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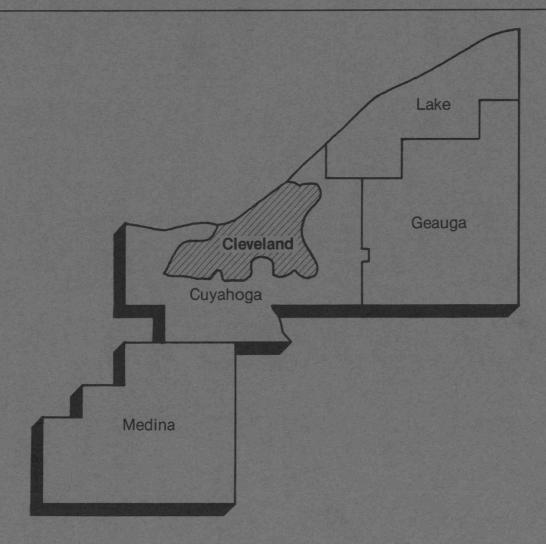
Area Wage Survey

Cleveland, Ohio, Metropolitan Aréa September 1981



U.S. Department of Labor Bureau of Labor Statistics

Bulletin 3010-44



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Preface

This bulletin provides results of a September 1981 survey of occupational earnings in the Cleveland, Ohio, 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 and supplementary wage provisions in the Cleveland area is available for the machinery industry (January 1981); a report on occupational earnings only is available for the laundry and dry cleaning industry (September 1981). Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. A report on occupational earnings and supplementary provisions is available for municipal workers in the city of Cleveland. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

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Area Wage Survey

Cleveland, Ohio, Metropolitan Area September 1981



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

Bureau of Labor Statistics Janet L. Norwood, Commissioner

November 1981

Bulletin 3010-44

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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 and provides information on the scope of the survey.

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 Cleveland, Ohio, September 1981

	Number	Average		Weekly ea (in dolla							Nu	mber of	worker	s receivi	ing strai	ght-time	weekly	earning	s (in dol	lars) of						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	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 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 480	480 and over
Secretaries	4,543	39.0	292.50	277.00	237.00- 334.00			3	9	69	143	359	620	590	541	513	329	312	271	197	148	108	65	94	99	73
Manufacturing	2,332	39.0	299.50						-	-	2	158	334	302	301	283	172	204	150	130	69	54	39	70	37	27
Nonmanufacturing	2,211	38.5	285.00				-	3	9	69		201	286	288	240		157	108	121	67	79	54	26	24	62	46
Transportation and utilities	473	38.5	377.50	383.00	322.00- 442.00	-	-		-	12	2 13	12	12	8	4	48	16	34	50	39	57	35	20	22	62	42
Secretaries I	371	38.5	243.00				-	3	9	26	45	68	72		27	22	11	29	20	2	2	4	112	_	-	
Manufacturing	183	39.5	281.50					-	-	100-	-	19	36				11	27	19	2	2	4	-	-	Tribe -	-
Nonmanufacturing	188	38.0	206.00	205.00	188.50- 223.00	-	-	3	9	26	45	49	36	13	2	2	-	2	1	-	-		-	-	-	-
Secretaries II	1,225	39.0	257.00	243.50	219.00- 280.50	-	-	-	-	29	68	210	271	180	149	93	39	64	38	40	40	3	1	-		
Manufacturing	657	39.0	267.50	249.50	226.00- 305.00	-	-	-	-	-	2	129	138	91	67	56	32	63	35	33	10	-	1	-	-	- N
Nonmanufacturing	568	38.5	245.00				-	100 m	-	29		81	133				7	1	3	7	30	3	-	-	-	-
Transportation and utilities	90	38.5	302.00	303.50	209.00- 395.00	10		-	-	12	-	12	12	1	2	5	2	1	3	7	30	3	-	-		-
Secretaries III	1,541	39.0	287.00				-	1 -	112	2	28	64	225	302	206		136	100	87	51	39	27	18		6	14
Manufacturing	893	39.0	296.00				-	-	-	-	-	10	157	168	133		70	53	48	39	31	23	15	27	6	14
Nonmanufacturing	648	39.0	274.50				-	-	-	2	28	54	68		73		66	47	39	12	8	4	3	2	5	-
Transportation and utilities	74	39.5	342.00	344.00	296.00- 369.00	100	19.5	-		-		-	-	6	2	12	1	13	16	7	8	4	3	2	-	
Secretaries IV	955	38.5	323.50	309.50	276.00- 360.50	-	-	-	_	12	1	8	46	70	133	137	115	88	96	68	35	48	18	47	25	8
Manufacturing	408	39.5	341.00				-	_	-	-	189-2	_	3				42	38	31	35	12	20	15		14	7
Nonmanufacturing	547	38.0	310.50	305.00	271.50- 348.50	-	-	-	12:	12	1	8	43	45	74	69	73	50	65	33	23	28	3	8	- 11	1
Secretaries V	305	38.5	370.00	362.50	311.50- 420.00			-		-					19	47	21	31	30	36	32	17	19	6	35	12
Manufacturing	191	39.0	355.00	337.50	299.00- 387.00	-	-	17/-	-	-	-	-	-	-	17	40	17	23	17	21	14	7	8	4	17	6
Nonmanufacturing	114	37.5	395.50	391.00	355.50- 435.00	-	-	-	-	-		-	-	-	2	7	4	8	13	15	18	10	11	2	18	6
Stenographers	557	39.5	297.00	286.50	239.50- 350.50	-	1	1	-	7	28	33	73	53	69	45	38	24	88	43	5	7	42	2	-	
Manufacturing	307	39.5	282.50	263.00	230.00- 320.00	-	-	-	-	135 -	17	23	67			24	25	15	11	17	4	6	21	2	-	-
Nonmanufacturing	250	40.0	314.00				-	-	-	7	10.0	10	6				13	9	77	26	1	1	21	-	-	-
Transportation and utilities	201	40.0	331.50	349.50	288.00- 357.50			-	-		7	2	4	13	16	12	13	9	77	25	1	1	21	-	-	-
Stenographers I	291	39.5	287.50	271.00	229.00- 349.00	-	-	-	_	7	23	23	. 48	35	27	22	- 11	7	30	17	4	4	33	-	-	
Manufacturing	171	39.5	268.50			-	-	-	-	-	17	19	47	30			7	3	1	11	4	4	12	-	-	
Nonmanufacturing	120	40.0	315.00				-	-	-	7		4	1	5			4	4	29	6	. 7 -	-	21	-	-	-
Transportation and utilities	88	40.0	340.50	349.00	291.50- 368.00	-		-	-	18-	3	2	1	5	5	8	4	4	29	6		2 -	21	-	9	-
Stenographers II	266	39.5	306.50			-	- C	_	-	-	5	10	25				27	17	58	26	1	3	9	2	-	-
Manufacturing	136	39.5	300.00				-	-	-	-	-	4	20		27		18	12		6	-	2	9	2	-	-
Nonmanufacturing	130	40.0	313.50	350.50	278.00- 350.50	-		-	-	the "	5	6	5	10	15	5	9	5	48	20	1	1	-			
Transcribing-machine typists Nonmanufacturing	247 203	39.0 39.0	196.50 190.50			=		1	-	41 41		60 48	12 4	2	8	2	1	1 -	1 1	-	-	-		-	-	_
Typists	1,813	39.0	222.50	207.00	177.00- 251.00	3	12	25	168	272	319	298	213	98	110	44	35	18	179	3	3	6	6	1		
Manufacturing		39.5	220.50				-	15		41		123	75		36		16	1	-	2	3	6	3		_	
Nonmanufacturing	1,352		223.00				12	10				175	138		74		19	17	179	1	-	-	3		-	-
Typists I	880	39.0	209.00	193.00	165.50- 229.00	3	6	25	154	149	133	149	76	34	38	23	15	2	62	2	3	6				
Manufacturing	282	39.5	216.50				-	15		31		73					12	_	-	2	3	6				
Nonmanufacturing	598	39.0	205.50				6	10				76					3	2	62	-	-	-	-	-	-	
Typists II	933	38.5	235.00	218.00	187.00- 264.50		6		14	123	186	149	137	64	72	21	20	16	117	1			6	1	14/424	
Manufacturing	179	39.5	226.50				-	-	3			50					4	1	_	-	-	-	3	1	-	_
Nonmanufacturing	754	38.0	237.00				6	-	11	113		99	108				16	15	117	1		-	3	-	-	-
File clerks	689	38.0	178.50	165.50	151.50- 187.50		39	101	159	165	113	36	18	8	7	7	12	1	17	4	1	1		-	_	
Manufacturing	150	39.0	193.50				-	6	29	40		21	9		4	1	5	-	-	2	1	1	-	-	-	-
Nonmanufacturing	539	38.0	174.50	160.00	150.00- 184.50	-	39	95	\ 130	125	85	15	9	5	3	6	7	1	17	2	-		1 -	-	-	-

Table A-1. Weekly earnings of office workers in Cleveland, Ohio, September 1981 —Continued

Occupation and industry division	Number of workers	weekly hours ¹		And the Control of the Control		100 PM		E BY									weekly							N. J. H.		- 291	DE L
Fit all all all		(stand- ard)	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 - 320	320 - 340	340 - 360	360 - 380		80	400 - 420	420 - 440	440 - 460	460 - 480	480 and over
File clerks I	253	39.5	158.00	151.50	140.00- 172.50	-	30	57	84	43	31	7	1	10.2	-	-	7	_	_		-		-	46.2	_	3.5	
Manufacturing	60	38.5	168.50	154.00	154.00- 177.00	-	-	6	26	15	6	6	1	-	-	-	-	-		-	-	-	-	-	-	-	
Nonmanufacturing	193	40.0	154.50	150.00	140.00- 162.00	1 4-	30	51	58	28	25	1	-	-	-	-	289-	-	- 8-	- 5	-	-	-	1111-	-	-	
File clerks II	357	37.5	183.00	167.00	156.00- 190.00		9	44	70	91	74	26	14	7	2	2		1	11	4	4	1	1				
Manufacturing	74	39.5	202.00		167.00- 211.00	-	100		3	19	22	15	8	3		19			10.00	2	2	1	1		-	-	
Nonmanufacturing	283	37.0	178.50				9	44	67	72	52	11	. 6	4	2	2	-	1	11		2	-	-	-	-	-	
File clerks III	79	37.5	225.00	189.50	170.50- 295.50	0 /			5	31	8	3	3	1	5	5	12		6								
Nonmanufacturing	63	37.0	219.00				_		5	25	8	3	3	1	1	4	7	0.0	6								
1401mandadamig	- 00	07.0	210.00	107.00	100.00 200.00					B. F.					. 0											11.0	
essengers	375	38.5	198.00 197.00				19	14	28	108	65 27	57 12	32 14	16	6 2	2	2	24	1	-	-	1	-	-	-	-	
Manufacturing	101	39.5					19	13	28	70	38	45		11	4	2		24	1		- 18						1
Nonmanufacturing Transportation and utilities	274 55	38.5 39.0	198.50 278.00				-	-	-	-	8	7	1	7	4	2	1	24	1		-	-	-	_	-		
	004	20.5	000.50	202.00	175.00 070.00		200	7	200	42	36	07	35	9	20	9		3	24			2			3		
vitchboard operators	281	39.5	229.50				20	,	26	42		27			20	9	5		24		-	F. 1	4	8	3	1	
Manufacturing	73	39.5	276.00				-		-	1	11	10		3	9	1	3		6		-	2	1	8	1	1	ALC:
Nonmanufacturing	208	39.0	213.50				20	7	26	41	25	17	20	6	11	8	2		18		-	-	3	-	2	-	
Transportation and utilities	45	40.0	322.00	344.00	276.00- 350.50	-	7	-	-	-	-	2	1	2	11	2	2	2	18	-	-	-	3		2		
vitchboard operator-										-		B				14.19					-16					Tue Sal	
receptionists	558	39.0	210.00	100000000000000000000000000000000000000			-	14	31	85	120	80	112	72	17	23	-	1	-	2	2	-	-	1	-	-	
Manufacturing	285	39.5	218.50				-	14	6	16	62	35		45	17	14	-	-	(5)-	1	1	-	-	1	-	-	
Nonmanufacturing	273	38.5	201.00	190.00	167.50- 222.00	-	-	-	25	69	58	45	38	27		9	-	1	-	1	1	-	-	-	-	-	
rder clerks	1,474	40.0	244.00	233.00	202.00- 277.50	-	21	63	21	79	155	187	234	184	169	77	90	103	54	7	7	3	22	-	-	3	
Manufacturing	555	39.5	254.50	243.00	216.00- 283.00	-	-	-	-	26	68	50		105	55	56	24	25	12		3	3	18	-	-	3	
Nonmanufacturing	919	40.0	238.00	220.50	190.00- 270.00	-	21	63	21	53	87	137	129	79	114	21	66	78	42	4	4	-	4	-	- 0	-	
Order clerks I	1,152	40.0	232.50	221.50	194.50- 262.50	-	21	63	21	79	136	181	192	154	108	39	66	22	45	4	4	3	18		_	_	
Manufacturing	385	39.5	245.50					_		26	49	44	84	75	39	18	18	8	3		-	3	18	_	_	_	
Nonmanufacturing	767	40.0	226.00				21	63	21	53	87	137	108	79	69	21	48	14	42		4	-	-	-	-	-	
Order clerks II	322	39.5	286.00	281.00	253.00- 336.00						19	6	42	30	61	38	24	81	9	3	3		4			3	
Manufacturing	170	39.5	275.00					-			19	6	21	30	16	38	6	17	9		3	_				3	
Nonmanufacturing	152		298.00				-	-	-	-	-	-	21	-	45	-	18	64	-	-	-	-	4	-	-	-	
ties alaylo	4,111	39.0	239.00	220.00	190.00- 272.00		45	58	131	472	659	673	501	359	285	151	104	106	213	213	12	61	27	6	22	10	1:
counting clerks	1,447	39.5	251.00				12				155	227	219	171	183	101	67	60	34		16	34	12	1	7	10	
Manufacturing	2,664	39.0	232.50				33	38			504	446		188	102	50	37	46	179			27	15	5	15	10	
Nonmanufacturing Transportation and utilities	559	40.0	334.00				-	-	-	-	20	15	22	18	34	13	13	30	157	184		20	13	5	15	-	
Association planta I	751	39.5	208.50	184.00	160.00- 217.00		20	38	72	211	132	96	23	13	24	4	3	13	76	22	23	3					
Accounting clerks I	94	40.0	208.50				20	38	12	30	26	19		13	8	2	2		70	23	20	3					100
Manufacturing	657	39.5	209.50				20	38	72		106	77	20	9	16	2	1	13	76	22	23	3				-	
Nonmanufacturing Transportation and utilities	173		313.50				-	-	-	-	4	13			16	2	1	13	76		23	3	-		-	-	
Accounting plants II	1,706	39.0	217.50	210.00	188.00- 232.00		25	20	41	206	386	401	263	119	78	45	23	25	48	10	10	13			3		
Accounting clerks II									41		96			43		45			40		2	13		A 2 3	3		
Manufacturing	603	39.0	228.50				12		41	23		154 247	118 145	76	54	3	19	13	44		8	13		15	3		No. of the
Nonmanufacturing Transportation and utilities	1,103 130		211.50 312.00				13	1	41	183	290 10	247	145	8	18	3	3		44		8	13	-		_	1	
	- 44				245.00 202.00				10		100	105	100	100	110	0.4	E0.	20	20	154	EA	11	14				
Accounting clerks III Manufacturing		39.0 39.5	261.00 258.50						18 18		129	165 48	163 76	182	119	84 51	50 38	39	36		54	11	14		1	6	
Nonmanufacturing	708				212.00- 342.50					23	96	117		92		33	12				- 200	3	2		-	_	

