Eleventh annual nationwide salary study covers 22 EDP positions; 2,367 installations with over 82,000 employes participate in survey

EDP Salary Study—1969

DATA processing salaries continued their upward trend, according to the results of BUSINESS AUTOMATION'S 11th annual EDP salary study. The nationwide survey covers 2,367 installations with 82,593 EDP employes and reports weekly salary data for 22 data processing jobs.

The top job, Manager of all EDP, has a nationwide average of $303 per week, an 8 percent increase over the 1968 figure. Top average salary for the manager's job, $349 per week, was reported by New York City. Second highest, $338 per week, was reported by Washington, D.C.

The 2,367 survey participants were distributed across a nine-region area as follows: New England, 6.1 percent; Middle Atlantic, 18.7; South Atlantic, 12.1; East North Central, 29.4; East South Central, 1.7; West North Central, 8.0; West South Central, 6.6; Mountain, 3.8; and Pacific, 13.6. The regional salary breakdown is shown on page 50.

The number of EDP installations reporting directly to top management again showed an increase, with 40 percent indicating that they reported to presidential and vice presidential levels, as opposed to 39 percent for the prior year. The survey showed that a large majority of the systems analysis and programing operations continue to report to the EDP manager.

The percentage of participants indicating the purchase of equipment was 22.1, with 74.8 percent reporting that equipment was rented from the manufacturer. Both figures were about the same as last year. However, the number of participants reporting that they rented equipment from a lessor rose to 16.5 percent, up considerably from the 9.7 figure of a year ago; an indication that the leasing business is a thriving industry.

In an attempt to determine whether unionization was making progress in the EDP area, the participants were asked to indicate which positions, if any, were affected by union efforts. Only 206 returns reported any union membership and the majority of jobs affected were keypunch operators, 91.3 percent, computer operators, 73.8, and unit record equipment operators, 63.1.

The average number of data processing employes among the survey participants was 35.4. The average number of systems analysts was 4.4, and the average number of programers was 6.9.

A majority of the installations, 67 percent, reported a 40 hour work week, with 21.1 percent indicating a 37.5 hour week. A surprisingly large percentage, 51.6, indicated no overtime compensation for systems analysts and programers.

Of those reporting no overtime compensation, 71.8 percent gave as a reason that the workers were classified as professionals. Where salary level was a determining factor, the survey showed that $191 was the weekly salary above which no overtime was paid.

Some 66 percent of the installations reported multiple shift operations and indicated that 5 and 10 percent were the most common salary differentials for the second and third shift operation.

The survey data was processed and compiled for BUSINESS AUTOMATION by Market Facts, Inc. at its Chicago computer center. Market Facts is one of the nation's leading market research firms.

Reprints Available

Reprints of the 1969 EDP Salary Study, complete with job descriptions, are available at special quantity prices:

1– 9 copies, $2.00 each
10–24 copies, $1.60 each
25 or more, $1.30 each.

Orders for less than $5.00 must be accompanied by remittance. Price quotations for large quantity orders made on request. Mail all requests to Salary Survey Reprint Dept., % BUSINESS AUTOMATION, 288 Park Ave. West, Elmhurst, Ill. 60126

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Job Descriptions

Manager of All Data Processing—Job No. 01

Plans, organizes and controls the overall activities of electronic data processing including systems analysis, programing, and computer operation activities through managing subordinates or by direct supervision. Personally handles major personnel, administrative and data processing problems.

Assistant Manager of Data Processing—Job No. 02

Under general direction, assists the manager in planning, organizing and controlling the various sections of the department. Usually has departmental line responsibility but in certain instances may only have departmental staff responsibility. Consults with and and advises other departments with regard to feasibility, systems and procedures, and records control studies and problems. May act for the manager in his absence.

Manager of Systems Analysis—Job No. 10

Plans, organizes and controls the activities of the Systems Analysis Section in the establishment and implementation of new or revised systems and procedures concerned with electronic data processing. Usually considered as being in full charge of all systems analysis activities. Responsible for feasibility studies and systems design involving electronic data processing and makes recommendations on the action to be taken. Assigns personnel to the various projects and directs their activities. Consults with and advises other departments on systems and procedures.

Lead Systems Analyst—Job No. 11

Usually considered as the assistant manager of systems analysis. Has full technical knowledge of the activity and also has supervisory duties of instructing, directing and checking the work of the other systems analysts. Assists in planning, organizing and controlling the activities of the section. Assists in the scheduling of the work of the section and the assigning of personnel to the various projects being studied or processed. May act for the manager in his absence.

Senior Systems Analyst—Job No. 12

Under general direction, formulates logical statements of business problems and devises procedures for solutions of the problems. Usually competent to work at the highest level of all technical phases of systems analysis while working on his own most of the time. May give some direction and guidance to lower level classifications. Confers with management to define the data processing problem. Analyzes existing system logic difficulties and revises the logic and procedures involved as necessary. Develops logic and procedures to provide more efficient machine operations.

Junior Systems Analyst—Job No. 13

Under direct supervision, assists higher level classifications in devising computer system specifications and record layouts. Usually fairly competent to work on several phases of systems analysis with only general direction but still needs some instruction and guidance for the other phases. Studies and analyzes existing office procedures as assigned. Prepares systems flow charts to describe existing and proposed diagrams in accordance with instructions from higher level classifications.

Analysis and Programing—Jobs No. 16-19

Where analyst and programers are considered as one job, use applicable job descriptions from above.

