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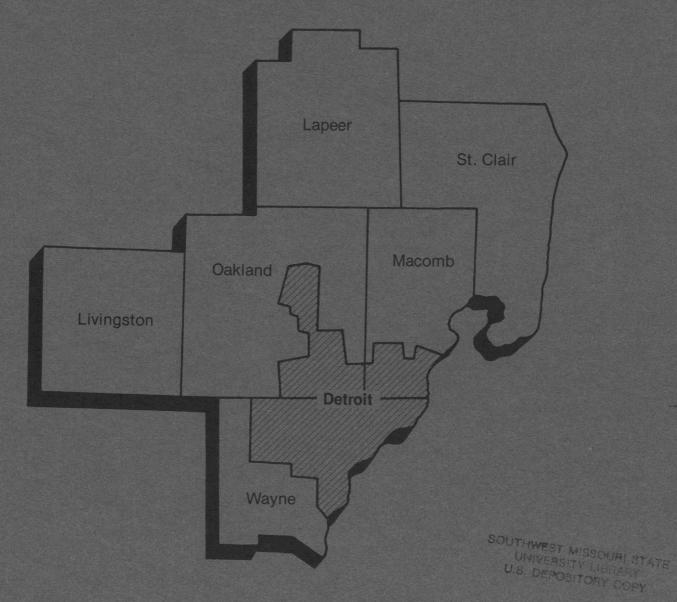
Area Wage Survey

Detroit, Michigan, Metropolitan Area March 1981



U.S. Department of Labor Bureau of Labor Statistics

Bulletin 3010-12



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Preface

This bulletin provides results of an April 1981 survey of occupational earnings in the Detroit, Mich., Standard Metropolitan Statistical Area. The survey was made as part of the Bureau of Labor Statistics' annual area wage survey program. It was conducted by the Bureau's regional office in Chicago, Ill., under the general direction of Lois L. Orr, Assistant Regional Commissioner for Operations. The survey could not have been accomplished without the cooperation of the many firms whose wage and salary data provided the basis for the statistical information in this bulletin. The Bureau wishes to express sincere appreciation for the cooperation received.

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Note:

Reports on occupational earnings and supplementary wage provisions in the Detroit area are available for the banking (February 1980) and savings and loan associations (February 1980) industries. Occupational earnings and supplementary wage provisions for municipal government workers are available for the city of Detroit. Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

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Area Wage Survey

Detroit, Michigan, Metropolitan Area March 1981 April



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

Bureau of Labor Statistics Janet L. Norwood, Commissioner

June 1981

Bulletin 3010-12

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Introduction

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

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

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

A-series tables

Tables A-1 through A-6 provide estimates of straight-time weekly or hourly earnings for workers in occupations common to a variety of manufacturing and nonmanufacturing industries. Where possible, occupations with related duties (e.g., accounting clerks and payroll clerks) are clustered to facilitate comparison. The occupations are defined in appendix B. For the 31 largest survey areas, tables A-12 through A-17 provide similar data for establishments employing 500 workers or more.

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

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

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

Appendixes

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

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

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

Table A-1. Weekly earnings of office workers in Detroit, Mich., April 1981

	Number	Average weekly		Weekly ea (in doll							Nu	mber of	worker	s receivi	ng straig	ght-time	weekly	earning	s (in dol	lars) of						Per Deli Anga Manada
Occupation and industry division	of workers	hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 140	140 - 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420	440 - 460	460 - 500	500 - 540	540 - 580	580 - 620
Secretaries	8,936	39.5	374.50	381.00	298.00- 447.00		17	15	78	374	367	504	487	474	415	447	672	573	656	718	723	584	1072	440	000	
Manufacturing	4,762	40.0	418.50	417.50	369.50- 474.00	-	-	-	3	7	42	84	123	109	127	199	355	357	486	558	414				236	10
Nonmanufacturing	4,174	38.5	324.00	308.00	252.00- 392.50		17	15	75	367	325	420	364	365	288	248						380	832		225	10
Transportation and utilities	790	39.0				-	-	-	-	24	26	6	10	17	25	45	317 197	216 140	170 81	160 58	309 79	204	240 44	59 11	11	191
Secretaries I	344	39.0	248.50	236.00	211.00- 270.00	1	17	7	19	67	73	47	39	17	04											
Nonmanufacturing	318	39.0	237.50				17	7	19		73	45	39	17 17	24	4	2 2	-	24	-	2	_	2 2	-		
Secretaries II	2.007	39.5	330.50	345.00	268.50- 376.00				9	107	113	180	153	405	400	400	000							100	A. I	
Nonmanufacturing	1,322	39.0	317.50			-	-	-	9	105	100	134	120	165 120	106	135 85	336 215	246 118	97	108	135 98	104 51	9	3	1	
Secretaries III	3,798	39.5	374.50	394.00	305.00- 445.50			0	25	107	100	204	040	407	440					00				3		1
Manufacturing	2,357	40.0	410.00					8	35	187	123	221	212	137	148	176	183	197	341	444	338	293	745	-	6	-
						-	-		2	4	9	28	65	40	61	104	138	162	289	381	203	230	633	-	4	-
Nonmanufacturing	1,441	38.5	316.00			-	-	. 8	33	183	114	193	147	97	87	72	45	35	52	63	135	63	112	-	2	1
Transportation and utilities	48	39.5	370.50				5	-	-	-	2	6	-	-	2	2	8	10	6	1	2		7	-	2	
Secretaries IV	1,948	39.0	422.50	432.50	348.00- 505.50	-	-	-	4	8	43	28	71	91	95	84	110	82	124	126	170	143	241	345	180	3
Manufacturing Nonmanufacturing	1,161 787	40.0 38.0	455.00 374.50	476.50 382.00	403.50- 511.50 300.00- 455.50	-		-	- 4	- 8	5 38	5 23	25 46	21 70	28 67	34 50	72 38	43	49 75	83 43	105	60 83	144	308	176	3
										1					0,	30	30	39	13	43	03	03	9/	37	4	
Secretaries V	648	39.5	424.00	405.00	330.00- 528.50	-	-	-	10	4	14	24	8	56	39	28	35	37	67	10	27	25	69	48	49	98
Manufacturing	388	40.0	474.00	469.50	386.00- 575.00	-	-	-	-	-	14	-	-	2	14	2	21	16	58	2	22	20	50			94
Nonmanufacturing	260	39.0	349.50	330.00	284.00- 401.00	-	-		10	4		24	8	54	25	26	14	21	9					29	44	
Transportation and utilities	56	39.5	421.00		344.00- 491.00	-	-	-	-		-	-	-	2	-	8	8	7	4	8	5 2	5	19	19	5	4
Stenographers	1,451	39.0	340.00	351.00	289.00- 411.00	_	_	18	45	75	62	74	61	55	89	168	139	116	100	040	05					
Nonmanufacturing	878	38.0	336.00	373.50	243.50- 415.50	-		18	44	72	53	70	33	34						343	95	11	-	-	-	
Transportation and utilities	229	40.0	372.00	394.50	336.00- 411.00	-	-	-	1	3	3	3	6	7	25 12	49 26	15	23	45 39	308	81	1				
Stenographers I	446	40.0	291.50	279.50	218.00- 382.00			18	39	55	34	FO	07	47	07	-			-		- 1			1		
Manufacturing	116	40.0	307.00	307.00				10	39	55		50	37	17	27	38	14	5	36	64	12	-	-	-	-	
					279.50- 332.00	-	-		1	3	8	4	27	- 8	17	23	9	5	6	3	2	-	-	-	-	
Nonmanufacturing Transportation and utilities	330 145	40.0 40.0	286.00 371.50	245.00 396.50	207.00- 394.00 330.00- 411.00			18	38	52	26	46	10	9	10	15	5	-	30	61	10	-	-	-	-	
Stenographers II	1,005	38.5	361.50	369.00	329.00- 415.50	_	-	_	6	20	28	24	24	38	62	130	125	111	64	279	83	11				
Nonmanufacturing	548	37.0	366.00	415.50	314.00- 417.50	-	-	-	6	20	27	24	23	25	15	34	17	23	15	247	71	. 1	-	-	-	
ranscribing-machine typists Nonmanufacturing	265 235	39.0 39.0	232.00	215.00 211.00	193.50- 259.50 187.50- 256.00	-	-	43	49	58 54	25 25	24	-	25 25	11	18	2	10	-	-	-	-	-	-	-	
Tunioto	0.00=		00.			200			1 1				-								B. 57				- 7	1
Typists	2,687	38.5	224.50	195.00	171.50- 237.00	51	293	576	518	363	216	75	46	62	68	88	52	20	26	197	20	. 5	11	_		
Manufacturing	318	39.5	321.50	325.00	276.00- 359.50	-	-	6	13	14	14	24	15	18	35	62	38	17	13	14	19	5	11			
Nonmanufacturing Transportation and utilities	2,369	38.5 39.5	211.50 318.00	188.50 310.50	169.50- 220.00 286.00- 387.50	51	293	570	505	349	202	51	31	44	33	26	14	3	13	183	1	-	-	-	-	1
Typists I	1,895	38.5	194.00	184.00	165.50- 206.50	51	293	501	425	265	174	51	15	33	30	27		4			-		7	-		
Manufacturing	145	39.5	284.50	276.00	232.50- 328.50		200	6	13	10	13	22					8	4	5	3	10	-	-	-	-	130 -
Nonmanufacturing	1,750	38.5	186.50	182.00	163.50- 200.00	51	293	495	412	255	161	29	10	28	19	22	6 2	3	4	3	9	-	-		- 1	
Typists II	738	38.5	305.50	314.50	208.50- 406.50			51	77	84	42	24	31	29	38	61		10	04	101						
Nonmanufacturing	565	38.0	291.00	262.00	200.00- 406.50			51	77	-		70.7					44	16	21	194	10	5	11	-	-	-
Transportation and utilities	130	39.0	327.00		287.50- 395.00	-	-	-	3	80	5	5	26	16	22	21	12	2	12	183		-	-		-	1
ile clerks	1,057	39.5	174.00	165.00	154.00- 180.00	80	327	385	157	38	7	9	9	3	7	2	17			-	-		100		7	
Nonmanufacturing	1,009	39.5	166.50	164.50	152.00- 173.00	80	327	385						3	1	3	17	4	1	5	5	-	-	-	-	-
Transportation and utilities	35	39.5	235.00	189.00	172.00- 254.00	-	-	10	157	38	1 -	9 7	5 2	-	1	1	-	2	-	1	2 2	-	-	1	-	
File clerks I	753	39.5	160.50	160.00	151.50- 167.00	70	202	202	00	-		3					1150				-					
Nonmanufacturing	747	39.5	160.00	160.00	151.50- 166.00	79 79	293	302 302	62 62	6	6	-	2	-	1	1	-	1	-	-	-	-		1	-	
File clerks II	274	39.5	204.50		167.00- 200.00	1	34	79	85	26	1	9		3	6	2	17	3	1	4	3	_				
Nonmanufacturing	236	39.5	180.50	180.00	165.00- 190.00		34	79																		

Table A-1. Weekly earnings of office workers in Detroit, Mich., April 1981 —Continued

		Average		Weekly ea (in dolla				10,110			Nur	mber of	workers	s receivi	ng straig	ght-time	weekly	earnings	s (in dol	lars) of	s) of -	-					
Occupation and industry division	Number of workers	weekly hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 140	140 - 160	160 - 180	180	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	-	420 - 440	440 - 460	460 - 500	500 - 540	540 - 580	580 - 620
Messengers	413	38.5	207.50	185.00	162.00- 222.00	12	90	74	91	34		6	27	4	-	2	27	1	6	7	7	2	-		-	-	
Manufacturing	87	40.0	258.00	233.00	190.00- 354.50		5	11	17		10	1	6	4	-		27	1	6	1	7	2			144		
Nonmanufacturing	326	38.5	194.00	180.00	155.50- 204.00	12		63	74			6	21		-	1		30	24		8	23	17			60	
Switchboard operators	545		238.50	195.00			2	151	129	46	43	19	13	8	9 5	10	3	24	11	1 05 50	8	15	16			-	
Manufacturing	118		357.50	365.00	306.00- 420.50		-	454	400	46	-	12	1	1	4		4	6	13		-	8	1	_	-		
Nonmanufacturing	427	39.5	206.00	183.00			2	151	122						3	1	1	6	13			_					
Transportation and utilities	44	40.0	308.50	312.50	220.50- 383.00	-	-		1	2	12	2	3	2	3		10.0	·	13	100	13.4	100					
Switchboard operator-			004.50	011.00	186.00- 250.00	TO BE	20	88	284	130	131	90	97	12	29	14	1	7	1		-	_	5	8	-	-	
receptionists	917	39.5		211.00			14	23	52			49			16	14	1	6	1		-	-	-	-	-	100	1 18
Manufacturing	311	40.0					6	65	232			41					-	1	10 -	hit.	-	100-	5	8	ol -	100	-
Nonmanufacturing	606			197.00			0	05	202	7		7	-			-	300 -	1	-		-	-	5	8	-	TB# -	-
Transportation and utilities	28	40.0	349.50	318.50	245.00- 487.00						100			07	13.5	00	200	55	52		44	33	39	21		1	N. S.
Order clerks	939	38.0	291.00	272.00			23	33	44			104				39	26	24	32	1	1	1	35	18			
Manufacturing	203	40.0	332.50	299.00	270.50- 444.00	-				14	20		39	37		10		24					00			-	
Order clerks I:	1								1	4					16. 41		200	4			1	4	2	2			
Manufacturing	52	40.0	270.50	234.00	210.00- 326.00	-	10	25	1	- 14	20		- 2	-			10.00		-	1		00	07	19	100	N.	
Order clerks II	373	39.0	369.00	375.50	299.50- 406.00	-	-	-	-		-		- 37		100	- 4	26		52	4	43	32	37 33				
Manufacturing	151				287.50- 444.00) -	-	-	-		-		- 37		DENO.	4	-	23			40	32	33	3		The sales	1
Nonmanufacturing				385.50	344.00- 406.00	-	-	-						- 31	Page.	100	26			1	43	7.4	4			THE ST	
Accounting clerks	5,571	39.0	256.00				129											1	64		106 79	84 76	87 70	249			
Manufacturing	1,640	40.0	320.50					23										- 0.500			27	8	17	45		1000	
Nonmanufacturing	3,931	39.0	229.00	215.00			129	471										2		-	7	5	11	38			1200
Transportation and utilities	416	38.5	316.50	318.00	275.00- 325.00) -	1 8 1		11							100	200	1080			-	2	3			-	13.3
Accounting clerks I							129	473	642										1		5 2	2	3				
Manufacturing							100	404										2			3	-	-	18	3	-	-
Nonmanufacturing	2,508	39.0	206.50	200.00	180.00- 220.00	25	129		100		1				1					No.	39	12	21	38	R	3	
Accounting clerks II	1,922	39.0	276.00	260.00			-	21													20	7	10			3	
Manufacturing	. 524	4 40.0	303.50	292.00			-	14		500	707										19	5					-
Nonmanufacturing	1,398		266.0	246.00	230.00- 302.50	0 -		1	90	0 118	309	28							Dec.		4	5		1 100			_
Transportation and utilities	. 220			325.00	316.00- 336.00	0 .					- 7		1 10	The same		100						1				3	
Payroll clerks	. 73	1 39.5	275.5	250.00	219.00- 303.00	0 .	- 5												1 1 1 1 1 1 1 1		14	14	19			3	
Manufacturing	07/				245.00- 389.50	0 .	-	- 18								4 2				3	13	13	10				1 9 9
Nonmanufacturing	450				205.00- 269.00	0	- 5	17	7 5	7 69	9 116						2 -					1	9		6		
Transportation and utilities	5					0	-		-		- 2	2	2	1 15	5	6				3	6		-		The state of		
Key entry operators	3,49	3 39.	5 244.0				7 337														125	62					
Manufacturing			334.0					1	5 1												94	25			6	-	-
Nonmanufacturing	2,88			0 200.00			7 337										9 2		9		23				5	_	-
Transportation and utilities		100		0 395.00	252.50- 395.0	0	-	- 13	3 1	4 1				9 1	1 12												
Key entry operators I	. 2,33	3 39.					7 33							0 5	9.	6 4	5 24 8 20			5 8	22	2			_		-
Manufacturing	. 26						-		5 1					4 4	2			4 28			19			3	-	-	-
Nonmanufacturing	2,06		0 201.0				7 33												2 1		19				_	-	-
Transportation and utilities					200.00- 389.0	0	-	- 1							337	103		100	1000	200				100	19		1.2
Key entry operators II	1,16	0 39.					-	- 7	0 5	9 11				7 4			5 3		4 11		103				3	-	-
Manufacturing	34						-	-	-		6 1			2 1		7			5 8		75				6	-	-
Nonmanufacturing	82					00	-	- 7	0 5						ó	_	_			9	4				5	-	-
Transportation and utilities	. 15	3 40.	0 377.0	0 395.0	0 395.00- 395.0	U	-	-	-	-	4	U	-	7	~	-	-	-	-	-	NEW PROPERTY.	-	-	-	-		_

