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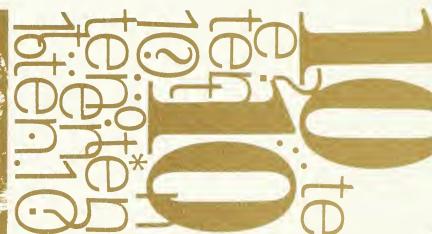
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Il62ou

the university of Illinois college of engineering 1960 GRADUATES 10 years later where are they now?







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http://archive.org/details/universityofilli1960univ

Ten years after graduation from college is an important milestone in the career of an engineer. By that time the uncertainties of the first few years have been reconciled and, in most cases a career pattern has been established.

The information in the following report covers the 1960 graduates of the College of Engineering at the University of Illinois at Urbana.

We are sorry for the delay in getting the completed report to the graduates who furnished us with the information which made it possible to complete the report. There were many delays and circumstances conspired to make an earlier publication date impossible. We thank each and every one of the graduates for their participation and their patience.

It is our hope that the following information will be both interesting and helpful.

(Mrs.) Pauline V. Chapman

Placement Director College of Engineering

University of Illinois

Urbana, Illinois



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		I.V										
	Number of Questionnaires Sent	Number of Questionnaires Returned	Percent of Return	Military Service	Currently in Graduate Colleges	Unemployed	Еmployed	Average Monthly Salary 1970	High Monthly Salary 1970	Low Monthly Salary 1970	Average Starting Salary 1960	Percent of Increase 1960-1970
All Engineers	658 ¹	431	65.50%	2.32%	.93%	.23% 1	96.52% 416	\$1416.	\$5000.3	\$ 550.3	\$532.	166.17%2
Aero. E.	43	28	65.12%	1	1	1	25	1487.	3500.	1110.	545.	172.84%
Ag. E.	19	16	84.21%	-	-	-	16	1147.	1508.	550.	484.	136.98%
Ceram. E.	16	13	81.25%	-	-	-	13	1366.	1800.	935.	536.	154.85%
Civil E.	107	79	73.83%	3	1	-	75	1370.	3000.	865.	500.	174.00%
E. E.	215	132	61.40%	2	1	-	129	1458.	3750.	850.	549.	165.57%
E. Mech.	8	8	100.00%	-	-	-	8	1594.	2000.	1300.	489.	225.97%
E. Physics	41	25	60.98%	2	-	-	23	1422.	2835.	833.	624.	127.88%
G. E.	26	20	76.92%	1	-	_	19	1550.	2900.	940.	505.	206.93%
I. E.	22	14	63.64%	-	-	-	14	1288.	1500.	1000.	545.	136.33%
м. Е.	142	83	58.45%	-	-	-	83	1412.	5000.	900.	521.	171.01%
Met. E.	12	9	75.00%	-	1	-	8	1391.	2000.	1088.	519.	168.02%
Min. E.	7	4	57.14%	1	-	-	3	1188.	1350.	1000.	495.	140.00%

¹¹⁴ completed forms arrived too late to be included in report and 10 were returned for incorrect address
2Increase in starting salaries: 1960 to 1970 - 63.39%
3Highest salary - \$5000.00 graduate is a stock broker, employed by a large brokerage firm; lowest salary - \$550.00 is a self-employed farmer

SALARY COMPARISON FIGURES OF THOSE GRADUATES WHO HAVE COMPLETED AN ADVANCED DEGREE SINCE 1960 AND THOSE WHO HAVE NOT

	Total Employed	No Advanced De <i>g</i> ree	M.S. in Original Field	M.S. in Other Technical Field	M.S. in Non- Technical Field	Ph.D. in Original Field	Ph.D. in Other Technical Field	M.B.A.	Law	Other
All Engineers Average Salary	416	265 \$1374.	61 ¹ \$1468.	23 ¹ \$1483.	6 ¹ \$1186.	22 ¹ \$1462.	8 ¹ \$1428.	20 ¹ \$1661.	5 ¹ \$2000.	6 ² \$1226.
Aero. & Astro. Eng. Average Salary	25	11 1499.	8 1606.	4 1459.	<u>-</u>	1 1150.		1 1500.	-	-
Agricultural Eng. Average Salary	16	10 1022.	2 1292.	1 1270.	-	2 1382.	-	1 1508.	-	
Ceramic Eng. Average Salary	13	7 1253.	-	2 1287.	-	2 1550.	-	1 1510.	1800.	-
Civil Eng. Average Salary	7 5	50 1304.	11 1478.	3 1628.	-	1383.	2 1675.	3 1961.	1100.	3 1315.
Electrical Eng. Average Salary	129	78 1434.	28 1415.	3 1540.	2 1219.	8 1594.	-	6 1866.	1 1500.	3 1137.
Eng. Mechanics Average Salary	8	-	1657.	1 1408.	- -	2 1605.	900.	_	_	_
Eng. Physics Average Salary	23	12 1563.		1287.		3 1183.	4 1315.	-	-	-
General Eng. Average Salary	19	13 1365.	-	1 2900.	1 1300.	-	-	3 1633.	2600.	-
Industrial Eng. Average Salary	14	10 1274.	1 1500.	1 1450.	1 1100.	-		1 1250.	-	-
Mechanical Eng. Average Salary	83	68 1378.	6 1477.	3 1339.	2 1140.	-	1 1917.	2 1695.	3000.	-
Metallurgical Eng. Average Salary	8	5 1431.	-	-	-	2 1441.	- -	1088.	-	-
Mining Eng. Average Salary	3	1 1350.	1 1215.	-	- -	-	-	1000.	-	-

¹Of the 151 who completed an advanced degree, 73 (48.34%) completed the degree as a full-time student, 78 (51.66%) as a part-time student while employed.
²3 no degree indicated, 2 M.S. in Education, 1 M.S. in Public Works.

1960 GRADUATES PRESENTLY EMPLOYED AND WORKING ON ADVANCED DEGREES

	Total Working on Advanced Degrees	M.S. in Original Field	M.S. in Other Technical Field	M.S. in Non- Technical Field	Ph.D. in Original Field	Ph.D. in Other Technical Field	M.B.A.	Гач	Other
All Engineers	50	6	7	6	1	3	25	1	11
Aero. & Astro. Eng.	1	-	-	-	-	1	-	-	-
Agricultural Eng.	1	-	1	-	-	-	-	-	-
Ceramic Eng.	-	-	-	-	-	-	-	-	-
Civil Eng.	5	-	-	2	-	-	2	-	1
Electrical Eng.	18	14	2	1	1	1	9	-	-
Eng. Mechanics	-	-	-	-	-	-	-	-	-
Eng. Physics	3	-	2	-	-	1	-	-	-
General Eng.	6	_	1	-	-	-	5	-	-
Industrial Eng.	1	1	-	_	-	-	_	-	-
Mechanical Eng.	13	1	1	2	-	-	8	1	-
Metallurgical Eng.	1	-	-	_	-	-	1	-	-
Mining Eng.	1	-	-	1	-	-	-	-	-

