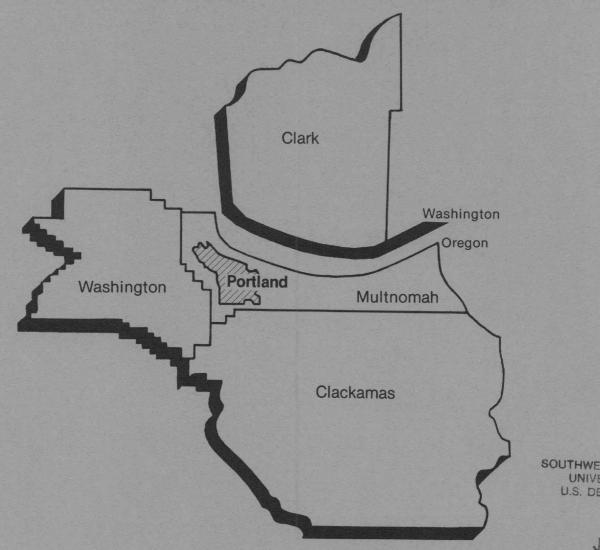
Area Wage Survey

Portland, Oregon—Washington, Metropolitan Area June 1980



U.S. Department of Labor Bureau of Labor Statistics

Bulletin 3000-49



SOUTHWEST MISSOURI STATE UNIVERSITY LIBRARY U.S. DEPOSITORY COPY

JAN 12 1981

Preface

This bulletin provides results of a June 1980 survey of occupational earnings and supplementary wage benefits in the Portland, Oregon-Washington, 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 San Francisco, Calif., under the general direction of Susan Holland, 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.

Unless specifically identified as copyright, material in this publication is in the public domain and may, with appropriate credit, be reproduced without permission.

Note:

Reports on occupational earnings and supplementary wage benefits in the Portland area are available for the banking (February 1980) and laundry and dry cleaning (June 1980) industries. Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

Area Wage Survey

Portland, Oregon—Washington, Metropolitan Area June 1980



Page

U.S. Department of Labor Ray Marshall, Secretary

Bureau of Labor Statistics Janet L. Norwood, Commissioner

December 1980

Bulletin 3000-49

Con	itents	Page
Introduc	stion	2
Tables:		
Earnir	ngs, all establishments:	
A- 1.	Weekly earnings of office workers	3
A- 2.	Weekly earnings of professional and technical workers	
A- 3.	Average weekly earnings of office,	5
7. 0.	professional, and technical workers,	
A- 4.	by sex Hourly earnings of maintenance, toolroom,	7
^, 7.	and powerplant workers	8
A- 5.	Hourly earnings of material movement and	
	custodial workers	9
A- 6.	Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers,	
A- 7.	by sex Indexes of earnings and percent increases	11
A- 8.	for selected occupation groups Average pay relationships within establishments for office playing leading to the second	12
A- 9.	ments for office clerical occupations Average pay relationships within establishments for professional and technical	12
A-10.	occupations Average pay relationships within establishments for maintenance, toolroom, and powerplant occupations	
A-11.	Average pay relationships within establishments for material movement and custodial occupations	
Earnin		14
A-12.	ngs, large establishments:	
A-12. A-13.	Weekly earnings of office workers Weekly earnings of professional and	15
	technical workers	17

A-14	Average weekly earnings of office,	
	professional, and technical workers, by sex	
A-15		
A-16		2000
A-17		
	movement, and custodial workers.	
	by sex	
pro	olishment practices and supplementary wage ovisions:	
B- 1.	Minimum entrance salaries for inexperienced typists and clerks	
B- 2.	Late-shift pay provisions for full-time manufacturing production and related	
B- 3.	workers Scheduled weekly hours and days of full- time first-shift workers	
B- 4.		
B- 5.		
B- 6.		
B- 7.		

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C, 20402, GPO Bookstores, or BLS Regional Offices listed on back cover. Price \$2.50. Make checks payable to Superintendent of Documents, G.P.O.

Digitized for FRASER https://fraser.stlouisfed.org

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.

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

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

A-series tables

Tables A-1 through A-6 provide estimates of straight-time weekly or hourly earnings for workers in occupations common to a variety of manufacturing and nonmanufacturing industries. The occupations are defined in appendix B. For the 31 largest survey areas, tables A-12 through A-17 provide similar data for establishments employing 500 workers or more.

Table A-7 provides indexes and percent changes in average hourly earnings for office clerical workers, electronic data processing workers, industrial

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

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

B-series tables

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

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.

Table A-1. Weekly earnings of office workers in Portland, Ore.-Wash., June 1980

	Number	Average weekly		Weekly ea							Nu	mber of	worker	s receivi	ng strai	ght-time	weekly	earning	s (in dol	llars) of	-					
Occupation and industry division	of workers	hours¹ (stand- ard)	Mean ²	Median ²	Middle range²	120 and under 130	130 - 140	140 - 150	150 - 160	160 - 170	170 - 190	190 - 210	210 - 230	230 - 250	250 - 270	270 - 290	290 - 310	310 - 330	330 - 350	350 - 370	370 - 390	390 - 410	410 - 430	430 - 450	450 - 470	470 - 490
Secretaries	1,254	39.5	264.00	256.00	219.50- 291.00				V. 14	_	50	149	200	138	209	192	70	87	63	37	21	7	19	5	5	2
Manufacturing	650	40.0	257.00	254.00	218.50- 286.00	_	_	_			27	91	101	80	123	90	49	32	28	10					1	
Nonmanufacturing	604	39.5	272.00	264.50	222.00- 313.50	- 0-	-	-	-	-	23	58	99		86	102	21	55	35	27		5		5	4	2
Secretaries, class A	165	39.5	314.50	312.00	276.00- 339.50				3					6	30	23	22	36	17	15	1		2	3		2
Manufacturing	107	40.0	296.00	293.00	268.00- 314.00	72		200		14 - 2				6	24	22	20		5	3		1	-	9	7	-
Nonmanufacturing	58	39.0	348.00			_	100		_					-	6	1	20	14	12	12		1	2	3	3	2
Secretaries, class B	254	39.5	290.00	276.00	256.00- 322.00							31		9	54	0.4	40	07								
Manufacturing	63	40.0	300.50							10.5	-	31	4			64	12	27	17	5			16	-	1	
							-	-	-	-	-		. 1	2	16	18	6	4	5	2		-	4	-		
Nonmanufacturing	191	39.0	287.00			-	-	-			-	31	3	7	38	46	6	23	12	3		1	12	-	1	-
Public utilities	44	40.0	361.50	369.50	317.50- 415.00	-	-	-	-	-	-	-	-	-	5		- 1	7	6	3	8	1	12	-	1	-
Secretaries, class C	374	39.5	262.50			-	-	-	-	-	12	24	56	58	77	74	20	13	16	15	2	4	1	2		
Manufacturing	208	40.0	250.00	244.50	219.50- 271.00	-	_	-	_	_	12	24	37		40	30	12		6	3		2				-0.100
Nonmanufacturing	166	39.5	278.50	270.50	251.00- 298.00	-	- P	-	-	-	-	-	19		37	44	8	9	10			2		2	_	
Secretaries, class D	205	40.0	242.50	230.50	213.50- 264.50						15	17	63	40	30	15	8	7	5	2						
Manufacturing	103	40.0	245.00								5	15	23		26	7	3	1	3				-		-	-
Nonmanufacturing	102	40.0	240.00			2	-		-	_	10	2	40		4	8	5	6	1	2		1		_	3	
Secretaries, class E	154	39.5	205.00	202.50	192.50- 213.00						00	77		15.00											118	
Manufacturing	93		204.50					-	-	-	22	77	47	4	2	1	-	1	-		-	-			-	16.00
Nonmanufacturing	61	40.0 38.5	206.00		192.00- 213.00 195.50- 219.50		- 19-5				10 12	52 25	28 19		1	1	-	1	-	-		-	-	-	-	-
itenographers:		00.0	200.00	207.00	100.00 210.00					40	12	23	13													
Nonmanufacturing: Public utilities	39	40.0	284.50	292.00	220.00- 351.50							8	8			1	4	3	4	10	1					
Stenographers, general: Nonmanufacturing: Public utilities	39	40.0	284.50	292.00	220.00- 351.50							8	8			1	4	3	4	10						
												F 1 2												24.00	100	
Franscribing-machine typists Nonmanufacturing	202 180	39.0 39.0	197.50 197.00	195.50 195.50	188.50- 207.00 175.00- 207.00		3	-	1	7 7	55 46	102 96	32 26		1		1	-		-	2		-	-	-	
Typists	548	39.0	185.00	172.50	161.00- 192.50	25	31	38	24	87	165	94	34	10	5		- 1	26		0.00	Dest.				0	
Manufacturing	136	40.0	173.00	170.00	160.00- 182.00	-	6	14	4	25	61	17	5	3	1	E		20						Sec. Lie	0	
Nonmanufacturing	412	39.0	189.00		161.50- 197.50	25			20	62	104	77	29		4		1	26					1 3 1 7	-	-	We - In
Public utilities	34	40.0	248.50	185.00	173.00- 278.00	-	-		-	6	12	6	-	1	_		1	-							8	
Typists, class A	74	39.5	229.50	204.00	191.00- 218.50						17	32	12	3								1				
Nonmanufacturing	57	39.5	236.00		191.00- 218.50	1	-	_	-	-	12	26	9		-	-	1	_					1		8	
Turista alesa D	440	00.0	470.00	470.00	150.00 101.00	0.5																		- 4 5		
Typists, class B Nonmanufacturing	448 329	39.0 38.5	170.00 170.50	170.00 171.50	158.00- 184.00 155.50- 190.00	25 25	31 25	38 24	24	87 62	148 92	62 51	22 20		4		. 1	3	-	-	-	1		-	-	
													20	· ·	,		_					10			-	
File clerks	383	39.0	162.50		138.00- 167.00	42	103	55	50	58	30	27	1	-	-	-	2	-	2	7	3 .	2	-	-	4	
Nonmanufacturing	334	39.0	163.00	145.00	138.00- 167.00	42	101	51	28	41	28	26	-	-		-	2	-	2	7		2	-	_	4	
Public utilities	30	40.0	297.50	317.00	197.00- 366.00	-	-	-		-	4	9	-	= -	-	-	2	-	2	7	-	2	-	-	4	
File clerks, class B	86	39.5	188.50	178.50	164.50- 187.00		5	1	6	29	25	12	-						0	-						
Nonmanufacturing	69	39.5	195.00		167.00- 197.00		4	_	2		24	12					_		2	5 5					-	
File clerks, class C	282	39.0	147.00		138.00- 155.50	42	98		44	29	-	14	-11-	-	-	3-1-2	-	-	-	1		-	-	-	-	
Nonmanufacturing	252	39.0	146.00	138.00	138.00- 149.50	42	97	51	26	21		14	-	1	-	-		-	7 -	1	100	-	- 1	-	-	19 -
Messengers	140	38.5	175.00	161.00	148.50- 174.00		25	14	20	31	27	8	111		7	2								6	50	
Nonmanufacturing	103	38.0	175.00		147.50- 170.50		23	12	18	22	12	2	1	-	7	2		1				4		_]		
Switchboard operators	203	39.5	196.00	184.50	140.50- 223.00	6	36	12	,	21		20	20													-
Manufacturing	51	40.0	219.50		193.00- 245.50	0	36	12	4	21	27	20	38	8	14	3	1	3	8	1 2 4 -		-	2	-	-	-
Nonmanufacturing	152	39.0	188.00			6	36	12	4	21	7	16	12		7	1	-	-	-	-	-	-	-	-	-	-
Normaliulacturing	102	39.0	100.00	109.00	101.50- 210.50	0	30	12	4	21	20	4	26	-	7	2	1	3	8	-	-		2			A

Table A-1. Weekly earnings of office workers in Portland, Ore.-Wash., June 1980 —Continued

		Average		Weekly ea							Nu	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	s (in dol	lars) of	-					
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range²	120 and under 130	130 - 140	140 - 150	150 - 160	160 - 170	170 - 190	190 210	210 - 230	230 - 250	250 - 270	270 - 290	290 - 310	310 - 330	330 - 350	350 - 370	370 - 390	390 - 410	410 - 430	430 - 450	450 - 470	470 - 490
Switchboard operator-												13.50		-		No.										
receptionists	412	39.5	200.00	195.50	174.50- 218.50	12	4	23	20	36	90	103	52	47	5	-	5	1	5		1	4	-	2	2	1
Manufacturing	135	39.5	201.00	198.00	182.00- 217.00	-	-		_	17	35	40	28	11	1	-	2	-	-	-	1	-	-	-	-	-
Nonmanufacturing	277	39.5				12	4	23	20	19	55	63	24	36	4		3	1	5	-	-	4	_	2	2	2
				10000																	100	-				
Order clerks	588	39.5				13	-	12	1	15	37	134	78	93	45	62	24	40	12	17		5	-			1
Manufacturing	94	40.0	255.50	242.00	207.00- 316.50	-	-	-	-	5	10	20	10	3	5	12	-	14	12		-	-	-	-	-	
Nonmanufacturing	494	39.5	236.00	230.50	207.00- 264.50	13	-	12	1	10	27	114	68	90	40	50	24	26	-	14	-	5	-		-	
0.1	000	40.0	000.50	070.00	057.00 040.50							10	2	24	28	39	24	37	12	14		5	- /			187
Order clerks, class A	206	40.0	283.50			1		_				19	2		25	39	24	25		14		5				
Nonmanufacturing	170	40.0	281.00	276.00	259.00- 310.50	1		-	1	-	_	13	2	21	25	39	24	25		14		0	1			
Order clerks, class B	382	39:5	215.50	211.00	196.50- 235.50	12	-	12	_	15	37	115	76	69	17	23	_	3		3	_		-		-	1
Manufacturing		40.0	231.50		185.00- 289.00	-	F- 2			5	10	14	10	-	2	12		2		3	_		-	_	-	1
Nonmanufacturing	324	39.5	212.50			12		12	_	10	27	101	66	69				1	-	_			-	_	-	
140mmanulaciding	02.1	00.0	2.2.00	211.00	100.00 201.00																				-	
Accounting clerks	2,851	40.0	230.00	207.00	173.00- 262.50	-	_	44	117	345	518	435	285	296	148	133	161	49	65	42	36	43	79	35	15	5
Manufacturing		40.0	231.50		195.50- 251.50	-	_	_	5	36	99	153	114	115	61	58	6	2	12	-	13	12	14	1		-
Nonmanufacturing		40.0	230:00	201.50	170.50- 272.50	-	_	44	112	309	419	282	171	181	87	75	155	47	53	42	23	31	65	34	15	5
Public utilities	609	40.0	318.00			_	_	_	-	4	34	37	28	18	4	60	148	13	48	42	23	31	65	34	15	5
, dono danido minimi															-											1
Accounting clerks, class A	310	39.5	286.50	264.50	233.00- 299.00	-	_	_	-	1	2	15	29	63	64	49	11	3	15		16				15	5
Manufacturing	137	40.0	286.00	266.00	248.00- 290.00	-	-	-	-	-	-	3	15	20	32	33	5	1	2	-	12		14	-	-	-
Nonmanufacturing	173	39.5	286.50	261.50	230.00- 331.00	_	-	-	-	1	2	12	14	43	32	16	6	2	13	5	4	3	-	-	15	5
Public utilities	50	40.0	391.00	378.50	347.00- 468.50	-	-	_	-	-	-	-	-	-	10.1-	4	4	2	8	5	4	3	-	-	15	5
																	-			3			113			1
Accounting clerks, class B		40.0	244.00			-	-	-	5	5	61	193	133		61	35	100	11	3		3	16		33	-	
Manufacturing	296	40.0	228.50		198.00- 248.50	-	-	-	5	5	25	78	- 71	51	23	24	-	-	2			12		-	-	
Nonmanufacturing	477	40.0	254.00		200.00- 291.00	-	-	-	-	-	36	115	62	62	38	11	100	11	1	1	3	0 1		33		-
Public utilities	211	40.0	295.00	291.00	240.50- 291.00	-	-	-	-	-	10	11	26	13	2	11	95	1	1	1	3	4	-	33	-	-
		100	01150	10100	407.00 000.00			40	00	040	074	046	100	00	10	- 00	45	10	40	200	10	24	CE			N. S.
Accounting clerks, class C	1,477	40.0	214.50			-		19	80	319	371	216	108	92	16	23	45	10	1000000	36	12	24	65			
Manufacturing	217	40.0				-	- 5	-	_	16	61	65	21	39		-	1		8	-		-	-		-	
Nonmanufacturing	1,260	40.0	215.50	182.00	164.50- 222.50	-	-	19	80	303	310	151	87	53	10	23	44	10	32	36	12	24	65	1		
Association along along D	246	40.0	201.00	173.00	161.00- 249.50		100	25	32	20	78	8	12	23	7	25	5		7	- 60	1				100	1
Accounting clerks, class D	216	40.0	201.00	173.00		-		25	32	5	71	4	8	23	7	25	5	- state	7		1					
Nonmanufacturing	210	40.0	204.00	173.00	157.50- 249.50			20	32	3	- 1	- "	0	23		23	3		1		7					
Payroll clerks	339	40.0	258.50	240.00	208.50- 289.00	-	2	1	_	14	15	55	36	95	13	28	19	5	2	15	7	15	17	_	2	2
Manufacturing	112	40.0	251.50	237.00		_	_		_	_	6	31	17	20		10		- 1	2	1	-	7	5			-
Nonmanufacturing	227	40.0	262.00	240.00		9 9 9		1		14	9	24	19			18		4		14	7	8			2	2
Public utilities	44	40.0	375.50	388.50			. 112		_	_	- C		4			_	1	1	-	9	7	8			2	2
r done dunies		10.0	0,0.00	000.00	000.00			The second														13 - 3	1 2 3			333
Key entry operators	1,468	39.5	205.00	196.00	179.50- 220.00	_	-	2	64	115	429	370	204	128	51	35		31	7	3	1	4	-	-	8	3
Manufacturing	488	40.0	208.00	201.50		-	-	_	12	7	125	150	99			13		1	-	1	1	- 17-		-		-
Nonmanufacturing		39.5		190.50	173.00- 219.00	-	_	2	52	108	304	220	105	79	27	22	10	30	7	2	-	4	-	-	8	3
Public utilities	92	40.0	249.00	209.50		-	-	-	3	2	11	30	8	1	13	6	2	-	2	2	Sec	4	-	-	8	3
																						1				
Key entry operators, class A	562	39.5	214.00			-	-	-	12	32	124	147	82	90	31	18	8	1	2	2	1	4	-	-	. 8	3
Manufacturing	167	40.0	223.50				-	-	-	-	17	44	39		17	-	6	1	T . T	1	1	-	-	-		-
Nonmanufacturing	395	39.5		200.00	180.00- 227.00	-	-	-	12	32	107	103	43	49		18	2	-	2	1	-	4	-	-	8	3
Public utilities	35	40.0	306.50	282.00	197.00- 402.00	-	-	-	-	-	-	14	-	-	2	2	2	-	2	1	-	4	-	-	8	3
			100	100.00	470.00 000.00				50	00	005	100	00	00	00	47		00	-							
Key entry operators, class B	826	39.5			173.00- 209.00	-	-	2	52	83	295	188	92	33		17	8	30	5	- 1	-	-	200	100.5	1	
Manufacturing	321	39.5	200.50			-	-	-	12	7	108	106	60			13	- 85	-	_	7	-	-	-	-		
Nonmanufacturing	505	39.5	197.50		170.00- 202.50	-		2	40	76	187	82	32	25		The state of the s	8	30	5	1	3 5		-	-	200	-
Public utilities	57	40.0	214.00	198.00	187.00- 252.50	-	-	-	3	2	11	16	8	1	11	4	-	-	-	1	-		_	-		-