Manager of Programing—Job No. 20

Plans, organizes and controls the preparation of computer programs for the solution of business problems. Usually considered as being in full charge of all programing activities. Assigns, outlines and coordinates the work of programers engaged in writing computer programs and routines. Establishes standards for block diagraming, machine flow charting and programing procedures. May write and debug complex programs. Reviews and evaluates the work of the staff and prepares periodic performance reports. Collaborates with systems analysts and other technical personnel in scheduling equipment analysis, feasibility studies and systems planning.

Lead Programer—Job No. 21

Usually considered as the assistant manager of programing. Has a full technical knowledge of programing. Also has supervisory duties of instructing, assigning, directing and checking the work of the other programers. Assists in scheduling programing projects and in the assignment of personnel to the various projects. Coordinates the activities of the programing section with the other sections in the overall computer department. May act for the manager in his absence.

Senior Programer—Job No. 22

Under general supervision, develops and prepares machine logic flow charts for the solution of business problems. Usually competent to work at the highest level of all technical phases of programing while working on his own most of the time. May give some direction and guidance to lower level classifications. Analyzes problems outlined by systems analysts in terms of detailed equipment requirements and capabilities. Designs detailed machine logic flow charting. Verifies program logic by preparing test data for trial runs. Tests and debugs programs. Prepares instruction sheets to guide computer operators during production runs. Evaluates and modifies existing programs to take into account changes in systems requirements or equipment configurations. May translate detailed machine logic flow charts into coded machine instructions. May assist in determining the causes of computer operation malfunctions. May confer with technical personnel in systems analysis and application planning.

Junior Programmer—Job No. 23

Under direct supervision, assists in the review and analysis of detailed systems specifications and the preparation of the program instructions. Usually fairly competent to work on several phases of programing with only general direction but still needs some instruction and guidance for the other phases. Assists in the preparation of all levels of block diagrams and machine logic flow charts. Codes program instructions. Assists in preparing test data and testing and debugging programs. Assists in the documentation of all procedures used throughout the system.

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Manager of Computer Operations—Job No. 30

Plans, organizes and controls the operation of the computer and peripheral data processing equipment. Usually considered as being in full charge of all activities of equipment operations. Establishes detailed schedules for the utilization of all equipment to obtain maximum usage. Assigns personnel to the various operations and instructs them where necessary so they are trained to perform assigned duties in accordance with established methods and procedures. Reviews equipment logs and reports to the manager of data processing on equipment operation efficiency for the section.

Lead Computer Operator—Job No. 31

Usually considered the assistant manager of computer operations. Has supervisory duties of instruction, assigning, directing and checking the work of the other computer operators, including seniors. Assists in the scheduling of the operations and the assigning of personnel to the various items of equipment required for the computer functions. Coordinates activities of the section with other sections of the overall data processing department. May act as shift supervisor. May act for the manager in his absence.

Senior Computer Operator—Job No. 32

Under general supervision, monitors and controls computer by operating the central console. Usually competent to work at the highest level of all computer operation phases. May give some direction and guidance to lower level classifications. Studies program operating instruction sheets to determine equipment setup and run operation. Switches auxiliary equipment into circuit. Confers with technical personnel in the event errors require a change in instructions or sequence of operations. Maintains operating records such as machine performance and production reports.

Junior Computer Operator—Job No. 33

Under direct supervision, assists higher level classifications in monitoring and controlling computer. Usually fairly competent to work on several phases of computer operations with only general direction but still needs some instruction and guidance for the other phases. Assists higher level classifications in carrying out the various duties associated with operating a computer or the auxiliary equipment directly associated with the computer. May keep records regarding output units and maintain records for stores and supplies.

Computer I/O Control Manager—Job No. 38

Under direct supervision responsible for control records related to data input, such as establishing control totals, scheduling; also responsible for balancing and distributing completed reports.

Data Communications Console Opr.—Job No. 39

Under direct supervision operates various equipment involved in receiving and transmitting data over communication lines.

Manager of Unit Record Equipment—Job No. 40

Under supervision of the data processing manager, directs the personnel of the unit record department and manages the preparation of various reports and data. In non-computer installations may be considered manager of data processing with similar responsibility.

Operator, Unit Record Equipment—Job No. 41

Under supervision, operates all unit record equipment and assists in technical responsibility.

Tape Librarian—Job No. 49

Under direct supervision maintains library of magnetic tape and disc packs and related controls.

Keypunch Supervisor—Job No. 50

Under supervision of the data processing or unit record manager, plans, schedules, supervises and directs keypunching and verifying activities; maintains the corresponding files; supervises assigned personnel to carry out the above activities.

Lead Keypunch Operator—Job No. 51

Under direct supervision, assists in supervising the group engaged in operating keypunch and verifier machines; assists in the scheduling of keypunch functions; instructs workers on procedures used to perform routine assignments; trains new employes.

Senior Keypunch Operator—Job No. 52

Under direct supervision, operates keypunch and verifier machines; instructs workers on procedures used to perform routine assignments; assists in training new employes.

Junior Keypunch Operator—Job No. 53

Under direct supervision, operates keypunch machines and verifier machines; performs related clerical duties. ■

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Weekly Salaries For All EDP Jobs by Regions