1_{M.S.} Public Administration

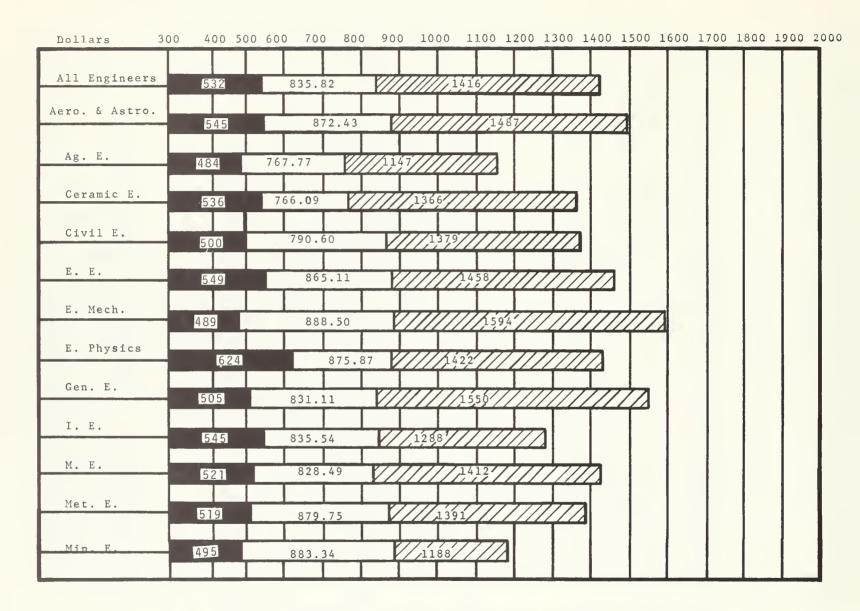
CORRELATION BETWEEN SCHOLASTIC AVERAGE AND FINANCIAL PROGRESS 1960-1970

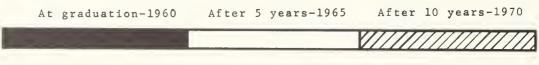
	Total Employed	lst Decile 5.000 - 4.370	2nd Decile 4.369 - 4.105	3rd Decile 4.104 - 3.946	hth Decile 3.945 - 3.789	5th Decile 3.788 - 3.637	6th Decile 3.636 - 3.518	7th Decile 3.517 - 3.410	8th Decile 3.409 - 3.304	9th Decile 3.303 - 3.183	10th Decile 3.182 & below
All Engineers	416	42 \$15 7 5.	42 \$1406.	42 \$1339.	41 \$1441.	41 \$1503.	41 \$1329.	41 \$1418.	42 \$1 4 29.	42 \$1327.	42 \$1395.
Aero. & Astro. Eng.	25	6 1834.	2 1370.	1 1454.	2 1396.	6 1474.	2 1325.	2 1325.	- -	1 1110.	3 1312.
Agricultural Eng.	16	2 1330.	1318.	1 550.	3 1197.	-	1080.	-	983.	1200.	1020.
Ceramic Eng.	13	1 1510.	2 1435.	<u>-</u> -	1104.	1 1355.	2 1500.	1 1225.	1 1324.	1118.	1568.
Civil Eng.	75	7 1703.	3 1328.	7 12 11 .	8 1499.	9 1376.	8 1419.	11 1243.	1460.	1187.	1298.
Electrical Eng.	129	14 1536.	10 1521.	17 1345.	10 1421.	8 1356.	11 1310.	14 1602.	16 1543.	14 1459.	1375.
Eng. Mechanics	8	2 1543.		2 1664.	1 1300.	2000.	2 1522.	-	_		-
Eng. Physics	23	2 1350.	8 1313.	5 1418.	2 1485.	3 1750.	2 1390.	_	1 1425.	-	-
General Eng.	19	1 1200.	1400.	-	3 2067.	1 2900.	2 1120.	-	5 1483.	5 1339.	1400.
Industrial Eng.	14	1 1500.	_	_	1400.	3 1358.	1 1265.	5 1187.	_	1425.	1018.
Mechanical Eng.	83	6 1511.	11 1427.	7 1229.	1273.	9 1551.	9 1284.	1583.	9 1292.	10 1311.	1739.
Metallurgical Eng.	8	-	1400.	1483.	2 1667.	-	1088.	1363.	_	-	1100.
Mining Eng.	3	-	-	1 1215.	1 1	-	-	-	1350.	1000.	-

RANGE OF 1970 SALARIES OF 1960 ENGINEERING GRADUATES

The monthly salaries are divided according to the degree held in 1970.

B.S. Deg	ree	Salary \$1473	Total	Salary \$1275	Total	Salary \$1030	Total	Salary \$1470	Total 1	Ph.D. De	gree	Salary \$1600	Total
Salary	Total	1472	1	1270	ī	1021	ī	1460	2	Salary	Total	1510	1
\$5000	1	1470	1	1265	1	1018	ī	1454	1	\$1917	1	1508	1
3750	1	1467	1	1262	1	1000	9	1450	1	1830	1	1500	2
3500	1	1460	2	1260	2	989	í	1445	1	1803	i	1330	1
2835	1	1450	3	1250	12	980	2	1439	i	1700	3	1300	1
2333	1	1440	1	1240	2	975	1	1425	1	1666	1	1250	1
2330	1	1435	1	1225	4	965	1	1417	1	1650	1	1240	i
2300	1	1433	2	1217	1	950	1	1415	ı	1635	1	1088	1
2200	3	1430	3	1215	1	940	i	1408	1	1630	1	1000	
2170	1	1425	4	1211	1	935	1	1404	1	1600	2	1000	<u>1</u> 20
2100	1	1423	1	1210	1	900	ı	1400	7	1575	1		20
2081	1	1415	1	1209	1	550	1	1394	i	1500	2		
2080	1	1405	1	1207	1))0	265	1385	1	1483	1	Law Degr	
2000	2	1400	14	1200	18		20)	1375	1	1470	1	Law Depr	ee
		1393	1	1195	1			1360	1	1458	1	C = 1 =	m-+-3
1923 1865	1	1393	2	1192	1	M.S. De	***	1350	1	1450	1	Salary \$3000	Total
	1	1385		1192		M.S. De	ree	1333		1400		2 6 00	1
1850	1	1380	1 3	1175	1	Salary	Total	1327	3		2	1800	1
1750	2		_		3	\$3000			1	1295	1		1
1735	1	1375	3	1160	2	-	1	1325	1	1266	1	1500	1
1733	1	1365	1	1159	1	2900 2400	1	1300	10	1200	2	1100	<u>1</u> 5
1720	1	1362	1	1156	1		1	1285	1	1150	1		5
1700	2	1360	1	1150	2	2000	3	1270	1	1100	1		
1670	1	1359	1	1140	1	1860	1	1250	1	1000	1		
1667	1	1358	1	1133	1	1850	2	1245	1	900	1	Other	
1650	2	1355	1	1125	4	1800	1	1221	1	833	<u>1</u> 30		
1635	1	1350	4	1120	2	1772	1	1215	1		30	Salary	Total
1610	1	1346	1	1110	1	1700	2	1210	1			\$1550	1
1600	3	1344	1	1105	3	1690	1	1200	2			1400	1
1586	1	1340	3	1100	10	1670	1	1191	1	M.B.A. D	egree	1333	1
1583	1	1335	2	1090	1	1665	1	1190	1			1213	1
1580	1	1334	1	1085	3	1640	1	1185	1	Salary	Total	1011	1
1565	1	1333	1	1080	2	1630	1	1180	2	\$2583	1	850	16
1550	3	1331	1	1073	1	1600	2	1167	1	2250	1		6
1536	1	1330	2	1068	1	1585	1	1104	1	2150	1		
1530	1	1324	1	1066	1	1541	1	1100	1	2083	1		
1512	1	1320	1	1060	1	1533	1	1000	2	2000	1		
1511	1	1302	1	1048	1	1530	1	1001	1	1983	1		
1500	10	1300	14	1042	1	1500	3	980	1	1850	1		
1478	1	1290	1	1040	1	1485	1	865	1	1800	1		
1475	1	1280	2	1037	1	1473	1		90	1700	1		





