

Some Factors Affecting Earnings of Business and Professional Women

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THERE is an admitted lack of factual material on the economic status of women at the higher occupational levels. How much do they earn? With what success, measured in earnings, are they venturing into the "newer" occupations for women? How important is work experience as a factor in earnings? Do college-trained women receive higher salaries than others? Answers to these questions, and many more which suggest themselves, are as yet in the realm of conjecture.

To meet this need for quantitative data on the status of women in business and professional work, a cooperative study was launched a little more than two years ago by the Bureau of Business Research at the University of Michigan and the National Federation of Business and Professional Women's Clubs, an organization of approximately 50,000 women in forty-seven different states. The Bureau of Business Research has assumed responsibility for financing and directing the investigation, and the Federation has made available the data through the use of questionnaires distributed among its membership. As the study has not yet been completed, the results presented here must be considered in the nature of a preliminary report. A complete analysis of the data will appear shortly as one of a series of

Michigan Business Studies, published by the University of Michigan. Here we must content ourselves with a necessarily brief discussion of some of the more significant causal factors in earnings of business and professional women.

The methods used in making the study are of concern here only as they furnish a basis for evaluating the results. The investigation was based upon an eight-page questionnaire sent to the entire membership of the Federation; 46,760 blanks were distributed through 813 local clubs, of which number 14,073, or 30 per cent, were filled out in sufficient detail to be usable. It is necessary to bear in mind the limitations of data assembled by means of a questionnaire, even when secured under conditions as favorable as in the present situation. Persons who voluntarily answer a questionnaire constitute a selected group, although the exact basis of selection is not certain. Loyalty to the Federation, interest in the problem under investigation, facility in filling out questionnaires, are certainly among the obvious influences. As a selective factor, occupation engaged in was in this case apparently of relatively little importance, for the distribution of occupations in the group of 14,073, who returned their questionnaires, varied only very slightly from occupational

distribution of the entire Federation. After careful comparison with the federal census of occupations, it seems fair to say that the group under investigation is a representative cross-section of women's work, exclusive of manual occupations.

Interest in a study of this sort naturally centers around earnings as a measure of success. "Earnings" were here taken to mean returns from major, full-time occupation, whether in the form of salary or net business earnings (as defined in directions for filling in the questionnaire). Among the personal-history items associated with earnings, which have been analyzed, are occupation—taken individually and also grouped by fields of employment and types of work—experience, age, population of the city or town where employed, marital status, responsibility for dependents, and education. Of these, probably the most important single relationship to be considered is that of occupation to earnings. The wide range of occupations represented in the present study, however, makes it impossible, within the limits of this article, to consider occupations in-

dividually. In the 14,073 questionnaires returned, there were listed no less than 6,448 different combinations of jobs and employers. We shall, therefore, confine our discussion here to a comparison of earnings by occupational groups, first, when other influences are not taken into consideration, and second, when certain of these other possible causal factors in earnings are controlled.

EARNINGS OF BUSINESS AND PROFESSIONAL WOMEN BY OCCUPATIONAL GROUPS

A dual scheme of classification for occupations was used in the study. First, occupations were divided into eight groups on the basis of field of employment—that is, the nature of the business, industry or organization where the work was carried on; then they were regrouped according to the nature of the work itself, as clerical, sales, personnel, and so on. An illustration will make clear the difference between the two groupings. Under the first scheme, physicians would be classified under *Education* if in public school work, under *Government* if

TABLE I—COMPARISON OF EARNINGS AND EXPERIENCE BY FIELDS OF EMPLOYMENT

Field of Employment	Number of Cases	Per Cent of Total	Earnings *			Per Cent Earning \$3,000 and Over	Median Experience in Years
			Q ₁	Median	Q ₃		
Commerce.....	4,743	35.7	\$1,065	\$1,436	\$1,849	8.2	13.7
Education.....	3,088	23.2	1,253	1,558	1,949	3.7	13.3
Manufacture.....	1,922	14.4	1,216	1,554	1,999	7.2	14.4
Government.....	1,194	9.0	1,336	1,803	2,150	5.3	14.8
Professional.....	1,021	7.7	1,194	1,554	2,046	11.8	12.5
Semi-public †.....	831	6.2	1,529	1,854	2,269	7.3	14.6
Transportation.....	448	3.4	1,197	1,435	1,683	2.3	12.8
Primary production....	55	.4	1,233	1,750	2,200	10.4	13.2
Information missing...	771	.....	1,077	1,470	1,922	6.9	13.8
Totals.....	14,073	100.0	\$1,213	\$1,548	\$2,038	6.7	13.7

* Figured on \$100 class intervals.