Job Description and Code ▶ / Low, Average and High represent actual weekly salaries paid ▼		Manager of All Data Processing (01)	Asst. Mgr. of Data Processing (02)	Manager of Systems Analysis (10)	Lead Systems Analyst (11)	Senior Systems Analyst (12)	Junior Systems Analyst (13)	Mgr. Analysis & Programing (16)	Lead Systems Analyst/Programer (17)	Sr. Systems Analyst/Programer (18)	Jr. Systems Analyst/Programer (19)	Manager of Programing (20)	Lead Programmer (21)
New England	L	100	125	165	90	160	110	145	170	150	110	180	90
	A	308	255	272	252	234	185	253	222	195	164	266	229
	H	577	481	495	360	450	309	404	300	300	250	400	325
Middle Atlantic	L	144	135	150	140	100	90	140	135	119	80	160	110
	A	314	276	285	251	235	190	278	249	215	179	265	219
	H	523	519	500	450	375	290	507	340	336	408	437	360
South Atlantic	L	125	100	160	120	138	110	135	140	120	100	132	100
	A	294	262	284	251	224	187	286	246	216	169	222	217
	H	588	497	450	443	358	257	497	375	308	250	391	401
East North Central	L	118	102	128	125	155	120	145	125	115	93	120	100
	A	305	256	265	256	229	196	274	234	215	177	245	209
	H	520	500	456	415	375	277	471	380	323	277	450	350
East South Central	L	173	173	190	162	158	125	173	150	172	118	150	135
	A	284	239	248	227	240	182	254	220	204	172	211	183
	H	500	317	318	385	350	280	325	231	254	215	288	212
West North Central	L	166	140	168	175	148	125	170	150	139	100	170	138
	A	296	256	271	240	224	174	254	247	206	164	253	209
	H	481	487	410	373	385	250	415	350	310	240	390	340
West South Central	L	142	148	178	140	115	109	163	124	105	100	167	97
	A	285	247	265	253	216	166	266	243	215	152	242	207
	H	692	429	380	384	292	350	380	323	300	240	380	361
Mountain Region	L	180	185	193	173	137	110	180	172	173	110	173	139
	A	286	266	278	233	226	184	262	218	204	163	274	231
	H	481	391	374	307	304	276	413	277	248	219	351	296
Pacific Region	L	168	165	185	180	175	120	150	139	130	92	170	120
	A	310	277	302	254	234	194	283	252	223	179	254	213
	H	633	437	423	365	323	285	390	313	500	270	400	300

**Indicates insufficient information available*

Regional breakdown by states

New England—*Maine, Vt., N.H., Mass., Conn., R.I.*
Middle Atlantic—*N.Y., Pa., N.J.*
South Atlantic—*W. Va., Md., Del., Va., N.C., S.C., Ga., Fla., District of Columbia*

Does Computer Operate On More Than One Shift?

	Firms	Percentage
Yes	1581	66.8
No	786	33.2

Salary Differential For Second Shift:

Differential	Firms	Percentage
Plus 5 Percent	412	26.1
Plus 10 Percent	493	31.2
Plus 15 Percent	24	1.5
Other Incentives (Plus 10¢ an hour, etc.)	90	5.7
No Salary Differential	562	35.5

Salary Differential For Third Shift:

Differential	Firms	Percentage
Plus 5 Percent	129	15.8
Plus 10 Percent	320	39.3
Plus 15 Percent	46	5.6
Other Incentives (Plus 10¢ an hour, etc.)	68	8.3
No Salary Differential	252	31.0

Basic Hours Per Week Per Shift For EDP

Hours	Firms	Percentage
35.0	228	9.6
37.5	497	21.1
40.0	1589	67.0
50.0	25	1.1
More Than 50	28	1.2

Overtime Compensation

	Firms	Percentage
All Receive	394	16.6
Some Receive	752	31.8
None Receive	1221	51.6

Where All Receive:

Hours	Firms	Percentage
After 35.0 Hours	19	.8
After 37.5 Hours	58	2.5
After 40.0 Hours	313	13.2
After 45.0 Hours	4	.2

Where Some Receive:

Hours	Firms	Percentage
After 35.0 Hours	56	2.4
After 37.5 Hours	98	4.1
After 40.0 Hours	598	25.2

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Weekly Salaries For All EDP Jobs by Regions

Senior Programer (22)	Junior Programer (23)	Manager of Computer Operations (30)	Lead Computer Operator (31)	Senior Computer Operator (32)	Junior Computer Operator (33)	Computer I/O Control Mgr. (38)	Data Comm. Console Operator (39)	Manager of Unit Record Equipment (40)	Operator Unit Record Equipment (41)	Tape Librarian (49)	Key Punch Supervisor (50)	Lead Key Punch Operator (51)	Senior Key Punch Operator (52)	Junior Key Punch Operator (53)
20	85	120	85	80	80	80	102	140	72	81	75	70	65	55
38	149	203	148	133	111	165	118	185	111	126	128	106	101	89
06	250	425	250	190	169	322	140	350	172	175	300	165	160	130
00	75	94	85	75	64	90	82	100	68	70	80	68	60	40
03	153	211	162	141	119	168	121	174	113	117	135	106	102	89
10	233	484	340	290	240	335	205	290	200	200	219	181	155	110
00	52	110	90	80	70	78	90	75	70	65	78	65	57	55
05	148	203	152	134	114	152	120	148	104	110	125	104	94	93
23	273	397	257	230	257	307	130	251	176	200	225	164	125	110
00	75	85	70	82	75	80	90	70	70	70	83	65	60	57
36	160	215	160	139	122	170	114	191	118	108	135	113	102	89
32	265	450	319	265	209	350	170	275	206	216	391	204	130	105
00	69	130	100	85	69	72	*	105	84	77	75	82	70	64
55	121	195	144	118	97	116	*	110	102	93	113	96	87	78
25	175	313	181	160	140	163	*	115	120	113	173	130	125	100
05	54	94	90	71	70	77	68	120	68	69	70	74	64	50
76	140	205	152	130	109	155	98	167	110	110	123	106	91	83
28	260	312	222	173	160	308	120	267	190	180	239	142	115	101
07	56	106	80	70	54	103	72	90	68	64	73	69	61	52
37	143	197	151	133	112	162	114	156	105	124	121	102	96	85
20	223	391	265	215	184	314	230	215	152	192	179	140	155	115
25	80	126	97	80	64	93	121	121	75	69	75	75	69	55
05	147	205	168	143	116	163	147	179	108	118	115	105	94	92
36	266	343	244	184	173	305	170	280	145	152	202	170	155	110
05	60	125	80	75	75	81	109	110	80	72	75	69	63	56
02	160	225	172	149	134	155	135	184	135	123	139	123	109	98
06	230	375	289	226	296	350	164	269	200	181	260	180	250	120