Table A-2. Weekly earnings of professional and technical workers in Portland, Ore.-Wash., June 1980

	Number	Average		Weekly ea (in dolla							Nu	mber of	workers	s receivi	ng strai	ght-time	weekly	earning	s (in do	llars) of						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range²	160 and under 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 480	480 - 500	500 - 520	520 - 560	560 - 600	600 - 640
Computer systems analysts							Jie ko	17.19	MI		Trains.															
(business)	535	39.5	429.50		367.00- 485.50	Tiller -	-	-	-		2	1	30	52	44	19	56	29	50	48	52	56	36	43	13	
Manufacturing Nonmanufacturing	222 313	40.0 39.5	418.50 437.00	415.50 441.00	359.00- 480.50 370.50- 487.00	-	Ī	Ī		-	2 -	1 -	14 16	30 22		5 14	36 20	13 16	19 31	18 30					2 11	
Computer systems analysts																						11-			the c	
(business), class A	175	39.5	489.00		456.50- 524.00	-	-	-	-	-	-	-	-	1	1	1	5	3	16	19	40	20	21	33	11	-
Manufacturing	63	40.0	476.00	486.50	437.00- 509.50	-		-	-	-	-	_	_	1	1	1	5	3	6			13		11	2	The same
Nonmanufacturing	112	39.5	496.50	479.50	460.00- 526.00	-	-	-		-	H -	-	-	-	-	-	-	- 1	10	14			13		9	
Computer systems analysts	0.17	00.5											104, 101													
(business), class B	247	39.5	422.00			-	-	-	-	-	2	1	-	19	20	13	49		28	29		34	11	10	2	1
Manufacturing	114	40.0	419.50		386.00- 466.00	-	-	-	-	-	2	1	-	13	1	4	31	7	12			11	8	5	-	16
Nonmanufacturing	133	39.5	424.50	422.00	370.50- 479.00	-	-	-	-	- 1	-	-	-	6	19	9	18	12	16	16	4	23	3	5	2	
Computer systems analysts	440		050 50					100																		
(business), class C	113	40.0	353.50	337.00	317.50- 359.00	-			-	-	-	-	30	32	23	5	2	7	6	2 9 5	2	2	4	-	-	
Computer programmers (business)	568	39.5	337.00	334.00	286.50- 380.50	5		18	14	42	41	70	34	86	70	39	44	20	00	47			-			
Manufacturing	237	40.0	365.00			5	1.5	10	14	9	11	12		34	33	21	23	38 20	23	17	9	6	/	4	1	
Nonmanufacturing	331	39.0	317.00			-		. 18	14	33	30	58			37	18	21	18	17	15		2 4	-	4	1	
Computer programmers																										
(business), class A	127	39.5	393.50	384.50	342.50- 445.50	_	_	Die I				3	2	25	25	5	18	8	7	9	7	6	7			1
Manufacturing	77	40.0	408.50	402.50	346.00- 456.50	_		111				-	-	14	13	1	7	8	3	9		2	7	4		
Nonmanufacturing	50	39.0	370.50			-	-	-	-	-	-	3	2	11	12	1	11	-	4	-	2		-	-	24.	
Computer programmers																						1,7				
(business), class B	291	39.5	331.50	328.50	283.00- 380.00	-	-	11	3	4	37	64	19	42	21	16	18	30	16	8	2	Sec. 172			15	
Manufacturing	90	40.0	359.00	363.50	305.00- 419.00	-	-	- I	-	4	8	9		12	4	6	8		14							
Nonmanufacturing	201	39.0	319.50	303.50	282.00- 356.50	_	000	11	3	_	29	55		30	17	10			2				20.0			
Public utilities	29	40.0	362.50	380.00	283.50- 415.00	-	-	-	-	-	4	6		-	-	2	9	2	2			-	-	-	-	
Computer programmers																					3.5					
(business), class C	150	40.0	299.00			5	-	7	11	38	4	3	13	19	24	18	8	-	-	-				_	-	
Nonmanufacturing	80	39.5	276.50	253.00	242.50- 322.00		-	7	11	33	1	-	2	11	8	7		4	-	-	-	-	-	9, 2	-	
Computer operators	541	39.5	259.00		224.50- 292.00	9	71	44	87	114	51	60	58	7	10	16	4	1	2	2	1	4	_			
Manufacturing	182	40.0	259.00		236.50- 295.00	4	20	7	18	55	19	22	27	3		3	-	-	_		1		_	_		
Nonmanufacturing	359	39.5	258.50	245.50	218.50- 289.00	5	51	37	69	59	32	38	31	4	7	13	4	1	2	2		4	-	-	-	
Computer operators, class A	65	39.0	307.50	302.00	251.50- 331.50	-	-	-	7	12	4	5	19	2	3	3	4	1	2	2	1	-			-	
Computer operators, class B	386	39.5	265.00	253.00	235.00- 290.00		16	36	66	98	47	55	39	5	7	13						1				
Manufacturing	115	40.0	264.00	253.00	242.00- 281.50	-	_	2	12	50	16	20	12	2	D 425 W	1	_									Plan I
Nonmanufacturing	271	39.5	265.50	253.00	230.00- 292.00	-	16	34	54	48	31	35	27	3		12	-	-	-	2		4	-	-		
Computer operators, class C	90	39.5	198.00	188.00	184.00- 215.00	9	55	8	14	4																
Nonmanufacturing	51	39.0	194.00	184.50	184.00- 195.50	5	35	3	8		-	-	-	-	-		-	=	-	14.2	-		-	1	-	1
Drafters	580	40.0	299.00		253.00- 344.50	2	11	34	45	72	76	89	47	57	58	. 38	16	19	10	4	1			1		24
Manufacturing	386	40.0	300.00		253.50- 335.00	-	2	17	24	58	57	54	35	51	32	29	12		7			1915	-			1
Nonmanufacturing	194	40.0	297.00	288.00	241.00- 345.00	2	9	17	21	14	19	35	12	6	26	9	4	11	3	4	1		-	1	1	
Drafters, class A	120	40.0	362.00	352.50	329.00- 395.00					2	2	6	15	22	15	20	13	12	7	4						
Manufacturing	78	40.0	360.00		329.00- 397.50	10 M	4,-12	-	-	-	2	6	6	17	9	13	10		7	-	_	1	_	-	-	
Drafters, class B	227	40.0	303.00	294.50	276.00- 331.50	4		2	10	26	27	62	21	26	33	8	2	7	3							
	138	40.0	298.50	294.50	270.50- 322.00				7	22	14	31	18	25	13	6	2	B. S. H.				10 46	1			
Manufacturing				295.00				2																		

Table A-2. Weekly earnings of professional and technical workers in Portland, Ore.-Wash., June 1980 —Continued

		Average		Weekly ea (in dolla							Nu	ımber o	f worker	rs receiv	ing stra	ight-time	weekly	earning	s (in do	llars) of						
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 480	480 - 500	500 - 520	520 - 560	560 - 600	600 - 640
Drafters, class C	161 117	40.0 40.0	271.50 284.50		237.00- 299.00 253.00- 310.50		5	18	18	25 21					7 7	10 10	1 -	. :	-	-	-					
Electronics technicians Nonmanufacturing Public utilities	442 375 375	40.0 40.0 40.0	398.00 408.00 408.00		400.50- 408.00 400.50- 408.00 400.50- 408.00	5-5-5-		-	1 1 1	1 1 1	9 5 5	1	24 6 6	10 2	12 6 6	15 9	12 8 8		6 -	10 9 9	8 8 8				3 10 3 10 3 10	

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Portland, Ore.-Wash., June 1980

	Number		verage nean²)				rerage nean²)				verage mean²)
Sex, ³ occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex, ³ occupation, and industry division	Number 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 -				Switchboard operator-		2		Computer systems analysts			
		100		receptionists		39.5	199.50	(business), class B	. 210	39.5	427.50
Messengers	67	38.5	173.50	Manufacturing	134	39.5	199.50	Manufacturing	. 92	40.0	427.50
Nonmanufacturing	50	38.0	175.50	Nonmanufacturing	277	39.5	199.50	Nonmanufacturing	. 118	39.5	427.50
Order clerks	101	40.0	306.50	Order clerks		39.5	225.50	Computer systems analysts	- 5		
Order clerks, class A	91	40.0	305.50	Manufacturing		40.0	234.00 223.50	(business), class C	. 90	40.0	352.00
	91	40.0	305.50	Nonmanuracturing	415	39.5	223.50	Computer programmers (business)	427	39.5	339.50
Accounting clerks:		title F		Order clerks, class A	115	40.0	266.00	Manufacturing	192	40.0	368.00
Accounting clerks, class A	51	40.0	392.50	Nonmanufacturing	92	40.0	264.00	Nonmanufacturing	235	39.0	316.50
	P. Car	10.00	002.00	Order sleder sleep B	070	00.5	040.00		. 200	00.0	010.50
Office occupations -	100 5 8		100	Order clerks, class B		39.5	213.00	Computer programmers			1000
women	- 10			Nonmanuracturing	323	39.5	212.00	(business), class A	. 109	39.5	388.50
Secretaries	1,232	39.5	263.50	Accounting clerks	2,506	40.0	223.00	Manufacturing	. 63	40.0	404.50
Manufacturing		40.0	256.50	Manufacturing		40.0	225.00	Committee			The state of
Nonmanufacturing	586	39.5	271.00	Nonmanufacturing		40.0	222.50	Computer programmers	000	00.5	000 50
Secretaries, class A	161	39.5	04400					(business), class B	. 230	39.5	332.50
Manufacturing		40.0	314.00 295.00	Accounting clerks, class A		39.5	264.00	Nonmanufacturing	. 151	40.0 39.0	356.50 319.50
Nonmanufacturing		39.0	348.00	Manufacturing		40.0	259.50	Public utilities	. 25	40.0	367.50
		39.0	346.00	Nonmanufacturing		39.5	266.50	Fubile utilities	. 25	40.0	367.50
Secretaries, class B	253	39.5	289.50	Public utilities	30	40.0	357.00	Computer programmers	The Real	100	1
Manufacturing		40.0	300.50	Accounting clerks, class B:	A SECOND			(business), class C	. 88	39.5	298.00
Nonmanufacturing	190	39.0	286.00	Manufacturing	280	40.0	228.50				
Secretaries, class C	369	39.5	261.00			100		Computer operators	. 324	39.5	261.00
Manufacturing		40.0	250.00	Accounting clerks, class C		40.0	213.00	Manufacturing	. 124	40.0	259.50
Nonmanufacturing		39.5	276.00	Manufacturing		40.0	207.50			-	
	100			Nonmanufacturing	1,152	40.0	214.00	Computer operators, class B		39.5	263.50
Secretaries, class D		40.0	241.00	Accounting clerks, class D	232	40.0	199.50	Manufacturing	. 75	40.0	260.50
Manufacturing		40.0	245.00	Nonmanufacturing		40.0	202.50	Computer operators, class C	. 56	39.5	197.50
Nonmanufacturing	98	40.0	237.00					Computer operators, class community	. 00	00.0	137.50
Secretaries, class E	153	39.5	205.00	Payroll clerks		40.0	250.00	Drafters	473	40.0	299.50
Manufacturing		40.0	204.50	Manufacturing	100	40.0	243.50	Manufacturing	. 326	40.0	301.00
Nonmanufacturing		38.5	206.00	Nonmanufacturing	211	40.0	253.00	Nonmanufacturing	. 147	40.0	295.50
		00.0	407.50	Public utilities	30	40.0	363.50				
Transcribing-machine typists		39.0 39.0	197.50	Key entry operators	1.381	39.5	205.00	Drafters, class A	. 104	40.0	362.00
Nonmanufacturing		39.0	197.00	Manufacturing		40.0	208.50	Manufacturing	. 71	40.0	359.50
Typists	537	39.0	185.00	Nonmanufacturing	908	39.5	203.50	Drafters, class B	. 173	40.0	004.00
Manufacturing	136	40.0	173.00					Manufacturing	107	40.0	301.00
Nonmanufacturing	401	39.0	189.00	Key entry operators, class A		39.5	214.00	Nonmanufacturing		40.0	299.00
Typists, class A	64	39.5	234.00	Manufacturing		40.0	222.50	Normandiacturing	. 00	40.0	304.50
				Nonmanufacturing		39.5	210.50	Drafters, class C	136	40.0	275.00
Typists, class B		39.0	170.00	Public utilities	31	40.0	311.50	Manufacturing	103	40.0	287.00
Nonmanufacturing	328	38.5	171.00	Key entry operators, class B	757	39.5	198.50				
File clarks	359	39.0	160.00	Manufacturing		39.5	201.00	Professional and technical	No.		1 10 6
File clerks		39.0	160.00	Nonmanufacturing		39.5	197.00	occupations - women		S S S S S S S S S S S S S S S S S S S	1 19.4
Public utilities		40.0	286.00					Computer systems analysts	7 10 11 -		
				Professional and technical		100		(business)	. 81	39.5	411.50
File clerks, class B		39.5	181.00	occupations - men		Miles.		(business)	. 01	39.5	411.50
Nonmanufacturing	59	39.5	186.50	Computer systems analysts		1 5		Computer programmers (business)	. 128	39.5	328.00
File clerks, class C	269	39.0	146.50	(business)	450	39.5	433.50	Nonmanufacturing	. 87	39.5	313.00
Nonmanufacturing		39.0	145.50	Manufacturing	185	40.0	426.00		0,	30.0	
Horimanuracturing	1000			Nonmanufacturing		39.5	439.00	Computer programmers			1 1 1 1
Messengers	69	38.5	174.50	Computer systems analysts				(business), class B	. 61	39.5	329.50
Switchboard operators		39.5	190.50	(business), class A	150	20.5	404.00	Nonmanufacturing	. 50	39.5	319.00
Manufacturing	1/9	40.0	219.00	Manufacturing	150	39.5 40.0	491.00 478.00	Computer operators:		- 3	1 300
Nonmanufacturing		39.0	179.50	Nonmanufacturing		39.5	478.00	Manufacturing	50	20.5	204 22
Nonmanufacturing	123	35.0	179.50	Normanuracturing	32	39.3	499.00	wanuracturing	. 50	39.5	261.00