Table A-1. Weekly earnings of office workers in Cleveland, Ohio, September 1981 —Continued

		Average		Weekly ea (in dolla							Nu	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	gs (in do	llars) of	-					
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	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 - 420	420 - 440	440 - 460	460 - 480	480 and over
Accounting clerks IV	425	39.0	314.50	306.00	252.00- 367.50	-				-	12	11	52	45	64	18	28	29	53	26	34	13	6	18	4	12
Manufacturing	229	39.0	311.00	271.00	257.50- 358.00	-	-	-	-	-	-	6	22	34	60			14		9	26	-	1	3	4	12
Nonmanufacturing	196		318.50	321.50	247.50- 367.50	-	-	-	-	-	12	5	30	11	4	12	20	15	29	17	8	13	5	15	-	
Payroll clerks	747	39.5	244.50	230.00	201.50- 275.00	_	199	1	7	108	49	125	119	79	89	40	41	26	18	16	10	3	5	4	3	
Manufacturing			268.50	253.00	222.00- 293.00	100	-	-	-	4	8	67	57	44	53	30	23	25	9	4	9	3	4	2	3	
Nonmanufacturing	398		223.50	215.00	173.00- 249.50	-	-	1	7	104	41	58	62	35	36	10	18	1	9	12	1	-	1	2	100 h -	Sign 1
Transportation and utilities	67	39.5	293.00	282.00	264.50- 358.00	-	- 77	-	-	6	-	6	-	1	18	10	1	1	8	12	1	-	1	2	-	
Key entry operators	1,664	39.5	232.50	220.50	190.00- 255.00		2	54	44	177	257	279	273	180	130			47	54	16	8	29	12	2	8	
Manufacturing	788	39.0	243.00	225.50	200.00- 266.00	-	115-	-	_	95	100	135	145	90	77		28	20	9	7	6	20	12	2	. 8	F
Nonmanufacturing	876		223.00	212.00	180.50- 250.00	-	2	54	44	82	157	144	128	90	53	21	9	27	45	9	2	9	-	2	-	26
Transportation and utilities	150	40.0	308.00	334.50	252.00- 349.00	-	-	-		-	6	8	13	14	13	7	1	23	45	9	2	9	-	1000	-	
Key entry operators I	777	39.0	211.00	203.50	174.00- 238.00		2	51	41	138	129	141	88	91	36			3	20	3	2	13	_		- 1	
Manufacturing		38.5	223.00	215.00	182.00- 242.50	-	-	-	0.00	75	34	69	52	39	13	16	-	1	-	2	9	13	-	-	- C 0 -	100
Nonmanufacturing	463	39.0	203.00	193.50	168.00- 225.50	-	2	51	41	63	95	72	36	52	23	3	918 6	2	20	1	2	-	-	- 12-	-	
Transportation and utilities	67	40.0	272.50	251.00	220.00- 341.00	-	-	-	-	-	6	8	13	7	6	2	-	2	20	1	2	-	-	-	Tan villa	
Key entry operators II	887	39.5	251.00	230.00	207.00- 277.00	-	-	3	3	39	128	138	185	89	94	36		44	34	13	6	16	12	2	8	
Manufacturing	474		256.00	238.50	208.00- 275.50	10-2	-	-	-	20	66	66	93	51	64	18	28	19	9	5	6	7	12	2	8	1000
Nonmanufacturing	413		245.50	228.00	206.00- 277.00	-	-	3	3	19	62	72	92	38	30	18	9	25	25	8	E 8-	9	7 00 a -	102		Street, S
Transportation and utilities	83		336.00	345.00	326.50- 353.50	-	-	_	-	-	-	-	100	7	7	5	1	21	25	8	-	9	- 60	Died -	-	

Table A-2. Weekly earnings of professional and technical workers in Cleveland, Ohio, September 1981

	North	Average		Weekly ea (in dolla							Nu	mber of	worker	s receivi	ng strai	ght-time	weekly	earning	s (in dol	lars) of	-					
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 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	600 - 640	640 - 680	680 - 720	720 and over
Computer systems analysts								799													(E. 19			12.556		1
(business)	1,159	38.5				-	-	-	-	-	1	19	4	41	33	77	76	130	135		165		82		29	11
Manufacturing	475	39.0				-	-	-	-	-	-	4	2		11		15	48	40	71	98	63	60		14	
Nonmanufacturing	684	38.5	470.00	471.00	393.50- 520.00	-	-	-	-	-	1	15	2	29	22	65	61	82	95	140	67	36	22	26	15	6
Computer systems analysts						132																	1			
(business) I	161	38.5				-	-	-	-	-	1	17	4		23		14	15	15		3	1	3	-	1	-
Nonmanufacturing	117	38.5	374.50	368.50	331.00- 393.50	-	-	6 5	2 7 7	-	1	15	2	16	17	32	13	5	6	4	2	- 1	3	-	-	100
Computer systems analysts			1							1475																
(business) II	530	38.5	470.50	479.50	422.00- 525.00	-	1100-	-	-	-	-	2	-	15	10	41	32	95	75	113	101	35	9	2	-	
Manufacturing	207	39.0	485.00	500.00	430.00- 541.00	000	-	-	-	-	-	2	-	2	5	8	10	36	22	40	56		8	-	_	-
Nonmanufacturing	323	38.5	461.50	471.00	413.00- 512.00	-	-	-	-	100-	-	-	-	13	5	33	22	59	53	73	45	17	1	2	-	-
Computer systems analysts				1										1												
(business) III	468	38.5	550.50	537.50	483.00- 615.50		-	-	-	-		_	_	2		2	30	20	45	92	61	63	70	44	28	11
Manufacturing	224	39.5				S	-	-	-	_	_	-	-	2		2		2	9			45	52		13	
Nonmanufacturing	244	38.0					-	_	_		-	_	_			_	26	18	36				18		15	
Transportation and utilities	58	39.0				-	-	-	-	-	-	-	-	700	-	-	-	-	-	-	-	13	5	19	15	
Computer programmers (business)	1,242	39.0	410.00	402.50	343.50- 467.00			6	10	30	48	21	70	107	78	131	105	220	142	107	70	42	O.E.	10	10	
Manufacturing	540	39.5						0	3	6			11		25			230	87				25 6	10	10	139 7
Nonmanufacturing	702							6		24					53			117	55				19	6	10	
					- 1-1			5 17			-	P In I														Market .
Computer programmers	200	20.0	202.00	326.50	075 00 050 50	P. 3-1			7	04	40	6	00	75	04	000	- 00	40								1
(business) I	283 101	39.0 39.0					-	6	1	21	43		23		31	28	29	13	1	-		-	- 105	-	-	1000
Manufacturing	182							6	6	21	39	3			11 20		19 10	6 7	1		1					
								1918	Page 1		100															
Computer programmers	540	20 5	414.50	405.00	355.50- 466.50				3	9	-	15	40	200	07	75	44	101			04	200	40			1. 5. 1
(business) II		39.5							1000	6	1				37			121	54	41	1	29	18	-		1
Manufacturing	207 333	39.5 39.0							2	3	1	6 9	37				22 19	59				20	10		-	
Nonmanufacturing	333	39.0	423.50	409.00	343.50- 511.00					3	4	9	31	23	21	31	19	62	18	32	20	29	18	9 15		
Computer programmers			100				200									02										
(business) III	419						-	-	-	-	-	-	5	3	10		35	96	87	66				10	10	-
Manufacturing	232						-	-	-	-	-	-	-	-	4	11	18	. 48		45			6		-	-
Nonmanufacturing	187	38.5	453.00	431.50	399.50- 487.00	-	-	-	-	1	1		5	3	6	17	17	48	36	21	12	5	1	6	10	
Computer operators	1,033	39.0	294.00	284.00	240.00- 333.50	38	43	74	79	144	113	140	117	48	34	81	33	27	19	21	7	11	4	_		
Manufacturing	395						6								11			14				11	4	-	_	1
Nonmanufacturing	638						37											13		-	-	-	-	-	-	
Computer operators I	219	39.0	220.00	211.00	184.00- 246.00	38	41	37	16	54	11	13	1	1	3	1112				1	18	great !				
Manufacturing	68						41	13		33			3		2					1	14 15			100		1 1
Nonmanufacturing	151						37							1	1		-		-	-				-		
		00.7	007.50	005.55	047.00 00:			-				-													1	
Computer operators II							2		58								15	5	5			10		-	-	
Manufacturing	205						2										3	4	4	9	4	10		-	-	1
Nonmanufacturing	304	39.5	285.00	278.00	241.50- 333.50			26	41	53	41	45	16	15	5	48	12	1	1	-	13 18 1			-	3	
Computer operators III	305	39.0	341.50	314.00	287.50- 374.00	-	-	_	5	11	31	44	71	18	25	27	18	22	14	11	3	1	4	_	1	
Manufacturing	122						-	-	4	3											3	1	4	-	-	
Nonmanufacturing	183						-	_	1	8								12				-	-	-	-	
																									1	
Peripheral equipment operators	93	39.5	263.50	236.50	232.00- 265.00		2	2	50	14	2	2	1	1	30	20			31.0			-	The state of	1	-	
Computer data librarians	55	38.5	257.00	055.00	205.50- 287.50	2	7	9	8	4	6	6	4	3		6			1000		1	10				1

Table A-2. Weekly earnings of professional and technical workers in Cleveland, Ohio, September 1981 —Continued

		Average		Weekly ea (in dolla							Nu	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	gs (in dol	llars) of	-					
Occupation and industry division	Number of workers	weekly hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 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	600 - 640	640 - 680	680 - 720	720 and over
Drafters	1,401	39.5	346.00	344.50	289.50- 400.00		15	18	42	182	63	118	130	116	115	187	62	144	116	60	31	1	1			8.7
Manufacturing	1,144		346.00	336.00	290.00- 409.00	-	13	12	37	147	38	114	128	103	89	101	53	136					-	-	_	
Nonmanufacturing	257	40.0		367.00	266.50- 370.00		2	6	5	35	25	4	2	13		86	9		14	16		1	1	-	-	
Drafters II	122	40.0	240.50	240.00	231.00- 242.00			17	20	77	2	2			3		1								100	
Manufacturing							-	12	20	42	2	2	-	-	-	-	-	-	-	-	-	100	-	-	-	
Drafters III	354	39.5	285.50	281.00	247.50- 303.50		15	1	11	88	51	55	65	17	18	22	1	6	4		_			300	-	
Manufacturing	315	39.5	285.00				13	-	11	88	27	55	65	17	13		1	4	4	-	-		-	-	-	1
Drafters IV	561	39.0	361.50	352.00	322.00- 384.50	1000		_	6	17	10	45	61	96	61	118	22	49	36	38	2	7 - 18				
Manufacturing	418	39.0	355.50		306.00- 394.50	-	-	-	6	17	9	43	59	83	43	40	19	43		32			_	_		
Nonmanufacturing	143	40.0					-	-	-	-	1	2	2	13		78	3	6	12	6	2		-	-	-	
Drafters V	357	39.5	420.50	417.00	378.00- 453.50			_				16	2	3	33	47	38	89	76	22	29	1	1			
Manufacturing	331	39.5	418.00		378.00- 448.50	-	-	-	-	-	-	14	2	3	33	44	33	89		12			-	-	-	
Electronics technicians:																										
Electronics technicians III	98	39.5	421.50	384.50	345.50- 494.00				_	1	-	2	2	11	20	3	14		19	9		17	_			
Manufacturing	85	40.0			342.00- 449.50	- 1	-	-	-	1	-	2	2	11	20	3	14	-	19	2	-	11		-	-	
Registered industrial nurses								-	-	_	12	3	8	25	12	15	13	33	14	9	10	2	-			
Manufacturing	122	40.0	402.00	401.50	335.00- 456.00	-	-	-	100 -	-	-	2	6	25	. 12	7	8	28	14	8	10	2	-	-	-	

Workers were distributed as follows: 5 at \$720.00 to \$760.00; and 1 at \$840.00 to \$880.00.
 Also see footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Cleveland, Ohio, September 1981

