(*)	131	135	100	133	86	106	151	111
Accounting clerks I	96	89	78	68	53	102	101	93	111	96	118	115	98	115	107	100	97	75	100	79	84	98	96
Accounting clerks II	112	113	96	87	76	138	122	123	145	126	147	146	125	147	123	123	139	117	126	100	106	125	114
Payroll clerks	120	111	92	84	73	133	118	118	132	124	141	130	116	140	116	116	128	94	119	94	100	124	105
Key entry operators I	(*)	81	74	67	55	94	89	90	103	87	117	104	87	113	87	92	93	66	102	80	80	100	81
Key entry operators II	(*)	95	82	72	59	116	99	113	133	114	150	126	106	134	101	110	(*)	90	104	88	95	123	100

NOTE: This matrix table shows the average (mean) relationship of earnings in establishments between any two occupations compared. Earnings for an occupation in the table stub are expressed as a percent of the earnings for an occupation in the column heading at the point where the data lines for the two intersect. For example, reading across the Secretaries II row, the 111 in the Secretaries I column indicates that Secretaries II average 111 percent of (or 11 percent

more than) the earnings of Secretaries I.

See appendix A for method of computation.

Also see footnotes at end of tables.

Table A-9. Pay relationships in establishments with paired professional and technical occupations, Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100													Registered industrial nurses
	Computer systems analysts (business)			Computer programmers (business)			Computer operators			Drafters			Electronics technicians	
	I	II	III	I	II	III	I	II	III	III	IV	V	II	
Computer systems analysts (business) I	100	83	(*)	121	107	93	(*)	122	121	(*)	(*)	(*)	(*)	125
Computer systems analysts (business) II	121	100	84	148	125	107	168	139	138	161	137	112	(*)	129
Computer systems analysts (business) III	(*)	119	100	176	144	121	211	171	164	156	159	130	(*)	143
Computer programmers (business) I	83	67	57	100	82	69	122	101	98	(*)	(*)	(*)	(*)	90
Computer programmers (business) II	93	80	69	122	100	83	150	129	114	132	112	99	(*)	101
Computer programmers (business) III	107	94	83	146	121	100	181	139	142	(*)	(*)	(*)	(*)	120
Computer operators I	(*)	59	47	82	67	55	100	82	72	103	(*)	76	(*)	72
Computer operators II	82	72	58	99	78	72	122	100	79	121	98	81	(*)	87
Computer operators III	83	73	61	102	87	71	139	126	100	136	115	96	(*)	103
Drafters III	(*)	62	64	(*)	76	(*)	98	83	74	100	81	74	(*)	77
Drafters IV	(*)	73	63	(*)	89	(*)	(*)	102	87	123	100	81	(*)	90
Drafters V	(*)	89	77	(*)	101	(*)	132	124	105	135	123	100	108	105
Electronics technicians II	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	93	100	(*)
Registered industrial nurses	80	78	70	111	99	84	140	115	97	131	111	95	(*)	100

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

Table A-10. Pay relationships in establishments with paired maintenance, toolroom, and powerplant occupations, Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100												
	Carpenters	Electricians	Painters	Machinists	Mechanics		Pipefitters	Sheet-metal workers	Trades helpers	Machine-tool operators (toolroom)	Tool and die makers	Stationary engineers	Boiler tenders
					Machinery	Motor vehicles							
Maintenance carpenters.....	100	98	103	99	100	98	99	99	(*)	(*)	92	100	105
Maintenance electricians.....	102	100	106	101	101	102	101	101	(*)	101	97	101	106
Maintenance painters.....	97	94	100	97	96	94	96	(*)	125	(*)	92	95	103
Maintenance machinists.....	101	99	103	100	108	100	101	(*)	(*)	(*)	(*)	99	106
Maintenance mechanics (machinery).....	100	99	105	92	100	102	101	101	(*)	101	100	100	102
Maintenance mechanics (motor vehicles).....	102	98	106	100	98	100	99	(*)	115	100	95	97	104
Maintenance pipefitters.....	101	99	104	99	99	101	100	100	(*)	100	96	99	104
Maintenance sheet-metal workers.....	101	99	(*)	(*)	99	(*)	100	100	(*)	(*)	(*)	100	102
Maintenance trades helpers.....	(*)	(*)	80	(*)	(*)	87	(*)	(*)	100	(*)	(*)	(*)	(*)
Machine-tool operators (toolroom).....	(*)	99	(*)	(*)	99	100	100	(*)	(*)	100	94	102	(*)
Tool and die makers.....	108	104	108	(*)	100	105	105	(*)	(*)	106	100	106	110
Stationary engineers.....	100	99	105	101	100	103	101	100	(*)	98	94	100	106
Boiler tenders.....	95	94	98	95	98	96	96	98	(*)	(*)	91	94	100

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

Table A-11. Pay relationships in establishments with paired material movement and custodial occupations, Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100															
	Truckdrivers				Shippers	Receivers	Shippers and receivers	Warehousemen	Order fillers	Shipping packers	Material handling laborers	Forklift operators	Power-truck operators (other than forklift)	Guards		Janitors, porters, and cleaners
	Light truck	Medium truck	Heavy truck	Tractor-trailer										I	II	
Truckdrivers, light truck	100	(*)	(*)	(*)	(*)	113	(*)	119	117	(*)	(*)	106	(*)	123	(*)	114
Truckdrivers, medium truck	(*)	100	(*)	(*)	104	120	(*)	120	116	(*)	113	104	(*)	142	(*)	123
Truckdrivers, heavy truck	(*)	(*)	100	(*)	(*)	(*)	(*)	111	(*)	(*)	116	114	(*)	(*)	(*)	143
Truckdrivers, tractor-trailer	(*)	(*)	(*)	100	117	(*)	(*)	110	(*)	(*)	113	124	(*)	(*)	(*)	117
Shippers	(*)	96	(*)	86	100	99	(*)	100	108	107	107	99	(*)	115	(*)	112
Receivers	88	83	(*)	(*)	101	100	(*)	98	101	105	102	102	(*)	103	(*)	107
Shippers and receivers	(*)	(*)	(*)	(*)	(*)	(*)	100	(*)	(*)	(*)	112	102	(*)	(*)	(*)	111
Warehousemen	84	83	90	91	100	102	(*)	100	99	98	106	100	(*)	107	(*)	113
Order fillers	85	86	(*)	(*)	93	99	(*)	101	100	101	102	100	93	116	(*)	107
Shipping packers	(*)	(*)	(*)	(*)	93	96	(*)	102	99	100	100	96	(*)	101	(*)	104
Material handling laborers	(*)	89	86	89	93	98	89	94	98	100	100	97	96	103	(*)	104
Forklift operators	94	96	88	81	101	98	98	100	100	104	103	100	97	104	(*)	108
Power-truck operators (other than forklift)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	107	(*)	105	103	100	153	(*)	118
Guards I	82	70	(*)	(*)	87	97	(*)	93	86	99	97	96	65	100	(*)	102
Guards II	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100	(*)
Janitors, porters, and cleaners	88	81	70	85	89	93	90	89	93	96	96	93	85	98	(*)	100