† Civic, eleemosynary and fraternal organizations.

connected with a city health department, and under *Professional* if engaged in private medical practice. In the second scheme, where the basis of classification is type of work, all physicians would be grouped together with other health workers under *Health*. If interest centers in comparison of opportunities in different fields of employment, the first grouping is used; but if one is concerned primarily with the job itself, or kinds of work, then the second is more significant.

Classification by fields of employment reveals a marked concentration in commerce, education, and manufacture (Table I). Approximately one-third of the total number of women represented are in commerce; and

commerce, education, and manufacture together command the services of 9,753, or 73.3 per cent of the total. With the exception of primary production, however, the other groups are probably sufficiently large to show definite tendencies.

There is a marked difference in range of earnings in these different fields. If one compares the spread of earnings of the middle 50 per cent of cases in each field of employment (that is, the difference between Q_1 , the 25th percentile, and Q_3 , the 75th percentile), it appears that the range of earnings for women in transportation, commerce, education, and manufacture, is noticeably lower than for those engaged in government or professional

TABLE II—COMPARISON OF EARNINGS AND EXPERIENCE BY TYPES OF WORK

Type of Work	Number of Cases	Per Cent of Total	Earnings *			Per Cent Earning \$3,000 and Over	Median Experience in Years
			Q_1	Median	Q_3		
Clerical	5,862	42.8	\$1,161	\$1,467	\$1,830	2.6	12.4
Teaching	2,689	19.7	1,253	1,557	1,965	4.0	13.6
Sales and publicity	1,469	10.8	1,019	1,531	2,220	15.2	16.4
Health	894	6.5	1,382	1,836	2,418	14.1	13.3
Financial	609	4.5	1,511	1,864	2,498	17.7	16.9
Production and planning	463	3.4	968	1,295	1,870	8.3	15.5
Food, living and personal service	418	3.1	1,219	1,860	2,494	13.7	13.8
Welfare	315	2.3	1,664	1,911	2,434	7.0	15.6
Library	205	1.5	1,230	1,621	2,458	5.5	16.2
Legal and protective	182	1.3	1,356	1,843	2,517	18.2	14.9
Editorial	168	1.2	1,192	1,564	2,030	7.7	13.4
Purchasing	141	1.0	1,061	1,368	1,888	5.8	18.3
Research	80	.6	1,550	1,900	2,225	5.1	10.3
Personnel	75	.5	1,690	2,066	2,662	21.6	16.5
Service	45	.3	2,012	2,483	2,975	24.4	17.8
Professional, not elsewhere classified	34	.3	1,025	1,350	2,017	6.7	12.9
Religious	18	.1	1,000	1,275	1,900	....	18.8
Administrative, not elsewhere classified	12	.1	1,575	3,025	4,225	54.5	15.0
Amusements	7	.0	....	....	....	....	....
Political	2	.0	....	....	....	....	....
Information missing	385	....	1,062	1,515	2,046	10.8	19.5
Totals	14,073	100.0	\$1,213	\$1,548	\$2,038	6.7	13.7

* Figured on \$100 class intervals.

work, or in semi-public organizations, which include civic, eleemosynary, and fraternal groups. The low range in transportation may be explained by the high percentage of telephone operators and clerical workers included in the group. The range in commerce and manufacture is also considerably lowered by the inclusion of large numbers of clerical workers. This does not apply, however, to education. Furthermore, if one turns from middle range to upper extremes, the comparison is even more distinctly to the disadvantage of education, for in the latter only 3.7 per cent of the group are earning over \$3,000, whereas, in commerce and manufacture, the percentages of earnings over \$3,000 are 8.2 and 7.2 respectively. In other words, the apparent chances of high financial rewards in commerce and manufacture are approximately twice as great as in education.

The highest central range in earnings in any group is to be found in semi-public organizations. Here the middle 50 per cent of the total number are earning between \$1,529 and \$2,269. This is due in part to the fact that there are relatively few clerical workers in the group. By contrast, the professional group includes not only independent professional workers, such as physicians, lawyers, and architects, but also their office assistants. Similarly in government service, clerical workers are fairly numerous, tending to lower the earnings range. As one might expect, government service seems to offer relatively slight prospects of high returns.