East North Central—*Wis., Mich., Ill., Ind., Ohio*
East South Central—*Ky., Tenn., Miss., Ala.*
West North Central—*N.D., Minn., S.D., Neb., Iowa, Kans., Mo.*
West South Central—*Tex., Okla., Ark., La.*
Mountain—*Mont., Idaho, Nev., Wyo., Colo., Ariz., N.M., Utah*
Pacific—*Wash., Ore., Calif.*

Basis for NOT Compensating Personnel For Overtime

Reason	Firms	Percentage
Classified as Professional	1347	71.8
Salary Level (see below)	217	11.6
City/State Law Prohibits	15	.8
Company Policy	18	1.0
Length Of Service	3	.2
Classified As Supervisor	80	4.3
Other	197	10.3

Note: Where salary level was determining factor for cutting off overtime, $191 was the average weekly salary where cut off occurred. The cut off ranges reported are shown below:

Range	Firms	Percentage
$150 to $174	64	30.9
$175 to $199	40	19.3
$200 to $224	34	16.4
$225 to $249	13	6.3
$250 to $274	12	5.8
$275 to $299	9	4.4
$300 & Over	8	3.9
Misc. Under $150	27	13.0

Forms of Compensation Other Than Overtime

	Firms	Percentage
Yes	1264	67.3
No	575	32.7

Type of Compensation	Firms	Percentage
Expense Allowance	526	28.0
Time Off	963	51.3
Bonus	78	4.2
Profit Sharing	19	1.0
Stock Option	6	.3

Average Period Between Salary Reviews

	Systems Analysts		Programers	
Time Period	Firms	Pct.	Firms	Pct.
Six Months	462	23.4	673	29.9
One Year	1308	66.2	1427	63.3
Over One Year	33	1.7	32	1.4
Unspecified	171	8.7	120	5.4

Percent of Annual Turnover

	Systems Analysts		Programers	
Turnover	Firms	Pct.	Firms	Pct.
Less Than 10 Pct.	834	53.3	755	39.5
10 to 20 Pct.	273	17.5	332	17.4
20 to 30 Pct.	232	14.9	384	20.1
Over 30 Pct.	225	14.3	440	23.0

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Weekly Salaries for All EDP Jobs by Industry

Job Description and Code ▶ / Average of actual salaries reported ▼		Manager of All Data Processing (01)	Asst. Mgr. of Data Processing (02)	Manager of Systems Analysis (10)	Lead Systems Analyst (11)	Senior Systems Analyst (12)	Junior Systems Analyst (13)	Mgr. Analysis & Programing (16)	Lead Systems Analyst/Programer (17)	Sr. Systems Analyst/Programer (18)	Jr. Systems Analyst/Programer (19)	Manager of Programing (20)	Lead Programer (21)
Advertising, Printing & Publishing	A	319	262	270	261	229	189	261	260	204	204	251	219
Bank, Insurance and Financial	A	311	277	276	245	218	179	263	227	198	158	240	204
Educational	A	288	251	237	219	212	169	247	204	197	168	225	209
Governmental Agencies (Fed., State, City)	A	315	298	301	259	232	185	299	267	225	171	260	236
Hospitals	A	276	161	282	263	217	176	273	248	218	173	197	189
Manufacturing (Electrical)	A	307	266	300	257	233	197	273	238	222	191	256	234
Manufacturing (Food, Tobacco & Drugs)	A	315	273	324	255	252	224	283	261	225	208	278	216
Manufacturing (Heavy Products)	A	289	234	272	260	228	205	272	224	206	181	237	202
Manufacturing (Light Products)	A	282	245	260	256	240	186	251	235	206	181	270	211
Manufacturing (Miscellaneous)	A	300	256	281	244	236	199	267	222	209	172	259	220
Public Utilities	A	299	216	260	244	213	175	283	247	212	173	268	205
Retail Sales & Distribution	A	304	231	255	254	239	195	261	205	207	165	237	187
Service Companies	A	323	253	285	252	240	205	282	233	224	175	249	200
Transportation Companies	A	284	266	318	253	200	188	313	242	210	175	249	188
Wholesale Sales & Distribution	A	295	203	255	233	231	198	264	207	202	165	234	193
Miscellaneous Industries	A	307	230	302	285	240	206	277	251	240	192	304	218

Indicates insufficient information available.

Data Processing Manager Reports to:

Title	Firms	Percentage	Title	Firms	Percentage
President	338	14.3	Dir. Systems & EDP	153	6.5
Vice President	610	25.8	Director of Information	54	2.3
Controller/Asst. Controller	575	24.3	Other Management Titles	168	7.1
Secretary/Treasurer	180	7.6	School Titles (Dean etc.)	56	2.4
Dir. Management Services	117	4.9	All Other Titles	116	4.8

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Weekly Salaries for All EDP Jobs by Industry