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Portland, Ore.-Wash., June 1980

	Number	H	lourly earn (in dollars								No	umber o	f worke	rs recei	ving stra	ight-tim	e hourly	earning	s (in dol	lars) of	-00						
Occupation and industry division	of workers	Mean ²	Median ²	Middle range ²	5.60 and under 5.80	5.80 - 6.00	6.00	6.20 - 6.40	6.40 - 6.60	6.60 - 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	10.40	10.80	11.20	11.60 - 12.00	12.00 - 12.40	12.40	12.80	-
Maintenance carpenters	91	9.53	9.25	8.77-10.00	2	-	Hit.	-	-	-	-	4	1	1	25	9	24	3	6	4	4	4	1	3	2	-	
Maintenance electricians	422	10.60	10.23	9.69-11.24		_	_			3	_	-	5	3		3	63	85	56	3	76	46	19	29	1	_	3
Manufacturing	380	10.70		9.69-11.24		-	-	-	-	3	-	-	-	3	-	1	57	85	27	3	76	46	19	29		-	30
Maintenance painters	68	9.22	9.00	7.90-10.94	3	6	-	-	-	-	5	2 ×	5	1	-	24	2	1	3	-	3	-	-	14	1	-	
Maintenance machinists	365	10.48	10.85	9.47-11.05					_		1	_	1	4	6	11	114	10	6	6	136	30	6	18	2		1
Manufacturing	001	10.49		9.47-11.05	-	-	-	-	-	-	- 1	-	1	4	6	- 11	114	10	5	6	136		6	18	2	-	1.
Maintenance mechanics																											
(machinery)	1,051	10.35	10.20	9.40-10.85	-	-	-	-	-	-	-	10	7	11	5	46	284	119	65	211	95	_	38	94	14	-	5
Manufacturing	1,003	10.33	10.08	9.40-10.85	-	= -	-	-	-	-	-	10	7	11	5	46	284	114	57	189	91	-	34	89	14	-	5
Maintenance mechanics							2510															1 P				- * -	
(motor vehicles)	682	11.13		10.50-12.32		-	-	-	-	-	19	-	-	-	3	3	25	41	32	176			3			-	
Manufacturing	152	10.59	10.50	10.42-10.79	-	-	-	-	-	-	-	-		-	-	3	6	28	-	78	12		2	10		-	
Nonmanufacturing	530	11.29	11.13	10.70-12.36	-	-	-	-	-	-	19	-	-	1	3	-	19	13	32	98	94		1	229			
Public utilities	480	11.49	12.03	10.70-12.36	-	-	-		-		1	-	-	-	2		18	13	32	74	88	2	1	229	20	-	
Tool and die makers	238	10.96	11.03	9.96-11.47	_		_	-	-			_		2	-	5	2	54	6	37	30		4	24	24		
Manufacturing	238	10.96	11.03	9.96-11.47	-	-	-	-	-		4.75	-	-	2	-	5	2	54	6	37	30	50	4	24	24	-	
Stationary engineers	142	10.19	10.40	10.32-10.40						1		1	6	1	1	7	14	3	3	93		4	4			4	

Table A-5. Hourly earnings of material movement and custodial workers in Portland, Ore.-Wash., June 1980

division	3,468 570 2,898 1,531 239 54 185 722 699 539	9.93 8.89 10.13 11.09 5.84 6.17 5.75	11.54 5.56 6.10	8.67- 9.95 9.71-11.54 10.09-11.63 4.50- 7.00	3.10 and under 3.30	3.30 - 3.70 20 - 20	3.70 - 4.10 33 - 33	4.10	4.50 - 4.90	4.90 - 5.30	5.30 - 5.70	5.70 - 6.10	6.10 - 6.50	6.50 - 6.90	6.90 - 7.30	7.30 - 7.70	7.70 - 8.10	8.10 - 8.50	8.50 - 8.90	8.90 - 9.30	-	9.30 - 9.70	9.70	10.10 - 10.50	10.50	-	-	11.70
Manufacturing Nonmanufacturing Public utilities Truckdrivers, light truck Manufacturing Nonmanufacturing Truckdrivers, medium truck Nonmanufacturing	570 2,898 1,531 239 54 185 722 699	8.89 10.13 11.09 5.84 6.17 5.75	9.06 10.54 11.54 5.56 6.10	8.67- 9.95 9.71-11.54 10.09-11.63 4.50- 7.00 5.47- 6.73	11111	20 -	-	-	1	38	33			A STATE OF					DE TRANSPERSION									
Nonmanufacturing	570 2,898 1,531 239 54 185 722 699	8.89 10.13 11.09 5.84 6.17 5.75	9.06 10.54 11.54 5.56 6.10	8.67- 9.95 9.71-11.54 10.09-11.63 4.50- 7.00 5.47- 6.73	-	20 -	-	Ξ	1	38		4	1 1 1														-	
Public utilities Truckdrivers, light truck Manufacturing Nonmanufacturing Truckdrivers, medium truck Nonmanufacturing	1,531 239 54 185 722 699	5.84 6.17 5.75 10.60	10.54 11.54 5.56 6.10	9.71-11.54 10.09-11.63 4.50- 7.00 5.47- 6.73	-		33			14			49	11	76	101	26	47	282	202		28	855	113	482	-	794	245
Public utilities Truckdrivers, light truck Manufacturing Nonmanufacturing Truckdrivers, medium truck Nonmanufacturing	239 54 185 722 699	5.84 6.17 5.75 10.60	11.54 5.56 6.10	10.09-11.63 4.50- 7.00 5.47- 6.73	-		00		14	24	19		22	7	11	33	10	11	8	153		2	193	75	-	-	-	Auto
Manufacturing	54 185 722 699	6.17 5.75 10.60	6.10	5.47- 6.73	- 2				-	-	14	-	27	4	65	68	16	36	274	49		26	662 505	38	482	-	794	245
Nonmanufacturing Truckdrivers, medium truck Nonmanufacturing	722 699	6.17 5.75 10.60	6.10	5.47- 6.73		20	33		14	32	27											-	303	-			785	231
Truckdrivers, medium truck	722 699	10.60	5.48	3.80- 7.25	-	_	_	AL TO	14	8			14	8	36	35	3	11.56	-	1	-	-	11	1	-	-	-	
Nonmanufacturing	699			1	-	20	33		14	24			14	4	32	32	3	1	-	- 1			1 10	-	-	-	-	
Nonmanufacturing	699		11.50	10.03-11.54																			10		3.3			
Public utilities				10.03-11.54	100		100	-	-	6	6	10. 2003	-	-	3	28	16	15	6	39	6 3	24	103	12			363	90
		11.31		11.50-11.54	_	_	6. 2E	Ī	1	1		7			1	27	16	13	6	39		24	103	11	-		363	90
Truckdrivers, heavy truck	583	9.55	10.00	0.00.40.00							5.5							2	3		3	11.5	81	-		-	363	90
Manufacturing	133	8.99		8.93-10.09		-	-	-	-	-	-	-	27	3	34	38	2	18	21	28	1 2	-	324		1		84	
Nonmanufacturing	450	9.72		8.07- 9.87 10.03-10.09	=	_		-		-	_	-	27	3 -	33	29	2	9	5	19	5 1	-	65 259	-	- 4	-	84	
Truckdrivers, tractor-trailer	1,883	10.32	10.54	9.77-11.53				Fee 3.5			1															M T	04	
Manufacturing	334	9.50	9.95					diam'r.	1	100	_		8	-	3	-	-	14	252	126	2 126	2	407	96	473	1000	347	155
Nonmanufacturing	1,549	10.50		10.09-11.63							-	(i)	8	-	3	-	-	-	-	126		-	127	70	-	-	_	-
Public utilities	700	11.18		10.09-11.63		-	-	-	-			-		1	1	-	-	14	252	= =	2	2 2	280 217	26	473	-	347 338	155 141
hippers	222	8.14	8.40	7.45- 8.69	_		_			7	2	1	24	8	12	10	25	00										
Manufacturing	128 94	8.29 7.94	8.30 8.43		-	-	- 2	_	-	3 4	- 2	-	12	4 4	12	10	25 15 10	32 16 16	50 14 36	9	4 .	26 26	-	9	7 7	-		-
eceivers	179	7.59	8.16	6.34- 8.51						3								10	30	9							-	-
Manufacturing	94	7.34	7.58					4	4	3	9	10	17	5	18	2	14	45	19	9	9 9	20	-	-	_	_	-	
Nonmanufacturing	85	7.86	8.35	6.91- 8.51	-	-	-	-	4	-	8	9	16	5	18	2	12	24	18	9	1 -	20	-	100	-	-	-	-
hippers and receivers	318	8.12	8 42	7.73- 9.31					10	00									10								-	
Manufacturing	106	8.59		7.70- 9.35					12	20		7	1	9	13	3	82	54	27	9	7 9	41	14	26	-			
Nonmanufacturing	212	7.88		7.73- 8.46	-	-	-	=	12	20	14.5	7	1	9	10	3	20 62	54	9	9		41	14	26	-	-	-	144-
/arehousemen	1,332	7.46	7.63	6.10- 9.04		1		9	18	68		00		- 23										20				-
Manufacturing	736	7.12		5.51- 9.05	-			9	15	40	144	90	130	50	122	102	97	88	31	168		135	65	13	-	-	-	-
Nonmanufacturing	596	7.89	7.90	6.90- 9.04	-	1	1	_	3	28	144	1	50 80	50	41	12	70	5	6	73		123	-	9	100	-	-	
Public utilities	77	9.96		10.03-10.03	-	-		-	-	-		-	-	_	81	90	27	83	25	95	95	12	65 65	4		-	-	-
rder fillers	913	8.50	9.44	7.56-10.12			75	10		19	20	25	22		00													
Manufacturing	304	7.09		4.20- 9.44	-	-	75	10		15	10	5	22	2	32 28	55	66	22	-	85	- 85	154	-	313	-	-	13	
Nonmanufacturing	609	9.20	10.10	8.35-10.12	-	-	-	-	-	4	10	20	22	2	4	35 20	66	6	1	85	- 85	120	1	313		-	13	-
hipping packers	214	7.04	6.82	5.46- 8.69																				010		1950	13	-
Manufacturing	197	6.91		5.45- 8.69	-	1	-	4	6	34	24	8	6	31	6	6	2 2	16	60 60			10	-	1	-	-	-	-
aterial handling laborers	719	8.62	9.85	6.37-11.48			3	78	42	2	10		00						30			.0						-
Manufacturing	223	8.57		7.61- 9.93	3.86		3	/0	9	2	18	9	30	8	19	64	41	23	-	14	14	1	159	6	-	200	202	
Nonmanufacturing	496	8.65		5.54-11.54	_	_	3	78	33	2	18	9	8 22	-	5	60	36	-	Sec	- 1	-	1	104	-	-	-	-	
Public utilities	274	11.03		10.03-11.54	-	-	-	-	-	-	-	-	22	8 -	14	4 -	5 -	23	-	14		-	55 55	6	-	_	202 202	_
orklift operators	1,203	8.80	8.57	8.20- 9.64	_				_	2		20	7	9	60	67	70	244			Take 1						4	
Manufacturing	842	8.56		7.96- 9.62	-	-	_			2		20	7	9	63 63	67	78	311	113	68	100000000000000000000000000000000000000	248	49	140	-	-	23	5
Nonmanufacturing	361	9.35		8.25-10.21	-	-	-	-	-	-		-	-	-	63	67	78	178 133	110	63		248	45	140	-	-	5	5
ower-truck operators			6							200											1			140			18	
(other than forklift)	240	9.00	9.24	8.48- 9.44	-	-	_							The state of		2	11	70										
Manufacturing	240	9.00		8.48- 9.44	100	-	-	_								2 2	11	73 73	7	93		42 42	17	2 2	-	-	-	-

Table A-5. Hourly earnings of material movement and custodial workers in Portland, Ore.-Wash., June 1980 —Continued

			ourly earni (in dollars)								Nu	ımber o	worker	s receiv	ring strai	ight-time	e hourly	earning	s (in dol	lars) of							
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	3.10 and under 3.30	3.30 - 3.70	3.70 - 4.10	4.10 - 4.50	4.50 - 4.90	4.90 - 5.30	5.30 - 5.70	5.70 - 6.10	6.10 - 6.50	6.50 - 6.90	6.90 - 7.30	7.30 - 7.70	7.70 - 8.10	8.10 - 8.50	8.50 - 8.90	8.90 - 9.30	9.30 - 9.70	9.70 - 10.10	10.10	ii - ii	-	-	11.70
Guards	902 58	4.56 6.82	6.75	3.50- 5 5.58- 8	53	33	-	-	12	1	11 4	79 6 73	3	62 7 55	6	10		-	8 8	15 11 4		-		1 -			
Nonmanufacturing	844	4.40	3.85	3.50- 5	25 2	33		40	52							10			199			9 -1			160		1
Guards, class A Nonmanufacturing	386 370	5.06 4.99		3.55- 6 3.55- 6		0 10		-	5	104 104	1	67 65	3	53 48		10				4				-			100
Guards, class B	516 474	4.18 3.94		3.50- 4 3.50- 4		22 22		40 40			10 6	12	2 2	9 7	=				8	11	-	91			P 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Janitors, porters, and cleaners	1,822	5.48	5.34			0 1	7 121	86					39 17						98		-	4	10		- 1722 1700 174		
Manufacturing Nonmanufacturing Public utilities	518 1,304 73	6.47 5.08 6.45			.45 5	0 1	7 121				419		22		-	9	5 3	6	3	-			10	3		100000	- 101

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Portland, Ore.-Wash., June 1980

Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)4	Sex, ^a occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)
Maintenance, toolroom, and			Truckdrivers, medium truck	678	10.60	Forklift operators	1,092	8.72
powerplant occupations - men			Nonmanufacturing	655	10.75	Manufacturing	753	8.45
	1	1 3 5 5 7	Public utilities	510	11.32	Nonmanufacturing	339	9.32
Maintenance carpenters	83	9.60			11.02	1401mandiactaining		9.32
Maintenance electricians	100	10.50	Truckdrivers, heavy truck	583	9.55			April 2 miles
Manufacturing	420	10.59	Manufacturing	133	8.99	Power-truck operators		
Manufacturing	378	10.69	Nonmanufacturing	450	9.72	(other than forklift)	240	9.00
Maintenance painters	65	9.38		100		Manufacturing	240	9.00
marriero paritero	65	9.30	Truckdrivers, tractor-trailer	1,883	10.32			
Maintenance machinists	361	10.49	Manufacturing		9.50			
Manufacturing	360	10.49	Nonmanufacturing	1,549	10.50	Guards	725	4.40
		10.43	Public utilities	700	11.18	Manufacturing	53	6.72
Maintenance mechanics		1		100		Nonmanufacturing	672	4.21
(machinery)	1,048	10.35	Shippers		8.24			
Manufacturing	1,000	10.33	Manufacturing	112	8.39		7.00	-
		1	Nonmanufacturing	88	8.06	Guards, class A	272	4.78
Maintenance mechanics				100		Nonmanufacturing	258	4.68
(motor vehicles)	666	11.17	Receivers	162	7.75			The same
Manufacturing	152	10.59	Manufacturing	86	7.52		-	
Nonmanufacturing	514	11.35	Nonmanufacturing	76	8.02	Guards, class B	453	4.16
Public utilities	464	11.56	Shippers and receivers		1 1 1 1 1 1 1	Nonmanufacturing	414	3.92
-			Manufacturing	285	8.10			
Tool and die makers	226	11.01	Manufacturing	102	8.64			
Manufacturing	226	11.01	Nonmanufacturing	183	7.80	Janitors, porters, and cleaners	1,243	5.41
Stationary engineers	137	10.25	Warehousemen	973	7.80	Manufacturing	406	6.32
Stationary engineers	137	10.25	Manufacturing	462	7.79	Nonmanufacturing	837	4.97
Material movement and custodial	100		Nonmanufacturing	511	7.79			
occupations - men		100	Public utilities	77	9.96	Material movement and custodial		
				"	9.90			
Truckdrivers	3,384	9.97	Order fillers	672	9.21	occupations - women	-	
Manufacturing	560	8.93	Nonmanufacturing	504	9.31			
Nonmanufacturing	2,824	10.17		004	0.01	Order fillers	044	0.40
Public utilities	1,502	11.09	Material handling laborers	681	8.76	Order miers	241	6.49
		- 100	Manufacturing	220	8.62			
Truckdrivers, light truck	199	5.88	Nonmanufacturing	461	8.83	Janitors, porters, and cleaners:	A SALE	7
Nonmanufacturing	155	5.79	Public utilities	274	11.03	Nonmanufacturing	400	5.22

Table A-7. Indexes of earnings and percent increases for selected occupational groups, Portland, Ore.-Wash., selected periods

			All industries				1	Manufacturing)			Nonmanu	ufacturing	
Period⁵	Office clerical	Electronic data processing	Industrial nurses	Skilled mainte- nance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled mainte- nance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (May 1977=100):	1 100 TOTAL TO 201 70-4	E TO SE	No. of the	W 1,83	100									
May 1979	117.7	118.4	(6)	116.2	117.0	(6)	(e)	(e)	116.5	116.2	117.8	120.1	(6)	117.0
June 1980	130.3	130.8	(6)	131.2	128.6	(e)	(6)	(6)	130.9	129.1	129.7	130.3	(6)	127.4
Percent increases:			-											
May 1972 to May 1973	5.4	(6)	4.6	7.0	7.2	4.7	(6)	3.5	4.7	5.9	5.6	(6)	(4)	8.2
May 1973 to May 1974	9.0	(6)	4.3	7.3	7.9	8.0	(6)	4.2	7.8	9.3	9.3	(e)	(e)	6.7
May 1974 to May 1975	10.3	10.4	(6)	10.6	11.0	10.8	(6)	(e)	11.3	11.1	10.0	(6)	(e)	10.7
May 1975 to May 1976	8.3	7.7	(e)	10.3	9.1	8.7	(6)	(e)	11.6	10.0	8.1	(6)	(e)	8.6
May 1976 to May 1977	9.2	7.9	(6)	10.0	7.8	(6)	(6)	(e)	10.0	9.7	8.8	7.5	(6)	6.7
May 1977 to May 1978	8.5	8.5	(6)	7.1	7.7	(6)	~ (6)	(e)	6.5	8.4	7.9	8.7	(6)	7.5
May 1978 to May 1979	8.5	9.1	(6)	8.5	8.6	(e)	(e)	(e)	9.4	7.2	9.2	10.5	(a)	8.8
13 months	10.7	10.5	(6)	12.9	9.9	(6)	15.8	(e)	12.4	11.1	10.1	8.5	(e)	8.9
Annual rate of increase	9.8	9.7	(6)	11.9	9.1	(6)	14.5	(6)	11.4	10.2	9.3	7.8	(6)	8.2

NOTE: A revised description for computer operators, not equivalent to the previous description, is being introduced in this area in 1980. Therefore, the earnings of computer operators are not used in computing percent increases for the electronic

data processing group. See footnotes at end of tables.