Sex,3 occupation, and industry division			ean²)		Number	(m	nean²)		Number	(n	nean²)
	Number of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex, ^a occupation, and industry division	of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex,3 occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars)
Office occupations -				Typists II:				Key entry operators	1,598	39.0	230.50
men		1		Manufacturing	179	39.5	226.50	Manufacturing	. 779 . 819	39.0 39.5	241.00 221.00
Messengers	177	38.0	189.50	File clerks	639	38.0	173.00	Nonmanulacturing	. 019	39.5	221.00
Nonmanufacturing	157	38.0	187.50	Manufacturing	144	39.0	192.00	Key entry operators I	734	39.0	208.00
				Nonmanufacturing	495	38.0	167.00	Manufacturing	314	38.5	223.00
Order clerks	422	40.0	276.00					Nonmanufacturing	420	39.0	196.50
Nonmanufacturing	382	40.0	269.00	File clerks I	. 251	39.5	157.50		The state of		
Order study I	268	40.0	259.00	Manufacturing	. 58	38.5	167.00	Key entry operators II	. 864	39.5	250.00
Order clerks I	208	40.0	259.00	Nonmanufacturing	. 193	40.0	154.50	Manufacturing	. 465	39.5	253.00
Order clerks II	154	40.0	305.50	File clerks II	323	37.5	176.50	Nonmanufacturing	. 399	39.5	246.50
		1010		Manufacturing	70	39.5	199.50	Transportation and utilities	. 81	39.5	336.00
Accounting clerks:				Nonmanufacturing	253	37.0	170.00	Professional and technical			
Manufacturing	86	39.0	334.50	Normandiacturing	. 250	37.0	170.00	occupations - men			
	86	00.5	343.00	File clerks III	. 65	37.0	215.00	occupations - men			
Accounting clerks IV	86	39.5	343.00		10.5			Computer systems analysts			
Office occupations -				Messengers	. 173	39.0	189.00	Computer systems analysts (business)	. 853	38.5	491.00
women	*	5.5.1		Manufacturing	. 81	39.0	195.00	Manufacturing	. 394	39.0	530.50
	317.5									N. W. W.	
Secretaries	4,502	39.0	292.00	Switchboard operators	. 262	39.0	223.00	Computer systems analysts		00.5	200 50
Manufacturing	2,316	39.0	298.50	Manufacturing	. 71	39.5	271.50	(business) I	. 111	38.5	392.50
Nonmanufacturing	2,186	38.5	285.50	Nonmanufacturing	. 191	39.0	205.50	Nonmanuracturing	81	38.5	384.00
Transportation and utilities	473	38.5	377.50	Switchboard operator-	10 3	San Tal		Computer systems analysts	The same	And to the	AGE
	371	38.5	243.00	receptionists	. 558	39.0	210.00	(husiness) II-			LESS PART
Secretaries I	183	39.5	281.50	Manufacturing	285	39.5	218.50	Manufacturing	161	39.0	486.50
Manufacturing Nonmanufacturing	188	38.0	206.00	Nonmanufacturing	273	38.5	201.00		100		Sec. 2. 20 14
Nonmanulacturing	100	36.0	200.00	Tromination of the second of t		00.0	201.00	Computer systems analysts		705	3.40
Secretaries II	1,224	39.0	257.00	Order clerks	. 1,004	40.0	226.50	(business) III	383	38.5	543.50
Manufacturing	657	39.0	267.50	Manufacturing	. 515	39.5	247.50	Manufacturing		39.5	582.50
Nonmanufacturing	567	38.5	245.00	Nonmanufacturing	. 489	40.0	204.50	Nonmanufacturing	180	38.0	499.50
Transportation and utilities	90	38.5	302.00		1			Computer programmers (business):	100	1 74 1/4	
	Table 1			Order clerks I	. 836	40.0	218.50	Manufacturing	. 345	39.5	432.00
Secretaries III	1,535	39.0	286.50	Manufacturing	. 363	39.5	239.50				
Manufacturing	887	39.0	295.00	Nonmanufacturing	. 473	40.0	202.00	Computer programmers		13.18.	
Nonmanufacturing	648	39.0	274.50	Order clerks II	168	39.5	268.00	(business) II:			
Transportation and utilities	74	39.5	342.00	Manufacturing	. 152	39.5	266.50	Manufacturing	138	39.5	402.50
Secretaries IV	950	38.5	323.00	Manufacturing	. 132	33.3	200.50	Computer programmers			
Manufacturing	403	39.5	339.50	Accounting clerks	3,564	39.0	228.00	(business) III	301	39.0	451.00
Nonmanufacturing	547	38.0	310.50	Manufacturing	. 1,350	39.5	243.50	Manufacturing	170	39.5	469.00
. some same		00.0		Nonmanufacturing		39.0	218.50	Nonmanufacturing		38.5	428.00
Secretaries V	300	38.5	367.00							-0.0	20.00
Manufacturing	186	39.0	349.50	Accounting clerks I	. 631	39.5	198.50	Computer operators		39.0	303.00
Nonmanufacturing	114	37.5	395.50	Manufacturing		40.0	203.50	Manufacturing	. 262	39.5	334.50
Ct				Nonmanufacturing	. 537	39.5	197.50	Nonmanufacturing	374	39.0	281.00
Stenographers: Manufacturing	302	39.5	280.00	Accounting playlo II	1.500	20.0	240.50			N SLEEP	
mandracturing	302	39.5	200.00	Accounting clerks II		39.0 39.0	213.50 228.00	Computer operators I		39.0	224.00
Stenographers I	256	39.5	284.50	Manufacturing	. 994	39.0	204.50	Nonmanufacturing	77	39.0	217.00
Manufacturing	171	39.5	268.50	140mmanuracturing	334	33.0	204.00	Computer operators II:			
	7.7			Accounting clerks III	1,014	39.0	244.00	Manufacturing	126	39.5	335.50
Stenographers II:		00.5	005.50	Manufacturing		39.5	251.00				-55.50
Manufacturing	131	39.5	295.50				1000	Computer operators III		39.0	340.00
Transcribing machine typiets	247	39.0	196.50	Accounting clerks IV		39.0	303.50	Manufacturing	96	39.5	373.50
Transcribing-machine typists	203	39.0	190.50	Manufacturing	. 184	39.0	296.00	Nonmanufacturing	152	38.5	319.00
1101mandiactumy	200	00.0	100.00	Nonmanufacturing	. 149	39.0	313.50		4.555	00.5	0.00
Typists:	100			Payroll clerks	706	39.5	220 50	Drafters	1,203	39.5	342.50
Manufacturing	461	39.5	220.50	Manufacturing	334	39.5	238.50 263.00	Manufacturing	1,032	39.0	342.00
	100		PARTIE A	Nonmanufacturing		39.0	216.50	Drafters II	102	40.0	238.50
Typists I:				Transportation and utilities		39.5	280.00	Manufacturing		40.0	237.50

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Cleveland, Ohio, September 1981 —Continued

			verage nean²)		Number		verage nean²)		Number		verage nean²)
Sex,3 occupation, and industry division	Number of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex, ³ occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars)	Sex,3 occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars) ¹
Drafters III	323	39.5	285.00	Computer systems analysts				Computer operators I	102	39.0	215.50
Manufacturing	287	39.5	285.00	(business) I	50	38.0	356.50	Nonmanufacturing		38.5	200.00
Drafters IV	438 363	39.0 38.5	355.50 349.00	Computer programmers (business): Manufacturing	190	39.5	395.50				
Drafters V	335 311	39.5 39.0	414.50 410.00	Computer programmers (business) I	151 64	39.0 39.5	314.00 334.00	Computer operators II: Manufacturing	76	39.5	278.50
Electronics technicians: Electronics technicians III Manufacturing	96 84	39.5 40.0	421.50 405.00	Computer programmers (business) II: Manufacturing	69	39.5	394.00	Computer operators III	54	39.0	336.00
Professional and technical occupations – women				(business) III: Manufacturing	57	39.5	466.50				
Computer systems analysts (business):				Computer operators		39.0		Registered industrial nurses		40.0	389.50
Manufacturing	81	39.0	470.50	Manufacturing	127	39.5	287.00	Manufacturing	121	40.0	402.50

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Cleveland, Ohio, September 1981

		Н	lourly earn (in dollars								N	umber o	f worke	rs receiv	ring stra	ight-time	hourly	earning	s (in dol	lars) of	-						
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	Under 6.40	6.40 and under 6.60	6.60 - 6.80	6.80	7.00 - 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	10.80 - 11.20	11.20 - 11.60	11.60 - 12.40	12.40 - 13.20	13.20 - 14.00	14.00 - 14.80	14.80 - 15.60	15.60 - 16.40	16.40 - 17.20
Maintenance carpenters	215	11.79	12.40	9.74-13.30			_			. 6	-	6	6	26	8	11	6	8	6	4	20	43	35	2	10	16	2
Manufacturing Nonmanufacturing	149 66	11.60 12.22		10.08-13.07 8.88-15.61			-		-	6 -	1	6 -	6	5 21	6 2			2 6		4	19 1				10	-	9
Maintenance electricians	1,565	11.90	13.00	10.00-13.52		18	2	-	_	22	27	51	23	117	123	24	122	23	19	79	53	207	530	98	27	18	
Manufacturing	1,437	11.85	12.94	9.55-13.60		-	2	-	-	22	27	51	23	117	123	24		23					530				
Maintenance painters	153	12.02	12.22	11.00-13.26		6	_			_				4	9	_	8	10	22	10	17	6	64		3		
Manufacturing		12.28	13.26	11.48-13.26		-	-	5.5	-	-	-	-	-	-	9	-	2	10		7	10		60		-	-	
Maintenance machinists	375	10.80	10.53	10.04-11.89								52	14	9	16	3	76	18	43	46	32	25	32	4	1	1	
Manufacturing		10.85		10.17-12.17	-	-	-	-	-	-	-	52	6		16										4	1	
Maintenance mechanics					Te E		- 4				10 15				2.5							1			1135		
(machinery)	2,241	12.03	13.06	9.93-13.60	-	- 2	-	-	13	33	10	42	79	162	171	59	77	70	52	23	77	343	792	145	91		Mark I
Manufacturing	2,106	12.01	13.13	9.71-13.60	-	2	-	-	13	33	10	42	79			59					77					-	1
Maintenance mechanics								-							= 1												
(motor vehicles)	1,121	10.93	11.40	8.77-12.89	2	-	-	-	-	176	85	-	22	26	29	-	29	24	113	89	138	202	165	21		-	CO.
Manufacturing	438	10.33	8.86	7.63-13.30	-	_	-	-	-	94	83	-	20	24	-	-	25	_	-	7	6	41	117		1		
Nonmanufacturing	683	11.32	11.55	10.85-12.56	2	-	-	-	-	82	2	-	2	2	29	-	4	24	113	82	132	161	48		-	_	
Transportation and utilities	336	12.38	12.56	12.17-13.07		-	-	-	-	-	-	-	-	18.02	29	-		24		-	76				-	-	
Maintenance pipefitters	538	12.61	13.30	12.66-13.34					2	12	4	_	2	3	9		21		34		31	77	343				
Manufacturing	538	12.61	13.30	12.66-13.34	-	-	-		2	12	4	-	2		9	-	21	-	34	-	31				-	19 -	
Maintenance sheet-metal workers	190	11.93	13.30	8.52-13.34						3 8			50						6		8		126				
Manufacturing	140			13.30-13.34		-	-	-	-	-	-	-	- 1-	-	-	-	-	-	6		8		126				
Millwrights	796	12.86	13.30	13.24-13.34									15		13		50		11		12	82	613			1	1-3
Manufacturing	796			13.24-13.34		-	-	-	-	-	-	-	15		13		50	-	11	/ -	12				-		
Maintenance trades helpers	177	9.68	10.28	7.68-11.66	6	_	2		14	16	23	12			1	4	21	11	11	7	45	3	1				
Manufacturing	153			7.74-11.66		-	2	-	6	16			-		1	-	21	11	11	7	45		1	-	1	No.	
Machine-tool operators (toolroom)	670	11.51	12 26	9.78-13.40					13	13	18	6	32	34	21	74	10	1	33	65	28	83	239				
Manufacturing	670			9.78-13.40			-	- 5	13	13			32				1		33							-	
Tool and die makers	1,806	11.70	11 78	10.17-13.54			13	10-18		12	6	29	72		47	216	139	187	117	10	258	42	671				-
Manufacturing	1,806	11.70		10.17-13.54		-		-		12			72		47				117	10				_		-	1 5
Stationary engineers	144	12.19	12 22	10.63-13.32						4		0	37.	2		2	26	4	7		0.4	18	35	45			
Manufacturing	118			11.97-13.41			-			-	-	-		-		-	16	4	3	4	24 24					3	
Boiler tenders	131	10.97	10.78	10.27-13.34	1 8	. 2			. 4	6	2		12		1100	1	8	32	11	9	10		34			1	
Manufacturing	127	11.10		10.46-13.34		. 2	100			6	2		12			1	0	32		9	10		34			Bu 15	

Table A-5. Hourly earnings of material movement and custodial workers in Cleveland, Ohio, September 1981