				No Change			One Change			Two Change	es		Three Change	es		Four Chang	or More
Total Percent of Change		Total Employed	Number	Percent of Change	Salary												
58.65%	All Engineers	416	172	41.34%	\$1412.	114	27.41%	\$1440.	92	22.11%	\$1398.	31	7.45%	\$1411.	71	1.68%	\$1386.
68.00%	Aero E.	25	8	32.00%	1418.	8	32.00%	1600.	7	28.00%	1354.	2	8.00%	1775.	-	-	-
50.00%	Ag. E.	16	8	50.00%	1276.	7	43.75%	1020.	-	-	-	1	6.25%	1000.	_	-	-
61.54%	Ceram. E.	13	5	38.46%	1436.	5	38.46%	1385.	3	23.08%	1217.	_	-	-	_	-	-
62.67%	Civil E.	75	28	37.33%	1341.	25	33.33%	1460.	14	18.68%	1306.	14	5.33%	1347.	4	5.33%	1259.
57.36%	E. E.	129	55	42.64%	1495.	27	20.93%	1317.	35	27.13%	1464.	12	9.30%	1586.	_	-	-
75.00%	Eng. Mech.	8	2	25.00%	1467.	5	62.50%	1682.	-	-	-	. 1	12.50%	1408.	-	-	-
43.48%	Eng. Physics	23	13	56.52%	1510.	5	21.74%	1357.	2	8.70%	1340.	3	13.04%	1204.	-	-	_
52.63%	Gen. E.	19	9	47.38%	1546.	4	21.05%	1811.	14	21.05%	1441.	1	5.26%	1120.	1	5.26%	1400.
64.29%	I.E.	14	5	35.71%	1250.	2	14.29%	1330.	7	50.00%	1304.	-	-	-	-	-	_
60.24%	м. Е.	83	33	39.76%	1320.	25	30.12%	1560.	17	20.48%	1394.	6	7.23%	1274.	2	2.41%	1633.
25.00%	Met. E.	8	6	75.00%	1338.	1	12.50%	1100.	1	12.50%	2000.	-	-	-	-	-	-
100.00%	Mining E.	3	-	-	-	-	-	-	2	66.67%	1282.	1	33.33%	1000.	-	-	-

¹⁴ made 4 changes - average salary \$1491. 3 made 5 changes - average salary \$1245.

REASONS FOR CHANGING POSLTIONS

Some combining of reasons has been attempted but in order to bring out as many dissatisfactions as possible the following list resulted. Some respondents listed more than one reason; others gave no reason even though one was requested.

REASONS INVOLVING ACTUAL WORK

- 40 better opportunity
- 34 better position
- 20 opportunity for advancement
- 17 better job offer
- 17 dissatisfied with job
- 15 few advancement possibilities
- 14 to broaden experience
- 13 more responsibility
- 12 no interest in work
- ll lack of challenging work
- 6 transferred
- 5 lack of security
- 4 not enough to do
- 4 to enter private industry
- 4 to move into marketing
- 4 to work in field originally trained for
- 3 to go into teaching
- 3 enter law practice
- 3 offer of management position
- 2 projects were too long in development
- 2 return to research situation
- 2 no future
- 2 work diversification
- 2 dissatisfaction with future career responsibilities
- 2 too much travel
- l to become director of planning in small
 - metropolitan area
- l excessive overtime
- 1 to fly for another company
- l wanted space work
- 1 to enter consulting business
- l wanted a change
- l static in position
- l wanted to leave academic environment
- 1 job phased out
- l not employed to my capacity
- 1 offered permanent Civil Service position

- 1 dissolved sales department subsidiary incorporated by parent company
- 1 opportunity to set up and manage sales development department
- 1 work too production oriented
- 1 to move to engineering management
- l return to manufacturing management
- l offered work in specialty not compatible
 with promotion
- l to go in construction field
- 1 moved from engineering to computer programming
- 1 to obtain job in commercial data processing
 equipment design
- 1 opportunity to start I.E. department in small
 company

REASONS INVOLVING THE COMPANY

- 41 more money 27 laid-off
- 21 Tald=011
- 5 dissatisfied with company management
- 5 company folded
- 5 ethics of management
- 4 company sold
- 4 company on downgrade
- 4 company phased out department
- 3 fired
- 3 dissatisfied with company
- 2 better growth opportunity
- 2 chance to work with small company
- 2 lack of cooperation
- 2 job misrepresented by company
- 1 management change
- 1 wage practices policy introduced raises not
 on merit
- l change in product emphasis

(Cont'd.)

REASONS FOR CHANGING POSITIONS (continued)

REASONS INVOLVING THE COMPANY (continued)

- l lack of research possibilities could not advance without Ph.D.
- 1 sales force combined with that of another company
- l city was politically unstable in area of employment
- 1 company personnel
- 1 to join a larger company
- 1 disagreements resulting from decreased work load caused by disappointed customers
- 1 company inability to use present day technology to compete efficiently with overseas manufacturers
- 1 to leave Government employment
- 1 company politics prevented technical developments
 requiring more than six months
- l personal conflict with administration

REASONS INVOLVING LOCATION

- 14 location
- 10 to return to Midwest
- 5 company relocated was not willing to move
- 4 to move to California

- 3 did not like living in Chicago
- 3 to seek better climate
- 2 to return to Chicago
- 2 return to the U.S.
- 1 bad weather
- l wife accepted a job in New York moved
- l wanted smaller town
- l desire to travel all over the world
- l to teach in Australia
- l to move to Florida
- 1 went to Europe
- l opportunity to work in Japan

PERSONAL REASONS

- 37 to return to school
- 9 entered military service
- 9 to own and operate own business
- 3 personal problems
- 2 medical reasons
- l wanted a vacation
- 1 to get married
- 1 personal commuting
- 1 too many small children while on a sales job

THE 416 RESPONDING, EMPLOYED 1960 GRADUATES ARE NOW EMPLOYED BY THE FOLLOWING COMPANIES

A and H Engineering Corporation	1 C.E.
Abbott Laboratories	1 M.E.
Acco-Bristol Company	1 M.E.
Aerojet Solid Propulsion Company	1 M.E.
Aerospace Corporation	1 A.A.E., 1 C.E.
AIL Information Systems	1 E.E.
Air-Oil Products Company	1 M.E.
Allis Chalmers Corporation	1 E.E.
Aluminum Company of America	1 G.E.
American Information Development Company	1 E.E.
American Cryogenics, Incorporated	1 M.E.
Amron-Antigo	1 Met.E.
Analog Devices	1 E.E.
Analog Digital Systems, Incorporated	1 E.E.
Anchor Hocking Glass Company	1 G.E.
Arthur Anderson Company	1 C.E.
H. Ray Anderson & Associates	1 C.E.
Apex Tool Works, Incorporated	1 E.M.
Argonne National Laboratory	1 E.E.
Arizona State University	l Met.E.
Armco Steel Corporation	l Met.E.
T. L. Arzt Foundry Company	1 I.E.
The Autobahn	1 M.E.
Automatic Electric Company	3 E.E.
Avco Corporation	1 A.A.E., 1 E.E.
Barton-Aschman Associates	1 C.E.
Basic Ceramics, Incorporated	1 Ceram. E.
Battelle Development Corporation	1 Ceram. E.
Battelle Memorial Institute	1 A.A.E., 1 E.E., 1 M.E.
Bechtel Corporation	1 C.E.
Bell & Gossett	1 M.E.
Bell & Howell	2 E.E.
Bell System: (21)	
A.T. & T. Long Lines	1 G.E., 1 E.E., 1 M.E.
Bell Laboratories	6 E.E., 2 E.P.
Illinois Bell	1 C.E., 1 E.E.
Sandia Corporation	1 C.E.
Teletype Corporation	1 E.E., 1 I.E., 1 M.E.
Western Electric Company	3 M.E., 1 E.E.
Bendix Corporation	1 M.E.
Birch, Swindler, McKie & Beckett	1 A.A.E.
Bituminous Fuel & Oil Company	1 C.E.
Black Brothers, Incorporated	1 Ag.E.