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

Table A-12. Weekly earnings of office workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ²			Number of workers receiving straight-time weekly earnings (in dollars) of —																									
			Mean ³	Median ³	Middle range ³	Under 140	140 and under 150	150 — 160	160 — 180	180 — 200	200 — 220	220 — 240	240 — 260	260 — 280	280 — 300	300 — 320	320 — 340	340 — 360	360 — 380	380 — 400	400 — 420	420 — 440	440 — 480	480 — 520	520 — 560	560 — 600					
Secretaries.....	2,121	39.0	298.00	290.00	251.00— 341.00	-	-	1	16	61	141	174	246	284	246	246	157	192	110	107	59	27	23	19	10	2					
Manufacturing.....	1,373	39.0	309.00	303.00	264.50— 349.00	-	-	1	3	26	64	76	141	173	168	169	109	164	92	94	31	22	18	14	7	1					
Nonmanufacturing.....	748	38.5	277.50	268.50	230.00— 310.50	-	-	-	13	35	77	98	105	111	78	77	48	28	18	13	28	5	5	5	3	-					
Secretaries II.....	694	39.0	278.00	283.00	245.00— 309.50	-	-	1	9	36	53	60	76	89	132	103	46	76	9	-	-	-	1	3	-	-					
Manufacturing.....	548	39.0	290.50	293.00	267.00— 317.00	-	-	1	2	9	14	33	53	83	126	101	42	74	9	-	-	-	1	-	-	-					
Nonmanufacturing.....	146	38.5	232.00	219.50	200.50— 248.50	-	-	-	7	27	39	27	23	6	6	2	4	2	-	-	-	-	-	3	-	-					
Secretaries III.....	849	39.0	298.50	288.00	246.00— 349.50	-	-	-	5	20	65	91	97	113	63	65	72	81	66	74	17	3	8	8	-	1					
Manufacturing.....	529	39.5	314.50	324.50	259.00— 370.00	-	-	-	1	13	41	33	45	46	27	46	53	69	63	70	4	3	7	8	-	-					
Nonmanufacturing.....	320	38.5	272.00	265.50	232.00— 290.50	-	-	-	4	7	24	58	52	67	36	19	19	12	3	4	13	-	1	-	-	1					
Secretaries IV.....	362	38.5	325.50	318.50	264.00— 386.00	-	-	-	-	4	17	15	43	47	31	25	30	26	22	29	38	20	8	3	4	-					
Manufacturing.....	173	39.0	351.50	361.50	288.00— 413.00	-	-	-	-	3	5	3	17	14	9	8	11	15	11	21	25	18	6	3	4	-					
Nonmanufacturing.....	189	38.0	301.00	287.50	259.00— 337.00	-	-	-	-	1	12	12	26	33	22	17	19	11	11	8	13	2	2	-	-	-					
Secretaries V.....	105	38.5	350.50	324.50	300.00— 379.50	-	-	-	-	-	1	-	7	7	11	23	8	9	13	4	3	2	5	5	6	1					
Manufacturing.....	54	39.0	363.50	352.50	300.50— 403.00	-	-	-	-	-	1	-	3	4	2	10	2	6	9	3	2	1	4	3	3	1					
Nonmanufacturing.....	51	37.5	337.50	311.00	293.00— 355.50	-	-	-	-	-	-	-	4	3	9	13	6	3	4	1	1	1	1	2	3	-					
Stenographers.....	683	39.0	269.00	266.50	226.00— 291.00	-	2	-	12	24	98	110	75	110	110	32	40	4	12	8	21	25	-	-	-	-					
Manufacturing.....	488	38.5	263.50	260.50	225.50— 284.00	-	-	-	2	13	79	91	58	94	78	23	8	3	12	6	10	11	-	-	-	-					
Nonmanufacturing.....	195	39.5	282.50	283.00	232.50— 323.00	-	2	-	10	11	19	19	17	16	32	9	32	1	-	2	11	14	-	-	-	-					
Transportation and utilities.....	151	40.0	306.00	291.00	270.00— 330.00	-	-	-	-	3	7	13	13	14	32	9	32	1	-	2	11	14	-	-	-	-					
Stenographers I.....	360	38.5	259.50	236.00	216.50— 283.00	-	2	-	12	14	76	96	43	17	29	-	21	3	10	5	18	14	-	-	-	-					
Nonmanufacturing.....	124	39.5	298.50	283.00	256.50— 323.00	-	2	-	10	3	1	10	9	13	27	-	21	1	-	2	11	14	-	-	-	-					
Transportation and utilities.....	102	40.0	322.00	299.00	279.00— 397.00	-	-	-	-	-	-	8	7	11	27	-	21	1	-	2	11	14	-	-	-	-					
Stenographers II.....	323	39.0	280.00	277.50	262.00— 295.00	-	-	-	-	10	22	14	32	93	81	32	19	1	2	3	3	11	-	-	-	-					
Nonmanufacturing.....	71	39.5	254.50	240.00	213.00— 314.00	-	-	-	-	8	18	9	8	3	5	9	11	-	-	-	-	-	-	-	-	-					
Transcribing-machine typists.....	88	38.0	210.50	202.00	174.00— 241.00	-	2	2	20	18	12	9	12	8	-	5	-	-	-	-	-	-	-	-	-	-					
Typists.....	405	38.5	201.50	187.50	163.00— 227.00	-	26	52	84	81	43	41	32	21	11	6	2	-	-	-	1	-	5	-	-	-					
Manufacturing.....	142	38.5	229.50	228.00	210.00— 250.50	-	2	4	11	13	29	18	31	21	8	4	1	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	263	39.0	186.00	173.50	157.00— 192.50	-	24	48	73	68	14	23	1	-	3	2	1	-	-	-	1	-	5	-	-	-					
Transportation and utilities.....	44	40.0	257.50	235.00	215.50— 243.50	-	-	-	4	4	4	21	1	-	3	1	-	-	-	-	1	-	5	-	-	-					
Typists I.....	188	39.0	177.50	169.50	157.00— 187.50	-	16	38	62	47	12	5	2	3	3	-	-	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	154	39.0	174.50	167.50	157.00— 187.50	-	14	34	51	41	6	4	1	-	3	-	-	-	-	-	-	-	-	-	-	-					
Typists II.....	217	38.0	222.00	217.00	182.00— 245.00	-	10	14	22	34	31	36	30	18	8	6	2	-	-	-	1	-	5	-	-	-					
Nonmanufacturing.....	109	38.5	203.00	182.00	162.00— 226.50	-	10	14	22	27	8	19	-	-	-	2	1	-	-	-	1	-	5	-	-	-					
Transportation and utilities.....	33	40.0	267.00	235.00	226.50— 235.00	-	-	-	1	2	4	19	-	-	-	1	-	-	-	-	1	-	5	-	-	-					
File clerks.....	259	39.0	183.00	182.50	152.00— 198.50	* 30	28	22	45	76	20	13	16	3	-	3	-	-	-	-	1	2	-	-	-	-					
Manufacturing.....	52	39.5	225.50	220.00	214.00— 240.50	-	2	-	2	4	15	13	10	3	-	3	-	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	207	38.5	172.50	174.00	146.00— 182.50	30	26	22	43	72	5	-	6	-	-	-	-	-	-	-	1	2	-	-	-	-					
File clerks I.....	85	38.0	157.50	145.00	139.50— 154.00	23	25	17	3	2	9	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
File clerks III.....	54	39.0	227.00	213.00	189.50— 253.00	-	-	-	8	17	6	4	12	3	-	1	-	-	-	-	1	2	-	-	-	-					
Messengers.....	141	38.5	179.00	174.00	152.00— 192.00	5	24	25	28	31	8	10	6	1	3	-	-	-	-	-	-	-	-	-	-	-					
Manufacturing.....	50	39.5	200.50	194.00	160.50— 223.50	3	3	7	3	12	4	9	5	1	3	-	-	-	-	-	-	-	-	-	-	-					
Nonmanufacturing.....	91	37.5	167.00	165.00	149.00— 180.00	2	21	18	25	19	4	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-					
Switchboard operators.....	73	39.0	237.00	208.00	179.00— 321.00	2	4	7	8	11	7	2	7	-	2	4	8	9	-	2	-	-	-	-	-	-					

See footnotes at end of tables.

Table A-12. Weekly earnings of office workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981—Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	Under 140	140 and under 150	150 — 160	160 — 180	180 — 200	200 — 220	220 — 240	240 — 260	260 — 280	280 — 300	300 — 320	320 — 340	340 — 360	360 — 380	380 — 400	400 — 420	420 — 440	440 — 480	480 — 520	520 — 560	560 — 600
Switchboard operator-receptionists.....	87	39.0	208.00	212.00	160.00— 244.00	7	7	-	22	1	14	7	21	-	6	1	-	-	-	-	-	-	1	-	-	-
Order clerks	201	39.0	226.00	219.50	185.00— 267.50	-	-	35	11	27	28	17	18	26	23	7	4	3	2	-	-	-	-	-	-	-
Manufacturing	166	38.5	242.00	240.00	200.50— 277.50	-	-	-	11	27	28	17	18	26	23	7	4	3	2	-	-	-	-	-	-	-
Order clerks I	144	38.5	208.00	200.50	166.50— 250.50	-	-	35	10	25	26	6	10	14	15	3	-	-	-	-	-	-	-	-	-	-
Manufacturing	109	38.0	226.50	212.00	190.00— 262.50	-	-	-	10	25	26	6	10	14	15	3	-	-	-	-	-	-	-	-	-	-
Order clerks II	57	39.5	271.50	264.50	240.00— 290.00	-	-	-	1	2	2	11	8	12	8	4	4	3	2	-	-	-	-	-	-	-
Manufacturing	57	39.5	271.50	264.50	240.00— 290.00	-	-	-	1	2	2	11	8	12	8	4	4	3	2	-	-	-	-	-	-	-
Accounting clerks.....	928	39.0	226.00	216.00	180.50— 254.00	8	31	48	139	119	144	137	88	52	41	30	44	15	18	6	3	2	3	-	-	-
Manufacturing	454	39.0	246.00	232.00	198.00— 283.00	7	10	-	46	56	57	68	47	43	23	26	29	11	17	6	3	2	3	-	-	-
Nonmanufacturing	474	38.5	207.00	200.00	170.00— 231.00	1	21	48	93	63	87	69	41	9	18	4	15	4	1	-	-	-	-	-	-	-
Accounting clerks I.....	624	39.0	207.00	198.50	170.00— 235.00	8	31	48	131	97	78	85	59	33	31	13	8	2	-	-	-	-	-	-	-	-
Manufacturing	331	39.0	222.50	220.00	190.50— 249.50	7	10	-	46	52	43	60	41	32	19	13	8	-	-	-	-	-	-	-	-	-
Nonmanufacturing	293	38.5	189.00	176.00	160.00— 206.00	1	21	48	85	45	35	25	18	1	12	-	-	2	-	-	-	-	-	-	-	-
Accounting clerks II.....	303	39.0	265.00	241.00	214.50— 323.00	-	-	-	8	22	66	52	29	19	10	17	36	13	18	6	3	2	2	-	-	-
Manufacturing	122	39.5	308.00	323.00	259.00— 359.00	-	-	-	-	4	14	8	6	11	4	13	21	11	17	6	3	2	2	-	-	-
Nonmanufacturing	181	38.5	236.00	226.00	208.00— 250.00	-	-	-	8	18	52	44	23	8	6	4	15	2	1	-	-	-	-	-	-	-
Payroll clerks	219	39.0	244.00	230.00	190.00— 276.00	1	1	7	23	40	23	33	22	18	12	9	7	3	4	9	1	1	3	2	-	-
Manufacturing	119	39.0	280.50	271.50	234.50— 302.00	1	-	-	5	5	9	20	15	18	10	9	4	3	4	9	1	1	3	2	-	-
Nonmanufacturing	100	39.0	200.00	190.00	175.50— 218.00	-	1	7	18	35	14	13	7	-	2	-	3	-	-	-	-	-	-	-	-	-
Key entry operators	667	39.0	216.00	207.00	175.00— 241.00	2	17	38	131	105	88	117	63	48	19	4	18	2	3	1	2	4	5	-	-	-
Manufacturing	253	39.5	239.00	229.50	197.50— 266.50	-	4	16	22	23	25	57	32	36	11	3	8	2	3	1	1	4	5	-	-	-
Nonmanufacturing	414	38.5	202.00	194.50	171.50— 225.00	2	13	22	109	82	63	60	31	12	8	1	10	-	-	-	1	-	-	-	-	-
Transportation and utilities	37	40.0	270.00	263.00	222.00— 296.50	-	-	-	-	3	4	3	7	4	7	-	9	-	-	-	-	-	-	-	-	-
Key entry operators I	322	38.5	203.50	192.50	168.00— 227.00	2	14	25	74	57	36	56	25	13	9	-	11	-	-	-	-	-	-	-	-	-
Manufacturing	137	39.5	219.00	226.00	188.00— 240.00	-	1	9	15	14	12	51	21	10	2	-	2	-	-	-	-	-	-	-	-	-
Nonmanufacturing	185	38.0	192.00	181.50	165.00— 200.00	2	13	16	59	43	24	5	4	3	7	-	9	-	-	-	-	-	-	-	-	-
Key entry operators II	345	39.0	228.00	219.50	186.00— 253.00	-	3	13	57	48	52	61	38	35	10	4	7	2	3	1	2	4	5	-	-	-
Manufacturing	116	39.5	262.00	264.00	206.00— 291.50	-	3	7	9	13	6	11	26	9	3	6	2	3	1	1	4	5	-	-	-	-
Nonmanufacturing	229	39.0	210.50	210.50	180.00— 233.00	-	-	6	50	39	39	55	27	9	1	1	1	-	-	-	1	-	-	-	-	-