	Number	H	lourly earn (in dollars								Nu	imber of	worker	s receiv	ring strai	ght-time	hourly	earnings	s (in doll	ars) of -							
Occupation and industry division	of workers	Mean ²	Median ²	Middle range ²	3.20 and under 3.40	3.40 - 3.60	3.60 - 3.80	3.80 - 4.00	4.00 - 4.20	4.20 - 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 - 8.80	8.80 - 9.60	9.60 - 10.40	10.40	11.20 - 12.00	12.00 - 12.80	12.80 - 13.60	13.60 and over
Truckdrivers	2,171	10.36						6	6	14	-	26		18		12			166	299	218			160	52	710	38
Manufacturing	668	8.93	8.14	7.99-10.90	-	-	-	-	-	-	-	14		16	32	10	14	30	38	181	89			48	52	1	
Nonmanufacturing	1,503	10.99	11.35	9.12-12.84		-	-	6	6	14	-	12	20	2	14	2	1	6	128	118	129	142	58	112	-	709	38
Transportation and utilities	846	12.46	12.84	12.84-12.84	-	-	-	-	-	-	-	-	-	-	-	1	-	. 4	-	36	24	34	-		-	709	38
Truckdrivers, light truck	251	7.38	7.75	6.73- 7.75	-	-		6	6	14	-	12	6	2	13	8	7	2	128	4	26	11	3	3	-	-	
Truckdrivers, medium truck	670	10.44	10.29	8.83-12.84	-	-	_	-	-	_	-	_	14	_	13	_	2	22	32	70	146	83	4	17	3	264	
Manufacturing	226	8.56	8.14	7.93- 8.83	-	-	-	-	-	-	-	-	-	-	13	-	2	18	32	68	56	19	2	13	3	3000-	-
Nonmanufacturing	444	11.39	12.84	10.29-12.84	-	-	-	-		-	-	-	14		-	-	-	4	-	2	90	64	2	4	-	264	
Truckdrivers, heavy truck	176	8.85	10.03	6.33-10.90	-	-	-	-		_	-	14	14	14	6	-	6	3	6	9	1	40	57	-	5	1	
Manufacturing	133	8.49	8.24	5.95-10.90	-	-	-	-	-	-	-	14	14	14	6	-	6	3	6	6	1	6	51		5	1	
Truckdrivers, tractor-trailer	893	11.05	11.35	9.22-12.84	_	_	-		-		-	-	_	2	_	4	-	9	-	186	45	61	70	129	44	343	-
Manufacturing	255	9.54	9.16	8.03-11.32	-	-	-	-	-	-	-	-	-	2	-	4	-	9	-	106	24	25	20	21	44	-	
Nonmanufacturing	638	11.66	12.84	10.82-12.84	-	-	-	-	-	-	-	-		-	-	-	-	-	-	80	21	36	50	108	-	343	F 12
Transportation and utilities	343	12.88	12.84	12.84-12.94	-	-	-	-		-	-	-	-	-	-	-	-	-	-	10.5	-	1		-	-	343	
Shippers	361	8.15	7.92	7.75- 8.91	_	-	_	_	_	_	14	-	6	_	24	15	-	31	108	26	98	17	4	18	-	-	
Manufacturing	336	8.22	7.92	7.75- 8.91	-	-		-		-	14	-	-	-	18	15	-	31	108	14		16	4	18		-	
Receivers	329	8.35				-	14	-	6	14	-	-	-	2		14	13		49	77	23			55		-	
Manufacturing	263	8.09				-	14	-	-	14	-	-	-	-	16	13		18	49	53						-	
Nonmanufacturing	66	9.39	8.29	8.05-11.68	-	-	-		6		100	-	-	2	-	1	1	-	-	24	-	2	-	24	6	3 -	
Shippers and receivers	463	8.04		7.12- 8.56		-	-	-	8	8	3		13	19		9			95	110				49		-	
Manufacturing	254	7.79		7.72- 8.44		-	-	-	2	2	2			6		8			94	78				9		-	-
Nonmanufacturing	209	8.34	8.10	7.05- 9.64	-	-	-	-	6	6	1	12	1	13	2	1	30	21	1	32	-	42	1	40	-	-	
Warehousemen	2,110	7.49				-	18	3	52	12		45		27		71	124		69	546						-	
Manufacturing	908	7.23	6.90	6.30- 7.80	-	-	-	-	-	-	52	13	19	6	266	43	124	132	69	70			-	32	12	-	
Nonmanufacturing	1,202	7.69	8.29	6.60- 8.85	-	-	18	3	52	12	42	32	66	21	28	28	-	119	-	476	97	173	35	-	-	-	-
Transportation and utilities	51	10.40	10.60	10.26-10.66	-	-	-	-	1	-	-	-	-	-		-	-	-	-	100	3	21	27	-	-	-	-
Order fillers	1,214	8.22				4	-		-	4	24	30		1	28	102			74	66				70		-	-
Manufacturing	372	8.11	7.84	6.32- 9.99	-	4	-	-	-	2	24	30	7	1	28	41	6		34	3	83	18	6	70	-	-	-
Nonmanufacturing	842	8.27	7.75	6.86- 9.94		-		-		2	-	-	-	8.46	-	61	220	126	40	63		330	-	-	-	-	
Shipping packers				6.90- 8.90		4	7	4	6	3	13			44		58			148	76				63		-	-
Manufacturing		7.78				-	-	-	-	-	8	2	10	38		58	259		60	28				63	14	-	- 17 -
Nonmanufacturing	338	8.02	7.75	7.32- 9.73	-	4	7	4	6	3	5	-	-	6	-	-	-	63	88	48	-	104	-	-		-	
Material handling laborers		9.31				_	11	4	10	3	16			2	3			81	146	57	145		43	370		1	9 6 -
Manufacturing	1,084	9.21		6.98-11.24		-	-	2	-	2		2		-	-	197				26				370		1	-
Nonmanufacturing	919	9.42	10.01	6.89-12.79	2	-	- 11	2	10	1	10	10	1	2	3	3	183	6	112	31	26	266	-	-	240	-	
Forklift operators		9.45		7.23-11.42		-	-	-	-	-	-	-	0.12	_	45				73	109				742		66	
Manufacturing	1,865 400	9.36 9.88		6.97-11.42 9.78-10.14		-	-	-	-	-	-	-	-	-	45	32	428 20		73	53 56				742	25	16 50	2.1.
	400	5.00	5.76	3.76-10.14							1	3 3		× 3			20			36	20	254				30	
Power-truck operators		1 1 2									13.5		12.51				100	1.3	7		100	1 3 3			1 3 3	1	
(other than forklift)	208 180	9.78 10.11		7.11–11.37 7.07–11.37		-	-	-			1		-		1	-	65 52		12 12	15		- 8	100	77 77		15 15	5
Guards	3,399	4.92	3.75	3.45- 5.52	289	1107	349	192	78	36	248	176	75	107	127	78	36	57	55	73	56	56	50	144	10	100	
Manufacturing	722	8.52		6.26-11.12		1107	349	192	2	2	6	12		48		54				61							
Nonmanufacturing	2,677	3.95		3.45- 4.15		1107	349	192						59						12							
. Torinariuracturing	2,011	3.95	3.30	0.70- 4.10	201	1107	349	102	10	04	242	104	00	59	30	24	12	11/	1.1	12							

Table A-5. Hourly earnings of material movement and custodial workers in Cleveland, Ohio, September 1981 —Continued

	Number		lourly earni (in dollars		ne se						Nu	mber of	worker	s receiv	ring strai	ight-time	hourly	earnings	s (in dol	lars) of				rig.			
Occupation and industry division	of workers	Mean ²	Median ²	Middle range ²	3.20 and under 3.40	3.40 - 3.60	3.60 - 3.80	3.80 - 4.00	4.00	4.20 - 4.40	4.40 - 4.80	4.80 - 5.20	5.20 - 5.60	5.60 - 6.00	6.00	6.40 - 6.80	6.80 - 7.20	7.20 - 7.60	7.60 - 8.00	8.00 - 8.80	8.80 - 9.60	9.60 - 10.40	10.40	11.20	12.00	12.80	13.60 and over
Guards I	2,895	4.63	3.60	3.45- 4.84	289	1101	349	129	48	24	221	152	51	94	11	54			49	56	33 33	39	6	125	_	-	
Manufacturing	508	8.50	7.97	6.49-10.44	2	_	-	-	2	2	6	12	15	48	7	54	24	40	44	49	33	39	6	125	-	NZ 1/2	1000
Nonmanufacturing	2,387	3.80	3.50	3.45- 3.94	287	1101	349	129	46	22	215	140	36	46	4	1	-		5	7	-	-	-	-	-	(A) -	
Guards II	504	6.64	6.00	4.58- 8.37	_	6	-	63	30	12	27	24	24	13	116	24	12	17	6	17	23	17	44	19	10		
Manufacturing	214	8.58		6.00-11.12	-	_	30 9 C	-	-	-	98 5	-		-	90		-	-	-	12	22	17	44	19	10	-	
Nonmanufacturing	290	5.20		4.00- 6.19	-	6	-	63	30	12	27	24	24	13	26	24	12	17	6	5	1	-	-	-	-	- 13	1
Janitors, porters, and cleaners	5,258	6.22	5.56	5.23- 6.81	47	323	179	28	125	199		282	2154	166					57			180	286	116	10	-	
Manufacturing	1,475	8.41	8.79	6.37-11.04	14	4	12	-	- 12	12	35	69	68		80	71			40	234	97	141	285	115		Market	
Nonmanufacturing	3,783	5.37	5.56	4.81- 5.57	33	319	167	28	125	187	85	213	2086	89	64	98	109	4	17	29	79	39	1	1	10	711	

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Cleveland, Ohio, September 1981

Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)•	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)4	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)4
Maintenance, toolroom, and			Material movement and custodial		that the	Forklift operators	2,155	9.39
powerplant occupations - men			occupations - men		-01	Manufacturing	1,797	9.29
	010	44.00			F. F. L. 10	Nonmanufacturing	358	9.92
Maintenance carpenters		11.82	Truckdrivers		10.32		5 () ()	The Part of the Pa
Manufacturing		11.60	Manufacturing		8.92	Power-truck operators		A PROPERTY.
Nonmanufacturing	63	12.34	Nonmanufacturing		10.96	(other than forklift)		9.78
Maintenance electricione	1,533	11.87	Transportation and utilities	812	12.44	Manufacturing	180	10.11
Maintenance electricians		11.82						A STATE OF THE STA
Manufacturing	1,405	11.02	Truckdrivers, light truck	247	7.37	Guards	3,136	4.92
Maintenance painters	150	12.00			3 78 7	Manufacturing	677	8.42
Manufacturing		12.28	Truckdrivers, medium truck		10.31	Nonmanufacturing		3.96
Manufacturing		12.20	Manufacturing		8.52			
Maintenance machinists	375	10.80	Nonmanufacturing	411	11.28	Guards I	2,692	4.65
Manufacturing		10.85				Manufacturing		8.47
Wandiacturing		10.00	Truckdrivers, heavy truck		8.85	Nonmanufacturing	2,206	3.81
Maintenance mechanics		Access to the	Manufacturing	133	8.49	140/imandiactaring	2,200	0.01
(machinery)	2,218	12.02				Cuarda II	444	6.56
Manufacturing	2,083	12.00	Truckdrivers, tractor-trailer		11.05	Guards II		8.28
			Manufacturing		9.54			5.26
Maintenance mechanics			Nonmanufacturing		11.65	Nonmanufacturing	253	5.26
(motor vehicles)		10.92	Transportation and utilities	342	12.88			
Manufacturing		10.28				Janitors, porters, and cleaners		6.72
Nonmanufacturing		11.32	Shippers		8.36	Manufacturing		8.75
Transportation and utilities	336	12.38	Manufacturing	283	8.41	Nonmanufacturing	1,646	5.35
Maintenance pipefitters	535	12.61	Receivers	308	8.24	Material movement and custodial		
Manufacturing	535	12.61	Manufacturing	254	8.00	occupations - women		
Maintenance sheet-metal workers	190	11.93	Shippers and receivers	409	8.01	Shippers	59	7.06
Manufacturing		13.15	Manufacturing		7.60	Manufacturing	53	7.24
	3000	100	Nonmanufacturing		8.47	Wallalactulling		7.24
Millwrights	775	12.86	140/maradading		0.41	W	050	7.05
Manufacturing	775	12.86	Warehousemen	1,756	7.54	Warehousemen		7.25 7.44
			Manufacturing		7.21	Manufacturing		
Maintenance trades helpers		9.65	Nonmanufacturing		7.84	Nonmanufacturing	278	7.20
Manufacturing	151	9.96	Transportation and utilities		10.39	Shipping packers	391	7.14
Machine-tool operators (toolroom)	656	11.50				Manufacturing		7.14
Manufacturing		11.50	Order fillers		8.25	Iviaridiaciding	230	7.00
Manufacturing		11.50	Nonmanufacturing	695	8.15		045	4.54
Tool and die makers	1,788	11.68				Guards		4.51
Manufacturing		11.68	Shipping packers	753	8.20	Nonmanufacturing	217	3.87
manuacumy	1,700	11.00	Manufacturing		8.12			
Stationary engineers	135	12.21	Nonmanufacturing		8.41	Guards I	203	4.29
Manufacturing		12.66						
		12.50	Material handling laborers	1,928	9.36	Janitors, porters, and cleaners	2,355	5.53
Boiler tenders	130	10.97	Manufacturing		9.25	Manufacturing		6.96
Manufacturing		11.10	Nonmanufacturing		9.48	Nonmanufacturing	2,035	5.30

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

			All industries					Manufacturing	1			Nonmanu	ufacturing	
Period⁵	Office clerical	Electronic data processing	Industrial nurses	Skilled mainte- nance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled mainte- nance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (September 1977=100):		The Section												
September 1980	128.5	128.6	134.2	132.9	133.7	131.0	129.0	134.5	133.1	136.4	126.4	128.2	(6)	131.0
September 1981	141.1	139.9	146.3	145.3	146.4	145.4	141.3	148.2	145.1	149.1	137.6	138.7	(6)	143.6
Percent increases:							200							
September 1972 to September 1973	5.6	(6)	7.5	7.3	7.5	5.5	(6)	7.3	7.2	7.8	5.6	(6)	(6)	6.9
September 1973 to September 1974	8.8	8.7	10.4	10.2	10.1	8.5	8.4	10.7	10.5	10.6	9.1	8.6	(6)	9.5
September 1974 to September 1975	8.0	8.4	8.9	8.1	8.9	8.3	7.8	9.2	8.3	8.6	7.7	8.7	(6)	9.4
September 1975 to September 1976	7.1	6.8	8.0	6.8	6.9	7.7	7.9	8.3	6.5	7.7	6.6	5.8	(6)	6.0
September 1976 to September 1977	7.5	8.7	8.1	12.1	9.0	7.0	6.5	8.2	12.8	10.9	8.0	10.5	(6)	(6)
September 1977 to September 1978	7.6	7.5	8.2	7.5	8.3	7.8	7.1	8.0	7.5	8.5	7.3	7.9	(6)	8.4
September 1978 to September 1979	8.5	8.4	10.5	10.8	10.1	8.5	8.3	11.0	11.1	11.1	8.4	8.4	(6)	8.7
September 1979 to September 1980	10.1	10.4	12.2	11.6	12.2	12.0	11.2	12.2	11.5	13.2	8.7	9.6	(6)	11.2
September 1980 to September 1981	9.8	8.8	9.0	9.3	9.5	11.0	9.5	10.2	9.0	9.3	8.9	8.2	(6)	9.6

Table A-8. Pay relationships in establishments with paired office clerical occupations, Cleveland, Ohio, September 1981