EARNINGS OF BUSINESS AND PROFESSIONAL WOMEN BY TYPES OF WORK

A more significant analysis is secured by a comparison of numerical concentration and earnings in different types of work (Table II). Of the total

group under investigation, 5,862 or 42.8 per cent were engaged in clerical work, and 2,689 or 19.7 per cent in teaching. Of twenty different types of work, four—namely, clerical, teaching, sales and publicity, and health work—command the services of 10,914 or 79.8 per cent of all those reporting. Among the types of work where the range of earnings of the middle 50 per cent of the cases is particularly narrow, we find clerical work and teaching. On the other hand, a relatively wide spread is found in food, living, and personal service, library work, and sales and publicity. Again, the percentages of earnings in excess of \$3,000 are low in clerical work, teaching, and purchasing, in contrast to high percentages in legal and protective, financial, and sales and publicity work.

RELATION OF EARNINGS TO EXPERIENCE

Before drawing conclusions, however, the reader should examine the last column in Table II, which indicates median experience in years. Experience, it will be seen, varies widely between groups, from a median of 10.3 years in research to 18.8 years in religious work. How much of the variation in earnings is due to difference in experience? Will occupations maintain independent earnings curves when experience is controlled?

To answer these questions each occupational group has been divided into five-year experience groups and median earnings figured for each experience interval (Table III). Earnings were here distributed on a \$200 interval instead of the \$100 interval used in Tables I and II, which explains the lack of agreement between median earnings in these tables. When these curves of median earnings in different types of work are plotted, certain rather definite tendencies are revealed. *First,*

TABLE III—RELATION OF EXPERIENCE TO EARNINGS IN DIFFERENT TYPES OF WORK

Type of Work	Experience (Years)												Totals					
	Information Missing		0-4.9		5-9.9		10-14.9		15-19.9		20-24.9			25-29.9		30 and Over		
	No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *		No. of Cases	Median Earn-ings *	No. of Cases	Median Earn-ings *	
Chemical.....	225	\$1,354	800	\$1,040	1,472	\$1,318	1,118	\$1,480	867	\$1,606	657	\$1,707	392	\$1,849	331	\$1,825	5862	\$1,434
Teaching.....	105	1,573	328	1,220	582	1,357	528	1,570	403	1,711	283	1,846	222	1,933	238	1,877	2689	1,552
Sales and publicity.....	188	1,254	108	938	237	1,257	235	1,478	223	1,643	197	1,825	134	2,076	147	1,933	1469	1,490
Health.....	97	1,775	91	1,564	179	1,759	197	1,833	125	1,994	102	2,102	57	1,942	46	2,450	894	1,858
Financial.....	30	1,900	27	1,425	109	1,377	109	1,871	116	1,956	101	2,190	61	2,025	56	2,458	609	1,904
Production and planning.....	76	1,450	34	800	76	1,115	77	1,247	64	1,347	57	1,717	37	1,700	42	1,533	463	1,321
Food, living and personal service.....	53	1,450	58	1,433	70	1,800	71	2,200	59	1,975	50	2,125	27	2,083	30	1,900	418	1,883
Welfare.....	13	1,633	23	1,862	54	1,900	67	1,980	63	2,080	47	2,000	24	2,500	24	1,960	315	1,968
Library.....	15	1,375	14	1,060	36	1,438	38	1,875	30	1,700	26	1,875	24	2,036	22	1,867	205	1,631
Legal and protective.....	7	.....	17	1,500	35	1,525	36	1,925	31	1,820	20	1,600	21	2,450	15	2,333	182	1,882
Editorial.....	17	1,300	21	1,300	32	1,312	33	1,480	26	1,740	11	2,562	10	.....	18	1,900	168	1,538
Purchasing.....	20	1,250	6	.....	18	1,250	15	1,367	33	1,475	25	1,500	12	1,467	12	1,800	141	1,374
Research.....	2	.....	15	1,900	23	1,917	16	1,925	8	.....	7	.....	5	.....	4	.....	80	1,960
Personnel.....	4	.....	15	.....	12	2,050	16	2,167	12	2,375	11	2,312	6	.....	10	2,333	75	2,174
Not elsewhere classified.....	13	.....	7	.....	19	.....	21	.....	20	.....	17	.....	5	.....	16	.....	118	.....
Information missing.....	334	.....	6	.....	7	.....	8	.....	5	.....	7	.....	8	.....	10	.....	385	1,478
Totals.....	1,199	\$1,435	1,559	\$1,133	2,991	\$1,350	2,585	\$1,553	2,085	\$1,726	1,618	\$1,843	1,045	\$1,920	1,021	\$1,904	14,073	\$1,526

* Figured on \$200 class intervals.

there is a general tendency for earnings to rise with experience up to about thirty years of experience and then to maintain a plateau, or decline. *Second*, there is a wide difference in initial salaries in various types of work. *Third*, types of work which have high beginning salaries maintain a generally high level throughout. *Fourth*, in types of work where the limits of earnings are determined more by individual initiative and ability than by salary schedules, such as selling, law or medicine, earnings are low at the start, but rise with experience to greater heights than in salaried occupations.