Senior Programer (22)	Junior Programer (23)	Manager of Computer Operations (30)	Lead Computer Operator (31)	Senior Computer Operator (32)	Junior Computer Operator (33)	Computer I/O Control Mgr. (38)	Data Comm. Console Operator (39)	Manager of Unit Record Equipment (40)	Operator Unit Record Equipment (41)	Tape Librarian (49)	Key Punch Supervisor (50)	Lead Key Punch Operator (51)	Senior Key Punch Operator (52)	Junior Key Punch Operator (53)
)3	163	212	159	136	119	168	199	172	130	119	131	100	101	89
'7	142	200	153	130	111	149	118	167	106	108	130	107	97	85
78	141	194	144	131	103	150	124	154	108	106	115	100	93	83
)0	161	227	183	153	131	175	113	182	119	119	135	115	102	94
33	158	187	160	124	112	139	*	137	87	117	129	99	90	83
)4	150	210	150	134	117	154	101	194	111	114	135	117	103	91
)0	167	221	160	144	121	178	*	179	126	111	133	111	107	98
36	152	211	159	143	118	146	120	170	119	110	129	119	103	88
35	148	206	153	132	113	165	*	184	111	133	133	113	102	89
)0	151	207	151	137	118	173	105	187	115	123	134	109	100	91
33	155	232	164	145	137	195	*	217	129	125	149	119	103	94
35	141	202	153	132	107	156	*	155	92	102	129	106	97	85
)3	146	219	153	136	113	167	160	175	109	100	128	108	99	84
31	161	230	166	142	121	148	164	180	129	133	147	122	115	95
31	144	229	149	135	128	119	105	165	97	106	124	105	100	84
)8	164	221	168	142	121	180	119	204	126	118	140	117	104	98

Systems Analysis Reports to:

Title	Firms	Percentage
EDP Manager	1312	55.4
Person At Higher Level	445	18.8
Person At Lower Level	103	4.4
No Systems Operation	393	16.6

Programing Reports to:

Title	Firms	Percentage
EDP Manager	1673	70.7
Person At Higher Level	264	11.2
Person At Lower Level	234	9.9
No Programing Operation	115	4.9

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Salaries For EDP Positions by Selected Metropolitan Areas

Job Description and Code ▶ / Average of actual salaries reported ▼		Manager of All Data Processing (01)	Asst. Mgr. of Data Processing (02)	Manager of Systems Analysis (10)	Lead Systems Analyst (11)	Senior Systems Analyst (12)	Junior Systems Analyst (13)	Mgr. Analysis & Programing (16)	Lead Sysems Analyst/Programer (17)	Sr. Systems Analyst/Programer (18)	Jr. Systems Analyst/Programer (19)	Manager of Programing (20)	Lead Programer (21)
Albany, N.Y. (37)	A	293	276	271	249	203	166	267	*	214	168	264	231
Atlanta, Ga. (49)	A	296	258	250	223	217	187	283	236	209	163	220	200
Boston, Mass. (78)	A	310	239	278	258	238	181	265	238	200	174	219	202
Buffalo, N.Y. (42)	A	308	265	254	241	221	172	267	233	220	189	232	192
Charlotte, N.C. (38)	A	266	199	234	210	203	178	274	228	209	156	221	188
Chicago, Ill. (260)	A	323	264	277	261	234	189	286	246	221	182	249	219
Cincinnati, Ohio (20)	A	313	240	264	256	224	201	274	*	*	183	208	192
Cleveland, Ohio (68)	A	311	234	258	255	231	187	275	251	203	152	229	206
Columbus, Ohio (49)	A	287	250	285	265	244	235	300	241	226	182	220	198
Dallas, Texas (39)	A	302	265	282	233	197	196	250	*	182	152	231	184
Denver, Colo. (37)	A	290	260	289	242	233	184	291	211	192	146	291	243
Des Moines, Iowa (41)	A	311	259	274	250	225	187	271	242	199	166	234	216
Detroit, Mich. (67)	A	311	293	263	260	229	194	262	217	204	174	282	220
Grand Rapids Mich. (28)	A	294	271	248	239	222	178	253	200	193	156	234	217
Harrisburg, Pa. (36)	A	289	254	263	259	235	182	253	240	215	176	254	215
Hartford, Conn. (52)	A	309	276	273	248	239	189	249	214	190	156	265	260
Indianapolis, Ind. (30)	A	290	*	277	*	223	180	287	210	194	173	242	191
Jacksonville, Fla. (15)	A	263	210	216	207	174	154	*	189	157	127	220	189
Kansas City, Mo. (26)	A	289	242	266	222	195	185	228	*	210	154	246	194
Los Angeles, Calif. (88)	A	320	286	302	271	251	207	295	261	224	175	294	225

**Indicates insufficient information available*

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Salaries of Selected EDP Positions by Metropolitan Areas *(continued)*

Senior Programer (22)	Junior Programer (23)	Manager of Computer Operations (30)	Lead Computer Operator (31)	Senior Computer Operator (32)	Junior Computer Operator (33)	Computer I/O Control Mgr. (38)	Data Comm. Console Operator (39)	Manager of Unit Record Equipment (40)	Operator Unit Record Equipment (41)	Tape Librarian (49)	Key Punch Supervisor (50)	Lead Key Punch Operator (51)	Senior Key Punch Operator (52)	Junior Key Punch Operator (53)
180	146	211	174	143	115	180	*	163	107	118	148	118	102	92
177	137	201	151	130	101	144	125	122	100	98	135	106	96	90
179	147	190	144	131	105	144	*	181	112	105	124	106	97	84
183	139	210	145	125	116	147	96	172	108	116	131	105	101	92
172	145	204	132	127	111	177	103	159	90	94	114	93	86	80
190	152	227	165	143	125	179	100	196	120	120	139	121	106	94
168	147	202	145	121	107	193	*	156	103	*	130	104	94	77
187	158	207	161	134	128	161	112	228	113	107	127	112	102	93
193	189	210	162	139	131	164	*	185	116	88	121	107	93	82
183	137	182	138	124	117	170	*	152	111	*	126	99	97	84
201	150	221	186	150	117	176	121	155	108	118	125	110	98	92
177	140	199	149	120	103	158	96	196	98	105	116	96	85	75
201	162	227	165	149	125	208	*	191	119	115	146	125	113	96
174	145	204	159	136	115	160	*	197	125	142	127	106	96	91
173	139	190	157	155	134	154	134	182	121	109	119	103	94	78
202	156	223	154	136	117	176	113	188	111	139	135	117	107	95
176	153	206	153	133	109	*	*	*	104	100	141	109	95	84
158	130	184	136	123	99	125	*	*	96	*	114	95	84	73
168	127	214	149	130	106	*	*	158	*	117	124	110	92	82
210	174	233	179	161	145	140	*	190	142	127	148	132	115	104