	1									Occup	ation fo	r which	averag	e earnin	gs equa	1 100									
Occupation for which earnings are compared		Se	ecretarie	s		Stenog	aphers	ing	Турі	ists	Fi	le clerk	S	Mes-	Switch- board	Switch- board opera-	Order	clerks	А	Accountir	ng clerks	3	Payroll	Key e	
	1	11	111	IV	٧	1	11	chine typists	1	11	1	11	Ш	gers	opera- tors	tor -recep- tionists	1	11	1	11	Ш	IV	Clerks	1	11
Secretaries I	100	89	83	72	67	115	108	118	119	110	136	124	(6)	129	106	118	99	(6)	(6)	111	93	92	93	110	98
Secretaries II	440	100	87	79	68	120	112	126	135	121	149	126	118	137	115	107	102	90	142	114	101	87	102	120	106
Secretaries III		115	100	88	75	126	117	143	141	127	169	143	132	144	124	123	110	99	139	123	106	97	109	129	114
Secretaries IV		127	114	100	86	136	122	139	153	139	192	153	125	155	138	134	127	105	149	139	119	112	121	144	129
Secretaries V		147	133	117	100	156	140	170	165	156	(6)	167	140	176	156	135	149	139	182	158	133	130	148	163	152
Stenographers I	The state of the s	83	79	73	64	100	88	(6)	105	93	123	102	(6)	104	97	103	86	81	101	92	82	80	88	99	9.
Stenographers II		89	86	82	72	113	100	116	120	104	146	121	104	115	106	108	92	(6)	113	106	93	87	92	115	100
Transcribing-machine typists		79	70	72	59	(6)	86	100	114	87	(6)	127	108	116	105	96	(6)	(6)	(6)	104	75	87	93	105	91
		74	71	65	61	95	84	88	100	87	121	100	(6)	95	87	96	86	71	98	88	79	71	82	95	84
Typists I	A PROCESS	83	79	72	64	108	97	115	116	100	127	112	101	109	100	96	90	72	114	98	87	78	85	101	90
Typists II		67	59	52	(6)	81	69	(6)	83	78	100	84	(6)	94	72	84	63	52	92	78	66	65	69	81	7
			70	65	60	98	83	79	100	89	118	100	90	99	91	86	87	72	103	88	76	72	73	85	8
File clerks II		79		80	71		97	93		99		111	100	107	94	86	87	(6)	107	96	86	80	79	102	(6
File clerks III	(6)	85	76			(6)		86	(6)		(6) 106	101	93	100	86	87	86	11	103	90	81	69	81	96	8
Messengers		73	69	64	57	96	87		105	92				116				(6) 89	118	105	88	83	94	100	9
Switchboard operatorsSwitchboard operator-	94	87	81	72	64	103	94	95	115	100	138	110	107		100	106	107								
receptionists	85	94	81	75	74	97	93	105	104	104	119	116	116	115	94	100	86	69	133	104	92	80	92	103	95
Order clerks I	101	98	91	79	67	116	109	(6)	117	111	159	115	115	116	94	116	100	80	118	113	93	88	99	121	10
Order clerks II	(6)	111	101	95	72	123	(e)	(6)	142	139	192	138	(e)	(6)	112	145	125	100	(6)	134	117	109	106	128	118
Accounting clerks I		70	72	67	55	99	88	(6)	102	87	109	97	93	97	85	75	85	(6)	100	89	78	(6)	83	96	8
Accounting clerks II		87	81	72	63	109	95	96	114	102	128	113	104	111	95	96	89	75	113	100	87	78	90	106	9
Accounting clerks III		99	94	84	75	121	108	133	127	116	151	131	117	123	113	109	108	85	129	115	100	86	101	120	10
Accounting clerks IV		115	103	90	77	125	115	115	140	128	153	138	126	145	121	125	114	91	(6)	128	116	100	113	140	11
Payroll clerks		98	92	83	68	114	108	108	122	117	145	137	127	124	106	109	101	94	121	111	99	89	100	124	10
Key entry operators I	10	83	77	70	62	101	87	95	105	99	123	117	98	104	100	97	82	78	104	95	83	71	81	100	8
Key entry operators II		95	88	77	66	107	100	103	119	111	140	114	(6)	124	103	105	99	85	122	106	94	84	98	117	10

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 112 in the Secretaries I column indicates that Secretaries II average 112 percent of (or 12 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, Cleveland, Ohio, September 1981

							Occupati	on for which	ch averag	e earnings	equal 100						
Occupation for which earnings are compared		nputer syst lysts (busir		Compute	r program ness)	mers (busi-	Com	puter oper	rators	Peripher- al equip- ment op-	Comput- er data		Dra	fters		Electron- ics tech- nicians	Regis- tered in- dustrial
	1	ll ll	18	1	11	III	1	II -	III	erators	librarians	11	- 111	IV	V	III	nurses
Computer systems analysts	100								1000						7		
(business) I	100	82	69	122	102	84	167	131	120	169	160	(6)	108	123	101	(6)	114
(business) II	123	100	83	144	115	100	206	162	144	174	177	(6)	156	140	116	(6)	141
Computer systems analysts					1000				40%							1	
(business) III	145	120	100	176	141	123	241	190	163	226	222	181	186	168	125	141	163
Computer programmers														1 100			
(business) I	82	70	57	100	78	68	138	109	97	124	128	(6)	(6)	100	76	(6)	92
Computer programmers									1					100			
(business) II	98	87	71	128	100	81	165	135	111	(6)	160	(6)	141	125	95	108	117
Computer programmers									1. 15. 15				1				
(business) III	119	100	81	148	123	100	212	161	134	195	182	(6)	141	137	102	106	132
Computer operators I	60	49	42	73	61	47	100	82	68	(e)	90	(6)	79	77	63	(6)	71
Computer operators II	76	62	53	91	74	62	122	100	85	105	106	(6)	102	90	72	71	89
Computer operators III	84	69	61	103	90	75	147	117	100	144	125	(6)	116	105	87	90	98
Peripheral equipment operators	59	58	44	80	(6)	51	(6)	95	69	100	101	(6)	(6)	(6)	(6)	(6)	(6)
Computer data librarians	63	56	45	78	62	55	111	95	80	99	100	(6)	(6)	(6)	(6)	(6)	80
Drafters II	(6)	(6)	55	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	100	83	77	(6)	(6)	(6)
Drafters III	93	64	54	(6)	71	71	126	98	86	(6)	(6)	120	100	82	71	78	94
Drafters IV	81	72	60	100	80	73	130	112	95	(6)	(6)	129	123	100	83	94	95
Drafters V.	99	86	80	132	105	98	159	139	115	(6)	(6)	(6)	141	121	100	108	108
Electronics technicians III	(e)	(6)	71	(6)	93	95	(6)	140	111	(6)	(6)	(6)	128	107	93	100	111
Registered industrial nurses	88	71	61	109	86	76	141	112	102	(6)	125	(6)	107	105	93	90	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, Cleveland, Ohio, September 1981

						Occupation	for which av	erage earning	s equal 100					
Occupation for which earnings					Mech	anics	The section				Machine-			-
are compared	Carpenters	Electricians	Painters	Machinists	Machinery	Motor vehicles	Pipefitters	Sheet-metal workers	Millwrights	Trades helpers	operators (toolroom)	Tool and die makers	Stationary	Boiler
Maintenance carpenters	100	98	108	98	98	102	100	101	99	115	99	97	103	103
Maintenance electricians	102	100	106	100	101	102	102	102	102	119	102	98	101	108
Maintenance painters	93	95	100	93	95	98	98	100	99	110	98	(6)	100	99
Maintenance machinists	102	100	108	100	100	101	102	102	102	119	105	99	97	105
(machinery)	102	99	105	100	100	102	102	101	101	119	102	98	100	106
(motor vehicles)	98	98	102	99	98	100	100	100	100	118	100	98	99	103
Maintenance pipefitters	100	98	102	98	98	100	100	100	100	115	100	98	98	102
Maintenance sheet-metal workers	99	98	100	98	99	100	100	100	100	(6)	99	98	(e)	(6)
Millwrights	101	98	101	98	99	100	100	100	100	(6)	100	97	99	(6)
Maintenance trades helpers	87	84	91	84	84	85	87	(6)	(6)	100	(e)	(6)	82	(6)
Machine-tool operators (toolroom)	101	98	102	95	99	100	100	101	100	(6)	100	95	101	101
Tool and die makers	103	102	(6)	101	102	102	103	102	103	(6)	105	100	103	103
Stationary engineers	97	99	100	103	100	101	102	(6)	101	123	99	97	100	(6)
Boiler tenders	97	93	101	95	94	97	98	(6)	(e)	(e)	99	97	(6)	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, Cleveland, Ohio, September 1981

							Occupation	for which ave	erage earning	s equal 100						
Occupation for which earnings are compared		Truck	drivers				Shippers	Warehouse-		Shipping	Material	Forklift	Power-truck operators	Gu	ards	Janitors,
are compared	Light truck	Medium truck	Heavy truck	Tractor- trailer	Shippers	Receivers	and receivers	men	Order fillers	packers	handling laborers	operators	(other than forklift)	1	П	porters, an
Truckdrivers, light truck	100	95	(6)	(6)	92	103	103	(6)	(6)	110	105	99	(6)	126	111	130
Truckdrivers, medium truck	105	100	88	99	112	107	86	117	107	118	109	106	(6)	151	(6)	124
Truckdrivers, heavy truck	(6)	113	100	(6)	(6)	(6)	101	124	101	97	109	(e)	(6)	144	(6)	121
Truckdrivers, tractor-trailer	(6)	101	(6)	100	113	113	(6)	117	118	117	109	107	103	141	(6)	117
Shippers	108	89	(6)	89	100	102	116	104	99	108	103	102	96	114	(6)	108
Receivers	97	94	(6)	89	98	100	104	103	98	106	103	101	97	106	118	115
Shippers and receivers	97	116	99	(6)	86	96	100	105	105	106	110	100	(6)	117	106	126
Warehousemen	(6)	85	81	86	96	97	95	100	98	101	101	98	(6)	115	(6)	123
Order fillers	(6)	93	99	85	102	102	96	103	100	101	101	100	(6)	103	(6)	111
Shipping packers	91	85	103	86	93	94	94	99	99	100	97	98	(6)	99	(6)	105
Material handling laborers	95	92	91	92	97	97	91	99	99	103	100	98	97	119	114	109
Forklift operatorsPower-truck operators	101	94	(6)	93	98	99	100	102	100	102	102	100	99	109	113	108
(other than forklift)	(6)	(e)	(6)	97	104	104	(6)	(6)	(6)	(6)	103	101	100	113	(6)	106
Guards I	80	66	69	71	88	94	86	87	97	101	84	92	89	100	(6)	98
Guards II	90	(6)	(6)	(6)	(6)	85	94	(6)	(6)	(6)	88	88	(6)	(6)	100	108
Janitors, porters, and cleaners	77	80	83	85	92	87	79	81	90	95	92	92	94	102	93	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 Cleveland, Ohio, September 1981

	N	Average		Weekly ea (in dolla							Nu	mber of	workers	s receivi	ng straig	ght-time	weekly	earnings	s (in dol	lars) of	-					
Occupation and industry division	Number of workers	hours ¹ (stand- ard)	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 - 420	420 - 440	440 - 460	460 - 480	480 and over
Secretaries	3,174	39.0	294.50	281.00	241.00- 335.50	35-	-	3	9	34	85	238	378	449	361	345	267	259	180	157	119	87	45	76	48	34
Manufacturing	1,907	39.0	309.00	296.00	252.00- 351.50	- 5-	-	-	-	-	2	109	208	244	217	198	171	187	147	129		54		70		27
Nonmanufacturing	1,267	38.5	273.00	260.00	227.00- 307.00	-	-	3	9	34	83	129	170	205	144	147	96	72	33	28		33			11	7
Transportation and utilities	123	39.5	386.00	395.00	358.50- 414.00	-	74-	-		-	-	-	-	2	2	6	4	6	14	13	39	14	5	4	11	3
Secretaries I	314	38.5	246.00			-	-	3	9	21	19	66	67	30	14	22	11	24	20	2		4	3	-	Total -	-
Manufacturing	167	39.5	281.00			-	-	-	-	-	3.95	19	36	18	12	20	11	24	19	2	2	4	-	-	-	13.
Nonmanufacturing	147	37.5	206.50	209.00	185.00- 226.00	-	-	3	9	21	19	47	31	12	2	2		-	1		-	-	-	-		-
Secretaries II	945	39.0	265.50			-	-	100		11	54	134	169	165	114	78	38	63	35	40		3	1	-	-	-
Manufacturing	551	38.5	275.00			-	-	-	-	-	2	86	82	91	67	54	31	62	32	33			1		-	100
Nonmanufacturing	394	39.0	251.50			-	-	-	-	11	52	48	87	74	47	24	7	1	3					-	-	98 -
Transportation and utilities	54	39.5	367.50	395.00	357.50- 395.00	-	1/10	100		-		197	Spilor I -	1	2	5	2	1	3	7	30	3	1 25	- 1	-	48
Secretaries III	1,138	39.0	296.00			-	-		_	2	10	34	130	205	172	162	110	78	59	49		27		29	6	14
Manufacturing	696	39.0	308.50			-	-	-	-	-	-	4	87	110	101	81	70	40	48			23			6	14
Nonmanufacturing	442	38.5	276.00			-	-	-	-	2	10	30	43	95	71	81	40	38	11	10						-
Transportation and utilities	26	39.5	376.00	366.50	344.50- 417.50	-			-	1	-		-	-		-	1	5	4	5	2	4	3	2		
Secretaries IV	565	39.0	342.50			-	-	-	-	-	1	3	10		52	61	80	69	43			42			25	8
Manufacturing	342	39.0	351.50			0.0	-	-	-	-	-	-	3		33	29	42	38	31	34						7
Nonmanufacturing	223	38.0				-	-		-	-	1	3	7	21	19	32	38	31	12	8	12			2		1
Transportation and utilities	28	40.0	425.00	438.00	371.00- 473.50	-	-		-	-	1885	-	1	- 1-	-	-	1	-	6	1	1	3	2	2	11	1
Secretaries V	188	39.0	375.50			-	-	-	-	-	-	-	-	-	6	15	21	25	23			11		6		12
Manufacturing	151	39.0	371.50	362.50	323.50- 414.00	-	-	- 5		-	-	3.6	-		4	14	17	23	17	21	14	7	7	4	17	6
Stenographers	508	39.5	294.50			-	-	-	-	7		33	59	. 51	65	44	38	24	88	42		7		2	100 mm 1	-
Manufacturing	285	39.5	287.00			-	-	-	-	-	11	23			37	24	25			17		6	21	2	3 9 5	-
Nonmanufacturing	223	40.0	304.00				-	-	-	7	I D	10		15		20				25		1	-	-	-	-
Transportation and utilities	180	40.0	320.00	349.00	281.00- 350.50	-	Lak	1817		100	7	2	4	13	16	12	13	9	77	25	1	1	Jan 1	0.00		
Stenographers I	250	39.5	281.00			-	-	-	-	7	17	23	34	35	27	22	11	7	30			4	12		-	7.5 -
Manufacturing	151	39.5	275.00			-	-	-		-	11	19	33			6		3		11	1 1000	4	12	-	Sign 7	-
Nonmanufacturing	99	39.5	290.50			-	-	-	-	7	100	4	1	5		16		4	29			-	De Contract	100	-	-
Transportation and utilities	67	40.0	312.50	341.00	280.50- 349.00	-		-	-	3	3	2	1	5	5	8	4	4	29	6	-		- 0	-		-
Stenographers II	258	39.5	307.50				-	-	_	-	5	10		16		22	27	17	58			3		2		-
Manufacturing	134	39.5	301.00				-	-	-	-	-	4	20	6		18						2		2		C
Nonmanufacturing	124	40.0	315.00	350.50	278.00- 350.50	-		-	- T		5	6	5	10	11	4	9	5	48	19		1			201-1	
Typists	1,281	39.0	234.00	216.00	183.50- 271.00	3	12	15	59	187	225	175	128	88	108	39	29	18	179	3	3	6	3	1	-	-
Manufacturing	346	39.5	223.00					15	12			64	63	20		9	10		_	2		6	3	1	-	-
Nonmanufacturing	935	38.5					12		47			111	65	68	73	30	19	17	179	1	-	181		-	andere in	-
Typists I	506	39.5	227.50	212.00	176.00- 271.00	3	6	15	45			74	49	28	37	23	9	2	62					-	-	-
Manufacturing	201	39.5	217.50			-	-	15	9	25	38	40		4	14	5	6	-	-	2	3	6	-	-	-	-
Nonmanufacturing	305	39.5	234.00	215.50	174.00- 292.00	3	6	120-	36	48	31	34	15	24	23	18	3	2	62		1				-	
Typists II	775	38.5	238.00				6	-	14			101	79	60		16		16	117	1	-		3	1	-	-
Manufacturing	145	39.0				1	-	-	3			24	29	16		4	4	1		-	-	-	3	1	-	
Nonmanufacturing	630	38.5	240.00	217.50	184.00- 283.00	-	6	-	11	104	127	77	50	44	50	12	16	15	117	1	A ST		1	100	-	-
File clerks	374	37.5	188.50	167.50	154.00- 198.00		15	39	78	97	54	30	13	8	7	3	6	1	17	4	1	1		-		-
Manufacturing	131	38.5	196.50			200	-	6	29			21	9		4	1	5		-	2	1	1	-	-	-	-
File clerks I	80	38.5	160.00	154.00	146.00- 172.50			21	28	16		7	4	17.5	1 5 7 10		7-3	14 18		1		1	1 79	100	THE .	
			1 (3() ()()	104.00	140.00- 1/2.50			6		10	1	1														1