Bodine Electric Company 1 Mining E. 1 A.A.E., 1 Ceram, E., 2 E.E. Boeing Company Bohn Manufacturing Company 1 M.E. Bourns/CAI, Incorporated 1 M.E. 1 G.E. Buckeye Cellulose Corporation 1 E.E. Bunker Ramo Corporation Burlington Northern, Incorporated 1 C.E. 1 E.E., 1 E.P. Burroughs Corporation 1 G.E. California Computer Products Company California Division of Highways 2 C.E. 1 M.E. Carrier Corporation J. I. Case Company 1 Ag.E., 1 M.E. 2 Ag.E., 1 C.E., 1 I.E., 2 M.E., 1 Met.E. Caterpillar Tractor Company Central Illinois Public Service Company 1 M.E. Cherry Burrell Corporation 1 M.E. Chevron Oil Company 1 C.E. Chicago Bridge & Iron Company 1 E.E. 2 C.E. Chicago Metropolitan Sanitary District 1 E.P. Chicago Rawhide Company 1 C.E. Chicago Title & Trust Company Chrysler Corporation 1 G.E. Cities Service Oil Company 1 C.E. 1 C.E. City of Berlin, Wisconsin 1 C.E. City of Chattanooga 1 C.E. City of Denver 1 E.E. City of Indianapolis City of Oak Park, Michigan 1 C.E. 1 G.E. Clow Corporation 1 E.E., 1 I.E. Collins Radio 1 C.E. Collins Rice Incorporated 1 Ceram. E. Combustion Engineering Company Commonwealth Edison Company 1 E.E. 2 A.A.E., 1 M.E. Continental Can Company Continental Oil Company 1 M.E. 1 E.P., 1 I.E. Control Data Corporation 1 E.E. Cook Electric Company Cooper Bessemer 1 Mining E. Craig Cutten & Associates 1 G.E. Cummins Engine Company 1 M.E. Cunningham Limp Company 1 C.E. Cutler-Hammer Company 1 M.E. Dalmo Victor Company 1 E.E. Dana Laboratories 1 E.P. DMG Company, Incorporated 1 M.E.

R. R. Donnelley Company

it. It. Domiciley company	1 0.11.
Dravo Corporation	1 C.E.
E. I. Du Pont Company	1 E.E., 2 M.E.
Eagle Signal Company	1 E.E.
Effects Technology, Incorporated	1 E.M.
EG & G Corporation	1 E.E., 1 E.P.
Emerson Electric Company	1 M.E.
Fabricast Manufacturing Company	1 M.E.
Factory Mutual Insurance Company	1 C.E.
Fairchild Semiconductor	1 E.E.
Farinon Electric	1 E.E.
Allen E. Fehr Construction Engineers	1 C.E.
Florida State University	1 E.P.
FMC Corporation	1 G.E.
Ford Motor Company	1 E.E., 1 E.M., 1 I.E.
Gardner Denver	1 M.E.
General Motors: (3)	
Chevrolet Division	2 M.E.
Guide Lamp Division	l Ceram. E.
General American Transportation Company	1 A.A.E.
General Dynamics Corporation	1 A.A.E.
General Electric Company	3 E.E., 1 E.P., 1 M.E., 1 Met.E.
General Foods	1 C.E.
General Radio	2 E.E.
General Time Company	1 E.E.
Georgia Department of Highways	1 C.E.
Global Systems	1 M.E.
Goodbody Company	1 G.E.
Goodyear Aerospace Corporation	1 E.E.
GPE Controls Incorporated	1 E.E.
Hallicrafters	1 E.E.
Hamilton Standard	1 E.E.
Walter E. Hanson Company	2 C.E.
Harper Wyman Company	1 M.E.
Honeywell Incorporated	1 E.E.
Hughart Buildings Systems, Incorporated	1 C.E.
Hughes Aircraft Company	2 E.E.
Hume, Clement, Hume & Lee	1 G.E.
W. E. Hutton Company	1 I.E.
I/O Com, Incorporated	1 E.E.
I.I.T. Research	1 E.E.
Illinois Division of Highways	11 C.E.
Illinois Water Survey	1 C.E., 1 G.E.
Illinois Water Treatment Company	1 C.E.
Inland Steel Corporation	1 E.M., 1 Met.E.
•	, and the second

1 G.E.

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Integral Process Systems, Incorporated
T.B.M.
International Harvester Company
International Telephone & Telegraph
Interface Devices
Jacobi Systems
Jamesbury Corporation
Jet Propulsion Laboratory
Johnson-Klein, Incorporated
Jordan-Rotheiser Company
Joy Manufacturing Company
Kansas State University
Koppers Incorporated
Kraft Foods
Lear Siegler Incorporated
Lettvin & Gerstman
Lockheed Missile & Space
Loyola University
LTV Electrosystems
Magnavox Corporation
Marchand Electronic Laboratory
Marshall Data Systems
Martin-Marietta
Massachusetts Bureau of Planning
Massachusetts Institute of Technology
Mautz & Oren, Incorporated
McDonnell-Douglas: (15)
      Huntington Beach, California
      Long Beach, California
      St. Louis, Missouri
      Santa Monica, California
      Titusville, Florida
Midwest Material Company
Miller Davis Company
Minnesota Mining & Manufacturing Company
Mississippi Valley Structural Steel Company
Missouri Public Service Commission
Monsanto Chemical Company
Motorola, Incorporated
Mullett Associates
Murphy & Miller, Incorporated
Nalco Chemical Company
NASA Electronics Research Center
NASA Lewis Research Center
National Accelerator Laboratory
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1 M.E.
1 A.A.E., 1 C.E., 8 E.E., 2 E.P., 1 M.E.
2 Ag.E., 1 E.E., 1 G.E., 3 M.E.
2 E.E.
1 M.E.
1 E.E.
1 A.A.E.
1 E.E.
1 C.E.
1 I.E.
1 M.E.
1 Ag.E.
1 C.E.
1 M.E.
1 M.E.
1 E.E.
1 A.A.E., 1 E.E.
1 C.E.
3 E.E.
1 E.E., 2 M.E.
1 E.E.
1 E.E.
1 Ag.E., 1 E.E.
1 C.E.
1 E.P.
1 C.E.
2 A.A.E.
1 G.E.
3 A.A.E., 1 Ceram.E., 3 E.E., 2 E.M., 1 M.E.
I M.E.
1 E.E.
1 C.E.
1 C.E.
1 Ceram.E.
1 Ag.E.
1 C.E.
1 I.E.
2 E.E., 1 M.E., 1 Met.E.
1 E.E.
1 M.E.
2 Ceram.E.
1 E.E.
1 Ag.E., 1 E.M.
1 E.P.
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National Bureau of Standards National Gas Pipeline Company New York State Conservation Department L. H. Niems & Associates L. H. Niems & Associates North American Aviation Autonetics North Essex Community College Northern Illinois Water Company L. E. Northrop Corporation Nortown Travel Agency Nuclear Chicago L. E. Nussbaumer & Clarke, Incorporated Chic College of Applied Science Chio State University Coperations Research, Incorporated L. E. Outboard Marine Corporation L. E. Outboard Marine Corporation L. E. Owens-Illinois, Incorporated L. E. Panduit Corporation L. E. Peoples Gas, Light & Coke Company L. E. Peoples Gas, Light & Coke Company L. E. Pillo Ford Pineer Electric Poter Brumfield Division AME Powers Regulator Powers Willis & Associates Pratt & Whitney Aircraft Company Preferred Builders Procter & Gamble L. E. P. Pocter & Gamble L. E. P. P. C. E. P.
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L. H. Niems & Associates 1 C.E.
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Pratt & Whitney Aircraft Company 2 A.A.E., 1 M.E. Preferred Builders 1 C.E. Procter & Gamble 1 M.E.
Preferred Builders 1 C.E. Procter & Gamble 1 M.E.
Procter & Gamble 1 M.E.
Purdue University 1 Ag.E.
Putnam Publishing Company 1 M.E.
Radiation Incorporated 2 E.E.
Rand Teleprocessing Company 1 E.P.
Raylance, Abrams, Kruger, Berdo & Kaul 1 E.E.
Raytheon Corporation 3 E.E.
Reasor Corporation 1 M.E.
H. H. Robertson Company 1 Ceram.E.
Rohr Corporation 1 A.A.E.
Rucker Company 1 I.E.
Sanders Associates 1 A.A.E.
Sangamo Electric Company 1 E.E.
Sargent & Lundy 2 M.E.
Walter Scholer & Associates 1 E.E.
SCM Corporation 1 E.E.
Self Employed - Farming 1 Ag.E.