* All workers were at \$130.00 to \$140.00.

Also see footnotes at end of tables.

Table A-13. Weekly earnings of professional and technical workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Average weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ²			Number of workers receiving straight-time weekly earnings (in dollars) of —																											
			Mean ³	Median ³	Middle range ³	160 and under 170	170 — 180	180 — 190	190 — 200	200 — 220	220 — 240	240 — 260	260 — 280	280 — 300	300 — 320	320 — 340	340 — 380	380 — 420	420 — 460	460 — 500	500 — 540	540 — 580	580 — 620	620 — 660	660 — 700	700 — 740							
Computer systems analysts (business).....	441	39.5	479.00	482.00	426.50– 528.00	-	-	-	-	-	-	-	-	1	2	8	23	65	64	101	94	53	25	2	1	2							
Manufacturing.....	174	40.0	483.00	480.00	428.00– 534.00	-	-	-	-	-	-	-	-	-	-	-	11	27	27	46	25	21	12	2	1	2							
Nonmanufacturing.....	267	39.0	476.00	484.00	425.50– 526.00	-	-	-	-	-	-	-	-	1	2	8	12	38	37	55	69	32	13	-	-	-							
Computer systems analysts (business) II.....	245	39.5	480.00	490.00	416.50– 532.50	-	-	-	-	-	-	-	-	-	-	5	12	47	35	37	57	27	22	2	-	1							
Manufacturing.....	76	40.0	489.50	502.50	405.50– 568.50	-	-	-	-	-	-	-	-	-	-	-	5	23	6	4	10	13	12	2	-	1							
Nonmanufacturing.....	169	39.5	476.00	482.00	430.00– 515.50	-	-	-	-	-	-	-	-	-	-	5	7	24	29	33	47	14	10	-	-	-							
Computer systems analysts (business) III.....	145	39.0	491.00	482.50	458.00– 526.50	-	-	-	-	-	-	-	-	-	-	-	-	12	28	49	28	24	3	-	-	1							
Nonmanufacturing.....	80	38.5	502.50	507.00	470.50– 546.00	-	-	-	-	-	-	-	-	-	-	-	-	8	7	22	22	18	3	-	-	-							
Computer programmers (business).....	527	38.5	354.50	345.00	297.50– 400.00	-	-	-	-	-	7	12	57	60	43	56	129	72	44	30	14	-	1	2	-	-							
Manufacturing.....	202	40.0	369.50	372.00	316.50– 411.50	-	-	-	-	-	6	7	7	27	5	13	56	37	22	16	3	-	1	2	-	-							
Nonmanufacturing.....	325	38.0	345.50	335.00	288.00– 380.00	-	-	-	-	-	1	5	50	33	38	43	73	35	22	14	11	-	-	-	-	-							
Computer programmers (business) I.....	104	38.0	294.00	282.00	265.00– 301.00	-	-	-	-	-	-	3	47	19	11	9	10	5	-	-	-	-	-	-	-	-							
Computer programmers (business) II.....	301	39.0	350.00	345.00	316.50– 377.00	-	-	-	-	-	7	9	8	36	22	42	104	46	14	8	5	-	-	-	-	-							
Manufacturing.....	142	40.0	352.50	361.00	292.00– 400.50	-	-	-	-	-	6	6	3	27	3	9	41	28	12	7	-	-	-	-	-	-							
Nonmanufacturing.....	159	38.0	348.00	342.00	325.00– 370.00	-	-	-	-	-	1	3	5	9	19	33	63	18	2	1	5	-	-	-	-	-							
Computer programmers (business) III.....	122	38.5	417.50	425.00	361.50– 465.50	-	-	-	-	-	-	-	2	5	10	5	15	21	30	22	9	-	1	2	-	-							
Nonmanufacturing.....	85	38.0	403.50	416.00	350.00– 458.00	-	-	-	-	-	-	-	2	5	8	5	9	17	20	13	6	-	-	-	-	-							
Computer operators.....	427	39.0	297.50	280.00	243.00– 330.00	5	6	5	11	32	31	89	33	30	41	61	23	22	15	-	16	5	1	1	-	-							
Manufacturing.....	173	39.5	308.50	286.00	249.50– 334.00	-	1	3	6	6	13	33	21	14	22	11	11	10	12	-	3	5	1	1	-	-							
Nonmanufacturing.....	254	39.0	290.50	269.00	240.00– 330.00	5	5	2	5	26	18	56	12	16	19	50	12	12	3	-	13	-	-	-	-	-							
Computer operators I.....	156	39.0	244.00	244.50	215.00– 259.00	5	1	5	8	23	25	51	20	4	-	12	-	1	-	-	1	-	-	-	-	-							
Manufacturing.....	59	39.5	251.50	249.00	234.00– 272.50	-	1	3	3	4	9	20	14	3	-	-	-	1	-	-	1	-	-	-	-	-							
Nonmanufacturing.....	97	39.0	239.50	242.00	214.00– 256.50	5	-	2	5	19	16	31	6	1	-	12	-	-	-	-	-	-	-	-	-	-							
Computer operators II.....	167	39.5	306.00	309.50	258.00– 330.00	-	5	-	3	9	6	24	8	11	34	39	9	11	3	-	1	4	-	-	-	-							
Manufacturing.....	76	39.5	317.50	307.50	258.00– 335.50	-	-	-	3	2	4	13	4	5	20	6	5	6	3	-	1	4	-	-	-	-							
Nonmanufacturing.....	91	39.5	296.50	310.00	255.00– 330.00	-	5	-	-	7	2	11	4	6	14	33	4	5	-	-	-	-	-	-	-	-							
Computer operators III.....	104	39.0	364.50	343.00	287.00– 431.00	-	-	-	-	-	-	14	5	15	7	10	14	10	12	-	14	1	1	1	-	-							
Nonmanufacturing.....	66	38.5	357.00	327.00	281.50– 405.00	-	-	-	-	-	-	14	2	9	5	5	8	7	3	-	13	-	-	-	-	-							
Drafters.....	538	40.0	335.50	332.00	292.00– 380.00	-	-	1	1	13	15	24	49	49	83	56	108	82	52	3	2	-	-	-	-	-							
Manufacturing.....	497	40.0	333.00	331.50	292.00– 376.50	-	-	1	1	13	11	20	48	46	82	55	101	75	39	3	2	-	-	-	-	-							
Drafters III.....	96	40.0	283.00	295.00	234.00– 310.00	-	-	-	1	13	11	5	9	12	30	5	8	2	-	-	-	-	-	-	-	-							
Manufacturing.....	88	40.0	276.50	292.00	230.50– 307.00	-	-	-	1	13	11	5	9	12	29	5	1	2	-	-	-	-	-	-	-	-							
Drafters IV.....	270	40.0	330.50	331.50	290.00– 365.00	-	-	-	-	-	-	9	39	34	35	45	57	45	6	-	-	-	-	-	-	-							
Manufacturing.....	262	40.0	328.00	331.00	290.00– 364.00	-	-	-	-	-	-	9	39	34	35	44	57	38	6	-	-	-	-	-	-	-							
Drafters V.....	159	40.0	382.50	380.00	346.00– 425.50	-	-	-	-	-	-	6	-	-	18	6	43	35	46	3	2	-	-	-	-	-							
Manufacturing.....	146	40.0	377.00	379.50	345.50– 424.00	-	-	-	-	-	-	6	-	-	18	6	43	35	33	3	2	-	-	-	-	-							
Electronics technicians.....	234	40.0	329.50	384.00	220.00– 426.00	5	7	11	16	18	15	10	12	9	6	2	4	11	108	-	-	-	-	-	-	-							
Manufacturing.....	227	40.0	326.00	359.00	218.50– 424.50	5	7	11	16	18	15	10	12	9	6	2	4	11	101	-	-	-	-	-	-	-							

See footnotes at end of tables.