SIZE OF THE CITY OR TOWN IN RELATION TO EARNINGS

As might be expected, earnings vary directly with the size of the city or town where the occupation is carried on. Although Table IV shows only

comparison of earnings in different types of work by educational levels. From this table it appears: *First*, that for the total group the better educated women are earning more despite a smaller number of years' experience. *Second*, that this condition exists in practically all types of work. In other words, the better educated women are in all types of work receiving the highest financial returns in those fields.

Educational concentration varies characteristically in different types of work. This is apparent from a comparison of the percentage distribution by educational levels for the total group with that of the different kinds of work. Of the total group, 11.2 per cent are at the grade school level, 49.4 per cent have attended or graduated from high school, 12.6 per cent have attended normal school, 14.2 per cent have attended college, but have not graduated, and 12.6 per cent hold

TABLE IV—RELATION OF POPULATION TO EARNINGS

	Population									Totals
	Information Missing	Less than 2,500	2,500-4,999	5,000-9,999	10,000-24,999	25,000-49,999	50,000-99,999	100,000-249,999	250,000 and Over	
Number of cases . . .	5	1,055	1,853	2,484	3,219	1,969	1,454	1,121	913	14,073
Median earnings *	..	\$1,252	\$1,295	\$1,345	\$1,486	\$1,748	\$1,824	\$1,935	\$2,151	\$1,526

* Figured on \$200 intervals.

the population distribution for the total group, the same general tendency for earnings to increase with size of place holds for each different type of work.

EARNINGS IN DIFFERENT TYPES OF WORK BY EDUCATIONAL LEVELS

In comparing earnings in different kinds of work (Table II), one important causative factor, namely possible differences in education of persons engaged in these occupations, was not considered. Table V makes possible a

B.A. or advanced degrees. Comparing these total group percentages with those for different fields, interesting variations appear. There is, for instance, a noticeable concentration of women of only high school education in clerical and financial work. Teaching, on the other hand, claims a high percentage of college graduates, non-graduates, and normal school women. Sales and publicity, production and planning, and purchasing, include considerably higher proportions of women at the grade school level.

TABLE V—RELATION OF EDUCATION TO EARNINGS AND EXPERIENCE IN DIFFERENT TYPES OF WORK

Type of Work	Education																				
	Information Missing		Grade School		High School		Normal School		College Non-Graduate		College Graduate		Totals								
	No. of Cases	Median Earnings*	Median Experience (Yrs.) †	No. of Cases	Median Earnings*	Median Experience (Yrs.) †	No. of Cases	Median Earnings*	Median Experience (Yrs.) †	No. of Cases	Median Earnings*	Median Experience (Yrs.) †	No. of Cases	Median Earnings*	Median Experience (Yrs.) †						
Clerical.....	43	\$1,370	15.3	648	\$1,501	16.3	3,887	\$1,403	12.0	478	\$1,490	14.2	597	\$1,454	10.3	204	\$1,621	10.6	5,882	\$1,434	12.4
Teaching.....	11	.....	.....	34	1,560	20.9	293	1,436	16.6	747	1,424	14.2	647	1,394	12.8	957	1,773	12.8	2,689	1,552	13.6
Sales and publicity.....	27	1,133	18.3	396	1,306	19.1	735	1,467	16.0	160	1,460	16.5	157	1,376	13.9	84	1,982	15.5	1,469	1,490	16.4
Health.....	15	1,900	.....	110	1,552	14.2	439	1,793	12.1	96	1,938	17.5	152	2,000	13.4	82	2,483	13.0	1,494	1,858	13.3
Financial.....	5	.....	.....	62	1,945	20.6	394	1,900	17.1	51	1,583	15.0	65	1,943	15.7	32	2,000	13.6	609	1,904	16.9
Production and planning.....	13	.....	.....	139	1,280	18.3	245	1,303	13.8	26	1,600	19.0	29	1,887	15.5	11	2,500	12.5	463	1,321	15.5
Food, living and personal service.....	9	.....	.....	80	1,356	14.5	179	1,547	13.0	38	1,740	16.4	53	2,300	15.0	59	2,297	12.5	418	1,883	13.8
Welfare.....	3	.....	.....	17	1,875	20.4	108	1,897	17.6	21	1,912	19.0	57	1,992	16.0	109	2,119	12.7	315	1,983	15.6
Library.....	3	.....	.....	6	.....	.....	62	1,533	17.2	24	1,400	18.1	41	1,420	18.0	66	1,893	13.3	205	1,631	16.2
Legal and protective.....	2	.....	.....	15	1,533	20.0	84	1,847	16.1	16	1,950	15.8	36	1,867	12.9	29	2,214	12.5	182	1,882	14.9
Editorial.....	2	.....	.....	15	1,850	21.2	65	1,444	14.0	22	1,650	15.0	36	1,471	12.0	28	1,650	10.4	168	1,538	13.4
Purchasing.....	4	.....	.....	37	1,400	23.5	79	1,293	15.6	9	.....	.....	13	2,125	10.0	30	1,983	8.8	80	1,960	10.3
Research.....	1	.....	.....	4	.....	.....	26	1,900	11.4	6	.....	.....	8	.....	.....	21	2,450	12.9	75	2,174	16.5
Personnel.....	4	.....	.....	4	.....	.....	34	2,167	18.8	8	.....	.....	26	.....	.....	13	.....	.....	118	.....	.....
Not elsewhere classified.....	4	.....	.....	9	.....	.....	60	.....	.....	6	.....	.....	26	.....	.....	23	.....	.....	385	.....	.....
Information missing.....	23	.....	.....	75	.....	.....	182	.....	.....	37	.....	.....	45	.....	.....	45	.....	.....	385	.....	.....
Totals.....	173	\$1,412	17.2	1,561	\$1,480	17.5	6,872	\$1,463	13.3	1,745	\$1,506	15.0	1,968	\$1,529	12.5	1,754	\$1,876	12.6	14,073	\$1,526	13.7