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Shannon & Wilson Incorporated
                                                                         1 C.E.
                                                                        1 C.E.
Shasta County Department of Water Resources
Shell Oil Company
                                                                        1 E.E.
                                                                        1 E.E.
Shell Pipeline Company
                                                                        1 M.E.
Signode Corporation
                                                                        1 M.E.
Singer Company
Sivyer Steel Casting Company
                                                                        1 C.E.
A. O. Smith Corporation
                                                                         1 Ag.E., 1 I.E.
Specialty Contracting Company
                                                                        1 C.E.
Sperry Flight Systems
                                                                        1 E.P.
                                                                        1 E.E.
Stanford University
                                                                        1 M.E.
Stearns-Roger Corporation
John F. Steffen Associates
                                                                        1 M.E.
                                                                        1 E.E.
Sunbeam Corporation
Swift Agricultural Chemical Corporation
                                                                        1 C.E.
                                                                        1 M.E.
Swift Henke & Company
                                                                        1 G.E.
Toni Company
Torrington Company
                                                                         1 I.E.
                                                                         2 M.E.
Trane Company
Tri-County Tire & Camper Company
                                                                        1 Ag.E.
Tri-onics, Incorporated
                                                                        1 E.E.
                                                                        1 A.A.E., 1 E.E., 2 E.P., 2 M.E.
TRW Systems
Turner Construction Company
                                                                         1 Ag.E., 1 I.E.
U.S. Air Force - Wright Patterson Air Force Base
                                                                        1 E.E.
U.S. Army - Corps of Engineers
                                                                        1 C.E.
U.S. Army - Production Equipment Agency
                                                                        1 G.E.
U.S. Department of Defense
                                                                        1 E.E.
                                                                        1 G.E.
U.S. Department of Interior
U.S. Civil Engineering Laboratory
                                                                        1 C.E.
U.S. Naval Ordnance Laboratory
                                                                        1 M.E.
U.S. Naval Ships Engineering Center
                                                                        1 E.E.
U.S. Soil Conservation Service
                                                                        1 Ag.E., 1 C.E.
                                                                         1 M.E.
U.S. Gypsum Company
Uarco Incorporated
                                                                        1 M.E.
Union Carbide Corporation
                                                                        1 E.E.
Union County Technical Institute (New Jersey)
                                                                         1 M.E.
Union Oil Company
                                                                        1 Mining E.
United Air Lines
                                                                        1 A.A.E., 1 E.E.
U.S. Steel Corporation
                                                                         1 Met.E.
University of Illinois
                                                                         1 A.A.E., 1 C.E., 2 E.E., 1 E.M., 1 E.P.
University of Texas
                                                                        1 C.E.
                                                                         1 E.E.
Univac
                                                                         1 C.E.
C. R. Velzy & Associates, Incorporated
Victor Comptometer Corporation
                                                                         1 E.E.
Washington University
                                                                         1 M.E.
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Wes-Cor Corporation	1 E.E.
Western Airlines	1 A.A.E.
Westinghouse Electric Corporation	1 C.E., 4 E.E., 1 E.P., 1 M.E.
Williams & Burrows, Incorporated	1 C.E.
Wolfe, Hubbard, Leydig, Voit & Osaww	1 M.E.
Woodward Governor Corporation	1 E.P.
J. L. Wroan & Sons, Incorporated	2 C.E.
Wyman-Gordon Company	1 M.E.
Xerox Data Systems	1 E.E., 1 E.P., 1 M.E.
Zenith Radio	1 E.E.

PRESENT GEOGRAPHIC LOCATION OF 1960 ENGINEERING GRADUATES

Location	All Engineers	Percent	Geographic Location 1960	Aero. E.	Ag. E.	Ceram. E.	Civil E.	ъ. т.	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	M. E.	Met. E.	Mining E.
Illinois Chicago & Suburbs 79 Outside Chicago 74 California Missouri Massachusetts Ohio New York Indiana Pennsylvania New Jersey Michigan Iowa Washington (state) Connecticut Florida Minnesota Texas Wisconsin Maryland Arizona Colorado Oklahoma Kentucky Washington, D.C. North Carolina Tennessee Alabama Delaware Georgia Hawaii Kansas Louisiana New Hampshire	153 61 19 16 16 15 14 11 10 9 8 8 7 7 7 7 7 7 6 5 5 3 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14.6% 3.8% 3.8% 3.4% 3.8% 3.4% 1.9% 1.8% 1.8% 1.8% 1.4% 1.2%	41.8% 10.1% 4.4% 2.6% 3.7% 6.3% 1.7% 1.4% 2.6% 3.7% 1.4% 2.9% 1.2% 1.2% 1.2% 1.2% 1.5% 1.7% 1.5% 1.7% 1.7% 1.7% 1.7% 1.7% 1.7% 1.7% 1.7	9 3 2 1		1 3 - 1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	40 7 2 1 - 3 - 4 1 1 - 2 1 2 - 1 2 1 1 1 1 1 1 1 1 1 1 1	31 25 10 4 8 7 2 4 1 2 2 2 4 1 4 1 5 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	2	7 1 1 - 2 2 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	10	7	38 7 4 16 3 2 3 2 1 2 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2

(Continued on following page)

PRESENT GEOGRAPHIC LOCATION OF 1960 ENGINEERING GRADUATES (Continued)

Location	All Engineers	Percent	Geographic Location 1960	Aero E.	Ag. E.	Ceram. E.	Civil E.	E. E.	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	М. Е.	Met. E.	Mining E.
New Mexico Nevada South Carolina Virginia West Virginia Utah Totals	1 1 1 1	.2% .2% .2% .2% .2% .2%	.5% .2% .2% .2%	25	- - 1 -	13	1 - - - - 75	- - - 1		- 1 - - - 23	- - - - - 19	- 1 - - 14	- - - - 83	8	- - - - 3