Table A-2. Weekly earnings of professional and technical workers in Detroit, Mich., April 1981

	Number	Average		Weekly e (in doll							Nu	imber of	worker	s receivi	ing strai	ght-time	weekly	earning	s (in dol	llars) of	-					
Occupation and industry division	of workers	hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	140 and under 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280	300 - 320	320 - 340	340 - 360	360 - 400	400 - 440	440 - 480	480 - 520	520 - 560	560 - 600	600	640 - 680	680 - 720	720 and over
Computer systems analysts	TEN.																									
(business)	2,809	39.5	562.00			-	-	-		-	-	-	3	17	9	56	226	240	252	280	276	247	200	000	000	-
Manufacturing	1,756	40.0	588.00			-	-	-	-	_	_	-	2	13	6	39	79	91	147	135			303	386	299	215
Nonmanufacturing	1,053	38.5	519.00	504.00	417.50- 604.00	-	-	-	-	-	-	-	1	4	3	17	147	149	105	145		173 74	225 78	268 118	245 54	* 179 36
Computer systems analysts		ALC: 1					199	2								1.73	10 38	8 500	How !	B.B. Ye						The state of the s
(business) I	659	39.5	495.00			-	-	-	-	-	-	-	2	16	9	34	138	71	24	39	87	98	82	59		No. of
Nonmanufacturing	252	38.5	423.50	401.00	380.00- 434.00	10.5	-	-		-	-	-	-	4	3	10	108	67	21	14	6	8	2		1	-
Computer systems analysts	445	New		100	AND THE RES							85.				53										
(business) II	1,276	39.5	567.50	592.00	458.50- 671.00		-	12.9		The Par		500	1	1		22	82	145	400			-				
Manufacturing	895	40.0	591.50	634.50	480.50- 681.50	-	-		_		-			1		15	45	145	125 77	131	84	65	136	210	211	63
Nonmanufacturing	381	39.0	511.50	493.50		-	100	_	_	1	-		1		North Control	7	37	61	48	47 84	32	51	123	186	192	
Transportation and utilities	163	38.5	505.50	501.50	482.00- 534.00	-	-	0	-	-	-	-	-	-	-	1	5	13	21	69	52 38	14	13	24	19	21
Computer systems analysts	-100																						3			100
(business) III	874	39.5	604.50	602.50	513.00- 688.50	-			_		3															
Manufacturing	454	40.0	624.50	634.50		_	_	_									6	24	103	110	105	84	85	117	88	
Nonmanufacturing	420	38.5	582.50	589.50	519.50- 654.50	-	-	-	<u> </u>	-	-	-	-	-	-	-	2	21	67 36	63 47	41 64	32 52	63	32 85	53 35	
Computer programmers (business)	2,049	39.5	437.50	442.00	347.00- 524.00	1873				MES	00															
Manufacturing	1,150	40.0	492.50	493.50	434.50- 559.00	100					66 9	53	76	125	119	216	222	137	296	210	213	166	89	45	16	-
Nonmanufacturing	899	39.5	367.00	347.00	309.50- 402.50						57	53	8	440	31	75	78	. 87	218	177	175	143	85	41	16	-
Transportation and utilities	56	40.0	388.00	365.00	329.00- 460.00	-	-	-		_	-	-	68	118	88	141	144	50	78 8	33	38	23	4	4	-	-
Computer programmers									6 6			7.4														
(business) I	476	39.5	352.00	326.50	288.00- 442.00	_		_			62	43	65	58	39	40		07		100	ECROS !		400		The said	
Manufacturing	186	40.0	427.00	442.50	390.50- 465.50	-	-	-	_		9	-	4	1	4	16	44 31	27	99	18	5	-	-	-	-	-
Nonmanufacturing	290	39.5	304.00	294.50	269.50- 326.00	-	-	-	-	-	53	43	61	57	35	11	13	7	10	18	5		-		-	
Computer programmers																										
(business) II	972	39.5	416.50	402.00	350.00- 477.00	-	-	-	-	-	4	10	11	62	58	172	160	91	168	133	70	20	-	700	2 16	
Manufacturing	525	40.0	449.50	463.00	381.00- 500.50	-	-	-	-	-		2	4	6	25	70	42	55	115	124	59	28	5		-	-
Nonmanufacturing	447	39.5	378.00	364.00	340.00- 407.50	-	-	-	-	-	4	10	7	56	33	102	118	36	53	9	11	7	1		_	la E
Computer programmers				- 1		1		- 76.5									1					1			OLAN I	
(business) III	601	40.0	539.50	555.50	505.50- 597.50	-	-	-	-	-	-	-	-	5	22	28	18	19	29	59	138	138	84	AF	40	
Nonmanufacturing	162	39.5	451.00	462.00	352.00- 528.00	-	-	-	-	-	-	-	-	5	20	28	13	7	15	24	27	16	3	45	16	
Computer operators	1,930	39.5	362.00	345.00	261.00- 466.00	-	9	36	88	170	170	146	158	112	55	82	136	158	199	209	450					
Manufacturing	895	40.0	428.00	455.00	354.00- 506.00	-	-	2	3	20	31	76	13	41	18	34	86	83	143	165	152	31	19		-	-
Nonmanufacturing	1,035	39.5	305.00	285.00	236.00- 352.00	-	9	34	85	150	139	70	145	71	37	48	50	75	56	44	19	28	19	-	-	
Transportation and utilities	116	39.5	333.50	303.00	282.50- 430.00	-	-	-	8	6	11	3	27	16	2	5	2	17	12	7	-	-	-			-
Computer operators I	576	39.5	359.00	372.00	260.00- 460.50	- 3 3	9	26	18	46	43	00	05				14					2				
Manufacturing	317	40.0	399.50	418.50	342.00- 474.00		9	20	10	16	10	32 12	25	45	15	17	48	63	97	92	-	-	-	-	-	-
Nonmanufacturing	259	39.5	309.50	275.00	228.00- 410.00	-	9	24	17	30	33	20	19	24	6	14	42	48 15	70	66	1	-		-	-	-
Computer operators II	1,008	20.5	244 50	200 50	240.00 450.50	1 3									27				-	-					3 1	316
Computer operators II	416	39.5 39.5	344.50 424.00	296.50 456.50	240.00- 456.50 309.50- 515.00	-	-	10	70	107	122	106	91	52	25	30	63	54	81	89	107	1	_	_	_	
Nonmanufacturing	592	39.5	288.50	263.50	230.00- 314.00	-	-	10	2	400	16	63	6	17	5	10	31	35	56	74	96	1	-	_	-	-
Transportation and utilities	64	40.0	326.00		249.50- 430.00	-		-	68	103	106	43	85	35	20	20	32	19 12	25	15	11	-	-	-	-	-
Computer operators III	346	39.5	418.50	416.50	316.00- 526.00		5.8			17	5	8	40	45										1		100
Manufacturing	162	40.0	495.00	525.50	457.50- 568.00					17	5	8	42	15	15	35	25	41	21	28	45	30	19	-	-	-
Nonmanufacturing	184	39.0	351.00		293.00- 420.00	_				17	3	7	41	15	7 8	10 25	13	-	17	25	37	27	19	-	-	-
Transportation and utilities	33	40.0	349.00		288.50- 434.00	-	-	-	-	-	-	-	15	4	2	25	12	41	3	3	8	3	-	1	-	1
Computer data librarians	143	39.0	320.50	325.00	280.00- 325.00	-	_	4	13	5	9	17	5	9	49	6	4	7	4							
See footnotes at end of tables.			1									-		-	70	0	4	-	4	6	5	-	-	-	-	-

Table A-2. Weekly earnings of professional and technical workers in Detroit, Mich., April 1981 —Continued

		Average		Weekly ea (in dolla							Nu	mber of	workers	receivi	ng straig	ht-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	140 and under 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 400	400	440 - 480	480 - 520	520 - 560	560 - 600	600 - 640	640 - 680	680 - 720	720 and over
	5,619	40.0	467.00	480.50	360.00- 585.50	5	205	117	148	81	107	132	185	106		132	344	347	578	583	617	514	472	501	291 291	
Drafters Manufacturing	4,108	40.0	518.50	522.50	440.00- 618.50		23	23	-	-	14	65	29	28		79		294	518		549	411	402		291	1
Nonmanufacturing	1,511	40.0	325.50		210.00- 440.00				148	81	93	67	156	78	39	53	75	53	60	82	68	103	70	4		
Nonmanulacturing		Heat in					400	- 00	34	30	15	25	50	52	52	27	96	24	3					-	_	
Drafters II	539		279.50		200.00- 354.00		102			30	15	20	15		52	27		24	3			_	-	300	-	100
Manufacturing	275	40.0	329.00	354.00	312.00- 384.00	-	23	23					13	12	32	21	00	-7		1						
Drafters III	966	40.0	366.00	382.50	278.50- 437.00	-	_	-	1	46		107	21		77							-	-	-	-	
Manufacturing	1		396.00			-	-	-	-	-	14	65		16				197	144	69	15	-				1800
Nonmanufacturing					240.00- 278.50	-	-	-	1	46	78	42	7	8	14	9	18	1				5			an a S	
- Delik iki hari katisa s				12.				0.2					114	30	25	15	78	73	288	243	163	67	8	_	-	
Drafters IV	1,104						The state of	Contract of			100		117	00	-	4	67	62			163	67	8	-	-	
Manufacturing	873							1 66					114	30	25	11					-	_		-	-	
Nonmanufacturing	231	40.0	326.50	300.00	290.00- 342.00	1					214		114	30	25		18					1.6		100		Kin-
Drafters V	2,692	40.0	580.50	591.00	530.00- 646.50) -		1	130 -	-		-	7.1	-	-	37	46									
Manufacturing) -	-	-	-	-	P. S. G.	-	-	-	-	4	-	11							231	
Nonmanufacturing							-	-		13.0	-	-	-			33	46	42	35	/8	68	103	70	1		
			470.50	467.50	415.50- 511.00								3	3 3	3 -	. 8	9	23							1	
Electronics technicians										100						1	4	1	3 28	34	7	18	-		1	-
Manufacturing	. 97	40.0	503.00	511.00	465.50- 533.00				N. S.						200	Page 1	1								19,4	
Electronics technicians II	. 71	40.0	415.50	415.50	399.00- 465.50								3	3 3	3 -	. 8	3 7	21	1 28	3 1						
Deviate and industrial access	350	40.0	455.50	466.00	418.00- 510.00	0 .					- 3	1		- 4	4 8	27								TO THE	-	-
Registered industrial nurses										-				- 4	4 3	3 24	32				70	-	1			
Manufacturing										-	- 3	1		-	- 5	5 3	3	3 14	4 1	8 1	4				-	1
Nonmanufacturing Transportation and utilities							18 18					3.3		-	- 2	2 2	2 2	2 1	1	8 -						-

^{*} Workers were distributed as follows: 106 at \$720.00 to \$760.00; 33 at \$760.00 to \$800.00; 39 at \$800.00 to \$840.00; and 1 at \$840.00 to \$880.00.

^{* *} Workers were distributed as follows: 75 at \$720.00 to \$760.00; 35 at \$760.00 to \$800.00; 41 at \$800.00 to \$840.00; 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 Detroit, Mich., April 1981