* Figured on \$200 intervals.

† Figured on five-year intervals.

From Table V it is apparent that in every field of work the college woman is earning more than the non-college woman. But is she venturing into those fields where chances of high financial rewards are greatest? Of the 1,725 college women giving necessary information, 55.5 per cent are engaged in teaching, 11.8 per cent in clerical work, and 6.3 per cent in welfare work. Of these, only the last offers, relatively speaking, much remunerative promise. (See Table II.)

Seventy per cent of the college group are in the employ of educational, social, or welfare organizations. Why? A variety of possible explanations suggest themselves. Is the college woman financially more nearly able to disregard monetary considerations than women at lower educational levels? Is the question of financial rewards of less significance to her than the inherent satisfactions of the work itself? May it be that the college woman is more susceptible to the influence of traditional respectability surrounding certain occupations such as teaching and social work? Or is the matter of ease of securing employment a controlling factor? The question of causative factors deserves consideration.

SUMMARY

The earnings of 14,073 business and professional women have been analyzed in an attempt to isolate some of the factors influencing earnings. From this analysis the following conclusions have been drawn:

(1) Earnings vary widely in the different fields of employment. Median earnings are apparently lowest in the fields of commerce and transportation and highest in government service and in civic, eleemosynary, and fraternal organizations (grouped here under "semi-public"). Chances of high financial rewards seem best in inde-

pendent professional work, commerce, manufacture, and semi-public organizations, and poorest in transportation and education.

(2) Type of work done is a more significant basis for comparing earnings than field of employment, for interest is centered in the occupation itself rather than in the place of work or nature of employer's business. The largest single group is the clerical workers, which includes 5,862 or 42.8 per cent of the total. There are, however, more than 500 women in each of the following kinds of work: clerical, teaching, sales and publicity, health, and finance. Median earnings are higher in health and financial work than in teaching, clerical, or sales and publicity work. Furthermore, the percentages of women earning \$3,000 or more in clerical work and teaching are relatively small—2.6 per cent and 4.0 per cent respectively.

(3) In each type of work, earnings vary with years of experience. In general, earnings increase with experience up to approximately thirty years of work and then decline. Median earnings of women with less than five years' experience are lowest in production and planning, sales and publicity, and clerical work. They are highest in the following groups: Welfare, legal and protective work, finance, and food, living and personal service. Earnings after twenty years of experience are highest for these same groups.

(4) Median earnings vary directly with population of towns where the women are working. How much of this variation is due to differences in cost of living, and how much to other selective factors, it is difficult to say. In types of work where the number of cases is sufficiently large to warrant conclusions, there are wide differences in earnings between large and small population centers. This is particu-

larly true of legal and protective and financial workers. For clerical workers, on the other hand, earnings vary relatively little according to the size of the community.

(5) Almost without exception, median earnings increase with the amount of education received. College graduates are the most highly paid group in every type of work except research. This exception can probably

be explained either by the small number of cases or by the lower experience median of college women in the research group. It seems, therefore, that where college women venture they succeed. But so far they tend to concentrate in teaching, where salaries are relatively low. Seventy per cent of the college group are in the employ of educational, social, or welfare organizations.