Table A-12. Weekly earnings of office workers in establishments employing 500 workers or more in Cleveland, Ohio, September 1981 —Continued

	N	Average		Weekly ea (in dolla							Nu	mber of	worker	s receivir	ng strai	ght-time	weekly	earning	s (in do	llars) of	of —						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range²	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		80	400 - 420	420 - 440	440 - 460	460 - 480	480 and over
File clerks II	244 61	37.0 39.5	189.50 209.00				9	18	50 3	60 6		20 15	9	7 3	2	2 -	-	1 -	11	4 2	4 2	1 1	1 1	-	-	-	
File clerks III	50	37.0	230.00	197.50	170.50- 283.00	_	-		-	21	4	3	3	1	5	1	6	_	6		-	-	-	-	-	-	-
				400.00	107.00 011.00															1	0 3				15.7		PAR
Messengers	204						3	14	21	46 25		26 12	3 2	6 5	6 2		2	24				1	- 5		. 235		
Manufacturing	76 128						3	13	21	21	22	14	4	3	4	The state of the s		24	-		-	1	-		745 5	trail for	
Nonmanufacturing Transportation and utilities	43						3	13	21	21	8	14	1	1	4	2	1	24	1					-		9	
Transportation and utilities	43	40.0	290.00	331.50	254.00- 331.50			- 5			0				*	-		24									
Switchboard operators	173	39.0	249.50	230.00	194.00- 300.50		7	7	6	9	23	23	29	7	14	3	5	3	24		_	2	1	8	1	1	
Manufacturing	73								_	1	11	10	15		9		3	1	6	0.7	-	2	1	8		1	1380
Nonmanufacturing	100						7	7	6	8		13	14		5			2	18	CONT.						6 65	
Transportation and utilities	34						-	-	-	100		2	1	2	5			2	18		-	-	-	-	-		
Switchboard operator-																											
receptionists	55	39.5	234.00	230.00	201.50- 262.50	-	-	-	-	10	4	12	9	4	11	2	-	1	-	1	1	-	-	1	-	-	-
	0.15		000 50	007.00	040 50 050 50				- 50		000	00	40		00					199	-				PERCH		
Order clerks	315 230								_	-	20	26 25	16 16		30 24			43 25	54 12		7 3	3	22 18			3	2 2
Order clerks I	194						-	-	-	-	20	26	8		14			22			4	3	18		-	-	3116
Manufacturing	117	39.5	270.00	243.00	203.00- 322.50	7 B	4-9		-		20	25	8	16	8	3	5	8	3			3	18				-
Order clerks II	121	39.0	300.00	286.00	258.50- 329.50	-	-	-	-	100	-	-	8	30	16	19	6	21	9	3	3	_	4	S .	2	3	2
Manufacturing	113	39.0	295.50	281.00	258.50- 328.00	100	-		100	-	-	-	8	30	16	19	6	17	9	3	3	-	-	146	-	3	2
Accounting clerks	2,149	39.5	260.50	241.50	199.50- 334.50		32	38	67	157	245	300	213	174	159	76	89	88	192	206	06	47	13	6	22	10	15
Manufacturing	838						12					129	103		95						16	21	6	1		10	The state of the s
Nonmanufacturing	1,311						20					171	110		64							26	7	5			
Transportation and utilities	505						-	-	-	-	4	13	16		34			30		178		20	7	5			-
Accounting clerks I	490	39.5	228.50	199.50	170.00- 276.00		20	18	42	82	84	62	23	13	24	4	3	13	76	25	23	3				100	
Nonmanufacturing	444						20	18				49	20		16		-	13			23	3	100				1
Transportation and utilities	173						-	-	-	-	4	13	13		16			13			23	3	-		5-02	-	
Accounting clerks II	691	39.5	236.50	216.50	196.00- 275.00	-	12	20	7	44	115	168	88	37	57	25	22	22	48	10	10	13			3		
Manufacturing	320						12			4	36	81	47		36						2	-		1	3		
Nonmanufacturing	371						1	_	7	40		87	41					12			8	13					
Transportation and utilities	106						-	-	-	-	-	-	3		18						8	13	-	-	-	-	1991
Associating clarks III	718	39.0	277.50	260.50	225.00- 353.00				18	31	46	65	90	108	53	33	36	32	29	148	18	11	8		1	6	3
Accounting clerks III	355							16015	18			35	51		30			27			5	8	6		1	6	
Manufacturing Nonmanufacturing	1 0 0 0 0 0 0								-	5		30	39		23			5		1 1 18		3	2			-	-
Accounting clerks IV	250	39.5	341.00	342.50	291.00- 383.00	1		1 1/2				5	12	16	25	14	28	21	39	21	25	20	5	6	18	1	12
								- 10				3	2								9	13	3	1		- 4	* 12
Manufacturing	133							3-118				5	10		4						16	7	5	5		-	-
		-	007.5	050.55	046.06 000.00					00		000		000				4.0	-		10	10					
Payroll clerks	362						-	1	1	29		60			43						16	10	3	5	2	3	1000
Manufacturing	190							1	1	4	-				14						4	9	3	4	2	3	4
Nonmanufacturing Transportation and utilities	172 47							1	1	25	8	46	13	10	29 12			1	8		12	1		1			
																									18		
Key entry operators	976						2	12	23			158			72			27	54		16	8	20	12		8	
Manufacturing	472						-	40	23	48		79 79			31						7 9	6	20	12	2 2	8	
Nonmanufacturing	504						2	12	23	50	78							17			9	2		The same			
Transportation and utilities	123	40.0	307.00	334.50	266.50- 349.00	1	1 8 L				0	0		14	13	/	1	17	40	1	9	2		100			

Table A-12. Weekly earnings of office workers in establishments employing 500 workers or more in Cleveland, Ohio, September 1981 —Continued

		Average		Weekly ea (in dolla							Nui	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	s (in doll	lars) of	_					
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	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 - 420	420 - 440	440 - 460	460 - 480	480 and over
Key entry operators I	372	38.5	222.00	206.00	173.50- 242.50	7.	2	9	20	73		56	49					3	20	3	2	13		-		
Manufacturing	166	38.0	230.50	219.50	175.00- 243.00	-	-	-	-	42	22	19	35			10	-	1	-	2	-	13	1	-	10.00	
Nonmanufacturing	206	39.0	215.50	199.00	174.00- 238.50	-	2	9	20	31	42	37	14	12	11	3	-	2	20	1	2	-		200	195	
Key entry operators II	604	39.5	255.50	231.50	206.50- 294.00	-	_	3	3	25		102	109			36	31	24	34	13	6	7	12		8	1
Manufacturing	306	39.5	262.00	235.00			-	-	-	6	52							5	9	5	6	7	12	2	8	1
Nonmanufacturing	298	39.5	249.00		205.50- 287.00		-	3	3	19	36	42	60	26	30	18	9	19	25	8	-	-			18	A MARIE
Transportation and utilities	68	40.0	325.50	338.00	288.50- 351.50	-	- 22	-	-	1 -	-	-	-	7	7	5	1	15	25	8	-	-	100	-	0.40	1

^{*} Workers were distributed as follows: 10 at \$480.00 to \$500.00; and 2 at \$500.00 to \$520.00. 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 Cleveland, Ohio, September 1981

	Number	Average		Weekly ea (in dolla							Nu	mber o	f worker	s receiv	ing strai	ght-time	weekly	earning	s (in dol	llars) of						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 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	600 - 640	640 - 680	680 - 720	720 and over
Computer systems analysts		ME.	69.6								1.01			10	To be	No.	zerou-									
(business)	817	39.0		507.00				-	-	1	-	5					44	85	96					46		
Manufacturing	409	39.0						-	-	-	-	4	2				15	36						20		
Nonmanufacturing	408	38.5	503.00	493.00	435.50- 549.00	-				-	-	1	1	2	13	14	29	49	56	98	52	24	22	26	15	6
Computer systems analysts			- 14										1													
(business) I	99 55	39.0 39.0		393.50 393.50	345.50- 452.50 362.00- 457.00	-					-	3	1	10			14	15	15		3 2	1	3	20 T	1	194
				- MACCONE			et es				-	198		178												
Computer systems analysts	415	38.5	483.00	490.00	434.00- 534.50				1		100					45		- 00							Balley I	
(business) II	195	39.0	483.00		434.00- 534.50	1			-	-	-	2		2 2		15	26	63	63					2	-	-
Manufacturing Nonmanufacturing	220	39.0					14.14					-		-	3		10 16		22 41	40 61				2	_	
						19.5			1.18		E VE			1	12.0			1						espui,		
Computer systems analysts (business) III	303	39.0	581.50	588.00	517.00- 646.00	E The					100			0				-	40			-			00	
	170	39.0		591.50		1						224		2 2		2	4	1	18			36		44	28	11
Manufacturing	133	39.0					1000				10/12	10 m		2		2	4	2 5	9	17 33		30			13	
Nonmandiacturing	133	39.0	361.00	361.00	309.00- 001.30		100			1	1			1		13.5		3	9	33	17	6	18	24	15	6
Computer programmers (business)	981	39.0	429.50	414.00	368.00- 487.00	- 100-		-	4	10	19	15	42	67	51	88	99	197	125	107	70	42	25	10	10	-
Manufacturing	475	39.5	427.50	421.50	380.00- 477.50	-		-	3	6	5	9	11	14	25	46	53	112	81	54	38	8	6	4	-	-
Nonmanufacturing	506	39.0	431.00	411.50	353.50- 494.50	-		-	1	4	14	6	31	53	26	42	46	85	44	53	32	34	19	6	10	-
Computer programmers											9.9		Sur-S						W.	100	100			1		
(business) I	196	39.0	344.00			-		-	1	1	14	6		49		28	29	13	1	9	-	-	-	-	-	-
Manufacturing		39.0	355.50	366.00	330.00- 391.00	-	1	-	1	-	4	3			11		19	6	-	-	-	100	-	-	-	-
Nonmanufacturing	121	39.0	337.50	336.00	318.50- 355.50	-		100	38	1	10	3	17	41	20	11	10	7	1		-	-	-	-	-	
Computer programmers				18 34		6			THE S			100			- 15	-										
(business) II	434	39.5	432.00	423.50		-		-	3		5	9	1	15			35	121	54	41	21	29	18	-	-	-
Manufacturing	175	39.5	403.50	413.50		-	1	-	2	6	1	6	5	6	10	18	16	59	36	9	1	-	-	-	-	-
Nonmanufacturing	259	39.0	451.00	432.00	384.00- 521.00	-			1	3	4	3	9	9	6	26	19	62	18	32	20	29	18	-	-	
Computer programmers																1.33										
(business) III		39.0	473.50	464.50	408.50- 522.00	-		-	-	3	-	-	5	3	4	16	35	63	70					10	10	-
Manufacturing		39.5	470.50	461.00		-	1	-	-	-	-	-	-	-	4	11	18		45			8	-	4	66,50-	-
Nonmanufacturing	126	38.5	479.50	466.50	402.50- 523.50	-		1	1		-		5	3	-	5	17	16	25	21	12	5	1	6	10	-
Computer operators	637	39.0	310.50	291.00	248.00- 362.50	2	39	37	54	69	69	74	65	34	19	70	21	22	19	21	7	11	4		-	
Manufacturing	280	39.5	341.00			-	(28	34	24			11	14	10	14	12	21	7	11	4	-	-	-
Nonmanufacturing	357	39.0	286.50	284.00	236.00- 341.00	2	33	26	34	41	35	50	33	13	8	56	11	8	7	- 10	-	-	-	-	-	-
Computer operators I	104	39.0	234.50	220.00	191.50- 269.50	2	37	12	10	10	11	13	4		3	16-46		363								
Nonmanufacturing		38.5	224.50	208.00								12		1	1	-	-	_	-				-	-		
	314	39.0	200.00	070.00	245 00 000 50			05	00	40		0.5		40		50						40	1			
Computer operators II	143	39.0	308.00 326.00	278.00		-	1					25 10				53	9		5 4	9		10		-		
Manufacturing		39.0	293.50	277.00 278.50		1		11				15				48	6		4	9	4	10	-	-	-	
Normanulacturing		35.0	293.50	276.50	244.00- 362.50	-		14	23	20	21	15	1	3		40	0			Jun 198						
Computer operators III	219	39.0	349.50					-	5	1 635		36			0.70		12	17	14	11	3	1	4	-	-	-
Manufacturing	116		372.00					-	4		5	13				9	7	10	8	11	3	1	4	-	7	-
Nonmanufacturing	103	38.5	324.50	310.50	285.50- 361.50	-			1	8	8	23	21	9	7	8	5	7	6		-	-			1	
Computer data librarians	53	38.5	258.00	255.00	201.50- 287.50	2		7 9	6	4	6	6	4	3	-	6	-	-	-	-	-	-	114	-	-	-
Drafters	687	39.0	381.50	370.00	335.00- 434.50				6	42	19	30	31	77	53	129	53	93	78	45	29		1	1000		PAL
Drafters Manufacturing	582	38.5	383.00			-	1818		6			27					47	89	76			-	-			
D# III			000.00	050.00	047.50 000.50	Tara I	SE	1		-							100	12.11				1				
Drafters III	74	38.5 38.0			247.50- 360.00 247.50- 305.00		1	-	5			200	-	4	-	9	1	6	4	492 T	-	-	-	-	- 4	-

Table A-13. Weekly earnings of professional and technical workers in establishments employing 500 workers or more in Cleveland, Ohio, September 1981 —Continued