Table A-13. Weekly earnings of professional and technical workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981 —Continued

Occupation and industry division	Number of workers	Average weekly hours ¹ (standard)	Weekly earnings (in dollars) ¹			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean ²	Median ²	Middle range ²	160 and under 170	170 — 180	180 — 190	190 — 200	200 — 220	220 — 240	240 — 260	260 — 280	280 — 300	300 — 320	320 — 340	340 — 380	380 — 420	420 — 460	460 — 500	500 — 540	540 — 580	580 — 620	620 — 660	660 — 700	700 — 740
Registered industrial nurses	90	39.5	366.00	351.00	324.00– 402.50	–	–	–	–	–	–	–	1	7	11	12	28	15	8	5	1	2	–	–	–	–
Manufacturing	81	39.5	368.50	356.50	326.00– 402.50	–	–	–	–	–	–	–	1	4	11	9	27	14	8	4	1	2	–	–	–	–

See footnotes at end of tables.

Table A-14. Average weekly earnings of office, professional, and technical workers, by sex in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Sex, ^a occupation, and industry division	Number of workers	Average (mean ^a)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^a)		Sex, ^a occupation, and industry division	Number of workers	Average (mean ^a)	
		Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹			Weekly hours ¹ (stand-ard)	Weekly earnings (in dollars) ¹
Office occupations - women				Order clerks.....	179	39.0	218.00	Computer programmers (business) III.....	89	38.5	422.00
Secretaries.....	2,112	39.0	298.00	Manufacturing.....	144	38.5	234.50	Nonmanufacturing.....	63	38.0	414.00
Manufacturing.....	1,370	39.0	309.00	Order clerks I.....	139	38.5	206.00	Computer operators.....	262	39.0	300.00
Nonmanufacturing.....	742	38.5	278.00	Manufacturing.....	104	38.0	225.00	Manufacturing.....	120	39.5	326.00
Secretaries II.....	694	39.0	278.00	Accounting clerks.....	826	39.0	224.00	Computer operators II.....	88	39.0	320.00
Manufacturing.....	548	39.0	290.50	Manufacturing.....	415	39.0	241.50	Manufacturing.....	50	39.5	348.50
Nonmanufacturing.....	146	38.5	232.00	Nonmanufacturing.....	411	38.5	206.50	Computer operators III.....	85	39.0	345.50
Secretaries III.....	848	39.0	298.50	Accounting clerks I.....	570	39.0	206.00	Nonmanufacturing.....	52	38.5	331.50
Manufacturing.....	528	39.5	315.00	Manufacturing.....	315	39.0	220.50				
Nonmanufacturing.....	320	38.5	272.00	Nonmanufacturing.....	255	39.0	188.00	Drafters.....	495	40.0	338.00
Secretaries IV.....	360	38.5	325.50	Accounting clerks II.....	255	39.0	264.00	Manufacturing.....	459	40.0	335.50
Manufacturing.....	171	39.0	352.50	Manufacturing.....	99	39.5	307.50	Drafters III.....	80	40.0	284.00
Nonmanufacturing.....	189	38.0	301.00	Nonmanufacturing.....	156	38.5	237.00	Manufacturing.....	75	40.0	279.50
Secretaries V.....	105	38.5	350.50	Payroll clerks.....	199	39.0	236.00	Drafters IV.....	260	40.0	330.00
Manufacturing.....	54	39.0	363.50	Manufacturing.....	107	39.0	266.50	Manufacturing.....	253	40.0	328.00
Nonmanufacturing.....	51	37.5	337.50	Nonmanufacturing.....	92	39.0	198.50	Drafters V.....	143	40.0	389.50
Stenographers.....	680	39.0	269.00	Key entry operators.....	626	39.0	215.00	Manufacturing.....	130	40.0	384.00
Manufacturing.....	487	38.5	263.50	Manufacturing.....	248	39.5	236.50	Electronics technicians.....	214	40.0	339.50
Nonmanufacturing.....	193	39.5	282.50	Nonmanufacturing.....	378	38.5	201.00	Manufacturing.....	207	40.0	335.50
Transportation and utilities.....	149	40.0	306.00	Transportation and utilities.....	36	40.0	270.50				
Stenographers I.....	358	38.5	259.00	Key entry operators I.....	316	38.5	204.00	Professional and technical occupations - women			
Nonmanufacturing.....	123	39.5	298.00	Manufacturing.....	137	39.5	219.00	Computer systems analysts (business).....	123	39.5	469.50
Transportation and utilities.....	101	40.0	321.00	Nonmanufacturing.....	179	38.0	192.00	Nonmanufacturing.....	89	39.0	479.00
Stenographers II.....	322	39.0	280.00	Key entry operators II.....	310	39.0	226.50	Computer systems analysts (business) II.....	85	39.5	478.50
Nonmanufacturing.....	70	39.5	255.50	Manufacturing.....	111	39.5	258.00	Computer programmers (business).....	220	38.5	331.00
Transcribing-machine typists.....	88	38.0	210.50	Nonmanufacturing.....	199	38.5	209.00	Manufacturing.....	77	40.0	344.00
Typists:				Professional and technical occupations - men				Nonmanufacturing.....	143	38.0	324.00
Manufacturing.....	142	38.5	229.50	Computer systems analysts (business).....	301	39.5	485.50	Computer programmers (business) I.....	59	38.0	285.50
Nonmanufacturing:				Manufacturing.....	140	40.0	492.50	Computer programmers (business) II.....	128	39.0	333.00
Transportation and utilities.....	44	40.0	257.50	Nonmanufacturing.....	161	39.0	479.00	Manufacturing.....	55	40.0	322.50
Typists II.....	217	38.0	222.00	Computer systems analysts (business) II.....	154	39.5	485.00	Nonmanufacturing.....	73	38.0	341.00
Nonmanufacturing.....	109	38.5	203.00	Manufacturing.....	58	40.0	505.00	Computer operators:			
Transportation and utilities.....	33	40.0	267.00	Nonmanufacturing.....	96	39.5	473.00	Manufacturing.....	53	39.5	268.50
File clerks.....	249	39.0	181.50	Computer systems analysts (business) III.....	112	39.0	497.50	Computer operators II.....	72	40.0	291.00
Nonmanufacturing.....	203	38.5	172.00	Computer programmers (business).....	307	39.0	371.50	Registered industrial nurses.....	90	39.5	366.00
File clerks I.....	82	38.0	158.00	Manufacturing.....	125	40.0	385.00	Manufacturing.....	81	39.5	368.50
File clerks III.....	51	38.5	222.00	Nonmanufacturing.....	182	38.0	362.00				
Messengers.....	79	38.0	170.50	Computer programmers (business) II.....	173	39.0	362.50				
Switchboard operators.....	68	39.0	238.00	Manufacturing.....	87	40.0	371.50				
Switchboard operator-receptionists.....	87	39.0	208.00	Nonmanufacturing.....	86	38.5	353.50				

See footnotes at end of tables.