	Number		rerage nean²)		Number		verage nean²)				verage nean²)
Sex, ^a occupation, and industry division	of workers	Weekly hours ¹ (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 hours¹ (stand- ard)	Weekly earnings (in dollars
Office occupations - men				File clerks	1,001 958	39.5 39.5	173.50 166.50	Professional and technical occupations - men			George of A
Order clerks	477	37.0	330.50	File clerks I	713	20.5	100.50	Computer systems analysts	The same	1917 2018	diese.
Manufacturing	76	40.0	398.00	Nonmanufacturing	707	39.5 39.5	160.50 160.00	(business):		7.5	
Order clarks II		-			707	39.5	160.00	Manufacturing	1,484	40.0	601.00
Order clerks II		38.5	382.50	File clerks II	259	39.5	203.00		1000	10.0	001.00
Manufacturing Nonmanufacturing		40.0	395.00	Nonmanufacturing	226	39.5	181.00	Computer systems analysts			10.00
Normanulacturing	192	38.0	377.50			00.0	101.00	(business) II	. 970	40.0	592.50
Accounting clerks:				Messengers:				Manufacturing	. 769	40.0	604.00
				Manufacturing	52	40.0	268.00	Computer systems analysts	- 8 miles		
Accounting clerks II:					100			(business) III:			
Manufacturing	53	40.0	362.00	Switchboard operators	515	39.5	238.50	Manufacturing	410	40.0	630.50
Development of the first				Manufacturing	116	40.0	357.00		410	40.0	030.30
Payroll clerks	56	40.0	425.50	Nonmanufacturing	399	39.5	204.50	Computer programmers (business):			Mariano
Office occupations -	9 1			Transportation and utilities	41	40.0	302.00	Manufacturing	827	40.0	507.50
women				Switchboard operator-				Nonmanufacturing:	11 11 12 12		
				receptionists	906	39.5	219.00	Transportation and utilities	. 32	40.0	416.50
Secretaries	8.173	39.5	377.50	Manufacturing	308	40.0	230.50	Computer programmers			
Manufacturing	4,751	40.0	418.50	Nonmanufacturing	598	39.0	213.00	(business) I:	Shreeting of		THE PARTY OF
					000	00.0	213.00	Manufacturing	109	40.0	438.50
Secretaries I	. 344	39.0	248.50	Order clerks	462	39.0	250.00	The state of the s	100	40.0	430.30
Nonmanufacturing	. 318	39.0	237.50	Manufacturing	127	40.0	293.50	Computer programmers			
0				Nonmanufacturing	335	38.5	233.50	(business) II:			
Secretaries III	. 3,654	39.5	377.00				200.00	Manufacturing	343	40.0	455.50
Manufacturing	. 2,350	40.0	410.00	Order clerks I	353	39.0	223.50	Computer programmers			
Nonmanufacturing Transportation and utilities	. 1,304	38.5	318.00	Nonmanufacturing	305	38.5	218.00	(business) III	466	40.0	552.50
Transportation and utilities	. 46	39.5	362.50					(business) iii	400	40.0	552.50
Secretaries IV	1,766	39.5	426.00	Order clerks II	109	40.0	336.50	Computer operators	1,214	39.5	383.50
Manufacturing	1,158	40.0	455.50	Manufacturing	79	40.0	316.50	Manufacturing	621	40.0	448.00
	1,100	40.0	455.50					Nonmanufacturing	593	39.5	315.50
Secretaries V	634	39.5	423.00	Accounting clerks	4,793	39.0	244.50				
Manufacturing	. 388	40.0	474.00	Manufacturing	1,372	39.5	299.00	Computer operators I	361	40.0	361.00
Nonmanufacturing	. 246	39.0	342.00	Nonmanufacturing	3,421	39.0	222.50	Manufacturing	205	40.0	415.00
				Association alorio I				Nonmanufacturing	156	39.5	289.50
Stenographers		39.0	342.50	Accounting clerks I	2,871	39.0	212.00	Computer operators II			
Nonmanufacturing	. 840	38.0	340.00	Nonmanufacturing	624	39.5	249.00	Manufacturing	558	39.5	375.50
Transportation and utilities	220	40.0	377.00	Normanulacturing	2,247	39.0	202.00	Nonmanufacturing	278	39.5	442.00
Stenographers I	100			Accounting clerks II	1,636	39.0	271.00	1401IIIaiidiacturiig	280	39.5	309.50
Manufacturing	408	40.0	296.00	Manufacturing	471	40.0	297.00	Computer operators III	295	39.5	425.50
Nonmanufacturing	292	40.0	307.00 292.00	Nonmanufacturing	1,165	39.0	260.50	Manufacturing	138	40.0	509.00
Transportation and utilities	136	40.0	379.00		1,100	33.0	200.50	Nonmanufacturing	157	39.0	352.00
Transportation and dillinos	130	40.0	379.00	Payroll clerks	671	39.5	263.50	Transportation and utilities	30	40.0	339.00
Stenographers II	1,004	38.5	361.50	Manufacturing	237	40.0	291.00				
Nonmanufacturing	548	37.0	366.00	Nonmanufacturing	434	39.0	248.00	Peripheral equipment operators	50	40.0	365.50
	7 Table 1.			Transportation and utilities	49	38.5	374.50	Drafters	5.00-		
Transcribing-machine typists	265	39.0	232.00					Manufacturing	5,267	40.0	478.50
Nonmanufacturing	235	39.0	220.00	Key entry operators	3,389	39.5	244.00	Nonmanufacturing	3,977	40.0	522.00
Tunioto	0.505			Manufacturing	598	40.0	333.50	andractumy	1,290	40.0	344.00
Typists		38.5	224.50	Nonmanufacturing	2,791	39.5	224.50	Drafters II	449	40.0	280.50
Manufacturing	318	39.5	321.50	Kou ontre anamtera l				Manufacturing	236	40.0	323.00
rionnandacturing	2,277	38.5	211.00	Key entry operators I	2,274	39.5	212.00				020.00
Typists I	1,845	38.5	194.00	Manufacturing	266	40.0	299.50	Drafters III	885	40.0	366.50
Manufacturing	145	39.5	284.50		2,008	39.5	200.50	Manufacturing	690	40.0	394.50
Nonmanufacturing	1,700	38.5	186.50	Key entry operators II	1,115	39.5	308.50	Nonmanufacturing	195	40.0	268.00
	1,100	30.0	.00.00	Manufacturing	332	40.0	308.50	Droftoro IV	4.055		
Typists II	696	38.5	308.00	Nonmanufacturing	783	39.5	286.50	Drafters IV	1,053	40.0	453.00
Nonmanufacturing	523	38.0	293.50	Transportation and utilities	153	40.0	377.00	Nonmanufacturing	851	40.0	482.50

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Detroit, Mich., April 1981 —Continued

			rerage nean²)				erage lean²)		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	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)
Drafters V	2,677	40.0	581.00	Computer programmers (business):				Drafters	352	40.0 40.0	292.50 419.00
Manufacturing		40.0	598.50	Manufacturing	323	40.0	454.00	Manufacturing		40.0	218.00
Nonmanufacturing		40.0	499.00					Nonmanufacturing	221	40.0	210.00
		400	471.00	Computer programmers (business) I:	10.00					-1777	
Electronics technicians	142	40.0			77	40.0	411.00				TELESCO.
Manufacturing	97	40.0	503.00	Manufacturing	,,,	40.0	411.00	Drafters II	90	40.0	274.00
Electronics technicians II	71	40.0	415.50	Computer programmers	1		E 611 44				
				(business) II:			100				
Professional and technical				Manufacturing	182	40.0	437.50				
occupations - women					100 (100)			Drafters III	. 81	40.0	358.00
			100	Computer operators	675	39.5	326.00	Manufacturing	. 53	40.0	415.00
Computer systems analysts			Section 1	Manufacturing	274	40.0	383.50				
(business):	262	40.0	519.50	Nonmanufacturing	401	39.5	287.00				
Manufacturing	202	40.0	0.0.0		1				To Sale		
Computer systems analysts		- 1		Computer operators I	197	39.5	362.00	Drafters IV	. 51	40.0	379.50
(business) I:				Manufacturing		40.0	371.00			1	
Manufacturing	. 102	40.0	495.00	Marioracianig						18	
		-		Computer operators II	430	39.5	303.50				
Computer systems analysts		1	1	Manufacturing		39.5	388.00	Registered industrial nurses	. 287	40.0	456.00
(business) II:	110	40.0	E22.00	Nonmanufacturing		39.5	263.50	Manufacturing	. 254	40.0	457.50
Manufacturing	. 116	40.0	522.00	Nonmanuracturing	- 232	50.0	230.00			-	

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Detroit, Mich., April 1981

	Number	H	lourly earn								N	umber o	f worke	rs receiv	ing stra	ight-tim	e hourly	earning	s (in dol	lars) of							
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	Under 8.00	8.00 and under 8.20	8.20 - 8.40	8.40 - 8.60	8.60 - 8.80	8.80 - 9.00	9.00 - 9.20	9.20 - 9.40	9.40 - 9.60	9.60 - 9.80	9.80	10.00	10.40 - 10.80	10.80	11.20 - 11.60	11.60	12.00 - 12.40	12.40	12.80	13.20	13.60 - 14.00	14.00 - 14.40	14.40 and over
Maintenance carpenters	585			12.00-12.54		-	8 9		1000	-	4	12	5 4	19	30	11	10	21	19	9	120	297		5		28	
Manufacturing	478			12.00-12.54		-	-	-	-	-	4	-	-	-	30	2	9		19	9			-	4	-	-	
Nonmanufacturing Transportation and utilities	107 33	11.48 10.03		9.76-14.00 9.76-10.11			-		1			12	-	19 19	-	9		21 5	-	-	8 -	8 -	-	1 -	-	28	
Maintenance electricians	3,689	12.50		12.29-12.83	3 -	_	3	4	28		9 1	29	1	2	40	57	126	28	69	78	576	1185	1281	2	131		49
Manufacturing	3,572			12.29-12.83		-	-	-	28	-	-	25	1	-	40			12		78			1264		131		45
Nonmanufacturing	117	11.61		10.62-12.75		-	3	4	-	-	-	4	-	2		2		16		-	21	11	17	2	-		4
Transportation and utilities	32	10.80	10.62	10.60-10.88	3	-	-	-		-	-	-		-	-	-	23	2		-	-	-	-	-	-	-	
Maintenance painters	534	12.15	12.49	11.95-12.50) -	1	3.3			A.T.		6	2	7	20	3	32	20		70		000	100	100		Barle.	E STORY
Manufacturing	463	12.17		11.95-12.50			100		100	000		0	2		20	3	18	20 12		78 73		336	-	17	-	16	VIII -
Nonmanufacturing	71	12.04		10.70-13.43		-	-	-	-	-	-	6	-		-	3		8		5	4	325 11	_	9	-	16	
Maintenance machinists	634	11.97	12.09	11.42-12.63	_					12		12			43	1	70	14	21	6	210	138	40	B . I	67		
Manufacturing	547	12.17	12.11	12.09-12.65	-	-	-	_	0 _	12		12		_	25		30	5		6		138			67	-	
Nonmanufacturing	87	10.68	10.69	10.60-10.86	-	-	-	2	-	-	S -				18	1	40	9	19	-	210	130	40	1	01		TVS II
Transportation and utilities	87	10.68	10.69	10.60-10.86	-	-	-		-	-	-	-	-	-	18	1	40	9	19	-			-	-	-	-	
Maintenance mechanics								1																	-	90.	
(machinery)	3,921	12.07		12.19-12.83			-	7	96	2			55		26	80	50	16	35	52	382	1780	857	124		- 2	
Manufacturing Nonmanufacturing	3,867 54	12.09 10.84		12.19-12.83 10.38-10.50		30	-	7	96	2	43	180	55	-	26	64 16		16	35	51 1	379 3	1777	853 4		-	-	
Maintenance mechanics						2													5 10								
(motor vehicles)	2,235	11.82	12.38	11.20-12.58	33	-	25	-	9	5	10	50	12	54	37	140	156	27	95	119	355	884	144	59	St. Mil	21	2775
Manufacturing	1,144	12.11		12.00-12.58		-	-	100	9	_	10	-	12		7	36		4	7	28	253	695		-		21	D Turk
Nonmanufacturing	1,091	11.51	11.85	10.58-12.58	13	-	25	-	-	5	-	50	-	26	30	104	142	23	88	91	102	189	144	59		100	Andrea
Transportation and utilities	655	12.03	12.34	11.42-13.01	-	-	-	-	3 -	-	-	-	-	26	18		77	17	78	80	78	78	144	59	-		
Maintenance pipefitters	2,420	12.29	12.54	12.00-12.58	-	-	4	20	_	5	16	6			69		55	5	27	150	400	1515		152		- 5	
Manufacturing	2,388	12.30		12.00-12.58		-	-	20	-	-	16		-	-	69	-	51	5	27	150	393	1505	-	152			
Maintenance sheet-metal workers	480	12.26		12.27-12.54	1		-	4	-	_	8	_			6	1	4	2	27	13	59	357					
Manufacturing	458	12.33	12.54	12.54-12.54	-		-	4	-	-	8	-		-	-	-	2		15	13		357	-	-	-	-	
Millwrights	3,753	12.42	12.54	12.30-12.58				20							30	9	76	5	26	101	849	0444			400		
Manufacturing	3,692	12.42		12.30-12.58	-	-	-	20	-	-		-	1	-	30	9		5	26	97	840	2441 2393	. [196 196		
Maintenance trades helpers	281	10.48	10.07	10.22-10.66	138				A = 11			SE THE												W 1			
Manufacturing	211	10.48		10.22-10.66		-	14		-		6		1	27 27	9	91 28	84 84		7	. 50 50			-	- 1	-	-	Ī
Machine-tool operators (toolroom)	1,967	12.40	12.63	12.63-12.65	100				72				NATIONAL PROPERTY.					55	34	24	250	1272	260				
Manufacturing	1,967	12.40		12.63-12.65	-	-	- 2	-	72	-	-	-		-	-		_	55	34	24	250	1272	260	000			
Tool and die makers	4,866	12.29	12.77	12.29-12.83	gra y		14	27	70	12		- 218	12	70	9	364	2		24	41	1449	1017	1755	A TOTAL		STATE OF	
Manufacturing	4,865	12.29		12.29-12.83		-	14	27	70	12	30 -	-	12		9	364	2		24	40	1449	1017	1755				
Stationary engineers	597	12.33	12.65	11.95-12.83	23	2 -	8			_	5	1	5	1	9	6	13	31	34	27	10	193	133	8	39	8	43
Manufacturing	487	12.58	12.75	12.54-12.83	15	-	8	-	-	-	5	-	-	_	_	1	-	-	33	26	7	188	130	-	23	8	43
Nonmanufacturing	110	11.22	11.08	10.28-12.65	8	-	-	- 1	-	-	11/5	1	5	1	9	5	13	31	1	1	3	5	3	8	16	-	-
Boiler tenders	596	10.05	11.96	7.13-12.58	* 225	8	_		_	_	_			33	10	18	Mary 1	15		50	4	251		1.99		4 4	1

 ^{*} All workers were under \$7.40.
 Also see footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Detroit, Mich., April 1981

