

1966 Survey of Professional Background and Achievement of Scientists in the Cosmetic Industry

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INTRODUCTION

Professional surveys have attained long-standing recognition by large national scientific groups such as the American Chemical Society and the National Science Foundation as a means of improving the professional and economic status of their respective memberships.

In September, 1963, the New York Chapter of the SOCIETY OF COSMETIC CHEMISTS initiated the first survey of this type in our industry. This pioneering effort was well received by its membership. The initial survey was reviewed in the interim and expanded to cover the national membership of the SOCIETY OF COSMETIC CHEMISTS.

In May, 1966, some 1075 questionnaires were mailed to members of the SOCIETY OF COSMETIC CHEMISTS. Questionnaires returned by 534 individuals were used for the statistical analyses presented in this report. Respondents to this survey represented approximately 50% of the membership. Respondents to the 1966 survey were asked to list their salary with other important information about their training and employment. This data was analyzed in a preliminary way by the committee and tabulations and correlations were made possible by employing the services of Raidy Research, Inc., a data-processing firm.

Hopefully, this will provide a more complete and accurate profile of our membership in comparison with other scientific organizations.

RESULTS

Salary Factors

In 1966, the median basic annual salary rate of those responding was between \$12,000 to \$15,000. Salaries ranged from \$9000 or less in the lowest decile to \$25,000 or more for respondents in the highest decile. The gross annual salary median was between \$15,000 to \$17,500.

According to data provided the American Chemical Society by the National Science Foundation, the over-all figure reported by chemists was \$12,000 in 1966 (1).

Doctorates reported a median salary range of \$17,500 to \$20,000, Master's \$15,000 to \$17,500, and Bachelor's \$12,500 to \$15,000. In comparison, the National Science Foundation's 1966 results have Ph.D.'s at \$14,000, Master's at \$11,600, and Bachelor's at \$10,500.

A slightly higher salary range appears to exist among those reporting income within the Middle Atlantic states, \$15,000 to \$17,500. On the geographic front, the Middle Atlantic states accounted for 48% of the total response. In general, the NSF data reported that the greatest proportion, 28% of chemists, were from the Middle Atlantic states—New Jersey, New York, and Pennsylvania.

A uniform progression of salary with the number of years experience in the industry is evident. The median for the number of years of total industrial experience was thirteen to twenty years. The median number of years in the cosmetic industry was eight to twelve years. A significant correlation exists between the number of technical employees supervised and the reported gross annual salary rates.

Highest Degree

Doctorates were reported as the highest degrees obtained by 21% of the respondents. Master's degrees by 17% and Bachelor's degrees by 51%. About two-thirds of the respondents have their degree in chemistry or biochemistry; 17% in pharmacy. Surprisingly, the third largest category was chemical engineering, with 8%.

Age and Sex

Thirty-nine per cent of the members responding were under the age of forty. The median age was between forty to forty-nine years of age. The median age of scientists who reported to NSF was thirty-eight, a figure that has remained constant for the past ten years (2).

The results from this data support the inference that we must find means of attracting younger scientists into our industry. Of the total number of scientists reporting to the NSF, 8% were women (2). Eight per cent of the respondents to the SCC survey were women, also.

Type of Employer

Forty per cent of those answering are employed by firms with more than 1000 employees. The median for the number of technical employ-

1966 Characteristics of Scientists in the Cosmetic Industry

Characteristics	No.	Approximate Percent-age	Characteristics	No.	Approximate Percent-age
Scientific field			Type of employer		
Chemistry	313	59	Private industry or business	453	84
Biochemistry	21	4	Self-employed	19	4
Pharmacy	91	17	Owner or partner	18	3
Pharmacology	8	1	Educational institution	13	2
Medicine	8	1	Student	4	1
Biology	29	5	Government	0	0
Chemical engineering	43	8	Trade association, periodical or nonprofit organization	3	1
Associate degree	5	1	Other or no response	24	5
No degree	20	4	Work activity (multiple response)		
Age (median age 40-49)			Management and administration of research and development	176	33
20-29 years	45	8	Management and administration of other than research and development	97	18
30-39 years	168	31	Research and development		
40-49 years	158	30	Basic research	96	18
50-59 years	100	19	Applied research	179	34
60-69 years	37	7	Analytical or organic research	19	4
70 and over	5	1	Biological research	9	2
No response	21	4	Report or other technical writing, editing	26	5
Highest degree			Sales	59	11
Ph.D. or D.Sc.	114	21	Technical service	91	17
M.D.	6	1	Development or design	42	8
Master's	90	17	Production, operations	53	10
Bachelor's	271	51	Inspection, testing, quality control	53	10
Less than a Bachelor's	29	6	Consulting	37	7
No report	23	4	Other and no response	51	9
Total years experience					
1 or less	8	2			
1-3	14	3			
8-12	53	10			
13-20	152	28			
20 or more	204	39			
Years cosmetics experience					
1 or less	9	2			
1-3	41	8			
8-12	104	19			
13-20	116	22			
20 or more	101	19			
Not in cosmetic industry directly	73	14			

ees reported by the members was 25 to 49. The majority of participants reported employment by finished goods manufacturers. Only 4% of the total respondents reported employment other than in private