Figures in parentheses indicate number of firms reporting salary data

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Salaries For EDP Positions by Selected Metropolitan Areas *(continued)*

Job Description and Code ▶ / Low, Average and High represent actual weekly salaries paid ▼		Manager of All Data Processing (01)	Asst. Mgr. of Data Processing (02)	Manager of Systems Analysis (10)	Lead Systems Analyst (11)	Senior Systems Analyst (12)	Junior Systems Analyst (13)	Mgr. Analysis & Programing (16)	Lead Systems Analyst/Programer (17)	Sr. Systems Analyst/Programer (18)	Jr. Systems Analyst/Programer (19)	Manager of Programing (20)	Lead Programer (21)
Louisville, Kentucky (14)	A	294	*	260	*	220	214	*	*	185	160	228	193
Memphis, Tenn. (16)	A	280	*	*	*	183	150	263	223	214	176	*	181
Milwaukee, Wis. (60)	A	288	270	249	244	229	193	245	222	194	172	253	208
Newark, N.J. (62)	A	336	281	297	276	248	200	292	220	201	179	279	208
New York, N.Y. (117)	A	349	302	314	276	255	206	309	265	238	207	293	242
Oklahoma City, Okla. (21)	A	301	253	*	270	229	178	295	314	244	189	*	226
Philadelphia, Pa. (82)	A	301	283	285	261	235	195	291	253	206	163	252	221
Pittsburgh, Pa. (34)	A	275	185	243	190	172	149	*	*	184	*	228	163
Portland, Oregon (44)	A	265	247	282	242	216	192	265	226	206	174	208	181
Richmond, Va. (30)	A	270	257	260	243	239	183	265	239	228	182	227	224
Rockford, Ill. (27)	A	279	214	268	233	201	*	246	223	216	170	234	165
St. Louis, Mo. (38)	A	302	260	279	245	225	161	268	249	216	161	250	210
St. Paul/ Minneapolis (52)	A	304	260	272	253	225	191	269	263	209	169	250	221
San Antonio, Tex. (19)	A	298	277	264	245	216	140	259	233	222	145	243	205
San Francisco, Calif. (92)	A	327	301	316	258	238	188	294	257	223	189	260	226
Seattle, Wash. (31)	A	270	209	266	214	205	170	215	180	171	164	233	186
South Bend, Ind. (22)	A	291	226	*	244	219	215	300	279	239	197	241	193
Springfield, Ill. (22)	A	286	199	276	270	220	188	287	240	214	188	253	170
Tampa, Fla. (24)	A	274	219	259	247	235	198	223	182	206	162	269	174
Washington, D.C. (65)	A	338	307	335	286	236	197	325	283	260	207	250	248

**Indicates insufficient information available*

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Salaries of EDP Positions by Selected Metropolitan Areas

Senior Programer (22)	Junior Programer (23)	Manager of Computer Operations (30)	Lead Computer Operator (31)	Senior Computer Operator (32)	Junior Computer Operator (33)	Computer I/O Control Mgr. (38)	Data Comm. Console Operator (39)	Manager of Unit Record Equipment (40)	Operator Unit Record Equipment (41)	Tape Librarian (49)	Key Punch Supervisor (50)	Lead Key Punch Operator (51)	Senior Key Punch Operator (52)	Junior Key Punch Operator (53)
160	126	230	154	123	98	*	*	*	*	87	110	103	93	81
149	118	197	159	123	101	*	*	*	102	*	118	94	85	75
186	149	215	157	137	122	159	109	200	123	111	133	108	98	83
205	162	215	159	146	117	181	*	151	109	112	137	111	104	90
208	165	218	174	145	119	176	138	191	121	122	143	119	105	96
186	146	210	178	155	140	166	115	157	113	110	125	103	94	89
200	157	211	165	139	116	157	119	172	108	118	134	109	101	87
149	111	195	140	127	102	149	*	*	95	*	119	100	99	81
157	134	199	144	124	120	119	*	183	137	112	117	105	90	85
181	134	187	131	125	107	163	*	142	96	98	123	102	90	85
157	137	197	159	130	114	*	*	*	*	*	124	97	96	83
186	146	215	159	146	120	160	100	164	105	108	128	102	94	89
176	142	209	153	130	110	169	*	165	124	118	130	116	94	88
183	157	206	160	143	108	180	*	164	96	160	121	107	96	87
195	164	237	180	154	134	183	135	199	139	130	147	122	114	100
173	145	204	150	138	117	155	*	*	115	98	120	117	108	88
183	163	194	147	140	113	*	*	*	111	*	127	106	100	91
163	151	197	131	127	109	143	*	*	112	107	130	106	94	80
170	141	185	152	127	112	129	*	183	119	119	120	101	88	80
228	166	230	178	151	129	158	*	166	124	126	139	114	109	100