		Н	ourly earni (in dollars				1				Nu	mber of	workers	s receivi	ing straig	ght-time	hourly e	earnings	(in doll	ars) of -							
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	3.20 and under 3.40	3.40	3.80	4.20 - 4.60	4.60 - 5.00	5.00 - 5.40	5.40 - 5.80	5.80 - 6.20	6.20 - 6.60	6.60 - 7.00	7.00 - 7.40	7.40 - 7.80	7.80 - 8.20	8.20 - 8.60	8.60 - 9.00	9.00 - 9.40	9.40 - 9.80	9.80 - 10.20	10.20 - 10.60	10.60	11.00 - 11.40	11.40	12.20
ruckdrivers	7,847	10.38	10.74	8.59-12.08	26	56	3	61	23	35	10	12	145	30	727	180	40	645	24	239			516 105	535 304	24 24	2222 427	1412
Manufacturing	2,306	10.00			-	-	-	-	9				9	-	42	125	16	212	19	236					24	1795	
Nonmanufacturing	5,541	10.53		8.22-12.17	26	56	3	61	14	35	10	1	136	. 30	685	55	24	433	5	3		44	411	231		1402	
Transportation and utilities	2,887	12.21	12.17	11.68-12.94	-	-	48349			1	2	1	2	1		3	1	62	3	3	4	43	'			1402	1332
Truckdrivers, light truck	636	8.13			-	30	3	35	10	1	10	2	110	30	16	17	24	101	2	-	38			156	-	-	
Manufacturing	142	9.19	9.57	8.53-10.09	-	-	1 m	-	-	- 7	-	-		-		14	-	47	2		38	8		156			
Nonmanufacturing	494	7.83	7.40	6.50-10.74	1	30	3	35	10	1	10	2	110	30	16	3	24	54	2			0		156	1		
Truckdrivers, medium truck	2,543	9.28	8.25	7.25-12.08	26	26	-	26	13	34	_	10	26	-	683	126	9	379	22	13				-	-	645	24
Manufacturing	381	9.27	9.71	7.76- 9.86	-	-	-	-	9	-	-	-	-	-	14	74	9	-	19					-	-		3
Nonmanufacturing	2,162	9.29		7.25-12.08	26	26	-	26	4	34	10.4	10	26	1	669	52	-	379	3	3	39	-	7	-		645	21:
Truckdrivers, heavy truck	786	10.58	10.33	9.35-11.68	-	-		-	-		-	-	1 -	-	-	-	S -	-		206	-		230	70	-	280	
Truckdrivers, tractor-trailer	3,220	11.56	11.74	10.64-12.94					_				9	_	28	37	7	165	-	10				93		1150	116
Manufacturing	1,086			9.52-11.72		-	1000	-	-	- 0	-	-	9	-	28	37	7	165	-	10							
Nonmanufacturing	2,134	12.19		11.43-12.94		-	-	_	-	-	-	-	-	-	-		-	-	-	-	52	1	126	64	-	723	
Transportation and utilities	1,533			12.48-12.94			-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	7	-	-	360	1166
Transportation and dulines	1,555	12.00	12.04	12.40						200		1000				7.7					128			354	22	15	
hippers	478	10.28	10.90	10.81-10.90	-	6									74		9						4				
Receivers	758	9.33	10.77	7.69-10.81	-	-	-	34	11		100		11	7				1	9					351			
Nonmanufacturing	. 395	8.35	8.10	7.01-10.74	-	-	1	34	11	8	12	11	11	7	60	30	16	1	1	51		- 17	1	63	54		
Shippers and receivers	601	9.11	9.64	7.57-10.71	-		4	-	41		1		4	-	43			46	4	64							
Manufacturing		9.36	9.96	7.57-10.71		-		-	9	-	-	- 10	4	100	43	70		32	-	46			36			200	A L
Nonmanufacturing		8.08	9.12	4.75-10.39	-	1	4	-	32		1	-					4	14	4	18	1		23	14			
Varehousemen	2,072	9.00	9.64	7.78-10.22	2			1	18	17	25	30						17	-	10						15	
Manufacturing			8.19	8.19-10.06	3 -				-		-	-	10			10		-	-	10						1	100
Nonmanufacturing				7.25-10.22	2 -			1	18	17	25	30	6		314	23	10	17			- 14	4 156	240	104	165	15	
	2,427	9.53	10.53	7.30-10.81						135			20	10	521		- 26	_	-	-	- 1	8 17	1 604			214	
Order fillers Nonmanufacturing	100000000000000000000000000000000000000			7.30–10.8				-		13		-			521		26	-				154	4 433	659	-	214	
Shipping packers	734	8.8	10.01	7.00-10.65	5 .			- 14	4	12	2 .	-	15					-	15				7 -	312		1	-
Manufacturing				7.55-10.68	5			- 14		1.	1		15	20	22	42	-		15	72				259			
Material handling laborers	2,956	10.2	10.63	10.01-10.72		- 10	1	1 25	12	11	1:	3 4	26	118	12	2 24						2 33				131	1 29
Manufacturing	1,974			10.01-10.7							-	-		- 86		- 24	1 14	35	132			- 33					
Nonmanufacturing	982			10.53-12.8		- 10	1	1 25	12	1	1:	3 4	26	32	2 12	2	-	-	-	- 8		2	1 87	237	7 70		
Transportation and utilities	. 401			11.46-12.8			1 1									1 33.				- 8	В	2				100	
Forklift operators	. 7,137			10.16-10.7		-	-	-		-	- 2				-	312										266	
Manufacturing	. 5,859		200 000	1 10.16-10.7		-		-	-		- 2	8 2	56			312	100	50		1 /		- 12					
Nonmanufacturing		11.3	5 10.9	1 10.71-12.8	4													30				12		02		1	1
Power-truck operators	100					1	1		1		The same								3			8 2	2	33	9 6	5 76	6
(other than forklift)	549	10.6	8 10.66	10.66-11.1	2	1		-											119			1	10.0				
Guards	5,26	7.1	9 6.7	3 4.46-10.5	5 21	53	4 21	0 135	7 10					9 9			6 6					4 12	7 10				
Manufacturing						-	-	-			8 3				4 34								9		1 1		
Nonmanufacturing		7 5.0	9 4.5	2 4.00- 4.8	0 21	53	4 21	0 135	7 10	2 4	2 1	4	7 3	9 8	8 9	5 20	6 37	7 31	50	25		2					
Guards I				3 4.46-11.0		0 53	4 20	5 135	4 7			5 1	23 (1)	3 1	1	7	- 25						2 10		- 29 - 28		
Manufacturing				5 9.28-11.4		-	-	-					9		7	7	- 2	1 34	4	- 40			20		- 1		
Nonmanufacturing	2,54	8 4.4	2 4.4	6 3.60- 4.5	2 21	0 53	4 20	5 135	4 7	4 2	6	9	2 1	3	/	/		1		4	_	- 2				1	

Table A-5. Hourly earnings of material movement and custodial workers in Detroit, Mich., April 1981 —Continued

	Number	Н	ourly earni (in dollars								Nu	ımber o	f worker	s receiv	ring strai	ght-time	hourly	earnings	s (in dol	lars) of -							
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	3.20 and under 3.40	3.40 - 3.80	3.80 - 4.20	4.20 - 4.60	4.60 - 5.00	5.00 - 5.40	5.40 - 5.80	5.80 - 6.20	6.20 - 6.60	6.60 - 7.00	7.00 - 7.40	7.40 - 7.80	7.80 - 8.20	8.20 - 8.60	8.60 - 9.00	9.00 - 9.40	9.40 - 9.80	9.80 - 10.20	- 1	-	11.00 - 11.40	-	-
Guards II	737	7.98	8.23	7.13- 9.00	_	_	5	3	28	16	5	13	26	81	122	26	36	31	50	207	2	55		31	18-		
Manufacturing	108	8.99	9.83	7.25-10.10	-	-	-	-				8	_	_	34	_	-	_	-			46		20			100
Nonmanufacturing	629	7.81	8.14	6.88- 9.00	-	-	5	3	28	16	5	5	26	81		26	36	31	50	207	2	9	-	11	-	0.00	185
anitors, porters, and cleaners	11,412	6.85	5.60	5.05- 9.90	976	351	541	441	475	1910	1423	156	400	369	47	148	116	167	163	220	192	541	2599	77	20	80	
Manufacturing	4,141	9.54	10.34	9.35-10.34	-	-		45	-	_	51	73		48			82		155		127		2370		-	-	50
Nonmanufacturing	7,271	5.33	5.28	4.16- 5.58	976	351	541	396		1910								71	8	48	65		229	34	20	80	1
Transportation and utilities	336	8.11	8.29	6.71- 9.58	-	1	1	1	2	6	8	11	52		6	6	5	25	3	48	64	1	33	0.7	20	6	

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Detroit, Mich., April 1981

Sex,* 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)
Maintenance, toolroom, and			Stationary engineers	579	12.38	Material handling laborers	2,634	10.53
powerplant occupations - men		S. 18 15 1	Manufacturing	487	12.58	Manufacturing	1,824	10.18
			Nonmanufacturing	92	11.28	Nonmanufacturing	810	11.30
Maintenance carpenters		12.04				Transportation and utilities	401	12.40
Manufacturing	439	12.13	Boiler tenders	589	10.04	5-180	6,916	10.44
Nonmanufacturing		11.60				Forklift operators		10.44
Transportation and utilities		10.03	Material movement and custodial occupations – men			Manufacturing Nonmanufacturing	5,662 1,254	11.37
Maintenance electricians		12.50					4 407	7.00
Manufacturing		12.53	Truckdrivers	7,580	10.41	Guards	4,497	7.22
Nonmanufacturing	103	11.67	Manufacturing	2,247	9.98	Manufacturing	1,817	
Transportation and utilities	32	10.80	Nonmanufacturing	5,333	10.60	Nonmanufacturing	2,680	5.10 9.79
	647	40.40	Transportation and utilities	2,779	12.31	Transportation and utilities	54	9.79
Maintenance painters		12.18					0.000	744
Manufacturing		12.18	Truckdrivers, light truck	547	8.13	Guards I	3,882	7.11
Nonmanufacturing		12.23	Manufacturing	141	9.19	Manufacturing Nonmanufacturing	1,721 2,161	4.46
Maintenance machinists		11.92	Truckdrivers, medium truck	2,474	9.30			7.07
Manufacturing		12.14	Manufacturing	381	9.27	Guards II	615	7.97
Nonmanufacturing		10.68	Nonmanufacturing	2,093	9.30	Manufacturing	96	9.13
Transportation and utilities	87	10.68		786	10.58	Nonmanufacturing	519	7.76
Maintenance mechanics		100	Truckdrivers, heavy truck	700	10.56	Janitors, porters, and cleaners:		
(machinery)		12.07		0.404	44.57	Manufacturing	2,976	9.64
Manufacturing		12.09	Truckdrivers, tractor-trailer	3,164	11.57			
Nonmanufacturing	54	10.84	Manufacturing	1,031	10.29	Material movement and custodial		
	10 3 3 3	E 2	Nonmanufacturing	2,133	12.19	occupations - women	1	
Maintenance mechanics			Transportation and utilities	1,532	12.55			
(motor vehicles)		11.84				Shippers and receivers	. 66	9.98
Manufacturing		12.08	Shippers	435	10.21		504	0.45
Nonmanufacturing		11.59				Order fillers		9.15
Transportation and utilities	564	12.24	Receivers	616	9.74	Nonmanufacturing	. 492	8.94
Maintenance pipefitters	2.296	12.30	Ottomorphisms	535	9.00	Shipping packers	256	7.93
Manufacturing		12.32	Shippers and receivers	442	9.28	Manufacturing	88	9.59
Maridiacturing			Manufacturing	93	7.66	Warld actumy		
Maintenance sheet-metal workers	477	12.26	Nonmanufacturing	93	7.00	Material handling laborers:		
Manufacturing		12.33	W/	1,997	8.97	Manufacturing	. 150	9.43
manada da manada ma			Warehousemen	907	8.87			
Millwrights	3,317	12.43	Manufacturing	1,090	9.06	Guards:	lus -	
Manufacturing		12.43	Nonmanufacturing	1		Nonmanufacturing	417	4.49
Machine-tool operators (toolroom)	1.963	12.40	Order fillers	1,816	9.65	Guards I:	1	
Manufacturing		12.40	Nonmanufacturing	1,654	9.61	Nonmanufacturing	. 385	4.22
manacanny					0.55	Leiters restore and clopporer		
Tool and die makers		12.28	Shipping packers	478	9.35	Janitors, porters, and cleaners:	1,042	9.26
Manufacturing	4,859	12.28	Manufacturing	404	9.24	Manufacturing	1,042	0.20

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

			All industries				1	Manufacturing	3			Nonmanu	ufacturing	
Period ^s	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
ndexes (March 1977=100):					100						exe.			
March 1980	127.1	130.2	134.0	131.4	132.7	128.9	131.2	134.0	131.3	135.5	125.9	129.5	(6)	128.5
April 1981	140.4	142.0	147.3	143.9	146.8	142.2	143.3	147.7	143.5	150.3	139.2	141.2	(6)	141.5
Percent increases: February 1972 to March 1973:									110.0	100.0	100.2	141.2	()	141.5
13-month increase	5.7	(6)	5.7	5.3	6.5	4.7	(6)	5.5	5.2	6.1	6.6	(6)	6.5	7.5
Annual rate of increase	5.3	(6)	5.3	4.9	6.0	4.3	(6)	5.1	4.8	5.6	6.1	(6)	6.0	6.9
March 1973 to March 1974	7.1	(6)	8.8	8.6	9.3	7.1	(6)	8.8	8.7	10.6	7.0	(6)	(6)	5.6
March 1974 to March 1975	10.5	9.5	13.0	10.4	11.4	12.3	9.7	13.0	10.5	12.4	8.9	9.7	(6)	9.1
March 1975 to March 1976	7.7	7.0	7.9	7.2	8.6	7.4	6.7	7.9	7.1	8.3	8.0	7.5	(6)	9.0
March 1976 to March 1977	7.6	7.0	8.5	9.3	8.2	7.9	7.8	8.7	9.4	8.8	7.4	6.3	(6)	7.4
March 1977 to March 1978	6.5	6.8	8.1	8.3	7.9	5.9	7.4	7.8	8.3	8.5	7.0	6.1	11.0	7.4
March 1978 to March 1979	8.3	10.5	10.5	9.2	10.2	9.0	10.6	10.5	9.1	10.6	7.7	10.8	10.9	9.7
March 1979 to March 1980	10.2	10.3	12.1	11.1	11.6	11.7	10.4	12.5	11.1	12.9	9.3	10.1	(6)	9.7
13-month increase	10.5	9.1	9.9	9.5	10.6	10.3	9.2	10.2	9.3	10.9	10.6	9.0	(6)	10.1
Annual rate of increase	9.7	8.4	9.1	8.7	9.8	9.5	8.5	9.4	8.6	10.1	9.8	8.3	(6)	9.3

Table A-8. Pay relationships in establishments with paired office clerical occupations, Detroit, Mich., April 1981

									Occupati	on for whi	ch average	earnings	equal 100								
Occupation for which earnings are compared			Secretarie	s		Stenog	raphers	Tran- scrib- ing ma-	Тур	oists	File	clerks	Messen-	Switch- board	Switch- board operator	Order clerks	Account	ting clerks	Payroll		entry ators
ecretaries I	111	II .	III	IV	V	1	- 11	chine typ- ists	1	II	1	II .	gers	operators	-recep- tionists	II	1-	11	clerks	1	11
Secretaries I	100	85	83	71	65	(6)	(6)	(6)	(6)	(6)	134	(6)	(6)	115	(6)	(6)	115	98	89	107	(6)
Secretaries II	118	100	88	80	71	122	107	119	123	122	160	112	153	100	119	80	122	102	92	128	100
Secretaries III	120	114	100	88	79	137	116	117	135	116	158	123	132	110	125	94	133	102	97	124	107
Secretaries IV	141	125	114	100	88	156	130	(6)	161	134	197	140	158	125	142	97	148	119	110	143	121
Secretaries V	155	141	127	114	100	169	142	(6)	180	148	219	153	173	144	157	120	154	130	121	157	134
Stenographers I	(6)	82	73	64	59	100	84	(6)	109	94	121	102	114	93	97	(6)	98	80	86	100	84
Stenographers II	(6)	93	86	77	70	120	100	(6)	131	104	139	117	131	97	(6)	(6)	114	96	87	107	93
Transcribing-machine typists	(e)	84	85	(6)	(6)	(6)	(6)	100	108	99	123	(6)	114	103	93	74	105	78	75	96	89
Typists I	(e)	81	74	62	56	91	77	93	100	84	109	(6)	101	88	(6)	(6)	97	66	78	91	77
Typists II	(6)	82	86	75	68	106	96	101	119	100	123	111	115	97	109	(6)	97	84	79	102	93
File clerks I	75	63	63	51	46	83	72	82	92	81	100	(6)	95	84	73	(6)	76	62	63	79	66
File clerks II	(6)	89	81	71	65	98	85	(6)	(e)	90	(6)	100	100	94	91	(6)	91	62	73	85	81
Messengers	(6)	66	76	63	58	88	76	88	99	87	105	100	100	89	83	(6)	88	70	77	89	80
Switchboard operators Switchboard operator-	87	100	91	80	70	108	104	97	113	103	119	107	112	100	(6)	(6)	94	83	82	98	96
receptionists	(e)	84	80	70	64	104	(6)	108	(6)	92	137	110	120	(6)	100	62	101	80	88	108	89
Order clerks II	(6)	124	106	103	83	(6)	(6)	135	(6)	(6)	(6)	(6)	(6)	(6)	161	100	(6)	132	113	141	125
Accounting clerks I	87	82	75	68	65	102	88	95	103	103	131	109	113	107	99	(6)	100	81	87	98	87
Accounting clerks II	103	98	98	84	77	124	104	.128	153	120	162	161	143	120	124	76	124	100	101	127	104
Payroll clerks	113	109	103	91	83	116	115	133	128	126	160	136	129	122	113	88	115	99	100	122	104
Key entry operators I	94	78	81	70	64	100	94	104	110	98	127	117	112	102	93	71	102	79	82	100	83
Key entry operators II	(6)	100	94	83	74	119	108	113	130	108	150	123	124	104	112	80	115	96	96	121	100