Table A-8. Average pay relationships within establishments for office clerical occupations, Portland, Ore.-Wash., June 1980

								Office cler	ical occupa	ation being	compare	d			1 2 3	1 5 5		- 12-1
Occupation which equals 100			Secretarie	S		Tran- scrib- ing	Тур	ists	File	clerks	Messen-	Switch- board	Switch- board operator	Order	clerks	Payroll clerks		entry
	Class A	Class B	Class C	Class D	Class E	ma- chine typists	Class A	Class B	Class B	Class C	gers	operators	-recep- tionists	Class A	Class B	CICIKS	Class A	Class B
Secretaries, class A	100					1	I TO			- 1						1.0		
Secretaries, class B	118	100	F 10	6 - 10	10.00					1 12			No. 1 La		1 243	- Each	1 m.s	
Secretaries, class C	129	117	100	C. 150m						9.	W 1							
Secretaries, class D	149	147	120	100				1 1 1				1 7 7						100
Secretaries, class E	140	(6)	124	(6)	100		1000	- X	1	1.74 5 5		1 200				500	700 _ 2	
Transcribing-machine typists	153	149	133	(6)	(6)	100		1 - 1 - N - 17		- 1	100	850			Lagrange Co.	x are		100
Typists, class A		151	113	(6)	(6)	(6)	100	1			1	1	0.00		1000		100	
Typists, class B		180	145	133	(6)	(e)	107	100	BACK 17 7		100	1						Marie I
File clerks, class B		178	143	127	(6)	118	114	101	100		31 7	1				27.46	Land St.	135 m
File clerks, class C		184	(6)	(6)	(6)	141	119	112	(e)	100	1. 1.							100
Messengers		162	140	129	121	(6)	117	(e)	105	(6)	100					2-5-95		brown a
Switchboard operatorsSwitchboard operator-	136	141	132	120	124	(e)	106	90	90	92	91	100						
receptionists	149	142	128	110	100	105	101	92	85	83	81	(e)	100					
Order clerks, class A		(6)	91	(6)	(6)	(6)	(6)	(6)	(e)	58	(e)	85	78	100				
Order clerks, class B	147	128	113	(6)	(6)	(6)	(6)	94	(6)	79	(6)	(6)	95	138	100			
Payroll clerks	141	120	118	108	97	87	85	81	83	68	80	95	87	115	(6)	100	78	
Key entry operators, class A	141	134	123	112	104	87	91	82	84	73	80	91	97	115	(6)	106	100	
Key entry operators, class B	180	155	136	120	108	107	102	89	89	80	87	107	106	133	103	120	119	100

NOTE: This matrix table shows the average (mean) relationship of earnings within establishments between any two occupations compared. Earnings for an occupation in the column heading are expressed as a percent of the earnings for an occupation in the table stub at the point where the data lines for the two intersect. For example, a value of 122 indicates that earnings for the occupation directly above in the heading are 22 percent greater than earnings for the occupation directly to

the left in the stub. Similarly, a value of 85 indicates earnings for the occupation in the heading are 15 percent below earnings for the occupation in the stub.

See appendix A for method of computation.

Table A-9. Average pay relationships within establishments for professional and technical occupations, Portland, Ore.-Wash., June 1980

					Professiona	and technical	occupation bein	g compared				
Occupation which equals 100		Computer system nalysts (busines		Compute	r programmers	business)	C	omputer operato	ors		Drafters	
	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C
Computer systems analysts			E NEW W	Mar.		The second	Mar Pig					Train Lib
(business), class A	100				Laboratory Control	**************************************	4 6 6					
Computer systems analysts												
(business), class B	117	100				100						
Computer systems analysts			The second	to the state of the	Medical Co.		100		The second			
(business), class C	142	121	100	Carlotte Carlotte		100					4.34	
Computer programmers				L LUZACIONI CONTRACTOR	1	0/1			The Land			
(business), class A	130	116	106	100								
Computer programmers				100						and a second		N. M. W. J.
(business), class B	151	132	119	118	100					THE PROPERTY OF		Marie Control
Computer programmers		Water State of		1 1 1 20 1		A TANK THE		100				
(business), class C	181	152	132	138	120	100	- 31		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	College College	1,000,000	HILL TO BE WITH
Computer operators, class A	156	138	(6)	128	107	93	100		Section 1887			Control line
Computer operators, class A	193	161	134	145	130	111	117	100				Park to the
Computer operators, class C	256	206	185	193	165	143	144	127	100			y was a second
Orafters, class A	132	114	(6)	110	80	(6)	101	81	(6)	100		1000
Prafters, class B	162	139	(6)	130	(6)	(6)	117	89	(6)	119	100	C - 10 1
Drafters, class B	200	182	(6)	(6)	(6)	(6)	(6)	108	(6)	146	125	100

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

Table A-10. Average pay relationships within establishments for maintenance, toolroom, and powerplant occupations, Portland, Ore.-Wash., June 1980

			Maintenar	nce, toolroom, and powe	erplant occupation being	compared		
Occupation which equals 100					Mech	anics		
	Carpenters	Electricians	Painters	Machinists	Machinery	Motor vehicles	Tool and die makers	Stationary engineers
Maintenance carpenters	100			2 2 199				
Maintenance electricians	98	100						
Maintenance painters	112	105	100	- 1211111 11. "				
Maintenance machinists	99	101	97	100				
(machinery)	99	101	97	101	100			
(motor vehicles)	95	97	98	96	97	100		
ool and die makers	82	91	(6)	90	89	97	100	
Stationary engineers	100	104	97	104	96	101	(6)	100

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

Table A-11. Average pay relationships within establishments for material movement and custodial occupations, Portland, Ore.-Wash., June 1980

						Mate	erial moveme	nt and custod	lial occupation	being comp	pared					
Occupation which equals 100		Truck	drivers				Shippers	Wester		Ohionian	Material	F150	Power-truck	Gu	ards	Janitors,
	Light truck	Medium truck	Heavy truck	Tractor- trailer	Shippers	Receivers	and receivers	Warehouse- men	Order fillers	Shipping packers	handling laborers	Forklift operators	operators (other than forklift)	Class A	Class B	porters, and cleaners
Truckdrivers, light truck	100		1 7 (8) 3													1 7.2%
Truckdrivers, medium truck	(6)	100			- NO.				are North			The last of				
Truckdrivers, heavy truck	94	(6)	100										1 1		No.	0.00
Truckdrivers, tractor-trailer	66	98	99	100		7. 7. 5						L N	100 000			The state of
Shippers	(6)	(e)	106	123	100											
Receivers	(6)	(6)	111	119	104	100		112 3 12 -					- 1		4.3	
Shippers and receivers	91	(6)	97	103	(6)	(6)	100		W 1 7 7 7 7		1 4 1		200		1000000	
Warehousemen	101	109	114	109	109	104	108	100					Bulletin			
Order fillers	(6)	(6)	(6)	111	111	111	(6)	114	100		The state of the s	- T			The State of the	
Shipping packers	105	(6)	124	105	114	(6)	130	(6)	(6)	100	17.5	120				
Material handling laborers	(6)	131	(6)	111	117	122	(e)	104	107	(6)	100				and the same	to the street of
Forklift operators Power-truck operators	(6)	(e)	105	106	104	104	101	107	97	(6)	94	100				
(other than forklift)	(6)	(6)	(6)	(6)	(6)	104	(6)	(6)	(6)	(6)	(6)	93	100			
Guards, class A	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	100		
Guards, class B	(6)	(6)	(e)	(6)	(6)	(6)	(6)	134	(e)	(e)	(6)	127	(6)	(e)	100	
cleaners	112	168	148	153	131	132	138	137	104	102	125	113	111	(a)	104	100

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

Table A-12. Weekly earnings of office workers-large establishments in Portland, Ore.-Wash., June 1980

	Number	Average	The second	Weekly ea (in dolla		inter.		par i			Nu	mber of	workers	s receivi	ing strai	ght-time	weekly	earning	s (in dol	lars) of	-					
Occupation and industry division	of workers	hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 130	130 - 140	140 - 150	150 - 160	160 - 170	170 - 190	190 - 210	210 - 230	230 - 250	250 - 270	270 - 290	290 - 310	310 - 330	330 - 350	350 - 370	370 - 390	390 - 410	410 - 430	430 - 450	450 - 470	470 - 490
Secretaries	706	39.5	273.50			37.5		_	_		24	50	113	91	99	102	56	51	46	23	17	7	19	3	3	9.7
Manufacturing Nonmanufacturing	365 341	40.0 39.0	268.00 279.50			-		_	_	-	13	31 19	52 61	43 48	59 40		41 15		20 26	8 15		5		3	1 2	
Secretaries, class A	100	39.5	308.50	296.50	271.50- 327.00	100				12					40	40	00	40			100				81.0	duly.
Manufacturing	80	40.0	293.50				1971	_	-		-	-		6	16 15		22 20		8 5	1	-	1	-	3	1	-
Secretaries, class B	144	39.0	313.50	302.50	268.00- 349.50		_	1 mg	-		-	4	4	6	25	25	12	15	17	5	13	1	16		1	and an
Nonmanufacturing	98	39.0	314.00	307.50	267.00- 352.00		-	-	-	-	-	4	3	4	19		6	11	12	3		1	12		1	
Secretaries, class C	263	39.5	263.50				-	-	-	-	12	21	48	39	34	45	16	10	16	15	2	4	1	100	_	
Manufacturing Nonmanufacturing	152 111	40.0 39.0	252.00 279.50			-	-	-	-	-	12	21	30				12		6	3		2		L mb-	-	200
Nonmanulacturing	111	39.0	279.50	270.50	244.00- 316.50	8 - 7	- 35	- 5			-	-	18	20	15	23	4	6	10	12		2	1	-	-	1
Secretaries, class D	138	40.0	251.00			-	2	-	- 4	-	4	3	42	35	22		6	7	5	2		- 1	45.	-	304	1 1 34.
Manufacturing	71 67	40.0 40.0	256.50 244.50				I	7	1	-	1 3	3	15 27	16 19	18 4	7 2	3		4	2	1	1	-	-	17	
Stenographers:								100	- 124		Pro- 1		1	- 1					1							
Nonmanufacturing: Public utilities	39	40.0	284.50	292.00	220.00- 351.50		4.8					8	8			-	4	3		10				114		
Stenographers, general: Nonmanufacturing:			201.00	202.00	220.00					-		·						3		10	E. 13					
Public utilities	39	40.0	284.50	292.00	220.00- 351.50	jan-	-	-	-	100	-	8	8	100 -	-	1	4	3	4	10	1	-		-	-	1
Typists	117	39.5	212.50	185.00	170.50- 237.50	1	2	1	2	23	35	14	7	4	1		1	26						17		The same
Nonmanufacturing	81	39.5	222.00			1	2	1	2			7	2	1	11.5	-	1	26	1000	197	-	-	-	-	_	24 -
Typists, class B	61	39.5	174.00	171.50	163.50- 182.00	1	2	1	2	23	21	6	4	- 1	-	77.2	-	-	- Ast	-	-	LEP.		_	-	
ile clerks	110	39.5	186.00	164.50	147.50- 188.50	_	22	11	12	25	14	12	1		1 2		2	_	2	7		2	_	30.2		
Nonmanufacturing Public utilities	90 26	39.5 40.0	191.50			-	20	7	8	19	12	11	7.7-	-		-	2		2	7		2		-	-	
			274.00				1000	6 Ty -			4	9		5	-	P -	2	-	2	7	1	2		-	-	1
File clerks, class B	50	39.5	197.50	172.50	161.00- 197.00	1 to 1	5	1	6	13	9	8	1	-	i	-	-	-	2	5	-	-	-	-	-	-
Messengers Nonmanufacturing	92 72	38.5 38.5	183.00 186.50			150	13	8	13 11	20 16		4 2		1	7 7	2	-	1	1	er v.)	-	4	-	-	-	-
							434			10	12		17.13		1						10.4	4	1	1	All the	
Switchboard operators Nonmanufacturing	137	39.0 39.0	201.00 192.00			6	153	12 12		21 21		20	13	4	10		1	3	8				2 2	-	-	
Accounting clerks	1,174	40.0	266.00	247.00	200.50- 313.00	14,3	1	22	13	46	119	140	105	04	40	00	440	00	47	40				760		
Manufacturing	310	40.0	229.00				8 2	-	-	10		148 57	165 74	91 53	42 29		149	39	47 5	42	20	36		31	15	1
Nonmanufacturing	864	40.0	279.00			2	N - 1	22	13			91	91	38	13		144		42	42	19			30	15	1
Public utilities	522	40.0	329.00	306.50	291.00- 393.00	-	1 -	-	-	-	17	13	20	10		56	144	13	42	42						
Accounting clerks, class A	125	40.0	295.50				_	-	-	1	2	7	10	14	23		4	3	4	5	4	3	-	_	15	
Manufacturing Nonmanufacturing:	79	40.0	261.00	263.50	247.00- 276.50	-	-	-	-	-	-	3	7	14	23	25	. 4	1	2	-	-	-	-	-	-	
Public utilities	36	40.0	400.00	394.50	352.50- 468.50	-	_	-	-		-	-	-	-	-	4	-	2	2	5	4	3	-	-	15	1
Accounting clerks, class B	352	40.0	262.00	239.50	208.00- 291.00	100					30	59	72	35	8	7	95	4	3			9		29		9. 1
Nonmanufacturing	217	40.0	284.00			-	-		-	-	18	24	25	7	2		95		1	1	3	1 7	-	29	-	
Accounting clerks, class C	579	40.0	265.00	230.00	193.50- 345.00	-	-	19	9	32	70	76	78	36	10	23	45	10	33	36	12	24	65	1		
Manufacturing	60	40.0	205.50			1 mg	1000	- T	-	2	17	16	17	6	-	10 C	1	-	1	-	-	1	-	-	-	
Nonmanufacturing	519	40.0	272.00	247.50	196.50- 352.50	-	14 -	19	9	30	53	60	61	30	10	23	44	10	32	. 36	12	24	65	1	-	

Table A-12. Weekly earnings of office workers-large establishments in Portland, Ore.-Wash., June 1980 —Continued