SIZE OF ORGANIZATIONS IN WHICH THE 1960 GRADUATES ARE NOW EMPLOYED

	All Engineers	Aero E.	Ад. Е.	Ceram E.	Civil E.	EÎ.	Eng. Mech.	Eng. Phys.	Gen. E.	I.	М. Е.	Met. E.	Min. E.
Total Employed	416	25	16	13	75	129	8	23	19	14	83	8	3
0 - 50 Employees	50 12.0% \$1655.	1 4.0% \$3500.	2 12.5% \$ 775.	1 7.7% \$1700.	17 22.7% \$1365.	10 7.8% \$1713.	2 25.0% \$2000.	1 4.3% \$1500.	3 15.8% \$2000.	3 21.4% \$1383.	10 12.0% \$2001	- - -	- - -
51 - 150 Employees	29 6.9% \$1393.	- - -	1 6.3% \$1040.	- - -	11 14.7% \$1508.	9 6.9% \$1422.	- - -	- - -	3 15.8% \$1273.	1 7.1% \$1000.	4 4.8% \$1289.	- - -	- - -
151 - 500 Employees		1 4.0% \$1250.	1 6.3% \$1000.	1 7.7% \$1355.		6 4.7% \$1326.	- -	2 8.7% \$1265.	- - -	3 21.4% \$1139.		1 12.5% \$1100.	- - -
501-5000 Employees	118 28.4% \$1387.	7 28.0% \$1470.	6 37.4% \$1180.	4 30.8% \$1363.	18 24.0% \$1359.	43 33.3% \$1446.	1 12.5% \$1635.	6 26.1% \$1267.	4 21.1% \$1468.	1 7.1% \$1200.		1 12.5% \$1400.	2 66.7% \$1175.
5001- 10,000 Employees	36 8.7% \$1410.	2 8.0% \$1350.	1 6.3% \$1270.	- - -	5 6.6% \$1551.	15 11.6% \$1480.	-	- - -	1 5.3% \$1300.			1 12.5% \$1088.	- - -
Over 10,000 Employees	148 35.6% \$1390.	14 56.0% \$1388.	5 31.2% \$1282.	7 53.8% \$1321.	12 16.0% \$1225.	46 35.7% \$1431.	5 62.5% \$1424.	14 60.9% \$1505.	8 42.0% \$1557.	4 28.7% \$1397.	27 32.6% \$1301.	5 62.5% \$1508.	1 33.3% \$1215.

THE EMPLOYED 1960 GRADUATES ARE NOW EMPLOYED BY THE FOLLOWING TYPES OF COMPANIES

Type of Company ¹	All Engineers	Percent	1970 Average Salary	Aero. E.	АВ. Е.	Ceram E.	Civil E.	ъ. т.	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	м. в.	Met. E.	Mining E.
Aircraft, Missile, & Space	57	13.8%	\$1367.	15 \$1409.	1 \$1270.	2 \$1452.	2 \$16 7 5.	19 \$1312. 35	2 \$1313.	5 \$1399.	1 \$1300.	-	9 \$1268. 5	1 \$2000.	-
Electronics	45	10.9%	1511.	1670	-	-	-	1531.	-	1508.	-	\$1475.		1483.	-
Data Processing & Business Machines	32	7.7%	1605.	-	-	-	1 1200.	18 1664.	-	6 1764.	1 1400.	1 1265.	5 1391	-	-
Construction & Building	22	5.3%	1333.	-	1 1080. 6	1 1324.	16 1377.	-	-	-	_ 1	- 1	3 1 263. 8	1 1100.	- 1
Heavy Equipment	20	4.8%	1287.	-	1 254.	-	1423.	1260.	-	-	1750.	1450.		1334.	1350.
State Government	20	4.8%	1221.	- 1	-	-	1216.	1133.	-	-	1400.	- 1	- 3	-	-
Consulting Engrs.	19	4.6%	1633.	-	-	-	1640.	1586.	-	-	-	1500.		-	-
Metal & Metal Products	17	4.1%	1280.	2 12 7 5.	2 982.	_ ;	1 100 0 .	1 1105.	2 1787. 1	<u>-</u> 2	1 1600.	2 1250.	3 1221.	3 12 7 1.	-
Research Labora- tories	17	4.1%	1431.	1250.	-	1700.	1200.	1449.	2000.	1300.	-	-	1300.		-
Schools	17	4.1%	1222.	1 1150.	2 1382.	-	3 1288.	2 11 7 5.	1 1511.	1008.	- 2	-	3 1237.	1 1400.	-
Chemical & Chem- ical Products	15	3.6%	1278.	-	-	3 1475.	1200.	3 1155.	-	-	1208.	1 1100.	5 1313.	-	-
Communications Equipment	15	3.6%	1368.	-	-	-	-	10 1439.	-	-	-	2 1101.	3 1309.	- :	-
Federal Government	15	3.6%	1397.	-	2 1100.	-	3 1454.	5 1501.	1 1635.	-	2 1260.	-	2 1368.	-	-

(Continued on rollowing page)

THE EMPLOYED 1960 GRADUATES ARE NOW EMPLOYED BY THE FOLLOWING TYPES OF COMPANIES (continued)

Type of Company ¹	All Engineers	Percent	1970 Average Salary	Aero. E.	AR. E.	Ceram. E.	Civil E.	ъ. Е	Eng. Mech.	Eng. Phys.	Gen. E.	Ι. Ε.	м. Е.	Met. E.	Mining E.
Automobile & Automotive Equipment	11	2.6%	1482.	-	-	\$110 ⁴ .	-	3 \$1377.	1 \$1408.	-	1 \$2900.	1 \$1400.	ц \$13 4 0.	-	-
Public Utility	11	2.6%	1372.	-	-	-	2 1308.	1421	-	1 1600.	1 1425.	-	3 1 258	-	-
Electrical Equipment	10	2.4%	1238.	-	-	-	-	4 1284.	-	1 1340.	_	1 1200.	3 1236.	-	1 1000.
Controls & Instrumentation	9	2.2%	1362.	-	-	_	-	կ 1360.	_	1 1250.	1 1405.	-	3 1388.	-	-
City & County Governments	8	1.9%	1269.	-	-	-	7 1307.	1 1000.	-	-	-	-	_	-	-
Glass	7	1.7%	1257.	-	-	5 1260.	-	-	-	-	1300.	-	1 1200.	-	-
Heating & Air Conditioning	7	1.7%	1500.	-	-	-	<u>-</u> 2	- 2	-	-	1 1300.	-	6 1533.	-	-
Petroleum	7	1.7%	1324.	1	-	-	1400.	1443.	-	-	- 1	-	2 1184. 1	-	1 1215.
Law Firms	5	1.2%	2560.	3500.	-	-	-	1850.	-	-	2600.	-	3000.	-	-
Packaging Material & Equipment	5	1.2%	1201.	1 1110. 2	-	-	-	- 1	_	-	1 940.	-	3 1319.	_	-
Transportation	4	.10%	1457.	1775.	-	-	1001.	1280.	-	-	-	-	- 2	-	-
Food	3	.07%	1670.	-	-	-	1500.	-	-	-	-	-	1755.	-	-
Stock Brokers	3	.07%	2666.	-	-	-	-	-	-	-	-	1300.	2 3350.	-	-
Investment Bankin & Finance	g 2	.05%	1715.	-	-	-	1 1580.	-	-	-	1 1850.	-	-	-	-

THE EMPLOYED 1960 GRADUATES ARE NOW EMPLOYED BY THE FOLLOWING TYPES OF COMPANIES (continued)

Type of Company	All Engineers	Percent	1970 Average Salary	Aero. E.	Ag. E.	Ceram. E.	Civil E.	ਜ ਦ	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	м. в.	Met. E.	Mining E.
Publishing & Printing	2	.05%	\$1339.	_	_	_	-	_	-	-	1 \$1346.	-	1 \$1333.	-	-
Rubber	2	.05%	1150.	-	1000.	-	-	-	_	1 1300.	-	-	-	-	-
Wholesale Distributor	2	.05%	1200.	-	<u>-</u> 1	-	-	-	_	_	-	1 1400.	1 1000.	-	-
Farming	1	.02%	550.	-	550.	-	_ 1	-	-	-	-	_ '	_	-	-
Insurance	1	.02%	1865.	-	-	-	1865.	-	_	-	-	-	-	-	-
Management Consultants	1	.02%	2000.	-	-	-	-	-	-	-	1 200 0 .	-		-	-
Miscellaneous Merchandise	1	.02%	2333.	-	_	-	-	1	_	-	-	-	1 2333.	_	-
Paper	1	.02%	1350.	-	-	-	-	1350.	-	-	-	-	-	-	-
Travel Service	1	.02%	1250.	-	-	-	- 1	-	-	-	-	1250.	-	-	-
Water Treatment	1	.02%	1042.		-	-	1042.		-	_	_	-	-	-	-
Totals	416	100.00%		25	16	13	75	129	8	23	19	14	83	8	3

The companies were classified by the respondents.