NOTE: This matrix table shows the average (mean) relationship of earnings in establishments between any two occupations compared. Earnings for an occupation in the table stub are expressed as a percent of the earnings for an occupation in the column heading at the point where the data lines for the two intersect. For example, reading across the Secretaries II row, the 118 in the Secretaries I column indicates that Secretaries II average 118 percent of (or 18 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, Detroit, Mich., April 1981

							Occupation	for which ave	erage earnir	ngs equal 100						
Occupation for which earnings are compared		mputer syste alysts (busine		Computer	programmers	(business)	Cor	mputer opera	tors	Computer		Dra	fters		Electronics technicians	Registered industrial
	1	II	III	1	11	III	- 1	11	III	librarians	II	III .	IV	٧	П	nurses
Computer systems analysts									1.13					100	. (6)	110
(business) I	100	86	73	130	116	(6)	131	117	104	126	(6)	134	111	102	(6)	110
Computer systems analysts												150	107	116	(e)	128
(business) II	117	100	88	146	132	113	154	135	121	147	177	152	127	110	(6)	120
Computer systems analysts				1 1 1 1		2				470	194	166	134	126	143	144
(business) III	136	113	100	161	145	126	173	153	136	178	194	100	134	120	143	144
Computer programmers					13 5 6 6		400	0.5	70	103	120	104	88	80	(6)	85
(business) I	77	69	62	-100	84	72	106	95	79	103	120	104	00	80	()	05
Computer programmers							400	440	94	113	139	115	91	86	97	99
(business) II	86	76	69	118	100	84	123	110	94	113	139	113	31	00	37	00
Computer programmers			-	4.00	100	400	141	123	108	(6)	(6)	137	115	104	(6)	116
(business) III	(e)	89	80	140	120	100		85	76	98	120	104	85	78	59	86
Computer operators I	76	65	58	94	81	71	100				129	112	92	88	79	96
Computer operators II	86	74	65	106	91	81	118	100	87	110			101	97	100	107
Computer operators III	96	83	74	127	107	93	132	115	100	125	146	(6)	86	84	(6)	88
Computer data librarians	79	68	56	97	89	(e)	102	91	80	100	125	(6)		58	(6)	75
Drafters II	(6)	57	52	84	72	(6)	83	77	69	80	100	76	59	73	(6)	87
Drafters III	75	66	60	96	87	73	96	89	(6)	(6)	131	100	80		(6)	106
Drafters IV	90	79	75	113	110	87	117	108	99	116	171	125	100	88	(6)	113
Drafters V	98	86	79	124	116	96	127	113	103	119	172	138	113	100	()	
Electronics technicians II	(6)	(6)	70	(6)	103	(6)	171	127	100	(6)	(6)	(6)	(6)	(6)	100	(6)
Registered industrial nurses	91	78	69	117	101	86	116	104	93	114	133	115	95	88	(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-10.Pay relationships in establishments with paired maintenance, toolroom, and powerplant occupations, Detroit, Mich., April 1981

						Occupation	for which av	erage earning	s equal 100					
Occupation for which earnings are compared					Mech	anics					Machine-			
are compared	Carpenters	Electricians	Painters	Machinists	Machinery	Motor vehicles	Pipefitters	Sheet-metal workers	Millwrights	Trades helpers	operators (toolroom)	Tool and die makers	Stationary engineers	Boiler
Maintenance carpenters	100	98	100	98	98	99	100	100	100	114	99	98	96	(6)
Maintenance electricians	102	100	103	100	101	102	102	102	102	119	101	100	99	(6)
Maintenance painters	100	97	100	98	98	99	100	99	99	112	98	97	96	(6)
Maintenance machinists	102	100	102	100	100	101	102	101	102	116	100	99	97	102
(machinery)	102	99	102	100	100	102	102	102	102	(6)	100	99	99	(e)
(motor vehicles)	101	98	101	99	98	100	100	100	100	116	99	98	97	(6)
Maintenance pipefitters	100	98	101	98	99	100	100	100	100	115	99	98	97	(6)
Maintenance sneet-metal workers	100	98	101	99	98	100	100	100	100	(6)	99	98	98	(6)
Millwrights	100	98	101	98	98	100	100	100	100	116	99	98	97	(6)
Maintenance trades neipers	88	84	89	86	(6)	86	87	(6)	86	100	(6)	(6)	87	(6)
Machine-tool operators (toolroom)	101	99	102	100	100	101	101	101	101	(6)	100	99	99	(6)
Tool and die makers	102	100	103	101	101	102	102	102	102	(6)	101	100	99	103
Stationary engineers		101	105	103	101	104	103	102	103	115	101	101	100	(6)
Boiler tenders	(6)	(6)	(6)	98	(6)	(6)	(6)	(6)	(6)	(6)	(6)	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, Detroit, Mich., April 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	Gua	ards	Janitors.
	Light truck	Medium truck	Heavy truck	Tractor- trailer	Shippers	Receivers	and receivers	Warehouse- men	Order fillers	packers	handling laborers	operators	operators (other than forklift)	1	П	porters, an cleaners
Truckdrivers, light truck	100	(6)	(6)	(6)	(6)	(6)	(6)	110	86	(6)	94	70	(6)	(6)	93	119
Truckdrivers, medium truck	(6)	100	(6)	(6)	114	109	103	(6)	133	(6)	(6)	105	(6)	111	(6)	113
Truckdrivers, heavy truck	(6)	(6)	100	99	(6)	(6)	(6)	(6)	(6)	(6)	104	(6)	(6)	(6)	(6)	(6)
Fruckdrivers, tractor-trailer	(6)	(e)	101	100	102	(6)	109	107	108	111	108	105	(6)	105	146	113
Shippers	(6)	88	(6)	98	100	101	(6)	105	102	(6)	102	104	(6)	107	(6)	107
Receivers	(6)	92	(6)	(e)	99	100	(6)	100	100	(6)	(6)	(6)	(6)	(6)	99	(6)
Shippers and receivers	(6)	97	(6)	92	(6)	(6)	100	90	99	100	100	99	(6)	95	(6)	104
Varehousemen	91	(6)	(6)	94	95	100	111	100	101	(6)	101	100	(6)	105	82	104
Order fillers	117	75	(6)	93	99	100	101	99	100	100	97	99	101	95	(6)	104
Shipping packers	(6)	(6)	(6)	90	(6)	(6)	100	(6)	100	100	100	99	(6)	(6)	(6)	103
Material handling laborers	107	(e)	96	93	98	(6)	100	99	103	100	100	99	(6)	97	127	103
Forklift operators Power-truck operators	143	95	(6)	95	96	(6)	101	100	101	101	101	100	(6)	99	123	104
(other than forklift)	(e)	(6)	(6)	(6)	(6)	(e)	(6)	(6)	99	(6)	(6)	(6)	100	(6)	(6)	(6)
Guards I	(e)	90	(6)	96	93	(6)	105	95	105	(6)	103	101	(e)	100	(6)	106
Guards II	108	(4)	(6)	68	(6)	101	(6)	123	(6)	(6)	79	81	(6)	(6)	100	114
Janitors, porters, and cleaners	84	89	(6)	89	93	(6)	97	96	96	97	97	96	(6)	94	88	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 Detroit, Mich., April 1981

		Average		Weekly ea (in dolla							Nu	mber of	workers	receivi	ng strai	ght-time	weekly	earning	s (in dol	llars) of	-	Arriva				
Occupation and industry division	Number of workers	weekly hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 140	140 - 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 500	500 - 540	540 - 580	580 - 620
ecretaries	7,409	39.5	395.00	403.50	340.00- 459.00	-	-	10	23	132		323	283	268	279		654	531	591	717		582	1060	402	236	10
Manufacturing	4,482	40.0	424.50	422.00	376.00- 474.00	-	-	-	2	6	27	77	79	80	87	158	341	343	426			380	832	346	225	10
Nonmanufacturing	2,927	39.0	350.50	352.00	278.00- 428.00	-	-	10	21	126	146	246	204	188	192	186	313	188	165	159	282	202	228	56	11	
Secretaries I	197	39.5	277.00	255.00	237.00- 308.00	-	-	2	2	16	37	47	22	14	23	4	2	(A) =	24		2		2	- 5		
Constante II	1,726	39.5	337.50	352.00	276.50- 383.00				9	83	89	154	108	110	91	72	334	227	92	108	135	104	6	3	1	
Secretaries II Nonmanufacturing	1,123	39.0	324.00		261.00- 369.50	-	-		9	81		108	93	79	71		213		29			51	4	-		
Secretaries III	3,173	39.5	398.50	409.50	351.50- 457.50	-		8	8	21	32	88	108	103	130		182		327	443		292		-	6	- 49
Manufacturing	2,323	40.0	411.50	415.50	379.00- 465.50		-	-	2	4		24	57	40	53		138								4	
Nonmanufacturing	850	39.0	363.50	375.50	295.00- 434.00	-	-	8	6	17		64	51	63	77		44		52					-	2	
Transportation and utilities	29	39.5	378.00	373.00	349.50- 387.00	-	-	-			2	-	-		2	2	8	2	6	1	2	4	2	-	2	
Secretaries IV	1,700	39.5			382.00- 511.50	-	-	-	4	8		26	33		33		109								180 176	10/5
Manufacturing	1,097	40.0	463.50		417.50- 514.50	-	-	-	-	-	5	5	7	7	14		72								4	5.0
Nonmanufacturing	603	38.0	395.00	400.50	339.00- 460.00	5		-	4	8	10	21	26	20	19	46	37	33	/5	4.3	42	02	90	31		
Secretaries V	453	40.0			384.00- 557.50	-	-	-	-	4	-	7	8	7 2	2	16	21	37 16	39		100000000000000000000000000000000000000	25 20		34 15	49 44	
Manufacturing	304	40.0			434.00- 588.00		-			1	- 7	7	8	5			1 1 2								5	A. T.
Nonmanufacturing	149	39.5								4		1		2		8	8		4		. 2		13		1	
Transportation and utilities	56	39.5	421.00	391.50	344.00- 491.00									-							100					
tenographers	1,363	39.0					-	13				65	55										-			
Nonmanufacturing	804	38.0					-	13	38				27													
Transportation and utilities	229	40.0	372.00	394.50	336.00- 411.00				1	3	3	3	6	1	12	20	15		39	30	10	1				
Stenographers I	434	40.0					-	13	39			50	37	17									-		- 1	
Manufacturing	116						2.5	40	38	47		46	27 10	8 9					30		Market Contract		40.30	1	5-6-1	1. Cata
Nonmanufacturing	318							13	30	3		3		6			3		30					_	_	
Transportation and utilities	145	40.0	371.50	396,50	330.00- 411.00	100	SEL		ed in the	3		,						10.50		1 - 30						
Stenographers II	929	38.5					-	-	-	14			18										10.00	-		886
Nonmanufacturing	486	37.0	379.50	415.50	345.50- 419.50)	-	-	-	14	9	15	17	16	15	33	14	23	11	24	1		To a			
ranscribing-machine typists Nonmanufacturing	137 107	39.5 39.5					-	36 36								18		10								
ypists	1,360	39.0	260.50	213.00	184.00- 336.50) -	61	208	278	165	62		21												-	
Manufacturing				329.00	305.00- 364.00	-	-	2														5	11	-	-	MI
Nonmanufacturing				200.00			- 61	206														-		-	100	
Transportation and utilities	170	39.5	318.00	310.50	286.00- 387.50) -	-	2	5	7	5	5	12	33	28	22	5	5 2	13	3						
Typists I	695	39.5	208.00	188.00	170.00- 215.50		- 61	173		87									5		3 10		-	-	-	
Manufacturing	1				237.50- 332.00	-	-	2						5					3 4		3	-				
Nonmanufacturing	581	40.0	191.00	184.00	165.50- 200.00)	- 61	171	198	77	7 29	6	5	18		5	2				76			146		
Typists II	611	38.5	326.00				-	11														5	11	-		7
Nonmanufacturing	. 443						-	11					10												1945	188
Transportation and utilities	. 130	39.0	327.00	318.50	287.50- 395.00)			3		7 5	5	1	16	20	11			12	3		18.0		Sept.		
ile clerks	709	39.5	180.00	165.00	154.00- 183.00	29	220	242	120	38	3 7	2	6	3	3	7 3	17		1 1	1		5 -	-	-	H.	
Nonmanufacturing	. 661						220	242	120	38	3 1	2	2	2		1 1		- 2	2		1 :	2	1			
File clerks I	450	39.5	161.00	156.00	150.00- 166.00	28	215	162	28	1	6 6		2			1 1		-	1	-	-				-	
Nonmanufacturing											6	-	2			1 1		-	1		-		1			
File clerks II	232	40.0	210.50	0 184.00	172.00- 204.0	0	1 5	76	82	26	6 1	2		. 3	3	8 2	17	7 3	3 1	1	4	3	-			K.,
	- 202	40.0	610.0	104.00	170.00- 190.0			76				2		Par et la	1 1 2 2 3 3					100	Carrier III					-1

Table A-12. Weekly earnings of office workers in establishments employing 500 workers or more in Detroit, Mich., April 1981 —Continued