Table A-15. Hourly earnings of maintenance, toolroom, and powerplant workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean²	Median²	Middle range²	5.00 and under 5.40	5.40-5.80	5.80-6.20	6.20-6.60	6.60-7.00	7.00-7.40	7.40-7.80	7.80-8.20	8.20-8.60	8.60-9.00	9.00-9.40	9.40-9.80	9.80-10.20	10.20-10.60	10.60-11.00	11.00-11.80	11.80-12.60	12.60-13.40	13.40-14.20	14.20-15.00	15.00-15.80	15.80-16.60	16.60-17.40	
Maintenance carpenters.....	107	10.58	10.15	9.50-11.85	-	-	-	-	4	-	-	-	5	1	4	21	21	5	5	12	18	6	4	1	-	-	-	-
Manufacturing	82	10.54	10.49	9.50-11.85	-	-	-	-	4	-	-	-	4	1	3	20	5	5	5	12	17	6	-	-	-	-	-	-
Maintenance electricians.....	696	10.88	10.68	9.31-12.45	-	-	-	-	-	4	-	-	14	54	106	99	41	2	64	63	84	161	-	-	2	2	-	-
Manufacturing	670	10.85	10.61	9.31-12.45	-	-	-	-	-	4	-	-	13	54	106	99	41	1	58	49	84	161	-	-	-	-	-	-
Maintenance painters.....	118	9.73	9.50	8.42-10.64	1	-	1	1	2	-	12	3	15	13	-	25	8	7	1	6	11	6	5	1	-	-	-	-
Manufacturing	101	9.70	9.50	8.42-10.29	-	-	-	-	2	-	11	1	14	9	-	25	8	7	1	6	11	6	-	-	-	-	-	-
Maintenance machinists.....	232	10.49	9.85	9.69-12.45	-	-	-	-	-	4	2	10	6	22	2	62	19	18	-	-	87	-	-	-	-	-	-	-
Manufacturing	216	10.54	9.80	9.69-12.45	-	-	-	-	-	4	2	10	6	22	2	62	3	18	-	-	87	-	-	-	-	-	-	-
Maintenance mechanics (machinery)	681	10.41	9.85	9.31-11.05	-	-	-	-	4	-	-	-	17	46	254	8	46	-	76	88	30	112	-	-	-	-	-	-
Manufacturing	677	10.43	9.85	9.31-11.05	-	-	-	-	-	-	-	-	17	46	254	8	46	-	76	88	30	112	-	-	-	-	-	-
Maintenance mechanics (motor vehicles)	323	11.43	11.89	10.77-13.04	-	-	-	-	-	4	-	8	37	3	4	11	-	10	46	37	35	128	-	-	-	-	-	-
Manufacturing	131	10.39	9.76	8.34-12.45	-	-	-	-	-	4	-	8	37	2	4	11	-	1	-	4	35	25	-	-	-	-	-	-
Nonmanufacturing	192	12.14	13.04	10.96-13.04	-	-	-	-	-	-	-	-	-	1	-	-	-	9	46	33	-	103	-	-	-	-	-	-
Maintenance pipefitters.....	483	10.81	9.85	9.69-12.45	-	-	-	-	-	-	-	-	3	67	1	101	88	-	20	33	58	112	-	-	-	-	-	-
Manufacturing	483	10.81	9.85	9.69-12.45	-	-	-	-	-	-	-	-	3	67	1	101	88	-	20	33	58	112	-	-	-	-	-	-
Maintenance sheet-metal workers.....	50	10.62	9.79	9.76-12.80	-	-	-	-	-	-	-	-	-	-	1	24	10	-	-	1	-	14	-	-	-	-	-	-
Machine-tool operators (toolroom).....	379	10.41	9.69	9.69-12.87	-	-	-	-	-	-	-	2	13	12	44	193	12	-	-	-	-	103	-	-	-	-	-	-
Manufacturing	379	10.41	9.69	9.69-12.87	-	-	-	-	-	-	-	2	13	12	44	193	12	-	-	-	-	103	-	-	-	-	-	-
Tool and die makers.....	364	11.23	10.66	10.57-13.05	-	-	-	-	-	-	-	1	2	18	-	16	4	69	136	-	2	116	-	-	-	-	-	-
Manufacturing	364	11.23	10.66	10.57-13.05	-	-	-	-	-	-	-	1	2	18	-	16	4	69	136	-	2	116	-	-	-	-	-	-
Stationary engineers.....	173	10.54	10.10	8.75-12.68	-	-	-	-	-	1	4	-	3	42	16	8	16	17	2	10	9	45	-	-	-	-	-	-
Manufacturing	159	10.71	10.35	8.98-12.80	-	-	-	-	-	-	-	-	-	40	16	6	16	15	2	10	9	45	-	-	-	-	-	-
Boiler tenders.....	119	9.58	9.78	8.26- 9.80	-	-	-	-	4	1	2	5	26	2	9	19	25	-	6	13	-	7	-	-	-	-	-	-
Manufacturing	112	9.67	9.78	8.51- 9.80	-	-	-	-	4	-	-	4	26	1	7	19	25	-	6	13	-	7	-	-	-	-	-	-

See footnotes at end of tables.

Table A-16. Hourly earnings of material movement and custodial workers in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)*			Number of workers receiving straight-time hourly earnings (in dollars) of —																						
		Mean²	Median³	Middle range²	3.20 and under 3.40	3.40	3.60	3.80	4.00	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	10.00	10.80	11.60	12.40	13.20
						3.60	3.80	4.00	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	10.00	10.80	11.60	12.40	13.20	14.00
Truckdrivers	857	10.60	10.70	8.41-12.84	-	-	5	-	7	-	1	-	-	2	1	11	17	30	133	37	12	17	208	63	35	278	-
Manufacturing	292	9.12	8.09	8.09-10.23	-	-	-	-	-	-	-	-	-	2	-	-	7	25	127	37	2	17	3	43	2	27	-
Nonmanufacturing	565	11.36	12.08	10.70-12.84	-	-	5	-	7	-	1	-	-	-	1	11	10	5	6	-	10	-	205	20	33	251	-
Truckdrivers, tractor-trailer	364	11.18	10.70	10.70-12.08	-	-	-	-	-	-	-	-	-	-	-	-	3	9	6	2	2	-	205	20	35	82	-
Manufacturing	51	10.85	13.05	8.31-13.05	-	-	-	-	-	-	-	-	-	-	-	-	3	9	6	2	2	-	-	-	2	27	-
Shippers	64	7.17	7.38	6.13- 8.43	-	-	5	-	5	5	-	-	-	2	8	6	7	-	9	8	-	-	4	5	-	-	-
Warehousemen	281	7.82	7.59	7.45- 8.30	-	-	-	-	-	-	-	-	-	24	5	5	116	42	19	15	33	18	4	-	-	-	-
Manufacturing	195	7.87	7.59	7.45- 8.75	-	-	-	-	-	-	-	-	-	-	5	5	96	34	5	14	33	3	-	-	-	-	-
Nonmanufacturing	86	7.71	7.50	6.00- 8.26	-	-	-	-	-	-	-	-	-	24	-	-	20	8	14	1	-	15	4	-	-	-	-
Order fillers	190	8.64	8.65	7.27- 9.84	-	-	-	-	-	-	-	-	-	-	-	48	-	4	15	53	-	68	2	-	-	-	-
Manufacturing	188	8.62	8.65	7.13- 9.84	-	-	-	-	-	-	-	-	-	-	-	48	-	4	15	52	-	68	-	-	-	-	-
Shipping packers	194	7.82	7.91	7.65- 7.95	-	-	-	-	-	-	-	-	4	-	-	4	33	113	33	7	-	-	-	-	-	-	-
Manufacturing	194	7.82	7.91	7.65- 7.95	-	-	-	-	-	-	-	-	4	-	-	4	33	113	33	7	-	-	-	-	-	-	-
Material handling laborers	1,135	8.70	8.02	6.95-10.94	-	-	-	-	1	32	6	74	17	48	75	95	100	87	82	98	45	14	28	161	-	172	-
Manufacturing	928	7.95	7.91	6.60- 8.68	-	-	-	-	-	30	4	74	16	46	75	94	100	87	78	98	39	14	12	161	-	-	-
Forklift operators	1,046	8.50	7.93	7.32-10.93	-	-	-	-	-	-	-	4	52	6	23	137	97	206	112	69	37	33	-	270	-	-	-
Manufacturing	1,042	8.51	8.04	7.32-10.93	-	-	-	-	-	-	-	2	52	6	21	137	97	206	112	69	37	33	-	270	-	-	-
Power-truck operators (other than forklift)	262	8.17	8.20	7.05-10.21	-	-	-	-	-	-	-	-	-	-	5	122	3	-	51	6	6	-	69	-	-	-	-
Manufacturing	193	7.44	7.10	7.05- 8.20	-	-	-	-	-	-	-	-	-	-	5	122	3	-	51	6	6	-	-	-	-	-	-
Guards	391	7.89	8.12	5.92- 8.77	-	-	3	16	17	12	14	23	15	9	4	9	29	25	72	47	1	1	33	24	37	-	-
Manufacturing	321	8.40	8.15	7.49-10.05	-	-	3	-	9	11	12	13	8	3	2	5	18	25	69	47	1	1	33	24	37	-	-
Nonmanufacturing	70	5.56	5.46	4.30- 6.83	-	-	-	16	8	1	2	10	7	6	2	4	11	-	3	-	-	-	-	-	-	-	-
Guards I	339	7.89	8.00	5.85-10.05	-	-	3	16	17	5	14	23	15	9	4	9	29	25	51	23	1	1	33	24	37	-	-
Manufacturing	269	8.49	8.19	7.38-10.05	-	-	3	-	9	4	12	13	8	3	2	5	18	25	48	23	1	1	33	24	37	-	-
Nonmanufacturing	70	5.56	5.46	4.30- 6.83	-	-	-	16	8	1	2	10	7	6	2	4	11	-	3	-	-	-	-	-	-	-	-
Janitors, porters, and cleaners	2,483	5.59	4.98	3.35- 7.83	1144	34	7	8	17	27	11	29	62	98	89	150	105	248	219	29	16	33	157	-	-	-	-
Manufacturing	1,104	7.90	7.91	7.04- 8.05	-	-	-	-	9	2	3	16	48	77	58	95	105	247	219	29	14	25	157	-	-	-	-
Nonmanufacturing: Transportation and utilities	142	6.53	6.49	6.00- 7.00	-	-	-	-	-	10	5	10	6	18	30	53	-	-	-	-	2	8	-	-	-	-	-

See footnotes at end of tables.