		Average		Weekly ea (in dolla							Nu	mber of	worker	s receiv	ing strai	ght-time	weekly	earning	gs (in do	llars) of	-					
Occupation and industry division	Number of workers	weekly hours ¹ (stand- ard)	Mean ²	Median ²	Middle range ²	120 and under 130	130 - 140	140 - 150	150 - 160	160 - 170	170 - 190	190 - 210	210 - 230	230 - 250	250 - 270	270 - 290	290 - 310	310 - 330	330 - 350	350 - 370	370 - 390	390 - 410	410 - 430	430 - 450	450 - 470	470 - 490
Accounting clerks, class D	73	40.0	231.00	246.00	163.00- 273.50	99	di-	3	4	13	11	3	2	1	1	23	5	100	7	-	-	-	-	-		
Payroll clerks	102	39.5	278.50	240.00	200.00- 367.00		22/201	1	_	4	9	19	14	7	2	1	4	5	2	10	7	4	13		-	
Nonmanufacturing	73		280.00		200.00- 375.50	-	-	1	100	4	7	12	11	5	100	-	1	4	1000	9	7	4	8	-	-	-
Public utilities	30		381.50		367.00- 410.50	501	-	100-	-	-	-	-	-	15/15	360 E	101-	1	1	in Sec	9	7	4	8	-	-	10.30
Key entry operators	506	39.5	213.50	209.50	190.00- 230.50		A VIII		9	11	101	135	116	67	43	7	10	1	2	3	1	_	_	_	100	
Manufacturing			219.50		195.50- 235.00	-	-	2	2	-	24	40	40		18	1	-	1	1 -	1	1	-	-	1975 -	-	
Nonmanufacturing		39.5	211.00	204.00	186.50- 223.00	-	2	-	7	11	77	95	76	31	25	6	10		2	2	-	-	-	-	-	4
Public utilities	80	40.0	221.00	198.00	195.00- 258.50	-	-	-	3	2	11	30	8	1	13	6	2	-	2	2	E 18-	-	-	-	-	
Key entry operators, class A	232	39.0	219.00	217.50	195.00- 233.00				1	5	40	54	59	39	25	2	2	1	2	2	1	_	1	-		
Nonmanufacturing	100		213.00		186.00- 226.50	-	-	-	-	5	31	39	32	11	14	2	2	-	2	1	AM: -	-	4 1-	100	-	la Ve
Key entry operators, class B	194	39.5	211.00	198.00	185.50- 236.00	_	-	-	9	6	51	46		23	18	5	8	25.		1	2	-	-	-	100	
Manufacturing			209.50	203.50	190.50- 226.50	-		-	2	-	15	25	13	8	7	<1	-	-	-	-	-	-	-	-	-	1.00
Nonmanufacturing		39.5	212.00	198.00	178.50- 236.00	-	-	-	7	6	36	21	14	15	11	4	8	-	-	1	-	-	-	-	-	
Public utilities	57	40.0	214.00	198.00	187.00- 252.50	-		-	3	2	11	16	8	1	11	4	-	-	-	1	-	-	-	-	-	

Table A-13. Weekly earnings of professional and technical workers-large establishments in Portland, Ore.-Wash., June 1980

	Number	Average		Weekly ea (in dolla							Nu	mber o	worker	s receiv	ing strai	ght-time	weekly	earning	gs (in do	llars) of		Vic.			F-	
Occupation and industry division	of workers	hours¹ (stand- ard)	Mean ²	Median ²	Middle range ²	160 and under 180	180 - 200	200 - 220	220 - 240	240 - 260	260 - 280	280 - 300	300 - 320	320 - 340	340 - 360	360 - 380	380 - 400	400 - 420	420 - 440	440 - 460	460 - 480	480 - 500	500 - 520	520 - 560	560 - 600	600
Computer systems analysts	77.64	C. Fi								W 11.5																
(business)	335	39.5	442.00			7- 0-	C / L	-	-		2	1	16	23	22	19	12	19	39	27	46	35	28	20	0	
Manufacturing Nonmanufacturing	104 231	40.0 39.5	453.00 437.00			-	-	-	-	-	2 -	1 -	- 16	5 18	6	5	-	10	10 29	11	10	17	12	33 12 21	9 2 7	1 3
Computer systems analysts	SVA.												Tables		0.1											
(business), class A Nonmanufacturing	137 88	39.5 39.5	490.50 494.00		459.50- 526.00 461.50- 526.00	1	7.5	-	-	=	-	-	-	1	1 -	1 -	-	3	16 10		34 30	13	17	27 16	7 5	4
Computer systems analysts																										
(business), class B Nonmanufacturing	120 75	39.5 39.5	436.50 435.50		387.00- 487.00 384.50- 481.00	-	-	-	-	_	2	1	-	4	5	13	10	9	17	14	10	20	7	6	2	10.0
	,,,	33.3	433.30	431.50	364.50- 481.00		100		100		10,15	-	-	2	4	9	10	5	14	8	4	9	3	5	2	
Computer systems analysts (business), class C	78	40.0	366.00	346.50	322.00- 400.50		-	-	-	-	-	-	16	18	16	5	2	7	6	_	2	2	4			
Computer programmers (business)	309	40.0	364.50	363.00	306.50- 409.50			1	4	12	12	32	31	20	40	000	07							7-9		
Nonmanufacturing	118	39.5	339.00		287.50- 380.00	-	-	1	4	7	7	20	13	20 10	42 12		37 18	22	20	17	9	6	7	4	1	
Computer programmers				EN-Atte					4.5				-						7.00			5	10.00		11,011,011	
(business), class A	78	39.5	422.50	416.00	373.50- 472.00	9			1	_	_	3	2		-11	5	11	8							- 50	
Manufacturing	56	40.0	434.50	440.00	381.50- 475.50	-	-	-	-	-	-	-	-	DF -	10	4	3	8	3	9	5	6 2	7	4	1	
Computer programmers	mi tala							3-1		5.00	- 10			Buri											15/4	
(business), class B Nonmanufacturing	136	40.0	357.00	357.50	300.00- 412.50	-	-	-	-	-	8	26	16	12	7	9	18	14	16	8	2	811				
Public utilities	66 29	39.5 40.0	336.00 362.50	334.50 380.00	290.00- 380.00 283.50- 415.00		-	1			6	17	9	10	3	3	10	2	2	2	2	-	-	_	-	
Computer programmers	1000								146.7							-	9	2	2	2	2	060				
(business), class C	95	40.0	327.00	345.00	302.00- 363.00		-	1	4	12	4	3	13	8	24	18	8				_					
Computer operators	231	39.5	274.00	270.50	236.00- 310.00	5	7	22	29	38	45	15	43	6	5	6	4		2					N. A. S. S.		
Manufacturing	66	40.0	281.00	277.50	243.00- 310.50	-	2	3	10	5	15	10	12	2	3	3	_	_	-	2	1					5
Nonmanufacturing	165	39.5	271.00	260.00	236.00- 309.50	5	5	19	19	33	30	5	31	4	2	3	4	1	2	2	-	2.00		-		
Computer operators, class A	54	39.0	311.00	303.50	251.50- 352.00		-	-	7	9	4	5	11	2	3	3	4	1	2	2	1	-	-		-	1977 211
Computer operators, class B	163	39.5	268.00	270.50	238.50- 298.00	-	5	21	16	29	41	10	32	4	2	3						Bon !				
Nonmanufacturing	126	39.5	265.50	260.00	236.00- 302.00		5	19	12	25	29	2	27	3	2	2	-	-	-	-	-	-	-			135
Drafters	253	40.0	312.50		264.50- 350.50	-	2	6	25	20	26	46	28	19	23	18	14	16	4	4	1			1		
Manufacturing	205	40.0	305.00	299.00	264.50- 345.00	-	2	6	17	20	24	34	26	19	20	16	12	8	- 1		-	-	-	-		Ē
Drafters, class A	66	40.0	373.50	379.50	345.00- 403.50						2	6	3	3	12	10	44	40					77			
Manufacturing	52	40.0	361.00	375.00	339.50- 399.00		-	-	-		2	6	3	3	9	10	11	12	1	4	1	-	1	1	3.1	
Drafters, class B	95	40.0	318.00	313.50	292.00- 335.00				3	3	7	23	20	16	6	8										
Manufacturing	70	40.0	313.00	317.00	294.50- 331.50		-	-	3	3	5	11	18	16	6	6	2 2	4	3	_	1		-	100		
Drafters, class C	57	40.0	263.50	261.00	237.00- 287.50	-	1	4	16	6	11	12	4	-	2	-	1	_	-							
Electronics technicians	418	40.0	399.00	400.50	400.50- 408.00				1	1	5	9	20	10	12	15		207						90		
Nonmanufacturing	351	40.0	410.00	408.00	400.50- 408.00	-	-	-	1	1	1	1	20	2	6	9	4	307	6	6	4	-	-	8	10	-
Public utilities	351	40.0	410.00	408.00	400.50- 408.00	-	_	-	1	1	1	1	2	2	6	9		301		5	4		200	8	10	

Table A-14. Average weekly earnings of office, professional, and technical workers, by sex-large establishments in Portland, Ore.-Wash., June 1980

			rerage nean²)		Number		erage lean²)		Number		verage nean²)
Sex,3 occupation, and industry division	Number of workers	Weekly hours¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex,3 occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars) ¹	Sex, ³ occupation, and industry division	of workers	Weekly hours ¹ (stand- ard)	Weekly earnings (in dollars) ¹
Office occupations -	De la			Accounting clerks:	SAL		- 13	Computer systems analysts	440	40.0	492.00
men				Manufacturing	299	40.0	229.50	(business), class-A	116 72	40.0 39.5	492.00
		William S			Durant St.		A Section	Nonmanufacturing	12	39.5	495.50
Messengers	57	38.5	177.00	Accounting clerks, class A	105	40.0	276.00	Computer systems analysts			
		12		Manufacturing	76	40.0	260.50	(business), class B	101	40.0	442.00
Office occupations -		Territory.			A Second		1000	Nonmanufacturing	64	39.5	440.50
women	Thumbs			Accounting clerks, class C	507	40.0	265.00	Notifiaridiacturing	-	00.0	
	688	39.5	273.00	Manufacturing	60	40.0	205.50	Computer systems analysts		7.78	
Secretaries		40.0	268.00	Nonmanufacturing	447	39.5	273.00	(business), class C	62	40.0	364.50
Manufacturing		39.0	278.00	Normandiacturing						- 16	
Nonmanufacturing	323	39.0	270.00	Accounting clerks, class D	59	39.5	231.50	Computer programmers (business)	234	40.0	370.00
Secretaries, class A	100	39.5	308.50	Accounting clerks, class D	33	33.3	201.50	Nonmanufacturing	75	39.5	347.00
Manufacturing		40.0	293.50		07	39.5	264.00				
Manufacturing		40.0	200.00	Payroll clerks	87	39.5	270.00	Computer programmers		ST COLUMN	
Secretaries, class B	143	39.0	312.50	Nonmanufacturing	63	39.5	270.00	(business), class A	64	40.0	420.50
Nonmanufacturing	13 1 2 2 1	38.5	313.00								
Noninarialacturing				Key entry operators	464	39.5	212.50	Computer programmers		40.0	361.00
Secretaries, class C	258	39.5	261.50	Manufacturing	161	40.0	218.50	(business), class B	114	40.0	
Manufacturing		40.0	252.00	Nonmanufacturing	303	39.0	209.00	Nonmanufacturing	51	39.5	344.00
Nonmanufacturing		39.0	275.50					Public utilities	25	40.0	367.50
140/ilinarialactaring				Key entry operators, class A	223	39.0	217.50		400	40.0	312.00
Secretaries, class D	134	40.0	249.00	Nonmanufacturing	133	38.5	212.00	Drafters	199	40.0	
Manufacturing		40.0	256.50					Manufacturing	163	40.0	307.50
	6 E. 1881			Key entry operators, class B:	E Property				67	40.0	373.00
Typists	106	39.5	214.50	Manufacturing	71	40.0	209.50	Drafters, class A	57	40.0	3/3.00
Nonmanufacturing		39.5	226.50	Wallardotaling			The state of		73	40.0	314.00
				Professional and technical	The same of		STATE OF THE	Drafters, class B		40.0	314.00
Typists, class B	60	39.5	174.50	occupations - men		100		Manufacturing	57	40.0	314.00
File clerks	94	39.5	179.50		6			Professional and technical		1000	
Nonmanufacturing	74	39.5	184.50	Computer systems analysts	070	40.0	145.50	occupations - women	100	15	194
				(business)		40.0	445.50	Computer austams analysts	100	Black	
Switchboard operators	120	39.0	192.00	Manufacturing		40.0	460.50	Computer systems analysts (business)	56	39.5	424.50
Nonmanufacturing		38.5	177.00	Nonmanufacturing	. 191	39.5	438.50	(business)	. 50	35.5	424.30

Table A-15. Hourly earnings of maintenance, toolroom, and powerplant workers-large establishments in Portland, Ore.-Wash., June 1980

	Number	Н	lourly earn (in dollars								N	umber c	f worke	rs recei	ving stra	ight-tim	e hourly	earning	ıs (in dol	llars) of							
Occupation and industry division	of workers	Mean ²	Median ²	Middle range ²	5.60 and under 5.80	5.80 - 6.00	6.00 - 6.20	6.20 - 6.40	6.40 - 6.60	6.60 - 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		11.60 - 12.00	12.00	12.40	12.80	-
Maintenance carpenters	69	9.43	8.82	8.71-10.03		-	-	-		-		4	1	1	25	9	7	3	3	4	4	4	1	1	2		
Maintenance electricians	248	11.00	10.94	10.00-11.83								100										EX.		mire			1
Manufacturing		11.21		10.47-12.28		- 1	1	-	-	3		-	-		_	1	46 40	1	30	3	41	39		29 29			3
Maintenance painters	54	10.00	9.00	9.00-12.28	-	1	-		-			- 5	5	1	_	24	2	1	3		3		710	14	1		
Maintenance machinists	201	10.50	10.85	9.25-11.24				4										8 - 46	1 16						100		100
Manufacturing	200	10.50		9.25-11.24	-	-	-		_		1	_	1	4	6	8	58 58	10		6	31			18			1
Maintenance mechanics						1378		21 -	14 1/4		1																Page 1
(machinery)	423	11.02	10.85	9.77-12.28					0 10		36	the the	2	6		42	20	07	000	- 00		1		and the		House (Control	10.01
Manufacturing		11.04		9.77-12.28		-	_	200	-	-	10	-	2	6	5	43 43		37 32		28 28			38 34	94 89			5 5
Maintenance mechanics														17.0		1								1112			10 00
(motor vehicles)	168	11.42	12.19	10.69-12.32		-	_	_	_	- m	1	1. 1			2	2	2	13	17	10	- 44	F F		0.7			100
Nonmanufacturing	143	11.44	12.19	10.70-12.32	- 12		1000	1			1	Private	195	A Sulla	2	3	2		17	19			2	97		1	January 1
Public utilities	122	11.55		10.08-12.32	- 1-	-		-	-	-	i	-	-		2		2	13 13		15	6	(a) I	_	87 87		10 E	
Tool and die makers	185	11.10	11.03	10.46-12.13	1	MIG2	ide	35.00					S. Y.		7.1		2	36		00	000	000					Se ame
Manufacturing		11.10		10.46-12.13		-	-	21, 270 -	-		- 27			2	Car. 1		2	36	6	28 28			4	24			
Stationary engineers	57	10.25	10.54	9.25-10.54		4 1 1		_	200	1		1	2	1	1	4	8	3	3	21					1		

Table A-16. Hourly earnings of material movement and custodial workers-large establishments in Portland, Ore.-Wash., June 1980

		۲	lourly earn (in dollars								N	umber o	worke	rs receiv	ving strai	ight-time	e hourly	earning	s (in doll	ars) of	-						
Occupation and industry division	Number of workers	Mean ²	Median ²	Middle range ²	3.10 and under 3.30	3.30 - 3.70	3.70 - 4.10	4.10 - 4.50	4.50 - 4.90	4.90 - 5.30	5.30 - 5.70	5.70 - 6.10	6.10 - 6.50	6.50 - 6.90	6.90 - 7.30	7.30 - 7.70	7.70 - 8.10	8.10 - 8.50	8.50 - 8.90	8.90 - 9.30	9.30 - 9.70	9.70 - 10.10	10.10	10.50	10.90 - 11.30	11.30 - 11.70	11.70
ruckdriversNonmanufacturing	639 546	10.50 10.95		9.77-11.50 10.54-11.50		-			Ī	1 -	3 -	4	11	4 -	6	21	5	11 2	12 4	59 49			7	150 150		290 290	
Truckdrivers, tractor-trailer Nonmanufacturing	281 276	11.01 11.03		10.54-11.54 10.54-11.54		-				-	-	=		-	-	-	-	-	-	-	2 2	8 3	2 2	145 145	-	97 97	2 2
Warehousemen Nonmanufacturing	520 158	7.13 8.29		5.86- 8.38 8.38- 8.84		1 1	1		18	28	43	80	58 8	40	45 4	-	23	67 67	29 23	26 23			11 4		-	-	
Shipping packers	141 140	7.18 7.16		5.39- 8.71 5.39- 8.71		-		4	6	22 22			6	4 4	-	ķ.,-	2 2	-	60 60	-	10 10		1 -	-	-		
Material handling laborers Nonmanufacturing	92 82	9.26 9.75		8.36-11.48 8.38-11.48		-	1	1 1	9	-	1	1 1	2 2	-	2 2	4	1 1	17 17	-	8	1 -		6	-		38 38	
Forklift operators	351 321	9.16 9.08		8.57- 9.68 8.57- 9.68		-			-	2 2	-	1	1	4 4	3	25 25		7	110 110	-	128 128		15	-		13 5	
Guards: Manufacturing	58	6.82	6.75	5.58- 8.53	-	-			12	1	4	6	3	7	6	-		-	8	11	-	-	-	-	-		
Guards, class B	55	6.57	5.97	4.97- 8.53	-		1		13	1	8	9	1	3	1	-	-	-	8	11	-	-	-	-	upro-1		
lanitors, porters, and cleaners Manufacturing Nonmanufacturing	449 308 141	6.40	5.71		-	2	8	19					8		15			5 5	74 74	-	-	-	-				