	Number	Average		Weekly ea (in dolla							Nu	mber of	worker	s receivi	ing strai	ght-time	weekly	earning	s (in do	llars) of	-					
Occupation and industry division	of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 140	140 - 160	160 - 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 500	500 - 540	540 - 580	580
Messengers	296	39.5	218.50	186.00	166.00- 265.00	10	49	57	68	17	13	6	27	4		2	27	1	6	7	2					
Manufacturing	87	40.0	258.00	233.00	190.00- 354.50		5	11	17	5	10		6	1		1	27	4	0		-					100
Nonmanufacturing	209	39.0	202.00	180.00	159.00- 208.00	10	44	46	51	12	3	6	21	-	-	1	-	-	6	7	2	-	_		_	
Switchboard operators	297	39.5	282.00	261.00	174.00- 377.50	6	2	68	27	11	15	19	13	8	9	10	7	30	24	8	23	17				
Manufacturing	118		357.50	365.00	306.00- 420.50			-	7		3	7		4	5	10	3	24		8			-		-	
Nonmanufacturing	179		232.50	190.00		6	2	68	20	11	12	12		4	3	10	3	24			15	16	-	-	-	13.
Transportation and utilities	32		341.50	377.50		-	-	-	-	2	-	2	3	2	3	_	1	6	13		8	1	-	-		
Switchboard operator-																								479.4		
receptionists	76	39.5	261.00	250.50	200.50- 325.00	-	3	2	14	2	12	13	1	2	4	14	- 1	7	1	-	_		_			
Order clerks	98	38.0	298.50	227.00	173.50- 451.00	10	6	16	10	2	7		2													
Nonmanufacturing	56		219.00	173.50		10	6	16	10	2	1	1	-	1		-	10-5	1		3 2	2	12	21		1	
Order clerks I	60	37.0	206.00	174.50	158.50- 224.00	10	6	16	10	2	7		2					-						JEN US		
0.00.00000	- 00	07.0	200.00	174.50	150.50- 224.00	10		10	10	-		4	-				100	- 1			1	2	2	-	100	
ccounting clerks	2,037	39.5	303.00	285.50	222.00- 388.00	25	29	73	168	169	247	162	128	78	141	164	78	46	63	91	84	76	211	4	105.714	
Manufacturing	907	40.0	366.50	389.00	286.50- 454.50	-	-	2	39	30	60	68	25	28	29	42	68	33		79	76	61	200	1	1. 75	1
Nonmanufacturing	1,130	39.0	252.50	237.00	202.00- 304.00	25	29	71	129	139	187	94	103	50	112	122	10	13		12	8	15	11	-		
Accounting clerks I	852	39.0	235.00	222.00	194.50- 267.00	25	29	69	142	129	142	68	66	31	91	19	12	6	10	5	2	3	3		11	
Manufacturing		39.5	262.50	240.50	206.00- 303.50			2	39	24	42	37	12	12		16	12	6	10			3		-	-	
Nonmanufacturing	627	38.5	225.50	216.00	192.00- 267.00	25	29	67	103	105	100	31	54	19		3	-	1	-	3	2	3	3			- 1
Accounting clerks II	678	20.0	202.00	202.00	000 00 005 00	-			00		405															
		39.0	293.00	283.00	238.00- 325.00	-		4	26	40	105	94	62	45	45	133	30	17	10	24	12	10	18	3	-	1
Manufacturing Nonmanufacturing	200 478	40.0 39.0	329.50 277.50	315.00 267.50	249.50- 396.00 233.00- 325.00		_	4	26	6	18 87	31 63	13 49	14	20 25	14 119	20	5 12		20	7 5	1 9	18	3	-	
																110					j	,				
ayroll clerks	295	39.5	294.50	259.00	222.00- 389.50	-	5	16	32	18	44	33	29	9	5	13	10	2	11	14	14	10	27	3	-	
Manufacturing	157	40.0	347.00	343.50	250.00- 438.00	-	-	4	10	3	11	17	13	1	4	11	10	1	8	13	13	9	26	3	-	
Nonmanufacturing	138	39.0	235.50	228.00	192.50- 260.50	-	5	12	22	15	33	16	16	8	1	2	-	1	- 3	1	1	1	1	100 -	-	
ey entry operators	1,562	39.5	296.00	264.00	211.50- 395.00		2	132	154	163	177	133	65	37	32	55	55	118	140	125	62	78	34		1	
Manufacturing	448	40.0	363.00	373.50	330.00- 423.00	-	-	4	13	13	18	19	8	6	12	36	45	85	39	31	37	49	33			
Nonmanufacturing	1,114	39.0	269.50	234.00	200.00- 370.00	_	2	128	141	150	159	114	57	31	20	19	10	33		94	25	29	33			
Transportation and utilities	239	39.5	329.50	389.00	253.00- 395.00	-	-	13	14	12	8	14	9	15		9	2	2		23	7	-	-		-	
Key entry operators I	827	39.5	252.00	220.00	193.50- 326.50			100	150	100	00	40		40	00	4-	0.1	40.							100	1
Manufacturing	191	40.0	326.50	354.50	304.00- 373.50		2	132	150	128	99	18	31	18	26	45	24	104	25	22	2	1	-	-	-	
	636		229.50				-	4	13	6	9	3	6	4	8	28	20	76	8	3	2	1	-	-	-	
Nonmanufacturing Transportation and utilities	113	39.5 39.0	298.50	207.00 303.00	187.50- 236.50 200.00- 389.00		2	128	137	122	90	15 2	25 5	14	18 15	17	4 2	28	17	19 19			- 1	-		
	705	20.5	040.00	000 50		W. 1									324										183	
Key entry operators II	735	. 39.5	346.00	392.50	247.00- 419.50	-	-	-	4	35	78	115	34	19	6	10	31	14	115	103	60	. 77	34	-	-	100
Manufacturing	257	40.0	390.00	413.50	351.50- 451.50	T	-	-	-	7	9	16	2	2	4	8	25	9	31	28	35	48	. 33	-		
Nonmanufacturing	478	39.0	322.50	285.50	244.00- 408.50	-	-	-	4	28	69	99	32	17	2	2	6	5	84	75	25	29	1	-	-	1

Table A-13. Weekly earnings of professional and technical workers in establishments employing 500 workers or more in Detroit, Mich., April 1981

	Number	Average		Weekly ea (in dolla							Nu	mber of	worker	s receivi	ng strai	ght-time	weekly	earnings	(in dol	lars) of						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	Under 200	200 and under 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 380	380 - 420	420 - 460	460 - 500	500 - 540	540 - 580	580 - 620	620 - 660	660 - 700	700 - 740	740 - 780	780 - 820	820 - 860
Computer systems analysts		00.5	505.00	574.00	405 50 664 50							17	0	100	258	202	266	250	240	226	370	289	265	64	47	6
(business)	2,635	39.5						-	-		3 2	13	9	123 62	85		141	141	154	168	270		222		45	4
Manufacturing	1,682 953	40.0 38.5							-		1	4	3	61	173		125	109	86	58			43		2	2
Computer systems analysts										100		Sec. (1)							F 3							
(business) I	622	39.5	502.00	529.00	396.00- 592.50	-	-	-	-	-	2	.16	9	70	117	29	33	58	108	83	83	14	-		-	-
Computer systems analysts																		- 4								
(business) II	1,228	39.5	568.50				-	-	-	-	. 1	1	-	53	120		126	91	58	85			187	3	-	-
Manufacturing	867	40.0	591.50				-	- 4 -	-	-	-	1	-	26	73		61	28	29	74			164		-	100
Nonmanufacturing	361	39.0	513.50	497.00	431.50- 561.50	-	-		-	-	1	-	-	27	47		65	63	29			100	23	3	-	
Transportation and utilities	163	38.5	505.50	501.50	482.00- 534.00	-	1		-				-	1	13	16	45	56	19	2	7	4	-			-
Computer systems analysts						10.0							Total P				407	404	7.4		400	00	70		47	
(business) III	785	39.5									-	-		-	. 21	36	107	101	74	58					47	6
Manufacturing	422							-	9 -	1	-	-		-	4	13	72	59	23	17					45	4
Nonmanufacturing	363	38.5	586.50	596.00	514.00- 654.50									-	17	23	35	42	51	41	77	49	20	4	2	2
omputer programmers (business)	1,633	40.0	459.50	466.50	376.00- 540.50	-			52				75			196	257	206	187	125		22	14	- 22 -	-	
Nonmanufacturing	631	40.0		354.00	308.00- 443.50	-		-	43	48	45	50	67	118	81	57	47	38	21	12	3	1	-	-	-	
Transportation and utilities	56	40.0		365.00					-		5	5	8	18	2	4	6	6	2	-	3	-				
Computer programmers											1														_	
(business) I	397	40.0						-	48			32	23				58	13	1	-	-	-	-	-	-	
Manufacturing	186	40.0						14.00	9		- 4	1	4	13			55	13	1	-	-	-	-	-	-	
Nonmanufacturing	211	40.0	306.00	290.00	268.00- 328.00) -			39	43	38	31	19	17	11	10	3	-	-		Specie					
Computer programmers										100						400	405	04	45	40						
(business) II	665							1	4								165		45							
Nonmanufacturing	278	40.0	390.50	376.00	340.00- 442.50)			4	1 5	7	14	33	78	55	35	27	8	6	6						
Computer programmers																0.5	0.4	400		107		00				
(business) III	571	40.0						-0-7				5						102		107			14	100	1305	
Nonmanufacturing	142	39.5	451.00	462.00	352.00- 527.00							5	15	23	15	12	17	30	15	6	3	1				
omputer operators	1,296																		106			-	-		3.00	
Manufacturing																	181	123	94		-		-		-	
Nonmanufacturing	517	39.5	346.00	318.00			11											27	12			-			-	
Transportation and utilities	83	39.5	344.00	318.00	281.50- 430.00)		1 6	3 11	1	3 8	16		2 6	3	22	5	-								
Computer operators I	489	40.0	377.00	404.00			3 8	3					15						-			-			APP -	
Manufacturing		40.0	405.50	435.00			2															-			-	
Nonmanufacturing		39.5	336.00	305.00	256.00- 440.00	0 6	5	7 2	23	3 20	19	21	1	9	5	23	23	14			200					
Computer operators II	568	39.5	408.00	430.00	300.00- 501.50) .		6 15														-			-	6.5
Manufacturing							- 2	2													-	-		-	-	1
Nonmanufacturing	226				270.00- 430.0) .	-	4 1	1 16			26	2				9	7	8	3	-	-	-	-	Piece in	100
Transportation and utilities	41							- 1	6	3	2 -	4		- 3	3 1	17	-	-						1	-	
Computer operators III	239	40.0	455.50	488.00	348.00- 548.0	0	_			5	8 20	10	13	2 27	7 7	13									-	-
Manufacturing							-	-	- !	5		-		7 8	9	- 4	21		35	33	3	-	-	-	-	1
Nonmanufacturing	. 91							-	-		7 19	10		5 18	3 7	7 9	5	6	4		1 .				-	
omputer data librarians	. 123	38.5	331.00	325.00	287.50- 345.5	0	1 1	0	5 9	9	3 6	9	4	9 6	6 5	5 6	10	1	4	1	-			4		
rafters	2,821	40.0					-	1	3 ;	3 1		3 22													-	
Manufacturing	2,743						-	-	-		5	14									7 468	B 516	9	2		1
Nonmanufacturing	. 78	40.0	389.50	0 377.00	299.50- 492.5	0	-	1	3	3	6	7 8	100	4	7 10) 6	6	5	12	2	-	-	-	-	-	1 3

Table A-13. Weekly earnings of professional and technical workers in establishments employing 500 workers or more in Detroit, Mich., April 1981 —Continued

	Number	Average		Weekly ea (in dolla							Nu	mber of	worker	s receiv	ng strai	ght-time	weekly	earning	s (in do	llars) of						
Occupation and industry division	of workers	weekly hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	Under 200	200 and under 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 380	380 - 420	420 - 460	460 - 500	500 - 540	540 - 580	580 - 620	620 - 660	660 - 700	700 - 740	740 - 780	780 - 820	820 - 860
Drafters li	154	40.0	369.00				_	3,712		-	1	12	19		51	9	2	T.	-				-			
Manufacturing	154	40.0	369.00	368.00	348.00- 395.00	Harry .	-	-	-		1	12	19	60	51	9	2	-	-	-	-	-	-	-	-	100
Drafters III	418	40.0	425.50	435.50	394.00- 465.50	i die	1	3	3	11	1	2	21	27	102	122	92	29	4				3300			100
Manufacturing		40.0	432.00					-	-	5	-	2	21		102		92			-	-		-	-		
Drafters IV	474	40.0	494.00	504.50	455.00- 541.00	- 3		-			6	8	4	15	19	81	88	132	90	31						
Manufacturing	451	40.0	503.00	507.50	460.50- 541.50	-	-	-6	-	-	-	-	-	12	18	80	88	132	90	31	-		-	-	-	
Drafters V	1,771	40.0	616.00	628.00	579.50- 668.50		-			_	_			7	9	27	65	93	258	326	468	516	2			
Manufacturing	1,731	40.0	619.50	630.00	581.00- 669.00	-17-	- 3-	-	-	-	1	Ben 5	RE -	4	-	22	59	88	246	326	468	516	2	5° -	-	
Electronics technicians	71	39.5	498.00	511.00	467.50- 511.00		1,00	- E	_		-			1	4	3	14	39	10		- 17			1		
Manufacturing		40.0	503.50		467.50- 511.00	5 m	- 2	-	-	-	-	-	-	-	1	2	14	30	10	-	-	-	-	186	-	124
Registered industrial nurses	323	40.0	465.00	471.00	432.50- 515.50		-	_	3	1	_		8	28	26	65	89	81	22				_			
Manufacturing		40.0	474.00				- 10/-	-	-	-	-	-	3	22	19	52	76			-	36 1	2 -	S -	320	-	
Nonmanufacturing		39.5	418.00	429.50	366.50- 466.00	-	-	-	3	1	-	-	5	6	7	13	13	3	1	-	-		-	1	-	-
Transportation and utilities	25	39.0	419.00	428.00	401.50- 466.00	-	-	-	1 P. 1	-	-	-	2	4	5	7	7	-	-	-	-	-	19.2	-	-	