Table A-17. Average hourly earnings of maintenance, toolroom, powerplant, material movement and custodial workers by sex in establishments employing 500 workers or more in Cincinnati, Ohio-Ky.-Ind., July 1981

Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴	Sex, ² occupation, and industry division	Number of workers	Average (mean ²) hourly earnings (in dollars) ⁴
Maintenance, toolroom, and powerplant occupations - men			Stationary engineers.....	169	10.58	Guards.....	342	7.84
Maintenance carpenters	106	10.57	Manufacturing.....	156	10.73	Manufacturing.....	281	8.36
Manufacturing.....	82	10.54	Boiler tenders.....	119	9.58	Nonmanufacturing.....	61	5.47
Maintenance electricians	695	10.88	Manufacturing.....	112	9.67			
Manufacturing.....	669	10.85	Material movement and custodial occupations - men			Guards I.....	293	7.83
Maintenance painters.....	114	9.70	Truckdrivers.....	813	10.51	Manufacturing.....	232	8.45
Manufacturing.....	97	9.68	Manufacturing.....	292	9.12	Nonmanufacturing.....	61	5.47
Maintenance machinists.....	231	10.48	Nonmanufacturing.....	521	11.28	Janitors, porters, and cleaners.....	1,576	6.18
Manufacturing.....	215	10.53	Truckdrivers, tractor-trailer: Manufacturing.....	51	10.85	Manufacturing.....	878	7.99
Maintenance mechanics (machinery).....	681	10.41	Warehousemen.....	218	7.69	Nonmanufacturing: Transportation and utilities.....	98	6.58
Manufacturing.....	677	10.43	Manufacturing.....	169	7.81	Material movement and custodial occupations - women		
Maintenance mechanics (motor vehicles).....	323	11.43	Order fillers.....	169	8.78			
Manufacturing.....	131	10.39	Manufacturing.....	167	8.76	Material handling laborers.....	104	7.63
Nonmanufacturing.....	192	12.14	Shipping packers.....	124	7.80	Manufacturing.....	102	7.60
Maintenance pipefitters.....	483	10.81	Manufacturing.....	124	7.80			
Manufacturing.....	483	10.81	Material handling laborers.....	1,026	8.83	Forklift operators.....	74	7.02
Maintenance sheet-metal workers.....	50	10.62	Manufacturing.....	826	8.00	Manufacturing.....	74	7.02
Machine-tool operators (toolroom).....	379	10.41	Forklift operators.....	972	8.61	Janitors, porters, and cleaners: Manufacturing.....	226	7.54
Manufacturing.....	379	10.41	Manufacturing.....	968	8.62	Nonmanufacturing: Transportation and utilities.....	44	6.40
Tool and die makers.....	364	11.23	Power-truck operators (other than forklift).....	238	8.25			
Manufacturing.....	364	11.23	Manufacturing.....	169	7.46			

See footnotes at end of tables.

Footnotes

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

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

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

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

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

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

Appendix A.

Scope and Method of Survey

In each of the 71 areas¹ currently surveyed, the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Small establishments—generally those with fewer than 50 employees—are excluded because they have few incumbents in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

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

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

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

Occupations and earnings

Occupations selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (1) Office clerical; (2) professional and technical; (3) maintenance, toolroom, and powerplant; and (4) material

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

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

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

These surveys measure the level of occupational earnings in an area at a particular time. Changes in an occupational average over time reflect, in addition to earnings changes, factors such as changes in proportions of workers employed by high- or low-wage firms, or high-wage workers advancing to better jobs and being replaced by new workers at lower rates. Such shifts in employment could decrease an occupational average even though most establishments in an area increase wages during the year. Changes in earnings of occupational groups, shown in table A-7, are better indicators of wage trends than are earnings changes for individual jobs within the groups.

Average earnings reflect composite, areawide estimates. Industries and establishments differ in pay level and job staffing, and thus contribute differently to the estimates

for each job. Pay averages may fail to reflect accurately the wage differential among jobs in individual establishments.

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

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

Wage trends for selected occupational groups

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

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

Occupations used to compute wage trends are:

Office clerical

Secretaries
Stenographers, I and II
Typists, I and II
File clerks, I, II, and III
Messengers

Switchboard operators
Order clerks, I and II
Accounting clerks, I and II
Payroll clerks
Key entry operators, I and II

Electronic data processing

Computer systems analysts, I, II, and III

Computer programmers, I, II, and III
Computer operators, I, II, and III

Industrial nurses

Registered industrial nurses

Skilled maintenance

Carpenters
Electricians
Painters
Machinists

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

Unskilled plant

Janitors, porters, and cleaners

Material handling laborers

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

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

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

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

Pay relationships in establishments

Tables A-8 through A-11 compare average pay of occupations in individual establishments. These comparisons, expressed as pay relatives (pay for one of the occupations equals 100), yield different results than comparisons of overall survey averages, such as those shown in tables A-1 through A-6. The latter reflect differences in contributions to the survey averages by establishments with disparate pay levels; the pay relative comparisons are not affected by such differences.

The methods of computing and presenting pay relatives have changed since the last survey in this area. The following procedures are now used to compute relatives in tables A-8 through A-11:

1. Establishments employing workers in both of the paired occupations were identified.
2. Pay levels (averages) for the two occupations were weighted by the combined employment of both jobs to reflect each establishments contribution to the totals used in this comparison.
3. The weighted pay levels of the two jobs were summed separately; each total was divided by the other and the quotients multiplied by 100 to produce the two pay relatives shown for each job pairing.

Establishment practices and supplementary wage provisions

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

¹ Includes 70 areas surveyed under the Bureau's regular program plus Poughkeepsie-Kingston-Newburgh, N.Y., which is surveyed under contract. In addition, the Bureau conducts more limited area studies in approximately 100 areas at the request of the Employment Standards Administration of the U.S. Department of Labor.

Appendix table 1. Establishments and workers within scope of survey and number studied in Cincinnati, Ohio-Ky.-Ind.,¹ July 1981

Industry division ²	Minimum employment in establishments in scope of survey	Number of establishments		Workers in establishments		
		Within scope of survey ³	Studied	Within scope of survey ⁴		Studied
				Number	Percent	
All establishments						
All divisions	-	1,065	185	272,846	100	136,856
Manufacturing	50	405	75	136,726	50	74,680
Nonmanufacturing	-	660	110	136,120	50	62,176
Transportation, communication, and other public utilities ⁵	50	62	28	27,094	10	22,094
Wholesale trade ⁶	50	128	13	12,326	5	3,004
Retail trade ⁶	50	253	22	51,870	19	21,666
Finance, insurance, and real estate ⁶	50	84	17	18,313	7	8,514
Services ⁷	50	133	30	26,517	10	6,898
Large establishments						
All divisions	-	110	67	149,253	100	116,204
Manufacturing	500	58	35	82,980	56	66,433
Nonmanufacturing	-	52	32	66,273	44	49,771
Transportation, communication, and other public utilities ⁵	500	10	10	18,604	12	18,604
Wholesale trade ⁶	500	2	2	1,327	1	1,327
Retail trade ⁶	500	22	10	31,185	21	20,378
Finance, insurance, and real estate ⁶	500	9	6	9,133	6	6,949
Services ⁷	500	9	4	6,024	4	2,513

¹ The Cincinnati, Ohio-Ky.-Ind. Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Clermont, Hamilton, and Warren Counties, Ohio; Boone, Campbell and Kenton Counties, Ky.; and Dearborn County, Ind. The "workers within scope of survey" estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

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

³ Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of

nonmanufacturing companies are considered as one establishment when located within the same industry division.

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

⁵ Abbreviated to "transportation and utilities" in the A-series tables. Formerly referred to as "public utilities". Taxicabs and services incidental to water transportation are excluded. The Cincinnati transit system is municipally owned and operated and is excluded by definition from the scope of the survey.

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

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

Appendix B. Occupational Descriptions

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

Office

SECRETARY

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

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

- a. Positions which do not meet the "personal" secretary concept described above;
- b. Stenographers not fully trained in secretarial-type duties;
- c. Stenographers serving as office assistants to a group of professional, technical, or managerial persons;

- d. Assistant-type positions which entail more difficult or more responsible technical, administrative, or supervisory duties which are not typical of secretarial work, e.g., Administrative Assistant, or Executive Assistant;
- e. Positions which do not fit any of the situations listed in the sections below titled "Level of Supervisor," e.g., secretary to the president of a company that employs, in all, over 5,000 persons;
- f. Trainees.

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

Level of Secretary's Supervisor (LS)

LS-1

- a. Secretary to the supervisor or head of a small organizational unit (e.g., fewer than about 25 or 30 persons); or
- b. Secretary to a nonsupervisory staff specialist, professional employee, administrative officer or assistant, skilled technician or expert. (NOTE: Many companies assign stenographers, rather than secretaries as described above, to this level of supervisory or nonsupervisory worker.)

LS-2

- a. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for LS-3, but whose organizational unit normally numbers at least several dozen employees and is usually divided into organizational segments which are often, in turn, further subdivided. In some companies, this level includes a wide range of organizational echelons; in others, only one or two; or
- b. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, fewer than 5,000 persons.

LS-3

- a. Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
- b. Secretary to a corporate officer (other than chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- c. Secretary to the head (immediately below the officer level) over either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational segment (e.g., a regional headquarters; a major division) of a company that employs, in all, over 5,000 but fewer than 25,000 employees; or
- d. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or
- e. Secretary to the head of a large and important organizational segment (e.g., a middle management supervisor of an organizational segment often involving as many as several hundred persons) of a company that employs, in all, over 25,000 persons.

LS-4

- a. Secretary to the chairman of the board or president of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- b. Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or
- c. Secretary to the head, immediately below the corporate officer level, of a major segment or subsidiary of a company that employs, in all, over 25,000 persons.

NOTE: The term "corporate officer" used in the above LS definition refers to those officials who have a significant corporatewide policymaking role with regard to major company activities. The title "vice president," though normally indicative of this role, does not in all cases identify such positions. Vice presidents whose primary responsibility is to act personally on individual cases or transactions (e.g., approve or deny individual loan or credit actions; administer individual trust accounts; directly supervise a clerical staff) are not considered to be "corporate officers" for purposes of applying the definition.

Level of Secretary's Responsibility (LR)

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

LR-1

Performs varied secretarial duties including or comparable to most of the following:

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

LR-2

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

- a. Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
- b. Answers requests which require a detailed knowledge of office procedures or collection of information from files or other offices. *May* sign routine correspondence in own or supervisor's name.
- c. Compiles or assists in compiling periodic reports on the basis of general instructions.
- d. Schedules tentative appointments without prior clearance. Assembles necessary background material for scheduled meetings. Makes arrangements for meetings and conferences.
- e. Explains supervisor's requirements to other employees in supervisor's unit. (Also types, takes dictation, and files.)