Table A-17. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers by sex-large establishments in Portland, Ore.-Wash., June 1980

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)*	Sex, ³ occupation, and industry division	Number of workers	Average (mean²) hourly earnings (in dollars)4
Maintenance, toolroom, and powerplant occupations - men	1	187	Maintenance mechanics (motor vehicles)	152 127	11.64 11.70	Truckdrivers, tractor-trailer	281 276	11.01 11.03
Maintenance carpenters	61	9.52				[12] [12] - 이번 기계 시간을 개발하는데, 그리고 있다.		
Maintenance electricians	246 214	10.99 11.20	Tool and die makers	185 185	11.10 11.10	Warehousemen: Manufacturing	174	7.19
Maintenance painters	54	10.00	Stationary engineers	52	10.39	Material handling laborers	82	9.61
Maintenance machinists	197 196	10.51 10.51	Material movement and custodial occupations - men			Nonmanufacturing	75	10.00
Maintenance mechanics							160	6.27
(machinery)	420 398	11.03 11.04	Truckdrivers	585 502	10.56 10.98	Guards	53	6.72

Table B-1. Minimum entrance salaries for inexperienced typists and clerks in Portland, Ore.-Wash., June 1980

			Inexperienced typists	3			Other in	experienced clerical	workers*	
Minimum weekly straight-time salaries ⁷	All	Manuf	acturing	Nonman	ufacturing	THE RES TO SERVE TO S	Manufa	acturing	Nonman	ufacturing
	industries	All schedules	40.00-hour schedules	All schedules	40.00-hour schedules	- All industries	All schedules	40.00-hour schedules	All schedules	40.00-hour schedules
Establishments studied	204	75	xxx	129	XXX	204	75	xxx	129	xxx
stablishments having a specified										
minimum	. 31	11	10	20	15	62	25	23	37	28
\$110.00 and under \$115.00			history and							
\$115.00 and under \$120.00							7		1	-
\$120.00 and under \$125.00	2			-	55. 89		1	to a distance		-
\$125.00 and under \$125.00		The last of the same	· ·	2	2	4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	4	4
	1	-		1		2		-	2	1
\$130.00 and under \$135.00	2			2	2	5	-	SELECTION OF	5	4
\$135.00 and under \$140.00	2	1	1 1	1		9	4	4	5	1
\$140.00 and under \$145.00	1	8	3.16	1 1	1	5	1	1	4	4
\$145.00 and under \$150.00	4	1	1	3	3	8	5	5	3	3
\$150.00 and under \$155.00	3	1	1	2	1 1	2	1	1	1	
\$155.00 and under \$160.00	3	3	3	2 10 10 10 10 10 10 10 10 10 10 10 10 10		5	3	3	2	1
\$160.00 and under \$165.00	2	- 1	_	2		3	1024 7 4 4 10 10	1	2	
\$165.00 and under \$170.00	1		2 2 2	1	1	2	- Skg - 12 3 4 3		-	2
\$170.00 and under \$175.00	3	2	1	1	1	4	2	2	2	1 5 Zelle 1 c
\$175.00 and under \$180.00			Maria de la Companya			3	2	The second secon	2	2
\$180.00 and under \$185.00	1	1	7 000	and the same		3	2	2	1	1
\$185.00 and under \$190.00			144 (24)	LOCAL PARTY OF THE			I the same I was	1	-	
\$190.00 and under \$195.00		12 16 7 THE				E & A. P. TOUR.			- 100	
	-	-		- Table	-		Tright - Shirt	-	- 3	100
\$195.00 and under \$200.00	2	-	14. 75. 1	2	2	2		-	2	2
\$200.00 and under \$205.00	-			T 15	-				-	-
\$205.00 and under \$210.00		-	-						and the second	
\$210.00 and under \$215.00	1	1	1 9	-		1	1	1		1 1 1 1
\$215.00 and under \$220.00	-	7.50 -		Later The second		a ly se ignition		Author 12 1964	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 - 20
\$220.00 and under \$225.00	-	4						异对甲 医皮肤 明明		
\$225.00 and under \$230.00	- 1	-	-			1	1	1		
\$230.00 and under \$235.00	-									
\$235.00 and under \$240.00	1 1	1	1	25 . 2			the second state		MACON TO THE STATE OF THE STATE	-
\$240.00 and under \$245.00	2 10 10		_					1. 70 100		-
\$245.00 and under \$250.00			1/2		May a series	A CONTRACTOR OF THE PARTY		100 100 100 100		
\$250.00 and under \$255.00					Market Control of the Control				-	7.4
\$255.00 and under \$260.00								35 to 35 to 35	7	January 10 ET
\$260.00 and under \$265.00								101 1 5 5 5 5 5 5		
\$265.00 and under \$270.00				The second second			The State of the S		A SHIPLE TO SHARE	
\$270.00 and under \$275.00		7.15		-		1 Jan 7 1 1		To Take again		-
\$275.00 and under \$280.00			ture 15					T	-	-
\$280.00 and under \$285.00	107 NT 17 18 18			1 B / - 1	15 F. / 15	- 135	-	D		
	1.5		Trans Y	-	-		-	-1.2		- 1
\$285.00 and under \$290.00		- 1	-	-		2.00				_
\$290.00 and under \$295.00	1	-	- 1	1	1	1			1	1
\$295.00 and over	1		- 1 -	1	1	1	7-		1	1
stablishments having no specified				11 3 40 41 41						
minimum	29	7	XXX	22	XXX	65	29	XXX	36	XXX
Establishments which did not employ										
workers in this category	144	57	XXX	87	XXX	77	21	XXX	56	XXX

Table B-2. Late-shift pay provisions for full-time manufacturing production and related workers in Portland, Ore.-Wash., June 1980

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

Item	All wo	rkers*	Workers on late shifts		
item	Second shift	Third shift	Second shift	Third shift	
Percent of workers					
n establishments with late-shift provisions	89.3	84.9	16.3	7.3	
Aliah an any differential for late objet work	2.7		1		
Nith no pay differential for late-shift work		84.9	16.2	7.3	
Nith pay differential for late-shift work		61.8	11.7	5.8	
Uniform cents-per-hour differential*		8.2	3.2	.5	
Uniform percentage differential		14.8	1.4	1.0	
Other differential		14.0	1.7	1.0	
Average pay differential					
Jniform cents-per-hour differential	18.6	25.9	18.9	26.9	
Uniform percentage differential	9.9	16.4	8.7	6.9	
ormorni percentage uniciental					
Percent of workers by type and amount of pay differential					
Uniform cents-per-hour:					
5 cents			.6	-	
8 cents	1.0		.2		
10 cents		2.9	2.8	.5	
12 and under 13 cents		2.7	.2	.5	
14 cents	8		.2	-	
15 cents	5.4	24.9	1.3	1.3	
20 cents		7.3	2.2	.6	
22 cents		.8	.3	.1	
23 cents		· · · · · · · · · · · · · · · · · · ·			
25 cents		3.9	1.5	.2	
27 cents		1.0		-	
30 cents		.8	.3	.2	
31 and under 32 cents	3.0		.9		
32 cents		.6	.1	(10)	
34 cents		-	.3		
35 cents			1	2477	
36 cents		1.2	-		
40 cents		6.4	-	.9	
47 and under 48 cents		3.0		.6	
50 cents		.9	.1		
51 cents		1.0	the second section is	.3	
78 cents			.1		
Over 99 cents	-	1.7	To the second	.1	
Uniform percentage:			10		
3 percent			1.6	-	
5 percent		1.5	7	.3	
7 and under 8 percent		.9	.4	2	
10 percent	3.8	1.0	.7	.2	
15 percent		3.8	.2		
33 percent			.3		
49 percent		1.1			
Other differential:					
Pay for more hours than worked					
plus cents-per-hour or per shift		12.6	1.2	.8	
Cents-per-hour plus percent of base rate	1.0	1.0	.2	.2	
Pay for more hours than worked					
plus cents-per-hour and meal allowance		.8			
Pay for more hours than worked		.3		The state of the s	
Pay for more hours than worked					

^{*} Includes provisions not listed seperately below. See footnotes at end of tables.

Table B-3. Scheduled weekly hours and days of full-time first-shift workers in Portland, Ore.-Wash., June 1980

		Production and	related workers		Office workers				
Item	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	
Percent of workers by scheduled weekly hours and days									
All full-time workers	100	100	100	100	100	100	100	100	
4 hours-4 days		_			(11)		(11)		
5 hours-5 days	2	3	1		(11)		(11)		
7 hours-4 1/2 days	The Draw in	_	42		2		2		
7 1/2 hours-5 days	11	7	15		10	3	25	(11)	
3/4 hours-5 days					2	3	25	(2)	
8/10 hours-5 days	_		- Par	[[[생고 집에는 바라이 그렇게	5	7	4		
hours	86	88	83	100	72	90	65	99	
			1 5-61		(11)	30	(11)	99	
4 1/2 days	(11)	_	(11)		(11)		1		
5 days	86	88	83	100	71	90	64	99	
2 hours-5 days	1	1			1-50		-	33	
4 1/2 days	(11)	1			Figure				
Average scheduled weekly hours									
M weekly work schedules	39.7	39.8	39.6	40.0	39.4	39.8	39.2	40.0	

Table B-4. Annual paid holidays for full-time workers in Portland, Ore.-Wash., June 1980

Item		Production and	related workers	Office workers				
	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities
Percent of workers							18 18 18 18 18	
All full-time workers	100	100	100	100	100	100	100	100
n establishments not providing						And the second		
paid holidays	5	in a large	10		(11)	- 1	(11)	
n establishments providing								
paid holidays	95	100	90	100	99	100	99	100
Average number of paid holidays								
or workers in establishments								
providing holidays	8.8	9.8	7.3	10.6	9.0	9.6	8.8	10.3
Percent of workers by number					1. 14-15 To AM			
of paid holidays provided								
half days	2		4				100000	
half days	(11)	and the Late of	(n)		2.0		- 30	-
half days	(11)		(11)		(11)	Sandra Property	(11)	- 1
half days	(11)	-	1					-
holiday	2/1	THE PERSON NAMED IN COLUMN	1		(11)		(11)	-
Plus 5 half days	2		5		The party and a second			-
holidays	(11)		1			-		
holidays					(11)	_	(11)	-
holidays	(11)		(11)		1	_	1	_
holidays	(11)	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1		(11)		(11)	-
holidays	12	2	23		9	5	10	2
Plus 1 half day		본 대로 생각하는 그리고 그래요?			(11)	-	(11)	1
holidays	5	3	7	2	7	1	10	-
holidays	11	10	12		13	7	15	1
Plus 1 half day	(11)	(11)			3	3	3	
holidays	26	34	16	3	26	34	23	2
Plus 2 half days	1	2			1	2		
) holidays	15	19	10	44	21	34	16	31
Plus 1 half day	1		3	15	7		10	44
1 holidays	11	18	3	14	8	5	10	16
2 holidays	4	4	3	19	1	(11)	1	3
3 holidays	4	7	(11)	3	2	8	(11)	1
4 holidays	(11)	1 4			(11)	1		
Percent of workers by total paid holiday time provided ¹²								
day or more	95	100	90	100	99	100	99	100
1/2 days or more	93	100	84	100	99	100	99	100
days or more	90	100	78	100	99	100	98	100
days or more	89	100	77	100	98	100	98	100
1/2 days or more	78	98	53	100	90	95	88	98
days or more	78	98	53	100	89	95	87	98
days or more	73	95	47	98	82	94	77	98
1/2 days or more	62	85	35	98	69	87	62	97
days or more	62	85	35	98	66	84	60	97
0 days or more	37	51	19	95	40	50	36	95
0 1/2 days or more	21	30	9	51	19	15	21	64
1 days or more	20	30	7	36	12	15	11	19
2 days or more	8	12	4	22	3	9	1	4
3 days or more	4	8	(11)	3	3	9	(11)	1

Table B-5. Paid vacation provisions for full-time workers in Portland, Ore.-Wash., June 1980

			related workers	Office workers				
Item	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities
Percent of workers			Maria de la compansión				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
All full-time workers	100	100	100	100	100	100	100	100
establishments not providing							To the second	
paid vacations	(11)		1					
establishments providing								
paid vacations	99	100	99	100	100	100	100	100
Length-of-time payment	89	89	90	63	99	99	99	97
Percentage payment	8	7	9	37	(11)		1	3
Other payment	3	5	-		(11)	(11)		_
Amount of paid vacation after:13								
6 months of service:								
Under 1 week	5	7	4		(m)			
1 week	18	25	9	28	(11)	(11)	(11)	Pull 1 10 (-1)
Over 1 and under 2 weeks	2	2	1	28	46	58	42	58
2 weeks					9 3	5 -	10	1
1 year of service:							The Control of the	
Under 1 week	(11)		(11)	3	(11)		The second second	
1 week	67	57	79	53	21	10	(11)	
Over 1 and under 2 weeks	4	7	(11)	3	(11)	16	23	23
2 weeks	26	32	19	42	77	80	(11) 76	1
3 weeks	2	4	50/1900 50/1-		1	3	(11)	72
4 weeks	-	-	11 / 1 / 1 S / 1		(11)	ĭ		2
2 years of service:								
1 week	23	33	12	-13	3	6	2	3
Over 1 and under 2 weeks	4	7			1	2	2	
2 weeks	67	52	86	84	93	85	96	94
Over 2 and under 3 weeks	3	5	1	3	1	3	(11)	1
4 weeks	2	4	C		2	3	2	2
4 weeks					(11)	1		-1
3 years of service:								
1 week	1		3	3	(11)		7.15	
2 weeks	93	92	95	93	96	93	(11) 97	1
Over 2 and under 3 weeks	3	5	1	3	1	3	(11)	95
3 weeks	2	4 -	(11)	2	3 (11)	3	3	3
4 years of service:					1 Carlot 15	4 4 4		
1 week	1.1		3	3	(1)		and the same of the same of	
2 weeks	92	89	95	90	(11)	-	(11)	1
Over 2 and under 3 weeks	4	7	1	3	95 1	93	96	93
3 weeks	2	4	1	4	3	3	(11)	35, a . 5 a . 1, a
5 weeks					(11)	1	3	5
5 years of service:		Andrew Street						
1 week	1		3	3	(11)		(11)	CHAPTO SELONG
2 weeks	71	69	74	70	55	56	55	78
Over 2 and under 3 weeks	3	5	1	3	4	8	3	18
3 weeks	22	22	21	25	39	34	41	18
Over 3 and under 4 weeks	-			Free Call - Vivil	(11)	1		10
4 weeks	3	5			(11)		(11)	2
	-	-		-	(11)	1		

Table B-5. Paid vacation provisions for full-time workers in Portland, Ore.-Wash., June 1980 —Continued

		Production and	related workers		Office workers				
Item	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	
10 years of service:							A TEN		
1 week	1	-	2		-	-	-	7	
Over 1 and under 2 weeks	(11)		(11)	3	(11)		(11)		
2 weeks	9	1	18		9	2	11	1	
Over 2 and under 3 weeks	2	4	-	-		5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-	
3 weeks	77	80	75	85	80	83	79	91	
Over 3 and under 4 weeks	1		2	3	2		3		
4 weeks	7	10	2	8	8	13	6	. 4	
Over 4 and under 5 weeks			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		(11)	1		-	
5 weeks	(11)	- 10	(11)	2	1 1	1	(11)	2	
Over 5 and under 6 weeks	3	5	7 7 7	•	-				
12 years of service:								300 TO 10 TO 10	
1 week	1		2	3	1 00		(11)	1	
Over 1 and under 2 weeks	(11)		(11)	3	(11)	2	11	1	
2 weeks	8	1	16			-	(11)	Same and the same	
Over 2 and under 3 weeks	2	3	2		(11) 65	40	75	79	
3 weeks	58	57	59	76	9	23	4	1	
Over 3 and under 4 weeks	12	18	3	3		34	10	16	
4 weeks	16	16	16	17	17	34	10		
Over 4 and under 5 weeks			5 Table 1		(n)		(11)	2	
5 weeks	(11)		(11)	2			(")	-	
Over 5 and under 6 weeks	3	5							
15 years of service:			Transit of the state of					Market Street	
1 week	1		2	3	8	2	11	1	
2 weeks	8	1	15	3	(11)		(11)		
Over 2 and under 3 weeks	1		2	00	24	23	25	14	
3 weeks	35	38	30	23	1 1	4	20	-	
Over 3 and under 4 weeks	2	4		-	65	69	63	81	
4 weeks	46	46	46	65 3	(11)	00	(11)	1	
Over 4 and under 5 weeks	1		2	7	(11)		1	2	
5 weeks	4	6			(.)	The state of the s			
Over 5 and under 6 weeks	2	4		-	(11)	2			
6 weeks			- 25/20		(11)	2			
Over 6 and under 7 weeks	(11)	1							
20 years of service:	1		2					bu. 45.	
1 week	7		15		8	2	11	1	
2 weeks			(11)	3	(11)		(11)	1	
Over 2 and under 3 weeks	(11)	11	21	2	11	11	11	2	
3 weeks	15	6	21					-	
Over 3 and under 4 weeks	3	40	50	56	63	43	71	79	
4 weeks	44	19	2	3	6	20	(11)	1	
Over 4 and under 5 weeks	11		8	30	11	22	6	15	
5 weeks	14	18	8	7		1	1	2	
6 weeks	1					The state of the s		-	
Over 6 and under 7 weeks	2	4	- 1		(11)	1		1	
Over 7 and under 8 weeks	(11)				(-)	1 2 2 2 2 2		The state of the s	