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

	Number		erage ean²)		Number		rerage nean²)		Number		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	of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars)
Office occupations -				Switchboard operator-	70	00.5	057.50	Computer operators III	197	40.0	471.50
men				receptionists	73	39.5	257.50	Manufacturing	. 133	40.0	514.50
Payroll clerks	52	40.0	422.50	Order clerks	72	37.5	246.00	Nonmanufacturing	. 64	40.0	382.00
Office occupations - women				Order clerks I	56	37.0	189.00	Drafters	. 2,687	40.0	560.50
				Accounting clerks:				Manufacturing	2,612	40.0 40.0	565.00 390.00
Secretaries		39.5 40.0	401.00 424.50	Manufacturing	672	40.0	339.00	Nonmanufacturing	. 13	40.0	390.00
Manufacturing		1,000		Accounting clerks I:				Drafters II	115	40.0	371.00
Secretaries I	197	39.5	277.00	Manufacturing	215	39.5	257.50	Manufacturing	115	40.0	371.00
Secretaries III	3,029	39.5	403.00	Accounting clerks II:					12-		
Manufacturing		40.0	411.00	Manufacturing	180	40.0	318.50	Drafters III		40.0	427.00
Nonmanufacturing		38.5	376.50					Manufacturing	. 350	40.0	434.50
Transportation and utilities	27	39.5	365.00	Payroll clerks		39.5	268.00			100	
Secretaries IV	1,518	39.5	445.50	Manufacturing		40.0	309.00	Drafters IV	. 449	40.0	496.50
Manufacturing		40.0	463.50	Nonmanufacturing	123	39.0	229.50	Manufacturing	. 429	40.0	505.00
				Key entry operators	1,458	39.5	300.00	B-11	4.750		010.50
Secretaries V		40.0 40.0	468.00 503.00	Manufacturing	440	40.0	362.50	Drafters V	. 1,758	40.0	616.50 620.00
Manufacturing Nonmanufacturing		39.5	390.00	Nonmanufacturing	1,018	39.5	273.00	Manufacturing	1,/10	40.0	620.00
				Key entry operators I	768	39.5	254.00	Electronics technicians	. 70	39.5	499.50
Stenographers		39.0	348.00	Manufacturing		40.0	326.50	Manufacturing	. 57	40.0	503.50
Nonmanufacturing	766	38.0	348.50	Nonmanufacturing		39.5	230.00				3 700 000
Transportation and utilities	220	40.0	377.00					Professional and technical			
Stenographers I	396	40.0	298.50	Key entry operators II		39.5	351.00	occupations - women			1 2 2 3 3
Manufacturing	116	40.0	307.00	Manufacturing		40.0 39.0	390.00 329.00				
Nonmanufacturing		40.0	295.00	Nonmanufacturing	441	39.0	329.00	Computer systems analysts	1		
Transportation and utilities	136	40.0	379.00	Professional and technical			1 3 5	(business):	000	400	500.00
Stenographers II	928	38.5	369.00	occupations - men		- 5 1		Manufacturing	. 239	40.0	528.00
Nonmanufacturing		37.0	379.50	Computer systems analysts				Computer systems analysts	4 8		
Transcribing-machine typists	137	39.5	224.00	(business):				(business) II:			
Nonmanufacturing		39.5	195.50	Manufacturing	1,433	40.0	602.00	Manufacturing	. 116	40.0	522.00
Tuniete	1,268	39.0	263.50	Computer systems analysts		1		0 - 1	100		
Typists		39.0	330.50	(business) II	925	40.0	595.00	Computer programmers (business):	1	1	
Nonmanufacturing		39.0	244.50	Manufacturing	741	40.0	604.50	Computer programmers			
				Computer systems analysts			1	(husianas) li	LEST	1	
Typists I		39.5	210.50	(business) III:				Manufacturing	. 77	40.0	411.00
Manufacturing Nonmanufacturing		39.5 39.5	296.00 192.00	Manufacturing	387	40.0	634.50			1	
				Computer programmers (business):			18 T 3 8	Computer operators		39.5	377.50
Typists II		38.5	331.00	Nonmanufacturing:		1	1 1 2 3	Manufacturing	. 233	40.0	396.50
Nonmanufacturing	401	38.0	321.50	Transportation and utilities	32	40.0	416.50				
File clerks	659	39.5	179.00	Computer programmers				Computer operators I		40.0	366.00
Nonmanufacturing		39.5	169.00	(business) I:		1.6		Manufacturing	. 112	40.0	371.00
File clerks I	410	39.5	161.00	Manufacturing	109	40.0	438.50	0	470	00.5	000 50
Nonmanufacturing		39.5	160.00	Commutation and the contractions	845	40.0	400.00	Computer operators II		39.5	388.50 415.50
				Computer operators	546	40.0	422.00 465.00	wandacturing	100	40.0	415.50
File clerks II	223	40.0	207.50	Nonmanufacturing		40.0	344.00	Drafters	134	40.0	418.00
Nonmanufacturing	190	40.0	182.50					Manufacturing	131	40.0	419.00
Messengers:				Computer operators I		40.0	390.50				
Manufacturing	52	40.0	268.00	Manufacturing Nonmanufacturing		40.0 39.5	427.00 327.00	Drafters III		40.0	415.00
Switchboard operators	275	39.5	283.50	Normanulacturing	102	39.5		Manufacturing		40.0	415.00
Manufacturing	116	40.0	357.00	Computer operators II		40.0	420.00		1000	-	
Nonmanufacturing	159	39.5	230.00	Manufacturing		40.0	465.50	Registered industrial nurses		40.0	467.50
Transportation and utilities	29	40.0	336.00	Nonmanufacturing	133	40.0	339.50	Manufacturing	227	40.0	471:00

Table A-15. Hourly earnings of maintenance, toolroom, and powerplant workers in establishments employing 500 workers or more in Detroit, Mich., April 1981

	Number	۲	lourly earn (in dollars		-						N	umber o	worker	rs receiv	ing stra	ight-time	hourly	earning	s (in dol	lars) of				- 4			
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	7.40 and under 7.60	7.60 - 7.80	7.80 - 8.00	8.00 - 8.20	8.20 - 8.40	8.40 - 8.60	8.60 - 8.80	8.80 - 9.00	9.00 - 9.20	9.20 - 9.40	9.40 - 9.60	9.60 - 9.80	9.80	10.20	10.60	11.00	11.40	11.80	12.20	12.60	13.00	13.40	13.80 and over
Maintenance carpenters	535	11.95	12.50	12.00-12.54				198		14.4				12		19	39		40			105	044				
Manufacturing	456	12.19		12.16-12.54					2016					12		19		2						1	-	5	
Nonmanufacturing	79			9.76-11.03										40		19	30	2		10	9	97	303	- 1	-	4	
Transportation and utilities	33			9.76-10.11		-	-	-	-	_		-	- 1	12		19	9		18	4	_	8	8	_		1	
Maintenance electricians	3,458	12.60	12.75	12.60-12.83			1	1	2		28			9													
Manufacturing	3,345	12.64		12.75-12.83					3	-	28	S .	_	9		2	67	2		29					1	1	1
Nonmanufacturing	113	11.42		10.61-12.75			-		-	-	28	-		5	-	-	67	-	12	14			481	2433	-	-	1
Transportation and utilities	32	10.80		10.60-10.88					-	4				4	_	2	- 95	2	27 25	15			21	28	1	1	
Maintenance painters	489	1017	12.40	11.05.10.50																-			Ī				Fig.
		12.17		11.95-12.50		-	-	-	-	-	-	-		6	-	-	22	1	22	12	2	71	336	-	13	4	1
Nonmanufacturing	434 55	12.26 11.39		12.49-12.50 10.68-12.50		1		1		1				6		-	20	1	22	12				-	9	-	
Maintenance machinists	594	12.08	12.00	12.09-12.63																						4	
Manufacturing	507	12.32		12.09-12.65				-			-	12	-	-	-	-	43	1	61	2	19	211	19	159	-	-	
Nonmanufacturing	87	10.68		10.60-10.86		-			-	diam'r.	-	12	-	-	- 7	-	25	-	12	-	2	211	19	159	-	-	
Transportation and utilities	87	10.68		10.60-10.86					-		-	-	-	-			18 18	1	49 49	2	17 17			-	2100	-	
faintenance mechanics																-						W.					
(machinery)	3,457	12.42	12.75	12.65-12.83	-	20	30	2		7	96	2	7										- F - 1				
Manufacturing	3,428	12.43		12.65-12.83		20	30	2		7	96	2	7	4	6	-	33	18	38 38		47 47	345 341	83 83	2595 2588	_	124 124	
Maintenance mechanics			14-01 - 2 T																					2000			
(motor vehicles)	1,535	12.06	12.54	12.00-12.58	15		5			110	8		10		10	00	05	07					0.53				
Manufacturing	1,090	12.21		12.38-12.58			5				8		100	-	12	26	35	27	105	20	40		988	12	24	-	
Nonmanufacturing	445	11.68		10.65-12.58		- 7	3			-	8		10	-	12	-	16	16	-	10	2		807	-	-	-	
Transportation and utilities	280	11.41		10.65-12.48			-		-	13-	_	_	-	_	- 3	26 26	19 18	11	105	10	38 36		181 70	12 12		-	
Maintenance pipefitters	2,336	12.35	12 54	12.00-12.58						20		-	-	_													
Manufacturing	2,304	12.37		12.23-12.58						20		0	-	0		-	60	-	10	-	27	462	1594	-	-	152	
		12.07	12.54	12.20-12.00						20			-	-			60		6	16.7	27	455	1584	-	1	152	
Maintenance sheet-metal workers Manufacturing	472 450	12.31 12.38		12.54-12.54 12.54-12.54	-	-	-	-	-	4	-	-	-		-	-	6 -	= =	6 2	.11 10	16 5	64 64	362 362	3			
fillwrights	3,667	12.46	12 54	12.30-12.58					- 3.0	20	1			3											100	1	
Manufacturing	3,606	12.46		12.30-12.58	_	-	-	1	-	20		_				-	30 30	-	4		26 26	494 481	2888 2840	9	-	196 196	
Maintenance trades helpers	234	10.72	10.66	10.27-10.66	-	-		-	-	-		_	-	-		_	12	88	84	. 1	-	50		_		-	
fachine-tool operators (toolroom)	1,898	12.44	12.63	12.63-12.65		_	_				72						1			2	20	120	100	1470			
Manufacturing	1,898	12.44		12.63-12.65	-	-	-	-	-	-	72	-	-	-	-			-	-	2	30	130 130	180 180	1476 1476	8		
ool and die makers	4,240	12.61	10.77	12 20 10 20				1	100		-3-1				1 -								100		7 3 4		
Manufacturing	4,239	12.61		12.29-12.83 12.29-12.83		_	- 1	-	-		-	12		-		-	-	_	2	_	40	5	1440 1440	2741 2741	-	9 -	
tationary engineers	506	12.37	12.75	12.49-12.83		45									199				7							3	
Manufacturing	423	12.46		12.49-12.83		15	-	-	8	-	-	-	5	-	-	1	1	-	21	24	9	34	77	246	3	46	
Nonmanufacturing	83	11.93			-	15	-	-	8	-	-	-	5	-	-		-	-	-	-	8	31	73	242	3	22	1
* All workers were at \$13.80 to \$1		11.93	11.16	10.94-13.58	-	-	-	-	-	-	-	-	-	-	-	- 1	1	6 3-	21	24	1	3	4	1		24	

^{*} All workers were at \$13.80 to \$14.20 Also see footnotes at end of tables.

Table A-16. Hourly earnings of material movement and custodial workers in establishments employing 500 workers or more in Detroit, Mich., April 1981

			ourly earni (in dollars								Nu	ımber of	worker	s receivi	ing strai	ght-time	hourly	earnings	s (in doll	ars) of -	-						
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	Under 4.00	4.00 and under 4.40	4.40 - 4.80	4.80 - 5.20	5.20 - 5.60	5.60 - 6.00	6.00 - 6.40	6.40 - 6.80	6.80 - 7.20	7.20 - 7.60	7.60 - 8.00	8.00 - 8.40	8.40 - 8.80	8.80 - 9.20	9.20 - 9.60	9.60 - 10.00	10.00	10.40	10.80 - 11.20	11.20 - 11.60	11.60 - 12.00	12.00	12.40 and over
ruckdrivers	3.091	10.74	10.90	9.81-11.85	15	1	1	2	4	8	4	6	1	27	14	52		29	273	227	413		222	21	677	618	12
Manufacturing	1,751	10.29	10.08	9.30-11.72	100	-	-	-	-	-	-	-	-	25	12			25	231	183	370	30	217	21	421	-	3
Nonmanufacturing	1,340	11.33	- 0.703.5	10.71-12.08		1	1	2	4	8	4	6	1	2	2	37		4	42	44	43	118	5		256	618	9
Truckdrivers, light truck	149	8.08	8.34	8.00- 8.59	-	1	1	2	4	8	4	6	1	2	2	52		1	-	19		-	-		-	-	-
Nonmanufacturing	118	7.89	8.34			1	1	2	4	8	4	6	1	2	2	37		1		8			-				
Truckdrivers, tractor-trailer	1,458	10.82	11.72	10.08-11.74	-	-	-	- 2 -	-	-	-	-	-	25	12	-	165	-	31	25		77	29		677	3	9
Manufacturing	1,015	10.45		10.08-11.72		_	- 12		-	-	-	-	-	25	12	-	165	- 1	31	5	293			21		-	
Nonmanufacturing	443	11.68		11.75-11.90		-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	8	64		-	256	3	* 9
Shippers	355	10.91	10.90	10.81-10.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	4	328	8	15	-	
	F70	0.70	10.81	9.23-10.81	-	3	9	12	12	12	7	9	19	16	9	10	9	_	61	-	10	1	379	-	-	-	
Nonmanufacturing	578 264	9.73 8.63		6.88-10.81		3	9					-				1		-	51	-	7	-	91	-	-	-	
	303	10.20	10.71	9.33-10.81	The same		500	7		1		4			-	D	18	32	22	4	28	117	75	2	-		
hippers and receivers				10.27-10.81								4		-			-	14	22	4	22	91	75	2	-	12.00	
Manufacturing	234	10.39								1					-	34	18	18		-	6		-	-	E	-	-
Nonmanufacturing	69	9.56		8.75-10.45	1				00			01	32	25	5	397		10		16			-		1993	1	
Varehousemen				8.19-10.22		1			22		5 2							10		10	243					1	-
Manufacturing	726		The second second	8.19-10.11		-			-			15	1			390		10	8	16		22	268				
Nonmanufacturing	737	10.15	10.22	10.16-10.81		- 1	1	1	22		5 2	6		23	-				0		- 3						-
Order fillers	1,576	10.63	10.70	10.53-10.81					-		- 5	25	5	-	-	-	-	-	-	25			431	146			
Nonmanufacturing	1,295			10.53-10.81		-	-		-			-		-	10		-	-	-		210	465	401	146	68	-	
hinning markers	523	10.00	10.63	9.46-10.65					-			- 30	13	3 -	-	-	-	28	63	-	77	312	-	-	-	-	
hipping packers Manufacturing	0.00		10.65			-	1		-		-	- 30	13	3 -	7	-	-	28	63	-		259	-	100	-		100
	0.045	1004	10.60	10.01-10.72	1	18	20	8	11	1	22	34	31		10		127	73	2		374	1478	3 24	56	1	-	
Material handling laborers						10	-	The state of				15			- 10		127		-		360	1193	3 6	-		-	
Manufacturing				10.01-10.72		1 40	20		11		9 22							. 8			14				3 1	-	
Nonmanufacturing	539			6.83-10.63		7 18	20			1	2	13				00								1	5 75		
orklift operators	5,760	10.53	10.71	10.18-10.78	3	-	The same	2	-	13	-	-		- 76		- 28		97							16		
Manufacturing		10.50	10.71	10.16-10.7	1	-			-		-			- 76	-	- 18		97	46								125
Nonmanufacturing		10.81	10.71	10.71-11.0	5											10) -			-	100	340	13	00	38		
Power-truck operators (other than forklift)	549	10.68	10.66	10.66-11.1	2													31	8	3	- 22	347	7 64	77	7	1 19	. Fe
				0 51 11 4	4	4 117	305	2	1 2		8 2	6 30	50	6 72	2 9	36	6 71	72	432	112	63	3 118	8 289	955	5 .	-	-
Guards		9.30				117	30:	2	-		4	4	-	4 34		8 - 7 975	2 32					10	7 279	942	2 .	-	-
Manufacturing						4 117	30	2	1 2	2	4 2	2 30	5			1						- 1				-	
				0.00 44 4	128-12	4 44-	201		5 2		1	- 10	3 1	6 2	2	1	3 32	70	430	9	5 3	3 10	7 269	955	5	-	-
Guards I Manufacturing						4 117	30				-	- '		4	- 2		2 32									-	-
			7.5	6.88- 8.6	5			- 1	9 .		4 2	6 1	7 4	0 70	0 8	3	3 39	9 :	2 2						-		-
Guards II										-	4	4	- 2	- 34	4 .	-		- 3	-	- 10	6 3		- 20)	-	100	-
Manufacturing Nonmanufacturing								- 1	9 .		- 2	2 1	7 4			5 3	3 39	9 1	2 2	2	1	- 1	1				-
lanitors, porters, and cleaners		8.10	9.3	5 5.40-10.3	4 2	6 10	3	8 6	195	1 29	0 15					-								5 6	6 2	8 -	-
	0.540			To be the second of the second		-	-	- 3	- :	2 4	0 8			8 24		2 7			6 166						-	-	-
	3,281			0 5.28- 6.0		6 10	5 3	9 8	1949	25	0 7			3 3		3 2		1 4					4 1	5 6	6 2	8	
Nonmanufacturing	. 0,201	U.E.	3.4			2			5			7 10				3 2		- 4	0 7		4 2				and the second		

^{*} All workers were at \$12.40 to \$12.80. Also see footnotes at end of tables.