Figures in parentheses indicate number of firms reporting salary data

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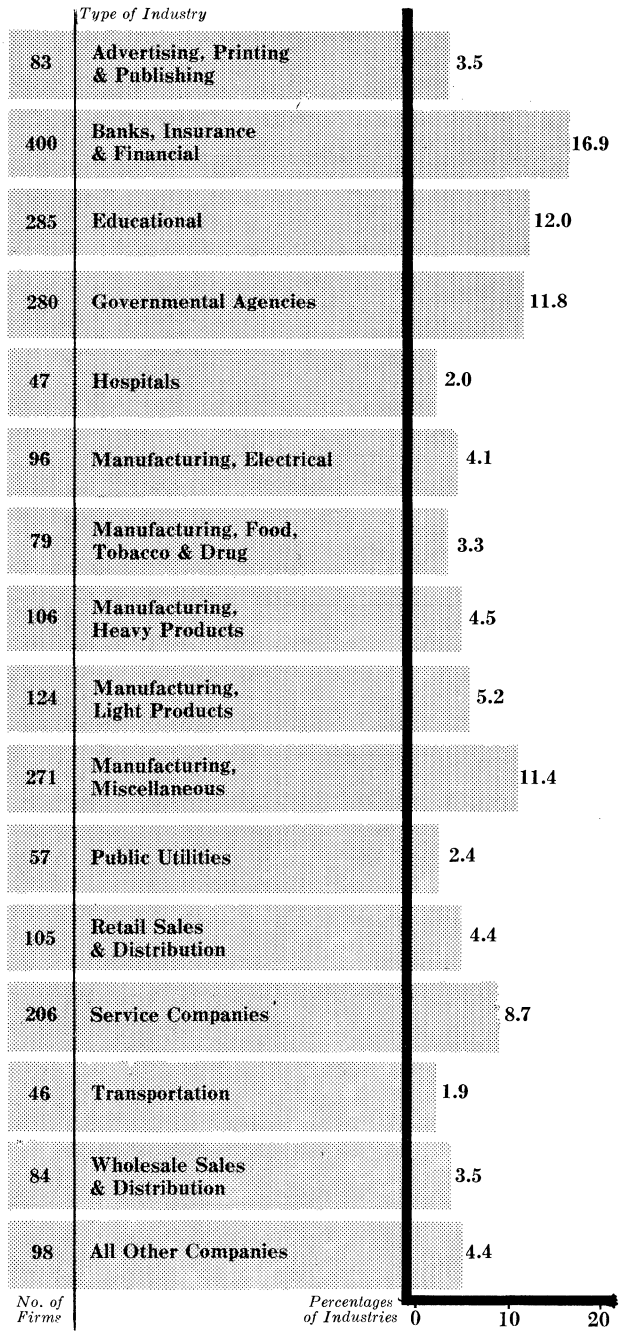
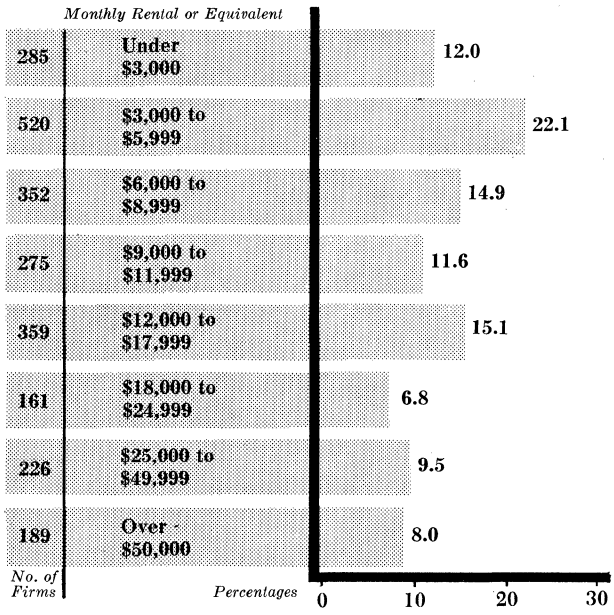
Participating Firms by Industry



Participating Firms by Size of Installation



Number of Computers Installed

Number of Computers	Number of Firms	Percentage
One	1684	71.1
Two	398	17.2
Three	136	5.5
Four	60	2.5
Five	22	.9
Six or more	67	2.8
Total	2367	100.0

Types of Devices Installed

Type	Number of Firms	Percentage
Disc Pack Drives	1614	68.2
Key to tape	614	25.9
Displays (CRT, etc.)	439	18.5
Mark Readers	210	8.9
Optical Character Readers	206	8.7
None of Above	534	22.6

Note: Multiple Answers Involved

Computer Rental—Purchase

	Number of Firms	Percentage
Rented from Manufacturer	1771	74.8
Rented from Lessor	390	16.5
Purchased	522	22.1

Note: Multiple Answers Involved

College Requirements for EDP, Systems Analysis and Programing Managers

	EDP Mgr.		SA Mgr.		Prog. Mgr.	
Requirements	Firms	Percentage	Firms	Percentage	Firms	Percentage
No College	666	28.1	746	30.7	1054	40.0
Some College	621	26.4	726	29.9	733	33.7
College Degree	1080	45.5	895	39.4	580	26.3
B.A.	878	37.1	632	26.7	446	18.8
Masters	128	5.4	55	2.3	20	.8
Unspecified	24	1.0	21	.9	14	.6

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Weekly Salary Data for EDP Jobs by Installation Size