		Average		Weekly ea (in dolla							Nu	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	s (in dol	lars) of						
Occupation and industry division	Number of workers	weekly hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 180	180	200 - 220	220 - 240	240 - 260	260 - 280	280	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 440	440 - 480	480 - 520	520 - 560	560 - 600	600 - 640	640 - 680	680 - 720	720 and over
Drafters IV	367 282	38.5 38.5	369.50 369.00	370.00 347.50	330.00- 394.50 323.00- 411.50		29			5 5	9	26 25	27 27	70 58			20 19	39 37	13 11	33 32	2	-	-	-		
Drafters V			430.50 431.00				-		-	-:	-	2	2 2	3	15 15	32 31	31 27	48 48	61 61	12 12	27 27	1 -	1 -	-		
Electronics technicians Manufacturing	219 206		384.00 379.00					1	1	7 7	15 14		14 13		20 19				21 19	9 2	16 15	11	-		- 3	
Electronics technicians II	123 117		371.50 370.00							2 2	12 11	15 15		14 14	10	8	8	24 24	2 -		16 15	-		1		
Electronics technicians III		39.5 40.0			343.50- 506.00 337.00- 461.00					1 1	-	2 2	2 2	11 11	8	3	2 2	-	19 19		-	11 11	-	-		
Registered industrial nurses Manufacturing	70.00				358.00- 456.00 354.50- 456.00						-	3 2	8	11	12 12	15	13 8	33 28		9 8	10 10	2 2				

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

	Number		verage nean²)	aremet in the second	Number		verage nean²)	and the second second			verage nean²)
Sex,3 occupation, and industry division	of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex,3 occupation, and industry division	of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex,3 occupation, and industry division	Number of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars)
Office occupations - women				Order clerks: Manufacturing	194	39.5	269.50	Computer programmers (business) III	. 244	39.0	464.50
Secretaries	3,133	39.0	294.00	Order clerks I:				Manufacturing	169	39.5	469.50
Manufacturing	1,891	39.0	307.50	Manufacturing						00.0	400.00
Nonmanufacturing	1,242	38.5	273.00	Manufacturing	99	39.5	254.00	Computer operators	. 418	39.0	315.50
Transportation and utilities	123	39.5	386.00	Order clerks II	99	39.5	287.50	Manufacturing	. 204	39.5	354.00
		2000	000.00	Manufacturing	95	39.5	285.50				
· Secretaries I	314	38.5	246.00		00	33.5	200.00	Computer operators I		39.0	230.00
Manufacturing	167	39.5	281.00	Accounting clerks	1,707	39.0	243.00	Nonmanufacturing	. 59	38.5	225.00
Nonmanufacturing	147	37.5	206.50	Manufacturing	777	39.0	250.50	Computer operators II:			
Constanta II	044	000						Manufacturing	1 2 2 2 3		
Secretaries II	944	39.0	265.50	Accounting clerks II	584	39.0	227.50	Manufacturing	. 95	39.0	348.00
Manufacturing	551	38.5	275.00	Manufacturing	310	39.0	232.50	Computer operators III	. 179	39.0	040.50
	393	39.0	251.50	Accounting clerks III:		The second		Manufacturing			349.50
Transportation and utilities	54	39.5	367.50	Manufacturing	201	00.5		Nonmanufacturing	. 96 . 83	39.5	373.50
Secretaries III	1,132	39.0	295.00	Maridiacturing	324	39.5	250.00	Tvorimandiacturing	. 83	38.5	322.50
Manufacturing	690	39.0	307.50	Accounting clerks IV	197	39.0	324.50	Drafters	. 551	38.5	374.50
Nonmanufacturing	442	38.5	276.00	Manufacturing	97	39.0	321.50	Manufacturing	514	38.5	373.00
Transportation and utilities	26	39.5	376.00	Nonmanufacturing	100	39.5	327.50	- Manufacturing	. 314	30.5	373.00
	20.	33.3	370.00	1401inanaactunig	100	39.5	327.50	Drafters III	. 69	38.0	290.00
Secretaries IV	560	39.0	341.00	Payroll clerks	336	39.0	258.50	Manufacturing	65	38.0	283.50
Manufacturing	337	39.0	350.00	Manufacturing	178	39.0	278.50		. 00	30.0	203.30
Nonmanufacturing	223	38.0	327.50	Nonmanufacturing	158	39.5	236.50	Drafters IV:			
Transportation and utilities	28	40.0	425.00		130	33.3	230.30	Manufacturing	. 239	38.0	358.00
				Key entry operators	916	39.0	240.00				
Secretaries V	183	39.0	371.00	Manufacturing	463	39.0	248.00	Drafters V	. 213	39.0	422.00
Manufacturing	146	39.0	365.50	Nonmanufacturing	453	39.0	232.50	Manufacturing	. 206	39.0	421.00
Stenographers:						00.0	202.00				
Manufacturing	280	39.5	284.50	Key entry operators I	329	38.5	216.50	Electronics technicians	. 202	39.0	392.00
				Manufacturing	166	38.0	230.50	Manufacturing	. 190	39.0	388.00
Stenographers I	215	39.5	276.00					Flacture to the body of the			
Manufacturing	151	39.5	275.00	Key entry operators II	587	39.5	253.50	Electronics technicians II	. 116	38.5	377.00
Stenographers II:				Manufacturing		39.5	257.50	Manufacturing	. 110	38.5	375.50
Manufacturing	129	39.5	296.00	Nonmanufacturing		39.5	249.50	Electronics technicions III			
	129	39.5	290.00	Transportation and utilities	66	40.0	324.50	Electronics technicians III	66	40.0	428.00
Typists:				Professional and technical			1 5 C 1 C	Manufacturing	. 60	40.0	420.50
Manufacturing	346	39.5	223.00					Professional and technical			
Typists I:				occupations - men				occupations - women			
Manufacturing	201	39.5	217.50	Computer systems analysts							
	201	35.3	217.50	(business):				Computer systems analysts			
Typists II:				Manufacturing	328	39.0	529.50	(business):			
Manufacturing	145	39.0	231.00		020	00.0	020.00	Manufacturing	81	39.0	470.50
File clerks	332	37.0	178.50	Computer systems analysts							
Manufacturing	125			(business) I	74	39.0	420.50	Computer programmers (business):			China de la companya del companya de la companya del companya de la companya de l
waridactumg	125	38.5	195.00	Computer systems analysts				Manufacturing	152	39.5	405.50
File clerks I	78	38.5	159.00	(business) II:				Computer programmers	100		
Manufacturing	52	38.0	164.50		140			(business) II:			
	1			Manufacturing	149	39.0	492.00	Manufacturing	63	39.5	205.50
File clerks II	214	36.5	179.50	Computer systems analysts			E Market		03	39.3	395.50
Manufacturing	57	39.0	207.00	(business) III	234	39.0	575.50	Computer programmers			
Messengers:		15 3		Manufacturing	149	39.0	590.50	(business) III:	1 4 4		
Manufacturing	56	39.0	194.00			55.0	000.00	Manufacturing	51	39.5	466.50
				Computer programmers (business):							,00.00
Switchboard operators	154	39.0	241.00	Manufacturing	318	39.5	436.50	Computer operators:			
Manufacturing	71	39.5	271.50	Computer programmers				Manufacturing	70	39.0	289.50
Switchboard operator-				(business) II:	34.		U SELECTION	Desistered in the total			1000
receptionists	55	39.5	234.00	Manufacturing	110	20.5	400.00	Registered industrial nurses		39.5	409.00
	00	00.0	204.00	warutacturing	112	39.5	408.00	Manufacturing	107	40.0	413.50

Table A-15. Hourly earnings of maintenance, toolroom, and powerplant workers in establishments employing 500 workers or more in Cleveland, Ohio, September 1981

	Nousehau	Н	lourly earn (in dollars		Number of workers receiving straight-time hourly earnings (in dollars) of —																						
Occupation and industry	Number of workers	Mean ²	Median ²	Middle range ²	Under 6.40	6.40 and under 6.60	6.60	6.80 - 7.00	7.00 - 7,20	7.20 - 7.60	7.60	8.00 - 8.40	8.40 - 8.80	8.80 - 9.20	9.20 - 9.60	9.60	10.00	10.40	10.80	11.20	11.60 - 12.40	12.40	13.20	14.00 - 14.80	14.80 - 15.60	15.60 - 16.40	16.40 - 17.20
Maintenance carpenters	193	11.96	12.60				-	-		6	-		-	26						4	20				10	12	2
Manufacturing Nonmanufacturing		11.89 12.13		11.15-13.26 8.88-15.12			-	-		6	-	-	-	5 21		3		2 -	6	4	19	40		2 -	10	12	2
Maintenance electricians Manufacturing	1,177 1,070	12.81 12.81		12.39-13.72 12.09-13.72			2		7	9	2 2	20 20	3			12		5 5								18 18	
Maintenance painters Manufacturing		12.24 12.28		11.48-13.26 11.48-13.26			-	-				-		4	9	File	3 2		4	10	17 10		64		3		
							2											1		10							
Maintenance machinists		11.72 11.74		10.26-12.69 10.26-12.71				-		-			4.5	9	3	3	51 51	3 -	1	46 46	32 32				4	1	
Maintenance mechanics	1,837	12.68	10.41	11.99-13.60		2				20		26	35	20	53	28	77	49	52	23	77	343	792	145	91		
(machinery)	1,721	12.69		11.93-13.60		2				20		26														-	
Maintenance mechanics		40.00	10.50							3					00		00	24		19	70	106	117	21			
(motor vehicles)	421 219	12.20 12.78		11.34-13.30			File		7	3			-	2	29	1	28 24	24		19	6						
Manufacturing	219	11.57		10.42-12.56							A STATE OF		2	2	29		4	24		12				21			
Nonmanufacturing Transportation and utilities	182			10.42-12.56			-	-		-		-	-	-	29			24	-	-	64			-	-	-	
Maintenance pipefitters	538	12.61		12.66-13.34		-			2	12		-	2			-	21		34		31				-	-	
Manufacturing	538	12.61	13.30	12.66-13.34			1		2	12	4	-	2	3	8	-	21	-	34		31	77	343		-		
Maintenance sheet-metal workers Manufacturing	190 140	11.93 13.15		8.52-13.34 13.30-13.34							1		50					-	6	1	8		126				
		77			100																1	00		-			
Manufacturing	750 750	13.06 13.06		13.30-13.34 13.30-13.34									9	1			23		11	-	12					-	
Maintenance trades helpers	138	10.34		8.64-12.02		-	2		6	2	1					- 4	21	11	11		45			-		_	
Manufacturing	124	10.58	10.85	10.25-12.02	3		2		6	2		12	18		es.		21	11	11	/	45	3	1			-	
Machine-tool operators (toolroom) Manufacturing	555 555			11.15-13.41 11.15-13.41			-				18								33 33							-	
Tool and die makers	1,165	12.63		11.78-13.60		36-			-	12		4	6	-		18					258				-	-	
Manufacturing	1,165	12.63	13.54	11.78-13.60	1					12		4	6		1	18			42	4	258				- 4	4 100	
Stationary engineers				11.24-13.41 11.97-13.41		4				1		2		2		1 2	18		3		24					3	
Boiler tenders				10.18-13.40		2				6	100		12				8	8					34			-	

Table A-16. Hourly earnings of material movement and custodial workers in establishments employing 500 workers or more in Cleveland, Ohio, September 1981

		+	Hourly earnings (in dollars)* Number of workers receiving straight-time hourly earnings (in dollars) of —																								
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	3.20 and under 3.40	3.40 - 3.60	3.60 - 3.80	3.80 - 4.00	4.00 - 4.20	4.20 - 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 - 8.80	8.80 - 9.60	9.60 - 10.40	10.40	11.20	12.00	12.80 - 13.60	13.60 and over
Truckdrivers	1,013	11.25	11.35	9.99-12.84	_		_				-	- 1/2		4	_	6	3	20	10	57	137	58	102	160	52	404	
Manufacturing Nonmanufacturing	260 753	10.52 11.50		9.16-11.58 10.03-12.84	-	-				-	-	10	1	2 2	-	4 2	2	14	8 2	19 38		12	76 26	48	52		
Truckdrivers, light truck	56	9.09	9.22	8.80- 9.68		-	-		-	-	-	-	_	2	-	2	1	2	2	4	26	11	3	3			
Truckdrivers, heavy truck	109	10.47	10.90	10.03-10.90	-	-	_		_	-	-		-	· .	-	_	-	3		3		40	57	-	5	1	
Truckdrivers, tractor-trailer	406 118 288		11.52	11.35-12.94 9.16-12.32 11.35-12.94	-		-			-	-	-	-	2 2	-	4 4		9		4 4 -	35 14 21		40 20 20	129 21 108	44	139 - 139	
Shippers	77 76	9.25 9.24			=		-			-	-		-	-	18 18	_	-	-	-	-	18 18	17 16	4 4	18 18	-	-	
Receivers	117 99	9.33 9.60		8.05-11.52 8.06-11.52	- :	1	- 32-	-	-	-	=	1 5	-	2	3	1 -	1 -	6	11 11	31 19	9	13 11	6	31 31	3	-	
Shippers and receivers Manufacturing	171 84	8.97 8.25			-	=	=	1	2 2	2 2	3 2	6	1	1 -	2	9	7 -		16 15	59 27	2	6	7 6	49	1 1	-	
Warehousemen	613 163 450 51	9.05 9.80 8.77 10.40	9.77 8.15	8.05- 9.73 8.44-11.73 8.05- 9.73 10.26-10.66				3	3 - 3		Ē	1	-	5	2 - 2	5 4 1		59 3 56	-	220 52 168	17 - 17	233 60 173	27 - 27	32 32 -	12 12 -		
Order fillers	676 303	9.19 8.55	9.94	7.81- 9.94 6.53-10.31		4				2	10	2 2	7	1	28 28	41 41	6	9	61 21	6	75 75	21 348 18	6	70 70	-		
Shipping packers	569 348	8.28 8.32	7.75	7.08- 9.73		4	7	4	6	3	13	2	4 4	6	51 51	26 26	92 92	-	106	-	34 34	134	6	63 63	14 14		4
Material handling laborers Manufacturing	1,126 653 473	9.74 10.31 8.96	10.01 11.24	8.44-11.24 9.61-11.43 7.90-10.01	2 - 2	-	11 - 11	4 2 2	2 - 2	3 2 1	6	4 2 2	1 - 1	2 - 2	3 - 3	12 9 3	45 42 3	6	134 22 112	57 26 31	75 49 26	329 63 266	43 43	370 370	16 16	1 1	
Forklift operators Manufacturing Nonmanufacturing	1,379 1,049 330	10.61 10.93 9.60	11.42	9.78-11.42 10.90-11.49 9.78-10.14		-	-	=	-	-	-	-	-	-	-		17 17 -	. 51 51 -	12 12 -	56 - 56	66 46 20	313 59 254	81 81 -	742 742 -	25 25 -	16 16	
Power-truck operators (other than forklift)	143 128	11.01 11.34		10.66-11.37 11.37-11.37	-	=	=	-	-	1	-	-		1	1		Ī	-	12 12	15	-	8 8	7 7	77 77	4 4	15 15	
Guards Manufacturing	1,295 533	6.42 9.40			263 2	75 -	53	33	43 2	22		43	39 15	24	37 7	64 40	31 19	57 40	36 30	73 61	56 55	56 56	50 50	144 144	10 10		
Guards I	921 409	6.14		3.35- 8.42 7.40-11.48	263 2	69	53	10	13 2	10		19	15 15	11	11 7	40 40	19 19	40 40	30 30	56 49	33 33	39 39	6	125 125		-	
Guards II	374 124 250	7.09 10.46 5.42	11.12	4.75- 9.33 9.33-11.12 4.25- 6.42	-	6	-	23 - 23	30 - 30	12 - 12	-	24 - 24	24 - 24	13 - 13	26 - 26	24 - 24	12 - 12	17 - 17	6 - 6	17 12 5	23 22 1	17 17	44 44 -	19 19	10 10	-	
Janitors, porters, and cleaners Manufacturing	2,634 910	6.95 9.28		5.56- 9.58 7.58-11.04	1 -	13 4	55 12	24	34	160 6	49 16	51 18	1122 24	59 38	24 10	62 35	144 49	20 16	40 37	70 41	114 63	180 141	286 285	116 115	10		