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

	LR-1	LR-2
LS-1.....	I	II
LS-2.....	II	III
LS-3.....	III	IV
LS-4.....	IV	V

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 I

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

Stenographer II

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

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.

Typist I

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.

Typist II

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.

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 I

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.

File Clerk II

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

File Clerk III

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.

MESSENGER

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

SWITCHBOARD OPERATOR

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

SWITCHBOARD OPERATOR-RECEPTIONIST

At a single-position telephone switchboard or console, acts both as an operator—see Switchboard operator—and as a receptionist. Receptionist's work involves such duties as greeting visitors; determining nature of visitor's business and providing appropriate

information; referring visitor to appropriate person in the organization or contacting that person by telephone and arranging an appointment; keeping a log of visitors.

ORDER CLERK

Receives written or verbal customers' purchase orders for material or merchandise from customers or salespeople. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and adequacy of information recorded; ascertaining credit rating of customer; furnishing customer with acknowledgement of receipt of order; following up to see that order is delivered by the specified date or to let customer know of a delay in delivery; maintaining order file; checking shipping invoice against original order. *Exclude workers paid on a commission basis or whose duties include any of the following:* Receiving orders for services rather than for material or merchandise; providing customers with consultative advice using knowledge gained from engineering or extensive technical training; emphasizing selling skills; handling material or merchandise as an integral part of the job.

Positions are classified into levels according to the following definitions:

Order Clerk I

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.

Order Clerk II

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.

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:

Accounting Clerk I

Under close supervision, following detailed instructions and standardized procedures, performs one or more routine accounting clerical operations, such as posting to

ledgers, cards, or worksheets where identification of items and locations of postings are clearly indicated; checking accuracy and completeness of standardized and repetitive records or accounting documents; and coding documents using a few prescribed accounting codes.

Accounting Clerk II

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 level I accounting clerks.

PAYROLL CLERK

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

KEY ENTRY OPERATOR

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

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

Key Entry Operator I

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.

Key Entry Operator II

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 level I.

NOTE: Excluded are operators above level II 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.

Professional and Technical

COMPUTER SYSTEMS ANALYST, BUSINESS

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

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

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

Computer Systems Analyst I

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 Systems Analyst II

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 level III. 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.

Computer Systems Analyst III

Works independently or under only general direction on complex problems involving all phases of systems analysis. Problems are complex because of diverse sources of input data and multiple-use requirements of output data. (For example, develops an integrated production scheduling, inventory control, cost analysis, and sales analysis record in which every item of each type is automatically processed through the full system of records and appropriate follow-up actions are initiated by the computer.)

Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of new or revised systems of data processing operations. Makes recommendations, if needed, for approval of major systems installations or changes and for obtaining equipment.

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

COMPUTER PROGRAMMER, BUSINESS

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

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

For wage study purposes, programmers are classified as follows:

Computer Programmer I

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 Programmer II

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 level III) under close direction of a higher level programmer or supervisor. May assist higher level programmer by independently performing less difficult tasks assigned, and performing more difficult tasks under fairly close direction.

May guide or instruct lower level programmers.

Computer Programmer III

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.

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:

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

For wage study purposes, computer operators are classified as follows:

Computer Operator I

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.

Computer Operator II

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.

Computer Operator III

In addition to work assignments described for Computer operator II (see above) the work of Computer operator III involves at least one of the following:

- a. 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.
- b. Tests new programs, applications, and procedures.
- c. Advises programmers and subject-matter experts on setup techniques.
- d. 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.

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:

- a. Loading printers and plotters with correct paper; adjusting controls for forms, thickness, tension, printing density, and location; and unloading hard copy.
- b. Labeling tape reels, disks, or card decks.
- c. Checking labels and mounting and dismounting designated tape reels or disks on specified units or drives.
- d. Setting controls which regulate operation of the equipment.
- e. Observing panel lights for warnings and error indications and taking appropriate action.
- f. 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

Performs drafting work requiring knowledge and skill in drafting methods, procedures, and techniques. Prepares drawings of structures, mechanical and electrical equipment, piping and duct systems and other similar equipment, systems, and assemblies. Uses recognized systems of symbols, legends, shadings, and lines having specific meanings in drawings. Drawings are used to communicate engineering ideas, designs, and information in support of engineering functions.

The following are excluded when they constitute the primary purpose of the job:

- a. Design work requiring the technical knowledge, skill, and ability to conceive or originate designs;
- b. Illustrating work requiring artistic ability;
- c. Work involving the preparation of charts, diagrams, room arrangements, floor plans, etc.;
- d. Cartographic work involving the preparation of maps or plats and related materials, and drawings of geological structures; and
- e. Supervisory work involving the management of a drafting program or the supervision of drafters.

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

Drafter I

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is spot-checked during progress and reviewed upon completion.

NOTE: Exclude drafters performing elementary tasks while receiving training in the most basic drafting methods.

Drafter II

Prepares drawings of simple, easily visualized parts of equipment from sketches or marked-up prints. Selects appropriate templates and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy.

Drafter III

Prepares various drawings of parts and assemblies, including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Work requires use of most of the conventional drafting techniques and a working knowledge of the terms and procedures of the industry. Familiar or recurring work is assigned in general terms; unfamiliar assignments include information on methods, procedures, sources of information, and precedents to be followed. Simple revisions to existing drawings may be assigned with a verbal explanation of the desired results; more complex revisions are produced from sketches which clearly depict the desired product.

Drafter IV

Prepares complete sets of complex drawings which include multiple views, detail drawings, and assembly drawings. Drawings include complex design features that require considerable drafting skill to visualize and portray. Assignments regularly require the use of mathematical formulas to compute weights, load capacities, dimensions, quantities of materials, etc. Working from sketches and verbal information supplied by an engineer or designer, determines the most appropriate views, detail drawings, and supplementary information needed to complete assignments. Selects required information from precedents, manufacturers' catalogs, and technical guides. Independently resolves most of the problems encountered. Supervisor or designer may suggest methods of approach or provide advice on unusually difficult problems.

NOTE: Exclude drafters performing work of similar difficulty to that described at this level but who provide support for a variety of organizations which have widely differing functions or requirements.

Drafter V

Works closely with design originators, preparing drawings of unusual, complex or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawings produced. Exercises independent judgment in selecting and interpreting data based on a knowledge of the design intent. Although working primarily as a drafter, may occasionally perform engineering design work in interpreting general designs prepared by others or in completing missing design details. May provide advice and guidance to lower level drafters or serve as coordinator and planner for large and complex drafting projects.

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:

Electronics Technician I

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.

Electronics Technician II

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 level III 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.

Electronics Technician III

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.

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 repair that involve the use of such handtools as wrenches, gauges, drills, or specialized equipment in disassembling or fitting parts; replacing broken or defective parts from stock; grinding and adjusting valves; reassembling and installing the various assemblies in the vehicle and making necessary adjustments; and aligning wheels, adjusting brakes and lights, or tightening body bolts. In general, the work of the motor vehicle maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

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

MAINTENANCE PIPEFITTER

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

training and experience. *Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.*

MAINTENANCE SHEET-METAL WORKER

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

MILLWRIGHT

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

MAINTENANCE TRADES HELPER

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

MACHINE-TOOL OPERATOR (TOOLROOM)

Specializes in operating one or more than one type of machine tool (e.g., jig borer, grinding machine, engine lathe, milling machine) to machine metal for use in making or maintaining jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves*: Planning and performing difficult machining operations which require complicated setups or a high degree of accuracy; setting up machine tool or tools (e.g., install cutting tools and adjust guides, stops, working tables, and other controls to handle the size of stock to be machined; determine proper feeds, speeds, tooling, and operation sequence or select those prescribed in drawings, blueprints, or layouts); using a variety of precision measuring instruments; making necessary adjustments during machining operation to achieve requisite dimensions to very close tolerances. May be

required to select proper coolants and cutting and lubricating oils, to recognize when tools need dressing, and to dress tools. In general, the work of a machine-tool operator (toolroom) at the skill level called for in this classification requires extensive knowledge of machine-shop and toolroom practice usually acquired through considerable on-the-job training and experience.

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

TOOL AND DIE MAKER

Constructs and repairs jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves:* Planning and laying out work according to models, blueprints, drawings, or other written or oral specifications; understanding the working properties of common metals and alloys; selecting appropriate materials, tools, and processes required to complete tasks; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

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

STATIONARY ENGINEER

Operates and maintains one or more systems which provide an establishment with such services as heat, air-conditioning (cool, humidify, dehumidify, filter, and circulate air), refrigeration, steam or high-temperature water, or electricity. Duties involve: Observing and interpreting readings on gauges, meters, and charts which register various aspects of the system's operation; adjusting controls to insure safe and efficient operation of the system and to meet demands for the service provided; recording in logs various aspects of the system's operation; keeping the engines, machinery, and equipment of the system in good working order. May direct and coordinate activities of other workers (not stationary engineers) in performing tasks directly related to operating and maintaining the system or systems.

The classification excludes head or chief engineers in establishments employing more than one engineer; workers required to be skilled in the repair of electronic control equipment; and workers in establishments producing electricity, steam, or heated or cooled air primarily for sale.