Table B-5. Paid vacation provisions for full-time workers in Portland, Ore.-Wash., June 1980 —Continued

		Production and	related workers		Office workers				
Item	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	
25 years of service:	-united the				1000	7 5 7			
1 week	1	_	2					THE SERVE	
2 weeks	7	1	15	Maria Cara Cara Cara Cara Cara Cara Cara	-	_	-	1 1 1 1 1 1 1 1 1	
Over 2 and under 3 weeks	(11)		(11)	-	6	2	10	- 15 - 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
3 weeks	13	8	10	3	(.)		(11)	1	
Over 3 and under 4 weeks	4	5	19	2	10	10	10	2	
4 weeks	34	30	40	17	(")		(11)		
Over 4 and under 5 weeks	2	30	40	14	44	32	49	9	
5 weeks	31	12	17	3	(1)		(11)	1.	
Over 5 and under 6 weeks	(11)	42	17	66	32	39	29	82	
6 weeks	2	2	-		(11)	(11)	-		
7 weeks	2	2	2	13	5	15	1	5	
Over 7 and under 8 weeks	(11)	9	-		-		- 1	in company to -	
8 weeks	()		Maria Maria		(11)	1		The state of the s	
o woeks	2	4			(11)	- 1		-	
30 years of service or more:									
1 week								of a December	
2 weeks		7	2		-		-		
Over 2 and under 3 weeks	(11)		15	5	8	2	10	1	
3 weeks	(-)	-	(11)	3	(11)		(11)	1	
Over 3 and under 4 weeks	13	8	19	2	10	10	10	2	
4 weeks	34	5	2		(11)		(11)	-	
Over 4 and under 5 weeks	34	30	39	11	37	31	40	9	
	1		2	3	(11)	_	(11)	1	
5 weeks	20	23	16	60	30	17	35	70	
Over 5 and under 6 weeks	10	18		-	6	20		10 M L	
6 weeks	5	6	3	16	7	18	3	14	
Over 7 and under 9 weeks	3	5	1	6	(11)		1	3	
Over 7 and under 8 weeks	(11)	1			(11)	1		market and a	
8 weeks	2	4	-		(11)	1			

Table B-6. Health, insurance, and pension plans for full-time workers in Portland, Ore.-Wash., June 1980

		Production and	related workers	Office workers				
Item	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities
Percent of workers								
All full-time workers	100	100	100	100	100	100	100	100
n establishments providing at least one of the benefits								
shown below ¹⁴	99	100	99	100	99	100	99	100
ife insurance	88	92	82	90	96	95	96	99
Noncontributory plans	71	66	76	81	77	67	80	85
ccidental death and				00	00	80	80	93
dismemberment insurance	76	83	68	83	80		62	93
Noncontributory plans	73	80	64	83	66	76	02	93
Sickness and accident insurance	88	89	86	100	95	98	94	99
or sick leave or both ¹⁵	00	69	00	100	1			
insurance	68	81	51	78	56	72	49	64
Noncontributory plans	65	79	48	78	50	71	42	64
Sick leave (full pay and no	00						1996	
waiting period)	32	36	28	16	73	82	70	23
Sick leave (partial pay or				Part State				
waiting period)	22	21	24	34	7	9	6	20
ong-term disability						56	60	63
insurance	28	36	19	41	60	56	62	
Noncontributory plans	15	15	15	28	38	21	45	51
n establishments providing at least								
one of the health insurance plans		and the second s	the state of the s		And the second s		1 110	
shown below ¹⁶	99	100	99	100	99	100	99	100
Noncontributory plans	91	97	83	91	73	97	64	81
Hospitalization insurance	97	95	99	100	99	99	99	100
Noncontributory plans	86	90	82	88	72	91	64	80
Surgical insurance	97	95	99	100	99	99	99	100
Noncontributory plans	86	90	82	88	72	91	64	80
Medical insurance	96	95	98	100	99	99	98	100
Noncontributory plans	86	90	82	88	72	91	64	80
Major medical insurance	97	95	99	100	99	99	99	100
Noncontributory plans	86	90	82	88	72	91	64	80
Dental insurance	77	75	80	98	79	77	80	98
Noncontributory plans	70	72	68	89	59	73	54	79
lealth maintenance organization	61	68	51	66	66	64	66	81
Noncontributory plans	51	65	36	37	40	61	31	17
etirement pension	89	97	80	85	89	98	85	87
Noncontributory plans	88	97	76	85	82	91	79	86

Table B-7. Health plan participation by full-time workers in Portland, Ore.-Wash., June 1980

Item		Production and	related workers		Office workers				
	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	All industries	Manu- facturing	Nonmanu- facturing	Public utilities	
Percent of workers			The second second	reflying to the	the water between the	9-14-14-14-15-15-15-15-15-15-15-15-15-15-15-15-15-			
All full-time workers	100	100	100	100	100	100	100	100	
Hospitalization insurance	78	74	83	76	81	70		1000	
Noncontributory plans	71	70	73	65	60	79 74	81 54	80 63	
Surgical insurance	78	74	83	76	81	79	04		
Noncontributory plans	71	70	73	65	60	79	81 54	80 63	
Medical insurance	78	74	82	76	80	70			
Noncontributory plans	71	74 70	73	65	60	79 74	81 54	80 63	
Major medical insurance	78	74	83	76	81	70	04		
Noncontributory plans	71	70	73	65	60	79 74	81 54	80 63	
Dental insurance	74	70	78	94	47				
Noncontributory plans	67	69	65	85	37	55 53	30	95 76	
lealth maintenance organization	21	26	14	24	11	19		To the second	
Noncontributory plans	17	25	8	19	7	17	9	19	

Footnotes

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

- ¹ Standard hours reflect the workweek for which employees receive their regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates), and the earnings correspond to these weekly hours.
- ² The mean is computed for each job by totaling the earnings of all workers and dividing by the number of workers. The median designates position—half of the workers receive the same or more and half receive the same or less than the rate shown. The middle range is defined by two rates of pay; 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.
- ⁷ Formally established minimum regular straight-time hiring salaries that are paid for standard workweeks. Data are presented for all standard workweeks combined, and for the most common standard workweeks reported.
- 8 Excludes workers in subclerical jobs such as messenger.
- ⁹ Includes all production and related workers in establishments currently operating late shifts, and establishments whose formal provisions cover late shifts, even though the establishments were not currently operating late shifts.

- 10 Less than 0.05 percent.
- 11 Less than 0.5 percent.
- ¹² All combinations of full and half days that add to the same amount; for example, the proportion of workers receiving a total of 10 days includes those with 10 full days and no half days, 9 full days and 2 half days, 8 full days and 4 half days, and so on. Proportions then were cumulated.
- ¹³ Includes payments other than 'length of time,' such as percentage of annual earnings or flatsum payments, converted to an equivalent time basis; for example, 2 percent of annual earnings was considered as 1 week's pay. Periods of service are chosen arbitrarily and do not necessarily reflect individual provisions for progression; for example, changes in proportions at 10 years include changes between 5 and 10 years. Estimates are cumulative. Thus, the proportion eligible for at least 3 weeks' pay after 10 years includes those eligible for at least 3 weeks' pay after fewer years of service.
- ¹⁴ Estimates listed after type of benefit are for all plans for which at least a part of the cost is borne by the employer. 'Noncontributory plans' include only those financed entirely by the employer. Excluded are legally required plans, such as workers' disability compensation, social security, and railroad retirement.
- ¹⁵ Unduplicated total of workers receiving sick leave or sickness and accident insurance shown separately. Sick leave plans are limited to those which definitely establish at least the minimum number of days' pay that each employee can expect. Informal sick leave allowances determined on an individual basis are excluded.
- ¹⁶ Unduplicated total of workers eligible for coverage under an insurance plan providing hospitalization, sugical, medical, major medical, or dental benefits shown separately.

Appendix A. Scope and Method of Survey

In each of the 71 areas¹ currently surveyed, the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Establishments having fewer than a prescribed number of workers are also excluded because of insufficient employment in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

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

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

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

Occupations and earnings

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

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

Unless otherwise indicated, the earnings data following the job titles are for all industries combined. Earnings data for some of the occupations listed and described, or for some industry divisions within the scope of the survey, are not presented in the 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. Vertical lines within the distribution of workers on some A-tables indicate a change in the size of the class intervals.

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

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

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

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

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

Wage trends for selected occupational groups

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

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

Occupations used to compute wage trends are:

Office clerical

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

Switchboard operators
Order clerks, classes A and B
Accounting clerks
Payroll clerks
Key entry operators, classes A and B

Electronic data processing³

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

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.

Average pay relationships within establishments

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

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

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

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

Establishment practices and supplementary wage provisions

The incidence of selected establishment practices and supplementary wage provisions is studied for full-time production and related workers and office workers. Production and related workers (referred to hereafter as production workers) include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations. (Cafeteria and route workers are excluded in manufacturing industries but included in nonmanufacturing industries.) In finance and insurance, no workers are considered to be production workers. Office workers include working supervisors and all nonsupervisory workers (including lead workers and trainees) performing clerical or related office functions in such departments as accounting, advertising, purchasing, collection, credit, finance, legal, payroll, personnel, sales, industrial relations, public relations, executive, or transportation. Administrative, executive, professional, and part-time employees as well as construction workers utilized as separate work forces are excluded from both the production and office worker categories.

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

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

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

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

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

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

Paid holidays (table B-4). Holidays are included if workers who are not required to work are paid for the time off and those required to work receive premium pay or compensatory time off. They are included only if they are granted annually on a formal basis (provided for in written form or established by custom). Holidays are included even though in a particular year they fall on a nonworkday and employees are not granted another day off. Paid personal holiday plans, typically found in the automobile and related industries, are included as paid holidays.

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

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

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

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

Health, insurance, and pension plans (table B-6). Health, insurance, and pension plans include plans for which the employer pays either all or part of the cost. The benefits

may be underwritten by an insurance company, paid directly by an employer or union, or provided by a health maintenance oganization. This year, for the first time in this area, provisions for health maintenance organizations (HMO's) are treated separately from insurance provisions. Workers provided the option of an insurance plan or an HMO are reported under both types of plans. A plan is included even though a majority of the employees in an establishment do not choose to participate in it because they are required to bear part of its cost (provided the choice to participate is available or will eventually become available to a majority). Legally required plans such as social security, railroad retirement, workers' disability compensation, and temporary disability insurance are excluded.

Life insurance includes formal plans providing indemnity (usually through an insurance policy) in case of death of the covered worker.

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

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

Sick leave plans are limited to formal plans⁵ which provide for continuing an employee's pay during absence from work because of illness. Data collected distinguish between (1) plans which provide full pay with no waiting period, and (2) plans which either provide partial pay or require a waiting period.

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

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

Major medical insurance coverage applies to services which go beyond the basic services covered under hospitalization, surgical, and medical insurance. Major medical insurance typically (1) requires that a 'deductible' (e.g., \$100) be met before benefits begin, (2) has a coinsurance feature that requires the insured to pay a portion (e.g., 20 percent) of certain expenses, and (3) has a specified dollar maximum of benefits (e.g., \$10,000 a year).

Dental insurance plans provide normal dental service benefits, usually for fillings, extractions, and X-rays. Plans which provide benefits only for oral surgery or repairing

accident damage are not reported.

A health maintenance organization (HMO) provides a wide range of health care services to a specified group for fixed periodic payments. An HMO directly provides comprehensive health care services rather than indemnification or reimbursement for medical, surgical, and hospital expenses.

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

Health plan participation (table B-7). Estimates are presented on the percents of production and office workers participating in selected health insurance and health maintenance organization plans.

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.

² A revised 4-level job description for accounting clerks, being introduced in this survey, is not comparable to the previous 2-level description. Earnings of workers that could be compared to the previous overall level were used in wage trend computations.

³ The earnings of computer operators are included in the wage trend computation for this group in the *following areas only*: Albany-Schenectady-Troy, N.Y.; Fresno, Calif.; Hartford, Conn.; Newark, N.J.; Paterson-Clifton-Passaic, N.J.; Poughkeepsie, N.Y.; Poughkeepsie-Kingston-Newburgh, N.Y., and Worcester, Mass. In other areas, a revised job description, which is not equivalent to the previous description, is being introduced.

⁴ Temporary disability insurance which provides benefits to covered workers disabled by injury or illness which is not work-connected is mandatory under State laws in California, New Jersey, New York, and Rhode Island. Establishment plans which meet only the legal requirements are excluded from these data, but those under which (1) employers contribute more than is legally required or (2) benefits exceed those specified in the State law are included. In Rhode Island, benefits are paid out of a State fund to which only employees contribute. In each of the other three States, benefits are paid either from a State fund or through a private plan.

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

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

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

⁵ An establishment is considered as having a formal plan if it specifies at least the minimum number of days of sick leave available to each employee. Such a plan need not be written, but informal sick leave allowances determined on an individual basis are excluded.

Appendix table 1. Establishments and workers within scope of survey and number studied in Portland, Ore.-Wash., June 1980

Industry division ²		Number of establishments		Workers in establishments				
	Minimum employment in establish- ments in scope of study	Within scope of study ^s	Studied	Within scope of study				
				Total ⁴		Full-time Full	Full-time	Studied
				Number	Percent	production and related workers	office workers	
All establishments			(8 ML 15 M		1.54 IL	7. 7. 7.	tim timend to a	
All divisions		1,110	204	200 000			4,000	
		1,110	204	229,603	100	119,539	45,530	106,760
Manufacturing	50	074						
Nonmanufacturing	50	371	75	97,360	42	65,603	12,807	55,062
Transportation, communication, and	area to Time	739	129	132,243	58	53,936	32,723	51,698
other public utilities ⁵	50	79						
Wholesale trade	50		28	25,304	11	9,314	7,377	17,853
Retail trade	50	157	17	16,068	7	(6)	(6)	2,340
Finance, insurance, and real estate	50	268	28	48,021	21	(6)	(6)	14,899
Services ⁷		101	20	22,637	10	(6)	(6)	11,064
Services	50	134	36	20,213	9	(6)	(6)	5,542
Large establishments						June Hard W	A Property of the Per	And the same
All all delications						and the first transfer		
All divisions		71	51	99,525	100	50,643	23,733	82,962
Approfessions				No. of the spile of the				02,302
Manufacturing	500	28	24	48,311	49	32,311	6,116	45,525
Vonmanufacturing	er in the second	43	27	51,214	51	18,332	17,617	
riansportation, communication, and					31	10,332	17,017	37,437
other public utilities ^s	500	10	9	16,050	16	4,468	6,358	14,849
wholesale trade	500	1	1	531	1	(6)		
Retail trade	500	21	11	21,949	22	(6)	(6)	531
Finance, insurance, and real estate	500	10	5	12,156	12		(6)	12,426
Services ⁷	500	1	1	528	12	(6)	(6)	9,103 528

¹The Portland Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of Clackamas, Multnomah and Washington Counties, Oreg.; and Clark County, Wash. The 'workers within scope of study' estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

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

3 Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of nonmanufacturing companies are considered as one establishment when located within the same industry division. Includes executive, professional, part-time, seasonal, and other workers excluded from the separate production and office categories.

⁵ Abbreviated to 'public utilities' in the A- and B-series tables. Taxicabs and services incidental to water transportation are excluded. Portland's transit system is publicly owned and is excluded by definition from the scope of the study.

⁶ Separate data for this division are not presented in the A- and B-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 table 2. Labor-management agreement coverage, Portland, Ore.-Wash., June 1980

Percent of workers	Production and related workers	Office workers
All industries	56	7
Manufacturing	66	(11)
Nonmanufacturing	43	10
Public utilities	81	35

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

Appendix table 3. Industrial composition in manufacturing, Portland, Ore.-Wash., June 1980

Percent of all manufacturing workers

Instruments and related products	18
Measuring and controlling devices	15
Transportation equipment	11
Motor vehicles and equipment	5
Lumber and wood products	9
Millwork, plywood, and structural members	5
Paper and allied products	
Paper mills, except building paper	6
Fabricated metal products	9
Machinery, except electrical	9
Food and kindred products	8
Primary metal industries	8

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

Appendix B. Occupational Descriptions

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

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

Accounting clerk Key entry operator Computer operator Drafter Stationary engineer Boiler tender

The Bureau has discontinued collecting data for tabulating-machine operator, bookkeeping-machine operator, and machine biller.