Table A-17. Average hourly earnings of maintenance, toolroom, powerplant, material movement and custodial workers by sex in establishments employing 500 workers or more in Detroit, Mich., April 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, ^a occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)
Maintenance, toolroom, and			Machine-tool operators (toolroom)	1,894	12.44	Material handling laborers	2,021	40.00
powerplant occupations - men			Manufacturing	1,894	12.44	Manufacturing	1,654	10.26 10.30
Maintenance carpenters	479	11.98						
Manufacturing	417	12.20	Tool and die makers	4,234	12.61	Forklift operators	5,602	10.53
Nonmanufacturing:			Manufacturing	4,233	12.61	Manufacturing	5,016	10.50
Transportation and utilities	33	10.03				Nonmanufacturing	586	10.81
			Stationary engineers	488	12.42	0 1		
Maintenance electricians	3,366	12.61	Manufacturing	423	12.46	Guards	2,335	9.40
Manufacturing	3,267	12.64				Manufacturing	1,736	10.56
Nonmanufacturing	99	11.46	Material movement and custodial			Nonmanufacturing	599	6.05
Transportation and utilities	32	10.80	occupations - men			Transportation and utilities	54	9.79
Maintenance painters	472	12.20	Truckdrivers	2,850	40.04	Guards I	2.099	9.57
Manufacturing	426	12.27	Manufacturing	1,692	10.81	Manufacturing	1,640	10.64
	.20	, , , , ,	Nonmanufacturing		10.27			
Maintenance machinists	551	12.04	Nontriandiacturing	1,158	11.59	Guards II:		
Manufacturing	464	12.29	+ 111			Manufacturing	96	9.13
Nonmanufacturing	87	10.68	Truckdrivers, tractor-trailer	1,402	10.83	lesitore and all all all all all all all all all al		
Transportation and utilities	87	10.68	Manufacturing	960	10.43	Janitors, porters, and cleaners:		BALL TO THE
			Nonmanufacturing	442	11.68	Manufacturing	2,539	9.89
Maintenance mechanics						Materiai movement and custodial		
(machinery)	3,441	12.43	Shippers	326	10.92	occupations – women		-4-14-5
Manufacturing	3,412	12.44				occupations - women		
			Shippers and receivers	237	10.27	Shippers and receivers	66	9.98
Maintenance mechanics			Manufacturing	194	10.43	Crippers and receivers	00	9.98
(motor vehicles)	1,334	12.13				Order fillers	362	10.43
Manufacturing	985	12.20	Warehousemen	1,388	9.48	Nonmanufacturing	260	10.43
Maintenance discription			Manufacturing	717	8.82		200	10.55
Maintenance pipefitters	2,212	12.38	Nonmanufacturing	671	10.18	Shipping packers	148	9.88
Manufacturing	2,180	12.40		0/1	10.16	Manufacturing	88	9.59
Maintenance sheet-metal workers	469	12.32	Order fillers	1,197	10.70			0.00
Manufacturing	447	12.39	Nonmanufacturing	1,035	10.79	Material handling laborers:		
	777	12.00		1,000	10.73	Manufacturing	122	10.07
Millwrights	3,231	12.48	Shipping packers	375	10.05	Janitors, porters, and cleaners:		
Manufacturing	3,170	12.48	Manufacturing	305	10.03		0.50	
See footnotes at end of tables.				303	10.01	Manufacturing	856	9.88

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 and II Payroll clerks Key entry operators, I and II

Electronic data processing

Computer systems analysts, I, II, and III

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

Industrial nurses

Registered industrial nurses

Skilled maintenance

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

Unskilled plant

Janitors, porters, and cleaners

Material handling laborers

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

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

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

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

Pay relationships in establishments

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

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

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

Establishment practices and supplementary wage provisions

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

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

Appendix table 1. Establishments and workers within scope of survey and number studied in Detroit, Mich., April 1981

	Minimum Number of establishmen		stablishments	Workers in establishments		
Industry division ²	employment in establish- ments in scope of survey	Within scope of survey ³	Studied	Within scope of survey		Studied
				Number	Percent	Gladica
All establishments						
All divisions		1,436	400			
		1,436	199	680,540	100	445,287
Manufacturing	100	402				
Nonmanutacturing		1.034	57	348,028	51	269,932
Transportation, communication, and		1,034	142	332,512	49	175,355
other public utilities ^s	100	81	25	24.400		
WITOTESale trade,	50	207		64,468	9	53,871
Retail trades	100	208	21	36,772	5	16,442
Finance, insurance, and real estate ⁶	50		24	108,041	16	64,106
Services ⁶ 7	50	186	23	57,431	- 8	25,046
56171000	50	352	49	65,800	10	15.890
Large establishments						
사람이 내려왔다면 이 그리고 있는데, 이번에 가는 것이 되는 그렇다 것						
All divisions		141	74	485.605		
				400,005	100	422,707
lanufacturing	500	54	05			
onmanufacturing	300	87	25	288,263	59	263,682
Transportation, communication, and		6/	49	197,342	41	159,025
other public utilities ^a	500	16				
Wholesale trades	500	10	12	54,333	11	51,547
Retail trades	500	4	4	13,892	3	13.892
Finance, insurance, and real estates	500	24	14	76,082	. 16	61,872
Services ⁶ 7	500	27	10	37,630	8	23,129
¹ The Detroit, Mich. Standard Metropolitan Statistical Area, as defined by the Office of		16	9	15.405	3	8,585

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

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

³ Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of nonmanufacturing companies are considered as one establishment when located within the same industry division.

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

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

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

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

Appendix B. **Occupational Descriptions**

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

Office

SECRETARY

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

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

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

- 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:
- Positions which do not fit any of the situations listed in the sections below e. 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.)

a. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for LS-3, but whose organizational unit normally numbers at least several dozen employees and is usually divided into organizational segments which are often, in turn, further subdivided. In some companies, this level includes a wide range of organizational echelons; in others, only one or two; or

wide range of organizational echelons; in others, only one or two; or b. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, fewer than 5,000 persons.

LS-3

- Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
- b. Secretary to a corporate officer (other than chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- Secretary to the head (immediately below the officer level) over either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational segment (e.g., a regional headquarters; a major division) of a company that employs, in all, over 5,000 but fewer than 25,000 employees; or

d. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or

e. Secretary to the head of a large and important organizational segment (e.g., a middle management supervisor of an organizational segment often involving as many as several hundred persons) of a company that employs, in all, over 25,000 persons.

LS-4

a. Secretary to the chairman of the board or president of a company that employs, in all, over 100 but fewer than 5,000 persons; or

Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or

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

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

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

LR-1

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

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

LR-2

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

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

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

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

STENOGRAPHER

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

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

Stenographer I

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

Stenographer II

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

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

TRANSCRIBING-MACHINE TYPIST

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

TYPIST

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

Typist I

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

Typist II

Performs one or more of the following: Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling,

syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

FILE CLERK

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

File Clerk I

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

File Clerk II

Sorts, codes, and files unclassified material by simple (subject matter) headings or partly classified material by finer subheadings. Prepares simple related index and crossreference 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 operatorreceptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST

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

ORDER CLERK

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

Positions are classified into levels according to the following definitions:

Order Clerk I

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

Order Clerk II

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

ACCOUNTING CLERK

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

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

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

Accounting Clerk I

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

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

Accounting Clerk II

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

PAYROLL CLERK

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

KEY ENTRY OPERATOR

Operates keyboard-controlled data entry device such as keypunch machine or 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 II

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

Computer Operator III

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

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

An operator at this level typically guides lower level operators.

PERIPHERAL EQUIPMENT OPERATOR

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

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

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

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

COMPUTER DATA LIBRARIAN

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

DRAFTER

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

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

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

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

Drafter I

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is 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 of equipment from sketches or marked-up prints. Selects appropriate templates and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy.

Drafter III

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

Drafter IV

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

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

Drafter V

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

ELECTRONICS TECHNICIAN

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

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

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

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

Electronics Technician I

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

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

Electronics Technician II

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

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

Electronics Technician III

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

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

REGISTERED INDUSTRIAL NURSE

A registered nurse who gives nursing service under general medical direction to ill or injured employees or other persons who become ill or suffer an accident on the premises

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

Maintenance, Toolroom, and Powerplant

MAINTENANCE CARPENTER

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

MAINTENANCE ELECTRICIAN

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

MAINTENANCE PAINTER

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

MAINTENANCE MACHINIST

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment operated in an establishment. Work involves most of the

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

MAINTENANCE MECHANIC (MACHINERY)

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

MAINTENANCE MECHANIC (MOTOR VEHICLE)

Repairs automobiles, buses, motortrucks, and tractors of an establishment. Work involves *most of the following*: Examining automotive equipment to diagnose source of trouble; disassembling equipment and performing 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-the-job training and experience.

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

TOOL AND DIE MAKER

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

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

STATIONARY ENGINEER

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

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

BOILER TENDER

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

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

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

Material Movement and Custodial

TRUCKDRIVER

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

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

Truckdriver, light truck
(straight truck, under 1 1/2 tons, usually 4 wheels)
Truckdriver, medium truck
(straight truck, 1 1/2 to 4 tons inclusive, usually 6 wheels)
Truckdriver, heavy truck
(straight truck, over 4 tons, usually 10 wheels)
Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

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

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

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

For wage study purposes, workers are classified as follows:

Shipper Receiver Shipper and receiver

WAREHOUSEMAN

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

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

ORDER FILLER

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

SHIPPING PACKER

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

MATERIAL HANDLING LABORER

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

POWER-TRUCK OPERATOR

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

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

Forklift operator Power-truck operator (other than forklift)

GUARD

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

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

For wage study purposes, guards are classified as follows:

Guard I

Carries out instructions primarily oriented toward insuring that emergencies and security violations are readily discovered and reported to appropriate authority. Intervenes directly only in situations which require minimal action to safeguard property or persons. Duties require minimal training. Commonly, the guard is not required to demonstrate physical fitness. May be armed, but generally is not required to demonstrate proficiency in the use of firearms or special weapons.

Guard II

Enforces regulations designed to prevent breaches of security. Exercises judgment and uses discretion in dealing with emergencies and security violations encountered. Determines whether first response should be to intervene directly (asking for assistance when deemed necessary and time allows), to keep situation under surveillance, or to report situation so that it can be handled by appropriate authority. Duties require specialized training in methods and techniques of protecting security areas. Commonly, the guard is required to demonstrate continuing physical fitness and proficiency with firearms or other special weapons.

JANITOR, PORTER, OR CLEANER

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

Appendix C. Job Conversion Table

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

	Numeric	Alphabetic	
Occupation	designation		
	(currently used)	(previously used)	
Secretary	I	E	
	II	D	
	III	C	
	IV	В	
	V	Α	
Stenographer	· I	General	
	II	Senior	
Typist	I	В	
	II	A	
File clerk	1	C	
	II	B	
	III	A	
Order clerk	I	В	
	II	A	
Accounting clerk	I	В	
	Ĥ	A	
Key entry operator		D.	
and the special of th	II	В	
	11	A	

Occupation	Numeric designation	Alphabetic designation
	(currently used)	(previously used)
Computer systems analyst (business)	I	C C
	II	В
	III	A
Computer programmer (business)	I	C
	ii	В
	iii	A
Computer operator	1	C
	II	В
	iii	A
Drafter	1	Е
	II	D
	iii	C
	IV-	В
	v	A
		^
Electronics technician	I	C
	ii	В
	iii	A
Guard	I	В
	II	A

Area Wage Survey Summaries

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

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

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

Meridian, Miss.

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

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

ALSO AVAILABLE-

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

Area Wage Surveys

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

Area		Bulletin number and price*	
Albany-Schenectady-Troy, N.Y., Sept. 1980' Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1980 Atlanta, Ga., May 1980 Baltimore, Md., Aug. 1980 Billings, Mont., July 1980' Boston, Mass., Aug. 1980 Buffalo, N.Y., Oct. 1980 Chattanooga, Tenn.—Ga., Sept. 1980 Chicago, Ill., May 1980' Cincinnati, Ohio—Ky.—Ind., July 1980 Cleveland, Ohio, Sept. 1980' Columbus, Ohio, Oct. 1980 Corpus Christi, Tex., July 1980. Dallas—Fort Worth, Tex., Dec. 1980' Davenport—Rock Island—Moline, Iowa—Ill., Feb. 1981 Dayton, Ohio, Dec. 1980' Daytona Beach, Fla., Aug. 1980' Detroit, Mich., Mar. 1981 Fresno, Calif., June 1980' Gainesville, Fla., Sept. 1980' Gainesville, Fla., Sept. 1980' Green Bay, Wis., July 1980 Greensboro—Winston-Salem—High Point, N.C., Aug. 1980'	and p 3000-45 3000-62 3000-21 3000-31 3000-40 3000-52 3000-44 3000-26 3000-32 3000-46 3000-48 3000-28 3000-67 3010-7 3000-64 3000-33 3000-68 3010-12 3000-55 3000-55 3000-55	\$2.25 \$2.00 \$2.25 \$2.25 \$2.25 \$2.25 \$1.75 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25 \$2.25 \$3.25	
Greenville—Spartanburg, S.C., June 1980	3000-50 3000-16	\$2.25 \$1.75	
Kansas City, Mo.—Kans., Sept. 1980.	3000-19 3000-18 3010- 5 3000-47 3010- 4 3000-66 3000-42	\$2.25 \$3.25 \$2.25 \$2.25 \$1.75 \$1.75 \$2.25	
Louisville Ky.—Ind. Nov. 1980	3000-63 3000-65	\$2.25 \$2.25	

Area	Bulletin and pr	
Memphis, Tenn.—Ark.—Miss., Nov. 1980.	3000-59	\$1.75
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Milwaukee, Wis., Apr. 1980	2000 10	\$2.25
Millineapolis—St. Paul, Minn.—Wis., Jan. 1981	2010 1	\$3.75
Nassau—Suttolk, N.Y., June 1980	2000 20	\$2.00
Newark, N.J., Jan. 1981	2010 2	\$2.25
New Orleans, La., Oct. 1980	2000 50	\$2.00
New York, N.Y.—N.J., May 1980	2000 24	\$2.25
Norrolk—Virginia Beach—Portsmouth, Va.—N.C. May 1980	2000 30	\$1.75
Northeast Pennsylvania, Aug. 1980	2000 27	\$1.75
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Pittsburgh, Pa., Jan. 1981	2010 2	\$2.25
Portland, Maine, Dec. 1980	2000 61	\$1.75
Portiand, Oreg.—Wash., June 1980	2000 40	\$2.50
Foughkeepsie, N.Y., June 1980	3000-35	\$2.00
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Toledo, Ohio—Mich., May 1980	3000-30	\$1.75
Trenton, N.J., Sept. 1980	3000-13	\$1.75
washington, D.C.—Md.—Va., Mar. 1981 ¹	3010- 6	\$3.00
Wichita, Kans., Apr. 1981	3010-11	\$2.25
Worcester, Mass., Apr. 1980	3000-25	\$2.00
York, Pa., Feb. 1981	3010- 9	\$2.00

* 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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