PRESENT FIELD OF PRIMARY RESPONSIBILITY

Field ¹	All Engineers	Percent	1970 Average Salary	Aero.E.	AR. E.	Ceram. E.	civil E.	ъ. в.	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	M. E.	Met. E.	Mining E.
Management or Administration	98	23.57%	\$1529.	3 \$1423.	3 \$1076.	3 \$1478.	16 \$1565.	28 \$1670.	\$2000.	6 \$1852.	8 \$1612.	6 \$1265.	23 \$1366.	1 \$1088.	-
Design	63	15.15%	1285.	1400.	1160.	<u>_</u>	19 1201.	1346. 14	2 1367.	5 144 7 .	940.	-	1245.	2000.	-
Development	40	9.62%	1334.	1375.	2 1171.	1177.	3 1311.	1454.	-	1180.	-	-	1254.	_	-
Research	40	9.62%	1412.	3 13 ⁴ 3.	3 1386.	2 1417.	2 1483.	14 1429.	1627.	5 1 1 66.	1400.	1 1450.	3 1445.	2 1491.	-
Systems Engineering	34	8.17%	1360.	3 1441.	<u>-</u> ц	1	1 1400. 1	22 1364. 6	-	-	1 1346.	- 2	7 1310. 9	_ 1	_ 1
Sales	28	6.73%	1380.	-	1138.	1355.	1200.	1413.	-	-	1516.	1350.	1457.	1334.	1350.
Consulting	17	4.09%	1558.	-	-	-	1442. 15	1552.	-	-	2000.	1500.	3 1750.	-	-
Construction	16	3.85%	1288.	-	-	-	1301.	-	-	-	-	-	1100.	-	-
Field Engineering	12	2.88%	1274.	-	-	-	2 1336.	7 1307.	-	1 1250.	_	-	2 11 1 1.	-	-
Production	11	2.64%	1188.	-	-	1 1300.	-	1268.	-	_	2 1258.	1 1018.	1 1120.	1 1100.	2 110 7.
Teaching	10	2.40%	1158.	1 1150.	_	_	2 1300.	930.	1 15 1 1.	3 1160.	-	-	1 980.	-	-
Service	7	1.68%	1379.	-	1 1200.	-	1 1225.	3 1535.	-	-	-	1400.	-	1 1 225.	-
Company Owner	6	1.44%	2197.	-	-	-	1 2200.	1 2083.	-	-	-	-	3 2500.	1400.	-
Manufacturing	6	1.44%	1565.	-	-,	1324.	-	-	-	-	1200.	2 1192.	2241.	- ,	-
Lawyer	5	1.20%	2480.	1 3500.	-	1800.	-	1500.	-	-	2600.	-	3000.	-	-
Data Processing	3	.72%	1298.	1191.	-	-	-	1330.	-	-	-	-	1 13 7 5.	-	-
Research & Development	3	.72%	1700.	-	-	_ (cc	ontinue	2 1950. l on foi	_ llowing	page)	-	-	1 1 200.	_	-

PRESENT FIELD OF PRIMARY RESPONSIBILITY (continued)

Field ¹	All Engineers	Percent	1970 Average Salary	Aero. E.	Ag. E.	Ceram. E.	Civil E.	ъ. в.	Eng. Mech.	Eng. Phys.	Gen. E.	.E.	м. Е.	Met. E.	Mining E.
Testing	3	.72%	\$1317.	2 \$1317.	-	-	-	-	-	1 \$1450.	-	-	-	_	-
Cost & Economic Engineering	2	.48%	1300.	-	-	-	-	2 1300.	-	-	_	-	-	-	-
Operations Research	2	.48%	1540.	1 1500.	-	-	1 1580.	-	-	-	-	-	-	-	-
Pilot	2	.48%	1775.	2 1 77 5.	-	-	-	-	-	-	-	-	-	-	-
Planning	2	.48%	1440.	-	-	-	2 1440.	-	-	-	-	-	.	-	-
Purchasing	2	.48%	1184.	-	_	-	-	1209.	-	-	-	-	1 1160.	-	-
Accounting	1	.24%	1210.	_	-	_	1 1210.	-	-	-	-	-	-	-	-
Maintenance	1	.24%	1090.	-	-	-	-	-	-	-	-	-	1090.	-	-
Plant Engineering	1	.24%	1195.	- '	-	-	-	-	_	-	-	-	1 1195.	-	-
Self-Employed	1	.24%	550.	-	1 550.	-	-	-	_	-	-	-	-		-
Totals	416	100.00%		25	16	13	7 5	129	8	23	19	14	83	8	3

 $^{^{\}mbox{\scriptsize 1}}_{\mbox{\scriptsize Field}}$ of responsibility was named by the respondents.

PRESENT LEVEL OF RESPONSIBILITY

	All Engineers	Supervise a Small Group	Individual in a Group	Manage Major Group or Department	Top Executive	Plant Manager or Superinten- dent	Individual in Private Practice	Branch Mana <i>g</i> er
All Engineers Percent Average Salary	416	150 36.06%	147 35.34% \$1315.	71 17.07% \$1514.	23 5.53% \$2090.	12 2.88% \$1258.	10 2.40% \$1840.	3 .72% \$2135.
Aero. & Astro. Eng.	25	12 48.00% 1415.	11 44.00% 1363.	1 4.00% 1700.	4.00% 3500.	- - -	- - - 2	-
Ag. E.	13	37.50% 1256.	37.50% 1151. 4	12.50% 1180. 3	- - -	- - 1	12.50% 775.	- - -
Ceram. E.	75	38.46% 1430. 33 44.00%	30.77% 1376. 17 22.67%	23.08% 1388. 16 21.33%	- 5 6.67%	7.69% 935. 2 2.67%	- 1 1.33%	- - 1 1.33%
Civil E.	129	1228. 47 36.43%	1292. 48 37.21%	1496. 22 17.05%	2200. 6 4.65%	1050. 3 2.33%	2000. 2 1.55%	1250. 1 .78%
E. E. Eng. Mech.	8	25.00% 1543.	1327. 5 62.50% 1534.	1640. - -	1961. 1 12.50% 2000.	1460.	1850. - -	3750.
Eng. Phys.	23	9 39.12% 1416.	11 47.83% 1383.	2 8.70% 1628.	1 4.35% 1500.	- - -	-	=
Gen. E.	19	10.53% 1260.	42.11% 1291.	21.05% 1462.	5.26% 2900.	- - - 3	15.79% 2150.	5.26% 1405.
I.E.	83	14.29% 1209. 27	21.43% 1311. 30	28.56% 1310. 15	14.29% 1375. 6	21.43% 1233.	- - 2	-
м.Е.	8	32.54% 1337. 4 50.00%	36.14% 1263. 2 25.00%	18.07% 1456. 2 25.00%	7.23% 2111. - -	3.61% 1330.	2.41% 2350.	<u>-</u> -
Met. E.	3	1282. 1 33.33%	1450. 2 66.67%	1550.	-	- - -	- - -	-
Mining E.		1350.	1107.	-	-	-	-	-

HOW MANY ENGINEERS AND SCIENTISTS WORK IN THE ORGANIZATIONAL UNIT TO WHICH YOU BELONG IN YOUR CURRENT MAJOR POSITION?