BOILER TENDER

Tends one or more boilers to produce steam or high-temperature water for use in an establishment. Fires boiler. Observes and interprets readings on gauges, meters, and charts which register various aspects of boiler operation. Adjusts controls to insure safe and efficient boiler operation and to meet demands for steam or high-temperature water. May also do one or more of the following: Maintain a log in which various aspects of boiler operation are recorded; clean, oil, make minor repairs or assist in

repairs to boilerroom equipment; and, following prescribed methods, treat boiler water with chemicals and analyze boiler water for such things as acidity, causticity, and alkalinity.

The classification excludes workers in establishments producing electricity, steam, or heated or cooled air primarily for sale.

Material Movement and Custodial

TRUCKDRIVER

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

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

Truckdriver, light truck

(straight truck, under 1 1/2 tons, usually 4 wheels)

Truckdriver, medium truck

(straight truck, 1 1/2 to 4 tons inclusive, usually 6 wheels)

Truckdriver, heavy truck

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

Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

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

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

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

For wage study purposes, workers are classified as follows:

Shipper

Receiver

Shipper and receiver

WAREHOUSEMAN

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

Exclude workers whose *primary* duties involve shipping and receiving work (see Shipper and receiver and Shipping packer), order filling (see Order filler), or operating power trucks (see Power-truck operator).

ORDER FILLER

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

SHIPPING PACKER

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

MATERIAL HANDLING LABORER

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

POWER-TRUCK OPERATOR

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

For wage study purposes, workers are classified by type of powertruck, as follows:

Forklift operator

Power-truck operator (other than forklift)

GUARD

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

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

For wage study purposes, guards are classified as follows:

Guard I

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.

Guard II

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.

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.*

Appendix C. Job Conversion Table

Beginning in 1981, multilevel jobs are identified by numeric instead of alphabetic designations. A conversion table for the affected occupations follows:

Occupation	Numeric designation (currently used)	Alphabetic designation (previously used)
Secretary.....	I II III IV V	E D C B A
Stenographer.....	I II	General Senior
Typist.....	I II	B A
File clerk	I II III	C B A
Order clerk.....	I II	B A
Accounting clerk	I II	B A
Key entry operator	I II	B A

Occupation	Numeric designation (currently used)	Alphabetic designation (previously used)
Computer systems analyst (business).....	I II III	C B A
Computer programmer (business)	I II III	C B A
Computer operator	I II III	C B A
Drafter	I II III IV V	E D C B A
Electronics technician	I II III	C B A
Guard.....	I II	B A

Area Wage Survey Summaries

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

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

Columbus, Ga.-Ala.
 Columbus, Miss.
 Connecticut (statewide)
 Decatur, Ill.
 Des Moines, Iowa
 Dothan, Ala.
 Duluth-Superior, Minn.-Wis.
 El Paso-Alamogordo-Las Cruces, Tex.-N. Mex.
 Eugene-Springfield-Medford, Oreg.
 Fayetteville, N.C.
 Fort Lauderdale-Hollywood and West Palm Beach-Boca Raton, Fla.
 Fort Smith, Ark.-Okla.
 Fort Wayne, Ind.
 Frederick-Hagerstown-Chambersburg, Md.-Pa.
 Gadsden and Anniston, Ala.
 Goldsboro, N.C.
 Grand Island-Hastings, Nebr.
 Guam, Territory of
 Harrisburg-Lebanon, Pa.
 Knoxville, Tenn.
 La Crosse-Sparta, Wis.
 Laredo, Tex.
 Las Vegas-Tonopah, Nev.
 Lexington-Fayette, Ky.
 Lima, Ohio
 Little Rock-North Little Rock, Ark.
 Logansport-Peru, Ind.
 Lorain-Elyria, Ohio
 Lower Eastern Shore, Md.-Va.-Del.
 Macon, Ga.
 Madison, Wis.
 Maine (statewide)
 Mansfield, Ohio
 McAllen-Pharr-Edinburg and Brownsville-Harlingen- San Benito, Tex.
 Meridian, Miss.

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

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

ALSO AVAILABLE—

An annual report on salaries for accountants, auditors, public accountants, chief accountants, attorneys, job analysts, directors of personnel, buyers, chemists, engineers, engineering technicians, drafters, computer operators, and clerical employees is available. Order as BLS Bulletin 2081, *National Survey of Professional, Administrative, Technical and Clerical Pay, March 1980*, \$4.00 a copy, from any of the BLS regional sales offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Area Wage Surveys

A list of the latest bulletins available is presented below. Bulletins may be purchased from any of the BLS regional offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Make checks payable to Superintendent of Documents. A directory of occupational wage surveys, covering the years 1974 through 1979, is available on request.

<i>Area</i>	<i>Bulletin number and price*</i>
Albany-Schenectady-Troy, N.Y., Sept. 1980 ¹	3000-45 \$2.25
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1980	3000-62 \$2.00
Atlanta, Ga., May 1981 ¹	3010-24 \$3.25
Baltimore, Md., Aug. 1980	3000-38 \$2.25
Billings, Mont., July 1981	3010-25 \$2.25
Boston, Mass., Aug. 1980	3000-40 \$2.25
Buffalo, N.Y., Oct. 1980	3000-52 \$2.25
Chattanooga, Tenn.—Ga., Sept. 1980	3000-44 \$1.75
Chicago, Ill., May 1980	3010-19 \$2.75
Cincinnati, Ohio—Ky.—Ind., July 1981	3010-30 \$2.75
Cleveland, Ohio, Sept. 1980 ¹	3000-46 \$3.25
Columbus, Ohio, Oct. 1980	3000-48 \$2.00
Corpus Christi, Tex., July 1981	3010-22 \$2.25
Dallas—Fort Worth, Tex., Dec. 1980 ¹	3000-67 \$3.25
Davenport—Rock Island—Moline, Iowa—Ill., Feb. 1981	3010-7 \$2.25
Dayton, Ohio, Dec. 1980 ¹	3000-64 \$2.25
Daytona Beach, Fla., Aug. 1980 ¹	3000-33 \$1.75
Denver—Boulder, Colo., Dec. 1980 ¹	3000-68 \$3.25
Detroit, Mich., Apr. 1981	3010-12 \$2.75
Fresno, Calif., June 1981	3010-27 \$2.25
Gainesville, Fla., Sept. 1980 ¹	3000-55 \$2.00
Gary—Hammond—East Chicago, Ind., Nov. 1980 ¹	3000-56 \$1.75
Green Bay, Wis., July 1981 ¹	3010-26 \$2.75
Greensboro—Winston-Salem—High Point, N.C., Aug. 1980 ¹	3000-50 \$2.25
Greenville—Spartanburg, S.C., June 1981	3010-23 \$2.25
Hartford, Conn., Mar. 1981	3010-21 \$2.50
Houston, Tex., May. 1981	3010-14 \$2.75
Huntsville, Ala., Feb. 1981	3010-5 \$2.25
Indianapolis, Ind., Oct. 1980	3000-47 \$2.25
Jackson, Miss., Jan. 1981	3010-4 \$1.75
Jacksonville, Fla., Dec. 1980	3000-66 \$1.75
Kansas City, Mo.—Kans., Sept. 1980	3000-42 \$2.25
Los Angeles—Long Beach, Calif., Oct. 1980	3000-63 \$2.25
Louisville, Ky.—Ind., Nov. 1980 ¹	3000-65 \$2.25

<i>Area</i>	<i>Bulletin number and price*</i>
Memphis, Tenn.—Ark.—Miss., Nov. 1980	3000-59 \$1.75
Miami, Fla., Oct. 1980	3000-51 \$2.25
Milwaukee, Wis., May 1981 ¹	3010-16 \$3.25
Minneapolis—St. Paul, Minn.—Wis., Jan. 1981 ¹	3010-1 \$3.75
Nassau—Suffolk, N.Y., June 1980	3000-29 \$2.00
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New Orleans, La., Oct. 1980	3000-58 \$2.00
New York, N.Y.—N.J., May 1980	3000-24 \$2.25
Norfolk—Virginia Beach—Portsmouth, Va.—N.C., May 1981	3010-17 \$2.25
Northeast Pennsylvania, Aug. 1980	3000-37 \$1.75
Oklahoma City, Okla., Aug. 1980 ¹	3000-41 \$2.25
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Paterson—Clifton—Passaic, N.J., June 1980 ¹	3000-34 \$2.25
Philadelphia, Pa.—N.J., Nov. 1980	3000-53 \$2.25
Pittsburgh, Pa., Jan. 1981	3010-2 \$2.25
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Portland, Oreg.—Wash., June 1981	3010-29 \$2.75
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Poughkeepsie—Kingston—Newburgh, N.Y., June 1980 ¹	3000-39 \$2.00
Providence—Warwick—Pawtucket, R.I.—Mass., June 1980	3000-27 \$2.00
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San Jose, Calif., Mar. 1981 ¹	3010-10 \$3.00
Seattle—Everett, Wash., Dec. 1980	3000-69 \$1.75
South Bend, Ind., Aug. 1980	3000-36 \$1.75
Toledo, Ohio—Mich., June 1981 ¹	3010-20 \$2.75
Trenton, N.J., Sept. 1980	3000-43 \$1.75
Washington, D.C.—Md.—Va., Mar. 1981 ¹	3010-6 \$3.00
Wichita, Kans., Apr. 1981	3010-11 \$2.25
Worcester, Mass., Apr. 1980 ¹	3000-25 \$2.00
York, Pa., Feb. 1981 ¹	3010-9 \$2.75

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

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

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