Office

SECRETARY

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

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

- Positions which do not meet the 'personal' secretary concept described above;
- b. Stenographers not fully trained in secretarial-type duties;
- c. Stenographers serving as office assistants to a group of professional, technical, or managerial persons;
- d. Assistant-type positions which entail more difficult or more responsible technical, administrative, or supervisory duties which are not typical of secretarial work, e.g., Administrative Assistant, or Executive Assistant;
- e. Positions which do not fit any of the situations listed in the sections below titled 'Level of Supervisor,' e.g., secretary to the president of a company that employs, in all, over 5,000 persons;
- f. Trainees.

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

Level of Secretary's Supervisor (LS)

LS-1

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

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

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

LS-3

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

LS-4

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

- a. Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
- b. Answers requests which require a detailed knowledge of office procedures or collection of information from files or other offices. *May* sign routine correspondence in own or supervisor's name.
- 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	Class E	Class D
LS-2	Class D	Class C
LS-3	Class C	Class B
LS-4	Class B	Class A

STENOGRAPHER

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

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

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

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

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

TRANSCRIBING-MACHINE TYPIST

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

TYPIST

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

Class A. Performs one or more of the following: Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

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

FILE CLERK

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

Class A. Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

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

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

MESSENGER

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

SWITCHBOARD OPERATOR

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

SWITCHBOARD OPERATOR-RECEPTIONIST

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

ORDER CLERK

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

Positions are classified into levels according to the following definitions:

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

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

ACCOUNTING CLERK

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

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

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

reviewed by the supervisor or are controlled by mechanisms built into the accounting system. NOTE: Excluded from class A are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

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

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

Class D. Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

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:

Class A. Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for class B.

NOTE: Excluded are operators above class A using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

Class B. Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

Professional and Technical

COMPUTER SYSTEMS ANALYST, BUSINESS

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

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

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

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

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

Class B. Works independently or under only general direction on problems that are relatively uncomplicated to analyze, plan, program, and operate. Problems are of limited complexity because sources of input data are homogeneous and the output data are closely related. (For example, develops systems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail establishment, or maintaining inventory accounts in a manufacturing or wholesale establishment.) Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of the data processing systems to be applied. OR

Works on a segment of a complex data processing scheme or system, as described for class A. Works independently on routine assignments and receives instruction and guidance on complex assignments. Work is reviewed for accuracy of judgment, compliance with instructions, and to insure proper alignment with the overall system.

Class C. Works under immediate supervision, carrying out analyses as assigned, usually of a single activity. Assignments are designed to develop and expand practical experience in the application of procedures and skills required for systems analysis work. For example, may assist a higher level systems analyst by preparing the detailed specifications required by programmers from information developed by the higher level analyst.

COMPUTER PROGRAMMER, BUSINESS

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

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

For wage study purposes, programmers are classified as follows:

Class A. Works independently or under only general direction on complex problems which require competence in all phases of programming concepts and practices. Working from diagrams and charts which identify the nature of desired results, major processing steps to be accomplished, and the relationships between various steps of the problem solving routine; plans the full range of programming actions needed to efficiently utilize the computer system in achieving desired end products.

At this level, programming is difficult because computer equipment must be organized to produce several interrelated but diverse products from numerous and

diverse data elements. A wide variety and extensive number of internal processing actions must occur. This requires such actions as development of common operations which can be reused, establishment of linkage points between operations, adjustments to data when program requirements exceed computer storage capacity, and substantial manipulation and resequencing of data elements to form a highly integrated program.

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

Class B. Works independently or under only general direction on relatively simple programs, or on simple segments of complex programs. Programs (or segments) usually process information to produce data in two or three varied sequences or formats. Reports and listings are produced by refining, adapting, arraying, or making minor additions to or deletions from input data which are readily available. While numerous records may be processed, the data have been refined in prior actions so that the accuracy and sequencing of data can be tested by using a few routine checks. Typically, the program deals with routine recordkeeping operations. OR

Works on complex programs (as described for class A) under close direction of a higher level programmer or supervisor. May assist higher level programmer by independently performing less difficult tasks assigned, and performing more difficult tasks under fairly close direction.

May guide or instruct lower level programmers.

Class C. Makes practical applications of programming practices and concepts usually learned in formal training courses. Assignments are designed to develop competence in the application of standard procedures to routine problems. Receives close supervision on new aspects of assignments; and work is reviewed to verify its accuracy and conformance with required procedures.

COMPUTER OPERATOR

In accordance with operating instructions, monitors and operates the control console of a digital computer to process data. Executes runs by either serial processing (processes one program at a time) or multiprocessing (processes two or more programs simultaneously). The following duties characterize the work of a computer operator:

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

May test-run new or modified programs. May assist in modifying systems or programs. The scope of this definition includes trainees working to become fully qualified computer operators, fully qualified computer operator, and lead operators providing technical assistance to lower level operators. It excludes workers who monitor and operate remote terminals.

Class A. In addition to work assignments described for a class B operator (see below) the work of a class A operator involves at least one of the following:

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

An operator at this level typically guides lower level operators.

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

Class C. Work assignments are limited to established production runs (i.e., programs which present few operating problems). Assignments may consist primarily of on-the-job training (sometimes augmented by classroom instruction). When learning to run programs, the supervisor or a higher level operator provides detailed written or oral guidance to the operator before and during the run. After the operator has gained experience with a program, however, the operator works fairly independently in applying standard operating or corrective procedures in responding to computer output instructions or error conditions, but refers problems to a higher level operator or the supervisor when standard procedures fail.

PERIPHERAL EQUIPMENT OPERATOR

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

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

- Loading printers and plotters with correct paper; adjusting controls for forms, thickness, tension, printing density, and location; and unloading hard copy.
- Labelling tape reels, disks, or card decks.

- Checking labels and mounting and dismounting designated tape reels or disks on specified units or drives.
- Setting controls which regulate operation of the equipment.
- Observing panel lights for warnings and error indications and taking appropriate action.
- Examining tapes, cards, or other material for creases, tears, or other defects which could cause processing problems.

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

COMPUTER DATA LIBRARIAN

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

DRAFTER

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;
- Illustrating work requiring artistic ability;
- 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
- 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.

Class A. 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.

Class B. 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.

Class C. 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.

Class D. 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.

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

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

ELECTRONICS TECHNICIAN

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

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

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

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

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

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

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

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

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

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

REGISTERED INDUSTRIAL NURSE

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

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

STATIONARY ENGINEER

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

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

BOILER TENDER

Tends one or more boilers to produce steam or high-temperature water for use in an establishment. Fires boiler. Observes and interprets readings on gauges, meters, and charts which register various aspects of boiler operation. Adjusts controls to insure safe

and efficient boiler operation and to meet demands for steam or high-temperature water. May also do one or more of the following: Maintain a log in which various aspects of boiler operation are recorded; clean, oil, make minor repairs or assist in repairs to boilerroom equipment; and, following prescribed methods, treat boiler water with chemicals and analyze boiler water for such things as acidity, causticity, and alkalinity.

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

Material Movement and Custodial

TRUCKDRIVER

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

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

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

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

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

Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

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

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

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

For wage study purposes, workers are classified as follows:

Shipper

Receiver Shipper and receiver

WAREHOUSEMAN

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

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

ORDER FILLER

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

SHIPPING PACKER

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

MATERIAL HANDLING LABORER

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

POWER-TRUCK OPERATOR

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

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

Forklift operator Power-truck operator (other than forklift)

GUARD

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

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

For wage study purposes, guards are classified as follows:

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

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

JANITOR, PORTER, OR CLEANER

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

Service Contract Act Surveys

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

Alaska (statewide) Albany, Ga. Albuquerque, N. Mex. Alexandria-Leesville, La. Alpena-Standish-Tawas City, Mich. Ann Arbor, Mich. Asheville, N.C. Atlantic City, N.J. Augusta, Ga.-S.C. Austin, Tex. Bakersfield, Calif. Baton Rouge, La. Beaumont-Port Arthur-Orange and Lake Charles, Tex.-La. Biloxi-Gulfport and Pascagoula-Moss Point, Miss. Binghamton, N.Y. Birmingham, Ala. Bremerton-Shelton, Wash. Brunswick, Ga. Cedar Rapids, Iowa Champaign-Urbana-Rantoul, Ill. Charleston-North Charleston-Walterboro, S.C. Cheyenne, Wyo. Clarksville-Hopkinsville, Tenn.-Ky. Colorado Springs, Colo. Columbia-Sumter, S.C. Columbus, Ga.-Ala. Columbus, Miss. Connecticut (statewide) Dothan, Ala. Duluth-Superior, Minn.-Wis. El Paso-Alamogordo-Las Cruces, Tex.-N. Mex. Eugene-Springfield-Medford, Oreg. Favetteville, N.C. Fort Smith, Ark.-Okla. Fort Wayne, Ind. Frederick-Hagerstown-Chambersburg, Md.-Pa. Gadsden and Anniston, Ala. Goldsboro, N.C. Guam, Territory of Knoxville, Tenn. La Crosse-Sparta, Wis. Laredo, Tex. Lexington-Fayette, Ky. Lima, Ohio Little Rock-North Little Rock, Ark. Logansport-Peru, Ind. Lower Eastern Shore, Md.-Va.-Del. Macon, Ga. Madison, Wis. Maine (statewide) Mansfield, Ohio McAllen-Pharr-Edinburg and Brownsville-Harlingen-San Benito, Tex. Meridian, Miss.

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

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

ALSO AVAILABLE-

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

Area Wage Surveys

A list of the latest bulletins available is presented below. Bulletins may be purchased from any of the BLS regional offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Make checks payable to Superintendent of Documents. A directory of occupational wage surveys, covering the years 1970 through 1977, is available on request.

Area	Bulletin n	
Akron, Ohio, Dec. 1978	2025-63	\$1.00
Albany-Schenectady-Troy, N.Y., Sept. 1980 ¹	3000-45	\$2.25
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1979	2050-48	\$1.50
Atlanta, Ga., May 1980	3000-21	\$2.25
Baltimore, Md., Aug. 1980	3000-38	\$2.25
Billings, Mont., July 1980 ¹	3000-31	\$2.00
Birmingham, Ala., Mar. 1978	2025-15	\$0.80
Boston, Mass., Aug. 1980	3000-40	\$2.25
Buffalo, N.Y., Oct. 1979	2050-65	\$2.25
Canton, Ohio, May 1978	2025-22	\$0.70
Chattanooga, Tenn.—Ga., Sept. 1980	3000-44	\$1.75
Chicago, III., May 1980'	3000-26	\$3.25
Cincinnati, Ohio—Ky.—Ind., July 1980	3000-32	\$2.25
Cleveland, Ohio, Sept. 1980'	3000-46	\$3.25
Columbus, Ohio, Oct. 1980	3000-48	\$2.00
Corpus Christi, Tex., July 1980	3000-28	\$1.75
Dallas—Fort Worth, Tex., Dec. 1979	2050-67	\$2.25
Davenport—Rock Island—Moline, Iowa—III., Feb. 1980 ¹	3000- 5	\$2.25
Dayton, Ohio, Dec. 1979	2050-64	\$2.00
Daytona Beach, Fla., Aug. 1980	3000-33	\$1.75
Denver—Boulder, Colo., Dec. 1979	2050-72	\$2.25
Detroit, Mich., Mar. 1980	3000- 7	\$2.25
Fresno, Calif., June 1980	3000-30	\$2.00
Gainesville, Fla., Sept. 1979.	2050-45	\$1.50
Gary—Hammond—East Chicago, Ind., Oct. 1979	2050-60	\$2.25
Green Bay, Wis., July 1980	3000-22	\$1.75
Greensboro—Winston-Salem—High Point, N.C., Aug. 1979	2050-49	\$1.50
Greenville—Spartanburg, S.C., June 1980	3000-16	\$1.75
Hartford, Conn., Mar. 1980	3000-19	\$2.25
Houston, Tex., Apr. 1980 ¹	3000-18	\$3.25
Huntsville, Ala., Feb. 1980'	3000-14	\$2.25
Indianapolis, Ind., Oct. 1980	3000-47	\$2.25
Jackson, Miss., Jan. 1980	3000- 2	\$1.75
Jacksonville, Fla., Dec. 1979	2050-69	\$2.25
Kansas City, Mo.—Kans., Sept. 1980	3000-42	\$2.25
Los Angeles—Long Beach, Calif., Oct. 1979	2050-59	\$2.25
Louisville, Ky.—Ind., Nov. 1979	2050-66	\$2.00

Area	Bulletin no and price	
Memphis, Tenn.—Ark.—Miss., Nov. 1979 ¹	2050-56	\$2.25
Miami, Fla., Oct. 1979	2050-55	\$2.25
Milwaukee, Wis., Apr. 1980	3000-10	\$2.25
Minneapolis—St. Paul, Minn.—Wis., Jan. 1980	3000-1	\$2.25
Nassau—Suffolk, N.Y., June 1980	3000-29	\$2.00
Newark, N.J., Jan. 1980 ¹	3000-8	\$3.25
New Orleans, La., Oct. 1979	2050-53	\$2.25
New York, N.Y.—N.J., May 1980	3000-24	\$2.25
Norfolk—Virginia Beach—Portsmouth, Va.—N.C., May 1980	3000-20	\$1.75
Norfolk—Virginia Beach—Portsmouth and Newport News—	5000-20	\$1.75
Hampton, Va.—N.C., May 1978	2025-21	\$0.80
Northeast Pennsylvania, Aug. 1980	3000-37	\$1.75
Oklahoma City, Okla., Aug. 1980 ¹	3000-41	\$2.25
Omana, Nebr.—Iowa, Oct. 1979	2050-51	\$1.50
Paterson—Clifton—Passaic, N.J., June 1980	3000-34	\$2.25
Philadelphia, Pa.—N.J., Nov. 1979 ¹	2050-57	\$3.00
Pittsburgh, Pa., Jan. 1980	3000- 3	\$2.25
Portland, Maine, Dec. 1979	2050-63	\$1.75
Portland, Oreg.—Wash., June 1980 ¹	3000-49	\$2.50
Pougnkeepsie, N. Y., June 1980'	3000-35	\$2.00
Poughkeepsie—Kingston—Newburgh, N.Y., June 1980	3000-39	\$2.00
Providence—Warwick—Pawtucket, R.I.—Mass., June 1980	3000-27	\$2.00
Richmond, Va., June 980 ¹	3000-23	\$2.25
St. Louis, Mo.—III., Mar. 1980	3000-12	\$2.25
Sacramento, Calif., Dec. 1979	2050-71	\$1.75
Saginaw, Mich., Nov. 1979 ¹	2050-52	\$1.75
Sait Lake City—Ogden, Utah, Nov. 1979	2050-62	\$2.00
San Antonio, Tex., May 1980'	3000-17	\$2.00
San Diego, Calif., Nov. 1979	2050-70	\$2.00
San Francisco—Oakland, Calif., Mar. 1980	3000- 9	\$2.25
San Jose, Calif., Mar. 1980	3000- 6	\$2.00
Seattle—Everett, Wash., Dec. 1979 ¹	2050-68	\$2.25
South Bend, Ind., Aug. 1980	3000-36	\$1.75
Toledo, Onio—Mich., May 1980	3000-13	\$1.75
Trenton, N.J., Sept. 1980	3000-43	\$1.75
Utica—Rome, N.Y., July 1978	2025-34	\$1.00
washington, D.C.—Md.—Va., Mar. 1980	3000- 4	\$2.25
Wichita, Kans., Apr. 1980	3000-15	\$2.25
Worcester, Mass., Apr. 1980'	3000-15	\$2.00
York, Pa., Feb. 1980	3000-11	\$1.75

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

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

U.S. Department of Labor Bureau of Labor Statistics Washington, D.C. 20212

Official Business Penalty for private use, \$300 Postage and Fees Paid U.S. Department of Labor

Third Class Mail

Lab-441



Bureau of Labor Statistics Regional Offices

Region I

1603 JFK Federal Building Government Center Boston, Mass. 02203 Phone: 223-6761 (Area Code 617)

Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont

Region V

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

Illinois Indiana Michigan Minnesota Ohio Wisconsin

Region II

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

New York Puerto Rico Virgin Islands

Region VI

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

Arkansas New Mexico Oklahoma Texas

Region III

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

Delaware District of Columbia Maryland Pennsylvania Virginia West Virginia

Regions VII and VIII

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

VII lowa Kansas Missouri

VIII Colorado Montana North Dakota Nebraska South Dakota Wyoming

Region IV

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

Alabama Florida Georgia Kentucky Mississippi North Carolina South Carolina Tennessee

Regions IX and X

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

Arizona California Hawaii Alaska Idaho Oregon Nevada Washington