	All Engineers	Aero. E.	Α κ . Ε.	Ceram. E.	Civil E.	• ਸ ਜ	Eng. Mech.	Eng. Phys.	Gen. E.	I. E.	M. E.	Met. E.	Mining E.
None	43 10.34%	2 4.65%	2 4.65%	1 2.33%	9 20.93%	9 20 . 9 3 %	1 2.33%	1 2.33%	4 9.30%	6 13.95%	7 16.27%	1 2.33%	-
1-3	60 14.43%	1 1.67%	3 5.00%	7	12 20.00%	11 18.33%	1.67%	1.67%	5 8.33%	2 3.33%	16 26.67%	- -	1 1.67%
4-10	112 26.92%	9 8.04%	5 4.46%	2 1.79%	23 20.54%	32 28.56%	1.89%	9 8.04%	3 2.68%	3 2.68%	23 20.54%	1 .89%	1 .89%
11-20	74 17.79%	6 8.11%	1 1.35%	-	15 20.27%	27 36.49%	1 1.35%	6 8.11%	3 4.05%	1 1.35%	13 17.57%	1 1.35%	- -
21-50	61 14.66%	3 4.92%	2 3.28%	2 3.28%	9 14.75%	24 39.34%	1 1.64%	2 3.28%	2 3.28%	1 1.64%	10 16.39%	4 6.56%	1 1.64%
51-100	38 9.13%	2 5.26%	1 2.63%	-	6 15.79%	13 34.22%	2 5.26%	4 10.53%	1 2.63%	1 2.63%	8 21.05%	-	-
101-300	18 4.33%	1 5.56%	-	-	1 5.56%	8 44.43%	-	-	1 5.56%	-	6 33.33%	1 5.56%	-
Over 300	10 2.40%	1 10.00%	20.00%	1 10.00%	- -	5 50.00%	1 10.00%	-	-	- -	-	- -	- -
Totals	416	25	16	13	75	129	8	23	19	14	83	8	3

OUESTIONS CONCERNING PRESENT POSITION AND ITS RELATION TO THEIR UNDERGRADUATE DEGREE

QUESTION: To hold your present position is it important for you to have an engineering degree?

Yes	358	86.06%
No	58	13.94%
	416	

QUESTION: How much knowledge and skill related to your undergraduate degree do you apply in your present position?

Most or all	122	29.33%
Some	200	48.08%
Very little	85	20.43%
None	9	2.16%
	416	

QUESTION: On the average, how many hours each week do you work on your job?

30 hours or less	3	.72%
31-40 hours	7 9	18.99%
41-45 hours	169	40.63%
46-50	111	26.68%
51 or more hours	54	12.98%
	1176	

QUESTION: If you have not received an advanced degree and are not working toward one, do you feel that this has been a limiting factor in progress with your company and in your work?

Yes	27
No	219

Only 246 of the respondents answered this question.

The 27 respondents who answered yes gave the following reasons:

Aero. & Astro. Eng.

1. "Advancement in management field appears more rapid." (continued on following page)

QUESTIONS CONCERNING PRESENT POSITION AND ITS RELATION TO THEIR UNDERGRADUATE DEGREE (continued)

- 2. "Considerable emphasis is placed on degree more than ability."
- 3. "Additional course work looks good on your resume."

Ceram. E.

- 1. No reason given
- 2. "Academic self improvement is expected."

Civil E.

- 1. No reason given
- 2. "M.B.A. would increase opportunity for advancement outside the engineering department."
- 3. "Had fewer advancement possibilities."

E. E.

- 1. No reason given (2)
- 2. "M.B.A. would have helped toward management."
- 3. "Other positions may have been opened to me."
- 4. "Only to the extent that advanced degrees earn you more money."
- 5. "Greater ease in obtaining promotions."
- 6. "Would increase my value to company, would have received transfer offers to work on new programs."
- 7. "More and more engineers are receiving M.S. degrees."
- 8. "Salary restrictions by degree level."

G. E.

1. "A Ph.D. opens doors that are closed to me."

M. E.

- 1. No reason given
- 2. "Continual education is a must to keep advancing."
- 3. "Need for still broader understanding."
- 4. "Ph.D. is the 'license' necessary for engineering education assignments."
- 5. "Some who received them advanced faster."
- 6. "Management feels that only people who continue in school have incentive."
- 7. "Lack of knowledge of basic business principle."
- 8. "For supervision in engineering company stresses M.B.A. after B.S. in engineering."

I.E.

1. "Top management is becoming increasingly complex."

QUESTIONS CONCERNING CURRICULUM

QUESTION: Rank in order, the value (1, 2, 3 etc.) of additional degrees which you feel would be the most valuable to you.

Order of Importance

	order or importante								
Degree	lst	2nd	3rd	4th	5th	6th			
M.B.A.	169 50.60%	40 11.97%	17 5.09%	2 .60%	-	3 .90%			
M.S. in Original Field	48 14.38%	45 13.47%	30 8.98%	6 1.80%	1.20%	-			
M.S. in Another Technical Field	26 7.78%	46 13.77%	59 17.66% 28	.90%	.60%	5 1.50%			
Law	20 5.99%	51 15.27%	8.38%	.30%	-	.60%			
Ph.D. in Original Field	19 5.69%	23 6.89%	24 7.19%	1.80%	1.20%	.90%			
Ph.D. in Another Technical Field	26 7 .7 8%	18 5.39%	18 5.39%	2 .60%	6 1.80%	1.80%			
Other (no degree mentioned)	26 7.78%	5 1.50%	19 5.69%	-	.30%	.60%			
No Choice Listed	-	106 31.74%	139 41.62%	314 94.00%	317 94.90%	313 93 . 70%			
Totals	3341	334	334	334	334	334			

¹⁸² respondents did not answer this question.

QUESTION: If you had it to do all over again would you choose: (8 respondents did not answer this question.)

217	53.19%	a specialized undergraduate engineering curriculum (e.g., M.E., E.E., etc.)
66	16.18%	a common undergraduate engineering curriculum (no specialization)
56	13.73%	another type of undergraduate professional curriculum (e.g., pre-law, pre-medicine, etc.)
31	7.60%	a business administration curriculum
22	5.39%	another type of curriculum in mathematics or the physical sciences (e.g., physics,
		chemistry)
4_	.98%	a liberal arts curriculum
121	2.94%	other
408		(continued on following page)

QUESTIONS CONCERNING CURRICULUM (continued)

15 did not identify other curriculum; 2 engineering and business administration combined; 1 engineering followed by medical graduate program; 1 4-year technology program rather than engineering; 1 B.S.E.E. plus general math and physics plus business rather than specialized engineering courses; 1 undecided; 1 art.

Because of the controversy concerning campus recruiting over the past few years, the following question was asked: "Do you feel that the University should provide a service such as that offered by the Placement Office."

394	94.729
15	3.61%
7	1.68%
	15

MILITARY SERVICE SERVED AFTER GRADUATION IN 1960 AND ITS EFFECT ON 1970 SALARY

		Aero. F.	Аg. E.	Ceram. E.	Civil E.	ъ. Б	Eng. Mech.	Ene. Phys.	Gen. E.	т. в.	м. Б	Met. E.	Mining E.
Total Employed	416	25	16	13	75	129	8	23	19	14	83	8	3
No Military Service	320 76.92% \$1428.		14 87.50% \$1131.	10 76.92% \$1391.			7 87.50%				64 77.11% \$1399.	6 75.00 \$1469.	
6 Months or Less	39 9.38% 1446.	- - -	2 12.50% 1254.	-	9 12.00% 1361.	12	1	1	3	1	9	1	-
l Year	4 .96% 1454.		- - -	-	2 2.67% 1336.	2 1.55% 1572.	- - -	- - -	- - -	- - -	-	-	-
2 or More Years	53 12.74% 1317.	3 12.00% 2083.	- - -	3 23.08% 1279.	16 21.33% 1273.	6 4.65% 1331.	- - -	3 13.04% 1223.	8 42.11% 1366.	2 14.29% 1125.	10 12.05% 1245.	1 12.50 1088.	1 % 33.33% 1000.