Monthly Dollar Rental ▶		Under $3,000	$3,000 $5,999	$6,000 $8,999	$ 9,000 $11,999	$12,000 $17,999	$18,000 $24,999	$25,000 $49,999	Over $50,000
Actual Salaries Paid ▶		Av.	Av.	Av.	Av.	Av.	Av.	Av.	Av.
Job Description	Job Code								
Manager of All Data Processing	01	228	260	290	301	322	356	369	395
Ass't Manager of Data Processing	02	178	203	223	250	264	268	302	321
Manager of Systems Analysis	10	237	238	252	257	268	270	300	317
Lead Systems Analyst	11	218	214	227	244	253	257	259	260
Senior Systems Analyst	12	210	213	219	219	224	231	237	236
Junior Systems Analyst	13	154	173	174	175	186	189	196	197
Mgr. Analysis & Programing	16	217	228	241	244	260	279	289	300
Lead Systems Analyst/Programer	17	210	196	217	223	224	231	250	262
Sr. Systems Analyst/Programer	18	182	193	194	211	210	215	223	220
Jr. Systems Analyst/Programer	19	146	156	166	164	176	180	179	180
Manager of Programing	20	180	220	231	239	243	257	262	277
Lead Programer	21	162	180	187	202	208	218	219	238
Senior Programer	22	154	165	174	179	181	185	196	203
Junior Programer	23	122	132	137	140	147	151	155	165
Manager of Computer Operations	30	172	180	196	198	208	213	233	240
Lead Computer Operator	31	127	139	144	146	153	163	166	175
Senior Computer Operator	32	118	129	131	130	134	138	141	148
Junior Computer Operator	33	108	108	108	111	115	118	119	125
Computer I/O Control Mgr.	38	114	131	135	140	147	165	165	197
Data Comm. Console Operator	39	—	118	104	127	128	102	117	120
Manager of Unit Record Equip.	40	149	155	157	162	170	176	178	195
Operator, Unit Record Equip.	41	108	107	111	108	112	114	117	118
Tape Librarian	49	—	104	104	105	113	115	116	121
Keypunch Supervisor	50	111	117	124	122	132	134	138	146
Lead Keypunch Operator	51	99	105	104	106	107	115	118	117
Senior Keypunch Operator	52	94	97	98	98	99	101	103	104
Junior Keypunch Operator	53	82	85	85	86	91	88	91	93

EDP Personnel By Size of Installation

	Under $3,000	$3,000 $5,999	$6,000 $8,999	$ 9,000 $11,999	$12,000 $17,999	$18,000 $24,999	$25,000 $49,999	Over $50,000
Average Number of:								
All EDP Employes	7	10	16	21	27	41	66	172
Systems Analysts	1	1	2	3	3	4	8	17
Programers	2	2	3	5	5	8	14	30

Does any EDP personnel belong to a union?

206 Firms report YES

2,161 Firms report NO

YES firms indicate following positions affected by union membership:

Note: Multiple answers involved

Job	Number of Firms	Percentage
All positions	5	2.4
Systems Analysts	46	22.3
Programers	77	37.4
Computer Operators	152	73.8
Unit Record Operators	130	63.1
Key Punch Operators	188	91.3
Control and Other Clerical	25	12.1
Misc. Positions	16	7.8

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Nation-Wide Weekly Salary Data for All EDP Jobs

Job Description	Job Code	Established Ranges Average Low	Established Ranges Average High	Actual Salaries Paid Lowest Reported	Actual Salaries Paid Average	Actual Salaries Paid Highest Reported
Manager of All Data Processing	01	267	373	100	303	520
Ass't. Manager of Data Processing	02	239	320	100	265	519
Manager of Systems Analysis	10	245	340	128	280	500
Lead Systems Analyst	11	217	300	90	253	450
Senior Systems Analyst	12	196	269	100	230	450
Junior Systems Analyst	13	163	228	90	189	350
Mgr. Analysis and Programing	16	236	332	135	274	507
Lead Systems Analyst/Programer	17	207	283	124	244	380
Sr. Systems Analyst/Programer	18	182	250	105	214	500
Jr. Systems Analyst/Programer	19	154	212	80	171	408
Manager of Programing	20	220	308	120	251	390
Lead Programer	21	187	255	90	217	401
Senior Programer	22	162	223	95	190	350
Junior Programer	23	131	182	52	152	273
Manager of Computer Operations	30	190	267	85	211	484
Lead Computer Operator	31	143	194	70	160	340
Senior Computer Operator	32	123	165	70	139	290
Junior Computer Operator	33	104	140	54	119	296
Computer I/O Control Mgr.	38	155	210	72	161	350
Data Communications Console Operator	39	109	146	68	114	230
Manager of Unit Record Equip.	40	151	207	70	176	350
Operator, Unit Record Equipment	41	98	137	68	114	206
Tape Librarian	49	102	137	64	115	216
Keypunch Supervisor	50	116	156	70	131	391
Lead Keypunch Operator	51	99	131	65	110	204
Senior Keypunch Operator	52	90	118	57	100	125
Junior Keypunch Operator	53	81	105	40	90	110

Average Years Of Employment At Present Firm For EDP Managers, Systems Analysts, Programers

Less Than:	EDP Mgr. Firms	EDP Mgr. Pct.	Systems Analysts Firms	Systems Analysts Pct.	Programers Firms	Programers Pct.
One Year	24	1.0	29	1.2	41	1.7
Two Years	182	7.7	243	10.3	420	17.7
Three Years	253	10.7	379	16.0	587	24.8
Four Years	269	11.4	256	10.8	346	14.6
Five Years	180	7.6	182	7.7	206	8.7
Six Years	196	8.3	190	8.0	169	7.1
Seven Years	111	4.7	87	3.7	73	3.1
Eight Years	124	5.2	63	2.7	53	2.2
Nine Years	92	3.9	61	2.6	44	1.9
Nine Or More	744	31.4	235	9.9	107	4.5
Unspecified	192	8.1	642	27.1	321	13.5

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