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 Cleveland, Ohio, September 1981

Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)⁴	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)⁴
Maintenance, toolroom, and	17.50		Tool and die makers	. 1,147	12.62	Shipping packers	309	9.15
powerplant occupations - men	1		Manufacturing		12.62	Manufacturing	221	9.05
Maintenance carpenters	190	12.00	Stationary engineers	. 120	12.41			
Manufacturing	137	11.89	Manufacturing		12.66	Material handling laborers	1,069	9.79
Nonmanufacturing	53	12.27		100000000000000000000000000000000000000	12.00	Manufacturing	626	10.31
			Boiler tenders	. 102	11.19	Nonmanufacturing	443	9.05
Maintenance electricians	1,145	12.80	Manufacturing		11.19			
Manufacturing	1,038	12.80	- Managadan g					
			Material movement and custodial		11 1 1 1 1 1 1 1 1	Forklift operators	1,269	10.61
Maintenance painters	127	12.22	occupations - men			Manufacturing	981	10.90
Manufacturing	105	12.28	occupations man	1000			13-13-4	
			Truckdrivers	. 969	11.21	Power-truck operators		
Maintenance machinists	214	11.72	Manufacturing		10.52	(other than forklift)	143	11.01
Manufacturing	211	11.74	Nonmanufacturing		11.46	Manufacturing	128	11.34
			Normandiacturing	113	11.40	Manufacturing	120	11.04
Maintenance mechanics			Truckdrivers, light truck	. 52	9.22			
(machinery)		12.68	Truckurivers, light truck	. 52	0.22	Guards	1,197	6.36
Manufacturing	1,698	12.68	Truckdrivers, heavy truck	. 109	10.47	Manufacturing	488	9.33
Maintenance mechanics								
	413	12.19	Truckdrivers, tractor-trailer	. 405	11.61	Guards I	881	6.12
	211	12.77	Manufacturing	. 118	10.81	Manufacturing	387	9.07
Manufacturing		11.57	Nonmanufacturing	. 287	11.94	Manufacturing	307	9.07
Nonmanufacturing	202	11.57						
Transportation and utilities	182	11.68	Shippers	. 70	9.24	Guards II	316	7.05
	505	12.61	Manufacturing		9.24	Manufacturing	101	10.31
Maintenance pipefitters	535					Nonmanufacturing	215	5.52
Manufacturing	535	12.61	Receivers	. 102	9.34	110/mardiacturing	210	0.02
	400	44.00	Manufacturing		9.52		Les on a	
Maintenance sheet-metal workers	190	11.93	manufacturing		0.02	Janitors, porters, and cleaners	1,400	7.62
Manufacturing	140	13.15	Shippers and receivers	. 143	9.11	Manufacturing	649	9.86
	700	40.07	Manufacturing		7.92	Nonmanufacturing	751	5.69
Millwrights	729	13.07	Manufacturing	10	1.52			
Manufacturing	729	13.07	Warehousemen	405	9.47			
Maintenance trades belong	136	10.32	Manufacturing		9.98	Material movement and custodial		
Maintenance trades helpers		10.32	Nonmanufacturing		9.19	occupations - women	100	
Manufacturing	122	10.55	Transportation and utilities		10.39		1 7 3 1/2	
Machine tool executors (toolsoom)	541	12.03	Transportation and utilities	. 44	10.39	Shipping packers	256	7.18
Machine-tool operators (toolroom)	541		Order fillers	410	9.43	Manufacturing	123	6.92
Manufacturing	541	12.03	Order fillers	410	9.43	I wanulacturing	123	0.92

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 Aseries 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, II, III, and IV 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.
- 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:

- Establishments employing workers in both of the paired occupations were identified.
- Pay levels (averages) for the two occupations were weighted by the combined employment of both jobs to reflect each establishment's 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 Cleveland, Ohio, September 1981

	Minimum	Number of es	tablishments		Workers in establishments	
Industry division ²	employment in establish- ments in scope	Within scope of survey ³	Studied	Within of su	Studied	
	of survey	of survey*		Number	Percent	
All establishments			WE'S DESIGNATION	Service Control		12 to
All divisions		1,179	207	432,725	100	226,133
Manufacturing	100	460	86	182,419	42	90,997
Nonmanufacturing Transportation, communication, and		719	121	250,306	58	135,136
other public utilities ⁵	100	54	18	33,925	8	27,655
Wholesale trades	50	197	18	27,937	6	3,787
Retail trades	100	132	22	129,893	30	80,271
Finance, insurance, and real estate ⁶	50	125	21	29,688	7	15,141
Services ⁶ 7	50	211	42	28,863	7	8,282
Large establishments						THE THE P.
All divisions		155	79	275,473	100	204,006
Manufacturing	500	84	44	114,418	42	82,011
lonmanufacturing Transportation, communication, and		71	35	161,055	58	121,995
other public utilitiess	500	8	8	25,809	9	25,809
Wholesale trade	500	8	2	5,700	2	1,425
Retail trades	500	39	14	108,626	39	78,532
Finance, insurance, and real estates	500	11	7	17,169	6	13,171
Services ^{6 7}	500	5	4	3,751	1	3,058

The Cleveland, Ohio Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Cuyahoga, Geauga, Lake, and Medina Counties. The "workers within scope of survey" estimates provide a reasonably accurate description of the size and composition of the labor fore 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.

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

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. Local transit operations and an electric utility (supplying less than half the electricity consumed in the Cleveland area) are municipally owned and are excluded by definition from the scope of the survey.

^{*}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 description, are excluded.

Office

SECRETARY

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

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

- Positions which do not meet the "personal" secretary concept described above;
- b. Stenographers not fully trained in secretarial-type duties;
- 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

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

- 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 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

- Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
- 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
- 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
- Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or
- Secretary 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

- 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
- 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
- Secretary to the head, immediately below the corporate officer level, of a major segment or subsidiary of a company that employs, in all, over 25,000 persons.

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

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:

- Answers telephones, greets personal callers, and opens incoming mail.
- Answers telephone requests which have standard answers. May reply to requests by sending a form letter.
- Reviews correspondence, memoranda, and reports prepared by others for the supervisor's signature to ensure procedural and typographical accura-
- Maintains supervisor's calendar and makes appointments as instructed.
- 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:

- Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
- 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.
- Compiles or assists in compiling periodic reports on the basis of general instructions.
- Schedules tentative appointments without prior clearance. Assembles necessary background material for scheduled meetings. Makes arrangements for meetings and conferences.
- 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 procedure and of the specific business operations, organization, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining follow-up files; assembling material for reports, memoranda, and letters; composing simple letters from general instructions; reading and routing incoming mail; and answering routine questions, etc.

TRANSCRIBING-MACHINE TYPIST

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

TYPIST

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

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

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 tasks such as posting to registers and ledgers; balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Levels I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording of transactions and accounting information. Levels III and IV require a knowledge and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some jobs at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

Accounting Clerk I

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear

and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

Accounting Clerk II

Performs one or more routine accounting clerical operations, such as: Examining, verifying, and correcting accounting transactions to ensure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

Accounting Clerk III

Uses a knowledge of double entry bookkeeping in performing one or more of the following: Posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

Accounting Clerk IV

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: Reviews invoices and statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system.

NOTE: Excluded from level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

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 keyoperated 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.
- 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 I!

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:

- 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.
- 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.
- 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:

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

Maintenance, Toolroom, and Powerplant

MAINTENANCE CARPENTER

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, casings, and trim made of wood in an establishment. Work involves most of the following: Planning and laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE ELECTRICIAN

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

MAINTENANCE PAINTER

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

MAINTENANCE MACHINIST

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

MAINTENANCE MECHANIC (MACHINERY)

Repairs machinery or mechanical equipment of an establishment. Work involves most of the following: Examining machines and mechanical equipment to diagnose source of trouble; dismantling or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items obtained from stock; ordering the production of a replacement part by a machine shop or sending the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a machinery maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose primary duties involve setting up or adjusting machines.

MAINTENANCE MECHANIC (MOTOR VEHICLE)

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

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

MAINTENANCE PIPEFITTER

Installs or repairs water, steam, gas, or other types of pipe and pipefittings in an establishment. Work involves most of the following: Laying out work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipecutting 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-thejob training and experience.

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

TOOL AND DIE MAKER

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

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

STATIONARY ENGINEER

Operates and maintains 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 CLEANERCleans 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:

ignations. A conversion table for the affect	Numeric	Alphabetic
Occupation	designation	designation
	(currently used)	
Secretary	I	E
Societal J. Minimum	II	D
	III	C
	IV	В
	V	A
Stenographer	I	General
Sich ogruphor	II	Senior
Typist	I	В
	II	Α
File clerk	I	С
	II	В
	III	Α
Order clerk	I	В
	II	Α
Accounting clerk	I	D
	II	C
	III	В
	IV	Α
Key entry operator	I	В
220) 2) 2	II	A

Occupation	Numeric designation (currently used)	Alphabetic designation (previously used)
Computer systems analyst (business)	I	C
Comparer systems amazyer (comparer)	II	В
	III	Α
G (hadinas)	1	C
Computer programmer (business)	II	В
	III	A
Computer operator	I	C
	II	В
	III	Α
Drafter	I	Е
	II	D
	III	C
	IV	В
	V	A
Electronics technician	I	С
	II	В
	III	Α
Guard	I	В
	II	A

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.

	Bulletin n	umber
Area	and pri	ce*
Albany Cakanastadu Teau N.V. Cant. 1000	2000 45	\$2.25
Albany-Schenectady-Troy, N.Y., Sept. 1980' Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1980.	3000-45 3000-62	\$2.23
Atlanta, Ga., May 1981	3010-24	\$3.25
Baltimore, Md., Aug. 1981	3010-24	\$3.00
Billings, Mont., July 1981	3010-35	\$2.25
Boston, Mass., Aug. 1980	3000-40	\$2.25
Buffalo, N.Y., Oct. 1980	3000-52	\$2.25
Chattanooga, Tenn.—Ga., Sept. 1981	3010-42	\$3.25
Chicago, Ill., May 1980	3010-19	\$2.75
Cincinnati, Ohio—Ky.—Ind., July 1981	3010-30	\$2.75
Cleveland, Ohio, Sept. 1981	3010-44	\$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—III., Feb. 1981	3010- 7	\$2.25
Dayton, Ohio, Dec. 1980'	3000-64	\$2.25
Daytona Beach, Fla., Aug. 1981	3010-38	\$2,25
Denver—Boulder, Colo., Dec. 1980	3000-68	\$3.25
Detroit, Mich., Apr. 1981	3010-12	\$2.75
Fresno, Calif., June 1981	3010-27	\$2.25
Gainesville, Fla., Sept. 19801	3000-55	\$2.00
Gary-Hammond-East Chicago, Ind., Nov. 19801	3000-56	\$1.75
Green Bay, Wis., July 1981'	3010-26	\$2.75
Greensboro-Winston-Salem-High Point, N.C., Aug. 1981	3010-43	\$2.75
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

Area -	Bulletin n	
Memphis, Tenn.—Ark.—Miss., Nov. 1980.	3000-59	\$1.75
Miami, Fla., Oct. 1980	3000-51	\$2.25
Milwaukee, Wis., May 1981	3010-16	\$3.25
Minneapolis—St. Paul, Minn.—Wis., Jan. 1981	3010- 1	\$3.75
Nassau—Suffolk, N.Y., June 1981	3010-31	\$3.00
Newark, N.J., Jan. 1981	3010- 3	\$2.25
New Orleans, La., Oct. 1980	3000-58	\$2.00
New York, N.Y.—N.J., May 1981 ¹	3010-41	\$3.25
Norfolk—Virginia Beach—Portsmouth, Va.—N.C., May 1981	3010-17	\$2.25
Northeast Pennsylvania, Aug. 1981	3010-40	\$2.25
Oklahoma City, Okla., Aug. 1981	3010-37	\$2.25
Omaha, Nebr.—Iowa, Oct. 1980'	3000-57	\$2.25
Paterson—Clifton—Passaic, N.J., June 1981	3010-35	\$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 1981	3010-32	\$2.25
Providence—Warwick—Pawtucket, R.I.—Mass., June 1981	3010-36	\$2.50
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Saginaw, Mich., Nov. 1980	3000-54	\$1.75
Salt Lake City—Ogden, Utah, Nov. 1980	3000-60	\$2.00
San Antonio, Tex., May 1981	3010-15	\$2.25
San Diego, Calif., Nov. 1980	3000-71	\$2.25
San Francisco—Oakland, Calif., Mar. 1981'	3010-13	\$3.00
San Jose, Calif., Mar. 1981 ³	3010-10	\$3.00
Seattle—Everett, Wash., Dec. 1980	3000-69	\$1.75
South Bend, Ind., Aug. 1981	3010-33	\$2.25
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	3010- 6	\$3.00
Wichita, Kans., Apr. 1981	3010-11	\$2.25
Worcester, Mass., Apr. 1981	3010-34	\$2.25
York, Pa., Feb. 1981 ¹	3010-9	\$2.75

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

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

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