	Median Salary Range (thousands)		Median Salary Range (thousands)
Highest degree earned		Work activity	
Bachelor's	\$12.5-15	Management or administration of R & D	\$17.5-20
Master's	\$15-17.5	Management or administration of other than R & D	\$15-17.5
Doctorate	\$17.5-20	Basic "product" research	\$10-12.5
Geographic location		Applied "product" research	\$12.5-15
New England	\$12.5-15	Analytical or organic research	Insufficient responses
Middle Atlantic	\$15-17.5	Biological research	Insufficient responses
Lake States	\$12.5-15		
West	\$12.5-15		
All others were insufficiently represented.			
Number of years experience			
0-1	Insufficient responses	Report or other technical writing, editing	\$10-12.5
1-3		Sales	\$12.5-15
4-7	\$10-12.5	Technical service	\$12.5-15
8-12	\$12.5-15	Development or design	\$10-12
13-20	\$15-17.5	Production, operations	\$12.5-15
20 or more	\$17.5-20	Inspection, testing, quality control	\$10-12.5
Total no. of employees		Consulting	Insufficient responses
Less than 50	\$15-17.5	Employer's principal line(s) of business	
50-99	\$12.5-15	Cosmetics and toiletries	\$12.5-15
100-299	\$15-17.5	Pharmaceuticals	\$15-17.5
300-499	\$10-12.5	Chemicals, surfactants & raw materials	\$15-17.5
500-999	\$12.5-15	Perfumes and/or essential oils	\$12.5-15
More than 1000	\$15.2-15	Private label manufacturing	\$15-17.5
Number of technical employees supervised		Testing, consulting laboratories	Insufficient responses
None	\$10-12.5	Education and academic research	Insufficient responses
1-2	\$10-12.5		
3-4	\$12.5-15		
5-9	\$15-17.5		
10-24	\$20-30		
25-49	\$20-30		
50-99	Insufficient responses		
Over 100			

industry or business. No significant trend exists between the gross annual salary rate and the size of the firms reported. The areas of the greatest work emphasis appear to be in creams and lotions, hair, and makeup products. The median number of different firms respondents were employed by was three.

Work Activity

The majority of those participating in this survey reported job responsibilities at the senior research level or higher. One-third of the

respondents were involved in some form of research and development. The NSF survey shows that 39% of the scientists reporting were involved in some phase of research (2).

A high proportion of our respondents had administrative responsibilities. The median number of technical employees supervised by respondents was three to four. Management or administration was the best-paid work activity at a median salary range of \$17,500 to \$20,000 as compared to \$16,100 for chemists in management who reported in the 1966 NSF survey (1). It appears that about one-fifth of the respondents are involved in sales and/or technical service.

Fringe Benefits

Fifty-nine per cent reported that their employers offer educational cost sharing plans. Eleven per cent reported educational leave of absence as a fringe benefit.

Society Policy

Several questions were posed to the membership in order to evaluate future policy proposals. Seventy per cent feel that the name of the Society accurately describes the organization as it exists today—SOCIETY OF COSMETIC CHEMISTS. There is evidence that a good percentage of people within the cosmetic industry who are qualified are not presently members of the Society.

Fifty per cent of the participants in this survey were in favor of the establishment of a correspondence course for the training of new members to our industry. Forty per cent were opposed. Fifty-four per cent favor the formation of a Cosmetic Research Institute; 46% were opposed. Of those in favor, 52% suppose that their company would financially support such an institute. Sixty-seven per cent of the respondents feel that the Society should sponsor scholarships for graduate and undergraduate students working in fields related to cosmetic technology.

Forty-nine per cent favor the present three national meetings per year of longer duration. Finally, of the participants in the survey, 84% save their copies of the JOURNAL OF THE SOCIETY OF COSMETIC CHEMISTS.

REFERENCES

- (1) Chemists' salaries continued to rise in 1966, *Chem. Eng. News*, **45**, 52-54 (January 16, 1967).
- (2) Chemists' median pay: \$12,000, *Ibid.*, **45**, 12 (January 2, 1967).

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